Want E&O coverage that includes

• Industry-leading risk management education
• Up to a 10% premium credit for taking free risk management courses*
• 24/7 access to the XL Catlin Contract eGuide with copy/paste contract language
• Expert claims handling
• Claims-free credit*
• Specialty underwriting
• Specialized independent brokers

Learn more.
xlgroup.com/dp-ca

* up to a maximum of $10,000 on the first $5 million of coverage

XL Catlin is the global brand used by XL Group plc’s insurance subsidiaries. In Canada, coverages are underwritten by XL Insurance Company SE—Canadian Branch. Coverages may also be underwritten by Lloyd’s Syndicate #2003. Coverages underwritten by Lloyd’s Syndicate #2003 are placed on behalf of the member of Syndicate #2003 by Catlin Canada Inc. Lloyd’s ratings are independent of XL Catlin. Coverage may not be available in all jurisdictions.
Achieve energy savings in excess of 30% on HVAC and up to 60% on lighting.

Benefit from advanced control, monitoring and analysis, and powerful connectivity for your Internet of Things building.

Access actionable analytics using customizable dashboards that allow you to share important data with key stakeholders.

Easily implement control sequences for optimized energy efficiency and reduced energy wastage.


Discover more by visiting www.distech-controls.com/GREEN
WHO WE ARE

Consulting Engineers of Ontario (CEO) is a non-profit organization representing the business interests of 200 engineering firms employing more than 20,000 Ontarians. Since it was founded in 1975, CEO has been making positive changes for everyone living in Ontario.

CEO’s member firms represent more than 30 engineering specializations and 260 sub-specializations. CEO is a member organization of the Association of Consulting Engineering Companies-Canada and International Federation of Consulting Engineers.

Mission To promote a sustainable business environment for members.
Vision To be the authoritative voice for consulting engineering companies.
Values Integrity, Trust, Collaboration, Diversity, Respect

Strategic Goals
Government Relations
To shape public policy, legislation and regulation of interest to members.
Client Relations
To promote fair procurement and business practices among member firm clients.
Communications and Public Awareness
To effectively communicate the CEO message.
Member Services
To provide benefits, services and support of value to members.
CONSULTING ENGINE
A History of Positive Change

75,000
Number of Canadians owing their livelihood to the business of consulting engineering.

$28.4 billion
Gross revenue the Canadian consulting engineering industry contributes to the national economy every year.

1975
CEO is born and incorporated by Letters Patent.
265 consulting engineering firms become CEO's members.
CEO gains admission into International Federation of Consulting Engineers and Association of Consulting Engineering Companies-Canada.

1976
CEO holds its official Annual General Meeting.
Ross F. Reid becomes CEO's first executive director.

1977
CEO forms liaison committees to establish ongoing dialogue with different government agencies.

1978
CEO's membership includes more than 400 firms employing more than 10,000 employees.
CEO grows to 22 working committees.

1979
CEO liaises with the Ministry of Industry, Trade and Technology to identify issues and assess the environment in which CEO member firms compete to improve the business landscape.

1988
CEO and Municipal Engineers Association sign the Agreement for Professional Consulting Services.

1989
CEO's Guide to Engineering Consultancy Practice is issued to aid smaller practices with standard methods and procedures.

1993
CEO, Ontario Association of Architects and Ontario General Contractors Association partner up to address shared problems in the construction industry.

1998
CEO holds its first Premier’s Reception, directly delivering its message on relevant industry issues to the Premier and senior cabinet ministers.

1999
CEO gains admission into International Federation of Consulting Engineers and Association of Consulting Engineering Companies-Canada.

2001
CEO implements its first interactive website featuring event registrations, membership package request and downloadable files.

6
CONSULTING ENGINEERS OF ONTARIO
5th
Canada’s place in the ranking of the world’s engineering services exporter category.

260
Number of engineering sub-specializations represented by CEO member firms.

2002
The Workplace Safety Insurance Board signs an agreement recognizing consulting engineering as a distinct business unit as a result of CEO’s advocacy efforts.

2003
Acres International wins the Willis Chipman Award at the Inaugural Ontario Consulting Engineering Awards.

2005
CEO participates in Infrastructure Opportunities Partnership Program to provide engineering students with well-rounded experience with infrastructure projects and employment opportunities.

2006
CEO launches its online member database.

2007
The first edition of Accolades is published to promote the consulting engineering industry’s contributions to improving Ontarians’ quality of life.

2008
CEO with the Ministry of Natural Resources stage their first joint seminar titled “Water and Wind Power Site Release”.

2010
CEO Young Professionals Steering Committee’s first networking event brings the industry’s young professionals together.

2014
CEO and Metrolinx sign a Memorandum of Understanding establishing the CEO/Metrolinx Joint Transit Engineering Council. CEO’s partnership results in Metrolinx piloting the qualifications-based selection process for its two significant transit projects.

2015
CEO wins big when the draft Bill 6, the Infrastructure for Jobs and Prosperity Act, is amended to recognize the role of engineers as a result of CEO’s advocacy efforts.
Des Aitken was one of the founders of Consulting Engineers of Ontario and its second chair. Now 91 years old, Mr Aitken is a World War II veteran and the oldest retired chair of the association.

Shortly before I graduated from the University of Toronto in 1949, I was talking to some of my friends about what we should do and one fellow said, “I am going to be a consulting engineer.” It wasn’t a term I was familiar with. Back then, we didn’t call them consulting engineers. They were engineers in private practice. But it was an idea that stuck in my mind.

I had a number of engineering related jobs, including a stint with A. V. Roe working on the Arrow project but it wasn’t until 1958 when I met Art Wardell and Dan Dunlop that I started working in private practice for the firm that would eventually become DFA Engineering.

It was 1970 when the designation of consulting engineer started to come into its own. Harold McKenzie, an Ontario MLA and a sole engineering practitioner himself, wanted engineers to be able to operate as “consulting engineers.” His efforts led to a revision of the Professional Engineers Act, which allowed the Association of Professional Engineers of Ontario to designate and license consulting engineers.

I became a designated consulting engineer in 1973, about number 40 on the list. I joined the Association of Consulting Engineering Companies - Canada and through ACEC I gained a better appreciation of the need for a professional association in Ontario (BC, Alberta and Quebec were ahead of us). With the help of another friend, Eric Jorgenson, who was on the board of ACEC, we started to work out a framework for Consulting Engineers of Ontario, which meant we had to persuade the Association of Professional Engineers of Ontario to agree to a separate independent organization. In 1975, with APEO’s backing, Consulting Engineers of Ontario was underway, with Roy Tredgett from Proctor Redfern as our first chair.

At the end of the year, Roy decided that he need to concentrate on his business and resigned as president, as it was known back then. Nobody else wanted the job, so with the support of my partners, I took over.

CEO didn’t have a lot of members at first, mostly small companies, but as we started to find our direction we grew rapidly and larger companies such as Gore & Storrie and Acres came on board.

In some ways, things haven't changed a lot in the last 40 years. Right from the start we recognized that since most of our work was in the realm of public works, we needed to be able to talk to all the relevant government departments and that we needed a fair and equitable procedure for bidding on projects and awarding tenders. And that, of course, is still the main objective today.
By the time I became chair, 11 years after CEO started, many of the association’s initiatives and positions on such issues as government communications and price competition were well-established and for the most part only needed nurturing and maintenance. There was, however, one new issue of enormous concern for almost all our members: professional liability insurance.

By the early 1980’s, a series of extraordinary economic events challenged what had been several decades of steady growth and stability. A recession gripped North America. Interest rates skyrocketed to 21.5 percent in 1982. The Savings and Loans Banks in the USA collapsed accompanied by revelations of gross mismanagement and subsequent criminal prosecutions. Then in short order interest rates began a rapid decline.

Insurance companies suffered huge losses and while those losses were on investments not coverage, the fallout proved extremely negative for our industry. The insurance companies eliminated some types of coverage, expanded exclusions, increased deductibles, lowered policy limits and increased rates, in some cases by as much as 300 percent.

