

History

In the early 1900's the Canadian Pacific Railway (CPR) began construction of a major irrigation project, now known as the Eastern Irrigation District (EID). Construction of the Bassano Dam and the Brooks Aqueduct were two of the major projects required to get the system into operation.



The Brooks Aqueduct was required to carry irrigation water across a valley to feed water to the regions that are now known as Millicent, Patricia and Tilley. These areas include close to 1/4 of the irrigated land within the EID.

The CPR began construction of this structure in 1912, with water running through the Aqueduct in the spring of 1915. The end result was the longest concrete structure of this design in the world.



Historic Site

In 1983 the Brooks Aqueduct was declared a national historic site, and in 1987 it was designated as "one of 10 outstanding engineering milestones in Alberta". The site includes an interpretive center complete with a kiosk, washrooms and signs. Staff from Alberta Culture are on site several days a week during the summer months to answer questions and conduct tours.



Location

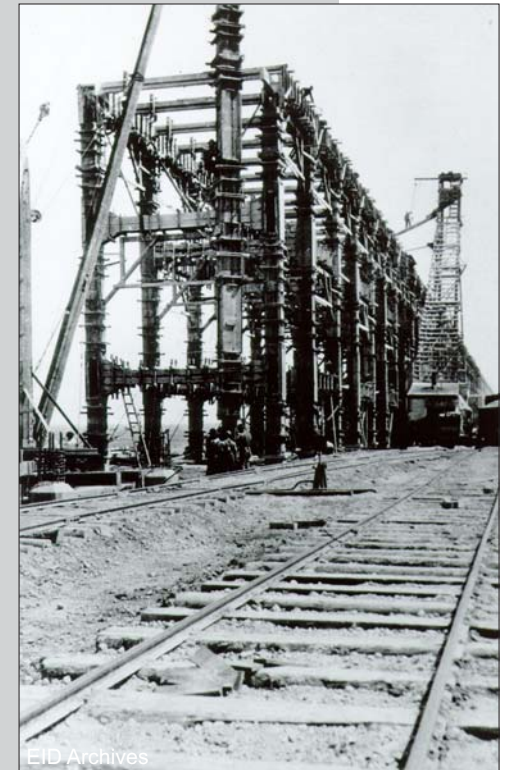
The old Aqueduct is now preserved for its historic value and is located 3 km (2 mi) southeast of Brooks.

The Aqueduct Tourist Information Center can be reached at (403) 362-4451

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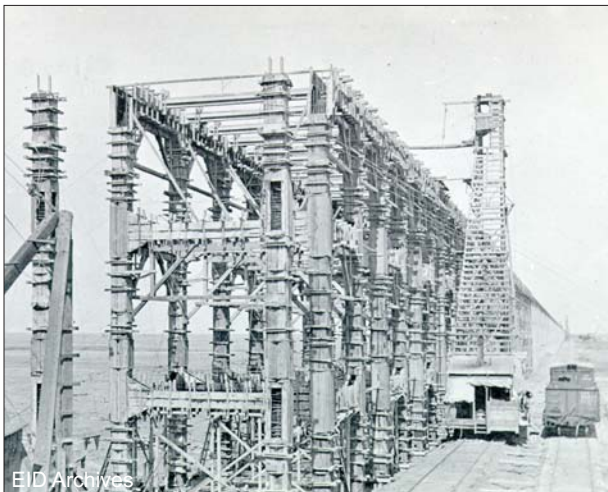


Where Water Works Wonders

Brooks Aqueduct

Construction of the Aqueduct

The Aqueduct had a span of over 3 km (just shy of 2 mi) and a maximum height of 18m (61 ft). The construction required a labour force of over 300, split into 38 construction crews and required 19,000 m³ (25,000 yd³) of concrete (equivalent to 633 basements) and 1,800 tonnes (4,000,000 lbs) of steel reinforcing. It is interesting to note that even though the structure was built to carry water, at the time the closest reliable water source was 65 km (40 mi) away at Suffield. 136,000 liters (30,000 gal) a day of water was required for the concrete work, and had to be hauled in by train.



Features of the Aqueduct



One of the more notable features of the Aqueduct design was an inverted siphon that carried the water down under the CPR mainline and then back up to the elevated Aqueduct. The finished Aqueduct had a capacity of 640 cfs and was built at a cost of \$569,287 (as stated by the Provincial Auditor in 1935)



A New Canal



The structure conveyed water across the valley until 1979 when it was replaced by a new earth filled canal.



During its history, the Brooks Aqueduct was plagued with problems of deteriorating concrete requiring annual maintenance work. By the 1970's it had inadequate capacity to handle the increasing water demands. The new earth fill canal is capable of carrying close to 50% more water than the original Aqueduct.