2007

The Canadian Council for Public-Private Partnerships

2007 National Award Case Studies

Autoroute 25 (Montréal), Québec

Kicking Horse Canyon Project – Phase 2, British Columbia

Durham Consolidated Courthouse, Ontario

VIHA Residential Care & Assisted Living Capacity Initiative, British Columbia

The Canadian Council for Public-Private Partnerships

Le Conseil Canadien pour les Partenariats Public-Privé

The Canadian Council for Public-Private Partnerships

2007 National Award Case Studies

The Canadian Council for Public-Private Partnerships

June 2008

Table of Contents

Introduction

As the number of public-private partnerships (P3s) in Canada continues to grow, so do the number of sectors in which P3 offers an alternative to traditional public-sector delivery. While the public-private partnership model is not appropriate for every project, greater experience among both government agents and Canadian companies is translating into new areas for P3 development. As of the writing of this publication in Spring 2008, a total of $5.7 billion worth of operational P3 projects in Canada have been completed, with a further $7.5 billion currently under construction. Moreover, there are active P3 programs in four provinces (British Columbia, Alberta, Ontario and Quebec), and two others (Nova Scotia and New Brunswick) are looking at expanding their project lists. The federal government also showed strong support for the P3 model through P3-related infrastructure funds and a new Crown corporation (PPP Canada Inc.), which will be responsible for administering some of the funds and promoting P3s.

This level of activity is exemplified in the quality of applications for the 2007 Awards. This year, The Canadian Council for Public-Private Partnerships received 13 applications for the Awards for Innovation and Excellence in Public-Private Partnerships from five provinces, and from sectors as diverse as social infrastructure, roads, wastewater and justice. A panel of impartial experts from across Canada reviewed the submissions and selected winners based on a number of key criteria, including:

- innovative features;
- relevance/significance as a national model and/or abroad;
- economic benefit;
- enhancement of quality and excellence;
- appropriate allocation of risks, responsibilities and returns; and
- effective use of financing and/or use of non-traditional revenue.

The Awards program is made possible through the generous support of our 2007 National Awards Program sponsors:

- Partnerships BC
- PricewaterhouseCoopers LLP
- TERANET Inc.
- Acciona Infraestructuras

Production of the *2007 National Award Case Studies* has been made possible through a financial contribution from Infrastructure Canada. The views expressed herein do not necessarily represent the views of the Government of Canada.

The *Case Studies* are distributed for free to over 1,200 members of The Council, representing a wide variety of companies and all levels of government across Canada. The *Case Studies* are also available for purchase, with proceeds used to support the various activities of The Council and its diverse research programs.

Award Winners

This year, the selection panel chose Silver Award recipients in the categories of infrastructure and project financing, as well as Awards of Merit for project financing, innovative procurement and implementation of the P3 process. A Chuck Wills Award and Champion Award were also given in 2007. The Chuck Wills Award was established in 2003 to honour a long-time supporter of The Canadian Council for Public-Private Partnerships, and is presented solely to P3s in the municipal sector. The Champion Award is given to individuals who have made an outstanding contribution to P3 in Canada. Previous recipients were the late James MacLaren and Chuck Wills, as well as Hon. Donald Macdonald, Mac Carson, Glenna Carr, Gary Collins and Hon. Michael H. Wilson.

The following are brief summaries of each of the 2007 National Award recipients:

Autoroute 25 (Montréal), Québec

The **Silver Award for Project Financing** was awarded to the Québec Ministry of Transportation and Concession A25 for Autoroute 25 in Montréal.

This roadway and toll-bridge project involves the completion of Autoroute 25 (the A-25) in the Montréal Metropolitan Area. The new 7.2-km portion will be a four-lane divided highway, and will include interchanges, overpasses and a 1.2-km bridge across Rivière des Prairies. This new section establishes a direct physical link in the eastern part of the metropolitan area and will serve to support the economic development of the eastern sections of Montréal and Laval.

By using the P3 model, it is estimated that the government will save $226 million for Québec taxpayers, and the project will be completed two years earlier than if procured using a conventional public-sector approach to highway construction. Total financing of $570 million was committed for construction, including $220 million in equity from Macquarie Infrastructure Partners, $270 million in senior bank debt from Société Générale, and the government payments. The 35-year Partnership Agreement includes an innovative "Gradual Toll Increase System" that offers minimum revenue protection as well as up-side toll revenue sharing.

Kicking Horse Canyon Project – Phase 2, British Columbia

The **Silver Award for Infrastructure** was awarded to the BC Ministry of Transportation and Trans-Park Highway Group for the Kicking Horse Canyon, Phase 2 project.

The Kicking Horse Canyon Highway Improvement Project involves three phases to improve the safety, reliability and capacity of a 26-km section of the Trans-Canada Highway between the junction of Highway 25 in Golden and the western boundary of Yoho National Park in eastern British Columbia. This stretch of highway had one of the highest accident rates in the province. Phase 2 includes the replacement of the Park (10 Mile) Bridge, upgrading 5.8-km of highway, and operation and maintenance of the entire corridor through Kicking Horse Canyon for 25 years. Cost savings are estimated to be $18.1 million (10 per cent)—compared to the Public Sector Comparator—and the bridge opened two months ahead of schedule, which was 21 months earlier than the traditional procurement estimate.

Construction innovations included a temporary overhead bridge to haul excess material (and minimize traffic disruption) and using excess fill to allow for future highway widening. The dramatic new 405-metre-long bridge soars 90 metres above the canyon floor and uses a jump-form system to allow the columns to widen or narrow continuously from ground to bridge.

Durham Consolidated Courthouse, Ontario

The **Award of Merit for Project Financing** was awarded to Infrastructure Ontario and Access Justice Durham for the Durham Consolidated Courthouse project.

The courthouse will consolidate several outdated court facilities into one state-of-the-art justice facility for the Region of Durham. The Alternative Finance and Procurement (AFP) project involves the design, construction, financing and maintenance of the facility for 30 years. The $334-million agreement will result in $49 million —or 11.47 per cent net present value—in savings to the Government of Ontario, compared to the traditional public-sector delivery model. Construction is funded with $24 million in equity provided by Babcock & Brown Public Partnerships Ltd. and a $214-million senior bond issue.

The project achieves a number of benchmarks for the province: the first DBFM project under Infrastructure Ontario's AFP program; the first AFP brownfield site project; and the first high-performance green Government of Ontario building.

VIHA Residential Care and Assisted Living Capacity Initiative, British Columbia

The **Award of Merit for Innovative Procurement** was awarded to the Vancouver Island Health Authority (VIHA) and their private-sector partners for the VIHA Residential Care and Assisted Living Capacity Initiative project.

The design-build-finance-operate (DBFO) project involves 1,230 long-term care beds and assisted living spaces in eight communities on Vancouver Island. Nine contractors were selected to develop the 10 facilities, at a total capital cost of $210 million, and operate them for 20 years. The bundling of the 10 projects in a single procurement allowed proponents to submit proposals for some or all of the beds/units required for one or more of the local health areas. This approach accelerated the schedule, allowing the final agreements to be negotiated simultaneously. The procurement included proposals from for-profit and not-for-profit teams, as well as from local and international companies. Proponents were encouraged to innovate using proposals that demonstrated inventive programming, new models of care and design flexibility.

The average cost per long-term care bed received in the proposals was $200,000, compared to $300,000 on average in existing facilities. The "communities of care" designs allow the VIHA to provide a full range of housing and care options in one location.

Northeast Stoney Trail Ring Road, Alberta

The **Award of Merit for Implementation of the P3 Process** was awarded to Alberta Infrastructure and Transportation and Stoney Trail General Partnership for the Northeast Stoney Trail Ring Road in Calgary.

Based on its positive experience with the Anthony Henday Drive Southeast Leg Ring Road P3 in Edmonton, the Government of Alberta decided to emulate the design-build-finance-operate (DBFO) model with the Stoney Trail project. The project involves a 21-km stretch of the Calgary ring road, including 15 kilometres of a new four-lane divided roadway and six kilometres of a new six-lane divided roadway together with numerous interchanges and flyovers. Estimated cost savings of 37 per cent were achieved through standardization of the contractual documentation and the procurement process. The 30-year contract is valued at $650 million net present value.

Once completed, the new portion of the ring road will facilitate access to the Calgary Airport and future residential and industrial development in the northeast of Calgary. It will also provide a much-needed alternative to the Deerfoot Trail, the busiest stretch of road in the province.

Sooke Core Area Sanitary Sewer System, British Columbia

The **Chuck Wills Award** was awarded to the District of Sooke and EPCOR Water Services Inc. for the Sooke Core Area Sanitary Sewer System.

The District of Sooke, with a population of 8,700 was the second-largest community on Vancouver Island without any form of municipal sewage treatment. The municipality did not have the in-house expertise to operate a facility, so it procured a design-build-operate (DBO) contract with EPCOR for a new 27-km-long collection system, three pumping stations, an outfall, and a new 3,000-cubic-metres/day secondary treatment plant. The total agreement value is $24 million, compared to an estimated $27 million for traditional procurement, with total annual savings per resident estimated to be $500. Residents voted 74 per cent in favour of the project, and wastewater leakage from individual septic systems is no longer a problem, thus reducing the environmental impact on the Sooke harbour and basin.

Pierre Le François

The **2007 Champion Award** was presented to Pierre Le François, Executive Director of the Association nationale de éditeurs de livres (Canadian association of French-speaking publishers). Mr. Le François is the former President of the Society of Partnership and Cooperation and former President of the *Institut pour le Partenariats Public Privé* in Québec. He was a Board Director of The Canadian Council for Public-Private Partnerships from 1997 to 2006 and is the eighth recipient of the Champion Award.

This year the *National Award Case Studies* profile the Silver Award-winning projects and two of the Awards of Merit. The case studies are based on personal interviews, written submissions, procurement documentation, published reports and legal contracts. As well as providing source material, the public- and private-sector partners have reviewed and validated the information in each case study. We are very grateful to them for not only contributing significant community benefits through their projects, but also for sharing their knowledge in order to help others develop outstanding public-private partnerships in this country.

Observations

There are a number of trends and benefits evident in these case studies as well as in the P3 market in general over the past several years:

- governments are increasingly using independent value-for-money audits to prove that the P3 model provides better value to taxpayers than traditional procurement over the life of the agreement;
- protection from inflationary pressures such as labour and resources made possible by fixed-price, fixed-date contracts;
- a significant deal flow across Canada that is allowing governments to refine their processes and allowing companies (national and international) to hone their skills and improve their efficiency;
- recognition from governments (such as British Columbia and the federal government) that major infrastructure projects should be evaluated for their P3 potential;
- the concept of bundling projects to achieve economies of scale, as was done with the Alberta P3 schools procurement in 2007/2008 and the VIHA Residential Care and Assisted Living Capacity described below, has not been used since the Nova Scotia schools P3 program in 1997; and
- environmental benefits that innovations such as LEED-certification and performance-based contracts allow.

There are common themes and interesting developments in the *2007 National Award Case Studies*.

Innovative engineering maximizes benefits to people and the environment

When the private sector is given the latitude to innovate in its design and construction techniques, it is amazing what can be accomplished. All of the case studies this year, in their own ways, exemplify innovative engineering that make them models for their respective sectors. The Kicking Horse Canyon overcame huge challenges with regard to the geography of the area that required the bridge to be built halfway up a sheer 180-metre canyon. Trans-Park Highway Group used a jump-form system that allowed the bridge columns to narrow or widen continuously along their 90-metre height. The VIHA Residential Care and Assisted Living capacity project introduced design flexibility that allows the facilities to adapt to changes in service delivery models and to expand based on demand. The Access Justice Durham proposal for the Durham Consolidated Courthouse incorporated several leading-edge environmental elements, including LEED Silver certification upon completion, a LEED Gold Existing Building designation and a Go Green Plus certification every three years. The consortium also committed to managing energy consumption within five per cent of a target, with overages paid by Access Justice Durham and savings shared between the partners. Finally, the 1.2-km bridge in the Autoroute 25 project will incorporate a cable-stayed section to minimize the impact on the freshwater sturgeon habitat located in the deep portion of the river below. A multi-functional path for pedestrians and cyclists on the bridge, and reserved bus lanes on the road, help reduce the impact of greenhouse gas emissions.

Detailed value-for-money reports verify P3 savings

Thorough value-for-money analyses were conducted on all four projects, and in three cases (Kicking Horse Canyon, Durham Consolidated Courthouse and Autoroute 25), they were verified by independent consultants. Those three demonstrated cost savings totalling more than $293 million and the VIHA Residential Care and Assisted Living Capacity Initiative reduced the average cost per bed by $100,000, or 33 per cent. Additional value-for-money indicators can be seen in on-time, on-budget delivery, improved service levels, performance-based outcomes, lifecycle maintenance and other project-specific innovations. Value for money reports have become the new standard in evaluating the success of a particular P3 project and are a powerful tool in addressing any opposition to the model.

Pioneering procurement practices and project attributes that further enhanced the P3 model

Each of the four projects became "first-evers" in several distinct ways that demonstrate why they are leaders in their respective jurisdiction or field. VIHA realized the economies of scale that can be gained by bundling several smaller projects together in a single procurement process. It negotiated nine agreements for 10 facilities that resulted from 52 proposals from 34 different proponents. A Notice of Intent, ample time to prepare proposals, and simultaneous negotiations meant the VIHA could surpass their deadline of opening the facilities by December 2008. As detailed above, the Durham Consolidated Courthouse was the first high-performance green Government of Ontario building. But it was also the first AFP brownfield site project and the first DBFM project under the province's AFP program. P3 justice projects are re-emerging in Canada and this pioneering project will be used as a model for others to emulate. Finally, Autoroute 25 was Quebec's first foray into transportation P3s and will also be the province's first transportation project to use electronic tolling. The private partner on Autoroute 25, Concession A25, will be protected from toll revenue shortages and will also share toll revenues above certain thresholds.

Lifecycle maintenance will keep infrastructure in good repair for many years to come

Government infrastructure projects, and P3s in particular, are increasingly focussing on the life cycle of the asset. Rather than constructing the road, bridge or building at the lowest possible cost and often shortening the lifespan, the operational component of the P3 agreement incentivizes the private sector during the design and construction phase to anticipate maintenance requirements for 20 or more years. Each of the private-sector partners in the following case studies will be required to operate and maintain the bridge, long-term care facilities, courthouse or highway for periods ranging from 20 to 35 years according to high standards set by the respective governments. Failure to do so will result in financial penalties and even termination. Moreover, if incentives are built in to save operating costs (e.g. energy consumption in the Durham Consolidated Courthouse or minimizing landslides in the Kicking Horse Canyon corridor), then the private sector will maximize innovation.

Acknowledgements

The process for receiving, evaluating, presenting and writing up the National Awards for Innovation and Excellence is an almost-year-round activity involving many people. The Awards serve many purposes, including national recognition and pride for the recipients and the lasting legacy of case studies that describe the "who, what, when, where and how" of the projects' development and execution. Several people deserve special mention for the time and dedication they offer in making the entire Awards process run smoothly.

Awards Chair Cynthia Robertson and CCPPP Administrator Carla Walmsley have proven to be an effective team for over six years as they coordinate the application and evaluation processes, raise the necessary funds to sustain the program and produce both the Awards ceremony and *Case Studies*. Thank you to them both for their continued enthusiasm and support.

In November, our researchers began the formidable task of sifting through legal documents and websites as well as engaging the people who delivered the projects in a thorough interview process, ultimately resulting in the text you are reading here. John Chenery and Deborah Reid are both adept at bringing the projects alive on paper and helping both novices and veterans understand better what makes a successful P3 tick. The CCPPP Board of Directors thanks them for their significant contributions to the research efforts of The Council.

An advisory panel composed of members of The Council's Board of Directors and other industry experts reviewed all the Award submissions and a number of them read the final case studies. Their expertise, knowledge and feedback greatly enhance the integrity of the Awards process and help make the *Case Studies* read flawlessly. The Council is continually grateful for their dedication to the Awards program and their individual contributions to the Canadian P3 market.

We would like to thank:

CCPPP Board Members

- Cynthia Robertson (Chair)
- D. Robert Beaumont, Partner, Osler, Hoskin & Harcourt LLP
- Larry McCabe, Clerk-Administrator, Town of Goderich

CCPPP Member Advisors

- Saad Rafi, Partner, National Infrastructure / Project Finance, Deloitte & Touche LLP
- Dr. Alan Russell, Professor, Department of Civil Engineering, University of British Columbia
- Alain Massicotte, Partner, Blake, Cassels & Graydon LLP
- Cliff Inskip, Managing Director, Debt Capital Markets, CIBC World Markets
- Peter Hepburn, Managing Director, CIT Energy & Infrastructure

The entire Awards program is made possible through the generous contributions of our Award sponsors. Their support enables The Council to celebrate the best in Canadian P3s and further the body of knowledge around these projects across the country and around the world.
The Council would like to thank the following sponsors of the 2007 Awards program: Partnerships BC, PricewaterhouseCoopers LLP, TERANET Inc., Acciona Infraestructuras and our research sponsor, Infrastructure Canada.

AUTOROUTE 25 (MONTRÉAL), QUÉBEC

2007 Silver Award for Project Financing

Quick Facts – Autoroute 25

Project type

Design-Build-Finance-Operate-Maintain (DBFOM)

Service

35-year Partnership Agreement for the completion of a 7.2-km stretch of highway with electronic tolling system on the 1.2-km bridge portion

Partners

Ministère des Transports du Québec (Ministère)

Concession A25 S.E.C. (Concession A25)

Other participants

Public Sector:

Participants:

- Partenariats public-privé Québec

Advisors:

- PricewaterhouseCoopers s.r.l. and its sub-contractor, Casgrain & Compagnie Limitée – finance and selection process advisors
- Fasken Martineau DuMoulin LLP – legal advisor
- Anrdré Dumais, P. Eng. – selection process auditor
- Cima+/BPR Consortium and their sub-contractors – engineering advisors:
  - Daniel Arbour & Associés s.e.n.c.
  - SETEC TPI, France
  - Michel Virlogeux, Engineering Advisor, Design and Engineering Structure
  - Excotech Inc.
  - Bruno Massicotte, P.Eng., Ph.D., École polytechnique de Montréal
- Donald Carter, Consultant
- Le Groupe-Conseil LaSalle Inc.
- Groupe conseil Loctrans Inc.
- PB Consult Inc.; Travol; HBA Specto Inc.; ADEC-Géocom; Inro Solutions Inc.
- LOGMA S.A. – traffic and revenue advisors
- Lowndes Lambert Québec Ltée – bond, insurance and risk management advisor
- Partnerships BC – P3 advisors
- AHB 2000 Inc. – P3 advisors
- VYM Consultants Inc. – P3 advisors

Private Sector:

Participants:

- Macquarie Infrastructure Partners – equity
- Macquarie North America Ltd. – financial advisor
- Société Générale – senior debt
- Kiewit Corporation – design-build joint venture
- Parsons Corporation – design-build joint venture
- Miller Paving Ltd. – roadway operations, maintenance and rehabilitation
- TransCore LP – electronic tolling systems
- Genivar – project design
- Ciment St-Laurent Inc., Division Demix – construction

Advisors:

To Infras-Québec & Concession A25

- Stikeman Elliott LLP – legal advisors
- Deloitte – tax and accounting advisor, financial model auditor
- Hatch Mott MacDonald – technical advisor
- Marsh Inc. – insurance advisor
- Maunsell|AECOM – traffic advisor

To Macquarie Infrastructure Partners

- Gowling Lafleur Henderson LLP – legal advisors

To Société Générale

- Blake Cassels & Graydon LLP – legal advisors
- Jacobs Consulting – traffic advisor and technical advisor
- Moore-McNeil LLC – insurance advisor

Financial characteristics

Macquarie Infrastructure Partners is providing $220 million in equity funding and Société Générale is providing senior bank debt funding of $270 million required to complete the construction.

Ministère des Transports du Québec will pay an $80 million construction payment in instalments at key construction milestones, plus an availability payment of $13.4 million per year for 31 years of operations.

Other features

- First electronic tolling system in Québec
- First P3 transportation project in Québec
- Minimum revenue protection and up-side sharing of toll revenue
- Enhanced access for taxis, public transit, cyclists and pedestrians
- Maximum annual average daily traffic level to reduce environmental impacts

Partnership Agreement and other documents

Available at: www.mtq.gouv.qc.ca

Overview

This is a combined roadway and toll-bridge project in the Montréal Metropolitan Area which involves completing the construction of Autoroute 25 (the A-25) by building a 7.2-km stretch of highway between Henri-Bourassa Boulevard in Montréal and the Autoroute 440/A-25 interchange in Laval. The new portion will be a four-lane divided highway, and will include interchanges, overpasses and a 1.2-km bridge across Rivière des Prairies.

The bridge will have six lanes and a multifunctional path for pedestrians and cyclists. Preferential measures will be included for public transit in the form of reserved bus lanes in Laval and in Montréal.

The *Ministère des Transports du Québec* (the Ministère), with the assistance of Québec's public-private partnership agency – *Partenariats public-privé Québec* – ran a private partner selection process that resulted in the selection of Concession A25 S.E.C. (Concession A25) as the preferred proponent.

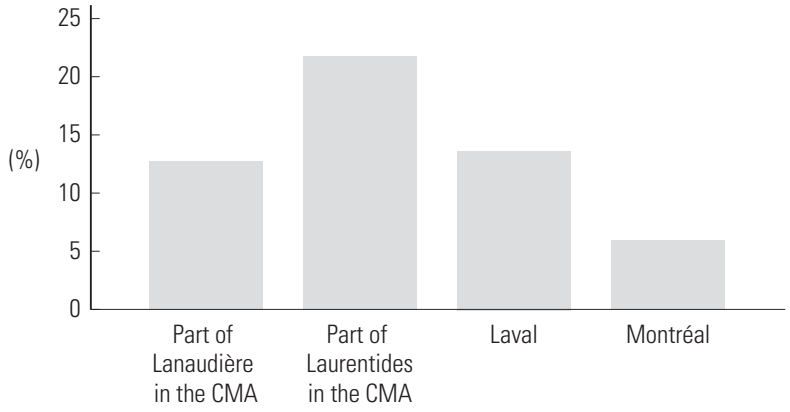
The project achieves a number of benefits for the Montréal Metropolitan Area. The new section establishes a direct physical link in the eastern part of the metropolitan area among the northern suburbs, Laval, Montréal and the South Shore. It will also serve to support the economic development of the eastern sections of Montréal and Laval. Socioeconomic benefits have been estimated at approximately $1.5 billion.

