



# Project Report: Achieving Value for Money

## Royal Jubilee Hospital Patient Care Centre



The Best Place on Earth



October 2008



**partnerships**  
British Columbia

## Purpose of this Document

Before entering into a public private partnership, Partnerships BC works with its clients to undertake an analysis of the value for money expected over the life of the partnership. Value for money is a broad term that captures both quantitative factors, such as costs, and qualitative factors, such as service quality and protection of public interests.

Value for money is one of six key principles guiding public sector capital asset management in British Columbia. The others are:

1. Sound fiscal and risk management;
2. Strong accountability in a flexible and streamlined process;
3. Emphasis on service delivery;
4. Serving the public interest; and
5. Competition and transparency.

Since 2002, these principles have guided the B.C. public sector's approach to acquiring and managing assets such as bridges, roads and health care facilities. Ministries and other public bodies, such as health authorities, are encouraged to consider all available options for meeting their service objectives. Under the Capital Asset Management Framework, options are analyzed and, after considering the qualitative and quantitative advantages and disadvantages of each, the one that overall best meets service delivery needs and makes the best use of taxpayers' dollars is chosen.

In some cases, the best option may be the traditional delivery model – where assets are purchased entirely with taxpayer supported finance and operated exclusively by the public sector. In other cases, agencies may find innovative ways to meet their service needs without acquiring capital assets. In all cases, agencies are publicly accountable through regular budgeting, auditing and reporting processes.

In all of its procurement processes, including public private partnership agreements, the Province is committed to a high standard of public disclosure to ensure accountability. This report describes the rationale, objectives and processes that led to the use of a public private partnership for the Royal Jubilee Hospital Patient Care Centre, giving the public a clear sense of how and why the decision was reached to proceed with that option. It explains how value for money was measured and how it is expected to be achieved in the context of current market conditions. Where applicable, it also compares key aspects of the final agreement to other options considered for the project.

For more on the Province's Capital Asset Management Framework, please go to  
<http://www.fin.gov.bc.ca/tbs/camf.htm>

For more on public private partnerships in B.C., please go to [www.partnershipsbcc.ca](http://www.partnershipsbcc.ca)

Partnerships BC in conjunction with the Vancouver Island Health Authority is accountable for the contents of this report, including the reasonableness of facts, assumptions and professional opinions that have been presented.

## Table of Contents

Purpose of this Document . . . . .	i
1. Executive Summary and Highlights . . . . .	1
2. Project Background, Rationale and Objectives . . . . .	3
3 Competitive Selection Process and Results . . . . .	7
4. The Final Agreement . . . . .	10
5. Ongoing Project Agreement Monitoring . . . . .	15
6. Project Benefits and Innovations . . . . .	16
7. Achieving Value for Money . . . . .	18
Appendix: Changes in the Project . . . . .	20

## 1. Executive Summary and Highlights

In November 2005, the Vancouver Island Health Authority (VIHA) identified construction of a new 500-bed Patient Care Centre at the Royal Jubilee Hospital as a top priority in its Five-Year strategic Plan. The Patient Care Centre will provide inpatient services to medical/surgical patients and patients suffering from mental health and addiction issues. The facility will replace, modernize and centralize inpatient accommodation, currently dispersed across seven different buildings.

The Royal Jubilee Hospital Patient Care Centre (Patient Care Centre) will be delivered using the public private partnership (PPP) delivery model. However, there are additional project elements that are required to support the Patient Care Centre, such as upgrades to the power plant. These additional project elements will be procured using the traditional delivery model as a series of projects over the 2007-2012 timeframe.

The total project capital cost is \$348.6 million, which includes the Patient Care Centre (\$282.5 million project capital cost), delivered using the partnership delivery model plus additional project elements (e.g. power plant upgrades, medical equipment, etc.) that will be procured using the traditional delivery model (estimated at \$66.1 million).

In developing the business case for the Patient Care Centre, several critical areas of need were identified, including: aging and physically deteriorating infrastructure that poses safety concerns and hinders quality patient care; an outmoded design that increases infection risks; and buildings that are vulnerable in a seismic event.

In addition to addressing the above core needs, the project provides the opportunity to build a centre that is among the leading health care facilities in Canada. This will be underpinned by guiding principles that emphasize the creation of an elder-friendly, patient-centered facility; a magnet hospital that attracts, retains and trains top quality medical, nursing and other professional staff; and high environmental standards in the design and operation of the Patient Care Centre.

### Rigorous and Fair Selection Process

A two-stage procurement process was employed to select the winning proponent for this project. This included a request for qualifications (RFQ) and a request for proposals (RFP) stage. Four teams responded to the RFQ and a short-list of three teams, representing a range of B.C., Canadian and international experience in design, construction, facilities management services and financing, was selected.

Following a rigorous evaluation process, ISL Health, a consortium with an established record in delivering projects of this nature, was selected as the preferred proponent.

A Fairness Advisor was engaged to monitor the competitive selection process and concluded that the process was fair, open and transparent. Reports of the Fairness Advisor are available at:

[www.partnershipsbcb.ca/files/project-rjhpcc.html](http://www.partnershipsbcb.ca/files/project-rjhpcc.html)

### Partnership Agreement Highlights

Under the PPP agreement, ISL Health will build a 500-bed, 37,000-square-metre Patient Care Centre that is comprised of 83 per cent single-bed patient rooms. ISL Health will be responsible for completing and commissioning the new Patient Care Centre by December 31, 2010.

