Haisla Bridge Replacement

CONSTRUCTION UPDATE

JANUARY 2022

SUPPORTED BY:

Pacific Economic Development Canada
Développement économique Canada pour le Pacifique

Canada

CONTRACTOR:

LEDCOR GROUP

KITIMAT
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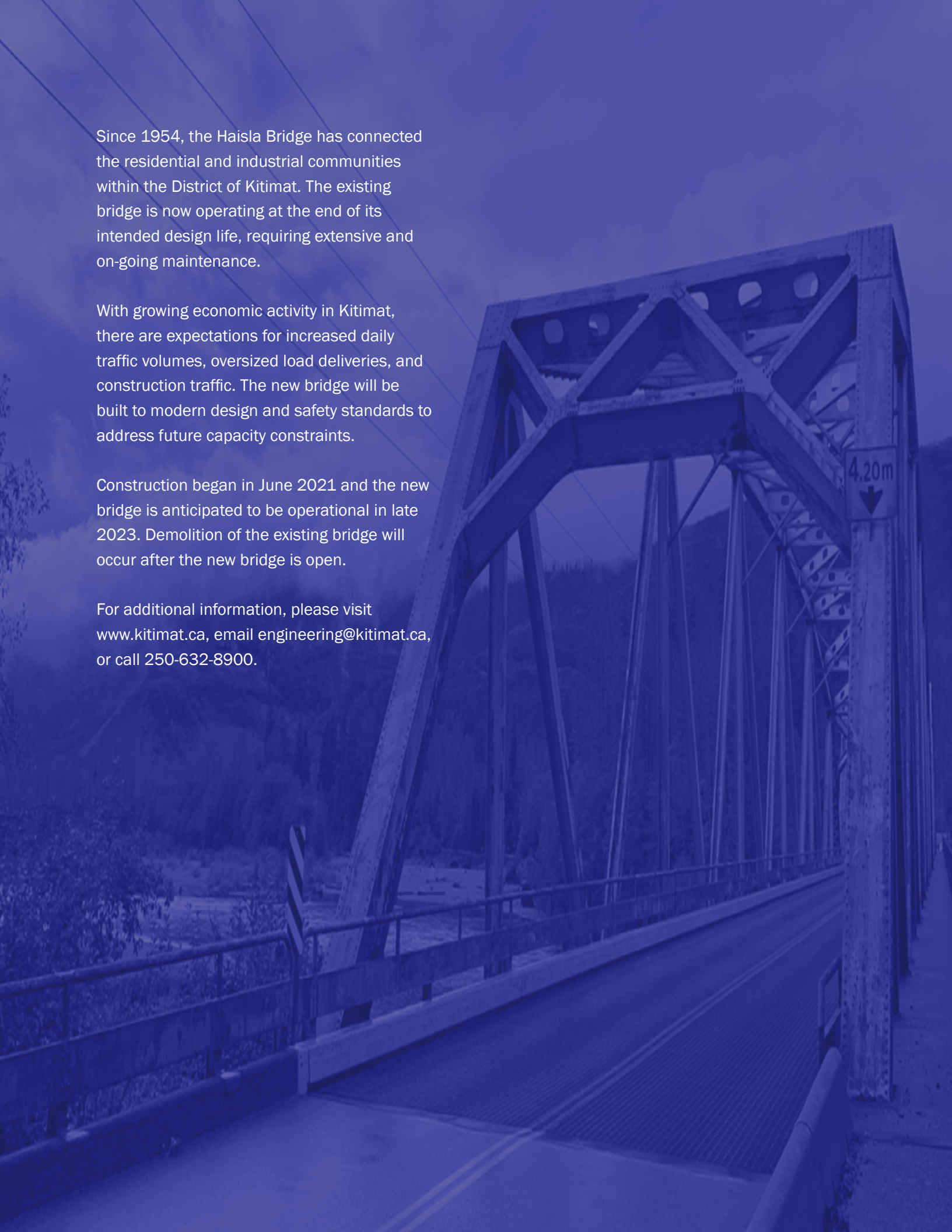
Since 1954, the Haisla Bridge has connected the residential and industrial communities within the District of Kitimat. The existing bridge is now operating at the end of its intended design life, requiring extensive and on-going maintenance.

With growing economic activity in Kitimat, there are expectations for increased daily traffic volumes, oversized load deliveries, and construction traffic. The new bridge will be built to modern design and safety standards to address future capacity constraints.