Something had to be done. CEO’s board established a committee to “interface with the insurance industry and examine alternatives”.

I must admit that some of us had our doubts. We were not optimistic that CEO could take on the monolithic insurance industry. We were wrong. The committee, under the chairmanship of Ken Hyde, met with the leading providers of professional liability insurance and after extended negotiations and discussions, the insurance companies agreed to open their books to CEO! The result was that both sides gained a better understanding of the issues.

At the same time, the committee introduced the concept of self-insurance to CEO firms, a number of whom embarked on this course through “rent a captive” and other successful models.

Did our efforts have a direct impact on the insurance industry? No one can say for sure. But we do know that not long after there was a decline in rates with further significant reductions as more insurers reentered the market.

With the consulting engineering industry facing mounting lawsuits, our battle was over liability.

Claimants had seven years in which to send a writ to the design engineer if there was a problem – not within seven years of the structure being built, mind you, but seven years after discovering that there was a flaw. It didn’t matter how old the structure was or that the flaw may have been hidden for decades. All that mattered was when the flaw was discovered and that, of course, was patently unfair, especially for retired engineers long out of practice who were no longer covered by their firm and could be held personally liable.

Since this was a matter of provincial jurisdiction, we started lobbying the government – the Liberal Party under David Peterson was in power at the time – as well as the other provincial parties (the Conservatives were sympathetic but the NDP was a bit more skeptical) and managed to achieve a resolution that we felt was fair for the industry.

It was also a time of austerity. The government was cutting back and we were concerned that some of the engineering firms were undercutting each other to maintain business so we had a number of meetings with the government of the day to discuss the issue (we called them “moan and groans”). It was quite remarkable how many cabinet ministers would turn up if you offered a good rib eye steak dinner. We may not have resolved everything but I found the government officials easy to work with and the level of conviviality high. In what was perhaps the most memorable incident, Premier David Peterson dropped by when we were talking with several Ministers at Queens Park and with a twinkle in his eye said, “If any of my Ministers give you guys any trouble, get in touch with me” (We never did).

There was an important message underlying all those meetings. As engineers, our job is not to influence politicians. Rather it is to give them the best advice possible so that they can make sound rational decisions. It’s something politicians need to understand. Engineers provide wonderful solutions to complex problems and, as I have seen in my subsequent role as a judge for CEO awards, the work that our members do is world class quality at every level.
CEO’s excellent record of government relations met a swerve in the road with the October 1, 1990 provincial election resulting in Ontario’s first NDP government. Traditional CEO initiatives focused on growth, CEO-related government policy and membership services all took a back seat as we focused on how to contend with Bob Rae’s policy and caucus. CEO had always had an excellent relationship with the provincial government, both at the political ministerial level and the bureaucratic level of deputy ministers and staff advisors. Now we had to adapt to a young and inexperienced government that was probably as surprised as anyone that they were in power with a majority government.

With the NDP struggling with how to govern and preoccupied with a looming recession, we found many of our contracts delayed. We needed to talk about our concerns but securing meetings with the appropriate ministers was not easy so we decided to try a different approach. We developed an informal alliance with the Ontario Association of Architects so that the two professional associations could present a united approach.

It was still what I would consider a gentle approach (there was nothing to gain from being confrontational) but we persevered and gradually the government started to appreciate the important role CEO played in developing Ontario’s infrastructure. I was particularly impressed with Ruth Grier, the Minister of Environment, who very quickly grasped how consulting engineers could help move the environmental agenda.

For our part, the consternation of dealing with a new government taught us a valuable lesson. We had been riding on the laurels of our great relationships in the past and we needed to bolster our image.

Being chair of CEO was far more than an honorary position. I probably spent about a quarter of my time working on CEO issues. But I was fortunate to have Bill Weinstein as my executive director. He appreciated that I was one of the younger chairs of CEO and what I lacked in experience I made up for with energy. Between his mentorship and my enthusiasm, we made a good team.
It was not a great year. Ontario was in the grip of the worst recession since the Great Depression and the NDP government’s popularity was rapidly ebbing, all of which made it especially painful for consulting engineers. Our spectrum of clients, public and private, had major problems. Contracts were as hard to come by and when you did manage to get work, you had to struggle to collect your fees.

Bill Weinstein, CEO’s chief executive officer, often used to say that while the cost of design is less than 1 percent of a project, the difference between a good design and a bad design can affect the cost of the project by up to 50 percent. So why would a client want to impose a minimum price instead of a fair price? Some of the large firms advocated fixed fees rather than fees based on a percent of value or on time incurred. It was a model I tried to adopt (if you are efficient you make good money) but unfortunately, especially for small firms like mine, we often had contract terms imposed upon us and without a battery of lawyers, there was not much we could do about it. One of the measures CEO introduced in 1993 was a standard letter contract instead of a long-form contract, which proved extremely useful for projects that were less than $25 million.

But that didn’t address the major problem we were facing – the lack of work. About this time, the Rae government introduced a new initiative to boost various sectors of the Ontario economy, which was good in theory, but they lumped consulting engineers in with the construction sector and we wanted to be in the engineering sector, so we objected quite strenuously. We lobbied hard and eventually got what we wanted but the actual work was left to Oskar Sigvaldason, who succeeded me as CEO’s chair.

Frank Anrep
Then: Frank Anrep & Associates (President)
Now: Semi-retired

Congratulations!

The University of Windsor Faculty of Engineering salutes the Consulting Engineers of Ontario for its four outstanding decades of dedication to positive change.

UWindsor’s Faculty of Engineering offers degrees in civil, electrical, environmental, industrial, mechanical, automotive and aerospace engineering.

Our new $112-million Ed Lumley Centre for Engineering Innovation is one of the most dynamic engineering learning centres in Canada.

We invite you to join us at UWindsor—where education is our priority.

Learn more at www.uwindsor.ca/engineering
By 1994 we were at the tail end of a brutal recession that had hit our industry especially hard. The number of employees in the consulting engineering field had dropped by a third with about 5,000 experienced and valuable employees lost. Rebuilding was paramount and so CEO was more than eager to participate in the sector restoration initiative that the NDP government introduced.

It was abundantly clear that the companies that were surviving were those that had been quicker on their feet to redefine their business in view of the economic problems that they were facing. So how could we apply that to the industry as a whole? How could firms reshape themselves to add value to their services and how, working together, could we make our industry more relevant?

With the help of funding from the provincial government, we were able to secure seven contracts with various management consulting firms to help us assess the elements of the challenge and develop strategies so that consulting engineers could climb out of the mess that they found ourselves in.

It was an intense process that consumed most of our attention for the year, culminating in a forum in a convention centre north of Toronto.

It may have been a difficult year but for me personally it was rewarding. I was returning to domestic operations as CEO of the Acres Group, after more than 15 years overseas, including two years in Nepal and working on the Three Gorges Project in China. Working with CEO provided me with the opportunity to re-connect with the Canadian consulting engineering industry.

The CEO chair provides direction and support to the association but it is our chief executive officer who does most of the heavy lifting. It is the chief executive officer who is responsible for continuity, administration, finance, planning, support, and all the other myriad activities that keep the association a thriving and relevant resource for its members. So when Don Ingram announced that he was retiring as chief executive officer just as I was starting my tenure as chair, I knew that I had one job to do that would take priority of everything else. We needed a new chief executive officer. But I also knew that despite the urgency of the situation this was not a decision that could be made hastily. The person we chose would influence the direction of CEO for years to come. We had to make the right choice.

We set up a search committee and hired an HR professional. We thought about where we should look for Don’s replacement, how we should look, and how we would decide who the best candidate was.

It took almost the entire year before we settled on John Gamble as our new chief executive officer and in doing so we changed the direction of our administration from one that had been all about running a tight operation to one that was more flexible and adventurous. John has now advanced to president of the Association of Consulting Engineering Companies of Canada, which is testament to the quality of our selection.