The project capital cost for the Patient Care Centre is \$282.5 million, with financing arranged by ISL Health. Once construction of the centre is complete, ISL Health will receive an annual service payment and payments will continue for 30 years. Part of the annual service payment is for services such as housekeeping and facility management; part of the annual service payment is to repay ISL Health for designing, building and financing most of the capital cost of the Patient Care Centre; and, part of the annual service payment is for major repairs and replacement of building elements. Actual payments will be made monthly and are based on performance, facility availability and service quality. Deductions will be made for non-availability and failure to achieve defined service quality levels.

For the first full year of operations, assuming no deductions, the annual service payment will be \$22.6 million.

The only exception to this payment principle is that during the development phase, the Capital Regional Hospital District (CRHD) is contributing \$85.1 million. (Their total contribution to the Patient Care Centre, including both elements procured using the public private partnership as well as the traditional model, is \$107.8 million). This CRHD contribution will be paid as progress payments during the construction period.

ISL Health will provide a range of facilities management services to the Patient Care Centre on completion of the facility, under a long-term license agreement. VIHA, on the other hand, will be responsible for providing all clinical services, food services, portering, security and other miscellaneous services.

VIHA will own the site and the Patient Care Centre.

## Risk Allocation

One of the key advantages of a public private partnership is the allocation of risk to the party best able to manage it. For example, the public sector is better able to determine whether the design of the Patient Care Centre will meet the health authority's clinical functionality needs. The public sector will also be responsible for program delivery and decision-making and its associated risks. Similarly, the private partner is better able to ensure the design will be cost effective from an operational and maintenance perspective over the facility's lifecycle. Some risks will be shared, for example, the risk of a fire that is not caused by either party.



## Project Benefits and Innovations

The design of the Patient Care Centre was informed by evidence based literature, and, in particular the resources of the Center for Health Design in the U.S. The facility will be the first Canadian project to be recognized by this international center as a PEBBLE partner. Partnership with the Center for Health Design provided VIHA with access to leading design and research support, as well as access to international experts in the field.

The design and features of the Patient Care Centre are expected to yield benefits in three broad areas:

- Create a centre of excellence in elder care;
- A magnet workplace that attracts, retains and trains high quality staff; and
- A sustainable solution that will have a light footprint on the ecosystem through the build, operate and maintain phase.

## Achieving Value for Money

Value for money is a broad term that captures both quantitative factors, such as costs, and qualitative factors, such as service quality. Partnerships BC looks at a broad range of factors in determining whether a project offers value for money to taxpayers, including comparison of the final agreement to other benchmarks – in this case, the expected results of a hypothetical traditional delivery model, and the expected results of a hypothetical partnership delivery model.

Partnerships BC and VIHA analyzed the net present cost of the project and compared it to the net present cost of the risk-adjusted, public sector comparator. Together, Partnerships BC and VIHA determined that the hypothetical net present cost of the Royal Jubilee Hospital Patient Care Centre, procured using the traditional delivery model, is an estimated \$363.0 million. The final agreement with ISL Health has a net present cost of \$340.8 million.

***Under conservative assumptions, in financial terms, the final agreement is expected to achieve value for taxpayers' dollars of \$22.2 million.***

*Pre-construction July 2008*

## 2. Project Background, Rationale and Objectives

The Royal Jubilee Hospital (RJH) in Victoria is one of two tertiary hospitals serving Vancouver Island (Victoria General Hospital is the other). These hospitals operate as one comprehensive facility across two sites, providing high-level trauma care and specialized services for approximately 752,000 residents within the Vancouver Island Health Authority (VIHA) area. In addition, Royal Jubilee Hospital is a regional hospital serving the residents of southern Vancouver Island.

When the Diagnostic and Treatment Centre at RJH opened in 2002, diagnostic and treatment facilities and services were significantly upgraded. However, the inpatient areas of the hospital (where patients stay overnight to recover from their illness or injury) were not upgraded at that time. These inpatient buildings, the earliest of which were built in the 1920s and 1930s, are no longer appropriate for meeting important current and future health care needs of residents.

In November 2005, VIHA identified construction of a new 500-bed Patient Care Centre at the Royal Jubilee Hospital as an urgent need and a top priority in its Five-Year Strategic Plan. In 2006, it prepared a business case for provincial approval leading to a May 4, 2007 announcement that the provincial government had formally approved the Patient Care Centre. This step was followed by a two-stage procurement process which culminated in a signed project agreement with ISL Health in July 2008.

The new Royal Jubilee Hospital Patient Care Centre (Patient Care Centre) will provide inpatient services to medical/surgical patients and patients suffering with mental health and addiction issues. The facility will replace, modernize and centralize inpatient accommodation, currently dispersed across seven different buildings in the hospital. It will be directly adjacent to and connect with the existing Diagnostic and Treatment Building to establish a core of modern facilities to support the tertiary health care needs of Vancouver Island residents.

The Patient Care Centre is cost-shared, with the Province and the Vancouver Island Health Authority funding 69 per cent of the costs by way of annual service payments over the term of the project agreement, while the Capital Regional Hospital District funds 31 per cent by way of progress payments during the construction period.

The full scope of the project includes a new 500-bed Patient Care Centre and necessary infrastructure upgrades to support the new facility. These include:

- Upgrades to the power plant;
- Critical program relocation;
- Development of replacement parking; and
- Medical equipment procurement.

