The Sea-to-Sky Highway improvement project valued at US$498 million stands out as a milestone for the Canadian province of British Columbia as one of its first motorway upgrade PPP projects.

It is the second of four road improvement projects involving by Partnerships BC; the organisation which serves the public interest by analysing, structuring and implementing innovative partnerships to build and maintain public infrastructure.

Partnerships BC closed the contract for the Sierra Desan Yoyo road in 2004, followed by the Sea-to-Sky Highway project and the Okanagan Lake Crossing. The Kicking Horse Canyon project should reach preferred bidder stage this summer.

The British Columbia government has long foreseen the need to upgrade the Sea-to-Sky Highway as it will provide a key access route for the 2010 Winter Olympics, linking west Vancouver to the ski resort at Whistler.

Added to the poor state of repair, and a massive increase in traffic planned for less than five years time, the road also has a poor safety history. This 100km section of Highway 99 (between Horseshoe Bay and Whistler) witnesses an average of 300 accidents every year – considerably higher than similar roads in the region.

The highway also has issues with reliability, when severe weather arrives. The road is often a difficult drive, even for the most experienced drivers. The Sea-to-Sky Highway is often closed due to snow storms, rock slides, debris from creeks and accidents. Combined with an increasing volume of traffic, a lack of passing lanes and winding mountain routes; it has given this stretch of road the unenviable reputation as one of the most treacherous stretches of roadway in the province.

Project background

In March 2005, having narrowed the list down to just three contenders from a pool that included more than 30 Canadian and international companies – Partnerships BC, awarded the DBFO, 25-year concession to the Maquarie-led consortium.

The two runners up were the Bilfinger Berger-led Black Tusk Highway Group, which also included project management giant AMEC, and the Sound Highway Development Consortium headed up by the Canadian Highways Infrastructure Corporation.

The winning Sea-to-Sky team includes:

- Macquarie Essential Assets Partnership (MEAP)
  Canada’s first unlisted fund that focuses on essential infrastructure assets that was established by Macquarie Bank in 2003 and is the project’s sponsor and manager.
- Peter Kiewit Sons
  This North American firm is the project’s EPC contractor, with more than 60 years experience of projects in the province.
- Miller Paving and Capilano Highway Services
  Will operate the highway once it is operational. They have more than 15 years of hands-on maintenance and operations experience on the Sea-to-Sky Highway.

JJM is one of BC’s largest road builders and has constructed major portions of the Island Highway. Hatch Mott MacDonald (HMM) will lead the highway’s design for Peter Kiewit Sons ND Lea, McElhanney Engineering Services, and Urban Systems are the three sub-consulting firms who have all worked on preliminary design of the proposal.

Not only will the highway project extensively improve the reliability and capacity of the corridor in time for the surge of visitors and competitors in 2010 for the Winter Olympics; the redevelopment is also intended to accommodate the province’s population growth and economic development until 2025.
Average daily traffic volumes between Horseshoe Bay and Squamish, on the route to Whistler, are forecast to increase from the current 13,700 to 22,000 by 2025; a 60 per cent increase. Vehicular throughput using the stretch of road between Squamish and Whistler is forecasted to rise by 56 per cent – from 7,700 to 12,000 for the same period. Official development plans for communities along the corridor suggest that population growth will double over the next 25 years.

The Project
In order to minimise both the risk to the project schedule and disruption to traffic flow, construction work on two sections of the corridor are already being delivered. Sunset Beach to Lions Bay is underway and the Culliton to Cheakamus stretch was completed in 2004. These two sections were procured in the traditional design construct style by the provincial government.

Under the contract, the remainder of the highway is divided into five main stretches which currently have just two lanes. The following sections of road will expand the arterial road in the following areas by 2009:

- Horseshoe Bay through Lions Bay (four lanes)
- Lions Bay to Murin Park (mix of two, three, and four-lane sections. The two-lane sections will be temporarily upgraded to three-lane for the 2010 Winter Olympics)
- Marin Park to Squamish (four lanes)
- Squamish to Whistler (three lanes)

Safety improvements will also include highway straightening and improving sightlines, additional median barriers, installing rumble strips and reflective road markings and upgraded intersections.

