



Atlantic Industries Limited

PROJECT PROFILE



March 7, 2019

Flexible thinking helps extend existing Super-Cor Box Culvert

Rubber connection matches shape and settlement differentials, prevents backfill infiltration

A private road-widening project in Vernon, BC highlighted our capabilities in tackling complex projects. Connecting a new Super-Cor Box Culvert to an existing one (designed in 2000) was challenging due to weak foundation soils and a zero differential settlement requirement at the connection. Also, precisely matching their shapes can be complicated once the plate is assembled.



Project at a glance:

Name: BX Creek Super-Cor Extension

Location: Vernon, BC

Owner: Highstreet Ventures

Engineer: Ecora

Sector: Development, Transportation

Application: Stream Crossing

Product: Super-Cor Box Culvert

Dimensions: Span 7.4 m, Rise 1.7 m, Length 7.7 m

Installation Time: Plate assembly, one half-day; backfill and headwall, three days



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Heavy-duty rubber connection band used

AIL representatives sat down with the consultant, Ecora, at the outset. Ecora did a great job detailing the settlement requirements of the structure and related issues. We developed a flexible rubber connection band to allow for potential differences in shape that can potentially occur when manufacturing takes place nearly 20 years apart! This ultimately led to a faster install with fewer issues.

Accommodated differential settlements of each structure

The heavy-duty rubber material was bolted to the new structure and extended to cover the area where the two structures meet. In addition to accommodating the minor difference in shape, it also blocked any infiltration of backfill material.

Consistent communication with the client, the project coordinator and our engineering and manufacturing teams helped keep the project on track. The plates were shipped early and held at our Armstrong, BC facility to be ready when needed. The client was very pleased with the results.

The private road widening was undertaken to accommodate the construction of a 216-unit apartment complex in the area by Kelowna-based Highstreet Ventures. Once the road project is complete, the municipality will assume ownership of the road.

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