The Patient Care Centre will be delivered using the Design Build Finance Maintain (DBFM) partnership delivery model. Other elements of the project required to support the Patient Care Centre will be traditionally procured as a series of projects over the 2007-2012 timeframe.

The total project capital cost is \$348.6 million, which includes the Patient Care Centre (\$282.5 million project capital cost), delivered using the partnership delivery model plus additional project elements (e.g. power plant upgrades, medical equipment, etc.) that will be procured using the traditional delivery model (estimated at \$66.1 million).

The focus of this report is to describe the project rationale, objectives and processes that led to the use of a public private partnership for the Patient Care Centre.

## Project Rationale: The Need for Change

In developing the business case for the Patient Care Centre project, VIHA identified several critical areas of need. They include the following:

- ***Aging/physically deteriorating infrastructure that posed safety concerns and hindered quality patient care***

The average age of Royal Jubilee Hospital inpatient buildings is 55 years, the oldest of which are the East and South block, dating back 85 years.

Portions of buildings have been closed because of health and safety concerns. These include mould, asbestos, plumbing problems and other building deficiencies.

- ***An outmoded design that increases health and infection risks***

Many inpatient areas do not meet recognized health care best practices related to number of patients per room, infection control design, prevention of environmental contamination and hand-washing stations and fixtures. Configurations do not support efficient patient flows or staff workflows and contribute to infection control issues (for example, MRSA infection rates at Royal Jubilee Hospital are three times that of Victoria General Hospital, which was built in 1983).

- ***Inpatient buildings are subject to seismic risk***

The hospital buildings with patient bedrooms on the RJH campus are vulnerable to seismic events, with existing structures designed to approximately 20 per cent of current building code requirements. RJH would be required to play a major role in any post-disaster scenario and because the potential for extensive damage and physical injury resulting from a seismic event is so high, it is vital that patient care buildings remain operational.

Saanich North and the Islands MLA Murray Coell, Oak Bay-Gordon Head MLA Ida Chong, Minister of Health Services George Abbott, Premier Gordon Campbell, Gerry Green (ISL Health), Howard Waldner (CEO VIHA), Jac Kreut (Chair, VIHA Board), Dr. Marilyn Bater (VIHA Geriatrician)

## Project Objectives

In addition to meeting these critical needs, the project provides the opportunity to build a state-of-the-art centre that will incorporate the latest innovations in health care facility management. This will encompass areas such as environmental standards; patient care delivery; employee friendly and ergonomically designed work areas that also support professional development of medical, nursing and other professional staff; and elder-friendly features and safeguards.

Overall, the vision is to create a centre that is among the leading health care facilities in Canada. The Patient Care Centre is designed to deliver the following:

- Create a centre of excellence in elder care;
- A magnet workplace that attracts, retains and trains high quality staff; and
- A sustainable solution that will have a light footprint on the ecosystem through the build, operate and maintain phase.

## Procurement Options Analysis

Consistent with the Capital Asset Management Framework, VIHA and Partnerships BC considered several procurement delivery models. These options included:

- Design Bid Build;
- Construction Management;
- Design Build;
- Build Finance; and
- Design Build Finance Maintain.



Based on the general construction environment at the time, market feedback, empirical data from international studies and reviews and the B.C. experience, VIHA with assistance from Partnerships BC selected two procurement models for comprehensive analysis during the business case phase. The two delivery models were:

1. Design Build: The design and construction functions are the responsibility of the private partner selected through a competitive process. Financing and operations/maintenance are the responsibility of the public sector.
2. Design Build Finance Maintain: The design, construction, financing and facility management functions are the responsibility of the private sector partner selected through a competitive process.

The process of identifying, developing and analyzing the identified procurement models was completed in the context of the following key procurement objectives and challenges.

#### **Procurement Objectives:**

- Capture innovation and best practices;
- Complete construction by 2010 to minimize cost escalation;
- Complete the project on budget;
- Implement a fair, open and competitive process;
- Integrate with the rezoning process; and
- Maximize value for money for B.C. taxpayers.

#### **Procurement Challenges:**

- Timing and duration;
- Size of elements;
- Competition; and
- Cost escalation in an overheated construction market.

The Design Build and the Design Build Finance Maintain delivery models were analyzed further within the following analytical framework:

- Risk/Opportunity Analysis: A preliminary analysis of the typical risks with respect to a project of this nature and the means of mitigating these risks.

The risk analysis has been based on other projects with similar risk profiles.

- Financial Analysis/Whole Life Cost: A calculation of the net present cost of each option on an estimated like-to-like basis over a 30 year period. This analysis includes inputs from the strategic risk analysis.
- Qualitative Assessment: An assessment of qualitative factors – how well each option meets project and procurement goals, such as the opportunity for innovation.

The business case concluded that a public private partnership under a Design Build Finance Maintain delivery model, would best deliver the Patient Care Centre on time and on budget, and meet the goal to improve patient care at Royal Jubilee Hospital.

#### **Partnership Delivery Model**

The partnership delivery model is designed to capture the strengths of both the public and private sectors, recognizing that private companies have always played an integral role in delivering public infrastructure such as bridges, highways and hospitals. Partnership agreements build on that history and clearly delineate areas of responsibility for both sectors over the life of a long-term, performance-based agreement. The partnership delivery model has successfully been used to deliver health care and transportation infrastructure projects.

A public private partnership can provide better value for taxpayers' dollars, transfer risk to the private sector and add value through design and private sector innovation for projects with certain attributes. It also ensures greater accountability for performance because the public sector can charge financial penalties if the private partner fails to meet the performance standards.



