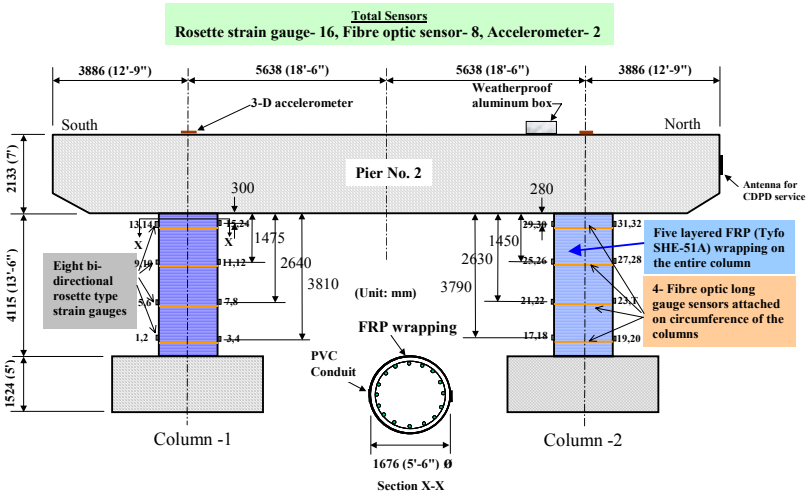
Portage Creek Bridge - Canada

Quick Facts about Portage Creek Bridge

- **Name and Location:** Portage Creek Bridge – Victoria, BC, Canada
- **Owner:** BC Ministry of Transportation & Highways (Bridge Eng. Branch)
- **Structure category:** Medium span steel bridge with a reinforced concrete deck
- **Spans:** 3 spans with total length of 410 ft / 163 ft / 100 ft
- **Structural system:** 3 steel girders with a reinforced concrete deck supported on two reinforced concrete piers and abutments on H piles
- **Start of SHM:** October, 1998
- **Number of sensors installed:** 26
- **Instrumentation design by:** ISIS Canada – University of Manitoba

Sensor Details



Elevation of Pier No. 2 with sensor locations

Sensor Details

Type	Number	Location
Long gauge fibre optic sensors	8	4 at each Column for pier No. 2
Bi-directional strain gauges	16	8 at each Column for pier No. 2
3-D accelerometers	2	Top of the pier cap (Pier No. 2)

Examples of Outcomes

- The data measurement frequency increased, especially when using accelerometers to record the dynamic data of seismic events.
- A video camera has been installed so that strain variations can be synchronized to traffic movements.
- Data communication has been recently established for the bridge.

Portage Creek Monitoring