

BRIDGE OF DREAMS

PRINCETON, BRITISH COLUMBIA, CANADA



COMPLETED

2009

Fast + Epp

The "Bridge of Dreams" across the Tulameen River in the town of Princeton is a double tied-arch Douglas fir glue-laminated timber bridge built on historic concrete piles from early 20th century railroad construction.

The bridge was designed using a 3D solids computer model as a finely detailed 'kit of parts', which were shop fabricated and partially assembled, then shipped to the site for the final construction. The bridge was assembled on the river bank in two halves and lifted into place on the piles by crane.

The bridge consists of two spans, 31.5 meters each, with a shared platform at the center pier. The three-pinned arches were fabricated in halves (17 meters each), laid flat on the ground and joined with a simple vertically-bolted lap splice, then rotated into position about the steel pipe stringers to achieve a rise to span ratio of 0.17.

The tie-stringers were welded with connecting tubes to form a vierendeel frame which was suspended from the arches and served as the primary support structure and diaphragm for the pre-stressed timber deck panels.

CLIENT

Town of Princeton

DESIGN-BUILDER

StructureCraft Builders Inc.

STRUCTURAL
ENGINEER

Gerald Epp, M.Eng., P.Eng., Struct.Eng., P.E.