*Artist's rendering of the Royal Jubilee Hospital Patient Care Centre*

In the DBFM model, the owner (VIHA) provides an indicative design and performance (output) specifications, and invites competitive proposals to design, build, finance and maintain the asset. An annual service payment is paid on a regular basis to the private partner, subject to the availability and performance of the asset. The annual service payments begin: after the asset has been constructed; meets all specifications; and is available for use, providing a strong incentive for the private partner to finish on schedule.

With this option, the private partner is responsible for:

- Designing, building and commissioning the facility;
- Arranging the project financing for the partner's portion of the capital cost;
- Providing facilities management services (e.g. housekeeping) and lifecycle maintenance; and
- Meeting defined hand-back requirements at the end of the project term.

### 3. Competitive Selection Process and Results

#### Objectives

The competitive selection process had the following key objectives:

- Select a qualified, experienced partner to finance, design, build, maintain and operate facilities management services for the Patient Care Centre;
- Implement a fair, timely and competitive procurement process; and
- Achieve value for money.

A two-stage procurement process was employed to select the winning proponent for this project. This included a request for qualifications stage and a request for proposals stage. Four teams responded to the RFQ and a short-list of three teams was selected.

The members of each short-listed proponent team are listed in the table below.

RESPONDENT	DESIGN	CONSTRUCTION	FINANCING	FACILITIES
B&B Royal Jubilee	CEI Architecture Planning Interiors	EllisDon Corporation	Babcock & Brown	Honeywell Limited (Hard FM) ARAMARK Canada Ltd. (Soft FM)
ISL Health	Cannon Design	Lark Group Acciona S.A. Ledcor Group	Investec North America	Angus Consulting Management Ltd. (Hard FM) Acciona S.A. (Soft FM) Compass (Soft FM)
Plenary Health	Jonathan Bailey Associates	PCL Constructors Westcoast Inc.	Deutsche Bank AG	Johnson Controls (Hard FM) Sodexo (Soft FM)

The proponents were then invited to submit proposals to design, build, finance and maintain the Patient Care Centre in response to the request for proposals stage of the competitive selection process. A draft project agreement was issued with the RFP; during bilateral/collaborative discussions proponents had the opportunity to identify issues or provisions for amendment. These collaborative discussions covered three broad areas: design and construction, commercial/legal and facilities management.

Below is an outline of the competitive selection process and a timeline of key steps in the process.

PROCUREMENT STAGE	TIMING	OUTCOME
Request for Qualifications (RFQ)	May 11, 2007 to September 19, 2007	The project was marketed locally, provincially and nationally. Submissions from four respondents were evaluated and three short-listed teams were announced September 19, 2007: <ul style="list-style-type: none"><li>• B&amp;B Royal Jubilee</li><li>• ISL Health</li><li>• Plenary Health</li></ul>
Request for Proposals (RFP)	September 19, 2007 to January 30, 2008	This stage included bilateral/collaborative discussion with the proponents. The three proponents submitted proposals.
Selection of Preferred Proponent	April 7, 2008	After evaluation of the proposals, ISL Health was selected as the preferred proponent.
Project Agreement Finalization	After negotiations between VIHA and ISL Health, financial close was reached on July 18, 2008.	A project agreement was signed by VIHA and ISL Health.
Project Development to Substantial Completion	July 30, 2008 to December 31, 2010	Construction and detailed design development commences on the Patient Care Centre.

## RFP Process and Evaluation of Proposals

VIHA appointed an Evaluation Committee that, with the assistance of Evaluation Teams, assessed all proposals based on the evaluation criteria described in the RFP.

The Evaluation Teams consisted of VIHA employees and advisors with specific expertise who were selected based on their ability to assist the Evaluation Committee with the evaluation. Individual resource experts, appointed by the Evaluation Committee to provide specific technical advice as required during the evaluation process, also assisted the Evaluation Teams. The Evaluation Teams prepared comments and recommendations based on the evaluation criteria as defined in the RFP.

There were three broad categories of evaluation criteria:

- Financial and commercial (including financial plan/model);
- Design and construction (including aspects such as architectural innovation, flexibility and ergonomics; energy/environmental efficiency; and lifecycle building management); and
- Services (general management, environmental and sustainability services, etc.).

Following a rigorous evaluation process, the Evaluation Committee issued a report recommending to the Project Steering Committee that ISL Health be nominated as the preferred proponent. This recommendation was ratified by VIHA's Board of Directors.

## Fairness Advisor

A Fairness Advisor, ADR Chambers Inc., was engaged to monitor the competitive selection process and offer an assessment about the procedures and whether or not the selection process was carried out in a fair and reasonable manner. The Fairness Advisor was provided access to all documents, meetings and information related to the evaluation processes throughout the competitive selection process. The report of the Fairness Advisor was presented to VIHA's Board of Directors prior to final ratification. In the report, the Fairness Advisor concluded that ***"the evaluation of proposals met the criteria of fairness, openness, transparency and integrity"*** and notes ***"the high degree of professionalism displayed throughout."***

## Project Agreement Finalization and Financial Close

One of the significant accomplishments of the procurement process for the Patient Care Centre was how expeditiously it was conducted, taking just 14 months from the RFQ issue date on May 11, 2007, to financial close on July 18, 2008.

