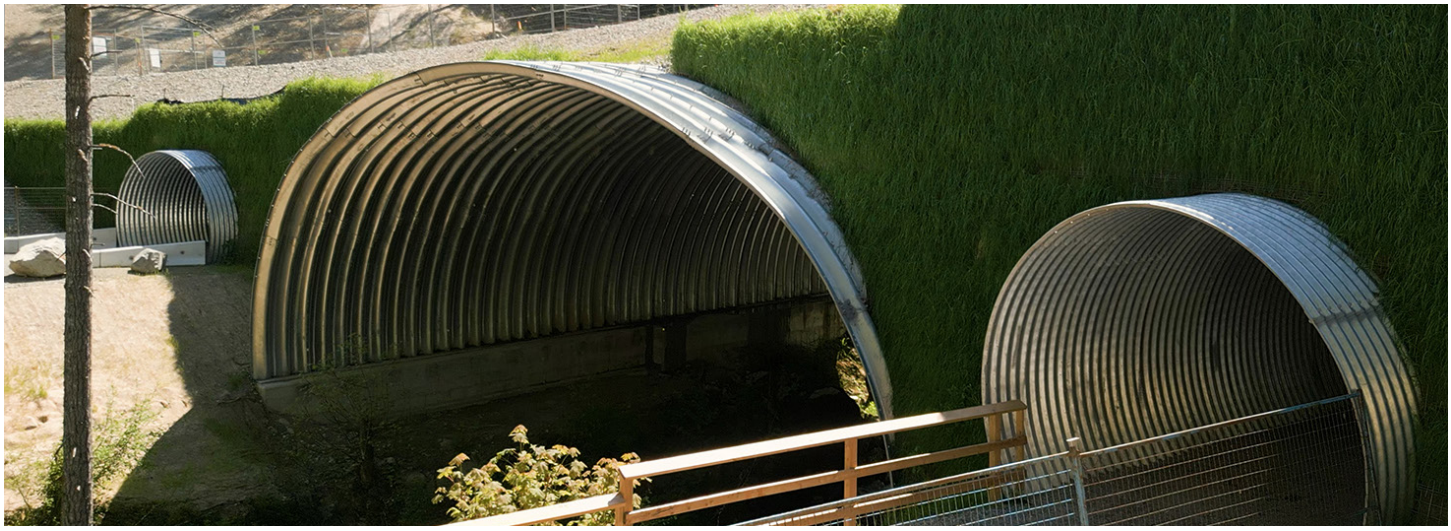
Atlantic Industries Limited

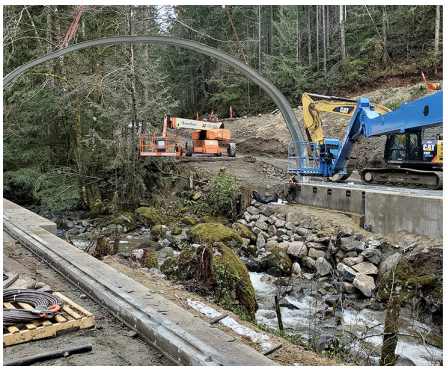
PROJECT PROFILE

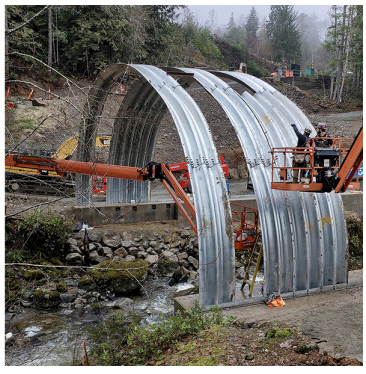


May 25, 2023

Ultra•Cor and Bolt-A-Plate team up on multi-use crossing for residential development in Ladysmith, BC

Our first Ultra•Cor installation in Western Canada is a 19.4 m stream crossing for a private residential development in Ladysmith, BC, near Nanaimo. The multi-use Holland Creek crossing also incorporates two Bolt-A-Plate Round tunnels to connect a recreational trail loop in the area. Our MSE Wire Walls are configured with topsoil and fabric at the face to promote vegetation.





Project at a glance:

Project Name: Holland Creek Crossing

Location: Ladysmith, BC

Owner: Lamont Land LP

Consultant: McElhanney

Contractor: Heavy Metal Marine

Sector: Private Development

Application: Stream Crossing, Pedestrian Crossings

Product: Ultra•Cor Arch

Dimensions: Span 19.4 m, Rise 7.4 m, Length 24.1 m

Product: Bolt-A-Plate Rounds

Dimensions: Diameter 4.3 m, Length 22.6 m

Assembly Time: Ultra•Cor three weeks, Bolt-A-Plate three weeks

Atlantic Industries Limited

PROJECT PROFILE

Buried Metal Bridge built with minimized habitat impact
The crossing was built without disruption to the creek. Our wide-span, open-bottom designs like this allow for natural streambeds with excellent open-flow hydraulic and fish passage properties.

Inconsistent bedrock and weather created some challenges
Unconfirmed foundations on this project created some complexities and a Geotechnical Consultant was brought in once it was determined that a regular footing would not work in a couple locations due to the bedrock falling off in some areas of the banks. The footings were redesigned with supportive piles.

Ultra•Cor Structural Steel Plate selected for low cover and heavier backfill
Although this stream crossing's 19.4 m span requirement was well within Super•Cor's 25 m range, our deepest corrugated Ultra•Cor was selected due to the low height of cover and heavier unit weight of the backfill.

While a lack of bedrock created problems in some areas, the presence of bedrock created issues in others, causing the locations of the Bolt-A-Plate tunnels to be moved, with engineering reviews and new drawings to show the changes in the layout.

Weather also created some issues with the engineered backfill. The stockpiles need to be covered and, at times, heated to stop them from saturating.

Despite the delays, the faster assembly and construction sequence of Ultra•Cor Structural Steel Plate helped the project make up some time and the trails are expected to be re-opened for the summer season.

Summer 2024 Update: MSE Wire Walls are "greened in"
We revisited the site in the summer of 2024 to see how well the headwalls had "greened in". With the help of a hydroseeding application, they are now lush with vegetation — helping the crossing blend in with its natural creekside trail environment.

Ultra•Cor creates the world's strongest Buried Metal Bridges
With the introduction of Ultra•Cor, AIL has taken engineered structural plate to new dimensions in capability and performance. Ultra•Cor combines all the advantages of lightweight construction with previously unheard-of strength and durability for the largest and most extreme applications. Spans can exceed 35 m (115').

See all Project Profiles on ail.ca

View May 2023 construction video

View summer 2024 "greened in" update video

Head Office:
32 York Street
Sackville, New Brunswick
Canada E4L 4R4
1-877-245-7473

Atlantic Industries Limited