

CASE STUDY

PILOT TUBE METHOD | GUIDED PIPE RAMMING



Project Name:
Highway 16 Tyhee Passing Lane

Subcontractor:
The Tunneling Company (TTC)

Location:
Telkwa, BC, Canada

Owner:
The Ministry of Transportation & Infrastructure

Ground Conditions:
Varying

Akkerman Equipment:
GBM 240A Jacking Frame & Guidance System

Pipe:
48 and 96-in. Steel Casing

Total Length/Longest:
288-lf./147-lf.

PROJECT OVERVIEW

The Ministry of Transportation required the installation of two new culverts (one main and one overflow) in the McDowell Creek for passage under Highway 16, just east of the village of Telkwa.

THE CHALLENGES

- Culverts were approximately 8-ft. apart at a 4.5% grade
- Overflow culvert was positioned 1.6-ft. higher at the invert
- Grade tolerances required an accurate installation
- Minimal cover above the culverts to active highway

THE SOLUTION

The pilot tubes on the 96-in. main culvert were installed from the direction of its outlet, approximately 16-ft. below the highway. After they were across, TTC used their Hydrohammer and a 30 to 96-in. adapter to mate the two diameters of steel casing. The interior of the tunnel was cleaned out with a skid steer loader.

The overflow culvert was tackled 8-ft. to the left of the main culvert, using the same process but with a 24-48-in. adapter and augers for spoil removal.

OUTCOME

- Both culverts were completed on line and grade without settlement during live traffic
- Culverts were installed, ensuring ground control at the face of the excavation
- All tolerances met with success