## Competitive Selection Costs

The cost of the competitive selection process is factored into the value for money analysis. The total competitive selection costs for the Patient Care Centre from approval of the business case to financial close is \$3.8 million, including partial compensation paid to two unsuccessful proponents (\$500,000 in total). Other competitive selection expenses include the cost of developing performance (output) specifications, preparing procurement documentation, obtaining advice from external advisors and preparing a project report.

## Procurement Best Practices

As a centre of public private partnership procurement expertise, Partnerships BC continues to develop best practices. Partnerships BC continually transfers knowledge and experience gained from past projects to others, to improve efficiency and quality, and to streamline and expedite the procurement process to save time and money for the public sector. For example, the use of consistent procurement documents across health care projects has resulted in the reduction of certain procurement-related costs. Procurement expertise is shared with ongoing knowledge transfer between projects in various sectors.

Partnerships BC is represented on the steering committees for all health PPP projects to ensure the application of sound governance principles and best practices. Partnerships BC has developed and tested procurement documents that have been used successfully on three health care projects, including the Patient Care Centre. Procurement expertise is also shared across sectors with learnings from transportation projects transferred to health care infrastructure projects and vice versa. In fact, lessons from the Patient Care Centre are already being applied to other projects.



*Post-construction September 2008*

## 4. The Final Agreement

### Final Project Agreement Cost

The project capital cost of the Patient Care Centre, to be delivered using the partnership delivery model, is fixed at \$282.5 million.

### Profile of Private Sector Partner

ISL Health is a consortium of companies consisting of the following key members:

**Health Care Projects Ltd.** (HCP) has a portfolio of projects that includes 15 health care facilities in the United Kingdom. HCP has over 10 years experience partnering with Innisfree in public private partnership projects. As project managers, the HCP team has delivered several hospital projects through all their phases. HCP has led the ISL Health team through the bidding process and will continue to provide senior project management throughout the construction and operations phases, thus ensuring long term continuity for the people of Vancouver Island.

**Acciona/Lark – Acciona Infrastructures Canada Inc.** is one of the largest developer/construction companies internationally and the Vancouver based **Lark Group** has a strong presence in the British Columbia market with numerous health related projects. In joint venture, these companies form the design and construction entity for the Patient Care Centre project. The Lark Group has the two largest complex care facilities under construction on Vancouver Island, totalling 500 beds. Acciona's projects include over 50 projects under construction worldwide at any one time with many being in the health care sector.

**Cannon Design**, ISL Health's design team leader has 700 staff working in 15 regional offices across North America; design for health care has been a cornerstone of Cannon Design's practice since its founding in 1945. Mechanical and electrical design services are provided by **H.H. Angus**, one of Canada's oldest and largest private engineering firms.

### Angus Consulting Management Western Limited

(ACML) will perform the plant services and utility management services. ACML is currently responsible for the operation of 19 hospital facilities in British Columbia and Ontario and has been providing facilities management services in excess of 30 years within health care. ACML draws on the experience and resources gained from operating and maintaining over 25 million square feet of property.

**Acciona Facility Services S.A.** is a subsidiary company of Acciona S.A. and will perform the housekeeping, waste management and help desk services. Through its 40 years of experience, AFS has developed standardized procedures for performing services within the health care sector. This allows it to achieve a performance level of the highest standard, and ensures a very high quality of services and a commitment to social and environmental responsibility that is supported by ISO certifications.

### Innisfree, Acciona Concessions and Lark Group

together provide equity finance and leadership, a unique blend of global and local infrastructure development industry knowledge. Innisfree is the leading infrastructure investment group in the UK sponsoring and making long term investments in PPP projects; they currently have a platform of 47 PPP projects, including 18 hospitals. Acciona is an international integrated infrastructure services group, which has extensive experience and expertise in the field of hospitals and other PPP projects. The Lark Group has over thirty years of development and construction experience in British Columbia.

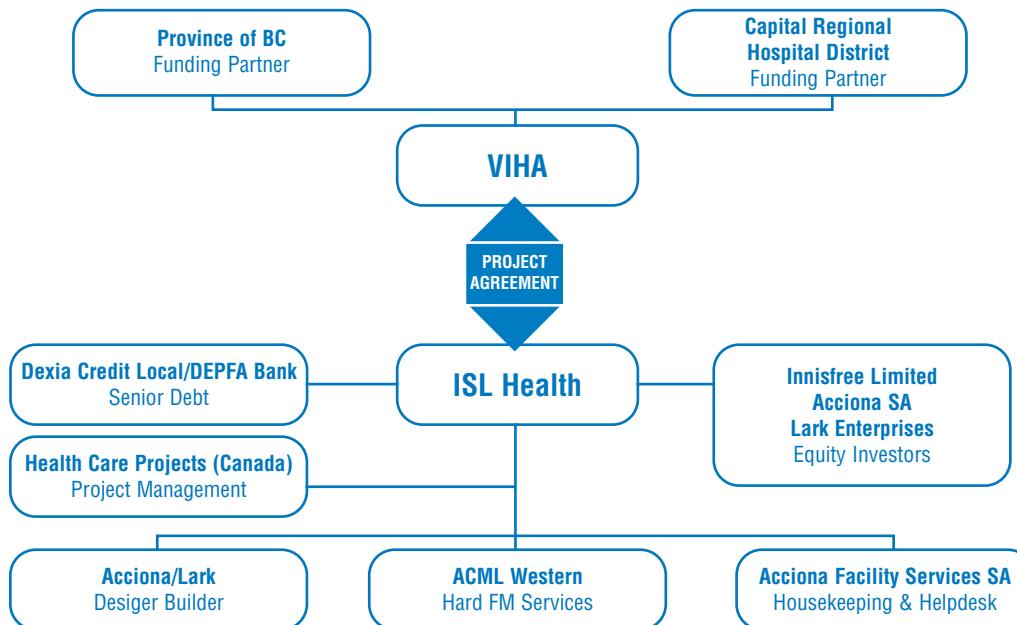
**DEPFA Bank plc** and **Dexia Crédit Local** will provide senior funding for the project. DEPFA Bank is a leading provider of financial services to the public and infrastructure sectors and has participated in financing over 200 infrastructure projects globally. **Dexia Crédit Local** is a European bank with more than 36,500 employees in 39 countries, including a branch in Canada where it has led various major infrastructure financings over the past three years. Dexia has one of the highest credit ratings in the banking industry.

