



Acrow Bridge Provides Access to Alberta Hydroelectric Plant

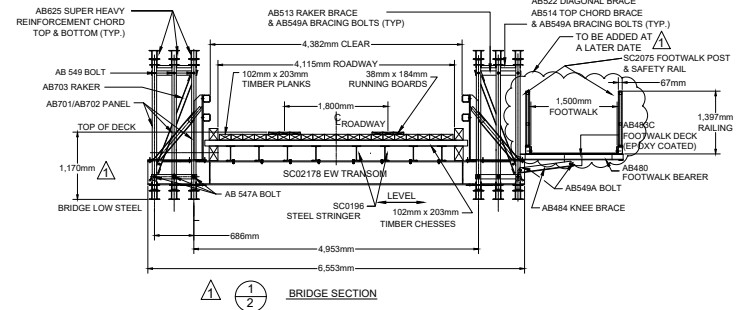
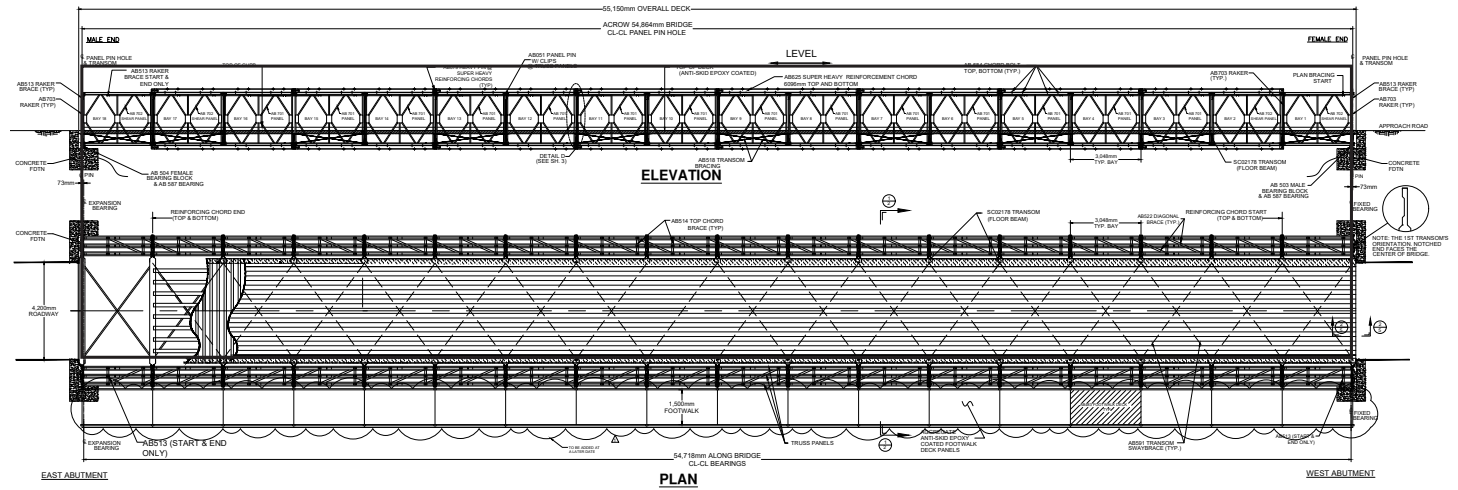
Structure designed for extra heavy loading to accommodate future plant upgrades

For 70 years or more, a dependable modular Bailey Bridge provided reliable access to the hydroelectric dam in Seebe, Alberta, located at the confluence of the Kananaskis and Bow Rivers. At the end of its service life, it was a logical decision to replace the old structure with a more modern equivalent, and a modular steel Acrow 700XS® was selected for the project.

The dam is one of several in the area owned and operated by TransAlta, one of Canada's largest producers of wind power, and Alberta's largest producer of hydroelectric power. TransAlta's hydroelectric plants primarily provide electricity during periods of peak electrical demand and ensure system stability. They are also used to balance out shortages due to unexpected outages.

The single-lane 700XS® bridge, purchased by project contractor CWP Constructors Ltd is 180 feet (54.86m) long and 13.78 feet (4.2m) wide with a timber deck and TL-4 guide rails. Installed using a crane-assisted launch method, the extra-heavy triple-single truss was designed to CL700 loading to accommodate heavy maintenance vehicles and future hydroelectric generator transformer replacement. Construction began in the fall of 2022 and completed in winter 2023. Acrow's solution was an alternative bid from the original specification, which resulted in significant cost-savings on the project.

Like all of Acrow's cost-effective solutions, the bridge in Seebe is designed for a service life of up to 100 years, virtually maintenance free. In addition to providing safe and reliable access to the hydroelectric plant, the bridge is also used by the local First Nation to access their land.



Specifications

Bridge length:
180' (54.86m)

Roadway width:
13.78' (4.2m)

Guide rails:
TL-4

Deck surface:
Timber deck

Bridge erection method:
Crane-assisted launch

Design load:
CL700

Standard Acrow bridge finish:

- All major components galvanized to AASHTO M111-ASTM A123
- All bolts are hot-dip galvanized
- All pins are electrogalvanized

Standard Acrow bridge specification:

- (A) Panel chords, diagonals, verticals, reinforcing chords, rakers to AASHTO M223 GD 65
- (B) Raker braces, transoms, top chord braces, swaybraces, transom braces, diagonal chord braces, decking to AASHTO M223 GD 50
- (C) Panel pins to ASTM A 193 GD B7
- (D) Bolts to AASHTO M164M - A325