By undertaking this project using a public-private partnership (P3) model, the government will save $226 million for Québec taxpayers, and the project will be completed two years earlier than if completed using a conventional public-sector approach to highway construction.

The project achieves a number of firsts: it is Québec's first P3 transportation project and it is the first use of an electronic tolling system in Québec. Tolls will be charged to bridge users only.

The 35-year term of the Partnership Agreement is performance based with deductions for non-performance and non-availability. There is also a provision for an end-of-term holdback. The innovative "Gradual Toll Increase System" provides for minimum revenue protection and up-side sharing of toll revenue. The system was designed to meet a condition of the environmental approval to keep traffic volumes to a maximum of 68,000 vehicles on average per day.

Demographic Growth, 2001-2021



Background and Rationale

Planning for the A-25 dates back to the early 1970s, in the context of planning and developing major highway infrastructure to serve the Montréal Metropolitan Area and to improve connections with surrounding regions. The purpose of completing the A-25 is to provide a direct and efficient link between the eastern metropolitan area (Montréal and Laval) and the Lanaudière region.

The 7.2-km stretch of road will be an essential component of the road network given the strong economic and demographic growth which has already taken place in the area and is forecasted to continue in Laval, in the Laurentides and Lanaudière regions, and in the Anjou/Mercier economic hub. The figure above shows that demographic growth will be especially strong in the Laurentides and Lanaudière regions (the areas north of Montréal and Laval) that are primarily accessible using the A-25.

Impetus for the project

The absence of a continuous link in the A-25 corridor between Montréal and Laval currently requires users to take a 7-km detour via the Pie-IX Bridge, or an 11-km detour via the Charles-De Gaulle Bridge. The result is a major overflow of traffic onto the Autoroute Métropolitaine (A-40) and on the local road network, as well as deterioration in the quality of life of residents in Montréal-North, Anjou and Rivière-des-Prairies.

The completion of the A-25 will enable commuter, transit, and truck traffic to travel across the northeastern section of the metropolitan region and avoid the detours. Motorists and truck drivers who wish to avoid the A-40 will also be able to bypass the centre of the city using this toll road.

Completing the link will have the added benefit of fostering economic development in the eastern section of the Montréal Metropolitan Area.

Project Objectives	
User Objectives	► Reduce daily travel time ► Reduce vehicle maintenance and operating costs
Community Objectives	► Reduce pollution caused by vehicles ► Support economic development of east-end Montréal and Laval ► Maximize the economic benefits for Québec generated by the construction and operating expenditures related to the project

Description of the Project

The project involves completing the construction of the A-25 by building a 7.2-km stretch of highway between Henri-Bourassa Boulevard in Montréal and the A 440/A 25 interchange in Laval.

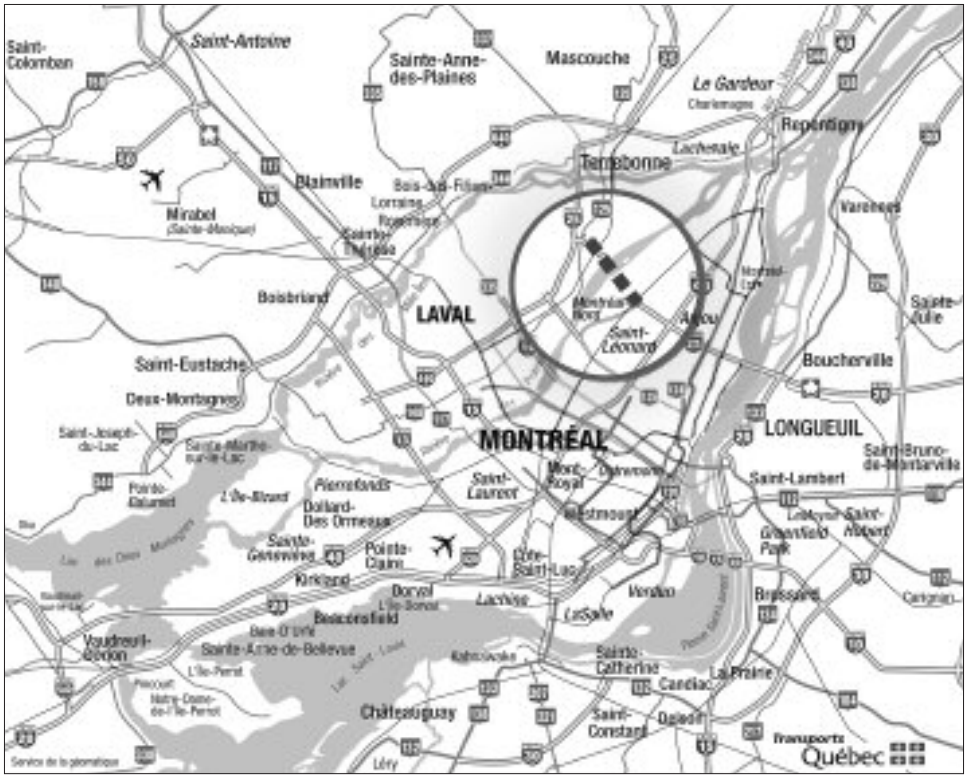
The new section will be a four-lane divided highway, including interchanges and overpasses and a 1.2-km bridge across Rivière des Prairies. The bridge will be comprised of six traffic lanes (three lanes in each direction), and a multifunctional path to enable pedestrians and cyclists to cross freely.

The bridge is approximately 34 metres wide and 1,166 metres long. Taking into account a freshwater sturgeon habitat that is located in the deep portion of the river below, the Ministère has planned for a cable-stayed section in order to minimize the need to build pillars. There will be a maximum of nine pillars in the river.

The project incorporates preferential measures for public transit in the form of reserved bus lanes in Laval and in Montréal. In addition, an electronic toll system is planned for users of the bridge only.

The posted speed limit will be 100 km/h for all express lanes. The layout of the lanes and autoroute structures must allow for the possibility of adding an additional lane in each direction.

The following map shows the location of the project in the northeast section of the Montréal Metropolitan Area:



Source: Ministère des Transports du Québec

Procurement Process

Selecting the P3 model

The completion of the A-25 has been the topic of several studies in recent years. The results of these enabled the Ministère to conclude that completing the A-25 as a P3 would offer more benefits than by doing so using a conventional approach. The government also tested the project against the principles established in its *Overall Policy for Public-Private Partnerships*, adopted in June 2004. The five principles are:

- Justified and confirmed needs;
- Emphasis on specific results rather than on the methods of attaining them;
- Financially feasible projects;
- Best value for the public funds invested; and
- Optimal risk allocation.

The P3 approach chosen by the Ministère has the private partner responsible for the design, construction, financing, operation and maintenance of the autoroute section to be completed, including the expressways, the bridge, and the toll system, for a period of 35 years.

Legislative framework

The government authorized the launch of the process to select a private partner and carry out the project as a design-build-finance-operate-maintain (DBFOM) public-private partnership through a number of laws and regulations.

The two main laws governing the development and formation of the partnership are *An Act Respecting Transport Infrastructure Partnerships* (R.S.Q., c. P-9.001) and *An Act Respecting the Agence des partenariats public-privé du Québec* (R.S.Q., c. A-7.002). Then, by passing supplementary regulations through Orders-in-Council 1245-2005 and 659-2006, the government authorized the Minister of Transport to launch and carry out the selection process for the execution of the project as a P3. The selection process demonstrated the government's willingness to choose the least expensive proposal that satisfied all eligibility and compliance criteria.

Selecting a partner

Before the partner selection process began, the project was publicized through media interviews and at national and international P3 conferences.

A communication plan was prepared to launch the Request for Qualifications (RFQ) to inform the public and, more specifically, international consortia, about the project. Different communication activities were planned and completed. Among them, a press conference with the participation of four Québec Ministers was held to launch the RFQ process. A press release was sent out to the national and international media and advertisements were published in major newspapers in North America. Communications were also sent to major financial, construction and P3 print- and web-based journals.

The Ministère des Transports du Québec website (www.mtq.gouv.qc.ca) also provided, and continues to provide, extensive information on the project. Likewise, similar communication

activities were undertaken for the launch of the Request for Proposals (RFP). Throughout the entire partner selection process, many media interviews were given.

Competitive process

The strategy leading to the selection of the proposal and the private partner involved several steps designed to ensure robust competition among respondents, with a view to completing the project at the lowest possible cost while adhering to the Ministère's requirements. The selection of the best proposal took place in three main steps under the supervision of an independent fairness auditor:

1. RFQ,
2. RFP, and
3. Finalization of the Partnership Agreement.[1]

In the first step, an RFQ was issued on December 22, 2005 with a submission deadline of March 3, 2006. Four submissions were received and were evaluated by a selection committee in terms of technical ability, financial capability and financing ability. *Appendix 1* shows the structure of the selection committee.

There were six assessment criteria with scores ranging from 10 to 20 points for each one. The three respondents with the most points above 60 were invited to move on to the next stage.

Evaluation Grid

Assessment Criteria	Maximum Grade
1. Financial capability and financing ability	0 – 20
2. Ability in project management	0 – 20
3. Ability in design	0 – 20
4. Ability in management of the environment	0 – 10
5. Ability in construction	0 – 20
6. Ability in operations, maintenance and rehabilitation	0 – 10
Total	**100**

[1] For all documentation related to the A-25 Completion Project, only the French version of the documentation is official and has legal effect.

All four respondents qualified, with the three top scorers moving onto the next step of the selection process. They were (in alphabetical order):

- Consortium Nouvelle Route comprised of: Acciona S.A., Bouygues Travaux Publics S.A., Groupe AXOR Inc., Le Groupe S.M. International Inc., Arup Canada Inc.
- Infras-Québec A-25 (Concession A25) comprised of: Macquarie Bank Ltd., Construction Kiewit Cie, Ciment St-Laurent Inc., Parsons Overseas Company of Canada Ltd., Genivar Groupe Conseil Inc., Miller Paving Ltd.
- SNC-Lavalin comprised of: SNC-Lavalin Inc., Simard-Beaudry Construction Inc., American Bridge Canada Company, T.Y. Lin International Inc., Dessau-Soprin Inc.

These three qualifiers submitted detailed proposals in response to the RFP issued on July 20, 2006. This second step had a three-stage evaluation process.

Stage 1 involved ensuring compliance with the eligibility criteria. Proposals that failed to meet any of these criteria would be automatically rejected.

Proposals considered to be eligible would then move on to Stage 2, which involved assessing their commercial, technical, and financial compliance. This evaluation was on a pass/fail basis and all three were deemed to be compliant.

In Stage 2, the selection committee could ask proponents for clarifications or rectifications with responses required within limited time periods.

In the third stage, the selection committee chose the proposal that offered the lowest cost of the availability payments (expressed in the present value[2] as at July 1, 2007). Only the availability payments were considered when evaluating the cost of proposals. This approach presumed a set construction payment schedule for all proposals of $80 million.

The lowest cost proposal was submitted by Infras-Québec A-25 (now Concession A25).

The process followed reflected the government's intention to select the lowest-cost proposal that met the minimum criteria (in order and compliant) while maintaining competition during the selection process for as long as possible. Once the proposals were determined to be in order and compliant, the only discriminating factor was cost.

Finalizing the Partnership Agreement

The final step in the process, the finalization of the Partnership Agreement, consisted of adapting the generic partnership agreement to the specific characteristics of the preferred proponent's financial proposal and legal structure. This was accomplished by designing the process for selecting a private partner to minimize negotiations after the preferred proponent was selected.

[2] The present value of the payments was calculated using a 6.5% annual discount rate and presuming that payments within a given year are compliant with the terms indicated in the Partnership Agreement.

This strategy involved the following steps:

1. The qualified respondents were invited to submit their comments and suggestions concerning modifications to the Partnership Agreement on three occasions before submitting their proposals.
2. Revised versions and a final version of the Partnership Agreement that reflected the modifications acceptable to the Ministère were distributed to the qualified respondents.
3. The proposals that each of the qualified respondents submitted on March 30, 2007 were based on the final version of the Partnership Agreement. The RFP also stipulated that a letter from the financial backers must accompany the submitted proposal, confirming their acceptance of the final version of the Partnership Agreement.

To maintain fairness and transparency, no further negotiations were permitted. The preferred proponent was announced on June 9, 2007.

The Partnership Agreement was submitted to the government for final approval, prior to its signature by the Minister. This approval was received on June 27, 2007.

The Partnership Agreement was signed September 13, 2007. It was subsequently published by the National Assembly within 30 days of its being executed. It is also available on the Ministère's website.

Timelines

2005	**December 22**	Issued RFQ
2006	**March 3**	Deadline for RFQ submissions
	March 31	Announced qualified respondents
	July 20	Issued RFP
2007	**March 30**	RFP closed
	June 9	Announced preferred proponent
	June 27	Government approval received
	September 13	Signed Partnership Agreement and completed financial closing
	October	Partnership Agreement made available to the public
2011	**September**	Expected commissioning

Name of private partner

Concession A25 (Infras-Québec A-25).

Infras-Québec A-25 was a consortium formed to take part in the bidding process. The lead member of Infras-Québec A-25 was Macquarie Infrastructure Partners who provided the equity. Other participants were Kiewit/Parsons (design-build joint venture), TransCore (electronic tolling system), Miller Paving (OMR), and Genivar and Ciment St-Laurent (design-build team members). In addition, there were a number of other entities involved in the bid process, including Société Générale, providing the senior debt, and five additional design-build team members:

- Construction Garnier Ltd.;
- International Bridge Technologies;
- Rowan Williams Davies & Irwin (aerodynamics);
- Golder Associates, Qualitas, Queformat, Solmatech (geotechnical & materials); and
- Dr. Thomas Brown (ice impact on bridge piers).

Fairness of the process

In order to assure government authorities and the respondents that the principles of fairness and transparency were respected throughout the selection process, the process auditor, André Dumais, P. Eng., examined each stage of the process. He observed the manner in which the selection process was conducted, and issued an independent opinion stating the process was conducted fairly and transparently in accordance with the provisions of the RFQ and RFP documents.

M. Dumais published a report following each stage of the selection process. In his final report he attested to the fairness of the process and said: "the selection of Infras-Québec A-25 as a private partner has been the result of a consultation and selection process under the terms of which the principles of equity, impartiality and transparency have been respected at all times, a selection process that has been conducted within a context of fair and honest competition for all participants."

Overall Structure of the Agreement

The Province of Québec and Concession A25 signed the DBFOM Partnership Agreement on September 13, 2007. This agreement is the key document governing the relationship between the parties and includes the following main terms:

- The term of the agreement is 35 years, including four years for design and construction activities and 31 years for operation, maintenance, and rehabilitation (OMR) activities.
- The private partner is responsible for the design and construction of structures, the related risks, and commissioning the infrastructure.
- The private partner, during the OMR period, must operate the infrastructure in accordance with the Partnership Agreement. Failure to respect the OMR requirements may give rise to deductions for non-availability and non-performance.
- The private partner is responsible for financing the activities.

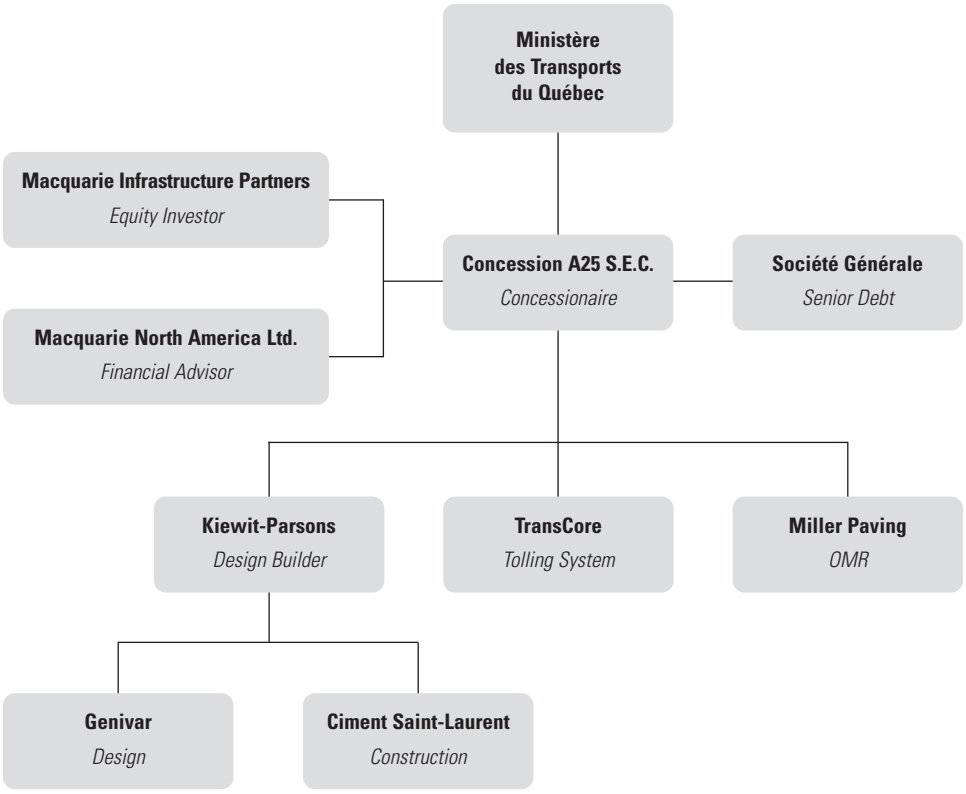
- In exchange for carrying out these activities, the Ministère will pay the private partner a total amount, according to the terms of the Partnership Agreement, that represents the sum of:
    1. the construction payment of $80 million in current dollars paid at certain stages during the design-construction period;
    2. the availability payment due from the commissioning date, calculated in accordance with the terms of the Partnership Agreement. This payment totals $13.4 million in current dollars, paid annually for the 31 years of operation;
    3. the remittances linked to toll revenues—an amount equivalent to the toll revenue collected by the private partner on behalf of the government. This amount is subject to a revenue guarantee or, if applicable, to sharing of toll revenue according to established thresholds;
    4. the non-availability deductions related to the availability of the infrastructure;
    5. deductions for non-performance, which are related to the failure to respect the OMR requirements for the infrastructure; and
    6. the holdback for end-of-term requirements, if applicable, that will take place at the end of the Partnership Agreement.
- The Ministère is responsible for monitoring the agreement for compliance and non-performance and the private partner is required to report events and provide data and information on a periodic basis.

Structure of the consortium

Concession A25 S.E.C. is the legal entity which forms the private partner. The concession agreement, or the Partnership Agreement, was signed by Concession A25, a wholly owned indirect subsidiary of Macquarie Infrastructure Partners. Other team members were considered "participants" for the purposes of the bidding process; however, they are now subcontractors.

Concession A25 has signed three main contracts: 1) the infrastructure design-build contract; 2) the infrastructure operations, maintenance and rehabilitation (OMR) contract; and 3) the contract for the electronic toll system. The contractual relationships are shown in the *Structure of the Consortium* chart below.

Structure of the Consortium



Kiewit and Parsons will carry out the roadway design and construction through a design-build joint venture. This joint venture team also includes a number of key sub-contractors, including Genivar (design) and Ciment St-Laurent, Division Demix.

Miller Paving will provide OMR services for the life of the concession (35 years). Miller Paving is a Canada-wide highway OMR services provider.

TransCore is a leading, U.S.-based, tolling technology company that has installed more than 20 tolling systems across North America. TransCore Québec, the company's Canadian-based Intelligent Transportation Systems (ITS) operations, is installing the fully electronic tolling system. TransCore also has a contract to operate the A-25 tolling system after the project is commissioned.

Financial Arrangements

Concession A25 is responsible for preparing and implementing the financing package. Total financing of approximately $570 million has been committed for construction of this project, through a combination of equity, senior bank debt and government payments.

Financing capital costs

Macquarie Infrastructure Partners will provide $220 million in equity funding for the project. Macquarie Infrastructure Partners is a $4-billion New York-based unlisted equity fund that invests in infrastructure projects across North America.

Société Générale is funding $270 million in senior bank debt required to complete the construction of the Project. Société Générale is a major lender to infrastructure projects globally.

The Ministère des Transports du Québec will pay an $80-million construction payment in instalments at key construction milestones. Further details on the conditions associated with this payment are provided in the next section.

Payments

Concession A25 will be compensated for all risks and responsibilities assumed under the Partnership through a combination of the following payments:

- construction payments;
- availability payments; and
- remittances linked to toll revenues.

These payments are subject to deductions or holdbacks in the event of failure to comply with the requirements of the Partnership Agreement.

Construction payments

Construction payments consist of multiple instalments totalling $80 million in current dollars payable during the construction phase upon the achievement of certain milestones. Each payment will be made after the Independent Engineer certifies the completion of a milestone.

The Independent Engineer is Delcan. Their contract was written by the Ministère and the expense is paid through the private partner's contract.

Availability payments

The availability payment will be paid to Concession A25 on a monthly basis as of the Substantial Completion Date of the works. This payment totals $13.4 million in current dollars, paid annually for the 31 years of operation.

Remittances linked to toll revenues/ revenue sharing

Toll revenue from vehicles using the bridge across the Rivière-des-Prairies will be collected by Concession A25 on behalf of the Ministère, and will be remitted on a daily basis in a dedicated fund as of the tolling commencement date.

Concession A25 is guaranteed a minimum revenue amount in the event that toll revenues are below a fixed level while the traffic lanes are available and the electronic toll system is reliable. This guarantee amounts to approximately 60 per cent of the revenue estimated by the Ministère's traffic and revenue advisor. Concession A25 assumes the primary responsibility for toll collection risk.

Revenues in excess of the guarantee will be kept by Concession A25 up to approximately 120 per cent of the revenue estimated by the Ministère's traffic and revenue advisor. Revenue beyond this threshold will be shared equally between Concession A25 and the Government.

Deductions and holdbacks

The deductions and holdbacks from the full payment (availability payment plus toll revenues) are intended to encourage the private partner to:

- maximize traffic lane availability, particularly during rush hour;
- meet performance and safety requirements, such as driving comfort, maintenance, towing, and lighting; and
- undertake OMR activities and respond to unexpected events quickly in order to minimize their impact on traffic, and thereby maximize toll revenue.

