



Project Profile



AIL delivers a smarter 91.5 m haul road crossing for multiple load zones

AIL Mining delivered an innovative design-build haul road crossing in the Alberta oil sands, approximately 75 km north of Fort McMurray. The 91.5 m structure carries a heavy haul road, a light vehicle road and a pipeline over an existing service road — helping the site improve traffic flow while meeting demanding load requirements.



Project at a glance:

Project Name: North Haul Road Overpass

Location: Approximately 75 km north of Fort McMurray, Alberta

Sector: Mining

Application: Haul Road Crossing

Products: Ultra-Cor, Super-Cor

Ultra-Cor Dimensions: Inside span 12.104 m, Rise 6.221 m, Length 54.076 m

Super-Cor Dimensions: Inside span 12.122 m, Rise 6.299 m, Length 37.414 m

Installation Time: Five weeks for arch assembly



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Working closely with the consultant and general contractor, we evaluated multiple options and value engineered a solution that balanced performance, constructability and long-term value for the owner.

The original design called for approximately 3 m of cover over the heavy haul road using a Super-Cor arch system. When the owner identified an opportunity to reduce the cover depth to about 1.5 m to better support long-term traffic requirements, the project demanded a more robust engineered solution.

We met that challenge by using the stronger Ultra-Cor system in the haul road zone to support heavy mining trucks and a 1,390,714 kg mining shovel, while retaining Super-Cor for the light vehicle road and pipeline zones. The result was a single continuous arch with a custom-designed joint detail that seamlessly connected the Ultra-Cor and Super-Cor sections at the centre.

Haul road arch assembled in winter conditions

Following site preparation and completion of the concrete footings, the arch was assembled over five weeks in February and March. Engineered backfilling and MSE walls, completed by others, followed during warmer weather. A fireproofing coating was applied to the interior of the arch after installation to satisfy code requirements.

The successful outcome has positioned the owner to consider similar structures for future haul road overpasses as site operations continue to grow.

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