Construction began in June 2021 and the new bridge is anticipated to be operational in late 2023. Demolition of the existing bridge will occur after the new bridge is open.

For additional information, please visit www.kitimat.ca, email engineering@kitimat.ca, or call 250-632-8900.



PROGRESS UPDATE

33% Complete

Site Mobilization ..... Summer 2021

Bridge Operational..... Spring 2023

Substantial Completion ..... Winter 2023

ACTIVITIES TO DATE

- Prepared interim and final designs
- Constructed embankment for new Rod & Gun Club access and side channel bridge
- Began construction of the center and east piers
- Complete rock blasting along east Haisla Boulevard
- Initial earthworks, embankment construction, paving and road widening along Haisla Boulevard
- Started temporary relocation of utilities
- Ongoing environmental mitigation and monitoring

UPCOMING ACTIVITIES

- Ongoing clearing and grubbing, embankment construction, paving, and road widening
- Complete temporary relocation of utilities
- Complete foundation and substructure construction
- Winter maintenance (mid-Dec. to mid-Feb.)

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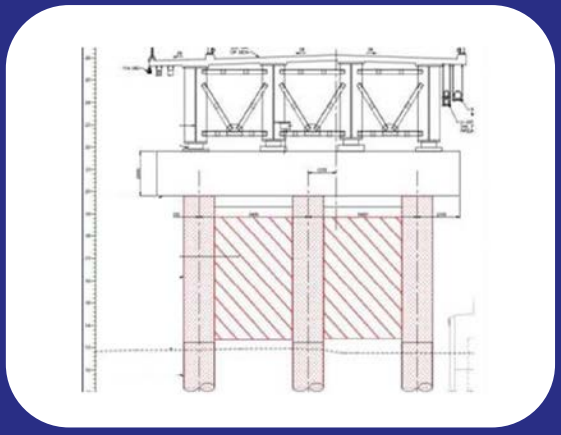
IN FOCUS: MONOPILES

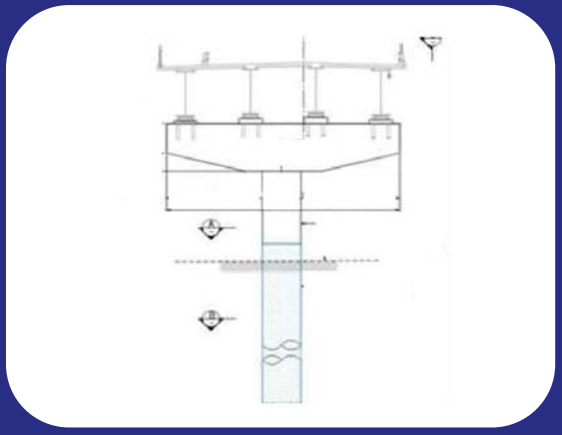
The new Haisla Bridge incorporates innovative design features aimed at improving the durability, constructability, and environmental sustainability of the structure. In focus is the bridge's foundation design, which uses a single monopile topped by a "hammerhead" or "T-shaped" pier.

The monopile design for the new Haisla Bridge is commonly used for offshore wind turbines. Whereas traditional bridges use several shallow piles for their foundation, the use of single monopiles achieves the same stability and outcome as the traditional design by being driven deep underground and into the bedrock. This provides a sturdy foundation to transfer any external forces.

The use of a monopile offers constructability advantages as well; material costs and the time spent working in the river is reduced. The monopile reduces the risk of debris being caught on the pier and, aesthetically, the foundations are clean with a striking profile. The reduced size of the foundation also limits the impact to the river habitat. On opening day, the monopile system will be one of the new Haisla Bridge's distinct features to look forward to.



EXAMPLE OF A TRADITIONAL DESIGN



LEDCOR – HAISLA DESIGN

IN FOCUS:
WORKING WITH CHANGING RIVER LEVELS

As part of the project's commitment to environmentally sustainable practices, avoiding impacts to the Kitimat River is a top priority. Construction of the center pier, performed on the gravel bar, is located in the river's flood zone. This can be seen in the images below.

Providing a site that is clear of equipment during high water requires close monitoring of river levels. This includes the use of a forecasting model and daily observance. These methods mean that the contractor is able to evacuate the site within hours if needed.

The project is well-prepared to deal with the impacts of river fluctuations while not compromising on important environmental regulations. Work on the gravel bar occurs during periods where the river is at its lowest, which usually takes place during the winter, early spring, and mid-summer.

DRY GRAVEL BAR

FLOODED GRAVEL BAR

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