The main deductions or holdbacks for failure to meet requirements are as follows:

- **Non-availability deductions** – Concession A25 will be assessed closure deductions for situations that hinder the availability of traffic lanes due to their own actions or omissions. These deductions are calculated based on duration, time of day, number of unavailable lanes, and direction (north or south) of the unavailable lanes. For each payment period, the non-availability deductions must not exceed the availability payment.
- **Non-performance deductions** – Concession A25 will be assessed non-performance deductions for failure to meet the performance standards set out in Schedule 5 of the Partnership Agreement. These deductions are calculated on the basis of the number of non-performance points accumulated per day. Non-performance points apply after the response time permitted for remedying the non-performance has elapsed. Non-performance points vary with the nature of the non-performance. For each payment period, the non-performance deductions must not exceed approximately $650,000 (expressed in July 2006 dollars) per month.
- **Holdback for end-of-term requirements** – In the final three years of the Partnership Agreement, the Ministère may reduce the payments that are otherwise due to Concession A25 to the extent that the end-of-term requirements related to the condition of the structures are not met. These holdbacks are possible if the inspections provided for in the Partnership Agreement indicate that work is necessary in order to meet the established conditions.

Toll framework

The toll framework in place for the entire term of the Partnership Agreement is known as a "Gradual Toll Increase System." It is based on vehicle classification and maximum and minimum traffic volume thresholds, with maximum and minimum toll rates during peak periods and off-peak periods. Within the maximum and minimum toll rates, the private partner sets tolls at its discretion. The maximum and minimum may, however, vary according to traffic thresholds.

The Gradual Toll Increase System was designed to meet the condition of the environmental approval to keep traffic volumes to a maximum of 68,000 vehicles on average per day. The toll mechanism authorizes the private partner to increase tolls beyond the maximum rate allowed when traffic hits this threshold (according to an annual rolling average calculated monthly). It is anticipated that the higher tolls will discourage drivers from using the bridge, and thus reduce congestion.

Future tolls

After the first 12 months following the tolling commencement date, the maximum and minimum peak period and off-peak period tolls will be adjusted annually according to the rate of inflation. Also, subject to achievement of the traffic volumes specified in the Partnership Agreement (under the Gradual Toll Increase System) maximum and minimum peak period and off-peak period tolls can increase more quickly than the rate of inflation (for example, if average annual traffic volumes per lane are higher than 3,000 vehicles/hour for three consecutive months, the maximum toll rate may increase above the initially set toll rate).

Statutory collection framework

An Act Respecting Transport Infrastructure Partnerships (R.S.Q., c. P-9.001) provides rules and procedures for determining the toll amounts and collection. In particular, it provides the private partner with the ability to establish, charge, and collect toll amounts with respect to any road vehicle or any category of vehicle on a road infrastructure designated by the Minister, subject to any standards that the government establishes by regulation.

Toll collection risk is mainly the responsibility of the private partner, but the government has mitigated that risk somewhat by including a provision for revoking the vehicle permit (not the driver's licence) of those not paying tolls owed. A very detailed collection procedure is prescribed providing opportunities to have a toll in dispute reviewed, by increasing levels of decision-making authorities, with the ultimate authority being the Administrative Tribunal of Québec. If the toll remains owing after following the process, and the person fails to pay within 30 days, the private partner may notify the Société de l'assurance automobile du Québec (SAAQ) and request non-renewal of the vehicle permit.

Risk Allocation

The allocation of the principal risks and responsibilities over the term of the Partnership Agreement is illustrated in the following table:

Allocation of Principal Risks and Responsibilities

Principal risks and responsibilities	Risks and responsibilities assigned to: Concession A25	Minister[3]
Obtaining environmental permits and authorizations		
CAR (certificate of authorization for the project)		■
CAC (certificate of authorization for the construction)	■	■
Required federal permits and authorizations	■	■
Authorizations pursuant to the *Act Respecting Land Use Planning and Development* (R.S.Q., c.A-19.1)		■
Other licences, authorizations, and road permits	■	■
Design and construction of structures for which the Private Partner is responsible		
Cost overruns	■	
Delays	■	
Moving public utilities	■	■
Selecting the toll technology	■	
Principal contractor, as defined by the *Act respecting Occupational Health and Safety* (R.S.Q., c. S-21)	■	
Contaminated soil – undocumented and in existence prior to execution of the Partnership Agreement		■
Contaminated soil – documented or resulting from construction and OMR of the structures for which the private partner is responsible	■	
Geotechnical risks	■	
Acquisition and ownership of the right-of-way		■
Obtaining of temporary easements	■	

(continued on page 28)

[3] The Partnership Agreement is signed by the Minister, who is the Ministère's representative.

Allocation of Principal Risks and Responsibilities (continued)

Principal risks and responsibilities	Risks and responsibilities assigned to: Concession A25	Minister[3]
Financing and financial conditions		
Inflation risk during the construction and operation phases	■	
Benchmark interest rate fluctuation risk during the period beginning two weeks before the deadline for submitting proposals and ending one day before the financial closing	■	■
Interest rate fluctuation risk on or after the financial closing	■	
Sharing profits from refinancing	■	■
OMR of works for which the Private Partner is responsible		
OMR of the structures for which the Private Partner is responsible and the electronic toll system	■	
Condition of assets upon hand-over to the Minister at the end of the Partnership Agreement	■	
Toll		
Setting up the toll system	■	
Collecting tolls and accessory fees	■	■
Toll revenue risk	■	■

Benefits

The project is expected to benefit users and the community in a number of ways.

Cost savings/value for money

A value-for-money analysis following the execution of the Partnership Agreement was undertaken. The analysis was based on a comparison of total project costs to the Government of Québec as of July 1, 2007[4] according to:

- the terms and conditions of the Partnership Agreement; and
- a traditional procurement approach using a public-sector-comparator model compiled by PricewaterhouseCoopers.

The total cost of the proposal submitted by Concession A25 was determined by taking the following elements into consideration:

1. payments by the government;
2. the cost to the Ministère of monitoring the Partnership Agreement; and
3. the residual value of assets.

The analysis found that the net cost of carrying out the project as a P3 is $143.1 million net present value (NPV) as shown in the following table:

Total Cost Of Concession A25's Proposal

	NPV at July 1, 2007 ($millions)
Payments to Concession A25	
► Construction Payments	64.7
► Availability Payments	141.9
Agreement monitoring costs	19.4
Execution costs	**226.0**
Residual value	(82.9)
Net project execution cost under the terms of a P3	**143.1**

[4] The net present value of money for calculating both private and public sector comparators was taken into consideration by adjusting cash flow for the elements identified using a 6.5% discount rate for them to be expressed as a single amount as at July 1, 2007.

The Public Sector Comparator was first developed in the fall of 2005 during the preparation of the initial business case; it was updated in March 2007, and again after execution of the Partnership Agreement for this analysis.

Determining the cost of the Public Sector Comparator took the following elements into consideration:

1. Government payments:

- the costs for the project components (cost for the design, construction and OMR costs, including the operation of the toll system).

2. Other relevant cost elements:

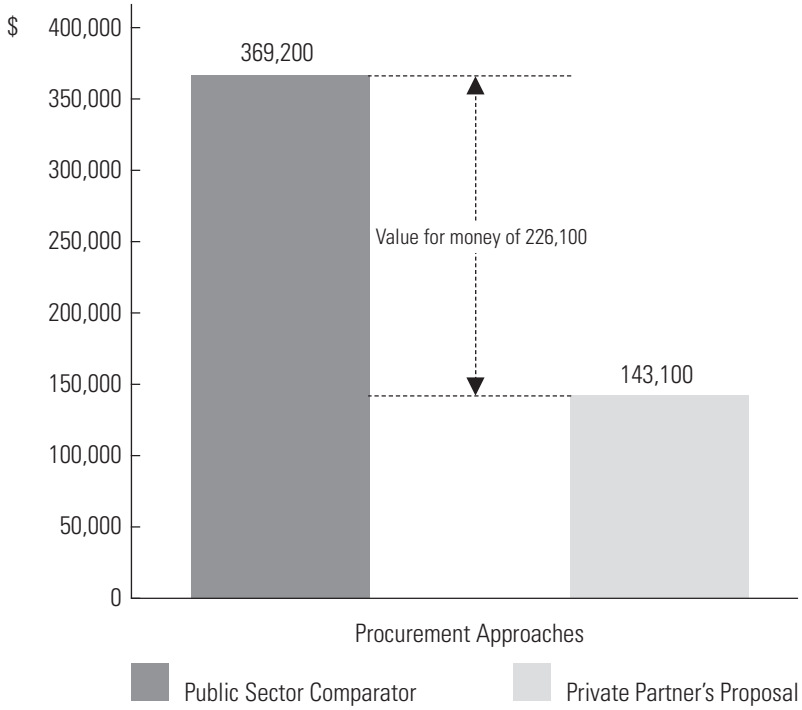
- the toll revenues collected by the government in accordance with the forecasts prepared by the traffic and revenue advisor;
- the quantification of risks that are expected to be transferred to the private partner (under the terms of a P3), but that are assumed by the Ministère under a conventional approach; and
- the residual value of the assets.

The net cost of carrying out the project under a conventional approach was estimated at $369.2 million (NPV) as shown in the following table:

Public Sector Comparator

	NPV at July 1, 2007 ($millions)
Project cost over 35 years	483.6
Toll revenues	(198.2)
Risk quantification	
▸ Cost overruns	68.7
▸ Related to toll revenues	85.7
▸ Other	11.1
Net execution costs	**450.9**
Residual value	(81.7)
Net project completion cost	**369.2**

Value-for-Money Analysis ($000's)



The figure above illustrates the overall results of the analysis comparing the two approaches and showing that using a P3 model will result in cost savings of $226.1 million (NPV).

The value-for-money analysis also noted that using a P3 model garners a number of qualitative benefits:

1. project commissioning is advanced by two years;
2. clearly defined maintenance and rehabilitation requirements are outlined;
3. the government benefits from sharing toll revenues; and
4. the government benefits from income and business taxes paid by the partners.

Community benefits

According to a cost-benefit analysis undertaken by the Ministère, the project will also generate important socioeconomic benefits of approximately $1.5 billion (in 2004 dollars), in terms of saving travel time, reducing vehicle maintenance and operating costs and reducing automobile pollution. Overall the project has a cost-benefit ratio of 3.4 to 1.

User satisfaction

The primary goal of the project is to improve the average travel time along all of the main alternative routes, namely the Pie-IX, Papineau, and Charles-De Gaulle bridges. The completion of the A-25 will result in:

- decreased daily travel time for users, and less time wasted;
- reduced vehicle maintenance and operating costs for users;
- increased travel comfort and improved safety; and
- maintaining the level of service below traffic congestion levels, even during rush hour.

Economic benefits

Economic and commercial activity will be enhanced by establishing a direct physical link for the movement of goods and people in the eastern part of the metropolitan area among the northern suburbs, Laval, Montréal, and the South Shore. This link will also serve to support the economic development of the eastern sections of Montréal and Laval, which will, in turn, have a positive effect on local employment levels.

The project also results in the completion of a bypass for the greater Montréal Metropolitan Area via the northeast for those who want to avoid using the metropolitan section of A-40.

Environmental benefits

Decreased travel times, reduced traffic on the A-40 between the A-25 and Autoroute 15 (A-15), and the elimination of detours will reduce the production of greenhouse gases (GHGs) by vehicles.

In addition, the project incorporates preferential measures for public transit in the form of reserved bus lanes in Laval and in Montréal, and includes a multifunctional path for pedestrians and cyclists. These features will contribute to the reduction of GHGs, and the availability of the multifunctional path will support physical activity.

Communications

When the project was initiated, many information sessions were held by the Ministère with staff and elected officials from the local municipalities and boroughs, and with local residents.

Québec law required the Ministère to undertake an environmental impact study as part of the authorization process. As part of the impact study the *Bureau d'audience publique en environnement* (BAPE)[5] was mandated to study and hold public hearings on the project. Its work lasted four months, from May 16 to September 16, 2005, and during that period the BAPE organized public hearings in Montréal and Laval, portions of which were dedicated exclusively to hearing briefs and oral statements from individuals, municipalities, organizations, and other stakeholder groups.

[5] BAPE is a body dedicated to public information and consultation on projects likely to have a major impact on the environment or any other question related to the quality of the environment. The BAPE is the gateway for citizens to get involved in the project authorization process. Following each of its mandates, the BAPE provides a report to the Minister outlining citizens' concerns and opinions. In the case of a public hearing, the BAPE also informs the Minister of its findings and its analysis in regard to the project concerned.

Once the partner selection process began, the Ministère kept the public informed through news releases and by posting all documents related to the project on the Ministère's website at www.mtq.gouv.qc.ca. All documents are available in French, and a selection of documents is available in English. The Partnership Agreement is only available in French. The Ministère also kept interested stakeholders informed of progress on a regular basis.

On the private partner's side, Concession A25 was required to develop a communications management plan for the design-build phase of the project as part of its bid. The objective of the plan is to keep stakeholders informed about the project and manage information requests and complaints. As a result, Concession A25 has established an internal committee to reactively manage information requests and complaints, and to proactively develop and disseminate information about the project.

This will include providing information on issues such as:

- traffic delays;
- noise or dust caused by the construction;
- interruptions having a direct impact on the local community or on a particular stakeholder group;
- work or road closing notices; and
- road conditions.

Concession A25 plans to use several methods of communication including their website, flyers, letters, meetings, public notices, and signs.

Labour

There will be no transfer of labour from the government for carrying out the completion of the A-25. This would be the case even if the project had been carried out in a conventional manner, as traditionally the Ministère would contract for highway construction and OMR services.

For the project itself, the Kiewit-Parsons partnership will see that it has access to the expertise of its employees, who will be involved in the design and construction of the stayed-cable bridge. The management staff will be composed mainly of individuals from the eastern Canada district of Construction Kiewit Cie, whose head office is in Boisbriand, Québec. Parsons employees and their families will move to the Montréal and Laval regions to support the design and construction team. Hourly workers will come from local unions, some of whom have already worked for Construction Kiewit Cie on various Québec worksites.

Other Issues

Flexibility of the Agreement

The Partnership Agreement provides for mechanisms aimed at facilitating certain modifications. Either partner may propose a modification to the Partnership Agreement pursuant to certain terms and conditions. If the government wants to make a change, they would ask the private partner for a cost quotation, and based on that, the government would then decide whether or not to proceed. If the private partner suggests a change (for instance, a good idea that

has arisen during construction), the government can accept it or not. This flexibility allows for the incorporation of innovative ideas from the private sector, and policy and legislative changes from the public sector.

Environmental approvals

Following receipt of the BAPE's report, the Minister was issued a certificate of authorization (CAR) on December 14, 2005 for undertaking the project. The CAR was subject to certain conditions based on the findings and conclusions of the environmental commission. In particular, one of the conditions established the maximum traffic threshold. This was subsequently incorporated into the Gradual Toll Increase System for the innovative payment method designed for the project.

Lessons learned

From the public sector's perspective, "It's important to have the government fully involved and supportive of the process," stated Sandra Sultana, Director of Public-Private Partnerships for the Ministère des Transports du Québec, "and more importantly, to have a 'champion' to lead the way." It is also essential to follow appropriate government approval processes for project certificates of approval and authorizations; for instance, for environmental approvals.

The opportunities during the RFP process to examine the Partnership Agreement, and the other measures implemented, minimized the negotiations required after the government's approval of the choice of the preferred proponent, and significantly reduced the time required to achieve financial close. This approach had a number of benefits:

1. It gave the government the opportunity to consider the concerns and suggestions of the proponents and to adapt the Partnership Agreement to a business environment and to the marketplace.

2. It gave the proponents the opportunity to integrate their proposals with the government's requirements set out in the Partnership Agreement.

3. It made it possible for financial closing to be reached in less than 90 days – the Partnership Agreement was signed and financial close was achieved on September 13, 2007.

Ms. Sultana also noted that it was very important to find a proper balance between being flexible enough to include new ideas in technical proposals and meeting government standards designed to protect the public, so that full advantage could be taken of private-sector innovations.

Both government and private sector participants agreed that it is extremely important to maintain the confidentiality of negotiations. Official and confidential communication between respondents and government officials during the selection process is necessary for both public and private sectors to understand each other's needs and concerns.

Being aware of experience from other jurisdictions was also noted by both partners as an important factor in developing and managing the selection process.

From the private sector's perspective, George Zakem, Vice President and Director at Macquarie North America Ltd., noted several lessons learned by Infras-Québec A-25 throughout the partner selection process:

- A fair and transparent process is key to encouraging competitive procurement processes. Accordingly, processes should be structured that: (i) have objective evaluation criteria such as technical pass/fail with lowest NPV of availability payment; and (ii) include a Fairness Advisor who participates in all interactions between the Province and bidders. The A-25 project met all these criteria.
- Provinces must demonstrate strong political support for the project, and PPPs in general, to reduce the perception of political risk. This was apparent in Québec and made a real difference.
- Provinces should endeavour to structure projects to reduce bidders' pursuit costs; for example, standardization of documentation to the extent possible, consistency in risk allocation, consistency in procurement processes, and complete information disclosure.
- Procurement processes should provide considerable communication opportunities.

Transferability outside Canada

The execution of a DBFOM project for highway infrastructure has often been successfully undertaken with a P3 approach in Canada and internationally. The innovative aspect of the A-25 completion project is the method of compensation to the private partner. This innovative payment method could be transferred to other projects, in particular in urban areas, where there is a need to establish a maximum annual average traffic level to reduce environmental impacts.

"The challenge was to find the right balance between maximizing revenues for the private partner and minimizing congestion and throughput," said Sandra Sultana, Director in the Office of Public-Private Partnerships of the Ministère. "We achieved this with an innovative payment method called the Gradual Toll Increase System which allows the private partner to increase tolls beyond the maximum rate allowed when traffic hits a certain threshold. The higher tolls will discourage drivers from using the bridge, and thus will reduce congestion."

Concluding Comments

The integration of the principal partners for this project—including the design, construction and maintenance firms—means that the project will be carried out within a shorter timeframe and at a lower cost than if undertaken as a traditional government infrastructure project. Also of note is that the partners agree that having the maintenance partner play a key role in design decisions will lead to an overall superior quality project.

Carrying out completion of the A-25 as a P3 will enable the government and its citizens to obtain better value for money for the public funds invested. In fact, its completion by Concession A25 translates into savings estimated at $226.1 million in present value as at July 1, 2007.

Furthermore, completion of the A-25 will generate significant socio-economic benefits for the Greater Metropolitan Region and for Québec in general. These benefits for road users include reduced travel time and lower vehicle maintenance and operating costs. From the perspective of the local community, benefits include enhanced economic development and lower vehicle emissions.

The significant transfer of risks to Concession A25 means the risks of cost overruns, construction delays and those associated with toll revenues will not be the responsibility of the taxpayers of Québec.

Testimonials

Public sector

The completion of Autoroute 25 is the first major public-private partnership to be undertaken in Québec. The main objectives that pressed the Ministère to go forward with a PPP project were the following:

- To conclude an agreement which assigns risks to the party that is best suited to manage them.
- To base the contractual terms of the PPP on results. The private partner is compensated for all risks and responsibilities through a combination of payments that include availability payments based on performance. This ensures that results will be achieved according to the requirements of, and at the cost set within, the Partnership Agreement. The possibility of unexpected costs arising for the government is reduced and the government can establish long-term budgets with greater certainty.
- The involvement of the private sector in the financing of a PPP gives the government access to new financing sources and it allows the government to spread its spending over the length of the contract.
- The financial discipline that investors must show in order to ensure the profitability of their investments in a PPP project ensures that they will closely adhere to all stages in the project's preparation and completion.

The Autoroute 25 project as a PPP is an excellent opportunity for the government. Its completion by the private partner, Concession A25 S.E.C., will result in a delivery two years earlier than planned as well as a better value when compared to being delivered in a traditional procurement process. From a user perspective, this means being able to travel the new highway and gather its benefits earlier.

The Ministère is proud to be working with Concession A25 S.E.C. to complete this project in a PPP arrangement.

Sandra Sultana
Director, Office of Public-Private Partnerships
Ministère des Transports du Québec

Private sector

As the private-sector partner in the A-25 Project, Macquarie is pleased to be part of the Province of Québec's first transportation public-private partnership. The A-25 project is a milestone for Macquarie, marking our first significant infrastructure investment in Québec.

The Infras-Québec A-25 team (Concession A25) includes Macquarie Infrastructure Partners, Macquarie North America Ltd., Kiewit, Parsons, Miller, Ciment St-Laurent and TransCore—leading companies in the fields of infrastructure investment, finance, transportation design, construction, operations, maintenance, rehabilitation and tolling. Macquarie is one of the world's premier infrastructure specialists, managing over C$140 billion in property and infrastructure funds.

The success of the project was made possible by the Ministère des Transports, Partenariats public-privé Québec (PPP Québec) and their business advisors and consultants. The Ministère and PPP Québec ran an excellent procurement process and offered a well-structured deal. The procurement process provided considerable communication between the Ministère and the bidders which helped to: (i) clarify the government's intentions; (ii) ensure the optimal allocation of project risks; and (iii) ensure no delays in the project schedule.

We look forward to working in partnership with the Ministère des Transports to deliver to the citizens of Montréal and Laval a transportation project of long-lasting value that improves the safety and efficiency of the transportation network and contributes to the economic well-being of the greater Montréal region.

George Zakem
Vice President and Director
Macquarie North America Ltd.

