

# ALBERTA INNOVATORS

THE MAGAZINE OF CONSULTING ENGINEERS OF ALBERTA

2024  
SHOWCASE  
AWARD  
WINNERS

2024

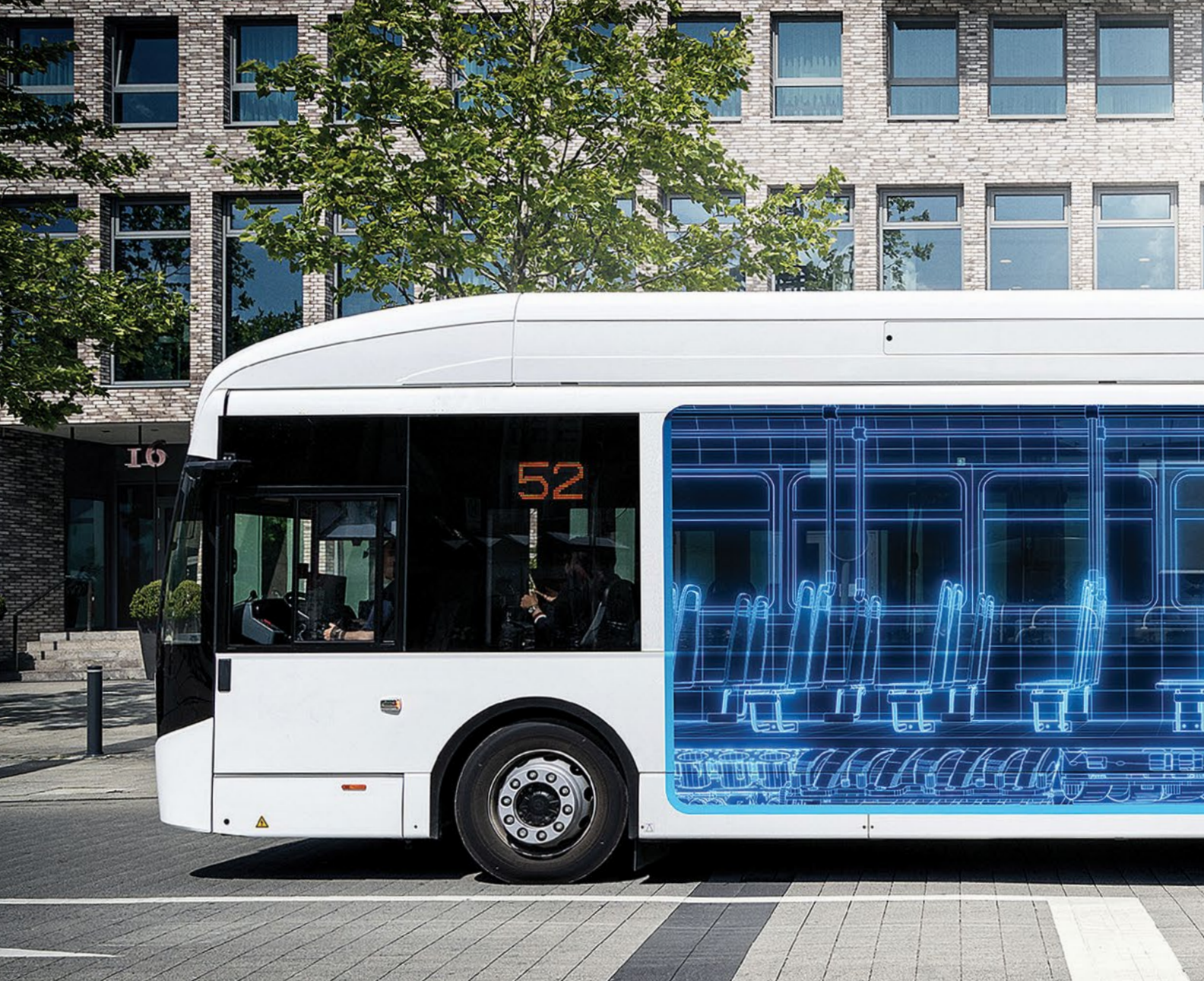
## + INDUSTRY GROWTH

FROM HIRING PRACTICES TO  
INITIATIVES IN SCHOOLS,  
CONSULTING ENGINEERING FIRMS  
EXPAND THEIR MARKETS

## BRIDGING THE GAP

AI IS COMING...  
ARE YOU READY?





# **TRUST THE ENGINEERS AND GEOSCIENTISTS BEHIND THE WORK**

License. Educate. **Regulate.**





It is the more than 68,000 highly skilled, regulated engineers and geoscientists who drive progress in countless industries and **spur innovation in science and technology** in Alberta. As regulator of these professions, APEGA safeguards public welfare by upholding high standards of education, experience, and conduct. This commitment to excellence and responsibility maintains trust in the professions, enabling our members to help build a prosperous province. Together, we work to push the boundaries of possibility.



The Association of Professional  
Engineers and Geoscientists of Alberta

# IMAGINE CREATE ACHIEVE

*a sustainable future*

North America's Leading  
Team of Engineers, Project  
Managers, Technical  
Experts, and Problem  
Solvers

Since 1990, **Egis**, formerly known as McIntosh Perry, is Creating Better, Safer, Roads, and Highways.

From project inception to construction, our dedicated team of professionals assists all levels of government with successful project planning and implementation.

We are an established leader in both urban and rural municipal environments.



[info.north-america@egis-group.com](mailto:info.north-america@egis-group.com)





# WE POWER CHANGE

As leaders in applied research and sustainable development, InnoTech Alberta is the partner of choice for organizations looking for innovative thinking, trusted guidance and insightful solutions to overcome the greatest challenges facing industry, business and the public sector.



Discover the benefits of partnering  
with [InnotechAlberta.ca](https://InnotechAlberta.ca)







CONSTRUCTION

# INTENSIVE CARING

Innovation requires creativity, opportunity, courage and execution. It also requires collaboration and a future-focused vision of construction. We embrace these aspects of innovation to build better projects, enhance client value and drive new opportunities because we care about our communities.

► **BUILDING A BETTER  
FUTURE, TOGETHER**

[PCL.COM](http://PCL.COM)



**STOLLERY CHILDREN'S HOSPITAL  
PEDIATRIC CRITICAL CARE UNIT**  
Edmonton, AB



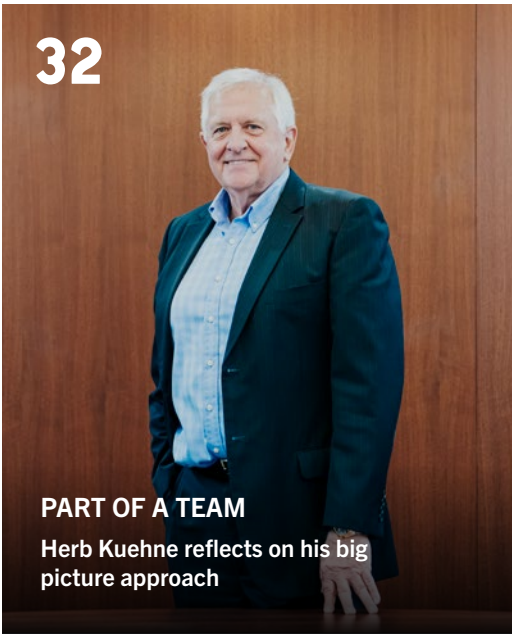
**Delivering specialist advice and services  
since 1957.**

**Geotechnical | Environmental | Construction Materials | Geohazards**  
[www.thurber.ca](http://www.thurber.ca)





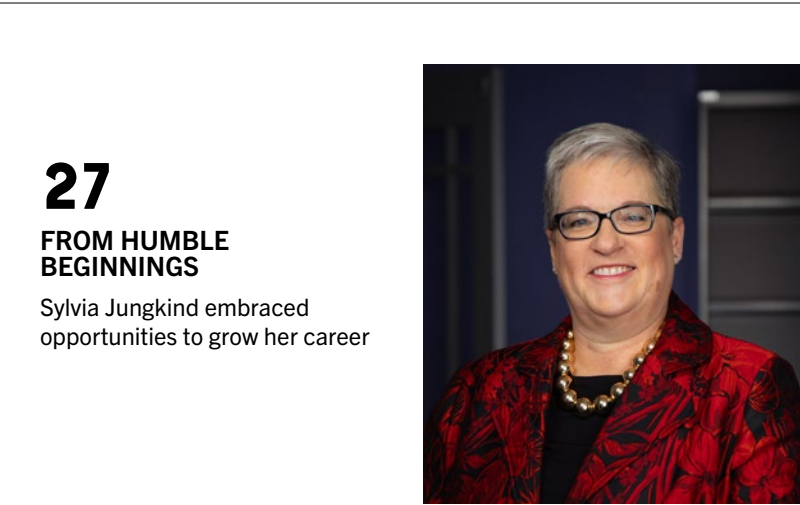
9	2024 SHOWCASE AWARD SPONSORS
11	MESSAGE FROM THE CEA PRESIDENT
12	CEA BOARD OF DIRECTORS
13	MESSAGE FROM CEA'S CEO & REGISTRAR
14	MESSAGE FROM ACEC-CANADA
54	CEA CODE OF ETHICS



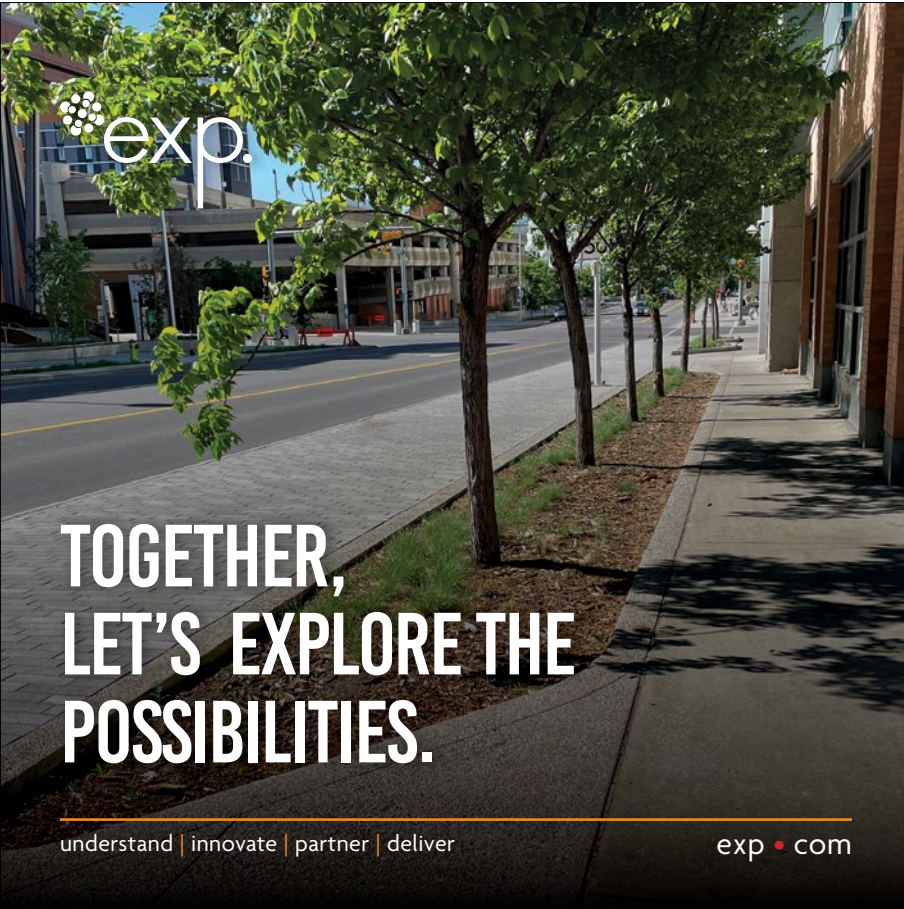
## FEATURES



**17**  
**HOW TO GROW**  
Consulting engineering firms look for ways to grow the talent pool







**exp.**

**TOGETHER,  
LET'S EXPLORE THE  
POSSIBILITIES.**

understand | innovate | partner | deliver

exp • com



**SPENCER ENVIRONMENTAL**  
MANAGEMENT SERVICES LTD.

### Services include:

- Environmental Impact Assessments
- Environmental Evaluations
- Environmental Permitting
- Environmental Risk Assessments
- Wetland & Biophysical Assessments
- Wildlife Surveys, Sweeps & Nest Searches
- ISO 14001 Environmental Management Systems & Auditing
- Environmental Plans (e.g., ECO Plan, ESC Plan, Care of Water Plan, Integrated Pest Management Plan, Vegetation Management Plan, Amphibian Salvage and Translocation Plan)
- Environmental Construction Monitoring
- Wetland Design & Restoration
- Wetland Monitoring

**www.spencerenvironmental.ab.ca**  
**info@spencerenvironmental.ab.ca**  
**(780) 429-2108**

## ALBERTA INNOVATORS

Published by  
**CONSULTING ENGINEERS OF ALBERTA**  
Sun Life Building  
Suite 2160, 10123 99 Street NW  
Edmonton, AB T5J 3H1  
P 780-421-1852  
E info@cea.ca  
[www.cea.ca](http://www.cea.ca)



**Chief Executive Officer & Registrar**  
Ken Kozakewich

**Chief Operating Officer**  
Lisa Krewda

Produced by  
**ODVOD MEDIA CORP. &  
ODVOD PUBLISHING INC.**  
10221 123 Street NW  
Edmonton, AB T5N 1N3  
T 780.451.1379  
[odvod.com](http://odvod.com) | [odvodpublishing.com](http://odvodpublishing.com)

**President**  
Trudy Callaghan

**Operations Director**  
Jodi Glen

**Director of Business Development**  
Anita McGillis

**Contributors**  
Eliza Barlow  
Jesse Cole  
Laughing Dog Photography  
Cory Schachtel  
Paul Swanson

Contents © 2024  
by Consulting Engineers of Alberta.  
No part of this publication should be reproduced without written permission from Consulting Engineers of Alberta.  
The views and opinions herein do not necessarily represent those of Odvod Media, Odvod Publishing, Consulting Engineers of Alberta or the organizations' staff.