When I took on the role of chair, I did so in the full belief that you can’t be a rubber stamp in this type of position. You have to be active. Even without an excellent professional chief executive officer, the Board still had to move the association along. A year before I became chair, Ontario had been hit by the Walkerton tragedy in which e-coli contamination in the town’s water supply had resulted in hundreds of illnesses and five deaths. We persuaded the Ministry of Environment to give CEO the responsibility for the water reports for the subsequent investigation in to what went wrong. We managed the consulting team, seconded engineers from our member firms and acted as a talent agency for the pool of engineers reviewing the findings.

It was a prime example of how the engineering community can step up and play a critical role in public health. It also provided CEO with several hundred thousand dollars of revenue that we were able to use to fund more research into water treatment.
The SIMPLEX 4007ES fire alarm panel from Tyco Integrated Fire & Security combines big panel features with a small panel footprint perfect for small- to mid-sized buildings. Seamless integration with TrueAlert ES addressable notification appliances, a flexible wiring infrastructure and compatibility with legacy conventional devices—even ones from other brands—gives you much more design freedom. Your clients will enjoy remote diagnostics, ample secure data storage to make compliance reports a snap, and easier maintenance. One look at the SIMPLEX 4007ES and you’ll understand why, when it comes to fire and life safety, smaller can be better.

Find out more about the SIMPLEX 4007ES fire alarm panel. Visit us at www.TycoIFS.ca or call 1–800–565–5400.

Safer. Smarter. Tyco.™
When I was asked to be the chair of CEO, one of the first people I turned to for advice was Bill Ainley, the founder of The Ainley Group, the company of which I was president. It was probably not surprising that Bill thought that being chair was a good idea. He had been chair of CEO in 1982 and 1983.

I relied on Bill for advice and guidance and we had a number of discussions about the association, which Bill found quite amusing because, as he pointed out, we were facing exactly the same problems that he had 20 years earlier: competitive bidding and the implementation of QBS – Qualifications-Based Selection.

The fight against the commodification of engineering services seems to be never-ending. A lot of our members blamed our clients but I always said “look in the mirror.” We allowed ourselves to get trapped in the competitive nature of the bidding and proposal process. But at the same time, whenever we try to do something as an association to rectify the situation, we have to tread lightly to avoid being in contravention of competitive regulations.

Our solution was to introduce the Members Charter, a carefully worded document that laid out how member companies would conduct their business with due respect for their peers. It was largely a symbolic gesture but important nevertheless as a set of guiding principles. We put it on display at our Annual Meeting, printed on a large board that all could sign and I can proudly say that my name was the first on the list.

Terry Hardy
Then: The Ainley Group
(President)
Now: Ontario Public Works Association
(Executive Director)
### The Self-Employment Challenge

Being your own boss has its perks. But without an employer’s group benefits, self-employment also means fending for yourself in case of illness or disability.

Over two-thirds of surveyed self-employed individuals are concerned about their lack of access to medical coverage and insurance.¹

8 in 10 Canadians are concerned about the government’s ability to fund health care, the cost of long-term care, and having enough money if they become disabled or seriously ill.²

### The Role of Insurance

Supplementary health and disability income insurance plans help protect against financial loss due to illnesses or accidents.

#### Why health insurance?
- Canadian families are spending an increasing share of their household income on health care.³
- Households in the 3 top income quintiles had an average:⁴
  - 39% increase in dental spending
  - 24% increase in prescription drug spending

#### Why disability insurance?
- 1 in 3 people will be disabled for 90 days or more at least once before they reach age 65.⁵
- 49% of bankruptcies and mortgage foreclosures are due to disability.⁶
- A disability of over 90 days is likely to last three years or more for a 35-year-old man or woman, and four years or more for a 45-year-old man or woman.⁷

### Engineers Canada-Sponsored Insurance Plans

Exclusive to professional engineering, geoscience and technology association members and their families, at low rates not available to the general public.

**Health & Dental Insurance** covers both routine and unexpected medical expenses, such as:
- Prescription drugs
- Dental care
- Eye exams and eyeglasses

**Disability Income Replacement Insurance** covers 6 types of disabilities and includes the following at no extra cost:
- Compassionate care benefit
- Automatic Cost of Living Adjustments
- Waiver of premium

### They’re more affordable than you think

1-877-598-2273 | manulife.com/EngineersCanadaDI
In 2010, CEO rewrote its bylaws, to bring its operations in line with legislated changes to not for profit businesses. In 2012, CEO updated the association’s Strategic Plan. My tenure fell between those two important initiatives, focusing instead on consolidation, rationalization and housekeeping. We reviewed the activities of our committees and chapters and made adjustments where value was not evident, dissolving the Ministry of Environment Liaison Committee and consolidating chapters’ financial and banking control in CEO’s head office.

We looked at the contribution of board members to the organization (in light of the increasing workloads that we all had in our full-time positions) and reaffirmed their roles and responsibilities.

In view of the need for seasoned professionals in the future, we increased our funding for Young Professional activities.

We re-examined the balance between membership fees (some of the lowest in the country compared to other provinces) and CEO’s services to its members and decided to seek additional sponsorships to fund existing programs and future initiatives.

We also grappled with two contentious issues: continuing education for Designated Consulting Engineers and CEO supplanting Professional Engineers of Ontario as the manager of the Consulting Engineer designation. While neither of these was resolved, they are still top of mind for many Board members.

We even considered changing the name of the association to better reflect our relationship with our counterparts in Canada and the United States but in the end we decided to stick with our well-established and trusted brand.

So can I speak of a similar major accomplishment during my term? The answer is “no” but that does not diminish what we achieved. To use an engineering analogy, every successful design starts from the ground up. Our goal was to strengthen our association's foundation so that it could deliver a larger and more complex suite of services to our member firms in the succeeding years. And that’s exactly what we did.

Bill De Angelis
Then: Associated Engineering (Vice President and General Manager)
Now: City of Toronto (Director, Design & Construction, Major Infrastructure, Engineering & Construction Services)

Builders, contractors and developers, public and private, rely on consulting engineers for their knowledge, judgement and expertise. So too does Consulting Engineers of Ontario. With about 200 member firms, CEO has access to an enormous pool of talented professionals who have a direct invested interest in seeing their profession develop, expand and prosper.

Volunteers are the backbone of our association. It is their willingness to invest their time and talents that allows us to achieve results that are way beyond the capacity of our small professional staff. And it is not a totally altruistic request. Volunteers benefit enormously from the exposure they get to the industry and the connections that they make. But being a volunteer requires time and commitment, commodities that are sometimes in short supply, which is why strengthening our volunteer network was one of my key objectives as chair.

We needed structure, definition and accountability so volunteers could be more engaged. We got serious about our chapter structure (they are the farm teams for our volunteer network and provide much needed geographic diversity); we looked at way to make being a volunteer more meaningful by getting rid of some of the more mundane “gofer” activities we had been asking them to do; and we visited member firms to find out what they expected to get for their fees and show how volunteers could help them meet their objectives.

When I joined CEO the only way we could get volunteers was to tap people on their shoulder and hope that they would say yes. Today, there is a waiting list of people willing to donate their services.

It was a huge change.

Michael Snow
Then: Golder Associates (Vice President for Business and Client Development)
Now: Golder Associates (National Leader for Large Infrastructure and P3 Pursuits)
Congratulations to CEO on their 40th Anniversary

The OSWCA has been representing sewer and watermain construction contractors across the province for more than 35 years. Our concerns include water system management, the environment, safety, contract terms, engineering, and many other issues relevant to the sewer and watermain construction industry.