Public Sector Contact

Sandra Sultana, P.Eng. M.A.Sc.
Director
Office of Public-Private Partnerships
Bureau 13.40
500, boulevard René Lévesque Ouest
Montréal, QC H2Z 1W7
Canada
Tel: 514-873-4377 ext. 300
Fax: 514-873-6108
sandra.sultana@mtq.gouv.qc.ca

Private Sector Contact

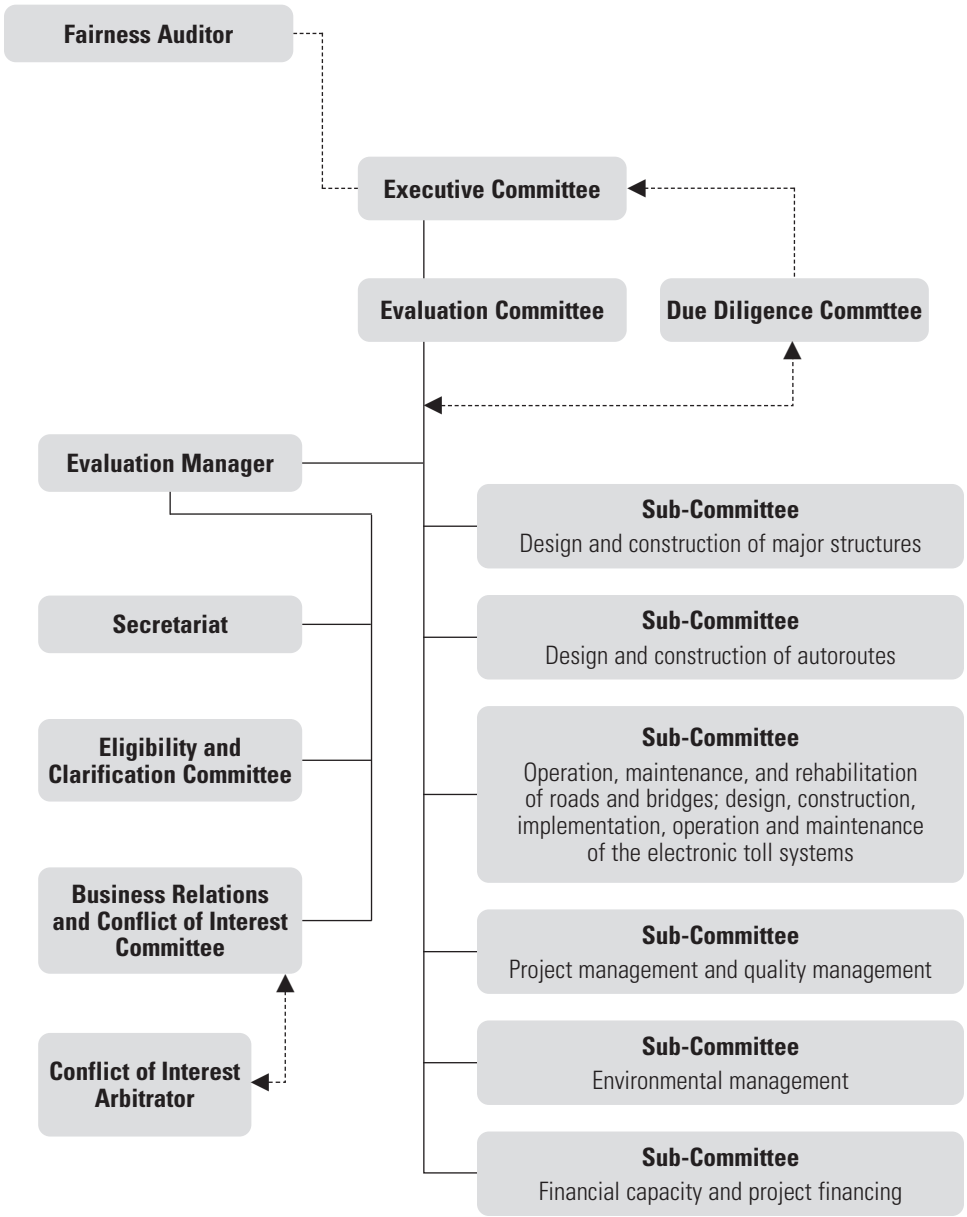
George Zakem
Vice President and Director
Macquarie North America Ltd.
Canadian Pacific Tower, TC Centre
100 Wellington Street West
P.O. Box 234, Suite 2200
Toronto, ON M5K 1J3
Canada
Tel: 416-607-5186
Cell: 416-889-4200
Fax: 416-607-5051
george.zakem@macquarie.com

Project Website

www.mtq.gouv.qc.ca

Appendix 1

Selection Committee



KICKING HORSE CANYON PROJECT — PHASE 2, BRITISH COLUMBIA

2007 Silver Award for Infrastructure

Quick Facts – Kicking Horse Canyon Project – Phase 2

Project type

Design-Build-Finance-Operate (DBFO)

Asset/Service

- Replacement of Park Bridge (also known as 10 Mile Bridge) and upgrade of 5.8 km of the Trans-Canada Highway between Golden, BC, and Yoho National Park.
- Operation and maintenance of the entire highway corridor through Kicking Horse Canyon.

Partners

Public: BC Ministry of Transportation

Private: Bilfinger Berger Project Investments Inc. (formerly Bilfinger Berger BOT Inc.) doing business as Trans-Park Highway Group

Other participants

Public sector:

- Partnerships BC – sponsor's representative
- Macquarie North America Ltd. – process advisor
- PricewaterhouseCoopers LLP – financial advisors
- Focus Corporation, Golden – lead engineer
- Coulter Consulting Ltd. – geotechnical engineer
- Stevens Engineering Ltd. – design/build advisor
- Colin McIver, Fraser Milner Casgrain LLP – legal advisor

Private sector:

- Flatiron Constructors Canada Ltd. – design/build joint venture team leader
- Parsons Corporation – design lead
- HMC Services Inc. – operation and maintenance services
- Ernst and Young – financial advisor
- CIT Capital Markets – lead mandate arranger
- KBR Inc. – lenders' independent engineer
- Davis and Company LLP – legal advisor

Financial characteristics

Total capital cost of the Phase 2 improvements is $130 million. The federal government is contributing 50%, up to a maximum of $62.5 million. The remaining financing—a mixture of equity and senior debt in the form of a bond issue—was arranged by the private partner. The expected net present cost is $166.3 million, which includes capital costs as well as operations, maintenance and rehabilitation over the 25-year life of the contract.

Other features

- **Accelerated schedule:** Innovative construction techniques and schedule efficiencies reduced the projected construction time from 44 months to 23 months.
- **Park Bridge design:** Spanning 405 meters across the Kicking Horse Canyon, at heights of up to 90 metres, the Park Bridge is the most demanding section of Phase 2 and focus of many of the project's design and construction innovations.
- **Erection of girders using incremental launching:** This innovative process allowed quick completion of the bridge superstructure.
- **Local and inclusive workforce:** 70% of the workforce is local area residents and many of the equipment operators are women.

Overview

The Kicking Horse Canyon Highway Improvement Project is a three-phase initiative to improve safety, reliability and add capacity to a critical east-west trade corridor between British Columbia and eastern Canada and the United States. Overall, it involves upgrading about 26 km of the Trans-Canada Highway to a modern, four-lane standard. Two bridges are being replaced.

With a capital cost of about $130 million, the second phase of the project involves the design, construction and financing of a 5.8 km segment of the highway including replacement of the Park Bridge, as well as the maintenance, operation and rehabilitation of the entire canyon corridor for 25 years.

Trans-Park Highway Group (TPHG), a single-purpose entity owned by Bilfinger Berger Project Investments Inc. (formerly Bilfinger Berger BOT Inc.), partnered with the Province of British Columbia (the Province) to design, build and finance the Phase 2 highway and bridge improvements and then to operate, maintain and rehabilitate the entire project.

Background and Rationale

The Trans-Canada Highway in the Rocky Mountains between Golden, BC and Lake Louise, Alberta passes through some of the most breathtaking scenery in Canada. The section through the Kicking Horse Canyon just east of Golden is a narrow, winding, two-lane highway with steep rock faces on one side and a drop-off to the CP Rail main line and Kicking Horse River on the other.

This infamous stretch of highway has one of the highest accident rates in the Province. From 1994 to 2005, there were 454 accidents—nine involving fatalities and 183 resulting in injuries. Although commercial carriers make up most of the traffic, this picturesque section of highway is also a popular route for tourists, and carries about 10,000 vehicles a day during the peak summer period.

The frequency and severity of accidents, deteriorating pavement, bad bridge conditions and poor reliability made the corridor a problem spot for all drivers – commercial, local or tourists. Because of the daunting construction, maintenance and operational challenges, it had not had a major upgrade since it was built in the 1950s.

Revitalizing this vital link to BC's ports and southern routes is critical to strengthening the Province as Canada's Asia-Pacific connection and gateway to the world. As a result, the three-phase Kicking Horse Canyon Highway Improvement Project, consisting of improvements between the Highway 95 junction at Golden and the western boundary of Yoho National Park, is the provincial government's number one transportation priority.

The highway is being upgraded to a modern four-lane standard with a design speed of 100 km/hour to move traffic more safely and efficiently. Sharp curves and steep grades are being reduced, and narrow bridges are being replaced, to increase capacity, improve traffic operations and reduce hazards.

The work is being undertaken in three major phases. Phase 1, which included replacing the 1950s-era Yoho Bridge and highway realignments, was completed in fall of 2006. Phase 2 includes replacing the Park Bridge and upgrading highway approaches. Phase 3 is a longer-term project that involves upgrading about 17 km of highway to four lanes, including significant realignment, to improve traffic flow and safety and to reduce the danger of rock falls.

Impetus for the project

The government's broad goals are to improve safety, to expand the trade corridor, and to generate economic benefits for the region by improving the flow of traffic.

The Ministry of Transport (the Ministry) set specific objectives for the project:

- Improve the safety record of the highway;
- Provide better customer service and access;
- Deliver economic benefits;
- Achieve value for money;
- Optimally manage project risks;
- Ensure that the existing road serves traffic demand during construction of improvements; and
- Optimize the condition of the asset over the long term.

Description of the Project

Steep rock faces, deep canyons and sharp bends make the Kicking Horse Canyon Highway Improvement Project one of the most technically challenging transportation projects in the Province. It is being undertaken in three phases and involves replacing two bridges and upgrading the Trans-Canada Highway, from the junction of Highway 95 in Golden to the western boundary of Yoho National Park, to a modern four-lane standard.

Phase 1 was completed in November 2006. This $64.2-million project was procured in the conventional (Design-Bid-Build) manner and jointly financed by the Provincial Government ($43.4 million) and the federal government ($20.8 million). It involved 3.2 km of highway upgrades and three construction contracts:

- A rock wall at Six Mile Hill (completed in 2001 by Dawson Construction Ltd.);
- A new Yoho Bridge and rock protection wall (built by Peter Kiewit Sons Inc. and opened in fall 2004); and
- A four-lane realignment of the highway from Six Mile Hill to two kilometres east of Yoho Bridge (completed in fall 2006 by Emil Anderson Construction Ltd.).

Phase 2 improvements involve the upgrading of 5.8 km of highway, including the replacement of the existing Park Bridge. The Phase 2 procurement also includes the maintenance, operation and rehabilitation of the entire 26 km of highway for a term of 25 years. The federal government has committed to contribute 50 per cent of the capital costs for Phase 2, up to a maximum of $62.5 million, through its Canada Strategic Infrastructure Fund (CSIF). The contract between the Province of British Columbia and Trans-Park Highway Group (TPHG) is 25 years starting October 28, 2005. The new bridge and highway approaches opened to traffic ahead of schedule on August 30, 2007. Final completion, including removal of the old bridge, was completed in March 2008.

Currently in the planning and design stages, Phase 3 is a long-term project to complete improvements to the rest of the corridor at an estimated cost of $765 million. It will involve upgrading more than 17 km of highway to four lanes, including substantial realignment, to improve traffic operations and safety and to reduce rock fall hazards. The federal and provincial governments have announced a joint funding agreement for the first two components of Phase 3, estimated to cost $134.5 million. The federal government will fund up to half of eligible costs to a maximum of $64.2 million.

Highlights of the partnership

Under the Phase 2 contract, TPHG commits to:

- provide financing for the project;
- design and construct the 5.8 km segment of the Kicking Horse Canyon corridor including replacement of the existing Park Bridge;
- remove the existing bridge;
- operate, maintain and rehabilitate the highway between Golden and Yoho National Park to established standards over the term of the contract; and
- ensure that the highway meets the hand-back conditions specified by the Province at the end of the contract.

The Province sets standards, monitors the contract and retains responsibility for property acquisition. The Province can also request further improvements at its option and cost.

Procurement Process

The unique and challenging nature of Kicking Horse Canyon Phase 2 made it an ideal candidate for a public-private partnership for several reasons:

- Combining design and construction into one contract saved time on the estimated 44 months of a design-bid-build schedule.
- Clear objectives and payment mechanisms could be established.
- The technical challenges of the highway—deep canyons, steep rock faces, etc.—introduced a significant degree of risk, with a high probability of delays, variations and cost overruns, most of which could be assumed by the proponent.
- These technical challenges also presented the opportunity for design and construction innovations that enhance safety and reliability.
- With no alternative route, a critical element of the project was to keep the highway open to traffic. Performance payments to the proponent provided the incentive to meet the challenge of keeping traffic moving during construction.

Selecting the P3 model

In accordance with the Province's *Capital Asset Management Framework*, the project team evaluated three procurement models to determine which one would deliver best value for money by meeting or exceeding project objectives for the lowest cost.

The three options reviewed were:

- Conventional delivery – separate procurements for the design, construction and operations in a linear process (often called Design-Bid-Build).
- Design-Build – developing a procurement process just for the design and build portions of the project.

  Design-Build-Finance-Operate (DBFO) – a public-private partnership procurement process for the design, construction, operation and financing of the project.

These options were evaluated against the Ministry's project objectives using a multiple criteria evaluation method that compares the different options against a range of qualitative and quantitative criteria. The analysis showed that the DBFO option offered the best potential for value for money, indicating a higher overall level of benefits in both cost and quality.

The project team's options analysis also identified a number of specific expected benefits of the DBFO approach:

- The private-sector finance component adds a level of discipline that encourages innovation and efficiency in meeting deadlines, minimizing traffic disruption and developing a design that results in better long-term maintenance. Furthermore, return on investment depends on performance. Because the proponent invests its own equity and relies on performance-based payments, it has more incentive to deliver the long-term outcomes required by the Province.
- A DBFO also allows for optimal risk allocation, with the proponent assuming risks for areas where it has the most control, such as schedule and cost. Transferring this risk to the proponent protects taxpayers from cost overruns. The proponent has an added incentive for early completion – payments begin as soon as the project is finished.
- The Province owns the right-of-way and sets performance standards to ensure that the improvements meet the needs of highway users. The proponent is responsible for meeting these standards. In exchange for assuming these risks, the proponent is rewarded for its ability to achieve savings through efficiencies in designing, building, financing and operating the project, as well as through better life-cycle planning and operations.

Value-for-Money Report

Partnerships BC releases a comprehensive "Project Report: Achieving Value for Money" or similar document for all projects in which it is involved. The provincial Auditor General reviews some, but not all, of these reports. The reports are drafted by the project team. For Kicking Horse Canyon Phase 2, the project team included representatives of Partnerships BC, the Ministry of Transportation, TPHG and project consultants (legal, financial and technical advisors). The report is based on information generated during the business planning and competitive selection phase of the project.

The report on Kicking Horse Canyon Phase 2 concludes that the contract with TPHG delivers value for money to the Province in four areas:

1. Cost savings

The project is expected to cost the Province $166.3 million net present cost over the 25-year contract. This includes the expected costs of the annual payments to TPHG for providing the improvements and for operating, maintaining and rehabilitating the whole highway corridor through the canyon. By comparison, the Ministry of Transportation estimated the net present cost of the Public Sector Comparator at $184.4 million, accounting for project risks.

Comparison of the net present cost of the Public Sector Comparator and DBFO ($2005 millions)

	PSC	DBFO
Risk adjusted NPC @ 6.95% discount rate*	175.6	158.4
Taxation adjustment	2.2	–
Procurement costs	0.2	4.5
Design and construction management costs	6.5	1.8
Contract management costs	–	1.6
Total	184.4	166.3
Cost differential		**18.1**
Percentage saving from PSC		**10%**

*** Selecting the discount rate for Kicking Horse Canyon Phase 2**

Applying a discount rate (interest rate) to the project's future cash flows expresses these amounts in the dollars of a selected reference year (in this case 2005). By applying the same discount rate to the Public Sector Comparator (PSC) and the DBFO contract, the net present cost (NPC) of the two procurement methods can be compared.

The cost of using capital is the rate of return investors will require to invest in the project. The discount rate used represents the project's internal rate of return (IRR) for Trans-Park Highway Group and this, in turn, best reflects the level of risk transfer. It is a blended cost of each type of capital – interest on debt and return on equity – and measures the overall cost of capital by taking into account the proportion of that type of capital in the project's financial structure.

The public sector's borrowing rate is low, relative to the interest rate on corporate bonds, for two reasons. First, it does not factor in any risks, essentially assuming a project is risk-free. Second, the risk of default is minimal because the government can always raise taxes to pay loans or overruns. It is not appropriate to use the public-sector discount rate to compare the PSC and the final contract because the cost of public-sector borrowing reflects the taxpayer-supported credit of the Province whereas the project IRR reflects the level of risk associated with the actual project.

The appropriate cost of capital for government borrowing is calculated by adjusting the public cost of debt by the project risk premium. Thus, the project IRR can be tied to the government cost of borrowing with the formula:
Discount rate = Private-sector project IRR = Public cost of debt + Project risk premium

2. Early completion

TPHG relied on its ability to use innovative construction techniques in proposing a dramatically shorter construction schedule than the one envisaged by the Ministry. The Province's engineering team had estimated that the improvements would be open in July 2009, with final completion in November 2009. The TPHG proposal set substantial completion 19 months earlier and offered to have the new highway and bridge ready for public use by November 2007. That schedule was part of the final contract. The bridge and highway improvements actually opened in late August 2007, another two months early and bringing an additional $2.8 million in benefits to highway users.

TPHG accelerated the work schedule by using its winter experience to minimize weather delays and by working almost around the clock for most of the construction period, even through winter. It made additional time savings by pre-fabricating structural components off-site and by using an integrated parallel process for design and construction.

3. Protecting taxpayers from cost overruns

The contract allocates project risks to protect taxpayers from cost overruns or delays. If the costs of labour or materials increase, for example, TPHG pays—not the taxpayer. TPHG does not begin to receive full payments until the project is complete—a financial incentive to finish on time.

Selecting the private partner

A project board made the key decisions regarding the project's development and competitive procurement strategy. The Province made the final decision to approve contract terms. Reporting to the project board was a management committee made up of representatives from the Ministry of Transportation, Partnerships BC and external advisors. The management committee was responsible for implementing the procurement process.

To ensure that the project is accessible to the community, the Ministry opened a project office in Golden in October 2003. The Ministry's project director is located there and is responsible for the entire Kicking Horse Highway Improvement Project.

Partnerships BC acted as business, transaction and procurement manager and also managed the peer review, the evaluation process and due diligence arrangements.

Selection process

In May 2004, the project team issued a Registration of Interest to alert private-sector construction, design, finance and operating companies that Phase 2 procurement would be beginning soon. Fifty-four companies registered an interest. Two months later, 84 people attended a proponent information meeting. The subsequent Request for Qualifications attracted responses from three qualified teams – KHC Highway Group, Trans-Park Highway Group (TPHG) and SNC-Lavalin.

A Request for Proposals was issued to the three groups in October 2004. In it, the Province set a maximum net present cost as part of the competitive selection process to ensure that proposals were within its budget. Adding this financial constraint had several positive results:

- The Province was certain that proposals would be affordable;
- Competitive price pressure was maintained since both proponents (SNC-Lavalin having withdrawn from the competition early in the RFP process) submitted proposals below the maximum net present cost; and
- Both proposals contained additional quality, technical and commercial terms, and safety enhancements above the requirements outlined in the RFP.

Evaluation process

Evaluation was a multi-stage process implemented by an evaluation committee, evaluation manager, completeness committee, technical evaluation sub-committee, commercial evaluation sub-committee and a due diligence team.

The evaluation teams included representatives from the Ministry of Transportation, the Ministry of the Attorney General, the Ministry of Finance, Partnerships BC and the public sector's engineer team, as well as an operations and maintenance (O&M) advisor and a legal advisor. Proposals were scored according to four evaluation categories: risk-adjusted net present value, technical capability, commercial capability, and safety.

Scored Evaluation of Proposals

Category	Points
Risk-Adjusted NPV	0 – 60
Technical Capability	0 – 10
Commercial Capability	0 – 10
Safety	0 – 20
Total available points	**100**

In the net-present-value category, 60 points were awarded to the project with the lower risk adjusted NPV. Not only were both proposals below the Province's maximum net present cost, but they also included extra quality, technical and commercial terms, and safety enhancements above the RFP specifications.

The Technical Capability category was divided into four sections: overall design (5 points); construction management and staging plan/environment management plan/quality plan (3 points); committed technical staffing and technical competence (1 point); and solutions to the specific problems of a joint-use rest area and rafters' pullout (1 point). If a proposal did not meet minimum submission requirements, it received no points. The proposal that most exceeded those requirements received maximum points and the other bid received points based on the quality of the submission.

Assessment of Commercial Capability was based on the robustness of the financial plan, the extent to which the financial commitment exceeds minimum requirements and time to reach financial close (2 points each), and commercial terms (4 points).

The 20 points in the Safety category were awarded according to: horizontal alignment and vertical grade of bridge structure and in tunnels (3.5 points each); geometry in transition areas to bridge structures and tunnels (2); horizontal alignment and vertical grade in areas other than bridge structures and in tunnels (2 each); coordination of horizontal and vertical geometry (2); access to joint-use rest area and rafters' pullout (2); and the new Park Bridge over Kicking Horse River (3).

TPHG was selected as the preferred proponent in August 2005 and began negotiations with the project team to finalize contract details. During this time, the group began design work under an early works agreement so that it could meet its schedule commitments. The contract was awarded to TPHG in October 2005.

Timelines

2004	**May 27**	Registration of Interest
	July 9	Proponent information meeting
	July 21	Request for Qualifications issued
	October 27	Request for Proposals issued
2005	**August**	Trans-Park Highway Group chosen as preferred proponent
	October 28	Financial close: contract awarded to TPHG
2007	**August 30**	New Park Bridge opens ahead of schedule
2008	**March**	Project completion

Competitive selection costs

From RFP to financial close, the procurement cost the Province $4.5 million. This is 2.7 per cent of the overall project value and is in line with costs incurred for similar projects of this size. About 65 per cent of the procurement costs relate to the capital works with the remainder related to operations, maintenance and rehabilitation.

Cost items included: public sector's engineer, geo-technical investigation, procurement advisor, financial and legal advisors, internal costs of the Ministries of Transportation and Attorney General, traffic consultant, and the cost of an asset condition inventory study. The total also includes a $600,000 partial compensation payment to the unsuccessful proponent.

Fairness and transparency

The evaluation process was overseen by a conflict-of-interest adjudicator and a fairness auditor to ensure that it was fair, objective and appropriate. Conflict-of-interest adjudicator Les Peterson's role was to make rulings in accordance with industry best practices and to screen evaluation team members before the start of the evaluation process.

Fairness auditor Jane Shackell, QC had full access to all documents and was available to the evaluation committee to provide advice. She reported on the fairness of the procedures and on whether the requirements of the process as defined in the RFP were met. Her report stated: "In my view, the evaluation team had appropriate resources to fulfill its tasks, and gave thorough consideration to all aspects of the proposals. I was impressed with the due diligence, energy and professionalism of the team members. Based on my direct observations, I conclude that the proposals were evaluated and scored by a process that was grounded in good faith, open, fair, objective, appropriate and in accordance with the RFP."