**Non-deliverable mail should  
be directed to CEA**

Suite 2160, 10123 99 Street NW  
Edmonton, AB T5J 3H1  
PM# 41354037



# SHOWCASE AWARDS

2024 SPONSORS

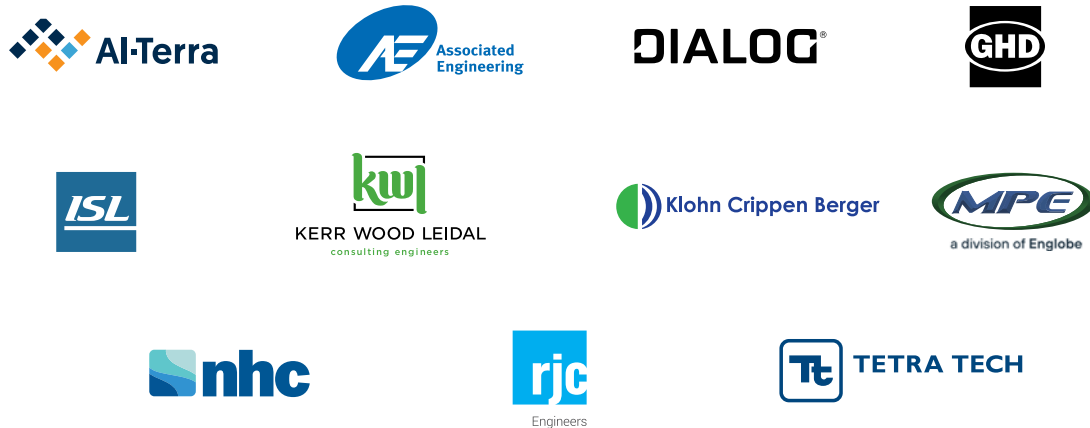
## → PRESENTING



## → FOSTERING



## → SUPPORTING



## → PATRON



## → CONTRIBUTING





British Columbia | Alberta | Yukon | Ontario



KERR WOOD LEIDAL  
consulting engineers

Photo: Ingleswood Bird Sanctuary Reconnection Project

kwl.ca



THE ASSOCIATION OF SCIENCE  
AND ENGINEERING TECHNOLOGY  
PROFESSIONALS OF ALBERTA

Over 60 years promoting  
**high-quality professional  
technology practice**

**Contributing to a better Alberta**

[www.aset.ab.ca](http://www.aset.ab.ca)



*Celebrating 45 years of partnering with clients  
to find innovative, practical and cost effective  
solutions to complex engineering problems.*

**Municipal Infrastructure  
Environmental Services  
Land Development Engineering  
Servicing of Major Industrial Projects**

(780) 482-2557 | [www.sameng.com](http://www.sameng.com)





## MESSAGE FROM THE CEA PRESIDENT

**T**HE CONSULTING ENGINEERS of Alberta (CEA) work to protect and enhance the profile of consulting engineers, and the showcase awards celebrate the innovations and creativity of our industry. They illustrate how consulting engineers can deliver exceptional value and success for our clients with the right team.

As the proud unified voice for our industry, CEA represents firms of all sizes throughout the province. We support early project involvement and alternative procurement and project delivery models to provide cost effective solutions to budgetary and scheduling challenges. Our Board has been working with all levels of government and we are appreciative of the open communication regarding the priority of sustainable and predictable funding for our industry.

Along with various other industries in Alberta, the consulting engineering sector is responding to changing demographics and other external forces. Finding and developing our future workforce has ongoing challenges. By promoting our collective project successes, we continue to instill pride within our industry. By displaying our creativity and innovation, we encourage the attraction and retention of diverse and passionate talent.

CEA and our member firms continue to work together to earn and maintain respect for the consulting engineering profession. The partnerships we cultivate with public and private sector clients and other industry groups are vital to the continued success of engineering projects in Alberta. We recognize that innovation and gaining experience are perpetual pursuits, and we continue to learn and adapt to new challenges.

It is with great pleasure that I extend my congratulations to all the winners of the 2024 CEA Showcase Awards, the Lieutenant Governor's Award, and the Harold L. Morrison Award, which displays our strong talent in our future leaders. I also wish to acknowledge all the nominees, they all celebrate project achievement within our industry. These project outcomes required strong partnership between project owners, contractors, consulting and sub-consulting teams.



JASON MAURER, P.ENG.  
CEA PRESIDENT

**“BY PROMOTING OUR COLLECTIVE PROJECT SUCCESSSES,  
WE CONTINUE TO INSTILL PRIDE WITHIN OUR INDUSTRY.”**



# CEA BOARD OF DIRECTORS

2023-2024



Jason Maurer  
President  
*Scheffer Andrew*



Ryan Betker  
Past President  
*McElhanney*



Chris Workman  
Vice President  
*Thurber Engineering*



Cheryl Heseltine  
Treasurer  
*WSP*



Amie McGowan  
Director  
*Urban Systems*



Arne Gjerlaug  
Director  
*ISL Engineering and  
Land Services*



Craig Clifton  
ACEC Liaison  
*Clifton Engineering  
Group*



Derek Cathro  
Director  
*Tetra Tech Canada*



Fabiola MacIntyre  
Director  
*Entuitive Corporation*



Megan Fernandes  
Director  
*Hatch*



Michael Jackson  
Director  
*WSP*



Nadeer Lalji  
Director  
*Associated Engineering*



Raziq Dhanani  
YP Director  
*AECOM*



Sarbjot Singh  
YP Director  
*Tetra Tech Canada*



Scott Argent  
Director  
*Stantec Consulting*



Todd Simenson  
ACEC Liaison  
*Stantec Consulting*



Tracey Stock  
APEGA Liaison



Travis Jensen  
Director  
*Wave Engineering  
Consultants*

## COLLABORATION LEADS TO INNOVATION

**C**ONGRATULATIONS TO THE winning firms and individuals in this year's Awards program. Thank you to everyone who submitted projects and to our judges who made the difficult decisions in selecting the winners. Additionally, welcome once again to this year's *Alberta Innovators* magazine, highlighting projects from the Consulting Engineers of Alberta (CEA) Awards evening, along with stories about industry leaders and key issues related to the business of consulting engineering. The Awards evening and this magazine serve as our annual celebration and recognition of the important work done by CEA's membership.

CEA is a member-driven organization that is the business voice for our industry. Through CEA, our members can work with owner groups and allied industry associations on common issues related to the planning, design and construction of this province's infrastructure. Over the past few years, some of these common issues have revolved around the impacts of supply chain shortages, high inflation, labour force changes and the impacts of each of these on project delivery. It has been an exciting time addressing these challenges which can directly impact the operational costs and risks to our member companies. Additionally, our members' clients, the project owners, continue to look for innovation from consulting engineers to provide assurances of more cost and schedule certainty on their projects in this dynamic environment.

Consulting engineers have been able to adapt to these changes in market conditions and provide leadership, acting as trusted partners and advisors for their clients. In addition to the signature projects in our Awards program, our members work on a myriad of other

unsung projects. Successfully delivering professional services on these projects takes a lot of specialized training, sound technical experience and hard work throughout all phases of service delivery, from concept development to project completion. Strong collaborative relationships with owners, contractors and other project stakeholders are essential for success, especially in developing new innovative ways to keep projects on budget and schedule when unforeseen events at a global level may have local impacts. Innovation involves teamwork, to find better approaches though all stages of these projects and to solve problems with new tools. This includes everything from using new technologies to implementing better procurement and more flexible project delivery methods.

Innovations can involve a certain degree of added risk, and the challenge is to determine who is responsible for and how to best manage those new "What if?" questions. Professional engineering is a regulated profession and CEA member companies with their professional engineering staff share a responsibility with public sector owners in managing those new risks while continuing to protect, the safety of the public and the environment. Whatever form innovation may take in our industry's projects, there are inherent shared goals with owners — such as ensuring that certain levels of safety and dependability in water and wastewater systems, electrical supply, buildings and facilities and transportation networks are maintained or improved upon.

For over 45 years, CEA has proudly served our members as a facilitator for communication, consultation and collaboration between owners, contractors and engineering consultants at an industry level. We thank our membership for their voluntary support and engagement, in fostering innovative thoughts and actions and creating positive changes on their projects, within our industry and for this province.



**KEN KOZAKEWICH, MBA, P.ENG.**  
CHIEF EXECUTIVE OFFICER  
AND REGISTRAR



# A STRATEGIC VISION FOR INFRASTRUCTURE: BUILDING RESILIENT AND PROSPEROUS COMMUNITIES

**I**N CANADA'S EXTENSIVE urban and rural landscape, communities are interconnected by vital infrastructure. However, looming challenges — including an increasing shortage of housing and infrastructure development — is putting pressure on all levels of government to find new and innovative solutions that will support Canadians. With labor shortages, supply chain disruptions, economic uncertainties and high levels of inflation exacerbated by the pandemic, strategic planning for our infrastructure is crucial. It is in this context that the Association of Consulting Engineering Companies — Canada (ACEC) presented three recommendations in its pre-budget submission to the House of Commons Finance Committee and the Minister of Finance, aiming to address these challenges and foster resilience, sustainability, and connectivity nationwide.

## EMBRACING A VISION FOR TOMORROW

At the heart of ACEC's proposal lies the call for the immediate implementation of the National Infrastructure Assessment (NIA). This visionary strategy offers a roadmap to address not only the immediate housing and infrastructure challenges, but also the long-term imperatives of climate resilience, trade facilitation and energy sustainability. By assessing current infrastructure assets, setting forth long-term goals, and ensuring regular updates, the NIA will provide a framework for informed decision-making and proactive policy development and a pathway to foster sustainable growth and prosperity.

## RENEWING OUR COMMITMENT TO INFRASTRUCTURE

While the NIA lays the foundation for a prosperous future, immediate action is imperative. The intake for the Investing in Canada Infrastructure Program (ICIP) closed in March 2023 which has created a gap between infrastructure funding programs. ACEC is advocating for the immediate renewal of funding for the ICIP or the expeditious introduction of its successor program. Such funding is essential to support the critical infrastructure needed to sustain our

growing communities. Roads, transit, electrical grids, water and wastewater are all needed to turn houses into homes, and these cannot be built without the necessary funding. As the federal government embarks on ambitious housing initiatives, from urban centres to remote towns, the ICIP or a successor program will serve to ensure we can build the critical infrastructure needed to support new communities and existing ones.

## FOSTERING INNOVATION THROUGH FLEXIBILITY

Infrastructure assets do not exist in isolation; community infrastructure is an ecosystem of interrelated assets that collectively ensure a strong and resilient Canada. In the pursuit of infrastructure excellence, flexibility is key. ACEC has underscored in its submission the importance of allowing multi-project applications, thereby enabling municipalities to address interconnected infrastructure needs comprehensively. By embracing a holistic approach to infrastructure investment, provinces and municipalities can enhance resilience, optimize resource allocation and drive sustainable growth. Through asset management planning and lifecycle considerations, municipalities and other infrastructure owners can unlock the full potential of their investments, ensuring lasting benefits for generations to come.

## CHARTING A COURSE FORWARD

As we stand at the crossroads of opportunity and challenge, the path forward is clear: collaboration, innovation and strategic foresight. ACEC's pre-budget recommendations offer a strategic vision for a stronger, more resilient, and better-connected Canada. By embracing a long-term vision, renewing infrastructure funding, and fostering flexibility in project applications, we can surmount the challenges of today and lay the groundwork for a brighter tomorrow.

To learn more about ACEC's advocacy efforts and how we strengthen the voice of the consulting engineering industry to elected officials and senior leaders in the federal government, visit [www.acec.ca/advocacy](http://www.acec.ca/advocacy).



ASSOCIATION OF CONSULTING  
ENGINEERING COMPANIES | CANADA  
ASSOCIATION DES FIRMES  
DE GÉNIE-CONSEIL | CANADA

# Your APEGA membership dollars **AT WORK**

## 22%

### Compliance, Standards, and Enforcement

Actions by statutory boards and committees; compliance and enforcement of professional standards; and legislative and regulatory requirements

## 3%

### Governance

Governance representing the highest standards of knowledge and experience, facilitated by management and support staff; reports for annual general meetings, and Council relations and election



## 9%

### New Member Registration

Application review, processing, and administration

## 15%

### IT Systems

Membership data security, network security, and myAPEGA portal



## 1%

### Career Development

Ongoing professional development opportunities to support members in fulfilling their continuing professional development requirement



## 3%

### Examinations

Administration and management of exams



SEE THE BALANCE OF YOUR  
**MEMBERSHIP DOLLARS**  
**AT WORK**

[apega.ca/membershipdollars](https://apega.ca/membershipdollars)





# We Create Confidence

Al-Terra is the engineering, landscape architecture and geomatics firm that specializes in getting people where they want to go and creating places where they want to be.

**Creating confidence is at the core of everything we do.**



ARDROSSAN HEIGHTS – ESTATES, ARDROSSAN, ALBERTA



Edmonton | Calgary | [al-terra.com](http://al-terra.com)



Klohn Crippen Berger

Klohn Crippen Berger is a market leader providing multi-disciplinary engineering and environmental services throughout Canada and globally.




[klohn.com](http://klohn.com)



CEA and its members can assist municipalities in asset management to ensure **the right money** gets spent **on the right projects** at the **right point in time.**





# INNOVATING OPPORTUNITIES

**ALBERTA ENGINEERS FORGE  
A MORE INCLUSIVE FUTURE**

**IN AN EVER-CHANGING WORLD, INDUSTRIES MUST ADAPT.**  
But like a quality build requires a quality blueprint, the Alberta Consulting Engineering Industry has a plan, one that starts with expanding — and listening to — its up-and-coming member base.