5045 Orbitor Drive, Unit 12, Suite 300
Mississauga, ON L4W 4V4
Phone: 905-629-7766
www.oswca.org

Congratulations to CEO on their 40th Anniversary

on 40 years of leadership in our industry

ASSOCIATION OF CONSULTING ENGINEERING COMPANIES | CANADA
ASSOCIATION DES FIRMES D’INGÉNIEURS-CONSEILS | CANADA
“Positive Change”. Our new motto. Just two words but they succinctly sum up precisely what consulting engineers do. They also succinctly define the role that Consulting Engineers of Ontario has brought to our industry over the past forty years. And they remind us that as an association we have to continually reinvent ourselves if we want to stay relevant.

Some rules have changed over the past decade and the result for consulting engineers can sometimes be rather bleak. With less money to go around and the public sector’s shifting perception of the value that consultants provide has been pushing more risk onto consulting engineers while at the same time forcing our fees down.

Our response was twofold: a more intense promotion of Qualifications-Based Selection (QBS) and an increased review of contract language as it pertains to risk.

QBS is a process that provides a fair and rational procedure for selecting consultants based on their professional qualifications, instead of the lowest cost. Through QBS, our clients can ultimately save money through innovative creative solutions to design problems, which is much preferable to trying to squeeze good design out of a bare-bones budget. To this end, we have found considerable success with Metrolinx, which has used QBS to select consultants for two recent projects. Its success with these projects will be influential in setting the pace for the rest of the industry.

At the same time our Business Risk Committee was working diligently on contract language. The public sector procurement departments have often been changing engineering contracts to include what CEO believes is an uncalled-for level of liability for design and performance. Some believe the terms are so blatantly unfair that the agreements could not stand up in court. They do, however. Unfortunately many consultants, intimidated by the complexity of the agreements, fail to read them thoroughly expecting the provisions will be fair. Our committee reviewed many of these contracts and actively worked with public officials to work on fair language. Encouragingly, a large number of public officials were not only willing to meet with CEO but also acknowledged the need for fairness in their contracts and better communication with their engineering consultants.

As engineers, what we bring to the table is immensely important to the public but while our profession is well-respected we tend to fly under the radar. As chair of CEO, I wanted to show that we can be more daring in what we want to accomplish. And that would certainly qualify as “positive change.”
Congratulations on your 40th Anniversary!

Proudly serving CEO members since 1975!

Alocon • Apollo • ArcelorMittal • Bartell Morrison • BASF • Belmont • Bravo London
Bravo Windsor • Centis • CPD • Diplock • Duracon • Duron Ontario • Duron Services • Euclid
WR Meadows • Metro • Optimet • Sika • Somero • Structural • Tri-Con • Tri-Con Haid • United

Concrete Floor Contractors Association

www.concretefloors.ca

Carpenters and Allied Workers Local 27 Congratulate The Consulting Engineers of Ontario for 40 Years Commitment to Positive Change

BUILDING FOR A BETTER FUTURE

222 Rowntree Dairy Rd Woodbridge, ON L4L 9T2
Tel: 905-652-4140 Fax: 905-652-4139 www.carpenterslocal27.ca
organizing@thecarpentersunion.ca
A WEEK IN THE LIFE OF CEO

For many members, contact with Consulting Engineers of Ontario is limited – perhaps attending the annual general meeting or the Awards Gala or the ever-popular golf tournament. But it is by no means the full story. For CEO’s staff, those events are just a small part of an ongoing round of quiet, persuasive, behind the scenes work on behalf of the consulting engineering community.

So what does CEO do? Let’s pull back the curtain and take a look at a week in the life of the association.

Monday

Cindy Gonsalves is the first to arrive at the office. It is just past 7:30 in the morning but Cindy, Consulting Engineers of Ontario’s director of finance and operations, is already anticipating a busy week. But first things first. Cindy heads to the lunch room to put the coffee on. It won’t be long before everyone else arrives and nothing is more needed on a Monday morning than a fresh cup of coffee to start the week off right.

By 10 o’clock, everyone has gathered in the boardroom for the bi-weekly staff meeting and are going over the already jam-packed agenda. The annual Awards Gala is less than two months away. The association’s budget has to go to the audit committee in a couple of weeks. Bill 6, the Infrastructure for Jobs and Prosperity Act, which will have some profound implications for the consulting engineering sector, is due to passed into law by the Ontario Legislature before the summer break. And CEO is completely revising its web site. There’s more than enough work to go around and, as usual, not enough time and not enough people.

“It’s our time to talk about our key projects and issues and how they’ll impact our colleagues,” says Cindy, who’s leading this week’s meeting. “We don’t have a large staff and so if we’re going to get things done we have to be organized and we have to be able to help each other out. The staff meeting gets the week off on the right foot.”

It takes almost an hour and a half to wade through the list but by lunchtime the meeting is over and everyone heads back to their offices.

There is, however, one notable absentee at this particular staff meeting. While the rest of the staff is discussing the upcoming issues for the week, Barry Steinberg, CEO’s chief executive officer, is heading to downtown Toronto for a date with a local television station to talk about the federal government’s commitment (or lack thereof) to a national transit plan. As the spokesperson for the consulting engineering industry, it’s an opportunity Barry relishes.

“We are often asked to speak on radio or television and we’re more than happy to oblige,” he says. “It is our opportunity to keep pumping our message out and for the most part, our interviews are well received. Engineers have a lot of credibility and news organizations rely on us for sober second thought. What I’d like to see, if we can get the message out enough, is that we are regarded as the sober first thought. That would be a real triumph.”

By the time Barry gets back to the office in the afternoon, the rest of the staff is already hard at work.

David Zurawel, CEO’s director of government and stakeholder relations, is on the phone with a senior advisor to the office of the Minister of Economic Development, Employment and Infrastructure, setting the agenda for an upcoming meeting with Minister Brad Duguid and Infrastructure Ontario’s CEO, Bert Clark, to discuss some unresolved issues of concern about the construction industry.

Lauryn Weinberger, Member Services and Events Planner, has been chasing corporate sponsorships for the upcoming Awards Gala (as a non-profit organization, CEO relies on supplements to member dues) and with three sponsors already signed up it’s proving to be a productive Monday.

CEO’s communication co-ordinator Diane Lee, is scanning social media and the web for project announcements, tenders and regulatory updates that would be of interest to CEO’s members.

And Cindy has her head buried in the books getting ready for the Finance and Audit Committee’s review of CEO’s million dollar budget.

“My job is to make sure that the boat stays afloat and that everything runs smoothly,” says Cindy. “The budget is no exception. Just about everything a large business does, a non-profit does but with fewer hands.”

Another week is underway.
As a political scientist who has worked in both Washington and Queen’s Park, David is well-familiar with the corridors of power and, he says, given the importance of Bill 6 to CEO, knowing whose hands are on which levers takes on added importance.

The Infrastructure for Jobs and Prosperity Act is a new statute that will require the provincial government to create and maintain a long-term infrastructure plan. It is a forward looking piece of legislation that should help by-pass typical political short term interests but, David notes, it is still just a framework and CEO has some very specific ideas about what is imperative for a good piece of legislation. Perhaps of most concern is the fact that the proposed legislation has laid out specific requirements for architects but has been notably silent on the involvement of engineers, creating a statutory and regulatory imbalance between the two professions. Tuesday morning, David heads down to Queen’s Park for one of an on-going series of meetings with Minister Duguid’s senior adviser to discuss the government’s intentions and the timeline for legislative action.

With the bill now moving to committee for review, it’s not just the government that David needs to stay in touch with. “Committees examine legislative issues in much more detail so it is important to keep both sides of the aisle fully appraised of our concerns and issues,” he notes and so after his meeting with the minister’s staff, he heads across Queen’s Park to brief the caucus staff of the Official Opposition on CEO’s position.

Meanwhile, back at the office, Barry, who in addition to being CEO’s chief executive officer, is also chair of the Construction Design & Alliance of Ontario (CDAO) has just wrapped up a meeting with Geoff Wilkinson, the alliance’s vice chair.

“The CDAO is a collaboration of 15 not-for-profit associations representing architects, engineers and the construction industry,” explains Barry. “It is a forum through which we can discuss provincial government policy, legislation and regulation and develop a unified voice on issues and, as such, an important component of CEO’s advocacy work for competitive tendering processes and planned investment in Ontario’s infrastructure.”

