



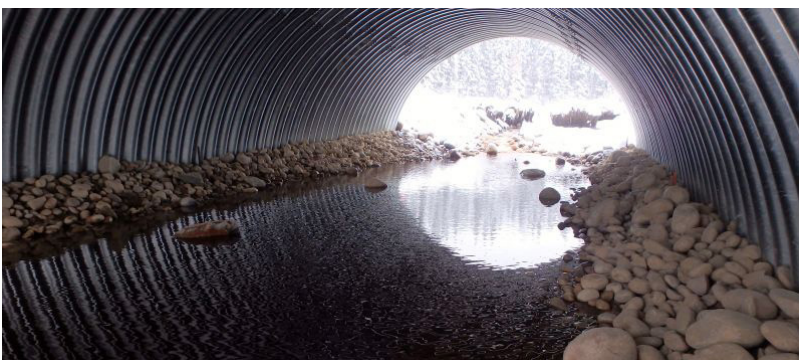
Atlantic Industries Limited

PROJECT PROFILE



GRS fish passage is first project completed through national conservation program

An AIL Geotextile Reinforced Soil (GRS) Arch near Fox Creek, Alberta, was the first major project to be completed under Trout Unlimited Canada's conservation program to identify, prioritize and resolve culvert-related problems. With two perched culverts impeding fish migration, this crossing was identified as a high-priority opportunity to improve fish habitat with a larger open-bottom structure.



Project at a glance:

Name: Bigstone Road - South Tony Creek

Location: Near Fox Creek, Alberta

Owner: Apache Canada Ltd.

Prime Consultant: Amec Foster Wheeler

Sub Consultant: Terratech Consulting Ltd.

Contractor: Landmark Solutions Ltd.

Application: Stream Crossing (Replacement)

Sector: Forestry

Product: AIL Geotextile Reinforced Soil (GRS) Bridge

Dimensions: Span 10.1 m, Rise 5.0 m, Length 25.2 m

Installation Time: Approximately four weeks



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Beaver dammed inlets had created extensive upstream flooding and ongoing maintenance issues. The perched culverts created a complete fish barrier, isolating over 10 km of upstream channel habitat.

GRS technology simplifies remote installations

AIL's unique GRS technology was used to support both the Super-Cor Arch and the headwalls in this project. GRS technology "puts the dirt to work" by using multiple layers of tightly spaced geotextile and compacted backfill to construct a confined soil composite arch around the Super-Cor Arch structure. The GRS composite arch formed a smooth and seamless transition into the headwalls of the structure. This allowed for a relatively short structure length compared to the finished road width — significantly shorter than the initial culvert and flume.

Fast and economical crossing solution

AIL's GRS Bridges are lightweight and easy to ship to remote sites. They eliminate the need for concrete or pile foundations and permit the use of a wider range of backfill materials.

South Tony Creek passed under a high traffic resource road serving Apache Canada oil fields, so continuous access was needed for both industrial and public users. A single lane bypass bridge kept traffic moving during construction.

This fixed-price project took place in the fall to take advantage of lower water levels. A sheet pile coffer dam was used to restrict and direct the stream flow into a temporary bypass culvert. Sheet pile scour walls were also used to support the foundation preparation for the specialty prefabricated steel footings and to provide for substantial scour protection.

The stream was reconstructed using cobble, boulders and washed-in sand and gravel to construct a stable, scour-resistant and fish-friendly stream channel.

[See all Project Profiles on ail.ca](http://ail.ca)

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