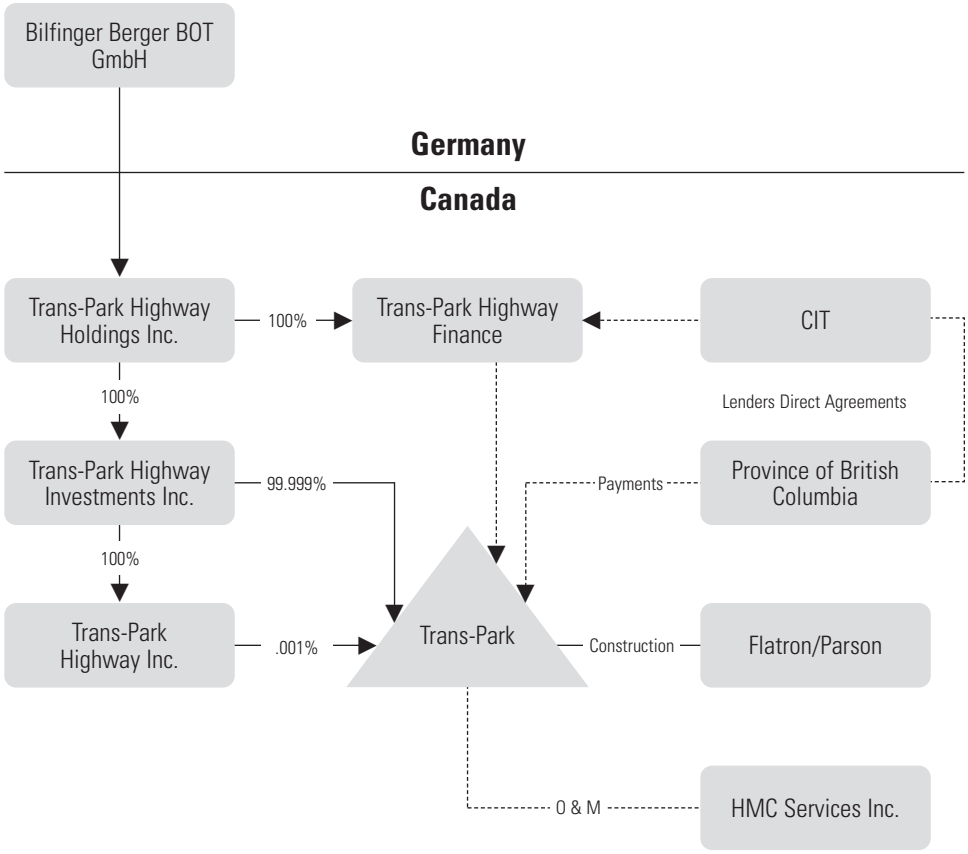
Peer review

The Province retained PricewaterhouseCoopers to undertake a peer review of the procurement process and the evaluation methodology from a commercial point of view. It determined that the commercial evaluation was undertaken in a reasonable and diligent manner.

PricewaterhouseCoopers was also asked to conduct a peer review of the public sector comparator calculations. Its report stated: "Overall, we consider that the quantitative assessment as undertaken by Partnerships BC to be reasonable and demonstrates that value for money has been achieved."

Overall Structure of the Agreement

Kicking Horse Canyon Project – Phase 2 – Agreement Structure



- Province of British Columbia – owner of highway
- Bilfinger Berger Project Investments Inc. (a subsidiary of Bilfinger Berger BOT GmbH) – owner of concession company
- Trans-Park Highway Group – single-purpose entity
- Flatiron Constructors Canada Ltd. / Parsons Corporation – Design/Build Joint Venture
- HMC Services Inc. – operator and maintenance (O&M) provider
- CIT Capital Markets – senior underwriter for bond financing

Financial Arrangements

The federal government is providing up to $62.5 million in funding to the Province towards eligible capital costs. The remaining financing for the project has been arranged by Trans-Park Highway Group through its parent company Bilfinger Berger Project Investments Inc. Equity of $12 million is provided by Bilfinger. Senior debt in the form of a $69.35-million bond financing was arranged and underwritten by CIT Capital Markets. Four companies participated in the bond issue: Canada Life Assurance Co., CIT Financial Ltd., Deutsche Bank AG and Sun Life Assurance.

Payments

The contract specifies four different types of payments to TPHG:

- Original Service Period Payments – O&M payments during the construction period;
- Enhanced Service Period Payments – availability and O&M payments following substantial completion of the works;
- Pre-Completion Performance Payments – federal grants of up to a maximum of $62.5 million, or 50 per cent of capital expenditures; and
- End of Term Payment – $4 million payable at the end of the contract period.

As mentioned earlier, the federal government is contributing 50 per cent of the capital costs, up to a maximum of $62.5 million, through its Canada Strategic Infrastructure Fund. This contribution is made during construction in the form of twice-yearly pre-completion performance payments based on eligible costs incurred by TPHG. An independent certifier verifies that the relevant capital costs have been incurred and that the work has been completed satisfactorily before the federal government transfers the money to the Province to pay TPHG.

Such substantial pre-completion payments are not common in a DBFO. They were necessary because the federal government's current grant approval and payment regime is still firmly grounded in the traditional Design-Bid-Build procurement model and has yet to be adapted to the different realities of non-invoice unitary service payments common in public-private partnerships.

During construction, TPHG also received monthly payments for operating and maintaining the whole Kicking Horse Canyon corridor. Following substantial completion of the Phase 2 improvements, monthly payments from the Ministry of Transportation will reflect a blend of these O&M payments and capital recovery costs.

The contract's performance payment structure is based on the quality of service delivered to highway users. Deductions are assessed when lanes are closed, providing a financial incentive for quality construction and maintaining the highway in good condition. TPHG is also responsible for landslide and avalanche control, and faces financial penalties in the event such a highway blockage is not removed expeditiously.

TPHG can earn an incremental increase in monthly payments if traffic volume increases. This component is considered important because it incorporates customer satisfaction in the payment structure. More traffic on the highway means that its reliability and capacity are making it a preferred route for drivers, providing another incentive to ensure that maintenance and rehabilitation are carried out to a high standard.

Contract monitoring and performance

The Ministry of Transportation will monitor the performance standards for the project throughout the 25-year term of the contract. If TPHG fails to meet the specified standards, the contract authorizes the Ministry to make deductions from the performance payment.

Risk Allocation

Project risks were negotiated and allocated to the partner deemed best able to manage them cost effectively. Under the contract, TPHG primarily assumes responsibility for risks associated with: implementing the design, construction costs and schedule; labour availability; some geotechnical conditions; price and availability of O&M resources; rehabilitation of the whole section; availability; and changes to the cost of financing. See page 54 for a detailed breakdown.

Benefits

Cost saving and value for money

As detailed earlier, the project is expected to cost the Province $166.3 million net present cost in annual payments to TPHG over the 25-year term of the contract. Comparison with a risk-adjusted public sector comparator shows a saving of $18.1 million, or 10 per cent of the total contract cost.

The contract allocates project risks to protect taxpayers from cost overruns or schedule delays and TPHG does not receive full payments until the project is complete, providing a financial incentive to complete the project on time

Economic benefits

The project's economic benefits—employment and contribution to provincial GDP—are estimated at $181.2 million, based on expected construction costs. Highway users will receive an additional direct benefit of $19.4 million as a result of such factors as travel time savings and reduced costs associated with highway closures, accidents and vehicle operations.

Because TPHG's innovative construction techniques allowed it to cut the projected construction schedule from 44 months to 23 months, drivers will also enjoy these benefits 21 months earlier, resulting in incremental benefits of $2.8 million over and above direct cost savings and economic benefits.

Risk Allocation

Risk Factor	Ministry	TPHG	Shared
Design of highway and structures		■	
Construction, including cost and schedule overruns and safety obligations		■	
Environmental factors, including changes to restrictions and permitting		■	
O&M, including latent defects in improvements undertaken by Trans-Park Highway Group		■	
Traffic management during construction and operations		■	
Relocating utilities to construct the highway and structures		■	
Land acquisition	■		
Repairing latent defects in new work on Phase 1 and 3	■		
Legislative changes (generally laws targeted at TPHG or the project structure characterized as discriminatory)	■		
Soils or other contamination remediation	■		
O&M cost increases arising from changes in the composition of traffic (e.g. more heavy trucks)			■
Geotechnical site conditions			■
Restoring highway after significant natural events (such as landslides) – Phases 1, 2 and 3			■
Construction delay caused by archaeological finds			■
General insurance premium increases			■
Legislative changes that are not discriminatory or targeted at TPHG or the contractor's industry			■
Protest or trespass actions related to construction activity (up to a predetermined limit)		■	
Inflation for construction, operations, maintenance and rehabilitation (Province 20%, Trans-Park 80%)			■

Further macro-economic benefits accrue to the region, the Province, commercial carriers, tourists and residents as a result of a safer, more reliable and more efficient travel corridor. The dollar value of these benefits has not been quantified.

Additional safety and quality benefits of innovation

TPHG's innovative construction techniques introduced a number of enhanced safety and quality features during construction and on the completed bridge and approaches:

- a temporary overhead bridge to haul excess material, minimizing traffic disruption and improving safety during construction;
- use of excess fill to construct an additional two km of highway embankment that can be used for future highway widening;
- enhanced safety in the design of the Park Bridge resulting in the creation of a better overall facility;
- eliminating unsafe features such as insufficient lanes, inadequate shoulders and sight distance;
- adding shoulder and centre-line rumble strips where most effective throughout the corridor;
- an extra eastbound rest area and truck stop;
- a new rafters' pull-out, which will improve the quality of service provided by local rafting businesses and support recreational tourism in the region; and
- an interpretive centre (upon final completion) including a nature path under the old bridge, further promoting area tourism.

Communications

The project partners organized a series of open-house community consultations, starting in January 2005. The sessions were publicized using direct mail, newspaper and radio advertisements, notices posted in various locations around Golden and through the project website. Follow-up consultations were held in March 2005, December 2005 and November 2006.

The project team, located on site in Golden, continues to provide regular community updates on progress and traffic management issues. The project website (www.kickinghorsecanyon.ca) provides public access to project updates, fact sheets, photo galleries, documents related to the procurement, community consultation information and a compendium of reports covering various aspects of the project—including planning and traffic studies, traffic volume and accident statistics and environment, wildlife and fisheries issues.

Labour

The project created 150 jobs during construction, 70 per cent of which were filled by local residents. There were no negative labour transitions and the design-build team achieved a near 100 per cent employee retention rate. Additionally, the existing operator contracted by TPHG will maintain its contract during the O&M period.

Other Issues

Applicability outside Canada

Several of the salient features of Kicking Horse Canyon Phase 2 could be applied to similar major infrastructure projects worldwide with beneficial results:

1. By using a fixed price contract, the Province was able to focus bidder responses on value rather than price. The idea of bidding for additional value rather than for best price can be used in other procurements.
2. The fixed-price RFP created significant opportunities for private-sector innovation in design, construction and maintenance. These techniques can be applied to any mountain highway project in the world.
3. The performance payments regime – with deductions for non-performance – provides a transferable structure for future procurements requiring innovative traffic management solutions.
4. TPHG's schedule optimization model can be implemented on similar projects to complete them more quickly.

Lessons learned

The process and delivery method for Kicking Horse Canyon Phase 2 has contributed to the development of the public-private partnership model in Canada and has provided the industry—both public and private sectors—with several important lessons:

1. Have a clear understanding of the evaluation criteria

Partnerships BC established a scoring system which ensured that the lowest net-present-value cost was the most important factor in the evaluation process. Scoring for safety enhancements encouraged proponents to develop innovative concepts that add significant value for the community. The scoring criteria for the commercial capability ensured the project would reach financial close, and scoring for technical capability enabled the Province to evaluate and compare the teams' methodology and personnel.

2. Ensure effective communication

Partnerships BC held numerous technical and contract review workshops which helped the concessionaire to understand the key issues for the Province and then deliver value-for-money proposals. During the delivery stage, TPHG organized meetings with stakeholders such as CP Rail and rafting companies that use the river. These discussions ensured that the concerns of stakeholders were incorporated in decisions about design and delivery.

3. True partnerships result in true innovation

The partnerships developed by TPHG, the Province and the local community throughout the delivery process were essential to the accomplishment of early substantial completion. Through a balanced partnership, all stakeholders were able to reach an understanding of each other's objectives and work towards a mutual goal.

A feat of engineering

Much of the engineering ingenuity of the Phase 2 project is contained in the majestic 405-metre-long Park Bridge, which soars 90 metres above the canyon floor and is flanked by a gateway of sheer rock face rising an additional 90 metres above the bridge deck. The striking concrete pier shape was constructed using a highly efficient jump-form system. These forms had significant flexibility to allow the columns to narrow or widen continually over their 90-metre height.

The unique pier construction technique involved tower cranes integrated into the piers to permit efficient handling of materials in a challenging construction environment. The innovative method of launching the girders involved a twin launching process that demanded careful quality control of the girder geometry during fabrication to ensure that the separate launches could be conducted successfully in the field.

Concluding Comments

The Kicking Horse Canyon Phase 2 project exemplifies the many ways that a well-structured and well-executed public-private partnership can bring value to a challenging public infrastructure project while protecting taxpayers from delays and cost overruns.

Operating in a construction environment plagued by avalanches, rockslides and torrents of debris, TPHG worked within the Province's budget constraints to achieve cost savings of more than $18 million while introducing additional quality and safety features and completing construction 21 months ahead of estimates.

Over the term of the contract, more risks are minimized for taxpayers and transferred to TPHG including some risks relating to site conditions, material cost escalation, landslides and avalanches, and much of the maintenance and rehabilitation of the highway.

Testimonials

Public sector

This performance-based contract has provided great value for taxpayers by combining stunning design work and top-notch construction along a very problematic segment of the Trans-Canada Highway. I'm delighted that the project is on budget and that the new Park Bridge is open to traffic ahead of schedule.

Hon. Kevin Falcon
Minister of Transportation
Province of British Columbia

Private sector

We are absolutely thrilled to have played a role in completing this very demanding component of the project safely and ahead of schedule. This is one of the most demanding stretches of highway anywhere, and our team has been able to open the road to motorists sooner than expected. It speaks to the power of partnerships and what the public and private sectors can do when we combine expertise from both sides.

John McArthur
President
Bilfinger Berger Project Investments Inc.
(formerly Bilfinger Berger BOT Inc.)

Public Sector Contact

Murray Tekano
Project Director
BC Ministry of Transportation
611 10th Ave N
Golden, BC V0X 1H0
250-344-3820
murray.tekano@gov.bc.ca

Private Sector Contact

John McArthur
President
Bilfinger Berger Project Investments Inc.
675 Cochrane Drive, East Tower, 6th Fl.
Markham, ON L3R 0B8
905-530-2336
john.mcarthur@bilfingerbot.ca

Project Website

www.kickinghorsecanyon.ca

DURHAM CONSOLIDATED COURTHOUSE, ONTARIO

2007 Award of Merit for Project Financing

Quick Facts – Durham Consolidated Courthouse

Project type

Design-Build-Finance-Maintain (DBFM)

Asset/Service

Construction of state-of-the-art courthouse, on a 4-acre brownfield site, with enhanced security, technology and energy efficient features; 30-year maintenance contract

Partners

Infrastructure Ontario

Access Justice Durham Ltd.
(Access Justice Durham)

Other participants

Public Sector:
Client Ministry

- Ontario Ministry of the Attorney General (MAG)

Advisors

- Ernst & Young Orenda Corporate Finance – process advisor
- Ogilvy Renault LLP – legal advisor
- BMO Capital Markets – financial advisor
- Knowles Consultancy Services Inc. – fairness advisor
- Kleinfeldt Mychajilowycz Architects Inc. – compliance architect
- Altus Helyar Cost Consulting – cost advisor
- Intech Risk Management – insurance advisor

Private Sector:
Participants

- Babcock & Brown Public Partnerships Limited – equity
- PCL Constructors Canada Inc. – design & construction
- Johnson Controls LP – maintenance

Advisors

- Babcock & Brown Canada ULC – financial advisor
- Davies Ward Vineberg Phillips LLP – legal advisor for Access Justice Durham
- Gowling Lafleur Henderson LLP – legal advisor for Johnson Controls
- PMX Inc. – project management consultant
- WZMH Architects – architect
- Cannon Design – associate architect
- Hallsall Associates Ltd. – structural engineer
- The Mitchell Partnership – mechanical engineer
- Stantec Consulting Ltd. – electrical engineer

Financing

Construction to be funded with $24 million equity provided by Babcock & Brown Public Partnerships Ltd. plus $214 million senior bond issue arranged by Babcock & Brown Canada ULC.

Access Justice Durham Ltd. receives a monthly performance-based service payment (partially indexed to inflation) from the Ontario Government in exchange for the provision of a fully functional courthouse.

Other features

The Durham Consolidated Courthouse will be a high-performance green building designed for resource efficiency and cost effectiveness in both construction and operation. It will conform to the Canada Green Building Council's Leadership in Energy and Environmental Design standards (LEED).

The construction site is a four-acre brown-field site (formerly used for industrial purposes) in downtown Oshawa, which is being remediated and will be returned to productive use.

Overview

The Durham Consolidated Courthouse (DCC) will combine several outdated Ontario court facilities operating beyond their original design capacity into one state-of-the-art justice facility for the Region of Durham. The Ontario Government is using its made-in-Ontario Alternative Finance Procurement (AFP) approach for this project to ensure it is delivered on time and on budget, and to achieve a demonstrated value for money for Ontario taxpayers.

Infrastructure Ontario managed the process, on behalf of its client the Ontario Ministry of the Attorney General (MAG), which resulted in the selection of Access Justice Durham Ltd. (Access Justice Durham) to design, build, finance and maintain the DCC.

Using AFP for this project will result in savings to the Ontario Government of $49 million or 11.47 per cent (NPV) compared to a traditional public-sector delivery model. Other benefits include:

- establishing a fixed price and fixed delivery date;
- returning a former industrial site to a safe and productive use;
- consolidating all justice services into a single facility designed to provide a healthy, productive environment for the community and employees; and
- contributing to the revitalization of the City of Oshawa's downtown core.

The project has the distinction of achieving a number of firsts for Ontario:

- first Design-Build-Finance-Maintain (DBFM) project under Infrastructure Ontario's AFP program;
- first AFP brownfield site project in Ontario; and
- first high-performance green Government of Ontario building.

The Project Agreement provides for a 33-month construction period, followed by a 30-year maintenance agreement. The facility itself will feature 33 courtrooms, three motion rooms and conference/settlement rooms; a jury assembly room with capacity for 300 people; enhanced security features such as video and audio surveillance systems and a main-entrance security checkpoint.

The state-of-the-art facility will be the most technologically advanced courthouse in Ontario. Six courtrooms will have video remand conferencing equipment and several additional courtrooms will have video conferencing capabilities. Two remote video testimony rooms will accommodate child and vulnerable witnesses. One jury courtroom will be equipped for simultaneous interpretation, allowing proceedings to be interpreted into another language for people in the public gallery. Three portable translation booths will also be available.

Background and Rationale

The average age of Ontario's infrastructure—and the continuing growth of its population—means that the province's public infrastructure needs are some of the greatest in Canada.

To address this infrastructure deficit, the Government of Ontario implemented *ReNew Ontario 2005-2010*, a $30-billion strategic investment plan, including approximately $1 billion for justice facilities, to address a significant public infrastructure deficit and prepare for future growth. Infrastructure Ontario is a Crown corporation that was established in 2005, and is an essential component of the plan, ensuring that new infrastructure projects come in on time and on budget.

All of Ontario's infrastructure projects, including the DCC, are guided by the five principles set out in the provincial government's *Building a Better Tomorrow Framework:*

1. public interest is paramount;
2. value for money must be demonstrable;
3. appropriate public control and ownership must be preserved;
4. accountability must be maintained; and
5. all processes must be fair, transparent and efficient.

Impetus for the project

Over the next 20 years, the Region of Durham is forecast to have one of the highest rates of population and caseload growth in Ontario. To meet the growing needs, the Government of Ontario approved construction of the DCC in 2005-06. At approximately 446,000 square feet, the new, integrated courthouse will more than double the space currently dedicated to justice services being delivered from eight locations throughout Durham Region.

Justice services for the Regional Municipality of Durham are currently provided through an aggregation of various courthouses scattered throughout a number of communities east of Toronto. Certain limitations and deficiencies of the existing infrastructure have been cited as important drivers for the project. These include:

- current court infrastructure includes courts in several disparate locations;
- existing facilities are aging and in need of significant upgrading and maintenance;
- existing facilities are at or near capacity while caseloads are increasing; and
- existing facilities are not suitable for deployment of the most up-to-date technology and security available.

Government objectives

The following table outlines how the project will address the limitations and deficiencies of the current court delivery services.

Government Objectives

Objective	Expected Outcome
Operational Improvements	Flexibility to accommodate changing caseload volumes, efficient courtroom scheduling and ability to apply the latest technology to streamline court processes.
Enhanced Security	Provision of secure facilities for the judiciary, witnesses and persons in custody and other court users.
Enhanced Customer Service	Provision of quality services in a safe environment.
Economies of Scale	Elimination of duplicate functions and travel time among various existing court locations in the Durham Region.
Adaptability	Ability to meet new justice system initiatives by creating a courthouse model capable of adapting to change.
Financial Efficiency	Ensure that the taxpayers of the Province of Ontario are receiving fair value for the court accommodations provided.
Sustainability	Minimize the ecological footprint of the new courthouse and achieve measurable cost savings in energy.
Brownfield Rejuvenation	Rejuvenate a brownfield site to help develop growth in the local community.

Description of the Project

The DCC is being built on a four-acre brownfield site, contributed by the City of Oshawa. The initiative will return a former industrial site to safe and productive use while helping to revitalize Oshawa's downtown core. Site remediation was the responsibility of the City of Oshawa in accordance with an undertaking with the Province of Ontario. Ownership of the site will be retained by the City of Oshawa under a 99-year ground lease by Infrastructure Ontario.

The new courthouse will consolidate, on one site, Superior and Ontario Courts and other justice services currently being delivered from eight different locations throughout Durham Region. Access Justice Durham will provide the following services during the design and construction of the project:

- design, develop, construct and finance the courthouse in such a manner and with sufficient flexibility that the courthouse can accommodate future caseloads, courtroom operations, technology and service delivery requirements;
- receive and install furniture, fixtures and equipment within the courthouse; and
- procure, install, and maintain the audiovisual equipment.