Congratulations CEO on 40 incredible years!

Golder Associates is pleased to congratulate Consulting Engineers of Ontario on your 40th Anniversary. We are proud to support CEO to create positive change, and we look forward to supporting you in the future.

Engineering Earth’s Development, Preserving Earth’s Integrity.

www.golder.com
Wednesday

It's Wednesday morning and it's Lauryn's turn for an early off site visit. CEO, in association with the Ministry of Transportation of Ontario, holds a number of courses through which participants can gain certification with the Ontario Association of Certified Engineering Technicians and Technologists. With 30 people registered for today's course on Road Construction Contract Administration, it is up to Lauryn to make sure that the seminar runs smoothly, which is why she is at the hotel by 6:30 in the morning.

"The course instructors handle the educational aspect of the course," she says. "It is my job to make sure that the room is set up, all the audiovisual equipment is working, go over final details with the hotel management, and make sure all the participants are registered. We hit a bit of a snag this morning. There was a major accident on the QEW, which caused a short delay but by lunch, everything was running smoothly and I could get back to the office."

For Diane, it's her busiest day of the week. One of her assignments is to bring the association's web site up to date and now she is getting her first look at a new template from CEO's web site provider.

"The web site was not well designed," says Diane. "It wasn't easy for us to administer and it wasn't particularly friendly or informative for our members. We had to go back to basics: what did our members need to know and how could we create a web site that accommodated their needs."

With the help of Cindy, Diane is looking at the new template with a critical eye and while it is a good first try, it's clearly not there yet. Some functions are missing and not all vestiges of the old website, which Diane characterizes as an outmoded design, have been eliminated. But, she says, that was to be expected. "You're not going to come up with a fully functional site on the first try. We'll send the designer our feedback and expect to see some improvement on the next go round."

The feedback, however, will have to wait until tomorrow. The rest of Diane's day is spent with David Zurawel polishing CEO's Conflict of Interest Guidelines, a 24-page booklet that will be distributed to all CEO members and interested government officials.

While Diane heads one way for her meeting with David, Cindy heads the other to go over the agenda for the upcoming board meeting with Barry Steinberg. (CEO holds a monthly meeting alternating between the executive committee one month and the full board the next).

"We're very disciplined in terms of the process and how best to use the wisdom and experience of board to best effect," says Barry. "Too many boards focus on the past so we start with what we call the consent issues, items from the past that require approval and can be dealt with in a single vote. That leaves the board free to focus on the substantive and strategic issues that require direction and resolution."

By late that afternoon, the agenda is well in hand. Cindy has the unenviable task of organizing the reports and agenda that are sent to the board in advance of the meeting. It's left to Barry to call CEO's chairman to brief him on the most pressing issues and concerns to cover.

Thursday

To celebrate engineering excellence, CEO holds an annual competition recognizing the best engineering projects in Ontario and around the world, with the awards presented at an annual gala attended by more than 300 people. And with the event only six weeks way, it is the Ontario Consulting Engineering Awards Gala that takes centre stage on Thursday.

It is, says Diane, "our biggest event of the year, our own Academy Awards and we want the Gala to reflect the excellence of those achievements that we are celebrating."

Planning for the gala takes weeks of behind the scenes work and at one time or another uses the talents and contacts of all of CEO’s staff or as Cindy says: "It is like leading an orchestra bringing all the different instruments together to create a perfect suite."

The morning starts with Lauryn working on the script – a minute by minute playbook for the speakers, the conference staff and the audiovisual technicians.

At the same time, David is on the phone using his Queen's Park contacts to secure Michael Coteau, Minister of Tourism, Culture and Sport and Minister Responsible for the 2015 PanAm Games as the key note speaker and going over the invitation list to ensure that key government officials are on the invitation list. Barry’s task is to get in touch with Bob Rae, another of the Gala's scheduled key note speakers.

It's a project that they all know will ultimately consume hundreds of hours of staff time but it does have its perks. For lunch, the entire staff heads up to the nearby International Centre where this year’s gala is being held for a tour and a taste test of the options for the dinner menu.
For Barry, the week started with one off site meeting and ends with another – this time, the Metrolinx / Toronto Transit Commission task force, a CEO working group focusing on procurement and contract issues with the two largest transit agencies in the province.

“This has been one of our most effective task forces and it is the relationships that we have developed, that led Metrolinx to issuing its first Qualifications-Based Selection contract,” notes Barry. “We consider QBS to be one of the best practices in procurement because it doesn’t look for the lowest bidding price. It looks at who is the best qualified consultant and how the public can get the best value for its engineering services.”

Back at the office, it is noticeably quieter than usual. It’s the last day of the week. There are no meetings on tap, the phone calls are a little less persistent, and it’s an opportunity to catch up on some much needed paperwork. David is working on two new issues for CEO: an upcoming provincial review of the Construction Lien Act and the development of a new standard agreement for engineering services with Infrastructure Ontario. Diane is busy writing a column for a trade publication on the need for federal help to alleviate Ontario’s growing infrastructure deficit. Lauryn is still on the hunt for more sponsors for the Awards Gala and Cindy is working on the second revision to the budget.

By late afternoon, Cindy looks up from her computer and realizes the office has fallen silent. It has been a long week and with the weather promising to be relatively good for the weekend, everyone has decided to call it a day. Cindy was the first in the office on Monday morning and this week, she’s the last to leave. But before she can head home, she has one last job to do. “Every Friday, I go to the bank to make our deposits for the week,” she says. “We may be non-profit but we still need to see the money coming in.”

She takes one last look around and then locks the door behind her. Another week in the life of Consulting Engineers of Ontario is in the books. Two more days and it starts all over again.

CEO welcomes its newest staff, Paula Ferreira, Senior Administrative Assistant.
Three hours later with handshakes all-round the meeting was over, set aside for a subsequent get-together in a few weeks’ time. Was anything resolved? That depends to a large degree on who you ask. There were some minor points on which both sides agreed but for the most part, the ground had been set for more intense negotiations in the near future.

The outcome was hardly a surprise for Zurawel. “We’re dealing with highly complex issues that will have broad ramifications for how consulting engineers provide their services and how the government conducts its business. These sorts of issues always take a long time to resolve and it’s easy to get a bit impatient but as long as we are at the table, working patiently, co-operatively and constructively, we are making progress.”

Consulting engineering firms in Ontario can compete with the best in the world, says Rex Meadley. “We have some of the best educated engineers in the world. We have the latest technology and we have the experience. Collectively, we have worked on some of the largest and most complex projects in the past 40 years. We know how to serve our clients. We know how to build things efficiently, safely and effectively. But if we are going to thrive, we need to operate in a sustainable business environment.”

There are, notes Barry Steinberg, two key aspects to creating a nurturing business environment. The first is the need for substantial and sustainable funding, a thoughtful, well-planned and targeted investment in Ontario’s infrastructure to promote public safety and enhance the economy. The second is to create a level playing field in which Ontario firms can compete. “Having a single strong authoritative voice address these issues is an advantage for our members and our clients,” he says. “Our members get the attention they deserve. Our clients, especially government agencies, only have to deal with the issues once, instead of having to wade through all the competing and sometime contradictory positions of individual firms.”

And there are more than enough issues to be addressed, says Zurawel – procurement standards, liability issues, risk management, contract language, and pricing and payment, to name just a few.

But despite the fact that more often than not CEO finds itself sitting across the table from influential government officials, this is not an adversarial relationship.

“Engineers are by nature professional, analytical, logical and reasonable. They want to build things, not tear things down,” says Zurawel. “And that’s very much how we approach our relationship with governments and our other stakeholders. We want to resolve issues constructively and co-operatively so that both sides of the table come out winners.”
Governments and the private sector, developers and contractors, the buyers and the end users – consulting engineers work with every sector of the economy and the services they provide have enormous impact and implications for everyone in the province. But when it comes to the general structure of the relationship that consulting engineers enjoy with their clients, it is often the largest owners and developers of infrastructure that set the tone – and two of the largest in Ontario are the Ministry of Transportation of Ontario (MTO) and Infrastructure Ontario (IO).