## Key Terms of the Project Agreement

### Agreement Structure

The PPP partner will incorporate a single purpose entity, ISL Health, to enter into the project agreement and undertake the project. ISL Health will be responsible for the cost of the design, construction, operations and lifecycle maintenance of the Royal Jubilee Hospital Patient Care Centre as defined in the project agreement. ISL Health will be granted an exclusive license to undertake the construction of the Patient Care Centre and then a non-exclusive license to provide the services as defined in the project agreement.

The organization chart below depicts the relationship between the signatories to the final project agreement.



ISL Health's key project deliverables and roles/responsibilities vis-à-vis the public partner include the following:

### Design and key features

ISL Health will build a 500-bed, 37,000-square-metre facility that is comprised of 83 per cent single-bed patient rooms. The design ensures a clear separation of patient, visitor and service flows while incorporating therapy and support services within each floor, inboard bathrooms that will allow staff to respond and provide assistance to patients quicker, line-of-sight from halls to patients' heads to facilitate easier observation by care staff and a compact unit layout contributing to decreased distances walked by staff.

### Refinancing

In the event ISL Health refinances the initial senior debt amount (except in a limited number of specified circumstances, the purpose of which, in broad terms, is to ensure the continuance of the project rather than to receive a financial benefit), the resulting gain will be shared on a 50-50 basis between the public and private sectors. This will also apply where equity is converted to senior debt on more favourable terms to those in place at financial close.

### Construction schedule

ISL Health is responsible for completing and commissioning the new Patient Care Centre by December 31, 2010.

### Ownership

VIHA will own the site and the Patient Care Centre.

## **Facilities Management Services**

ISL Health will provide a range of facilities management services to the Patient Care Centre on completion of the facility, under a long-term license agreement. These services include:

- Plant services;
- Housekeeping and waste management services;
- Help desk services;
- Utility services; and
- Grounds maintenance.

VIHA will be responsible for providing all clinical services, food services, portering, security and other miscellaneous services.

## **Public Health Care Delivery**

All medical and clinical services will continue to be provided under the universal, publicly funded health care system, consistent with the Canada Health Act. Patients will use their Care Card just like in every other public health care facility, and will not pay for health care services that are medically necessary and covered by the Medical Services Plan.

## **Equipment**

VIHA has retained responsibility for the procurement of all clinical equipment that is not attached or built into the facility, such as patient beds and monitors. ISL Health is responsible for all fixed equipment or equipment that is attached to the facility, such as blanket warmers and lockers.

## **Term of the Project Agreement**

The project agreement term is 32 years and five months. This includes a construction period and 30 years of operations from the expected date of substantial completion. The expiry date of the project agreement is fixed regardless of actual service commencement (if there are delays in completing the construction, the operating period will reduce and if the facility is delivered earlier, the operating period will increase). At the end of the project term, the facility will be returned to VIHA in a specified hand-back condition. The condition of the Patient Care Centre at the end of the operations phase is specified in the project agreement.

## **Performance-Based Payment Principles**

Once construction of the centre is complete and the facility has achieved its occupancy permit, VIHA will pay ISL Health an annual service payment and payments will continue for 30 years. Actual payments will be made monthly and those payments are based on performance, facility availability and service quality. Throughout the operating period, ISL Health's performance will be constantly monitored based on key performance indicators. VIHA will be entitled to make deductions from its monthly payments if ISL Health does not meet the standards contained in the project agreement.

Payment deductions are based on the severity of the failure, the importance of the rooms affected and their degree of availability. For example, the deduction for a delay of over two hours to fix a patient room's overhead examination light begins at \$1,000, with further \$1,000 deductions every two hours for the first twelve hours, then \$1,000 more every twelve hours. This means that if it is not fixed within 36 hours, the deduction would be \$8,000.

The only exception to this payment principle is that during the development phase, the Capital Regional Hospital District (CRHD) is contributing \$85.1 million. This CRHD contribution will be paid as progress payments during the construction period.

Energy costs are outside of the project agreement. VIHA bears the unit price risk for energy but ISL Health will be responsible for any increases in the amount of energy consumed.