**A**s a consulting engineer for 35 years, President of Thurber Engineering Chris Workman is excited to share his company's Equity, Diversity and Inclusion (EDI) Initiative but, he says, he's disappointed that it's taken the industry so long to reach out to a wider range of talent. He is thrilled nonetheless because "It's an opportunity to make improvements and make our industry better."

A former employee planted the seed in Workman's mind when she said she felt she couldn't move up in the company. The company's improved since then — current hiring practices are at about 30 percent women for junior positions — but Workman says "Our challenge is at the higher levels."

Historically, Thurber has been very multicultural and its new EDI commitment action plan — adopted in November 2023 — is focusing on improving gender diversity within the company.

The underrepresentation of women in senior positions is an industry-wide issue,

with many societal issues impacting it. But Thurber is committed to doing its part to move the needle in the industry by raising awareness and addressing unconscious biases and communication concerns. It will track hiring metrics annually, institute awareness training for staff and leadership, and formalize EDI considerations in the hiring process.

The company has already instituted employee resource groups for female employees to support one another regarding common issues (like problems at construction sites) and has also created an advocacy committee at a higher level to authorize systemic change. Thurber will also issue surveys for employees and improve its hiring process to reach out to ensure people feel comfortable, however they self-identify.

Of course, people can only advance on merit, but Workman says the company — and industry — needs to find different qualified voices and perspectives to help Alberta's engineering industry reach new heights. "It is the right thing to do for people and our businesses."

**T**he growth and development of people is critical in any organization. That starts with mentoring and supporting those early in their careers.

But how does that work within the hybrid work-from-home model that's here to stay?

Pre-COVID, there was informal mentoring and career development by osmosis — at the coffee station, chatting with a colleague, over lunch or sharing a ride on the way to and from a meeting. But what does the industry do now?

Rodney Peacock, president and CEO of ISL Engineering, says the new mentoring model is two-fold. "Groups are making sure they are coming to the office on common days — let's say Monday-Wednesday-Friday," creating a weekly cadence that keep the connection automatic "because they are in one another's presence."

Secondly, managers are being asked to more deliberately reach out to staff virtually — and

at the office — to see how the juniors and intermediates are doing and if they have any questions. "It shows initiative by the leader, not just the junior reaching out," Peacock says. "Previously, this was more organic. Now it is more critical than ever to boost connectivity to the company, reassure staff that they are important, reward creativity and productivity and deal with challenges and problem solving at early stages."

This also provides an opportunity to check on any mental health concerns as well, because an employee's comfort in their environment helps grow and develop their career. "Mentorship is one of my biggest concerns," Peacock says, recognizing the value of flexibility in people's lives. "Leaders need to dial back into the juniors' lives, because the pace of change in the industry professionally will impact us into the future. We need to have our people ready."



Growing up, Megan Fernandes saw first-hand the importance of being hands on. From small repairs to major renovations and even electrical work, she watched closely as her industrious parents studied, learned and then fixed things themselves. "It was always really exciting to me to be able to think through a problem, to come up with a solution, and then actually carry it out yourself. I found it was a very, very rewarding process," the senior project manager at Hatch Consulting says.

But in grade school, she found the importance of applied science — engineering, specifically — to be nearly non-existent. "People think of science more as medicine, chemistry, biology, and those types of roles," Fernandes explains. "But applied science is a little bit harder to wrap your head around, and I think some of that is because education, especially for younger children, is really lacking."

Fernandes acknowledges that with the increase in STEM programs, schools have made progress since she was a child. But she says the industry must take steps toward engaging students as well, to reach the future problem solvers of today. And waiting until they're about

to graduate to hold a single-day, engineering open house is too late.

Clubs like FIRST Robotics (which Hatch sponsors) run engaging programs that start in kindergarten. Western Mechatronics is an entirely youth-run, not-for-profit that holds international engineering competitions like Mecha Mayhem, and APEGA has clinics, science fairs and science Olympics for K-12 students. For all its faults, Fernandes also finds value in videos on YouTube, like the kind from former NASA scientist Mark Rober that went viral (google "NASA squirrel obstacle course" for a family-friendly treat).

But there's nothing quite like individual engineers entering classrooms and answering students' questions face to face. "It's really fun being there, because at that age, they're unapologetically curious, they ask questions, they're honest, and they're not generally shy," Fernandes says. "And if we don't go into the classrooms, then we're missing out on an opportunity to get these kids excited about this thing they may know nothing about. We have to get that excitement going, starting as young as possible." **AI**



**nhc**

Learn more at  
nhcweb.com



Our highly skilled team of professionals are focused on working with clients to develop innovative and process-based solutions for coastal and inland water environments.



# Thank You!

To all of  
our  
**member  
firms**  
and  
**external  
sponsors**  
for your  
continued  
support.

# ART OF COMMUNICATION

**WE BUILD YOUR**

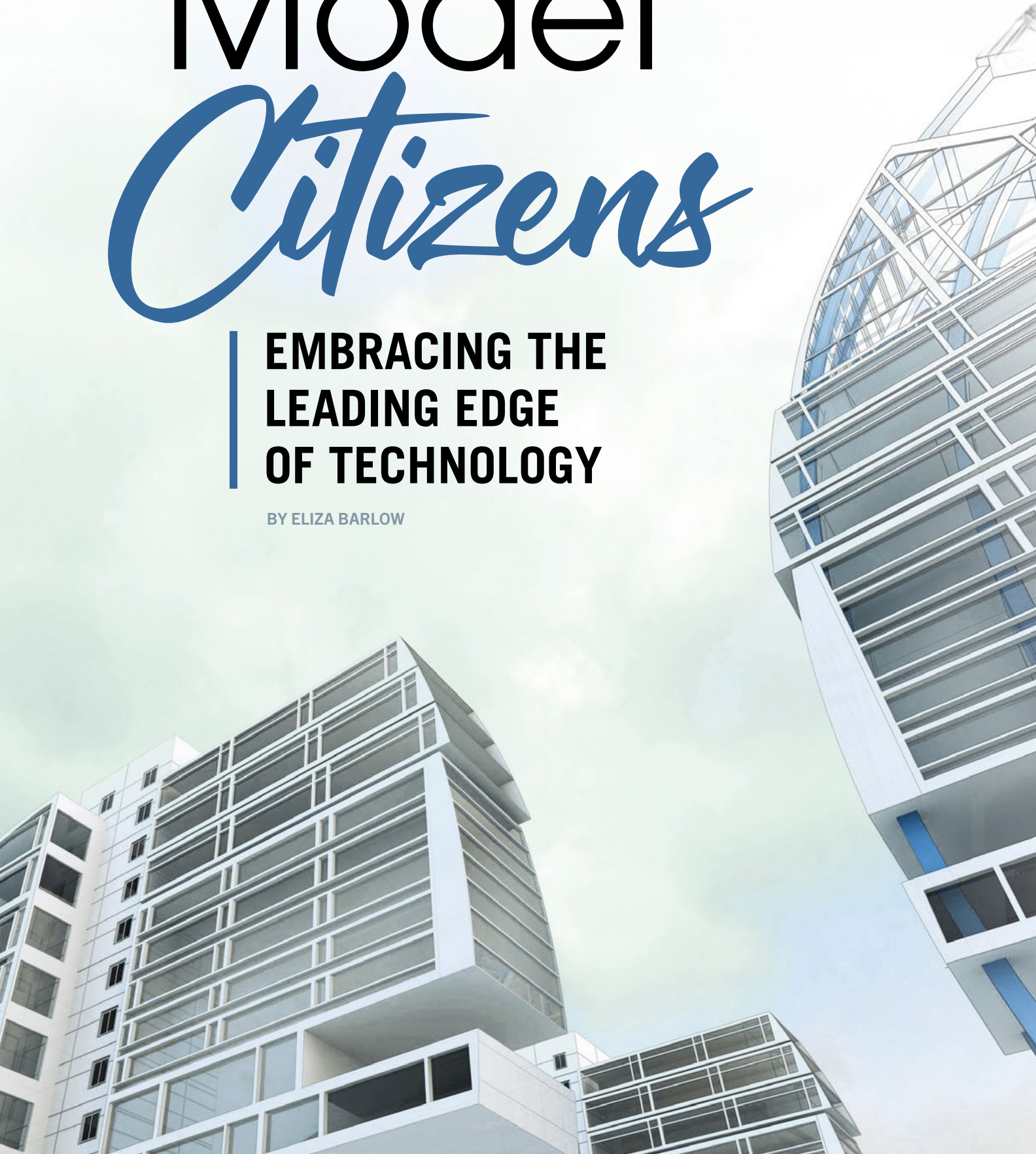
• **BRAND** • **WEBSITE** • **PODCAST** • **STRATEGY**

odvod | **COM** ■ odvod.com  
media

# Model *Citizens*

**EMBRACING THE  
LEADING EDGE  
OF TECHNOLOGY**

BY ELIZA BARLOW







**IF YOU USE THE INTERNET AT ALL**, you might be starting to ask yourself... is AI everywhere? From virtual assistants like Siri and Alexa to how content is displayed to users on social media platforms ... it can feel like AI is all around. And that feeling is only going to grow — two months after its launch, ChatGPT broke records, becoming the fastest-growing consumer application in history based on data from analytics firm Similarweb.

“Right now, if you look at AI adoption across North America, in the US about 14 per cent of companies are actively using AI. In Canada, we are at 4 per cent,” says Cam Linke, CEO with Amii, a global leader in machine learning and AI. Amii bridges research and industry, helping businesses tap into the potential benefits of cutting-edge AI developments.

“The challenge right now is that when you’re going through such a pace of change around technology that we’re going through in AI, you end up in a position where the companies that invest early gain an almost insurmountable lead. Even when it’s just little steps early

sees challenges and opportunities on the horizon, especially regarding chatbots.

“Most organizations are trying to become more efficient and to use the latest technology. As consulting engineers, we do a lot of writing for proposals and reports. It’s become more apparent through 2023 that tools like ChatGPT are powerful,” he says.

Jackson expresses a common concern: that an AI bot cannot easily generate the creative content that sets engineering proposals apart, but he acknowledges consulting firms may need to pay more attention to the technology.

“There will be some hard lessons learned along the way — people trying to use it without understanding the output. Ultimately, I think the industry has to embrace it and be on the leading edge of it if they want to stay relevant in the marketplace,” he says, with a hint of caution.

“There’s risk when things come to market

“ **AS CONSULTING ENGINEERS, WE DO A LOT OF WRITING FOR PROPOSALS AND REPORTS. IT’S BECOME MORE APPARENT THROUGH 2023 THAT TOOLS LIKE CHATGPT ARE POWERFUL** ” **MICHAEL JACKSON**

on, those compound really quickly.”

The advent of AI-generated chatbots like ChatGPT impacts how engineers are educated, how the industry brands itself and how to fill knowledge gaps in a pinch, states Derek Ciezki, partner with SMP Engineering.

“I know the universities are talking about it to engineering students and saying it’s a tool, but be careful what you’re using it for,” he says. “The industry is starting to use it for marketing, and it’s a good research tool. It’s something that I think a lot of firms are starting to look at implementing more into their day-to-day,” he says.

Michael Jackson, Vice President, Mechanical & Electrical West, WSP Canada, calls recent advances in AI technologies “exciting” and says they are improving competitiveness in the marketplace. He

quickly. Engineering is always conservative — we protect public safety and the environment and follow strict codes and guidelines,” he says. That culture has to be balanced against market pressures to determine “what transformation looks like, what the next thing is, and being at risk of getting left behind really quick.” But at every turn, quality and safety must remain top priorities.

“It’s not like we’re developing a game where if a few bugs show up, you push out a new version. We’re designing major public infrastructure. It can’t fall down.”

Scott Argent, Vice President, Regional Leader, Prairies & Territories with Stantec, states that Stantec’s 3-year strategic plan focuses significantly on how AI will change how consulting engineers



work to solve problems and come to decisions.

“It’s clear that the AEC (architecture, engineering and construction) industry has a role to play in both using and developing the technology.”

Greg Widmeyer, Director of Technology at DIALOG, says the firm is evaluating and using AI technologies to support the practice of design, and the business services supporting that practice.

He lists tasks like finishing construction documents as an example of where AI-infused software could complete drawing sets with fine details and consideration for compliance with regulation before they’re sent out.

“AI isn’t something that will bypass our industry or be a niche product that a few practices use. It will impact everyone. If you don’t embrace and invest, you will be left way, way, behind.”

At the basic level, Widmeyer expects AI technologies to drive efficiencies across proposals and evaluations, virtual reality walkthroughs of projects and remote drone inspections, among other areas of interest

technology solutions and has partnered with the University of Alberta to collect data on winter road conditions.

“[There are] challenges around aging infrastructure and pressures related to operations, financial and environmental efficiency. (Data-driven technologies) offer meaningful applications for many people in everyday life,” Peters says.

Peters cites “digital twins” as an example of another meaningful application: a virtual model and digital representation of assets, such as roads, buildings or infrastructure systems, for clients to better understand performance, emissions, utilization and maintenance needs.

“Why wouldn’t you do that?” he says.

Ciezki says one of the most significant impacts of new technology on the design and construction industry is how projects are modelled. If digital twinning is at the cutting edge of technological applications, its genesis lies in Building Information

“AI ISN’T SOMETHING THAT WILL BYPASS OUR INDUSTRY OR BE A NICHE PRODUCT THAT A FEW PRACTICES USE. IT WILL IMPACT EVERYONE. IF YOU DON’T EMBRACE AND INVEST, YOU WILL BE LEFT WAY, WAY, BEHIND”

GREG WIDMEYER

for consulting engineering firms. But he’s preparing for more.

“We must focus on the blurring boundaries between technology and humanity, while keeping humans at the forefront of this revolution. A human is still going to stamp drawings, and they’re the ones responsible for public safety. An ‘AI hallucination’ should never be an excuse for a failed design.”

One of the greatest benefits that AI and machine learning algorithms offer is the ability to parse through significant amounts of information and data far more efficiently than if humans were to do the work, unaided.