In the mid-1990s, MTO restructured, moving from “rowing to steering” and consulting engineers, who had until then played a relatively minor role in MTO plans, took over a large proportion of the Ministry’s design and contract administration requirements. It is a role that is not likely to diminish in importance any time soon. Over the next 10 years, Ontario plans to invest more than $130 billion in public infrastructure. Of this investment, $31.5 billion is dedicated to priority transit and transportation through the Moving Ontario Forward plan, much of which will be through the MTO. In addition, the government anticipates a continued strong investment in the Ministry of Transportation’s rehabilitation program to repair provincially owned highways and bridges across Ontario in the coming years. It is an ambitious plan, says Gerry Chaput, Assistant Deputy Minister of MTO’s Provincial Highways Management Division, and one that will rely heavily on the services of consulting engineering firms.

“I have been working with CEO for about 25 years and it has always been a collaborative and co-operative relationship,” says Chaput. “We understand that CEO has to represent its members’ interests and while its members are providing quality engineering services to support their clients, they also have to run a business. We also recognize that if you want an “A Team” you have to pay an “A Price”. There is an overarching professional approach to our discussions that acknowledges the strength and value of the services that CEO members provide. We have a duty to provide value to taxpayers yet as an owner, we value CEO’s advice especially on how we procure their services.”

MTO may well be the single largest user of consulting engineering services in the province, but Infrastructure Ontario is probably not far behind. A Crown Corporation owned by the Province of Ontario, IO supports the government’s initiatives to modernize and maximize the value of public infrastructure and realty (including, in some cases, working with MTO on major infrastructure projects).

Stephen Emery is Vice President of Asset Management with IO’s Real Estate and Lending Division, which manages the government’s real estate, the second largest portfolio in the country with 5,300 buildings and structures and 150,000 acres of land.
“With such a large portfolio constantly in need of maintenance and upgrading, we have numerous contracts with consulting engineers over a wide range of disciplines,” Emery explains. “While the contractual arrangement is between the engineers and our project management service providers, Infrastructure Ontario maintains the vendor base, which is why CEO approached us a couple of years ago,” said Emery. “They wanted to explore opportunities to enhance our relationship.”

“Historically, we have used the same terms and conditions for consulting engineers that we have for architects. CEO wanted us to use the supplemental conditions drafted by the Association of Consulting Engineering Companies-Canada.”

Infrastructure Ontario agreed on the condition that the supplemental changes included modifications that would reflect some of the nuances of working with IO and, after a little more than a year, the new contract terms are close to completion.

“CEO’s request was very much in line with our culture of continuous improvement: increased quality control and new efforts to engage industry partners. And its mission, values and goals align well with ours,” notes Emery. “It became evident as we sat across the table that this was not a unilateral negotiation on CEO’s part. They appreciated our willingness to use this document and, in turn, they wanted our input so they could develop solutions that would work for both government and their members.”

Chaput and Emery’s characterization of their interactions with CEO are surprisingly similar – a serious and yet co-operative and collaborative relationship that helps develop effective and efficient processes for government and a sustainable business environment for the private sector. If you are indeed the “authoritative voice” you don’t have to shout to be heard.

But as with all relationships, it is one that has to be nurtured and there is always room for improvement on both sides of the table.

“I’m sure we’d all like to see the day when we could work with a one-page proposal,” says Chaput. “CEO would like it and so would we.” But given the depth of the teams that CEO’s members provide and the complexity of the projects they have to deliver, Chaput admits that “it may be a bit of a stretch.”
When young engineers leave school to start their careers, they face the challenge of filling in the gaps between skills they learned at school and skills required to be an effective practicing consulting engineer. CEO has been providing young professionals with an opportunity to connect with each other and tap into valuable resources that will help them succeed in the real world through its own Young Professionals Group. Meet CEO Young Professionals Michael, Stephen and Valery. They share their own experiences of the CEO YPG and what they hope to see more of the group in coming years.

I always wanted a career that would allow me to make a difference on both local and global scales and engineering was the path that would help me achieve that goal. So far in my career, I have designed lighting systems for small pedestrian pathways, local roads, large highways and international border crossings, and all of these projects have given me a strong sense of pride and accomplishment. The CEO YPG is a community where I can meet like-minded fellow young engineers who share the same passion towards their work as I do.

My department manager at MMM Group introduced me to the CEO YPG and I attended my first YPG event in 2011. The next year I relocated to Ottawa where I am now the Event Director of the CEO-YPG Ottawa Chapter, helping to organize events for young professionals that involve various aspects of the consulting engineering industry such as business presentation, government policy and leadership training. Along with Curtiss Scarlett of J.L. Richards & Associates Limited, we have hosted several successful events in the past two years including Contract Basics Talk, Panel Discussion: History and Benefits of CEO, and Presenting to Win: Persuasion at the Front of the Room with Giles Atkinson.

Stephen Wall, Project Engineer, MMM Group

Attending other YPG events has certainly enriched my perspective, but the events that we organized here in Ottawa have had the greatest impact to date. I have built strong relationships with new graduates, peers and senior managers at a number of companies. There is now a small yet dedicated group of young professionals who have been attending events and are volunteering for future events. Curtiss and I have had tremendous support from senior members of the CEO-Ottawa Chapter, including John Krug (Stantec), Phil Whalen (McIntosh Perry Consulting Engineers Ltd.) and Edson Donnelly (Novatech Engineering Consultants LTD.).

In order to ensure further growth of YP’s, CEO should continue to nurture the YPG program so that new graduates have access to peers and mentors across the consulting industry. At a grassroots level, creating a document explaining the objectives and activities of the YPG and asking CEO member firms to include it in a new hire welcome package will encourage more participation from new hires and educate them on the value of having a role in the group.
My father, who is the founder of Egberts Engineering Limited, was the driving force behind my involvement with CEO. He encouraged me to attend the CEO AGM and ACEC Summit shortly after starting full time at our family business, which has been a member of CEO since the early 1990s. I was introduced to YPG while attending the ACEC Summit in 2010. Being the only YP from Ontario at the summit, I was asked to join in the National Forum learning about what YPs were doing across the country. After arriving home, CEO staff encouraged me to join the YPG committee to help develop the mission, vision, and values that would drive the CEO YPG. The forming committee not only developed the mission, vision, and values, but we also worked together to create events that would engage YPs, communications that would encourage discussion, and collaboration that would involve other engineering committees. I was interested in all of these activities and took a keen interest in developing the YPG LinkedIn Group and planning events including What is CEO, The Business of Consulting, and MBA 101-Management Fundamentals. I would later have the opportunity to chair the Ontario and National YP groups.

I found the YPG to be a great avenue to develop soft skills needed to be successful as a consulting engineer and business leader. Networking opportunities and professional development events hosted by the CEO YPG also helped me develop my career strategy. One of the most memorable experiences was working with CEO Staff and YP volunteers to develop the mission, vision and values. The process used was effective to identify what the YPG would do, and what success would look like down the road. This process is something that helped me work through many personal and professional challenges.

A couple of potential areas of collaboration I see for CEO and the YPG include spreading the CEO message with one voice to a greater audience including the general public. In addition, CEO and the YPG should increase the number of professional development and networking events to create more opportunities for YPs and mature professionals’ (MPs) to interact. YPs and MPs have a lot they can learn from each other.

The first person who spoke to me about CEO was Norm Huggins, former chair of both the CEO Board of Directors and ACEC Board of Directors. Norm introduced me to qualifications-based selection and other issues that CEO was advocating for on behalf of the industry. I became involved in CEO when I was invited to be part of the panel discussion at the 2010 Annual General Meeting on the topic of how CEO could start connecting with young professionals. Following the conference, CEO invited me and my fellow panellists to form the first YPG. I was given the opportunity to co-chair the YPG Steering Committee and then to continue on as the chair of the YPG Executive Committee for the first year of its existence. While volunteering with YPG, I participated in numerous workshops, networking events and chapter events where I met fellow passionate young professionals and industry leaders.

