




 2020 - 2023

 Fraser Crossing Partners

PROJECT DESCRIPTION

The existing Pattullo Bridge is an arch bridge connecting New Westminister and Surrey, and provides 75,700 cars and 3,840 trucks (on average), a daily option for crossing over the Fraser River in the Metro Vancouver area. At the start of 2020, Fraser Crossing Partners (a joint venture between ACCIONA and Aecon Group, Inc.) was selected to design and construct the replacement bridge.

SIXENSE MONITORING SYSTEM

A light rail tunnel, two additional bridges (one light rail, one heavy rail), and the existing Pattullo Bridge were all located within proximity of the location of the new bridge alignment. Sixense was chosen by Fraser Crossing Partners to develop a monitoring solution that encompasses the surrounding major structures and railways, enabling continued safe use of the nearby infrastructure throughout the construction work on the bridge replacement. The comprehensive system, delivering near-real-time data, included 13 Sixense patented AMTS (Cyclops) systems monitoring hundreds of prisms, 5 4D-BLOC GNSS sensors, 34 vibration monitors, and 52 wireless tilt sensors.

The innovative monitoring system was actively administered and maintained by Sixense, delivering near-real-time data on the Geoscope platform to all involved stakeholders. Uninterrupted, safe operation of all surrounding infrastructure continued to be enabled by Sixense through the project completion.

THE NEW BRIDGE

Once the new bridge opens to the public in 2024, the improved crossing will feature four modern, wider lanes for traffic with allowance for a potential future expansion to six lanes, pedestrian and cyclist access, and better connections to, from, and near the bridge. The replacement will allow a safer and toll-free commute for citizens.

13
AMTS (Cyclops)

5
4-D BLOC GNSS
Sensors

34
Vibration Monitors

52
Wireless Tilt Sensors