Connected vehicles are another real-world example of how technology is shaping the world of consulting engineers. Connected vehicle technology is being piloted in Alberta with the support of the provincial and federal governments and the University of Alberta.

“Traditionally, highway maintenance contractors will report conditions once or twice daily. It’s difficult to know about the conditions on the entire road network all the time,” says Bruno Peters, Intelligence Portfolio Sales Director with Arcadis, a company that develops

Modelling — 3D rendering software which has supplanted two-dimensional design.

“It’s being used a little more extensively with all design firms. It starts with the architects, engineers and then the contractors. It’s information owners need, and it’s a lead into asset management. Owners want a model that they could use to reference for maintenance, tracking materials and mechanical or electrical systems. To do that, you need that level of modelling.”

Ciezki says new technologies offer more valuable data, increasing clients’ demands and expectations, especially when projects are publicly owned and financed by tax dollars.

“Institutional clients want more information in design drawings. That information is essential for major public projects like schools, sports and rec centres, hospitals and the drive to net zero,” he says. “Where technology and automation can save time, we can focus on new ways of doing things better. There’s pressure on [consulting engineers] to have information at our fingertips. AI and automation are forcing us to think differently and to use new tools to be safe and effective.” AI

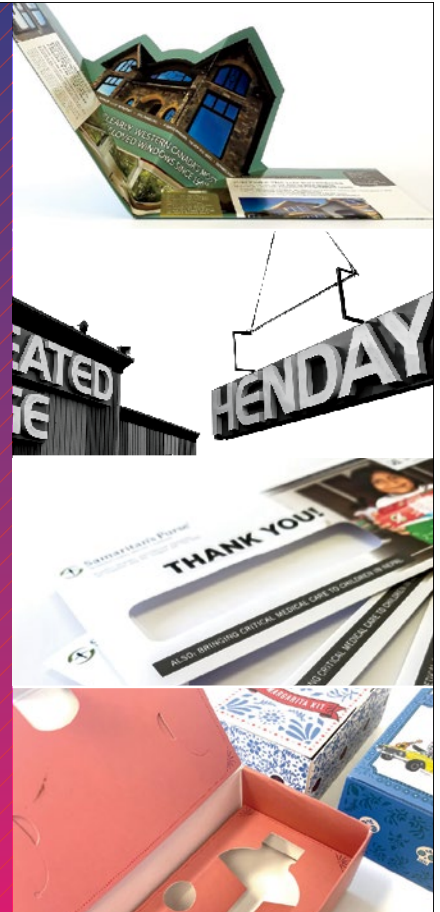
# Infinite Potential *Explored.*

BRINGING FRESH THINKING TO  
BOTH SMALL AND COMPLEX PROJECTS

Burke is your skilled guide through clear communication. We walk with you through **print, signage, mail, design digital media**, and **packaging** to connect you and your audience. From concept to creation and delivery, Burke transforms your needs and goals into solutions.



[burkegroup.ca](http://burkegroup.ca)



The surveying and geomatics  
company that's down-to-earth.  
Dedicated to land and the technologies that shape it.

WITH ROOTS IN THE INDUSTRY STRETCHING BACK OVER  
100 YEARS, WE SUPPORT OUR CLIENTS WITH:

Leading-edge advanced technology

Unmatched quality & efficiency

Extensive industry expertise

Reliable data

British Columbia / Alberta / Saskatchewan / Manitoba / Ontario

& proudly offering services in the NWT through our partnership with Mackenzie Delta Geomatics Ltd.





a division of Englobe

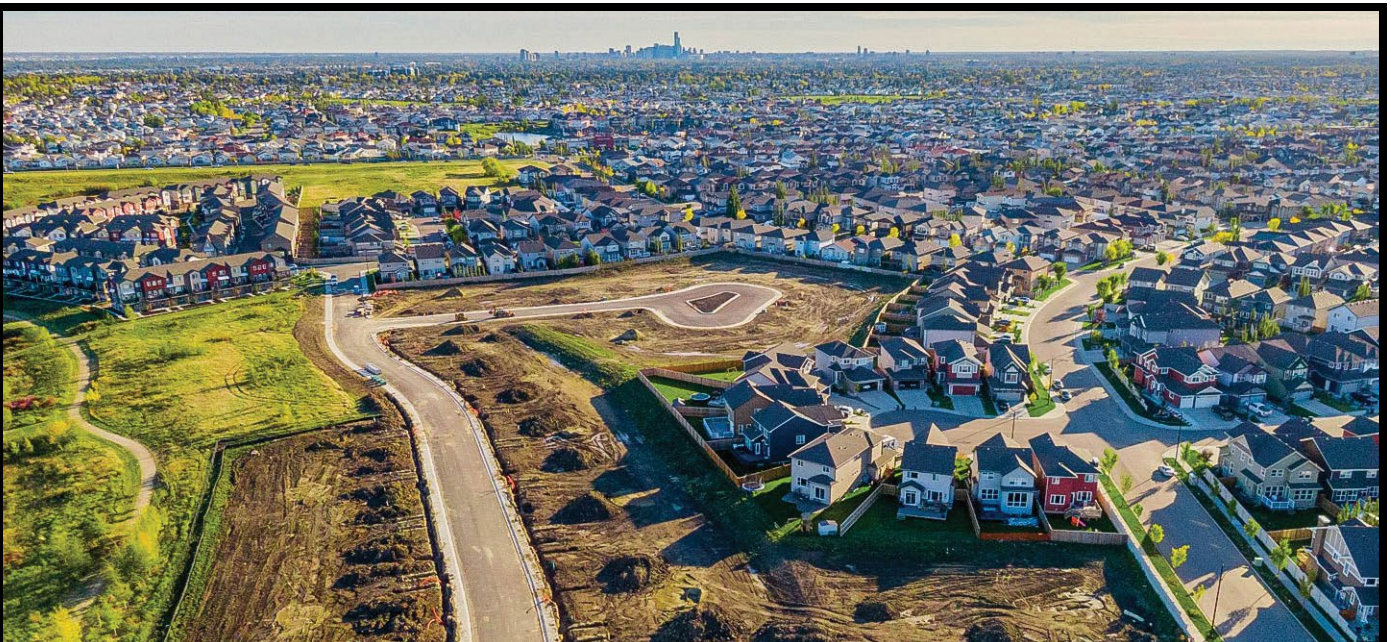
## Consulting Engineers Serving Western Canada



Municipal Services ♦ Water Resources ♦ Building Services

[mpe.ca](http://mpe.ca)

*Proud of Our Past... Building the Future*



**Municipal  
Transportation  
Community Development  
Land Use Planning**



***Scheffer Andrew Ltd.***  
*Planners & Engineers*

[schefferandrew.com](http://schefferandrew.com)

# STARTED FROM THE BOTTOM, NOW SHE'S HERE

## SYLVIA JUNGKIND SPEAKS ON THE IMPORTANCE OF BEING OPEN TO OPPORTUNITY

**IF THERE'S ONE THING** that Sylvia Jungkind has learned in her 30 years on the job, it's to never say no to an opportunity.

That outlook has helped propel Jungkind into a role with one of Canada's, and the globe's, leading engineering consulting firms — WSP Canada Inc. But Jungkind's ascension to the upper ranks of a multinational firm wasn't linear.

In 1994, Jungkind was looking for work in Edmonton. She was referred by a friend to an administrative role for a small geomatics consulting firm. With no background in the industry, Jungkind applied anyway.

"They just kind of gave me things to do," Jungkind recalls of her time as a receptionist for the firm. The organization was growing quickly, adding engineering consulting services to its offerings. "And anything they gave me, I just did."



BY JESSE COLE  
PHOTOGRAPHY LAUGHING DOG





SYLVIA JUNGKIND

One of those things just so happened to be working on the company's insurance portfolio.

"Of the major things that changed my career path, it was the boss coming out of his office and dropping this hunk of papers on my desk and basically saying 'here, take this,'" Jungkind says. "It was the insurance and he wanted me to start helping him with it."

Shortly thereafter, Jungkind accepted another off-the-cuff opportunity. This time it was to attend a risk management conference on behalf of the company. It was there, she says, that she realized what she wanted to do with her life.

"When I got to the risk management conference and I heard all these conversations from people deeply embedded in the industry, I was just really attracted. That was it for me," she says.

Jungkind was sold and with the support of her employer, she enrolled in night classes at the University of Alberta and the then-named Grant MacEwan Community College where she earned her Canadian Risk Management designation in '04 and her Chartered Insurance Professional designation through the Insurance Institute of Canada in '06.

“

**OF THE MAJOR THINGS THAT CHANGED MY CAREER PATH, IT WAS THE BOSS COMING OUT OF HIS OFFICE AND DROPPING THIS HUNK OF PAPERS ON MY DESK AND BASICALLY SAYING 'HERE, TAKE THIS'**

SYLVIA JUNGKIND

”

Three decades later, Jungkind has moved through the ranks to become the Senior Contracts and Insurance Specialist at WSP Canada, after the company acquired the geomatics and engineering firm in 2014. But her dedication to the field hasn't ended there. She's served on the Association of Consulting Engineering Companies (ACEC) Business Practices Advisory Committee, represented ACEC on the Canadian Construction Documents Committee (CCDC) since 2011, has been vice chair of the CCDC since 2016, chair of the CCDC Insurance Sub-Committee for several years and was a panel speaker at the 2017 and 2019 ACEC national leadership conferences.

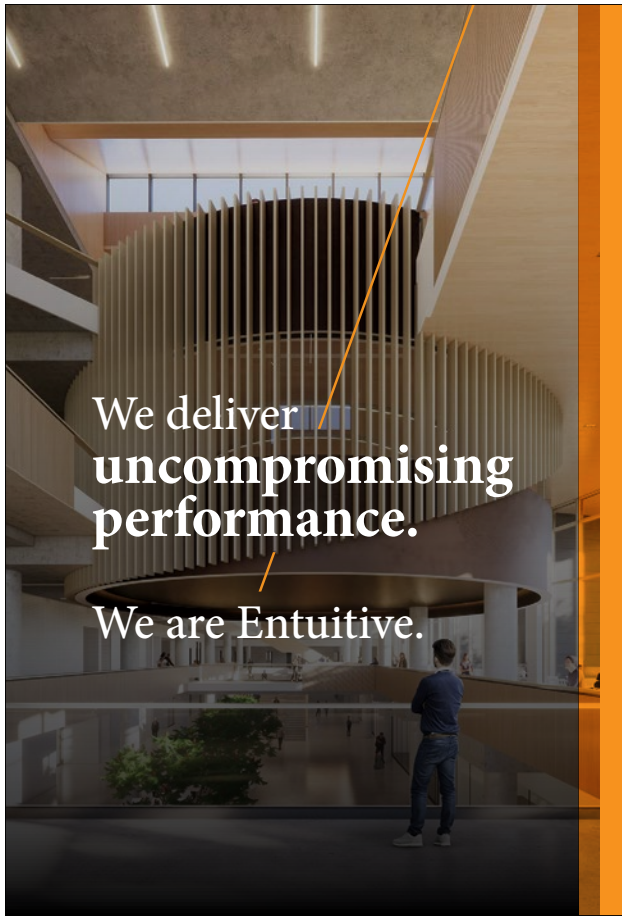
These contributions to the association and the consulting engineering industry earned her the 2020 Chair's Award.

Despite her haphazard route to the role, it's a position in which she's found a great deal of passion and meaning.

"I love it. It's really become my career," says Jungkind. "Working in industry on contracts ... with architects, engineers, owners, specification writers and contractors, and supporting Consulting Engineers of Alberta, so that, in the end, you have something more fair and balanced."

With all of that under her belt, Jungkind's using her experience of growing from humble beginnings to advising, negotiating and reviewing large-scale engineering contracts at the upper echelons of industry, to help mentor the next generation. "When I had my 25th work anniversary, the company had an article about my career in WSP's "In the Spotlight" ... I had a message [for] the next generation of women in the industry and that was to never say no, because you never know what it'll evolve into."

"After years of reviewing and negotiating contracts, my favourite thing today is sharing that knowledge, my favourite words to hear are 'Sylvia, every time I talk to you, I learn something new,' it doesn't get better than that," she says. **AI**



We deliver **uncompromising performance.**

We are Entuitive.

# ENTUITIVE

BUILDING PERFORMANCE ANALYSIS  
BUILDING ENVELOPE  
BUILDING RESTORATION  
BRIDGE ENGINEERING  
CONSTRUCTION ENGINEERING  
FIRE ENGINEERING  
PEDESTRIAN MODELLING  
SPECIAL PROJECTS  
STRUCTURAL ENGINEERING  
SUSTAINABLE BUILDING CONSULTING  
TRANSPORTATION STRUCTURES  
WOOD DESIGN SERVICES

[entuitive.com](http://entuitive.com)

VANCOUVER | CALGARY | EDMONTON | TORONTO | OTTAWA | NEW YORK



# HATCH

We are passionately committed to the pursuit of a better world through positive change.

Contact us at [Hatch.com](http://Hatch.com)

Proud to have served as Design Partners for Kiewit's award-winning Tłıchǫ All-Season Road project.





Associated  
Engineering

## Caring for Our Shared Future

### Associated Engineering

is a Canadian, employee-owned consulting firm specializing in planning, engineering, environmental science, landscape architecture, asset management, communications, and facilitation.

We commit to technical excellence, exceptional service, resilient solutions, while improving our environment and caring for our shared future.



[www.ae.ca](http://www.ae.ca)



consulting  
engineers  
of alberta

## Value of Consulting Engineers

Consulting engineers are experts who provide professional services to **all levels of government** in the planning, design, construction and maintenance of **critical public infrastructure**.

We understand how public sector budgets work, how to prioritize projects and how to work with all affected stakeholders.