## **Adjustments to Payments**

The amount of the annual service payment may change over the course of the agreement in specific circumstances as defined in the project agreement:

- **Indexation:** The capital component of the annual service payment will not be indexed. The facilities management services component of the annual service payment is indexed by the Consumer Price Index (CPI) with periodic calibration to the market through benchmarking or market testing.
- **Benchmarking and Market Testing:** Every six years the costs of certain services, such as housekeeping, will be compared against the market cost of procuring those services. The method of this comparison may be a benchmarking exercise or may involve a re-tendering of those services by ISL Health depending on the performance of those services in the preceding five years. Changes in the cost of those services following this process will be reflected in an amended annual service payment.
- **Variations:** If VIHA requires ISL Health to make a physical change or amend the services, VIHA can either make a lump sum payment, or have the cost of the change financed. If VIHA chooses to have the change financed, the cost will be reflected in an amended annual service payment.
- **Change in Law:** If there is a discriminatory change in law the annual service payment may be amended to leave ISL Health in no better or worse position than if that change in law had not occurred.
- **Compensation Events:** Any compensation payable for a compensation event is provided by an adjustment to the annual service payment.

## **Risk Allocation Summary**

In projects that are procured using the traditional delivery model, the design, construction, operations and maintenance are rarely integrated and, as a result, the public sector retains significant risk. One of the key advantages of the partnership delivery

model is the sharing of the burden of risk. For example, the public sector is better able to determine whether the design of the hospital will meet the health authority's clinical functionality needs, and so retains that risk. Similarly, the private partner will be better able to ensure the design will be cost effective from an operational and maintenance perspective of the facility's lifecycle, and so accepts that risk. Some risks are shared, such as a relief event like an earthquake or flood. For every shared risk the project agreement stipulates how the risk will be allocated; for example, by providing thresholds for each party's responsibility for a certain risk. In the event of any difference in interpretation of the risk allocation, the dispute resolution mechanism would apply.

The following table provides an overview of risk allocation for the project.

RISKS RELATING TO:	PUBLIC (VIHA)	PRIVATE (ISL HEALTH)
Construction		✓
Financing		✓
Schedule		✓
Maintenance		✓
Commissioning		✓
Lifecycle capital		✓
Geotechnical		✓
Systems and civil works integration		✓
Utility volume		✓
LEED Gold certification		✓
Ownership	✓	
Program delivery/decision-making	✓	
Legislative change	✓	
Existing site conditions	✓	
Utility unit costs	✓	
Force Majeure	✓	✓
Relief event (e.g. fire)	✓	✓
Excusing event (e.g. police shut down facility)	✓	✓

This risk allocation is supported by the following provisions in the project agreement:

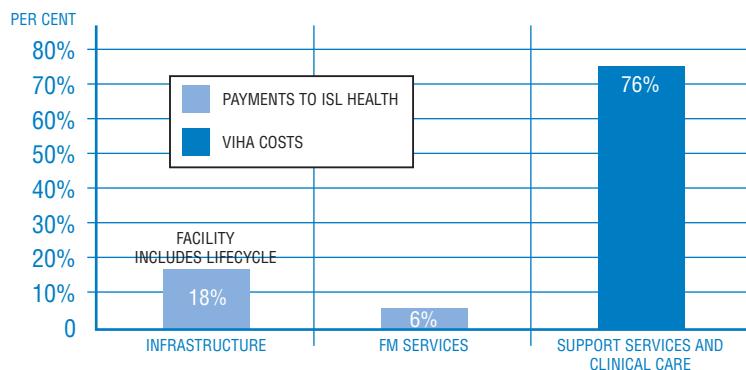
- VIHA starts making performance-based payments only when an independent certifier confirms that the facility is substantially complete;
- The expiry date of the agreement is fixed, so any delays in completing construction will reduce payments to ISL Health, providing a strong incentive for timely completion; and
- Provisions are in place for payment reductions if ISL Health does not meet agreed-upon standards for facility operation and maintenance.

## Financial Summary

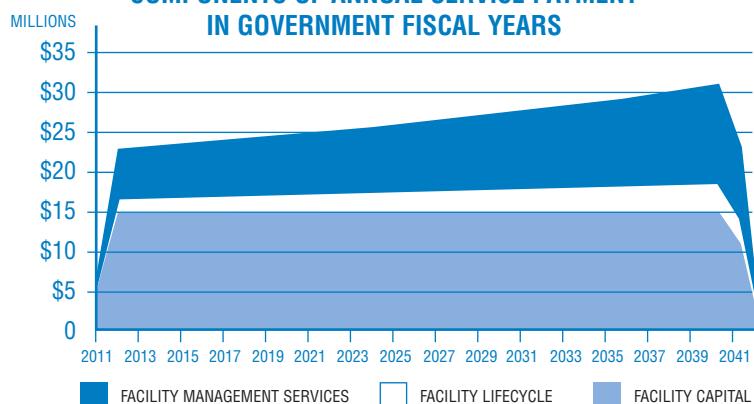
The overall cost of the Patient Care Centre in the first full year of operation is expected to be \$94.9 million; approximately 76 per cent is the cost of clinical health care and related services provided by VIHA; the remaining 24 per cent represents the annual service payment to ISL Health. This is illustrated in the chart at right.

The following graph demonstrates the anticipated annual service payment stream to ISL Health over the term of the agreement (the graph is expressed in nominal dollars, that is, future year dollars assuming two-and-a-half per cent inflation for FM services); payment projections assume that there are no penalties or deductions.

**PROJECTED COST OF FIRST FULL YEAR OF OPERATION AT PCC**



**COMPONENTS OF ANNUAL SERVICE PAYMENT IN GOVERNMENT FISCAL YEARS**



## Accounting Treatment

When the government began entering into PPP agreements, there was little in the way of guidance on accounting treatment for PPPs. The cost of the total contract was known; however, for accounting and reporting purposes, it was unclear as to how much of the total project cost should be allocated to capital cost and how much toward operating expense.