Following completion of the construction of the project, Access Justice Durham will be required to provide the following services through the operations phase:

- Ongoing hard and soft facilities management services and lifecycle capital replacement. This will involve, among other things, providing the resources, materials and equipment to manage, plan and deliver the following:
  - cleaning services – building exterior and interior;
  - grounds maintenance and landscaping services;
  - security services;
  - utilities management services;
  - plant services;
  - help desk services;
  - project delivery services;[1]
  - food services;
  - parking services; and
  - material services (e.g. mail room and delivery services).
- Maintain, repair and, as appropriate, upgrade all physical plant, fixtures and equipment.

[1] Project delivery services are extra services requested and funded by the Province. Examples include room modifications or additions, landscaping changes, updating finishes due to aesthetic requirements (as opposed to wear and tear), increased mechanical systems zoning due to changes in use, and additional exterior lighting.

Procurement Process

Selecting the P3 model

The Ontario Government uses a model called Alternative Financing and Procurement (AFP) for larger, complex public infrastructure projects like the DCC where construction work is financed and carried out by the private sector. AFP brings private-sector expertise, ingenuity and rigour to the process of managing and renewing Ontario's public infrastructure, while shifting risks associated with cost and schedule overruns away from Ontario taxpayers.

Infrastructure Ontario is responsible for overseeing the AFP process and for ensuring independent, third-party value-for-money assessments are undertaken by professional services firms for each project.

The DCC project was assigned to Infrastructure Ontario as a Design-Build-Finance-Maintain (DBFM) project to be delivered under the Province's AFP program. The DBFM model was selected as the preferred AFP model as it provides an integrated project delivery model for the design, construction, financing and facilities management of new special-purpose buildings being developed by the Province of Ontario.

This model provides a strong alignment of interests between the public sector and the project lenders, ultimately producing contractual terms and conditions that ensure the long-term performance of the developer consortium over the duration of a project. Throughout the entire process Infrastructure Ontario worked closely with its client, the Ontario Ministry of the Attorney General (MAG), to ensure the new courthouse meets the MAG's design, operational and functional requirements.

Selecting a partner

The partner selection process involved three main stages, with an initial Request for Qualifications (RFQ), followed by a two-phase Request for Proposals: RFP-1 and RFP-2.

Competitive process

The RFQ was issued on March 31, 2005, inviting interested builders to submit their qualifications to undertake the project. This stage of the process identified project teams that had the required design, construction and facilities management capability and experience, and the financial capacity to undertake a project of this size and complexity.

Following the evaluation and scoring of proposals, three consortia (listed below in alphabetical order) qualified to participate in the two-part RFP process:

- Access Justice Durham Ltd., a consortium involving ABN AMRO Bank N.V. Canada Branch, PCL Constructors Canada Inc. and Johnson Controls LP;
- Durham Courthouse Centre Corporation (consisting of EllisDon Inc., EllisDon Design Build Inc., LPF Realty (owned 100% by Labourers' Pension Fund of Central and Eastern Ontario), CIBC World Markets and Carillion Canada Inc.); and
- SNC Lavalin Engineers & Constructors Inc. (SNCLavalin), Bondfield Construction Company Ltd., and ProFac Facilities Management Services Inc.

On July 19, 2005, RFP-1 was issued asking qualified consortia to identify a multi-disciplinary design team. This stage was used to assess and confirm the courthouse design expertise and technical capability of the proposed design teams.

On February 15, 2006, RFP-2 was issued to the qualified proponents, setting out the bid process and the Initial Form Project Agreement (Draft Agreement) to design, build, finance and maintain the facility.

There were four opportunities for proponents to provide comments on proposed amendments to the Draft Agreement before it was finalized. The Final Form Project Agreement (Final Agreement) was issued to all proponents to be used as the basis for their proposals. No further changes were allowed. In addition, there were a number of meetings to provide proponents with feedback from Infrastructure Ontario and MAG on their proposed designs.

Proponents were asked to submit one "Base Proposal" conforming to the Final Agreement and had the option to submit an "Alternative Proposal" which achieved one or more of a number of "bid enhancement factors" and/or which required departures from the construction, services or risk allocations set out in the Final Agreement.

Infrastructure Ontario identified four key areas, or bid enhancement factors which, if incorporated into a proponent's bid, would provide value-added solutions to address Government priorities. Bidders could earn evaluation bonus points with alternative proposals that included the following bid enhancement factors:

1. optimized energy performance (exceeding minimum energy performance standards);
2. LEED Gold Certification (exceeding LEED Silver certification requirements);
3. re-certification plan (developing a LEED-for-Existing-Building re-certification plan); and
4. other value-added enhancements (developing value-added and innovative solutions to design or maintenance).

Bids were submitted on October 5, 2006 and were then evaluated by a Proposal Evaluation Committee with members from Infrastructure Ontario and its advisors, MAG, the Ministry of Public Infrastructure Renewal and the Ontario Realty Corporation, using criteria set out in the RFP.

Base proposals were reviewed first, followed by alternative proposals, to ensure compliance with mandatory requirements. All proposals were then evaluated and scored using criteria in the following categories:

- technical (project management, development and construction, design, facilities management, handback);
- commercial and financial; and
- bonus points related to the bid-enhancement factors noted above.

RFP-2 set out two options for selecting the preferred proponent:

1. Select the one with the highest score; or
2. Enter into separate and distinct negotiations, according to terms established in RFP-2, with the highest scoring proponent or the two highest scoring proponents.

On December 22, 2006, the preferred proponent, Access Justice Durham, was selected based on a range of criteria including its project management and construction plan, design proposal, construction and technical capability, facilities management plan, the schedule proposed and the overall value for money.

As part of its submission, Access Justice Durham also identified a number of value-added bid enhancements that were accepted by Infrastructure Ontario, including enhanced security features and provision for long-term environmental management and sustainability. These included, among other features, protective glazing for the windows in the curtain wall (the outside building envelope) to increase the public security of the courthouse, and re-certification every six years to achieve LEED-Gold-Existing-Building designation.

Financial and commercial close

The Project Agreement was finalized with the necessary information from the preferred proponent's proposal and was executed on March 1, 2007 by Access Justice Durham Ltd. and Infrastructure Ontario. This is the first Design-Build-Finance-Maintain (DBFM) project to achieve financial close under the Ontario AFP delivery model.

Timelines

		Activity/event (e.g. RFP issued)
2005	**March 31**	Request for Qualifications issued
	July 19	RFP-1 issued
2006	**February 15**	RFP-2 issued
	October 5	RFP-2 bids close
2006	**October – December**	RFP-2 evaluations
	December 22	Access Justice Durham selected as Preferred Proponent
2007	**March 1**	Financial and commercial close
2007	**May**	Construction start
2009	**End of the year**	Construction complete

Name of private partner

Access Justice Durham Ltd. is a consortium involving Babcock & Brown Public Partnerships Limited, successor to ABN AMRO Bank N.V. Canada Branch (equity), PCL Constructors Canada Inc. (design and construction) and Johnson Controls LP (maintenance).

Fairness of the process

Knowles Consultancy Services Inc. (Knowles Canada) acted as the independent Fairness Monitor for the DCC project. They reviewed and monitored the consultations, communications, evaluations and decision-making processes associated with the project, ensuring fairness, equity objectivity, transparency and adequate documentation of the process.

Knowles Canada certified that these principles were maintained throughout the procurement process. In a letter to Infrastructure Ontario, dated April 19, 2007, Managing Consultant Michael Killeavy said:

> *In conclusion, based on our findings, we are satisfied that the Durham Consolidated Courthouse procurement processes were conducted in a procedurally fair, open, and transparent manner. All Proposals received were evaluated against the evaluation criteria published in the procurement documents. We detected no bias either for or against any particular proponent in the application of the evaluation criteria. The evaluation criteria published in the procurement were applied objectively to the content of each Proposal.*

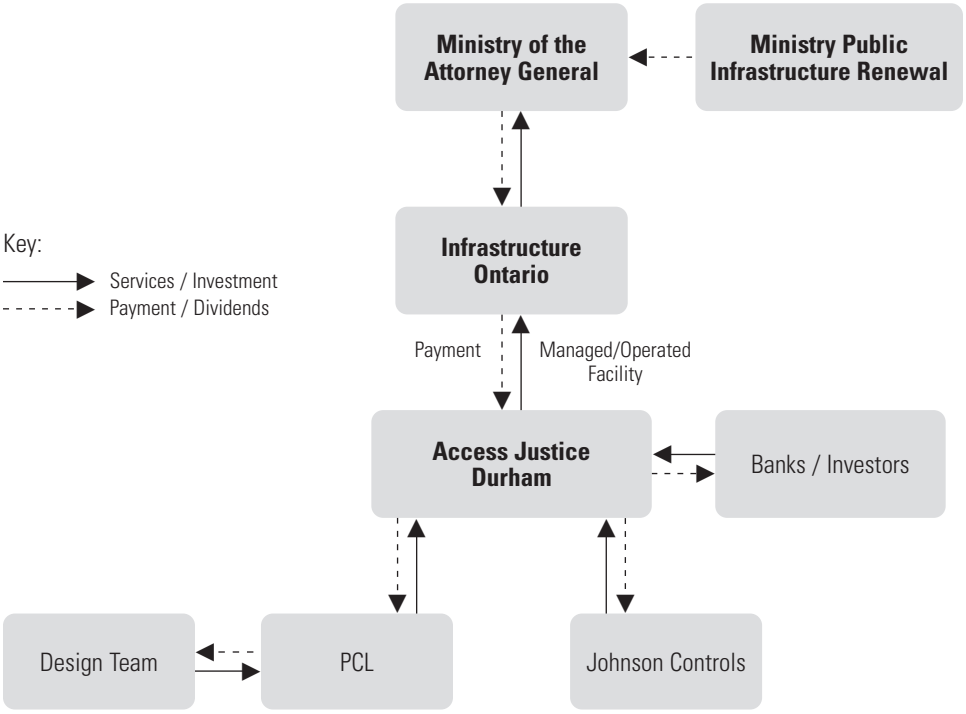
Overall Structure of the Agreement

Access Justice Durham Ltd. (Access Justice Durham) and Infrastructure Ontario signed the Project Agreement on March 1, 2007. This agreement includes a 33-month construction period and a 30-year maintenance timeframe. Under the terms of the agreement, Access Justice Durham will:

- design and build the DCC;
- finance the construction and capital costs of the facility over the term of the project;
- obtain a third-party independent certification that the facility is built to specifications;
- provide the facility management, lifecycle maintenance and other facilities management services for the new courthouse for the 30-year service period under pre-established maintenance performance standards in the Project Agreement; and
- ensure that, at the end of the contract term, the buildings meet the conditions specified in the Project Agreement.

Access Justice Durham is the entity responsible for the design, construction, financing and maintenance of the DCC. Access Justice Durham has subcontracted the design and construction of the facility to PCL Constructors and the maintenance to Johnson Controls. The contractual relationships are shown in the following organization chart.

Contractual Structure



Construction began in May 2007 and is scheduled to be completed by late 2009. During the construction period, construction costs will be financed by Babcock & Brown Public Partnerships Ltd. When the project is completed, the Province will begin paying Access Justice Durham monthly service payments for the facility.

Financial Arrangements

Financing capital costs

Babcock & Brown Public Partnerships Ltd. is providing $24 million in equity and ABN AMRO Bank N.V. Canada Branch arranged and underwrote the debt financing Access Justice Durham requires to construct the new facility in accordance with the Project Agreement. In this regard, a $214-million senior bond issue, led by TD Securities, was arranged.

Pricing of the project bonds reflected the transfer of risk to the private sector, while maintaining an A1 credit rating for the project from Moody's Investor Services. In order to enhance the project's credit rating, a construction letter of credit was put in place to backstop the obligations of the contractor. A similar letter of credit was put in place in lieu of a traditional cash-funded debt service reserve account. Both are subordinated to senior debt.

Payments

The payment mechanism for the DCC is designed to reflect a simplified and viable scheme consistent with similar projects in other jurisdictions. It was designed to:

- encourage full use of the courthouse for its intended purpose;
- emphasize the relative importance of various functional units within the courthouse;
- create incentives for the private partner to remedy failure events or facility unavailability;
- enable monitoring by government; and
- provide a bankable solution as required by the private partner, its lenders, and related stakeholders.

In return for delivering the DCC and operating it in a manner that meets the requirements of MAG, Access Justice Durham will receive an availability payment.

Annual payments of $19.75 million will be made to Access Justice Durham (paid on a monthly basis), subject to partial indexation and adjustment for benchmarking and market testing. The payments will not commence until the courthouse reaches completion. Payments are performance-based and are subject to deductions and penalties if access to facilities or services is interrupted or does not satisfy the requirements.

Certain remedies are available to the Province as Service Failure Points reach thresholds. For example, at one threshold, the Province can compel Access Justice Durham to replace the service provider with another contractor. If the Service Failure Points reach a high enough threshold, it is a default under the Project Agreement entitling the Province to terminate the Project Agreement.

Revenue sharing

To preserve the decorum of the courts, third-party revenues are currently limited to the provision of the availability of the courthouse and food services for court users. Opportunities to provide other business enterprises may be permitted if not inconsistent with the dignity of the courthouse and if there is the potential for revenue sharing with the Government.

The Project Agreement sets out the process for expanding these opportunities and provides guidance on the types of arrangements that would be acceptable.

Risk Allocation

The key risks associated with the construction, completion and life-cycle of the facility that have been transferred from the Province to Access Justice Durham include:

- construction price certainty;
- scheduling, project completion and delays;
- building design;
- benchmarking and market testing;
- LEED design and construction obligations;
- facilities maintenance risk; and
- cost overruns associated with these risks.

The following table provides additional detail on risk allocation between the partners.

Risk Allocation

	Access Justice Durham	Infrastructure Ontario
Risks	Access Justice Durham, as the primary obligor to Infrastructure Ontario, ultimately assumes all the risks associated with the project. Examples of the major risks assumed by Access Justice Durham include: ► Construction Risk: the DCC is not built to specification; cost overruns; latent defects. ► Operating Risk: the DCC does not meet prescribed service standards; courtrooms are unavailable when required; energy consumption is greater than budgeted. ► Debt and Equity Service Risk: the construction of the DCC is significantly delayed and/or the availability payment from the Province is abated due to poor performance, resulting in an inability to service debt and/or equity. Both the construction and operating risk above have been transferred to parties best able to deal with construction and operating issues. Therefore, although Access Justice Durham is the primary obligor in regards to the Project Agreement, it has managed to transfer many of the risks other than Debt and Equity Service.	Infrastructure Ontario retains risks that are generally beyond the control of Access Justice Durham such as changes in law, existing environmental contamination, force majeure, and energy price fluctuation.

(continued on page 72)

Risk Allocation (continued)

	Access Justice Durham	Infrastructure Ontario
Responsibilities	Access Justice Durham assumes all responsibility for designing, building and managing the facility according to the performance requirements specified by Infrastructure Ontario. Examples of the primary responsibilities of Access Justice Durham include: ► Design: the courthouse meets the full program requirements and is fully coordinated between all disciplines; all municipal permits are in place and the building is fully compliant with the performance requirements. ► Construction: the DCC is built on schedule according to the approved designs. ► Operations: the DCC is operated according to the facility management specifications and is available for court users. ► Maintenance: the DCC is maintained at a level that meets the requirements of the court users and worn-out or broken components are replaced as needed. ► Handover: the DCC is returned to the Province at the end of the 30-year term in accordance with the handover requirements in the agreement.	Infrastructure Ontario is responsible for overseeing and managing issues between the client, Ministry of the Attorney General, and Access Justice Durham. ► Design: working closely with the project architect to develop the design. ► Operations: work with the facility managers to develop the operational protocol.
Returns	Access Justice Durham receives a monthly service payment in exchange for the provision of a fully functional courthouse. This service payment is partially indexed to inflation.	

Benefits

Cost savings/value for money

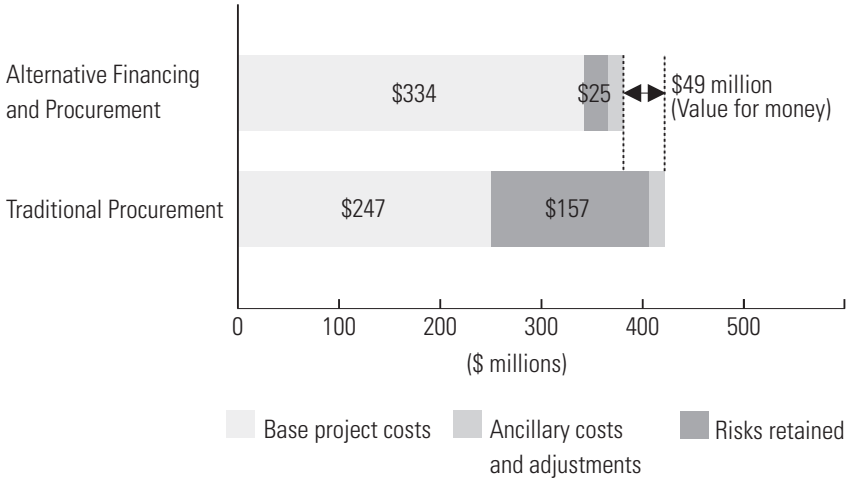
Ernst & Young Orenda Corporate Finance carried out the value-for-money assessment of the DCC project and found that using the province's AFP approach demonstrates projected cost savings of $49 million, or 11.47 per cent Net Present Value (NPV), compared to using a traditional government procurement approach.

The analysis concludes that the additional costs associated with the AFP model are more than offset by the benefits of the AFP procurement model, including: a much more rigorous upfront due diligence process; reduced risk to the public sector; and, increased monitoring and discipline brought about by the lenders throughout the procurement process.

Once all the cost components and adjustments were determined, the total costs associated with each delivery model (i.e., traditional delivery and AFP) were calculated, and expressed in Canadian dollars, at financial close. In the case of the DCC project, the estimated traditional delivery cost as a public-sector project is $426 million as compared to $377 million under the AFP delivery approach.

Components of the total project costs under each delivery model are illustrated below:

Project Costs



The NPV of the cost of the contract with Access Justice Durham is approximately $334 million. This is the base cost of the project and includes all construction, maintenance, lifecycle and financing costs.

Total project costs exceed base costs in large part due to a number of project risks retained by the government. These retained risks were quantified at $25 million under the AFP approach for the DCC and are in the broad risk categories of:

- Policy/Strategic; and
- Operations.

There are also a number of ancillary costs and adjustments related to the planning and delivery of this project, such as project management and transaction costs, which were estimated at $21 million under the traditional delivery method and $17 million under the AFP method.

The end result is that carrying out the DCC project under an AFP approach generates a $49-million savings over the traditional public-sector procurement approach. Complete details of this analysis can be found on the Infrastructure Ontario website at www.infrastructureontario.ca.

Community benefits

The DCC project will result in an overall enhancement of justice services in Durham Region; it will improve access to these services in an environmentally sustainable, technologically advanced facility that will spur economic development across the region. The following table illustrates the positive change in service that will take place.

Service Improvements

New Facilities and Services	Current Service Level	New Service Level	Increase %
Square footage of court facilities	173,946	446,000	156
Jury assembly room capacity	100	300	200
Total number of courtrooms	30	33	10
Motion rooms	1	3	200
Conference/settlement rooms	not available	available	100
Simultaneous interpretation	not available	available	100
Remote video capability	not available	available	100
► Courtrooms with video remand conferencing equipment	2	6	200
► Remote video testimony rooms for vulnerable witnesses	0	2	100
Interview rooms	39	101	159
Consulting cubicles	5	13	160
Retiring rooms	7	11	57

Energy and environmental sustainability

The DCC will be the most technologically advanced courthouse in Ontario and the most energy-efficient new Ontario government building.

The DCC will conform to the Canada Green Building Council's Leadership in Energy and Environmental Design standards (LEED) and will achieve Silver certification upon completion. It will be re-certified every six years to meet LEED Gold Existing Building designation, ensuring long-term environmental sustainability. Sustainable development goals achieved in the design include plans for:

- improved energy and water efficiency;
- conservation of renewable and non-renewable resources;
- use of materials with low embodied energy, long life spans and low operational maintenance requirements;
- reducing the risk of toxic and hazardous substances; and
- reducing solid waste output.

Access Justice Durham put forward an energy consumption target in their bid. They are responsible for managing energy consumption to within five per cent of the energy target. If energy use exceeds this target by more than five per cent, Access Justice Durham pays for it. Savings beyond five per cent are shared between the partners. The Province assumes the risk of energy price fluctuations while Access Justice Durham manages energy consumption.

The DCC will also be certified under the Building Owners and Managers Association (BOMA) Go Green Plus program every three years. The program demands the development of a comprehensive environmental management system that addresses issues ranging from recycling to energy efficiency. The Go Green Plus program maintains a database to benchmark the facility's performance against other facilities in Canada.

Socio-economic benefits

The new courthouse will contribute to the economic growth of Durham Region. During construction, an estimated 250 workers will be on site daily. Skilled trades, subcontractors and suppliers from the region will also benefit from the construction project. When it opens in 2009, there will be approximately 500 existing MAG and other justice stakeholder staff working in the courthouse. About 1,500 people will conduct business daily in the new facility, bringing increased demand for restaurant meals, office space and other services in downtown Oshawa. Courthouse employees and visitors will bring an estimated $7 million per year in additional spending to the City of Oshawa.

Other benefits

Other benefits include construction price certainty and schedule certainty. Access Justice Durham will construct the facility and will be repaid for construction, facility management and lifecycle maintenance costs over 30 years after the facility is completed. Access Justice Durham has agreed to complete the construction of the facilities by late 2009. The construction schedule set out in the Project Agreement can only be modified in very limited circumstances, in accordance with the Project Agreement.

Communications

As part of the Project Agreement, Infrastructure Ontario and Access Justice Durham have developed a communications protocol that outlines the roles and responsibilities of each party. With Infrastructure Ontario acting as the communications lead for the project, the communications protocol provides a guideline for internal, external and crisis communications relating to the project.

All documentation related to the project is publicly available though Infrastructure Ontario's website at: www.infrastructureontario.ca.

Throughout the construction period, PCL and Infrastructure Ontario are providing regular updates to the community through a construction newsletter. The first issue was distributed in June 2007 to residents and businesses surrounding the construction site. The newsletter will be published quarterly and will be available to any interested party, including neighbours and local business, in a free mailbox adjacent to the site.