On the sheer cliffs along Howe Sound up-slope excavation will be minimised and rock catchment areas added, to reduce the danger of falling rocks. Where possible, new lanes will be added on the down-slope side, reducing the need to blast large volumes of rock. The curvilinear roadway design will also improve safety as drivers will be less likely to accelerate in straight sections and then abruptly slow down at curves. The project will also improve earthquake resistance and the ability of bridges to withstand lightning strikes and debris torrents from creeks and rivers.

Due to economic activity generated along the corridor the project is expected to create 6,000 new jobs throughout the province and bolster the country’s GDP by US$249m over the period between 2010 to 2025.

Transaction details
With the complex nature of the project and the Olympic deadline looming ever closer; it was imperative that the procurement process proceed in an efficient and prompt manner. Within a few months of announcing preferred bidder, the British Columbia transport ministry and the Sea-to-Sky Transportation Group reached financial close on the US$498m Sea-to-Sky Highway Improvement Project on 6 June 2005.

To prove how serious the province was on pushing through this project at speed, all the while maintaining a high level of competition between the bidders, honoraria were offered to unsuccessful bidders throughout the procurement process.

The swift financial close was aided by a portion of the honorarium being dedicated to the legal fees of the project funders. This freed up the work to be done before a preferred bidder was selected.

Of a total capital cost of US$498m, the cost of the DBFO component of the project is roughly US$332m, two-thirds of the total. From the sale of BC’s rail operations, the transport ministry is investing US$166m in the project – which is covering the first phase of the project, the traditionally procured construction work.

As the mandated lead arrangers, Société Générale and the Royal Bank of Scotland put together a senior debt loan facility of US$412m, while MEAP provided US$86m of equity – which was divided into a mix of subordinated debt and equity. The debt-to-equity ratio is 85:15. Syndication for the senior debt facility is currently underway and is expected to be completed by August.

Due to the province’s competing infrastructure demands and the fact that it was committed to funding the project in its entirety, the province needed to maintain a reasonable budget for the project.

Therefore, as financial advisers to the Province of British Columbia, Ernst & Young (E&Y) advised the government to find a funding structure that limited its exposure to potential costs over the concession period. It helped the government develop a structure that divided the project into eight periodic payment mechanisms to the concessionaire. A total performance payment for any given year will be calculated through three main components:

- availability payment
- vehicle usage payment
- performance incentive payment

This mechanism gives the consortia incentives to meet specific performance standards while sharing traffic volume risks. To ensure that the province will not be faced with costs over a pre-determined budget value, it set down an annual affordability ceiling which the consortium could not exceed in the calculation of its total performance payment. In order that the highway be returned to the province in an acceptable condition an end of term payment was also negotiated. Linklaters, Blake Cassels and Graydon were the legal advisers to MEAP, while Macquarie North America acted as its financial advisers.

Lovells and Borden Ladner Gervais provided legal advice to the banks while the Attorney General of British Columbia and Fraser Milner Casgrain were legal advisers to the government.

Conclusion
The importance of the Sea-to-Sky project and the vital role that it will play in making it possible for the province to host the 2010 Winter Olympics was highlighted by the host of domestic and international groups that made up the final three consortia vying for the contract.
And the task of upgrading some of Canada’s most treacherous roads was no mean feat as the project will see the winning consortium, Sea-to-Sky, construct roads on some of the country’s most beautiful yet challenging landscapes.

The efficiency and speed that the second large-scale road PPP project in British Columbia was procured and closed is further proof that the province’s PPP (or ‘P3’) market is well and truly up-and-running.

The success of this project thus far will give great confidence to developers, investors and advisers looking to tap into the handful of other PPPs in the area, though a lot of the feel-good factor will undoubtedly come from the honoraria that have been dished out to losing bidders.

There are also real signs of positive action in other areas of the Canadian P3 market. In July 2005, an eight-member PPP agency for projects in Quebec was established and a new capital agency for the Canadian province of Ontario was established recently to help deliver US$2.4bn worth of PPP projects in the area.

The Sea-to-Sky project might also prove an interesting model for the UK to follow as it has proved fast to close. In light of the recent award of the 2012 Olympic Games to London, the project could act as a template for the UK where there is a lot of work to be done in a short timescale.

Edward Berry