



Atlantic Industries Limited

PROJECT PROFILE



Bolt-A-Plate Arches connect islands in Calgary community

Mahogany Lakeside Living, a residential development in southeast Calgary, features a large lake with two islands connected by AIL Structural Plate Bridges. The consultant's preliminary study evaluated crossing options based on design capability, aesthetics, durability, safety and overall cost. All options had to adhere to the City of Calgary Bridge Specifications. AIL's Bolt-A-Plate Arches emerged as the recommended solution.



Project at a glance:

Project Name: Mahogany Lake Crossings

Location: Calgary, AB

Owner: Hopewell Development Corporation

Consultant/ Engineer: Stantec

Contractor: Volker Stevin Contracting Ltd.

Product: Two Custom Bolt-A-Plate Arches

Sector: Urban

Applications: Lake Crossings

Plate Installation Time (start to finish):
Five days for each structure



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Winter construction, spring backfill

Due to overall project staging, one of the structures was built in the winter months and had to wait for the spring to be backfilled. However, the strength of a buried structural plate arch is reliant on the steel-soil interaction. Because there was no soil backfill, cable braces were installed to ensure the structure maintained its shape and integrity until it could be backfilled at a later date. The structure's shape was monitored regularly by the contractor during this period.

Custom clearance for fire rescue boat

AIL's engineering team custom designed the Bolt-A-Plate Arches' geometry (6.26 m span x 4.12 m rise x 15.85 m length) with client-provided clearance boxes (2.5 m span x 3.75 m rise) to accommodate the City of Calgary's Fire Rescue Boat.

The contractor, Volker Stevin, was very pleased with the outcome. The ease of the install and the flexibility it allowed in their schedule contributed to the overall success of the project.

Versatile and cost-effective Bolt-A-Plate

For a strong, effective bridging alternative, Bolt-A-Plate is the product of choice for its light weight, strength and versatility. It is available in a wide variety of shapes and sizes for highly economical bridge and drainage structure construction or replacement.

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