User groups

Throughout the process there has been extensive consultation with user groups connected to the justice system in the region. This has involved the judiciary; MAG staff including court services, Crown attorneys and the victim/witness support program; and the local police service and law association. At each stage of the selection process—from the development of the RFP, through the RFP Market Stage, to the Design Review Period with the preferred proponent—users were engaged and provided input on design to MAG, Infrastructure Ontario and to the proponents. Their input played a significant role in the development of the ultimate design of the courthouse.

A very creative approach was used to elicit this input. A full-size mock-up of a court room was constructed to test what it would be like to conduct a trial in the new courtrooms. "This as an exceptional planning tool," said Peter Wilson, VP of Project Delivery for Infrastructure Ontario. "It allowed us to test, evaluate and adjust design features like lines of sight for judges, access to the jury box and accessibility for disabled persons in simulated situations. It really helped that stakeholders could visualize the new courtrooms in 3-D."

In addition, information and progress update sessions are held on a periodic basis with a wider audience of future courthouse users to provide an opportunity to discuss issues surrounding the site and to answer questions about the project. The Ontario Ministry of the Attorney General and Infrastructure Ontario also issue a newsletter to future courthouse employees and other courthouse users to keep them informed throughout the procurement and construction periods.

Labour

The DCC will consolidate Superior Court and Ontario Court justice services currently delivered from eight locations across the Durham region. Employees currently working at these eight locations will be transferred to the new facility once it is completed.

Just as it does now, MAG will continue to be responsible for courthouse operations—i.e. manage and operate court and related services—once the DCC is operational. All of the court employees in the existing eight sites work for MAG and will move to the DCC as MAG staff; none of these employees will be transferred to Access Justice Durham. There are currently six locations in the Durham Region providing court services and two locations that house offices: one for the Crown Attorneys (who are MAG employees) and another for the Victim/Witness Assistance Program (who are also MAG employees). All of the existing six courthouses and the two offices will be closed once the DCC is operational, and all of the MAG employees currently working in those six courthouses and two offices will move into the DCC. They will continue to work for MAG.

The DCC will not involve changes to MAG's responsibilities in operating courthouses in the Durham Region. MAG is not currently responsible for the day-to-day cleaning and maintenance or life-cycle renewal of the six courthouses and two offices. All of the existing eight sites are leased and the landlord is responsible for cleaning and maintenance of the sites. None of these cleaning/maintenance staff are being transferred to Access Justice Durham as they are employed by the individual landlords.

Monitoring

Infrastructure Ontario, with its client the Ontario Ministry of the Attorney General, is responsible for monitoring the performance of Access Justice Durham during the construction period. On completion of the construction phase, there will be a transition period to transfer the responsibility for managing the Project Agreement to the Ontario Realty Corporation (ORC) who will monitor performance through the 30-year maintenance term. ORC is the provincial facilities management agency responsible for administering the Ontario Government's accommodation portfolio.

Durham Consolidated Courthouse Services Responsibilities

Access Justice Durham	Ministry of the Attorney General (MAG)	Infrastructure Ontario / Ontario Realty Corporation
Design-Build-Finance-Maintain	*Operate*	*Monitor*
Designs, builds and finances the courthouse including: ► receives and installs furniture, fixtures and equipment ► procures, installs and maintains audiovisual equipment Provides ongoing hard and soft facilities management services and lifecycle capital replacement: ► cleaning services – building exterior and interior ► grounds maintenance and landscaping services ► security services ► utilities management services ► plant services ► help desk services ► project delivery services[2] ► food services ► parking services ► material services (e.g. mail room and delivery services) Maintains, repairs and, as appropriate, upgrades all physical plant, fixtures and equipment	Manages court office: ► schedules court cases at the direction of the judiciary ► maintains court records and files ► provides information to the public Provides administrative support to: ► all judges of the Superior Court of Justice ► all judges and justices of the peace of the Ontario Court of Justice Manages the jury system. Provides courtroom support through: ► court registrars ► clerks ► reporters ► monitors ► interpreters Manages the delivery of mediation services in family and civil courts Administers enforcement activities: ► filing writs of execution ► enforcing civil orders ► managing collection of fine and restitution revenues Crown Attorneys: ► responsible for prosecuting all offences under the *Criminal Code of Canada*, the *Youth Criminal Justice Act and the Provincial Offences Act* (Part 3 only) Victim/Witness Assistance Program: ► provides victims of domestic violence, sexual assault, child victims and families of homicide victims with information, assistance and support throughout the court process to enhance their understanding of, and participation in, the criminal justice system	Infrastructure Ontario manages the transaction phase and monitors performance during construction Ontario Realty Corporation monitors performance post construction throughout 30-year maintenance term

[2] Project delivery services are extra services requested and funded by the Province. Examples include room modifications or additions; landscaping changes; updating finishes due to aesthetic requirements (as opposed to wear and tear); increased mechanical systems zoning due to changes in use; and additional exterior lighting.

Other Issues

Flexibility of the Project Agreement

The Project Agreement includes a number of cash allowances which give the Province the flexibility to require Access Justice Durham to purchase certain items or services during the course of the project. For example, the bidders were required to include a cash allowance for the design, installation and commissioning of audiovisual equipment. The decision on the audiovisual equipment to be purchased will be made at an appropriate stage of the construction to take advantage of the latest technology available at the time the purchase is made. Access Justice Durham will then purchase the equipment from an audiovisual budget. If the cash allowance is insufficient, the Province will be required to reduce the requirements or to pay the excess. If the cash allowance is higher than the amount actually required, the Monthly Service Payment will be reduced to adjust for the excess amount or Access Justice Durham will pay the Province a lump sum in the amount of the excess.

The Project Agreement also has an expansion provision to accommodate future growth. The building has been designed to facilitate the conversion of existing office or service space to make new court rooms. The design and footprint also allow for the addition of new physical space to accommodate the displaced offices or services.

Restrictions on change of ownership and control

Because the project is tied to the justice sector it required certain restrictions on the possible change of ownership and control of Access Justice Durham or of any company of which Access Justice Durham is a subsidiary.

Article 42 of the Project Agreement sets out these restrictions. Changes in ownership and control are not permitted if the person acquiring the ownership interest is inappropriate. Such person cannot be a Restricted Person (for example, a person who conducts the illegal manufacture of narcotics or arms). Such person's standing or activities cannot:

- be inconsistent with the Ministry of the Attorney General's role in Ontario;
- compromise the reputation of the Province or the occupants of the building;
- compromise the integrity of the DCC; or
- be inconsistent with the nature of the Province's justice system, so as to affect public confidence in that system.

Also, no change in ownership or control will be permitted if it would have a material adverse effect on the operation of the courthouse.

If a change in ownership occurs prior to the third anniversary of the completion date of the courthouse, the Province is entitled to a 50 per cent share of any excess equity gain arising from a change in ownership of Access Justice Durham.

Changes in control (i.e. changes in power to direct management of Access Justice Durham) require the written consent of the Province, acting reasonably. Changes in ownership do not require any consent provided the proposed owner does not fall within the restrictions described above.

These conditions do not apply to a change in ownership or change in control of companies whose equity securities are listed on a recognized stock exchange. However, in all cases the Province must be notified of the specific details of a change in ownership or a change in control within five business days of the change.

If Access Justice Durham wishes to replace a subcontractor or service provider for any reason (including poor performance or a choice by the subcontractor or service provider to step down), it requires the consent of the Province, acting reasonably. Restrictions similar to those that apply to changes in ownership apply to changes in subcontractors; i.e. they cannot be restricted persons or persons whose standing or activities are inconsistent with MAG's role or the nature of the justice system in Ontario.

Lessons learned

The DCC was one of the Province of Ontario's first AFP projects and is a good example of how the AFP process achieves value for money by engaging private sector expertise in the delivery of public infrastructure projects.

One of the main lessons learned relates to the Province's pre-selection of a site for all bidders to use in their proposals. It was critical for a fair "apples-to-apples" evaluation of the submissions. This approach removed uncertainty about the location and allowed the Province to effectively partner with a single municipality. In addition, selecting a site in advance of the procurement process eliminated any perceived bias toward any one particular site.

Consultation process

Critical to the successful implementation of a project like the DCC, which will be used daily by over 1500 members of the public and justice stakeholders, was a structured and transparent consultation process with proponents, professional associations, and user groups. Active engagement and open discussion was fundamental to maintaining a transparent process with clear objectives and an involved set of partners. As a result, proponents gained valuable insight into the effectiveness of their designs and conformance with MAG's operational requirements.

"The use of workshops with proponents and stakeholders resulted in a bankable Project Agreement enabling the eventual successful proponent, Access Justice Durham, to submit a proposal with a preferred credit rating and very low relative cost of debt," said Peter Wilson of Infrastructure Ontario.

DBFM model

The use of the DBFM model encouraged a cooperative partnering approach between the Province and the private sector. It improved the decision making of the designer, contractor and facilities manager, resulting in the lowest whole lifecycle cost.

The positive effects of partnering became most evident during contract negotiations. While the winning design was in full conformance with the output specifications, there was an opportunity to improve building functionality and to take advantage of security related value-added enhancements proposed by Access Justice Durham.

Close collaboration between the Chief Architect for MAG and Access Justice Durham's architects, WZMH, resulted in several key design revisions, all of which Infrastructure Ontario was able to negotiate at minimal added cost to the project.

From the client Ministry's perspective the process was a "satisfying" experience. The most critical for MAG was having the selection process properly resourced with their architect. They also recognized the need to maximize the future potential of the building to accommodate inevitable changes. The DBFM model provided the opportunity to accurately price the whole life-cycle cost of incorporating building flexibility, the capacity for future expansion and adaptability into the design requirements. For instance:

- Courtroom designs include moveable and removable public seating, moveable and modular prisoner boxes and mobile transaction booths all of which permit a range of alternate courtroom setups.
- The third floor of the building can be converted into an additional eight courtrooms, with provision made for a future addition to accommodate offices displaced by the courtroom expansion.
- Separate dedicated HVAC systems; vertical alignment of electrical, data and telecommunications services; and systems redundancy have all been provided to minimize the disruption associated with future building change.

Through the ongoing dialogue on this project and others, Infrastructure Ontario has developed a model DBFM template, which is viable for the lending community, while ensuring maximum value for money for the Province. These template contractual terms and conditions are being used for future Ontario public works projects.

Value-added approach

The incentive-based value-added approach encouraged proponents to identify bid enhancements that were of key importance to the Province. Reeyaz Habib, Director at Babcock & Brown Canada ULC said, "The RFP selection process made it very clear that the government was looking for something specific and focussed. The value-added approach was a motivating factor in trying to maximize the value of our bid."

Bid enhancements were identified that related to specific government policy objectives including energy conservation and sustainable design. Some examples of bid enhancements included:

- LEED Gold Existing Building re-certification every six years;
- increased perimeter security; and
- blast wall protection.

The value-added enhancements provided proponents with an opportunity to focus on design innovations that would make their proposals more competitive.

Applicability outside Canada

While the general aspects of privately financed infrastructure projects have been successfully applied to projects internationally for many years, there are few projects, if any, that have placed a strong emphasis on a structured approach to sustainability. The DBFM process for the DCC was inherently suited to achieve a cost-effective and high-performance green building. DBFM necessarily demands a high degree of integration between contractors, architects, engineers and facility managers. "This project team is well positioned to resolve complex sustainability issues that require integrated thinking and innovation in design and implementation that can be applied to courthouse facilities as well as other social infrastructure facilities outside of Canada, be it within the North American market or globally," stated Peter Wilson of Infrastructure Ontario.

The DCC is setting a new standard for government buildings with its minimized ecological footprint and quantifiable energy savings based on performance. The innovations achieved with the DCC provide valuable insight for projects outside of Ontario and Canada. They can be, and—given the current discussions on environmental sustainability and global warming, probably should be—applied to international projects.

Concluding Comments

The DCC is one of Infrastructure Ontario's largest projects currently under construction. At approximately 446,000 square feet, the completed courthouse will more than double the space currently available for justice services in Durham Region. Throughout the construction period, there will be an average of 250 construction workers on site daily.

Using the DBFM delivery model for this project will result in a state-of-the-art courthouse facility financed at a very attractive weighted cost of capital.

It will be the most technologically advanced courthouse in Ontario and will be a high-performance green building consuming some 46% less energy than similar buildings designed to meet the *Model National Energy Code of Canada for Buildings 1997*.[3]

The DCC is setting a new standard for government buildings with its programs to minimize the ecological footprint and limit energy use. These innovative programs provide valuable insight for projects outside Ontario and Canada.

The architecture and location of the DCC establish its significance as a major civic building within an urban community. It will make an important socio-economic contribution to the life of the City of Oshawa, providing a large outdoor public space (the Courthouse Square) for the use of its citizens and bringing significant economic benefits through the construction period and subsequent operations and maintenance activities.

The City of Oshawa has already seen the benefits of locating the DCC in their community. "It has acted as a catalyst for investment and revitalization with plans underway for a new arena and streetscape," said Peter Wilson of Infrastructure Ontario.

The courthouse will be designed for resource efficiency and cost effectiveness in both construction and operation and will conform to the Canada Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver designation. Designing to LEED standards will ensure an environmentally sustainable and healthy facility for all users, with measures being taken to reduce indoor air pollutants, maintain acoustic integrity, enhance airflow and thermal comfort and maximize natural lighting.

Work on the DCC has begun, and construction of the project is expected to be completed by late 2009.

[3] The Model National Energy Code of Canada for Buildings 1997 (MNECB) contains cost-effective minimum requirements for energy efficiency in new buildings. The MNECB applies to all buildings, other than houses of three storeys or less, and to additions of more than 10 m2 to such buildings. The MNECB was first published in 1997 by the National Research Council Canada (NRC). Under Canada's Constitution Act, building regulation is the responsibility of provincial and territorial governments. The MNECB is in the form of a model code to permit adoption by the appropriate authority. To date, the Province of Ontario and the City of Vancouver have referenced the MNECB in their building regulations and enforce its requirements. Please visit: www.nationalcodes.ca/mnecb/index_e.shtml for more information.

Testimonials

Public sector

The courthouse will be built in downtown Oshawa and will be one of the largest green buildings in Ontario.

The DCC was assigned to Infrastructure Ontario as a Design-Build-Finance-Maintain project to be delivered under the Province's Alternative Financing and Procurement (AFP) program—a made-in-Ontario approach to infrastructure development. It is an innovative facility, whose unique features and characteristics were largely driven by "green" ideas. In fact, the building's design will conform to the Canada Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver certification standards, with an emphasis on energy management and conservation. The deal has been structured so that the building will achieve Gold certification after six years of operation, and will be re-certified every six years for the life of the contract.

These innovations were achieved while maintaining a vigilant eye on costs. As with all our projects, Infrastructure Ontario undertook a third-party VFM analysis to provide a quantitative analysis of the benefits achieved by comparing the cost of the DCC project using an AFP model to a traditional delivery model. The analysis showed an estimated savings for the Province of $49 million.

Consolidation of court services on one site will improve access to justice services and help spur economic development across the region.

J. David Livingston
President & CEO
Infrastructure Ontario

MAG is extremely pleased with the final design of the DCC. We were able to meet all of our program requirements and we believe the DCC will represent the most functional new courthouse built to date in Ontario.

Judy Stamp
Director of Facilities Management
Ontario Ministry of the Attorney General

Private sector

The Durham Consolidated Courthouse project is a landmark building that brings together many years of development efforts at the municipal, regional and provincial levels. Our private-sector participation through the Alternative Financing and Procurement (AFP) process was one component in what is an outstanding effort by many people. Notable aspects of this landmark project are:

- first DBFM project under Infrastructure Ontario's AFP program;
- first AFP brownfield site project in Ontario; and
- first high-performance green Government of Ontario building.

Through the selection process, Infrastructure Ontario acknowledged the value of the design that was being proposed as well as the strength of the building and operating partners. It is through the spirit of a true partnership, that all parties are working together to deliver a fantastic project that meets the needs of the Province.

Further evidence of a real partnership, was the integrated approach to remediating the site. Access Justice Durham was able to take on the responsibility of completing the cleaning of the site through a Site Agreement with a view to keeping the project timeline on track and meeting the completion date. Again, only through a true partnership were we able to deal with such a complicated issue.

This project is a testament to the value of the AFP model. We believe that the Province of Ontario will be proud of this achievement for many years to come.

Paul Boucher
President
Access Justice Durham

Public Sector Contact

Peter Wilson
Vice President
Project Delivery Infrastructure Ontario
777 Bay Street, 9th Floor
Toronto, ON M5G 2C8
416-326-9807
peter.wilson@infrastructureontario.ca

Private Sector Contact

Paul Boucher
President
Access Justice Durham
Suite 1210, 79 Wellington Street West
Toronto, ON M5K 1G8
416-214-1973
paul.boucher@babcockbrown.com

VIHA RESIDENTIAL CARE AND ASSISTED LIVING CAPACITY INITIATIVE, BRITISH COLUMBIA

2007 Award of Merit for Innovative Procurement

Quick Facts – Vancouver Island Health Authority Residential Care and Assisted Living Capacity Initiative

Project type

Design-Build-Finance-Operate (DBFO)

Asset/Service

Ten separate developments comprising 1,230 long-term care beds and assisted living spaces serving eight communities on Vancouver Island.

Partners

Public Sector:

- Vancouver Island Health Authority (VIHA)
- BC Ministry of Health

Private Sector:

- Nine private partners were selected to undertake the 10 projects.
  1. The Ahmon Group/Lark Enterprises (Parksville and Victoria)
  2. Baptist Housing Society (Victoria)
  3. Capital Region Housing Corporation/Beckley Farm Lodge Society (Victoria)
  4. Good Samaritan Canada (Nanaimo)
  5. Jones Development/Duncan Care Campus Ltd./The Ahmon Group (Duncan)
  6. New Horizons Care Corporation (Campbell River)
  7. Retirement Concepts (Courtenay/Comox)
  8. Sooke Elderly Citizens' Housing Society (Sooke)
  9. Westcoast Native Health Care Society (Port Alberni)

Other participants

Public Sector:

- Partnerships BC – procurement manager
- Cook Roberts LLP – legal advisors

Financial characteristics

Total capital cost of the project is $210 million ($2006). The private partners will design, construct, finance and operate the facilities. Once a facility has met all design, legislative and regulatory requirements, VIHA and BC Housing (the provincial agency responsible for subsidized housing) will be responsible for funding them at agreed amounts for a 20-year operating term.

Other features

- All of the facilities will be built as Communities of Care – a continuum of services from assisted living to complex care on a single site, which allows residents to age in place.
- Capital cost benchmarking was used to determine whether value for money was achieved. Proposals were reviewed to establish the range of total capital costs per long-term care bed constructed and these numbers were compared with VIHA's previous long-term care agreements as well as with anecdotal evidence from around the Province.
- The opportunity arose to accelerate the original schedule by more than three months.
- Innovative measures in the proposals included the community of care setting, intergenerational and community programming, new models of care for dementia and design flexibility.

Overview

The objective of this public-private partnership is to build and operate 10 long-term care facilities in eight communities on Vancouver Island as part of Independent Living BC, a housing and health partnership that brings together BC Housing and the Province's five regional health authorities, including VIHA.

Rather than launch separate procurement processes for each area, VIHA and BC Housing engaged Partnerships BC to bundle the projects into a single procurement, inviting proponents to submit proposals for some or all of the beds and units required for one or more of the local health areas. Ten agreements were signed with nine different private partners.

Background and Rationale

In British Columbia, across Canada, and throughout the developed world, seniors are living longer and more active lives. Vancouver Island is no exception. In fact, it has a higher proportion of elderly residents than Canada as a whole.

In its recently completed five-year strategic plan, VIHA projected a significant increase in future demand for long-term care services and recognized the need to create new capacity as well as to renovate or replace outdated facilities.

Long-term care includes two types of residential services:

- Complex Care: 24-hour professional care in a residential setting for seniors and people with significant physical and/or cognitive disabilities.
- Assisted Living: self-contained apartments where people receive personal care and hospitality services such as meals, housekeeping and laundry services, recreational opportunities, assistance with medications, mobility and other care needs, and have access to a 24-hour response system.

VIHA and BC Housing issued a Request for Proposals for the Residential Care and Assisted Living Capacity Initiative, a $210-million project to build facilities in eight communities on Vancouver Island. As part of the Provincial Government's commitment to provide 5,000 new long-term care beds and assisted living units by 2008, VIHA faced an accelerated timeline to deliver its share of the beds on time and on budget.

British Columbia has been working with private-sector partners to build long-term care facilities for many years. The public-private partnership model is now the traditional procurement method for these projects. What sets the Vancouver Island projects apart is the decision to bundle the 10 separate projects as a single procurement.

Proponents were invited to submit proposals to provide all or some of the beds and units required for one or more of the Local Health Areas. They were encouraged to find efficiencies through bundling more than one project/facility into their proposal. They were also asked to identify opportunities for future additional capacity should the health authority need it.

The procurement process was designed to accelerate the project schedule by allowing all the final agreements to be negotiated simultaneously. The process also cast a wide net, targeting a variety of proponent teams including: not-for-profit, for-profit, local, groups with national and international experience, established organizations, and others new to the long-term care industry in British Columbia.

VIHA also set out to capture creativity and innovation to maximize the benefits to its healthcare clients and to add value in the delivery of services by encouraging proposals that demonstrated inventive programming, new and varied models of care, and design flexibility.

Impetus for the project

VIHA set four key objectives for the project:

1. Deliver the facilities on time and on budget

VIHA required over 1,000 new long-term care beds and assisted living spaces to open by December 2008 as part of the Province's commitment to build 5,000 new beds and units throughout BC by 2008.

2. Develop communities of care

VIHA's preferred service model for the new long-term care and assisted living facilities is to allow residents to age in place in a "community of care" (also known as "campus of care") setting. This provides a continuum of services in which a full range of housing options—including independent housing, transitional care, convalescent care, assisted living and complex care—are offered in one location, and supports the principles of individuality, choice, and flexible service delivery to clients as their care needs change.

3. Capture creativity and innovation through the procurement process

The RFP specified several areas where innovation and creativity could enhance the interests of healthcare patients and add value to the delivery of services. These included:

1. using some of the spaces, or a facility's expansion area, to accommodate respite and/or residential hospice care;
2. offering community services such as adult day programs or a therapeutic bathing program;

3. incorporating state-of-the-art facilities and services using best practices in caring for residents with dementia;
4. integrating facilities with the local community (e.g. sharing program space in the facility), or providing office space for community care providers such as home care nurses;
5. using progressive human resource practices, such as innovative care or staffing models, to improve residents' care and satisfaction and/or workplace satisfaction for staff;
6. design elements promoting sustainability and reduce operational and/or staffing costs; and
7. design flexibility allowing the facility to adapt to changes in service delivery models and to expand as demand dictates.