Being involved with CEO has been a really rich experience, especially as a young professional. I’ve enjoyed meeting other consultants and learning about the issues that are relevant to our business. Hearing different perspectives on these issues from engineers practicing in different disciplines was a great learning experience, and I found this interaction overall very welcoming and inclusive as a young professional.

It is critical for new and young professionals to connect with a solid, reliable and available mentor as they are beginning and building their careers. It can be challenging for young professionals to find the “right” mentor that fits their professional interests and learning styles, and they often find that the most successful mature professionals aren’t available on a regular or ongoing basis. I believe that there is a great opportunity for CEO to get involved and help foster a mentorship culture in our industry. We need to realize that mentoring young professionals is beneficial for an entire organization and our industry overall; it is difficult for young professionals to grow and take on new challenges if they haven’t been trained or mentored by mature professionals to follow in their footsteps. I’d also like to see CEO play a bigger role in building the connection between the current and next generations of leaders with an emphasis on building consensus between firms on how to respond to the challenges in our marketplace to create a sustainable business environment that will benefit us all.
USE THE INSURANCE BROKERS WHO UNDERSTAND YOUR BUSINESS

SPECIALIZING IN
PROFESSIONAL LIABILITY INSURANCE & RISK MANAGEMENT FOR CONSULTING ENGINEERS.

Professional Liability Insurance  |  Single Project Policy Coverage
Design Build Services  |  Design/Remediation Services
Environmental Impairment Liability  |  Newsletters
Contract Review Services  |  General Liability

LONDON  |  NEW YORK  |  PHILADELPHIA  |  PARIS  |  COLOGNE
ROTTERDAM  |  MADRID  |  MELBOURNE

Sabina Taylor
Vice President
Affiliate Member of the CEO

HUGH WOOD CANADA LTD.
INTERNATIONAL INSURANCE BROKERS
HWICANADA.COM
1 800 240-7055
staylor@hwicdn.ca

6299 Airport Road, Suite 703
Mississauga, ON L4V 1N3
Phone: 905-671-3969
Fax: 905-671-8212

www.ogca.ca

OGCA congratulates CEO for their 40 years of success

SUMMA PROPERTY MANAGEMENT
Professional Property Management & Consulting

Our superior service includes managing multi-unit residential/commercial/retail and industrial properties. We also offer specialized services to manage and rent individual condominium investments.

When experience and professionalism count, Summa gets “Top Marks” for management, consulting and renting!

Questions or issues with your properties?
Sign up to askapropertymanager.net

647-341-7990
www.summapm.com
propman@summapm.com

WE BUILD ONTARIO
ONTARIO GENERAL CONTRACTORS ASSOCIATION

Schaeffers Consulting Engineers has provided innovative civil engineering services for the development industry and government agencies in the Greater Toronto Area for over four decades.

• Water Resources
• Design
• Construction Survey
• Construction Administration
• Cost Sharing

905-738-6100
www.schaeffers.com

MediaEdge

Congratulations on 40 years of positive impact to the engineering industry.

5295 Yonge Street
Suite 1000
Toronto, ON
416-512-8186
info@mediaedge.ca
www.mediaedge.ca

Cemcorp Ltd. has been a proud member of CEO since 1984. We provide a wide range of expertise including process and equipment design, structural, architectural, electrical, controls and instrumentation, environmental engineering and Project management. If you require any of these services give us a call or visit our website.

Phone: (905) 566-7227
Email: cemcorp@cemcorp.com
www.cemcorp.com

Watson & Associates
ECONOMISTS LTD

Consulting services include:
• Municipal/Education Development Charge Policy and Cost Sharing
• Water/Sewer Rate Setting/Water Financial Plans
• Building Permit/Planning and Development Fees
• Long Range Financial Planning for School Boards and Municipalities
• Asset Management/PSAB Compliance
• Fiscal and Economic Impact, Service Feasibility and Needs Assessment
• Growth Management Strategies/Employment Strategies
• Land Needs Studies, Demographics and Fiscal/Economic Impact Analysis

Tel: 905-272-3600   Email: info@watson-econ.ca
Website: www.watson-econ.ca

媒体助理

Congratulations on 40 years of positive impact to the engineering industry.

5295 Yonge Street
Suite 1000
Toronto, ON
416-512-8186
info@mediaedge.ca
www.mediaedge.ca

Engineering Positive Change Since 1975
CONSULTING ENGINEERING: THE NEXT DECADE

As the voice of consulting engineering firms, what Consulting Engineers of Ontario says depends entirely on the industry that it serves. So how will the industry change over the next ten years? Here are some of the trends and issues it will face.

Predicting the Unpredictable

In some ways, very little has changed in the past 40 years. The materials – steel and concrete, earth and asphalt, plastic, glass and wood – are still the same. But the tools, the people and the firms that shape those materials have changed beyond recognition.

In 1975, when CEO was founded, consulting engineering was still in its infancy (professional designation wasn’t in effect until the next year). Engineers used slide rules; draftsmen bent over drafting tables meticulously creating drawings by hand; surveyors jotted down their observations in small hard covered books. And while there may have been some women in the office, they were inevitably secretaries and receptionists. Female engineers were a novelty.

Would an engineer in 1975 have been able to predict what the world would look like today in 40 years or foresee how rapidly it would change? Would anyone have anticipated that government would voluntarily downsize and that outsourcing would help spur the growth of consulting engineering? Who would have predicted the world wide web, personal computers, GPS, or the smart phone?

Granted sitting here in 2015 some trends are fairly obvious: an on-going demand for more infrastructure frustrated by a lack of government funding; more computing power, more mobility, a more diverse (and demanding) work force. But trying to foresee the next big thing – that takes real insight. The safest prediction? Consulting engineering in 10 years will be nothing like what it is today.

Show Me the Money

Infrastructure development will be the key driver for consulting engineering. The demand is there. The Federation of Canadian Municipalities, for example, has estimated that Canada’s municipal infrastructure deficit is $123 billion and growing by $2 billion annually. So are the plans. Over the next 10 years, the Ontario provincial government plans to invest more than $130 billion in public infrastructure. But there will be, as always, one looming question. Who’s going to pay for it?

Governments have hit the tax ceiling and are under enormous pressure to improve efficiency, cut costs and refrain from raising taxes. Interest rates are at historic lows and with only one direction to go, borrowing will get more expensive. Funding is tight and there’s no reason to expect that the purse strings will be loosened in the foreseeable future.

Partnerships

If cash strapped governments are going to deliver the infrastructure that taxpayers demand and the economy needs, they have to become more creative.

Traditionally, the Public Private Partnership (P3) model has been used in large scale public infrastructure projects such as roads, airports, hospitals, telecommunications, energy projects, and transit systems. Now, municipalities are starting to use the same model for smaller scale projects.

Expect to see more P3s over the next few years and with them, new opportunities for consulting engineering firms. Firms willing to take more risk will move from a design and advisory role to the top box.

Privatization

Partnerships are one way to get things done. Privatization is another. Governments have been outsourcing engineering functions for years. Now they are starting to outsource operations such as running power plants or managing water and sewage treatment. Creative contracting can shift the game.

Bet the Bundle

In the “good old days”, governments assigned work on a rotation basis. Today, awarding a contract usually requires an RFP, an RFQ, and at least three bids, all of which is complex, time consuming and difficult to manage. Look for more municipalities to simplify the bureaucratic process by bundling small projects into a single contract. The only downside for some? Bundling favours larger firms.

Bring in the Lawyers

Whether they like it or not, consulting engineers are in the risk management business as powerful clients with one-sided contracts force firms to assume more liability (P3s, for example, are a procurement approach specifically designed to transfer risk to the private sector).

