

GORDIE HOWE INTERNATIONAL BRIDGE

Connecting People, Nations, and Commerce

CHALLENGE:

Cross-Border Complexity

How do you build a six-lane bridge at the busiest commercial border crossing between the United States and Canada that includes ports of entry for each nation, dedicated use paths for pedestrians and cyclists, connections to major highways on each side of the border, and toll collection facilities to finance its operation and maintenance?

Windsor-Detroit Bridge Authority is a nonprofit Canadian Crown corporation created by Parliament that is responsible for delivery of the Gordie Howe International Bridge.

CONTEXT:

Large and International

The Gordie Howe International Bridge is one of the largest infrastructure projects in North America. Once completed, it will stretch 1.5 miles (2.5 km), making it one of the five longest bridges in North America. The project also includes new ports of entry and inspection facilities for the Canadian and US governments, toll collection facilities, and improvements and modifications to several local bridges and roadways along the Michigan interchange with interstate highway I-75.

Project figures

Contract value:
\$5.7 billion (CAD)

Construction period:
74 months

Operation period:
30 years

In 2012, the Canadian Parliament created Windsor-Detroit Bridge Authority, a nonprofit Crown corporation that would bear responsibility for delivery of the bridge project.

The project is a public-private partnership in which Windsor-Detroit Bridge Authority manages the partnership and has oversight responsibility for both the construction and operation of the bridge. Through a competitive process, it selected Bridging North America (BNA) as its private-sector partner to design build, finance, operate, and maintain the bridge and the ports of entry.

APPROACH: **Project Management Body of Knowledge**

The team that drafted the Request for Proposal (RFP) reviewed a range of previous major infrastructure projects as part of its due diligence process, and this review, together with its experience, revealed the need for sound project management practices on projects of this size and scope. The RFP team also knew that project management practices were important to multiple government stakeholders on each side of the border.

As a result, **the project agreement between Windsor-Detroit Bridge Authority and BNA calls for the project company to manage the project in accordance with A Guide to Project Management Body of Knowledge (PMBOK® Guide)**. This requirement—which was also in the project agreement for the Samuel De Champlain Bridge in Quebec—will ensure that the project is managed based on the best existing knowledge of the profession.

The commitment to sound project management extends beyond bridge construction to encompass all project requirements. For instance, Windsor-Detroit Bridge Authority has an in-house team dedicated to managing and overseeing a \$20 million (CAD) Community Benefits Plan that addresses both sides of the border. This team employs effective project management principles to ensure that the Plan delivers on its commitments.

Dries Brand, an experienced project executive who has presented on best practices at PMI conferences, joined Windsor-Detroit Bridge Authority's team as vice president of project management to guide the project as construction progresses.

"There are two mission-essential drivers we've incorporated in our execution plans. First, we employ several best practice predictive processes, such as monthly schedule analyses and scenario modeling to identify near-critical path activities, which enable us to anticipate issues and ensure that timely action is taken to de-risk the project," said Brand. "And given the large physical footprint of the project facilities and its complex shareholder and stakeholder community, **we rely heavily on our robust governance framework and cross-functional interface management as a second key success factor** to ensure full alignment across all our stakeholders and proactive treatment of emerging risks and issues."

PROGRESS AND IMPACT: **Managing for the Long Term**

The project is currently slated for completion at the end of 2024. To date, the project has acquired the final properties needed for construction, selected the pedestrian bridge designs for the Michigan interchange with interstate highway I-75, and started work on the bridge tower foundations in Canada and the US.

In 2020, Windsor-Detroit Bridge Authority received the top accolade for environmental, social, and governance performance at the P3 Awards, which recognize the best in public-private partnerships throughout the Americas. The award acknowledged the organization's policies and benefits for stakeholders, operators, users, and the wider community.

The Gordie Howe International Bridge project includes a **comprehensive environmental program addressing more than 450 conditions** identified in the bi-national environmental assessment process.

Its commitment to environmental sustainability is evident in design choices such as the use of LED lighting on the bridge and within the ports of entry. This will result in significantly reduced energy usage compared to traditional lighting, as well as lower maintenance costs. The lighting for the ports of entry will also be "dark-sky friendly" to minimize light pollution and effects on bird migration.

The project's Community Benefits

Plan, consists of two components: the Neighbourhood Infrastructure Strategy, which collaborates with stakeholders to develop a community betterments strategy, and the Workforce Development and Participation Strategy, which focuses on engaging businesses and supporting the local workforce.

The Plan invests in areas like trail connections, road and park improvements, home repairs, arts and culture initiatives, and wildlife eco-passage. Community activities have included outreach to local unions, the business community, workforce development organizations, charities and non-profit organizations, and the Michigan Hispanic Contractors Association. In the period from September 2018–2020, the project engaged more than 120 local businesses and more than 90 pre-apprentices and apprentices.

"Sustainable development is important not only to us, but to the Government of Canada and our stakeholders. It is our duty to them to consider the financial and non-financial impacts of our operations by integrating environmental, social and economic dimensions in our management approach."

*- Bryce Phillips,
CEO of Windsor-Detroit Bridge Authority*