[cea.ca](http://cea.ca)



2024

CONSULTING ENGINEERS of ALBERTA

# SHOWCASE AWARDS





2024  
**SHOWCASE  
- AWARDS -**

**CEA LIEUTENANT  
GOVERNOR'S AWARD**  
FOR DISTINGUISHED ACHIEVEMENT



# PRACTICALLY CIVIL

HERB KUEHNE FORGED A CAREER BASED ON WANTING TO IMPROVE PEOPLE'S EVERYDAY LIVES

**WHEN IT COMES TO** building and tinkering, Herb Kuehne started early — you could even argue a bit too early.

“When I was 12 years old, we were in the garage, using acetylene, brazing things — we got quite the technical background when we were still pretty young,” Kuehne recalls.

“We” were Kuehne and his brother, under the tutelage of their father, an “exceptional welder who founded a few companies and always came up with innovative ideas and ways to do things.” But the Kuehne kids showed such engineering aptitude that the garage quickly went from a place where father taught sons to a typical shop where a trio of (relative) equals worked on projects as they pleased, so much so that when the brothers Kuehne eventually built their own go-kart, “Dad wasn’t there.”

Dad was there for future chess games, though, and both Kuehne’s parents fostered his curious, technical mind with gifts like a telescope and chemistry set. By the time he approached college age, Kuehne started thinking of engineering as a career. That’s when the family’s resident nuclear engineer stepped in.

“My uncle actually taught nuclear engineering down in the States. And to help me make the decision, I flew down to Kentucky where he set up interviews with a bunch of other pros, in each one of the disciplines, whether it was electrical, mechanical or structural engineering.”

So which discipline did he choose to study at the University of Alberta? “Civil,” he laughs, clarifying that at the time, it just seemed like a good fit. But looking back, he says he enjoyed the practicality of civil engineering, and how it affects so many people’s daily lives.

“I started with Texaco Canada, as a refinery engineer, and it was great. But I wanted to do something different where I did more to improve people’s quality of life, whether it was building roads or improving water quality or needed

infrastructure. So I ended up going to Associated Engineering after about a year at Texaco.”

Of the many life-improving projects Kuehne’s helped construct, he cites the Cold Lake Marina — which was the largest inland marina in Western Canada at the time — and Edmonton’s Fulton Creek Marshland — the city’s first wetland facility — as particularly impactful.

“Today, you see them everywhere, as part of every subdivision, but at the time, people built normal stormwater management ponds,” he says. “That was a pretty neat project, coming up with a concept of getting nature to clean the stormwater that way. Now, it’s taken for granted, but it was unique at the time.”

## “I THINK A GOOD ENGINEER HAS TO LOOK AT THE BIG PICTURE, AND BE HOLISTIC IN THEIR APPROACH.”

HERB KUEHNE

As an avid hunter and fisher growing up, Kuehne brought an outdoorsman’s appreciation of nature to his projects. “I love the outdoors, and I was a boater, so for the Cold Lake marina, I wasn’t coming in cold — I knew what was needed for a boating community, like that you don’t just size a marina for the craft that are there at the time, you build for the future. A lot of engineering is common sense.”

Kuehne used his common sense on another fondly recalled project, one that required less engineering, and more of his interpersonal skills. “I like just being able to help clients, and one that made a big difference was helping the city of Fort McMurray overcome some of the huge growth issues they had, by helping

them secure some of the infrastructure funding that they needed from the province to help the community grow.”

As he thinks of how his engineering community grew over the years, Kuehne recalls a behind-the-scenes decision he pushed for as president of Consulting Engineers of Alberta (CEA), back when the industry struggled to hire young engineers. “It was a function of salary,” he explains. “So I was able to get the CEA board to agree that we had to significantly raise the salary of graduate engineers so that we could bring them into our firms. As a result, we were able to attract some of the best and the brightest in our industry, and it had a cascading effect with salaries going up all over the place. It’s important to remember that we’re competitors, but we’re also members, so we’re all in this together.”

Kuehne represented CEA on the board of ACEC, where he also served as Chair, and remembers his contribution as changing the Board governance and having a forward-looking focus on consulting engineering issues.

Looking back on his Lieutenant Governor Award-winning career, which included CEA Merit and Excellence awards, myriad projects, as well as international work in China, Kuehne says that even though members may compete for projects, “a competitor today could be a friend tomorrow,” and while he may have held a leadership position for much of it, he’s been most happy to be part of a team.

“I think a good engineer has to look at the big picture, and be holistic in their approach. I used to always say to people, ‘It’s up to you guys, I’m just the coach in the background helping guide you — you’re the ones that will achieve the success, and you’re the ones that will be recognized for it.’”

— CORY SCHACHTEL



2024  
SHOWCASE  
- AWARDS -  
HAROLD L.  
MORRISON AWARD  
RISING YOUNG  
PROFESSIONAL  
NOMINEES

CEA 2024 SHOWCASE AWARDS  
YOUNG PROFESSIONAL NOMINEE JUDGES

**ART WASHUTA**, P. Eng. CEA Past President  
**DON CHAMBERS**, P. Eng. CEA Past President  
**KEN PILIP**, P. Eng. CEA Past President

**DIALOG®**



**Victoria Buffam**, M.Sc., P.Eng.  
Structural Engineer  
DIALOG

**VICTORIA BUFFAM**

Victoria joined DIALOG in 2018, after completing her Master's degree in structural engineering at the University of Alberta. She rapidly emerged as a pivotal figure within DIALOG and the broader industry landscape. Her adeptness in structural design, contract administration, and project management has not only left a discernible imprint on the city's skyline but has also significantly contributed to community development initiatives.

Victoria's holistic approach to projects seamlessly integrates technical expertise with a profound dedication to innovation and professional growth. Her fresh perspective has not only enriched the cultural fabric of DIALOG's structural team, but has also been instrumental in driving excellence and delivering cutting-edge solutions for clients. Victoria is consistently sought after by clients across both public and private sectors, underscoring her stellar reputation and the unwavering trust placed in her abilities.

Her leadership roles within CEA's Young Professional Group highlight her commitment to advancing the engineering profession and fostering collaboration within the industry.



**Ryan Hall**, P.Eng.  
Bridge and Structural Lead  
McElhanney Ltd.

**RYAN HALL**

Ryan has demonstrated leadership by successfully delivering more than 100 bridge projects across the province. Many of these endeavors were tailored to the needs of smaller communities, characterized by tight budgets and stringent timelines. Ryan's project-focused approach has proven indispensable in navigating these challenges, consistently yielding cost-effective solutions without compromising quality.

Beyond his professional accomplishments, Ryan is committed to giving back to the community. From 2018 to 2020, he volunteered with the Alberta Science Network, engaging Grade 7 students with personalized presentations on bridge engineering. Additionally, as the Central Alberta Lead for the Be a Bridge Initiative from 2017 to 2020, Ryan played a pivotal role in supporting rural Kenyan communities in constructing life-saving footbridges over hazardous rivers. His dedication to humanitarian causes is further evidenced by his participation in fundraisers, including his initiative in organizing events to support Bridging the Gap Africa.

**AECOM**



**Frank Hui**, P.Eng.  
Project Manager/Bridge Inspector  
AECOM

**FRANK HUI**

Frank is a seasoned project manager and engineer within the bridge group at AECOM's transportation business line. He brings extensive expertise to the forefront of his endeavors. Frank adeptly fulfills his role as a project manager while providing invaluable support in bridge maintenance inspections and construction services.

His multifaceted experience encompasses various projects, including bridge condition inspection programs in Alberta and Saskatchewan, monitoring LRT track and bridge construction, and developing bridge fabrication manuals and courses. Frank has also led precast concrete girder fabrication projects and contributed to bridge construction and rehabilitation endeavors.

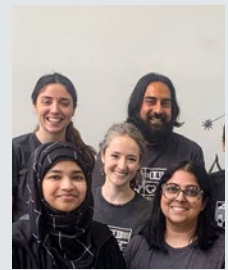
Currently pursuing his MBA through the University of Alberta, Frank embodies a commitment to continual growth and professional development.

Frank has been the chair of the Young Professionals group for the AECOM Edmonton office since 2017, which strives to provide learning and networking opportunities for younger professionals pursuing their careers.

**WINNER →**

**HAROLD L. MORRISON AWARD**

CAITLYN OSZ-THERIAULT



**HATCH**



**Johanna Kolleywn, P.Eng.**  
Deputy Integration Manager  
Hatch

#### **JOHANNA KOLLEWYN**

Johanna holds a Bachelor of Engineering in aerospace engineering from Carleton University. Concurrently, she is pursuing a Master of Science degree in mechanical engineering at the University of Alberta while maintaining a full-time position with Hatch.

She is a member of the Institute of Electrical and Electronics Engineers (IEEE), regularly immersing herself in industry newsletters and attending whitepaper lectures to remain abreast of emerging technologies.

Johanna exhibits exceptional interpersonal skills and a willingness to assist colleagues. She recently assumed a mentoring role for junior integration team members. In this role, she provides guidance and support, facilitating seamless onboarding processes and fostering a cohesive work environment.

Driven by her passion for space exploration, Johanna participated in the 2019 Canadian Lunar Analogue Experience in London, Ontario, serving as a Data Manager for a simulated moon mission. In this role, she meticulously managed data reception, ensured data integrity, and liaised with science instrument teams, demonstrating her commitment to excellence in every endeavour.

 **Stantec**



**Caitlyn Osz-Theriault, P.Eng., CSM**  
Low Carbon Solutions Specialist  
Stantec Consulting Ltd.

#### **CAITLYN OSZ-THERIAULT**

A dedicated member of the Low Carbon Solutions Group at Stantec, Caitlyn showcases acute expertise in advancing lower emissions solutions within her field. With notable involvement in the greenhouse gas abatement program, she assumes a significant role demonstrating her capability and profound determination.

Embracing continuous growth, she obtained Scrum Master Accreditation, facilitating the management of projects utilizing an Agile framework, known for its effectiveness in complex project development. Caitlyn's contributions extend to Alberta's renewables market, where she spearheads fundamental initiatives such as the exploration of wind regimes in mountainous regions, as evidenced by her keen leadership through projects.

Recognized both by clients and internally, Caitlyn dedicates herself to volunteer work with Stantec's Employee Resource Groups including Women @ Stantec and the Developing Professionals Group (DPG). As the DPG Canada lead, she advocates for the development of professionals and their leaders, fostering impactful contributions across chapters and regions nationwide.

 **Klohn Crippen Berger**



**Scott Riege, P.Eng.**  
Civil Engineer  
Klohn Crippen Berger Ltd.

#### **SCOTT RIEGE**

Scott has made significant contributions to various mining and tailings dam projects, showcasing a remarkable work ethic and a proactive approach to tackling challenges. His versatility and eagerness to learn have propelled him to a vital role as Project Coordinator, where he plays a key role in the design and construction of complex tailings facilities across Canada and internationally, including projects in Sweden.

Recognized for his attention to detail and collaborative spirit, Scott is valued as a "second-in-command," ensuring projects are executed efficiently and within budget. Beyond his professional endeavors, he actively volunteers with the Calgary Geotechnical Society, contributing to networking opportunities and technical knowledge sharing within the local geotechnical community.

As a Co-Chair of the Young Professionals at Klohn Crippen Berger, Scott demonstrates exemplary leadership by organizing volunteering events and fostering professional development opportunities for his colleagues. His dedication to both professional excellence and community engagement serves as a guiding light for his peers and within his community.



2024  
SHOWCASE  
- AWARDS -

AWARD OF  
EXCELLENCE  
—  
BUILDING ENGINEERING  
COMMERCIAL



## RICOCHET OIL CORP AQUATIC CENTRE

### AWARD OF EXCELLENCE

Building Engineering – Commercial

**FIRM:** WSP

**CLIENT/OWNER:** TOWN OF DRAYTON VALLEY

**LOCATION:** DRAYTON VALLEY, ALBERTA

**SUB CONSULTANTS:** GROUP2 ARCHITECTURE  
INTERIOR DESIGN LTD., RJC ENGINEERS, ARROW, A  
DIVISION OF ENGLOBE, STANTEC CONSULTING LTD.

**CONTRACTORS:** CHANDOS CONSTRUCTION,  
ALTAPRO ELECTRIC LTD., PRIORITY MECHANICAL,  
MASTER POOLS ALTA LTD., XMG COMMERCIAL FLOOR  
COVERINGS, SPARTAN STEEL LTD.

**OTHER KEY PLAYERS:** BRAZEAU COUNTY

The Ricochet Oil Corp Aquatic Centre is designed with eight swim lanes, leisure pool, steam room, hot tub, waterslide and multi-purpose rooms. The following IPD team met regularly in a co-located “Big Room” throughout the project: Town of Drayton Valley, Brazeau County, Group2, WSP Electrical and Civil, Chandos, AltaPro Electric, RJC, Arrow, Stantec, Spartan Steel, Priority Mechanical, Master Pools and XMG Flooring. The project’s sustainability and net zero efforts included 300 kW of solar on the roof. Our team successfully secured ICIP and MCCAC funding for the Aquatic Centre by meeting specific energy reduction and sustainability targets.

### JUDGES’ COMMENTS

An excellent example of a successful project with many team members who worked together to evaluate risks, solve issues and mitigate environmental factors.

2024  
SHOWCASE  
- AWARDS -

AWARD OF  
EXCELLENCE  
—  
BUILDING ENGINEERING  
INSTITUTIONAL



## UNIVERSITY OF CALGARY HASKAYNE SCHOOL OF BUSINESS MATHISON HALL EXPANSION

### AWARD OF EXCELLENCE

Building Engineering – Institutional

**FIRM:** SMITH + ANDERSEN

**CLIENT/OWNER:** UNIVERSITY OF CALGARY

**LOCATION:** CALGARY, ALBERTA

**SUB CONSULTANTS:** DUKE EVANS INC.,  
ENTUITIVE CORPORATION, SMP ENGINEERING,  
O2 PLANNING + DESIGN INC., FOOTPRINT,  
ELLISDON CONSTRUCTION SERVICES INC.,  
BOTTING & ASSOCIATES, ISL ENGINEERING  
AND LAND SERVICES LTD.

