



Atlantic Industries Limited

# PROJECT PROFILE



February 21, 2020

## AIL GRS Bridge replaces narrow resource road girder bridge, improves road width and alignment

**Created a safer, more uniform curve for vehicles to pass at a better speed**

About 92 km south-southeast of Grande Prairie, Alberta, Strath Resources needed to replace an older, single-lane, girder bridge at Smokey River Creek (aka Drilcorp Road Crossing 300). An AIL Geotextile Reinforced Soil (GRS) Bridge was selected for the replacement and with it came several key benefits.

The new crossing's driving surface is 4 m wider, the road elevation was raised by 2.7 m to eliminate a dip and the high-maintenance bridge deck and joints were eliminated in favour of a continuous road surface. The net result was a safer, more uniform sag curve crossing for vehicles (CL-800 truck loading) to pass at a better speed, with reduced potential for road sediment entering the stream.

### Project at a glance:

**Project Name:** Drilcorp Road Crossing 300 Bridge Replacement

**Location:** 92 km south-southeast of Grande Prairie, Alberta

**Owner:** Strath Resources

**Consultant:** Terratech Consulting Ltd.

**Contractor:** Landmark Solutions

**Product:** AIL Geotextile Reinforced Soil (GRS) Bridge

**Arch Dimensions:** Span 8.3 m, Rise 3.1 m, Length 17.6 m

**Application:** Stream Crossing

**Sector:** Northern, Mining & Energy

**Installation Time:** Approximately two weeks (including removal of old bridge)



Atlantic Industries Limited

# PROJECT PROFILE

## Erosion/scour protection added to Super•Cor Arch's foundations

The 9.5 m span bridge was replaced with an 8.3 m open-bottom Super•Cor Arch capable of passing the Q200 design flows to contend with sediment transport and floating debris. To help prevent possible erosion of the Super•Cor Arch's foundations, sheet piling was installed along the inside of both sides for scour protection.

In this case, the AIL GRS Bridge package included supply of the Super•Cor Structural Steel Plate Arch, the GRS rods that anchor it to the surrounding GRS fabric/backfill mass, AIL 100 woven geotextile and Tencate 180N non-woven geotextile. Others provided the GRS wire wall forms.

AIL provided a budget estimate to the contractor, Landmark Solutions, in April 2019 and a firm quote in late May. Our quote was below the budget estimate originally provided.

## AIL's GRS technology puts the dirt to work

Fish/wildlife-friendly and ideal for remote locations, AIL GRS Bridges use steel anchor rods to connect a Super•Cor Arch to the backfill/geotextile composite, and thus transfer the loads into the surrounding GRS mass. Benefits include:

- Maintains existing stream bed
- No need for concrete footings or pile foundations
- Lightweight and ships economically to site
- Rapid installation
- Allows for wide range of backfills

Post project follow-up confirmed that both Landmark and Strath Resources were very satisfied with their AIL GRS Bridge solution.

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

### Head Office:

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



Atlantic Industries Limited

[ail.ca](http://ail.ca)