

Canadian

Design & Construction

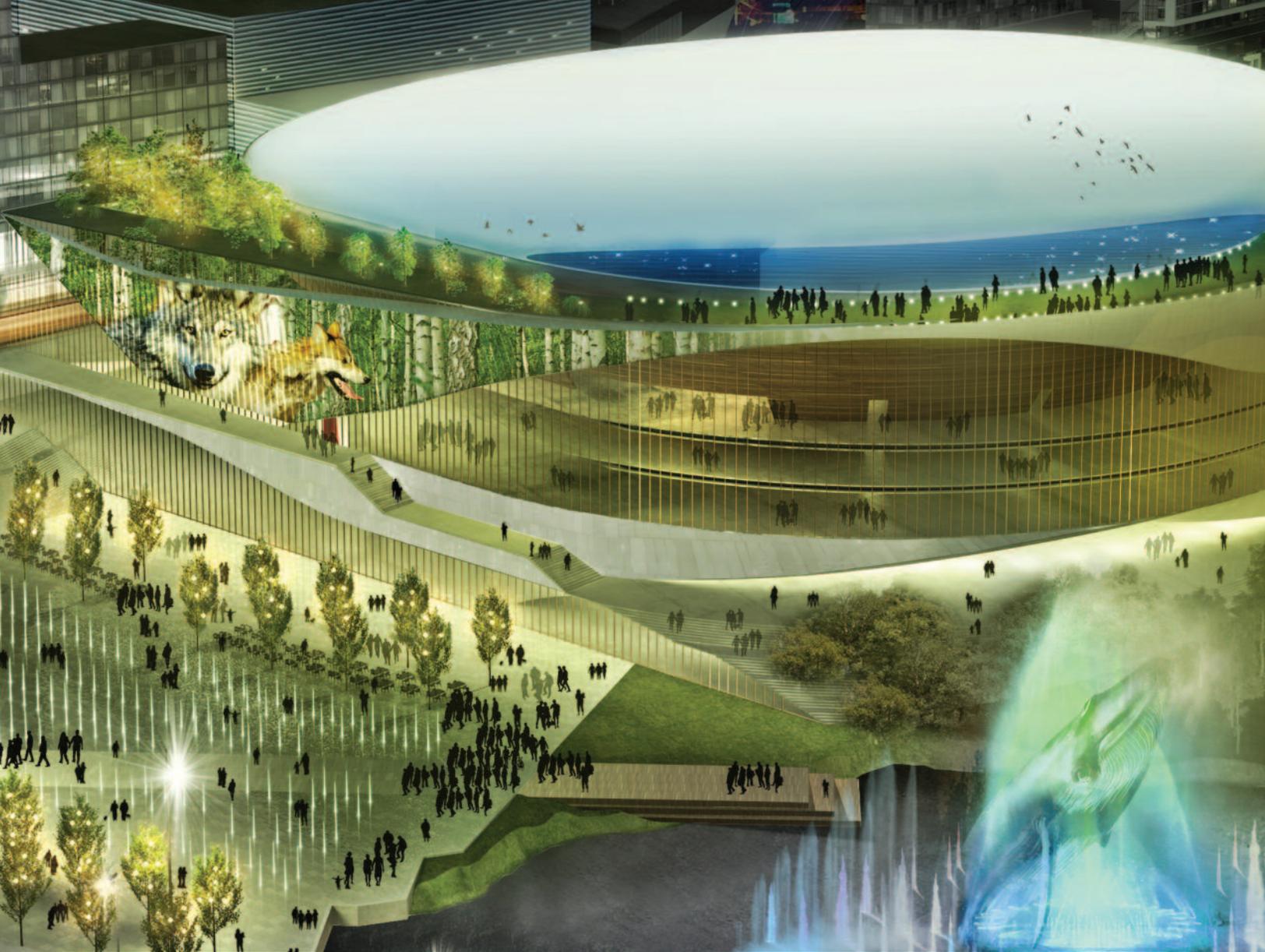
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Report

A local project with national significance:

Competitors vie for mammoth LeBreton Flats redevelopment in central Ottawa



Canadian Infrastructure Report Card
Canada's municipal infrastructure
at risk of rapid deterioration

Building Science: Understanding
the differences between nominal
and effective R-value

What is the Dowco Group?

Dowco Consultants Ltd.

SDE Steel Detailing and Consulting Services Philippines Inc.

RISA Technologies Private Ltd.

A LEADING STRUCTURAL STEEL DETAILING ORGANIZATION

Dowco has been providing steel detailing and consulting services since its inception in 1970. During this period the company has grown from a modest three-person outfit to one spanning five locations across three countries, with 250+ employees and growing.

CULTURE OF INNOVATION AND COLLABORATION

Dowco's cultural heritage is one where pursuit of innovative technologies has realized close relationships with our clients and provided the highest value possible for each project. Above all else, Dowco is dedicated to developing and maintaining integrity and trust between its clients and throughout the industry.