**OTHER KEY PLAYERS:**

DIAMOND SCHMITT ARCHITECTS,  
GGA-ARCHITECTURE

Mathison Hall is a space dedicated to entrepreneurial thinking and experiential learning experiences – part of a \$90 million project at the University of Calgary's main campus to transform the delivery of business education. As the mechanical engineers on the project, Smith + Andersen implemented high-efficiency mechanical solutions and upgrades that achieved a total 54 per cent energy cost reduction against a reference model based on ASHRAE 90.1-2010, as well as a net-zero energy increase across both the new Mathison Hall and existing Scurfield Hall. The systems were skillfully integrated to support the University's aspirations for a bold and innovative campus landmark.

### JUDGES' COMMENTS

A fine example of a team working to improve the energy efficiency of an existing structure.



2024  
SHOWCASE  
- AWARDS -

AWARD OF  
EXCELLENCE

—  
COMMUNITY  
DEVELOPMENT

## DOWNTOWN FLOOD BARRIER AND PUBLIC REALM IMPROVEMENTS, EAU CLAIRE PLAZA TO RIVERWALK

### AWARD OF EXCELLENCE

Community Development

**FIRM:** KLOHN CRIPPEN BERGER LTD.

**CLIENT/OWNER:** CITY OF CALGARY

**LOCATION:** CALGARY, ALBERTA

**SUB CONSULTANTS:** O2 PLANNING + DESIGN,  
BISON HISTORICAL SERVICES LTD., SMP ENGINEERING,  
ION IRRIGATION MANAGEMENT INC., ISL ENGINEERING  
AND LAND SERVICES LTD.

**CONTRACTORS:** GRAHAM INFRASTRUCTURE LP,  
WILCO CONTRACTORS SOUTHWEST INC.,  
DOUBLE STAR DRILLING, R.W GALLANT EQUIPMENT LTD.,  
DOBBIN ELECTRICAL SERVICES, LANDFORM INC.,  
GREENSCAPE IRRIGATION



As a result of the June 2013 event, a flood barrier was constructed from Eau Claire Plaza to Reconciliation Bridge, protecting downtown Calgary during a once-in-200-years weather event. In concert with Calgary's plans to revitalize the public realm of the downtown core, this critical infrastructure was seamlessly integrated with new public spaces and pathways to improve the south bank of the Bow River for Calgarians. Kohn Crippen Berger Ltd. was retained to provide engineering, geoscience and environmental services. Construction was completed by October 2023. The flood barrier will avert flood damages of up to \$200 million throughout its life-cycle.

### JUDGES' COMMENTS

A unique project that combines engineering excellence with community and public benefits.

## 2024 SHOWCASE - AWARDS -

### AWARD OF EXCELLENCE

COMMUNITY OUTREACH  
AND IN-HOUSE  
INITIATIVES

# INCLUSION & DIVERSITY: A CULTURE OF BELONGING WHERE EVERYONE CAN THRIVE

#### AWARD OF EXCELLENCE

Community Outreach and In-House Initiatives

**FIRM:** GHD LIMITED

**CLIENT/OWNER:** GHD LIMITED

**LOCATION:** ALBERTA

Inclusion and diversity are at the heart of our business and core to our values of safety, teamwork, respect and integrity. These values define us and allow us to create lasting value internally for our people and externally for the communities and clients we serve. Indicative of our commitment, GHD has created Employee Resource Groups (ERGs) to foster a community of belonging that enables its members and allies to grow. GHD is also committed to providing our employees opportunities to contribute to the communities in which we work and live, such as supporting Habitat for Humanity and United Way.



#### JUDGES' COMMENTS

Inclusion and diversity are one of the most difficult initiatives to successfully implement and will have a knock-on benefit to society as it continues to expand the perspective of senior leaders. GHD's current implementation and commitment is setting a standard worth celebrating and replicating in other organizations.



2024  
SHOWCASE  
- AWARDS -

AWARD OF  
EXCELLENCE  
—  
ENVIRONMENTAL



## CLAYSTONE LANDFILL GAS QUANTIFICATION PROGRAM

### AWARD OF EXCELLENCE

Environmental

**FIRM:** GHD LIMITED

**CLIENT/OWNER:** CLAYSTONE WASTE LTD.

**LOCATION:** RYLEY, ALBERTA

The Claystone Landfill Gas (LFG) Quantification Program is a detailed surface emissions direct-measurement quantification program implemented at the Claystone Regional Landfill. The program was developed to demonstrate that the Scholl Canyon Model does not accurately represent actual LFG emissions, due to unique site conditions after the site became regulated under the Technology Innovation and Emissions Reductions Regulation (TIER). GHD was challenged with developing a program that demonstrates direct quantification of LFG emissions without the presence of a LFG collection system. This program has been successfully managed on an annual basis for over 3 years by GHD.

### JUDGES' COMMENTS

By advancing the state of the art in accurately measuring Green House Gas emissions, this project has enabled the deregulation of a large landfill. The results of this project will likely enable other landfills to meet emissions limitations around the province and beyond.

# 2024 SHOWCASE - AWARDS -

## AWARD OF EXCELLENCE

### NATURAL RESOURCE PRODUCTION



## TRAVERS SOLAR

### AWARD OF EXCELLENCE

Natural Resource Production

**FIRM:** STANTEC CONSULTING LTD.

**CLIENT/OWNER:** PCL CONSTRUCTION,  
AXIUM INFRASTRUCTURE

**LOCATION:** VULCAN COUNTY, ALBERTA

**SUB CONSULTANTS:** CIMA CANADA INC.  
(CIMA+), TULLOCH ENGINEERING

**CONTRACTORS:** PCL CONSTRUCTION

Travers Solar puts the Village of Lomond on the map as home to Canada's largest solar project. PCL brought in our Stantec team to provide civil and electrical engineering services for the solar array, along with CIMA + for substation design, and Tulloch Engineering for pile design. We worked diligently to complete the electrical, civil and storm water management design, creating a balanced site with care and precision. Owned by one of Axiom Infrastructure managed funds with Axiom acting as an asset manager, Travers generates enough electricity to power 163,568 homes and offset 323,835 tons of carbon emissions annually.

### JUDGES' COMMENTS

A fairly unique project delivered during some very challenging times in a relatively remote location. Amazing project — hopefully there will be many more to come in the future!



2024  
SHOWCASE  
- AWARDS -

AWARD OF  
EXCELLENCE  
—  
PROJECT MANAGEMENT  
—  
WATER RESOURCES

## BONNYBROOK WASTEWATER TREATMENT PLANT: PLANT D EXPANSION

**AWARD OF EXCELLENCE**  
Project Management

**AWARD OF EXCELLENCE**  
Water Resources

**FIRM:** STANTEC CONSULTING LTD.

**CLIENT/OWNER:** CITY OF CALGARY

**LOCATION:** CALGARY, ALBERTA

**SUB CONSULTANTS:** JACOBS, AECOM

**CONTRACTORS:** GRAHAM CONSTRUCTION  
& ENGINEERING



The City of Calgary's Bonnybrook Wastewater Treatment Plant is the world's largest cold-weather BNR facility, treating wastewater for 1.2 million people and discharging it into the Bow River. Since its original construction, population growth and stringent treatment limits have driven numerous plant expansions. Over the last few years, Stantec led the Plant D Expansion, ultimately increasing the facility's capacity by 135 ML/d through the construction and upgrade of two primary clarifiers, two bioreactors, four secondary clarifiers, six digester units, the ultraviolet disinfection system, biogas storage and flaring facilities, a flood protection berm and a new effluent diffuser outfall.

### JUDGES' COMMENTS

Having a direct impact on over 30 per cent of Alberta's population, the scope, size and complexity of this project demanded an exceedingly high level of risk management and consultation, as well as technical excellence and innovation. The sheer number of multi-disciplinary challenges and constraints, and the manner in which they were overcome, makes this project a strong contender for CEA's Award of Excellence.

2024  
SHOWCASE  
- AWARDS -

AWARD OF  
EXCELLENCE

SMALL FIRM  
BIG IMPACT



## LESLIEVILLE WASTEWATER MAGNA BIOFILTER WETLAND SYSTEM (MBWS)

### AWARD OF EXCELLENCE

Small Firm – Big Impact

**FIRM:** MAGNA ENGINEERING SERVICES INC.

**CLIENT/OWNER:** CLEARWATER COUNTY

**LOCATION:** LESLIEVILLE, ALBERTA

**SUB CONSULTANTS:** MAGNA ENGINEERING SERVICES INC., CLEANTECH CONTROLS INC., KING ENGINEERING & CONSULTING INC., PRAIRIEGEO ENGINEERING LTD.

**SUB CONSULTANTS:** EVEREST CONSTRUCTION MANAGEMENT LTD.

MAGNA Engineering, in collaboration with Cleantech Controls Inc., King Engineering & Consulting, PrairieGeo Engineering and Everest Construction Management completed the Leslieville MAGNA Biofilter Wetland System (MBWS) project on behalf of Clearwater County.

The MBWS is a trail-blazing wastewater wetland treatment system that allows for cost-effective treatment of wastewater using simplified operational practices. This approach not only meets the community's growth needs, but rises to more rigorous effluent targets, all while simplifying infrastructure to minimize complex operational routines. The MBWS is a showcase of cold climate application for wetland treatment systems and is a beacon of innovation in the wastewater management industry.

### JUDGES' COMMENTS

An innovative and progressive project that may change the landscape for managing wastewater.



## 2024 SHOWCASE - AWARDS -

AWARD OF  
EXCELLENCE  
—  
STUDIES, SOFTWARE AND  
SPECIAL SERVICES



# CLOSING THE INFRASTRUCTURE GAP FOR FIRST NATIONS

## AWARD OF EXCELLENCE

Studies, Software and Special Services

**FIRM:** ASSOCIATED ENGINEERING

**CLIENT/OWNER:** ASSEMBLY OF FIRST NATIONS

**LOCATION:** NATIONAL PROJECT

**OTHER KEY PLAYERS:** INDIGENOUS SERVICES CANADA, FIRST NATIONS ENGINEERING SERVICES, BTY GROUP, PLANETWORKS CONSULTING CORPORATION, YALLEEDESIGNS, OVER 400 FIRST NATIONS

The Assembly of First Nations and Indigenous Services Canada needed to understand the actions and investments required to close the infrastructure gap for First Nations across Canada by 2030.

Associated Engineering documented, for the first time, the costs of maintaining, renewing, upgrading or expanding existing infrastructure while considering climate adaptation and energy management. Level of service improvements to accessibility, drinking water and all-season road access were examined. This study recognizes and emphasises the inequity and societal difficulties associated with substandard infrastructure, as well as the opportunities and benefits that may be realized by narrowing the infrastructure gap.

## JUDGES' COMMENTS

This project is enormous, ambitious and highly difficult – technically, socially, politically and economically. However, this audit is absolutely integral to understand the infrastructure deficits within First Nation, Métis and Inuit communities. Kudos to Associated for creating the interdisciplinary team, garnering the financial and political support, and navigating the maze of bureaucracies to complete this project!

2024  
SHOWCASE  
- AWARDS -

AWARD OF  
EXCELLENCE  
—  
SUSTAINABLE DESIGN



## NORTHWEST INNER CITY UPPER PLATEAU SEPARATION

### AWARD OF EXCELLENCE

Sustainable Design

**FIRM:** ASSOCIATED ENGINEERING

**CLIENT/OWNER:** CITY OF CALGARY

**LOCATION:** CALGARY, ALBERTA

**SUB CONSULTANTS:** THURBER ENGINEERING LTD.,  
DELVE UNDERGROUND

**CONTRACTORS:** WHISELL CONTRACTING LTD.,  
WARD & BURKE CONSTRUCTION LTD.

The Northwest Inner City Upper Plateau Sewer Separation Project is a multi-year project designed to alleviate flooding in the community of Sunnyside in Calgary. Associated Engineering proposed and designed the largest microtunnel in North America: a 765 m long, 3.4 m diameter microtunnelled inverted siphon, to intercept stormwater from the upslope communities, and divert it directly to the Bow River. Trenchless construction was preferred to minimize disturbance to the Sunnyside community and to traverse varying geology from the upper plateau to the Bow River. This passively operated solution has the benefit of saving both capital and operational costs.

### JUDGES' COMMENTS

This project pushed the envelope of design using the local expertise to deliver a sustainable infrastructure for the community.



2024  
SHOWCASE  
- AWARDS -

AWARD OF  
EXCELLENCE

—  
TRANSPORTATION  
INFRASTRUCTURE — ROADS,  
INTERCHANGES, AIRPORTS,  
MASS TRANSIT

## WEST CALGARY RING ROAD DB1

### AWARD OF EXCELLENCE

Transportation Infrastructure — Roads,  
Interchanges, Airports, Mass Transit

**FIRM:** AECOM

**CLIENT/OWNER:** ALBERTA TRANSPORTATION  
AND ECONOMIC CORRIDORS

**LOCATION:** CALGARY, ALBERTA

**SUB CONSULTANTS:** ISL ENGINEERING AND  
LAND SERVICES LTD., SPENCER ENVIRONMENTAL  
MANAGEMENT SERVICES LTD., GREAT NORTHERN  
ENGINEERING CONSULTANTS INC.

**CONTRACTORS:** ELLISDON CONSTRUCTION  
SERVICES INC.



Opened in July 2023, the West Calgary Ring Road DB1 is a critical interchange and part of the connection of the Ring Road from the Bow River to Old Banff Coach Road, including significant upgrades along the Trans-Canada Highway. The constraints and challenges of this complex project required many innovative, unique and creative solutions. A constructable and economical design is a result of technical excellence. The identification of risk and mitigations ensured the advancement of the work and the achievement of the project milestones. Procured by EllisDon, AECOM was lead designer, supported by ISL Engineering, Spencer Environmental and GNEC.

### JUDGES' COMMENTS

Excellent examples of risk management, engineering innovations with resultant design improvements and cost savings.

