

Transportation

Highways & Bridges

Client

British Columbia Ministry
of Transportation

Location

British Columbia, CAN

"CH2M HILL showed flexibility and willingness to go the extra mile to manage changes and issues, as well as advise on an innovative procurement strategy that satisfied financial, schedule, and scope constraints."

Peter Milburn, Assistant Deputy
Minister, Ministry of Transportation

Sea-to-Sky Highway

Project Highlights



- Delivering the first public-private partnership (PPP) of a design-build-finance-operate (DBFO) transportation project for the Province of British Columbia
- Continues an ongoing role in the project, acting as the contracts manager responsible for developing and implementing long-term contract relationships on behalf of the province
- \$450+ million (CDN) reconstruction to improve the 100 kilometer highway linking Vancouver with the Whistler Mountain/Blackcomb ski resort areas in time for the 2010 Olympic Games

Project Description

As part of Highway 99, the Sea-to-Sky Highway winds its way through the Coast Mountains, linking communities from West Vancouver to Whistler. British Columbia's Ministry of Transportation initiated the Sea-to-Sky Highway Improvement Program to increase this road's safety, reliability, and capacity. In addition to meeting the area's future traffic needs, the upgrades will enhance economic development opportunities in communities along the highway and in the province as a whole. Benefits of the program include:

- A straighter highway and improved sightlines, creating more consistent driving speeds and shorter travel times
- 80 kilometers of new passing lanes between Horseshoe Bay and Whistler
- Safety features such as highly reflective pavement markings, shoulder and centerline rumble strips, and median barriers
- Wider shoulders for improved safety and to accommodate cyclists and disabled vehicles
- Stronger bridges to withstand potential damage from debris when water levels are high
- Enhanced monitoring of road conditions by electronic weather stations to improve highway maintenance response during winter weather
- Created 6,000 new jobs throughout the province as a result of economic activity generated along the corridor

CH2M HILL is working with the British Columbia Ministry of Transportation and Partnerships British Columbia to improve the Sea-to-Sky Highway, which will provide vital access to the 2010 Winter Olympic Games in Vancouver and Whistler. CH2M HILL is providing program and contract management services, as well as procurement services, in directing the overall development of the design-build-finance-operate program for the Sea-to-Sky Highway—the only route connecting the two Olympic venues. Because the program presents complex engineering, construction, and



management challenges, including the highway's difficult mountainous terrain and the lack of precedence with concession operations in British Columbia, CH2M HILL applied sound business judgment to resolve the unique issues in the corridor.

Individual improvement projects include:

Kelvin Grove to "M" Creek Highway Design—This project included planning and preliminary design of 3 kilometers of mountain highway upgrading and widening through the Village of Lions Bay. Context sensitive design solutions were used to ensure consistency with adjacent sections.

Horseshoe Bay to Lions Bay Design-Build—This project involved straightening and widening, from two lanes to four lanes, a 10-kilometer stretch of road, that winds along nearly vertical rock faces. CH2M HILL developed contract documents, managed design and construction procurement, and is currently directing this project through construction.

To achieve key project objectives, CH2M HILL encouraged contractors to be innovative and established performance-based technical requirements for the individual projects. CH2M HILL also reviewed project risks to identify those which were to be retained by the government, transferred to the contractor, or shared through an incentive payment concept. The process developed during this assignment will ultimately be used by Partnerships British Columbia on other significant transportation infrastructure projects in the province.



As procurement manager, CH2M HILL guided the planning, preparation, and implementation of an innovative procurement process that linked key project objectives—improved safety, reliability, and mobility; enhanced operations and maintenance; and schedule, budget, and traffic management—to the evaluation and performance payment processes. CH2M HILL used this procurement process to increase interest in the program, attract strong proponents, and maximize competition. The process also greatly benefited the Ministry of Transportation by avoiding inappropriate risk transfer and excessive contingency pricing.

Awards

At the 2005 Canadian Council for Public-Private Partnerships, annual dinner, the Sea-to-Sky Highway Improvement Project received the National Gold Award. This award is presented annually to honor governments, and their private-sector partners, for demonstrated excellence and innovation in establishing public-private partnerships that benefit the public interest through infrastructure projects.

The award was accepted on behalf of the province by the Minister of Transportation of British Columbia, Kevin Falcon, who noted that the project's procurement process has not only provided significant additional benefits to the users of the corridor, but it has also set a standard that many other projects and jurisdictions are striving to follow.

The Sea-to-Sky Improvement Project also received the award for Best Global Project to Reach Financial Close at the 2006 Public Private Finance



(PPF) Awards. The award recognizes global projects that demonstrate effective risk assessment and transfer, efficiency in achieving financial close, design quality and sustainability, flexibility and alternative asset use, and innovation in service delivery. The PPF Awards aim to promote best practices while recognizing innovation and excellence.

In addition, the project received First Place in Specialized Engineering Services from the 2006 Ministry of Transportation of Canada Awards.