The tide, however, may be turning. Some clients are starting to recognize the need for more equity and balance. But for larger complex projects, expect to see the legal engineering nexus increase.
Bigger Firms...

The consulting industry has seen a wave of mergers and acquisitions and with firms taking on larger more complex projects with greater risk and more demand on financial resources that more than likely will continue. Larger firms will look to add niche skills. Other firms will look to partnering to manage size and skill sets, which in turn will lead to more formal consolidation. There is, however, as one industry insider observed, a limit to growth.

... And Small Opportunities

Smart people look for opportunities and there are a lot of smart people in the engineering field. As firms get bigger, employees with an entrepreneurial bent will hive off to concentrate on specialized niche markets and more personal customer service.

Defining Value

The best case scenario over the next ten years? Consulting engineers provide customer based service that clients value and refrain from undercutting established pricing. Clients recognize the need to pay fair market value within a Qualifications-Based Selection process.

Powering Up

In 1976, the first Cray-1 Supercomputer was installed. It had 8 megabytes of memory and sold for about $10 million. Even the most basic laptop today can do more than 10 times the calculations per second and has more than 100 times the memory.

The increase in computing power is exponential and in ten years today’s computers will be as outmoded as the Cray is today.

Consulting engineering will have access to enormous processing and modelling power. The challenge will be finding the tools to assimilate the data and the people with the skills to interpret and harness the results.

A New Dimension

In 2010, a 3D printer cost about $20,000. Today, you can buy an entry level printer for under $2,000. In ten years, they will be in every consulting engineering office in the country.

3D printers will revolutionize modelling techniques, significantly reducing the time and expense to produce intricate highly detailed designs.

A Shortage of Talent

Canada is facing a shortage of engineering talent. According to a report by Engineers Canada, 95,000 Canadian engineers will have retired by 2020 and finding their replacements will be the dominant force driving recruiting.

There are replacements available. Over the same period, about 100,000 young engineers will graduate from post-secondary institutions and Canada will welcome another 80,000 qualified engineering immigrants. But young engineers and immigrants often lack the ability and experience recruiters are after. The result will be “an oversupply of potential new entrants at the same time as recruiters face a shortage of skills.”

A Different Workforce

Consulting engineering firms will be younger, more mobile and more diverse.

In 1976, just 3 percent of students enrolled in engineering in Canada were female. By 2012 that figure had risen to about 20 percent but had remained flat for several years. Over the next ten years, expect to see some modest gains in the number of women in engineering and, perhaps more importantly, more women in managerial and executive positions as some of the older engineers make their way up through the ranks.

New Canadians provide a large talent pool for the engineering profession but they need more than just a professional engineering designation to succeed. Without the language proficiency to work in highly technical positions, an appreciation for Canadian standards, rules, codes and regulations, and relevant engineering experience, too many immigrants languish in low-paying unskilled jobs. If a shortage of skills in the profession develops, government and engineering firms will have to develop programs to tap into this pool. But even without a large influx of immigrants into the profession, engineering firms will become much more ethnically diverse as more and more second-generation immigrants enter the work force.

Perhaps more than any other group, it will be recent graduates who will change the look, the feel and the style of engineering offices. Well-educated, technologically savvy, comfortable with multi-tasking and highly mobile, young engineers seek challenges but at the same time want to maintain a work life balance. How to change the work environment to engage these new recruits will be one of the biggest challenges companies face in the next ten years.

This article was written with the assistance of Peter Mallory (Senior Vice President – Global Project Delivery and Quality Director for Water Business Group for CH2M Hill); Bill Allison (Partner, Dillon Consulting); and Christine Hill (Partner - XCG Consultants).
In ten years time, Consulting Engineers of Ontario will be observing its 50th anniversary, an occasion that will undoubtedly be marked by celebrations, festivities, and congratulations all round. But if our 50th anniversary is nothing more than a commemoration of longevity, it will be a hollow affair. The success of an organization is not measured by its ability to persevere. The true mark of success, what we really want to celebrate, is achievement and accomplishment.

I cannot say with any great degree of precision what CEO will be like in ten years time, but I do know where we are heading and the road map to get there. Our mission is to promote a sustainable business environment for our members. Our vision is to be the authoritative voice for consulting engineering companies.

The two are, of course, inextricably linked. We can only change the business environment through quiet persistent and effective persuasion and we can only be persuasive if we are recognized as the legitimate voice of the engineering community. It is what drives CEO today and it will be what drives the association ten year from now.

Our mission as an organization is to promote the economic well-being of our members and since the business environment is constantly changing, there will always be challenges to deal with. Some will be resolved quickly. Others will languish for years. There is no reason to expect, for example, that the fundamental problem of finding and allocating infrastructure funding will be any less pressing ten years from now than it is today. There are, however, some long-standing issues that I would hope to see resolved in the next decade.

Perhaps the most persistent and seemingly intractable of those revolve around procurement practices. We continue to lament and bemoan about contract language and unfair procurement practices but fail to change the environment in which we do business. It is a collective failure but one for which I believe there is a solution. We need to be more assertive. We have to learn to say "no". We are, after all, the only game in town.

But even if we are the only game around, we still need consistent rules to play by and for that, we can look to Qualifications-Based Selection. QBS provides the structure and procedures for procurement practices where price competition makes no sense and it has, through Metrolinx, gained a modest toe hold in the province. In ten years time, I believe that QBS will be the rule rather than the exception. Saying "no" to unfair practices is never easy. Saying "yes" to QBS is a much more positive approach.

Our mission is part of a continuous process. Our vision to be the authoritative voice for our profession is more direct. No one else is going to speak on our behalf. If we are going to champion the interests of the consulting engineering community, then we have to find the way to speak with confidence and authenticity and rise above the clamour of all the other special interest groups crying to be heard.

But that, interestingly, is only part of the equation. It doesn't matter how powerful your voice is if no one is listening. To be successful, we not only need a strong forceful voice, we also need the ear of those with whom we are trying to communicate. We need to be heard by those in government that need our services and those in government that regulate our services. We need to be heard by those in the development community and by other professional associations that share our interests and goals. But most of all, we need to have the ear of our members.

I believe that ten years from now, our communication endeavours will be much less constipated. With a more direct focused effort and the aid of new technology, we will by-pass the gatekeepers and talk directly to the engineering community, most particularly to the young professionals who are going to be our future managers, executives and leaders. Showing them how a strong engineering association will directly impact their careers and their future will give us the engagement and the expertise that we need to achieve our goals and objectives.

No one has a crystal ball but I can say with some degree of confidence that by time CEO celebrates its 50th anniversary, I will be enjoying a quiet retirement. The association will have changed. The business environment will have changed. And a new cohort of young bright capable professionals will be leading our profession into new engineering endeavours that we cannot yet imagine. But I am confident that our mission and our vision will still be in place as the cornerstones of our success – consulting engineers operating in a sustainable business environment speaking as one with a strong, confident, respected and authoritative voice. And if I am invited back in ten years time to whatever particular celebration of CEO’s anniversary is taking place (as I hope I will be) I will be proud to be able to tell people that I played a role in the association’s success. That would be golden.

Barry Steinberg is the Chief Executive Officer of Consulting Engineers of Ontario. A professional engineer with undergraduate and master of applied science degrees in mechanical engineering from the University of Toronto, Barry joined CEO in 2010.
PARTNERS IN POSITIVE CHANGE

With ties dating as far back as 1977, WSP has built a strong relationship with CEO. Together, we celebrate the many great projects, large and small, and the thousands of talented engineers who brought those projects to life.

Congratulations, CEO, and thank you for being the voice of the engineering community for the past 40 years.
Congratulations to Consulting Engineers of Ontario on its 40 years of success.

Proud to be the signature partner providing valuable legal services to members of Consulting Engineers of Ontario.

At Fogler, Rubinoff, we believe that making a difference begins with trust. Experience and sound judgment earn it. Client relationships are built on it.