2024  
SHOWCASE  
- AWARDS -

AWARD OF  
EXCELLENCE

—  
TRANSPORTATION  
INFRASTRUCTURE  
TRANSPORTATION  
STRUCTURES



## ATHABASCA RIVER BRIDGE ON HWY 813: BRIDGE REPLACEMENT ON ACTIVE LANDSLIDE

### AWARD OF EXCELLENCE

Transportation Infrastructure –  
Transportation Structures

**FIRM:** COWI NORTH AMERICA LTD.

**CLIENT/OWNER:** ALBERTA TRANSPORTATION  
AND ECONOMIC CORRIDORS

**LOCATION:** ATHABASCA, ALBERTA

**SUB CONSULTANTS:** TETRA TECH CANADA INC.

The Athabasca River Bridge on Hwy 813: Bridge Replacement on Active Landslide project includes the design and construction of a new bridge to replace an aging structure in Athabasca, Alberta. Replacing a bridge over an active landslide requires innovative solutions. Collaboration between COWI, Tetra Tech and TEC resulted in a resilient and cost-effective design approach. The design harnesses the bridge's natural flexibility by accommodating ground movement through a combination of geotechnical and structural measures, including flexible abutments and modular components. This project will provide a potential alternative approach for future designs in similar landslide locations, reducing costs and enhancing infrastructure resilience.

### JUDGES' COMMENTS

Outstanding innovative solutions for a bridge structure in an unstable geotechnical environment. The degree of difficulty of working away from major centres, and in a known constant landslide condition, makes this project come out on top.



2024  
SHOWCASE  
- AWARDS -  
AWARD OF  
MERIT  
—  
BUILDING  
ENGINEERING  
COMMERCIAL



## GLENORA PARK ASSISTED LIVING AND RESPITE CARE FACILITY

### AWARD OF MERIT

Building Engineering – Commercial

**FIRM:** ENGLOBE CORP.

**CLIENT/OWNER:** ONE PROPERTIES, REVONE WESTMOUNT LP

**LOCATION:** EDMONTON, ALBERTA

**CONTRACTORS:** CLARK BUILDERS, MCL POWER INC.,  
JETCO MECHANICAL LTD.

**OTHER KEY PLAYERS:** DIALOG

Responding to the increased demand for seniors supportive living in downtown Edmonton, Glenora Park is a complete community under one roof, offering everything needed to age-in-place gracefully with dignity.

Englobe was honoured to provide advanced mechanical and electrical engineering for the Glenora Park retirement residence. Combining custom engineered features with a low-impact design, the team delivered a state-of-the-art LEED certified facility meeting all stakeholder needs.

The beautiful, assisted living and respite care facility was built to modern standards with modern technology and functions today as a vibrant part of the community and point of pride for all residents.

2024  
SHOWCASE  
- AWARDS -  
AWARD OF  
MERIT  
—  
BUILDING  
ENGINEERING  
INSTITUTIONAL



## WINDERMERE FIRE STATION 31

### AWARD OF MERIT

Building Engineering – Institutional

**FIRM:** SMP ENGINEERING

**CLIENT/OWNER:** CITY OF EDMONTON

**LOCATION:** EDMONTON, ALBERTA

**SUB CONSULTANTS:** SMITH + ANDERSEN, RJC ENGINEERS

**CONTRACTORS:** PCL CONSTRUCTION

**OTHER KEY PLAYERS:** S2 ARCHITECTURE, GH3\*,  
URBAN SYSTEMS LTD., COMPLETE POWER SOLUTIONS

Windermere Fire Station 31 began as a pilot project with the City of Edmonton, with the goal of being the first net zero facility for the City. To meet net zero parameters, the electrical design for the 16,300 sq.ft. building included energy efficient systems such as radiant heating and cooling systems, LED lighting and controls, photovoltaics (PV), mechanical systems, generator and firefighter dispatch alert. 382 solar panels were incorporated onto the roof, allowing the PV system to offset the buildings carbon emissions. Construction commenced in 2021, and the grand opening of the \$21.5 million fire hall took place in August 2023.

2024  
SHOWCASE  
- AWARDS -  
AWARD  
OF MERIT  
—  
COMMUNITY  
DEVELOPMENT  
—  
SMALL FIRM  
BIG IMPACT



## EDMONTON COMMUNITY HEALTH HUB NORTH

### AWARD OF MERIT

Community Development

### AWARD OF MERIT

Small Firm – Big Impact

**FIRM:** ENGLOBE CORP (FORMERLY ARROW)

**CLIENT/OWNER:** JADECOR DEVELOPMENTS LTD.

**LOCATION:** EDMONTON, ALBERTA

**CONTRACTORS:** TERRITORIAL ELECTRIC, MODERN NIAGARA

**OTHER KEY PLAYERS:** START ARCHITECTURE INC.

An outdated Canadian Tire outlet was transformed into the Community Health Hub North: an accessible, safe and sustainable team-based healthcare centre. Anchored by a family physician and diverse health disciplines, the Hub delivers culturally attuned services to meet the complex needs of Edmonton's Belvedere community.

Englobe provided the advanced mechanical, electrical and structural engineering for the new facility. By championing innovative solutions and proactive project management, they helped the client realize their vision for a comprehensive facility that goes beyond traditional healthcare.

Supporting wellness in the community, the Hub provides essential lifechanging and lifesaving care to those who need it most.

### JUDGES' COMMENTS

The combination of having to work with a very diverse ownership/stakeholder group, mixed with the high complexity of retrofitting an old commercial space into an advanced healthcare space is extremely impressive. Add in the benefit to society that comes with the desperate need for more of these kinds of facilities pushed this project to the top.

2024  
SHOWCASE  
- AWARDS -  
AWARD  
OF MERIT  
—  
COMMUNITY OUTREACH  
AND IN-HOUSE  
INITIATIVES



## GHD IN THE COMMUNITY: OCEAN WISE SHORELINE CLEANUP

### AWARD OF MERIT

Community Outreach and In-House Initiatives

**FIRM:** GHD LIMITED

**CLIENT/OWNER:** GHD LIMITED

**LOCATION:** ALBERTA

Ocean Wise is a global conservation organization on a mission to build communities that take meaningful action to protect and restore our oceans. Staff from GHD offices across Canada came together to coordinate efforts from the East Coast through to the West Coast in support of Ocean Wise. During the month of May 2023, GHD staff collected approximately 766 lbs of waste along almost 15km of community parks and water shorelines.



2024  
SHOWCASE  
- AWARDS -  
AWARD OF  
MERIT  
—  
ENVIRONMENTAL



## CENTRE STREET GRAVEL BAR RESHAPING AND FISH HABITAT RESTORATION PROJECT

### AWARD OF MERIT

Environmental

**FIRM:** WSP

**CLIENT/OWNER:** CITY OF CALGARY

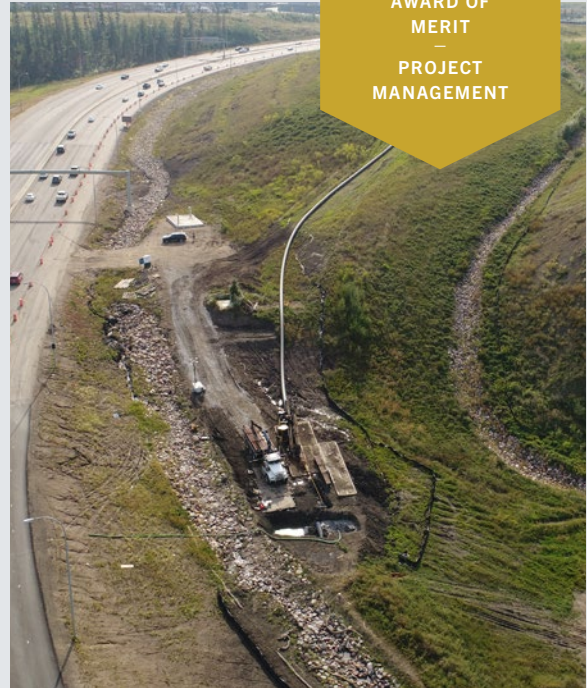
**LOCATION:** CALGARY, ALBERTA

**SUB CONSULTANTS:** TANNAS CONSERVATION SERVICES LTD.,  
DR. GREG COURTICE

**CONTRACTORS:** PRIESTLY DEMOLITION INC., DAKOTA  
RECLAMATORS LTD.

A gravel bar occupying one-third the width of the Bow River downstream of the Centre Street Bridge in Calgary was increasing upstream water levels. The City of Calgary, WSP and their subconsultants, Tannas Conservation Services and Greg Courtice, collaborated to provide engineering design, regulatory support and construction management services for the removal of gravel bar materials and reshaping to create a fish habitat. Novel turbidity monitoring methods were incorporated into the construction plan, allowing in-stream work to be completed without isolation measures, while maintaining compliance with suspended sediment limits. Hydrocarbon contamination and historical artifacts encountered during excavation presented additional challenges.

2024  
SHOWCASE  
- AWARDS -  
AWARD OF  
MERIT  
—  
PROJECT  
MANAGEMENT



## CONFEDERATION WAY SANITARY SEWER BYPASS

### AWARD OF MERIT

Project Management

**FIRM:** ASSOCIATED ENGINEERING

**CLIENT/OWNER:** REGIONAL MUNICIPALITY OF WOOD BUFFALO

**LOCATION:** FORT MCMURRAY, ALBERTA

**SUB CONSULTANTS:** THURBER ENGINEERING LTD.

**CONTRACTORS:** OCL GROUP, BIRD CONSTRUCTION, SUREWAY  
CONSTRUCTION GROUP

The Confederation Way Sanitary Sewer Phase 2 project provides a robust sanitary sewer trunk for the Timberlea Neighborhood in Fort McMurray. This project traversed unstable slopes, crossed several pipelines, shallow utilities, two interchanges and passed through the built-up neighbourhood of Timberlea and a busy WWTP. Using trenchless technology, horizontal directional drilling, microtunnelling, and pilot tube auger boring minimized impact on the environment, and the public.

The Confederation Way Sanitary Sewer Phase 2 project demonstrates the benefits of integrated project delivery with proactive and open stakeholder engagement to implement infrastructure that benefits the community.

2024  
SHOWCASE  
- AWARDS -

AWARD OF  
MERIT

—  
STUDIES, SOFTWARE  
AND SPECIAL SERVICES



## GEOHAZARD CHANGE DETECTION RESEARCH PROJECT

### AWARD OF MERIT

Studies, Software and Special Services

**FIRM:** KLOHN CRIPPEN BERGER LTD.

**CLIENT/OWNER:** ALBERTA TRANSPORTATION AND  
ECONOMIC CORRIDORS

**LOCATION:** ALBERTA

Alberta's sustainable economic growth requires continued safe and reliable economic corridors. Transportation and Economic Corridors (TEC) manages hundreds of active geohazard sites that impact the province's highways. Many geohazards, which include unstable soil slopes and embankments, rock falls, subgrades and retaining walls, extend beyond the highway right-of-way onto private or crown land in natural terrain, frequently in remote or inaccessible areas. Traditional monitoring techniques can be financially onerous with negative impacts on the environment and employee safety.

Klohn Crippen Berger and the University of Alberta have partnered to establish a research program aimed at enhancing TEC's geohazard management strategy. The research focuses on evaluation of geohazard monitoring techniques, enhancement of risk management practices, reduction of environmental footprint, and reduction of impacts outside the highway right-of-way.

### JUDGES' COMMENTS

This project hit all the marks for the category. A focus on safety and risk management not only for the customer, but also for those doing the monitoring. Cost savings into the future and larger scale monitoring are direct benefits of the innovative methodologies used.

2024  
SHOWCASE  
- AWARDS -

AWARD OF  
MERIT

—  
SUSTAINABLE DESIGN



## TENT MOUNTAIN RENEWABLE ENERGY COMPLEX

### AWARD OF MERIT

Sustainable Design

**FIRM:** GHD LIMITED

**CLIENT/OWNER:** EVOLVE POWER

**LOCATION:** CROWSNEST PASS, ALBERTA

The Tent Mountain Renewable Energy Complex (TM-REX) Project is the proposed redevelopment of a disturbed legacy metallurgical coal mine site near Crowsnest Pass, Alberta. This transformational, integrated project is a first-of-its-kind globally. The challenge for Evolve was to find a way to deliver a sustainable and socially accepted project with strong economic value that could attract investment and utilize the unique features of the site and location. The resulting project includes a pumped hydro energy storage facility (PHES), a green hydrogen production electrolyzer and a wind farm off-site (to be owned by the Piikani First Nation).

### JUDGES' COMMENTS

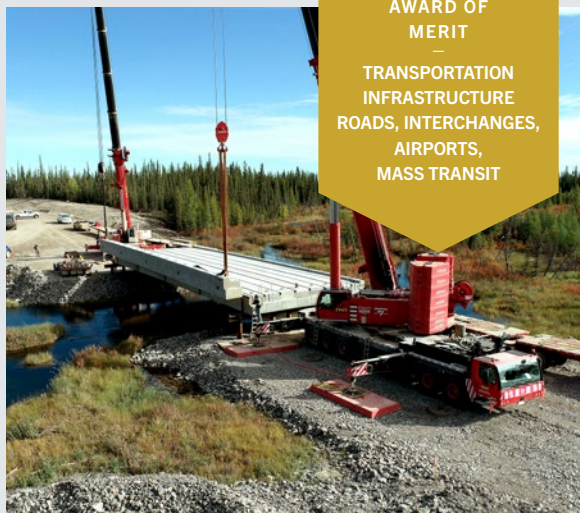
Taking a former mine site and turning it into a renewable energy complex is a unique accomplishment. The various technologies and methods for generation, storage and production of energy all come together in an on-site symbiosis, with spin off benefits for nearby Indigenous residents and industry. Definitely a model to revisit at future locations.