4. Pilot and enhance the new Residential Care Services Operating Agreement

VIHA used the Province's new draft template Residential Care Services Operating Agreement. The RFP was structured to leverage the competitive process to identify potential improvements to the agreement and to capture that intellectual property for use by VIHA. Proponents were asked to base their proposals on that agreement; but, if they thought the agreement could be improved, they were invited to provide an alternate proposal outlining the improvements and how VIHA would benefit from such changes.

Description of the Project

The VIHA Residential Care and Assisted Living Capacity Initiative involves the design, construction, financing and operation of 1,230 long-term care beds and assisted living units across eight communities on Vancouver Island by 2010. About 1,050 units will be delivered by 2008, with an additional 180 units, if required at VIHA's option, by 2010, and with development potential for an additional 300 units later.

Through a single procurement process managed by Partnerships BC, multiple proponents were able to bid for the number of beds they were capable of providing, allowing great variety in how the beds were allocated. This project will deliver long-term care complexes ranging in size from a 10-bed facility in Port Alberni to a 210-bed complex in Greater Victoria.

Highlights of the partnerships

Key risk allocation

The successful proponents are required to meet agreed-upon completion dates for designing, building, financing and operating the facilities as specified in their proposals. All risks of cost escalation until 2008 are the responsibility of the private partners. VIHA and BC Housing are responsible for funding the facilities at the agreed-upon amounts after the facilities have met the requirements of functional completion.

Agreements cover development phase

VIHA has Project Development Agreements (PDAs) with all private partners. In addition, BC Housing has Provisional Project Approvals (PPAs) with private partners, containing an assisted living component that is being funded under Independent Living BC (ILBC). These agreements detail the terms and conditions that will guide the successful proponents through the development phase. They define the design requirements, the review process, the agreed-upon schedule and the sanctions that will occur if the facilities are not built on time and to the required specifications.

Operational phase

Once a facility has met all design, legislative and regulatory requirements, VIHA and BC Housing will be responsible for funding the facilities at agreed-upon amounts for a 20-year operating term under operating agreements entered into with the private partner.

Procurement Process

Partnerships BC developed and managed the procurement process.

Selecting the P3 model

BC has a long history of using private partners, both for-profit and non-profit, to deliver long-term care facilities. A significant proportion of VIHA's existing residential care and assisted living facilities are provided by private operators.

Facing the need to provide more than 1,200 beds in eight separate communities, VIHA grasped the opportunity to bundle the projects in a single procurement and engaged Partnerships BC to manage the process.

Other features:

- Proponents were able to submit proposals for more than one local health area and were encouraged to find efficiencies by bundling more than one facility into their proposal.
- Contracts for each of the eight communities were negotiated simultaneously, which pushed the whole project schedule three months ahead of the one specified in the RFP.
- The procurement process was designed to maximize competition and value for money by marketing the opportunity to the widest variety of potential bidders and giving them extra time to prepare their bids.

Timelines

2005	**December 20**	Notice of intent issued
2006	**January 31**	Request for Proposals issued
	February 20	Proponent Information Meeting
	March 28	RFP closing date
	April-May	Proposals evaluated
	May-November	Negotiations
		Agreements signed
2008	**June**	Facilities open

The process was designed to meet or surpass VIHA's December 2008 deadline for opening the facilities. This was achieved by:

- giving teams more time to prepare by issuing a Notice of Intent six weeks before the RFP;
- marketing the opportunity to more than 1,000 service providers in BC, Alberta, Ontario and internationally;
- initiating the competitive process as early as possible to make it attractive to the marketplace;
- offering VIHA-owned assets for lease or sale by proponents in two key local health areas (comprising more than one-third of the total needed units);
- keeping the RFP open for eight weeks, allowing proponents sufficient time to respond with quality proposals;
- reducing time spent in the evaluation and negotiation phases;
- opening the field to larger players by encouraging firms to bundle more than one facility into their proposals;
- providing incentives for proponents to secure appropriate land; and
- setting an opening deadline of September 2008.

Current & Projected Beds/Units

	2008		2010	
Local Health Area	**LTC**	**AL**	**LTC**	**AL**
Greater Victoria and Saanich	185	55	0	40
Sooke	30	10	0	5
Cowichan and Duncan area	160	50	20	0
Nanaimo	110	40	25	40
Parksville/Qualicum	140	30	20	30
Port Alberni	0	10	0	0
Courtenay/Comox	90	60	0	0
Campbell River	80	0	0	0
Total	**795**	**255**	**65**	**115**

LTC = Long-Term Care Beds
AL = Assisted Living Units

Fifty-two proposals were received from 34 different proponents, including not-for-profit and for-profit organizations. Forty-eight of these proposals met the mandatory criteria and were evaluated according to the terms of the RFP. One of the proponents was new to the BC market and nine were new to Vancouver Island. Sixteen were current service providers in BC and six were new ventures established by experienced operators and developers in BC.

Evaluation process

The evaluation criteria, detailed in the RFP, were heavily weighted towards quality services with 65 per cent of the score for program delivery, 25 per cent for financial considerations and 10 per cent for innovation.

Evaluation Process Weightings

Desirable Criteria	Max. Points
Program Delivery	**65**
► Service model	25
► Proponent strength and experience	20
► Ability to deliver	20
Financial considerations	**25**
Value added and innovation	**10**
Total available points	**100**

Evaluation working groups, focusing on sections of the proposals directly related to their areas of expertise, prepared a consensus summary of the proposals' strengths and weaknesses for the evaluation committee. The evaluation committee was looking for high quality proposals based on best practice service delivery in a well-designed "community of care" that could meet the schedule at an affordable per diem rate.

Negotiations

The evaluation committee recommended a preferred proponent for each Local Health Area. Project development agreements for most of the units in the eight Local Health Areas were negotiated and signed by mid-July, 2006. In Greater Victoria, no single proponent could provide all of the required units, so units were awarded to three different bidders. Negotiations for the final 30 assisted living units in Victoria were finalized in early November, 2006.

Contract Negotiations Summary

Local Health Area	Private Partner	Number of Units		Notified of preferred proponent status	Signed agreement	Time (wks)
		LTC	AL	2006	2006	
Campbell River	New Horizons Care Corporation	80	0	May 18	Jun 9	3
Duncan	Jones Development/ Duncan Care Campus Ltd.	160	50	May 18	Jun 27	6
Sooke	Sooke Elderly Citizens Housing Society	30	10	May 18	Jul 20	9
Port Alberni	Westcoast Native Health Society	0	10	May 18	Nov 15	26
Nanaimo	Good Samaritan Canada	110	40	May 24	Jul 4	7
Courtenay/ Comox	Retirement Concepts	90	60	May 24	Jul 12	8
Parksville	The Ahmon Group	140	30	Jun 23	Jun 29	1
Greater Victoria	The Ahmon Group	185	25	Jun 15	Jun 29	2
Greater Victoria	Baptist Housing Society	0	9	Sep 8	Nov 15	10
Greater Victoria	Capital Region Housing Corporation	0	21	Oct 11	Nov 15	5
Total		**795**	**255**			

LTC = Long-Term Care Beds
AL = Assisted Living Units

Although proponents were free to bid on all or some of the beds and units in one or more of the eight Local Health Areas and encouraged to save money by bundling more than one project into their proposals, only one bidder—the Ahmon Group/Lark Group partnership—was successful with a bundled bid. They were awarded the Parksville project (170 long-term care and assisted living beds) as well as the 185 long-term care beds and 25 of the 55 assisted living beds in Victoria for a total of 380 beds.

"Being able to choose the two projects we liked, and bidding on both, certainly helped us to keep our bid price down," said Lark Group vice-president Kirk Fisher. "The bundling concept is a fantastic idea and Partnerships BC did a great job putting it together and making it all work so smoothly."

Campbell River – New Horizons Care Corporation is a not-for-profit corporation created through a collaboration of team members with significant knowledge and experience in seniors and specialty care and housing in BC and throughout Canada.

Duncan – Jones Development Corporation is an established architect, real estate developer and operator of hundreds of seniors housing units on Vancouver Island and the BC mainland. Its partner in this project is **Duncan Care Campus Ltd**, an operating company owned by The Ahmon Group, which is also involved in the Victoria and Parksville projects.

Sooke – Sooke Elderly Citizens' Housing Society is a non-profit society with extensive experience in operating independent living units. It has contracted with Beckley Farm Lodge, a not-for-profit care provider on Vancouver Island, to provide operations management services for the proposed long-term care facility.

Port Alberni – Westcoast Native Health Care Society is a not-for-profit organization that has been providing long-term care services in Port Alberni for 14 years and currently operates Tsawaayuus (Rainbow Gardens), a multi-level care facility in Port Alberni.

Nanaimo – Good Samaritan Canada, a voluntary not-for-profit care provider, has provided long-term care, assisted living and other specialized healthcare services and facilities for 56 years. The largest voluntary continuing care provider in Alberta and BC, and one of the largest in Canada, Good Samaritan has developed innovative programs that are becoming industry standards. Several of their projects use the "community of care" concept.

Courtenay/Comox – Retirement Concepts is a family-owned and operated company that owns and operates 13 seniors' communities in BC, providing homes to 1,049 long-term care clients and 726 independent and assisted living tenants.

Parksville and Greater Victoria – The Ahmon Group has operated long-term care facilities on the BC mainland for almost 30 years, using a campus of care model. For these projects, it will once again partner with **Lark Group**, an established developer in BC.

Greater Victoria – Baptist Housing Society of BC has a 42-year history of providing quality, affordable housing and care to BC seniors.

Greater Victoria – Capital Region Housing Corporation will provide housing and development services for the project and **Beckley Farm Lodge Society** will be responsible for the administration of hospitality services and programs. Over the past 20 years, Beckley Farm Lodge Society has provided long-term care, adult day and outreach programs for seniors in the James Bay community.

Value for money

One measure of the value for money achieved in this procurement is how efficiently the private partners will build the long-term care facilities. In the proposals VIHA received, the range of total capital costs per long-term care bed constructed was between $175,000 and $220,000, with an average of about $200,000. This compares more than favourably with cost data from VIHA and Vancouver Coastal Health showing existing capital costs ranging from $255,000 to $350,000, with an average of $300,000 per bed constructed.

In accordance with the RFP, the proposals provided pricing at a fixed cost per client, per day—the per diem—covering all staffing, administrative, food and facility costs. Because the selection process produced strong competition and a broad range of per diems within each Local Health Area, VIHA and BC Housing were able to negotiate good rates for quality facilities and operations.

The proposed per diem cost for each of the proponents was only compared to the range proposed within the relevant Local Health Area, since construction costs and land values can vary widely from area to area. In each LHA, the final per diem negotiated with the preferred proponent was at the low end of the range of pricing proposals received for that area.

Other value-for-money features of the procurement:

- Service levels are secured through performance-based agreements.
- All risks of construction cost escalation are the responsibility of the private partners.
- The overall schedule has been accelerated more than three months ahead of the schedule set out in the RFP.
- All of the long-term care and assisted living facilities will be built as "communities of care" to provide a full range of housing and care options in one location.
- Innovative services and design features are incorporated into each community of care.

Competitive selection costs

VIHA's total procurement costs, covering legal advice and drafting, project management and lease negotiations, were approximately $245,000, representing 0.1% of the overall project capital value.

Although there is no estimate of what the cost would have been in a linear procurement, VIHA and Partnerships BC officials familiar with the project said that these costs could have been anywhere from two to five times higher if the 10 projects had been procured separately. This is in addition to savings accruing from the accelerated project schedule, also made possible by the bundled procurement.

Overall Structure of the Agreement

Ten agreements were signed with nine different private partners to deliver long-term care and assisted living units in Campbell River, Courtenay/Comox, Duncan, Nanaimo, Parksville, Port Alberni, Sooke and Victoria.

VIHA and the preferred proponents for each Local Health Area entered into agreements that will guide the private partners through the development phase until the facilities are licensed, inspected and ready to admit clients. These agreements set out the design requirements, the review process, the schedule and the penalties that will apply if the facilities are not delivered on time and to the defined specifications.

Under the agreements, the private partners will design, construct, finance and operate the new long-term care facilities to the standards specified in the agreements. Once a facility has met all design, legislative and regulatory requirements, VIHA and BC Housing will be responsible for funding each facility at an agreed-upon amount for a 20-year operating term.

VIHA and the private partners also have agreements that will cover the operations of residential care and assisted living services when the facilities are ready for use in 2008. BC Housing will enter into separate operating agreements with the private partners.

Monitoring the agreement

As a condition of the agreement, all proponents were required to submit proposals that meet or exceed provincial design guidelines as well as regulatory, permit and long-term care policy requirements.

All long-term care facilities, regardless of capital costs, must meet the Ministry of Health's Multi-Level Care Design Guidelines and the requirements of the Adult Care Regulations, both of which prescribe requirements for important program areas including individual room dimensions and dining room size. With the agreements signed, VIHA will ensure that designs are consistent with these requirements and with the proposals submitted.

Provincial legislation governing the performance of long-term care facilities focuses on client care outcomes in a patient-centred regulatory environment. These regulations make no distinction between facilities that are publicly owned and operated, privately owned, or structured as a public-private partnership.

Before opening, each facility is inspected by VIHA staff. It is the responsibility of the private partner to demonstrate compliance and possession of all permits, including fire marshal, regulatory, business and health inspection permits.

During the 20-year operational phase, the private partner is responsible for filing a series of monthly reports detailing the number of adverse situations, such as falls and patient or family complaints, as well as clinical indicators such as ulcers. VIHA staff use these inputs and a regular inspection schedule to monitor for ongoing quality assurance and compliance with the performance agreement, ensuring that staffing levels and amenities are provided and are effective.

The contract between VIHA and the private partners contains a dispute resolution clause for contractual issues, but clinical issues that affect patient safety are handled by a separate agency of the provincial Ministry of Health. In extreme cases, the Province can take over administration of the facility until the problems are resolved.

Financial Arrangements

The private partners are responsible for financing their design, development, construction and operational costs. The financial arrangements they make to achieve this may vary from project to project but typically, the private partner secures construction financing for the development phase. Once the facility has clients in place, the private partner generally secures a longer term mortgage (25-35 years) for approximately 75 per cent of the cost of the facility (average facility cost is $20 million). The mortgage is usually insured against default with the Canada Mortgage and Housing Corporation.

The contract allows for the sale or transfer of the asset but requires the private partner to obtain prior written consent from VIHA before attempting to sell the property. Under provincial legislation, operating licences for long-term care facilities are not transferable and the purchaser must obtain a separate licence before it will be eligible to own and manage the facility.

Payments

The private partner is paid a set sum for each client served in the facility. Care payments from the Ministry of Health are channeled through VIHA. In addition, each client contributes towards so-called "hotel" services – accommodation, food, etc. This payment varies according to the client's income. The average is about $30 a day but it can be as high as $75.

Payments do not start until the private partner proves to VIHA's satisfaction that it has reached a state of functional completion and clients are able to move into the facility. VIHA and BC Housing must agree that the facility has met all design requirements, the requirements of the *Community Care and Assisted Living Act*[1], and all other legislative and regulatory requirements (e.g. fire code and building code requirements). The project development agreements provide for a penalty of between $500 and $2,000 a day for each day that the private partner falls behind the development schedule.

[1] Queen's Printer, *Community Care and Assisted Living Act [SBC 2002],* November 26, 2002, with subsequent amendments. To view a copy, go to the Queen's Printer website at: www.qp.gov.bc.ca/statreg.

Risk Allocation

Risk Factor	VIHA	Private Partner	Shared
Design		■	
Construction		■	
Site conditions		■	
Permits, zoning and regulatory compliance		■	
Schedule		■	
Fit for use		■	
Interest rates		■	
Labour (inflation and availability)		■	
Demand (client availability)			■
Force majeure			■
Cost inflation			■
Changes in client mix			■

Risk Allocation

The private partners are required to meet agreed-upon completion dates for designing, building, financing and operating the facilities as specified in their proposals. All risks of cost escalation until 2008 are their responsibility. VIHA and BC Housing are responsible for funding the facilities at the agreed amounts after the facilities have met the requirements of functional completion.

Benefits

Promoting independent lifestyles through communities of care

All of the private partners proposed facilities that will be set up as *communities of care* where a full range of housing and care options are offered in one location. VIHA prefers this model of long-term care because it allows couples, family members and friends to remain close even though their care needs may be different. It lets seniors enjoy an independent lifestyle, secure in the knowledge that their needs will be met if their healthcare situation changes.

Promoting innovation

Giving proponents the scope and encouragement to incorporate innovative features in their designs paid dividends for VIHA. Among the up-to-the-minute ideas presented:

- provision of hospice care within community of care;
- adult day programs;
- community outreach;
- intergenerational programming (children's playground);
- co-located community health services;
- new model of dementia care through use of cottages;
- community therapeutic bathing programs;
- specialized areas for delivery of mental health services;
- design flexibility to allow expansion; and
- design incorporating a co-located primary health care centre.

Economic benefits

As mentioned earlier, strong competition for the available projects resulted in value for money through selection of per diems that were either the lowest or at the low end of the range submitted in each local health area.

The procurement bundling exercise not only allowed VIHA to minimize process costs but produced construction cost savings through an accelerated project timeline.

Communications

Several communications tools were used to market the project to potential bidders and achieve the procurement goal of maximizing competition and value for money. They included postings on *BC Bid* (an online database of public sector bid opportunities in the province), advertisements in newspapers and trade journals, website updates and news releases. The success of these efforts can be measured by the strong field of 52 bidders for the work.

VIHA is responsible for all communications activities for the 10 projects and for the overall procurement from the business case phase through to the end of construction. Once a facility is operational or new beds are developed in existing facilities, the private partner takes over responsibility for communications.

Procurement documents are available on the Partnerships BC website, which also features progress reports and news releases covering project milestones and other information. A comprehensive report on the project is available on the VIHA website.

Labour

This project had no impact on existing VIHA employees. The private partners are responsible for staffing the new facilities they have committed to building.

Other Issues

Applicability in other jurisdictions

With ageing populations now a fact of life in many countries around the world, better access to long-term care will become an ever-more important priority for governments. The VIHA Residential Care and Assisted Living Capacity Initiative illustrates how governments can provide quality care for seniors efficiently and cost-effectively.

Other health areas in British Columbia are watching VIHA's innovative bundling procurement to see how a similar arrangement could help them to meet their own long-term care needs. According to Jeff Good, senior project consultant with Partnerships BC, "I don't think we've seen the last residential care bundle in BC."

Apart from long-term care projects, Good believes that bundling is a cost-saving and time-saving option wherever there is the need to undertake a substantial number of similar projects on an accelerated schedule. School construction and rehabilitation is an ideal candidate.

Alberta currently has two bundles of PPP schools in procurement and Jeff Good notes that seismic upgrades of schools in BC could lend themselves to the bundled PPP idea.

Lessons learned

1. Effective marketing the key to success

The effective marketing of these opportunities to potential bidders was the key to the success of the procurement process. With so many beds required in eight different communities, it was vital to generate maximum competition to achieve the best possible value for money.

2. Breathing space for bidders

The innovative "bundling" procurement approach put some extra space into the procurement schedule, giving potential bidders more time to prepare, and helping them to present bids that achieved or surpassed the scheduling and quality targets identified by VIHA.

Concluding Comments

The decision by Partnerships BC to undertake a single procurement for 10 separate projects in eight Vancouver Island communities is an excellent example of how an injection of creativity can turn a procurement process into a problem solving tool.

For VIHA, the problem was how to get more than 1,000 long-term care beds built across the island by the provincial government's deadline of December 2008. By investing in a comprehensive marketing campaign to potential bidders, Partnerships BC and its public sector client were able meet a daunting deadline and turn their 10-in-one procurement into a robust competition that received plaudits from both public and private sector participants.

At the time of writing in spring 2008, all projects were nearing completion and on track to meet their opening target of June, three months ahead of the deadline specified in the original RFP.

Testimonials

Public sector

Meeting the shortfall in long-term adult residential care beds within the Vancouver Island Health Authority and creating more than 1,000 new spaces by 2008 required an innovative approach, which Partnerships BC was able to provide.

The proposal call, developed through the combined effort of our two organizations, resulted in the awarding of nine contracts to develop and construct these much-needed beds and spaces. The proposals were based on integration of design, build and operational efficiency to optimal use of available funding sources.

The success of this proposal call was made possible by the expertise of Partnerships BC and the Vancouver Island Health Authority. We are grateful to Partnerships BC for their contribution to this project and ultimately to improving health care for the people of Vancouver Island.

Howard Waldner
President and Chief Executive Officer
Vancouver Island Health Authority

Private sector

Realizing the severe shortfall in long-term adult residential care within the area covered by Vancouver Island Health Authority, a strategic initiative was launched to provide more than 1,000 new beds by 2008.

Through the combined efforts of the Health Authority and Partnerships BC, proposal calls resulted in the award of nine contracts to develop and construct these new beds throughout Vancouver Island. The proposals were based on integration of design, build and operations as main value drivers to optimize available funding revenue.

The Ahmon Group are pleased to be partners in this initiative, with participation in projects at Victoria, Parksville and Duncan. As operators of several long-term care facilities for nearly 30 years on the Lower Mainland, we are making a significant expansion and investment on Vancouver Island. We are committed to deliver the same high quality of care that is the hallmark of all our other projects.

The success of the Vancouver Island projects has been made possible by the expertise and unique approach adopted by Partnerships BC and Vancouver Island Health Authority in bringing together a privately-owned family enterprise with a publicly-funded body. This is an epitome of the phrase – "PUBLIC - PRIVATE PARTNERSHIP".

Michael Ahmon
President and Chief Executive Officer
The Ahmon Group

Public Sector Contact

Howard Waldner
President and CEO
Vancouver Island Health Authority
1952 Bay St
Victoria, BC V8R 1J8
250-370-8692
howard.waldner@viha.ca

Private Sector Contact

Michael Ahmon
President and CEO
The Ahmon Group
3288-156A St
Surrey, BC V3S 9T1
604-535-7328 ext. 303
michael.ahmon@morganplace.ca

Project Website

www.partnershipsbc.ca

Extra copies of this publication may be purchased by contacting:

The Canadian Council for Public-Private Partnerships
Telephone: 416.861.0500
Facsimile: 416.862.7661
E-mail: partners@pppcouncil.ca
Website: www.pppcouncil.ca

Design: ARTiculation Group, Toronto Printed in Canada