We strive to provide all our clients with solutions to ensure each and every project is delivered on time and within budget. As part of your team we offer our expertise and organizational capabilities to overcome any challenges, making your experience with us as efficient and professional as possible.

OUR GLOBAL PRODUCTION TEAM

Utilizing the latest in collaborative technologies we bring each of our locations together acting as one cooperative and cohesive unit. This facilitates the allocation of specialized people, at the right time, no matter the location. Our current technologies and processes are such that scaling a project to meet schedules can be achieved quickly and efficiently.

Some Say It Can't Be Done - We Think Different

DOWCO

GROUP OF COMPANIES

Modeling and Steel Detailing Services - Bridge Modeling and Detailing - BIM Implementation Consulting -

Services - Bridge Mo



ation & Management - Online Industry Cen

and Steel Detailing Services - Bridge Modeling and Detailing - BIM Implementation Consulting - Fabrication and

Virtual Model Coordination & Management - Online Industry Certified Training - Expert

Dowco reaches for the future with digital speed steel detailing

International business builds on North American knowledge, experience



Canadian Design and Construction Report staff writer

The steel construction detailing business is experiencing a global revolution, and the changes have both increased the service delivery speed and integration potential for owners, designers, contractors and fabricators, says Brian Pyper, executive vice president of Dowco Consultants Ltd.

"Clients know we've been in the business for decades," he said from the company's head office in suburban Vancouver, B.C. "There's a good reason for Dowco's longevity. We have highly skilled people utilizing the latest technologies and processes to increase the ability to communicate and collaborate effectively and efficiently with clients."

Pyper remembers the days just a quarter century ago when detailers worked with drafting tables, paper and slide rules.

No one then could have predicted the industry today – a globalized business with hundreds of employees onshore and offshore working simultaneously in a globally integrated virtual environment, leading to comprehensive and extremely responsive details and instructions that support both Building Information Modeling (BIM) and efficient steel fabrication.

Today, we take what would have been the two-dimensional model on paper, and convert it into a virtual model in the three-dimensional environment. And there's lots of talk about the multiple dimensions of cost, and schedule that incorporates the 3D structural model into the entire project cycle from earliest design to the actual building operations."

Structural detailers have always been important for the steel industry. The process of turning high level conceptual designs from architects and engineered design drawings and specifications into workable shop and construction drawings to generate the actual structural components requires specialized talents and skills, such skills that can only be acquired through time and experience.

The importance of effective detailing cannot be understated, Pyper says. High quality detailing ensures efficient fabrication practices and constructability minimizes potential design and construction conflicts. This of course saves significant time and money during the higher labour intensive areas such as fabrication and construction.

"A detailer must understand every phase each component takes through the life cycle of a project, from the early design drawings through the late stages of project comple-

tion and beyond. The detailer needs to know whether each assembly and its components can be fabricated, and whether the bolts and welds specified are sufficient, if and how the steel can be shipped, and/ or whether members clash on site, and/or whether the steel will be architecturally exposed. These and many more questions must be answered by the steel detailer to ensure the project passes from concept to reality in the most economical method for the client.”

The detailing business evolved in the middle part of the last decade, when (with the Internet) offshore businesses began entering the world market, with lower labour costs. Dowco initially responded by working with some offshore contractors. Pyper says however, the company decided the best approach would be to actually own and run its own offshore production operations directly.



Today, Dowco has offices in India and the Philippines, but unlike its offshore competitors, it also maintains a substantial employment base at its offices in the Vancouver and Toronto areas.

“We have North American knowledge and experience you can only get through time,” Pyper says. “You cannot gain this experience in books or through online courses. In our industry it is all about having the years in business in experience and skills.”

Accordingly, Dowco has some 90 employees in Canada. Meanwhile, its offshore labour force helps the company remain competitive on pricing – and because Dowco pays better wages than the offshore norm, it attracts the best talent everywhere in the world.

This has spurred rapid growth for Dowco.

“About 18 months ago, we were at 100 people, by the end of the year, we had 220 and by the end of this year, we will have 300 employees,” Pyper said. “Through organic growth and planned strategic acquisitions we’re looking at, we want to be as big as some of our large Chinese and Indian competitors.”

This workforce size expansion has been coupled with rapidly improving technology. Files can now be worked on collaboratively in real-time, avoiding delays and potential errors. The offshore and Canadian labour force combination enables Dowco to offer 24-hour service, and exceptionally rapid turnaround for fabricators. With enough depth and scale in its labour, it can also take on the largest projects without stress.

The future includes more BIM integration and co-ordination, while continuing the North American steel detailing trade. “We’re trying to keep to our vision to continuously promote structural steel detailing in North America,” he said.

Technology will continue to evolve to be better and faster as the digital revolution continues. “We’re working to develop a global business with a unique multinational culture, based on the concept that when the work gets done, it gets done right, and on time.”

For more information, see www.dowco.com.