2024  
SHOWCASE  
- AWARDS -

AWARD OF  
MERIT

TRANSPORTATION  
INFRASTRUCTURE  
ROADS, INTERCHANGES,  
AIRPORTS,  
MASS TRANSIT



## TŁIČHQ ALL-SEASON ROAD

### AWARD OF MERIT

Transportation Infrastructure – Roads, Interchanges, Airports, Mass Transit

**FIRM:** HATCH

**CLIENT/OWNER:** PETER KIEWIT AND SONS ULC, GOVERNMENT OF THE NORTHWEST TERRITORIES

**LOCATION:** NEAR YELLOWKNIFE, NORTHWEST TERRITORIES

**SUB CONSULTANTS:** THURBER ENGINEERING LTD.

**CONTRACTORS:** PETER KIEWIT SONS ULC

The Tłı́chq All-Season Road is a new 97 km-long roadway connecting the Town of Whatı́ to Highway 3, west of Yellowknife. Hatch, supported by subconsultant Thurber Engineering, provided design services to Kiewit, the design-builder on this P3 project. The roadway features four bridges, over 200 culverts and three bridge culverts. The roadway and geotechnical designs focused on reduction of settlement due to melting permafrost and muskeg soils. Watercourse structures were sized to accommodate increases in flow due to climate change and forest fires. The project delivers significant benefits to the Tłı́chq Settlement Area, reducing travel time and providing employment opportunities.

### JUDGES' COMMENTS

The degree of commitment to environmental considerations and climate variability made this project stand out in terms of difficulty, innovation and value.

2024  
SHOWCASE  
- AWARDS -

AWARD OF  
MERIT

TRANSPORTATION  
INFRASTRUCTURE  
TRANSPORTATION  
STRUCTURES



## TWINNING OF STONEY TRAIL OVER THE BOW RIVER IN NW CALGARY

### AWARD OF MERIT

Transportation Infrastructure – Transportation Structures

**FIRM:** STANTEC CONSULTING LTD.

**CLIENT/OWNER:** ALBERTA TRANSPORTATION AND ECONOMIC CORRIDORS

**LOCATION:** CALGARY, ALBERTA

**SUB CONSULTANTS:** THURBER ENGINEERING LTD.

**CONTRACTORS:** FLATIRON-AECON JOINT VENTURE

As part of the Calgary Ring Road, completion of the northwest section required twinning the first Stoney Trail bridge over the Bow River. This project involved road and bridge components and the construction of a new five-span river crossing, a 470m-long bridge over the Bow River, directly west of the existing Stoney Trail bridge. The new bridge was segmentally cast-in-place using a balanced cantilever method – a rare method of bridge construction that only allowed for a small working area for construction. Since starting in 2019, construction proceeded through the pandemic to a successful opening to traffic in 2023.

### JUDGES' COMMENTS

The Twinning of Stoney Trail over the Bow River included a high degree of complexity in delivering these structures, while being environmentally responsible and providing vast reduction to commuting times.



## COLD LAKE FISH HATCHERY UPGRADES

### AWARD OF MERIT

Water Resources

**FIRM:** STANTEC CONSULTING LTD.

**CLIENT/OWNER:** ALBERTA INFRASTRUCTURE

**LOCATION:** COLD LAKE, ALBERTA

**SUB CONSULTANTS:** INNOVASEA SYSTEMS INC.

**CONTRACTORS:** SURE-FORM CONTRACTING LTD.

**OTHER KEY PLAYERS:** LCR MECHANICAL CONTRACTORS CORPORATION, ELECTRIC SERVICES GRAND CENTRE LTD.

Owned by the Province of Alberta, the Cold Lake Fish Hatchery produces approximately 65,000 kg of fish annually to support stocking programs in provincial lakes. The facility did not recirculate water and had a substantial energy demand for heating and operation that totaled \$1 million per year.

In 2020, Stantec was hired to upgrade the hatchery by implementing a Recirculating Aquaculture System (RAS) and other functional improvements. Completed in November 2023, the project caused a dramatic decrease in environmental waste and energy consumption, saving taxpayers \$870,000 per year while Fisheries contribute over \$160 million per year to Alberta's economy.

## 2024 SHOWCASE AWARDS JUDGES

**Adam Laughlin**, P.Eng.

*Deputy City Manager, Integrated Infrastructure Services, City of Edmonton (formerly)*

**Andre Corbould**, P.Eng.

*City Manager, City of Edmonton*

**Andrew Sharman**, M.Sc., CMILT

*Vice President, Facilities & Operations, University of Alberta*

**Bill Hinsley**, AECPM

*Senior Instructor, PSMJ Resources, Inc.*

**Bill Rosehart**, P.Eng., PhD.

*Professor and Dean, Schulich School of Engineering, University of Calgary*

**Bruce Cullen**, B.Sc.

*Director, Collaboration Analytics & Innovation, City of Calgary*

**Cathy Maniego**, P.Eng.

*Assistant Deputy Minister, Strategic Integration and Operations, Alberta Infrastructure*

**Craig Walbaum**, M.Sc., P.Eng.

*Branch Manager, Infrastructure Delivery, City of Edmonton*

**Garry Johnston**, P.Eng.

*Manager, Project Construction and Engineering, Strathcona County*

**Kyle van Steenoven**, P.Eng.

*Manager, Capital Projects and Development, City of Leduc*

**Lianne Lefsrud**, P.Eng., PhD.

*Associate Professor and Director Outreach, Chemical and Materials Engineering, University of Alberta*

**Lisa Doig**, P.Eng, FEC, MBA

*Past President (APEGA) / Managing Director (O'Doig Consulting Services Inc.)*

**Lisa White**, PhD., P.Eng., FEC

*Industrial Professor, Faculty of Engineering, University of Alberta*

**Michael Thompson**, P.Eng., MBA

*General Manager, Infrastructure Services, City of Calgary*

**Mike Koziol**, P.Eng., M.Eng.

*Koziol Consulting Ltd.*

**Paul Breeze**, FACI, FCPCI

*CEA Past President, Retired*

**Paul Wynnyk**, MBA, B.Eng., P.Eng., FCAE

*Deputy Minister, Executive Council – Intergovernmental Relations, Executive Branch*

**Ranjit Tharmalingam**, P.Eng.

*Assistant Deputy Minister, Capital Planning, Grants and Engineering Services Division, Transportation and Economic Corridors*

**Tom Loo**, P.Eng.

*Assistant Deputy Minister, Construction and Maintenance Division, Alberta Transportation and Economic Corridors*



# CEA CODE OF ETHICS

CEA member firms impose upon themselves a very strict Code of Ethics requiring disciplined fulfilment of their duties with honesty, justice and courtesy toward society, clients, other members of CEA and employees.

Ongoing regulation by peers ensures quality management practices and the integrity of all CEA members.

CEA membership accreditation criteria are stringent. In addition to conforming with the standards of practice set by the Association of Professional Engineers and Geoscientists of Alberta (APEGA) and the requirement to hold an APEGA Permit to Practice, member firms must maintain permanent facilities with employees in Alberta; be managed by one or more professional engineers; have at least two years operating experience as a consulting engineering business; and employ an individual in Alberta who has at least five years experience in consulting engineering as a professional engineer.

Clients benefit directly by dealing with CEA member firms, professionals who are keenly interested in maintaining and promoting their own business association which, in turn, advocates the veracity and trust which can be expected from each of its members.

## SOCIETY

1. Members shall practise their profession with concern for the social and economic well-being of society.
2. Members shall conform with all laws, bylaws and regulations and with the APEGA Code of Ethics.
3. Members shall satisfy themselves that their designs and recommendations are safe and sound and, if their engineering judgment is overruled, shall report the possible consequences to clients, owners and, if necessary, the appropriate public authorities.
4. Members expressing engineering opinions to the public shall do so in a complete, objective, truthful and accurate manner.
5. Members are encouraged to participate in civic affairs and work for the benefit of their community and should encourage their employees to do likewise.

## CLIENTS

6. Members shall discharge their professional and business responsibilities with integrity.
7. Members shall accept only those assignments for which they are competent or for which they associate with other competent experts.
8. Members shall immediately disclose any conflicts of interest to their clients.
9. Members shall respect the confidentiality of all information obtained for and from their clients but shall deal appropriately with any matters which may place the public in jeopardy.
10. Members shall obtain remuneration for their professional services solely through fees commensurate with the services rendered.
11. Members shall promote consulting engineering services in accordance with a qualifications-based selection system endorsed by CEA.

## OTHER MEMBERS

12. Members shall relate to other members of CEA with integrity and in a manner that will enhance the professional stature of consulting engineering.
13. Members engaged by a client to review the work of another member of CEA shall avoid statements which may maliciously impugn the reputation or business of that member.
14. Members shall respect the clientele of other members of CEA and shall not attempt to supplant them when definite steps, including negotiations for an engagement, have been taken towards their engagement.
15. Members, when requesting professional engineering services from other consulting engineering businesses, including members of CEA, shall promote the use of a qualifications based selection system endorsed by CEA.

## EMPLOYEES

16. Members shall treat their employees with integrity, provide for their proper compensation, require that they conform to high ethical standards in their work and fully understand this Code of Consulting Engineering Ethics.
17. Members shall not require or permit their employees to take responsibility for work for which they are not qualified.
18. Members shall encourage their employees to enhance their professional qualifications and development through appropriate continuing education.

# Expect More.

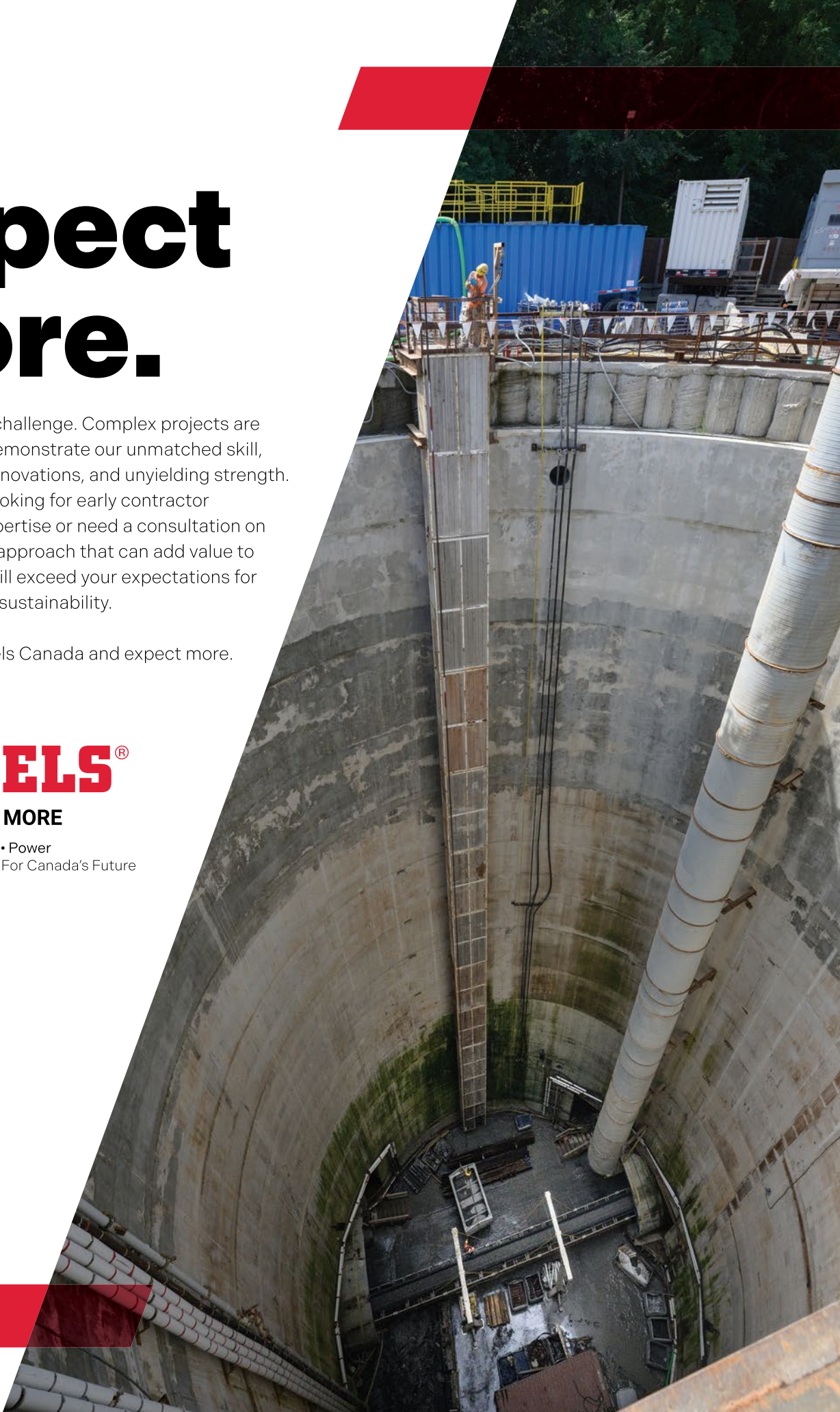
We are up for any challenge. Complex projects are opportunities to demonstrate our unmatched skill, outside-the-box innovations, and unyielding strength. Whether you are looking for early contractor constructibility expertise or need a consultation on the best methods approach that can add value to your designs, we will exceed your expectations for quality, safety and sustainability.

Partner with Michels Canada and expect more.



**WE DO THAT... & MORE**

Energy • Infrastructure • Power  
Construction Solutions For Canada's Future







# THE RIGHT TEAM FOR YOUR PROJECT

**Integrated Expertise. Locally Delivered.**

Our diverse group of professionals share an enthusiasm for community infrastructure. From planning and design to project delivery, we create nimble teams to tackle the unique requirements of every project.

This integrated service offering gives you the experts you need, when you need them.

CALGARY | CANMORE | EDMONTON |  
GRANDE PRAIRIE | LETHBRIDGE |  
BURNABY | EAST KOOTENAY | KAMLOOPS |  
LANGLEY | SQUAMISH | VANCOUVER ISLAND |  
WEST KOOTENAY | WHITEHORSE | SASKATOON

**islengineering.com**