Previously, reporting on the capital cost of PPPs focused on construction costs as the means of allocating the contract amount between capital costs and operating expenses. The Office of the Comptroller General has established accounting guidelines for PPP projects which clarify that the costs allocated to capital must also include items such as interest during construction and project management costs.

With the Patient Care Centre, the effect of this new accounting treatment resulted in a shift of approximately \$54 million of project costs previously classified as operating expenses, such as interest during construction and project management costs, into the capital cost of the project.

## 5. Ongoing Project Agreement Monitoring

The agreement with ISL Health includes several checks and public interest safeguards to ensure delivery, performance and high standards of quality.

This monitoring will span every phase of the project, from financial close through design, construction, operations and maintenance over the term of the partnership agreement.

The following describes the major phases in the project-monitoring schedule, the participants involved in each stage and their roles and responsibilities.

### **Self Monitoring by the Partner**

The project agreement is designed in a manner to motivate the partner to ensure delivery, performance and high standards of quality given the monetary consequences of not achieving these requirements.

### **Design and Construction Phases**

VIHA will monitor activities through its role as members of the Design and Construction Committee. In addition, VIHA consultants will conduct monthly inspections and have full access to the construction site, drawings and specifications and report their observations to VIHA.

### **Operations and Maintenance Phase**

As stipulated in the project agreement, a VIHA representative will serve as a member of the Operations and Maintenance Committee over the 30-year term of the partnership. This committee will be a formal forum for the parties to consult and cooperate in all matters related to the facility during the operational term.

### **Project Reviews**

VIHA and the Ministry of Health Services will work together to design a project review process in anticipation of the expected operating lifecycle requirements in year 26.

### **Long Term Project Agreement Review**

Partnerships BC will work with the Ministry of Health Services and VIHA to design a process for reviewing the project at appropriate intervals such as five, 10 or 15 years from the start of operations. This review process will enable Partnerships BC to establish whether the project agreement is functioning as intended, and whether the expected benefits have been realized.

### **Role of Project Office**

VIHA has also established a Project Office charged with leading project oversight and monitoring efforts. An experienced Project Officer, along with key clinical and facility management services subject matter experts, will serve full time roles in the Project Office. The Project Office will report to an executive steering committee on all aspects of the Patient Care Centre project.

The Project Office has established a detailed Project Implementation Plan based on Project Management Institute best practices, to guide all aspects of the project management process. To facilitate its mandate, the Project Office will have access to key VIHA departments including Design and Construction; Purchasing; Financial Management; Risk; Facilities Management, as well as to executive committees.

## 6. Project Benefits and Innovations

The design of the Patient Care Centre was informed by evidence based literature, and, in particular the resources of the Center for Health Design in the U.S. The facility will be the first Canadian project to be recognized by this international center as a PEBBLE partner\*. Partnership with the Center for Health Design provided VIHA with access to leading design and research support, as well as access to international experts in the field.

The design and features of the Patient Care Centre are expected to yield benefits in three broad areas:

- ***Create a centre of excellence in elder care***

The Patient Care Centre is designed to incorporate a wide range of elder friendly attributes, including wandering loops incorporated in units; lounges and outside spaces that are easy to walk to; hand rail assist and seating throughout; non-glare flooring and lighting; and in-board ensuite bathrooms that allow for faster staff responses. Other elder-friendly attributes include flat level entry to ensuite shower areas; room for double assist in the ensuite; doors that slide out of walking paths; countertops, switches and window sills placed at wheelchair accessible heights; and clear signage using elder-friendly fonts and colors. Together all of these elder-friendly features will support older adults to maintain their functional abilities while in hospital.

Additional features include:

- Large opening windows that will maximize natural light and views to the outside. This is expected to result in decreased anxiety and stress related to hospitalization;
- A large percentage of single-bed patient rooms, which is expected to significantly reduce hospital acquired infection rates, improved patient quality of sleep and speed recovery times, resulting in increased patient satisfaction;

\*The purpose of the PEBBLE partnership is to provide researched and documented examples of health care facilities whose design makes a difference in the quality of care provided.

- Rooms have been designed to allow family members to participate in patient care and to provide psychosocial support that is expected to result in better outcomes and safer care, particularly in light of aging demographics;
- Easy to navigate, clear hallways that is expected to improve patients motivation to leave their beds and ambulate, and their safety when doing so;
- The creation of acuity adaptable rooms is expected to decrease the need to move patients from one clinical setting to another during their hospital stay, which is expected to result in fewer infections, falls, medical errors and staff injuries;
- Outstanding patient monitoring capability through improved views of the patient by staff, lowering the risk of patient injury related to falls;
- Logical and intuitive flow for the layout of the building and the units that incorporates reduced decision points, this is expected to reduce the stress and confusion associated with navigating a hospital; and
- Air exchange systems allow for isolation at the room, pod, unit or ward/floor level in the case of infectious disease outbreak requiring isolation.
- ***A magnet workplace that attracts, retains and trains high quality staff***

Recruitment and retention of quality staff presents perhaps the greatest single challenge to health care organizations today and in the years ahead. The Patient Care Centre is being designed and built to be a magnet hospital – a facility that attracts and retains staff by creating a working environment in which nurses, physicians and other health care providers have a high level of job satisfaction and where there is a decreased staff turnover rate, resulting in excellent patient outcomes.

The magnet ideal means that the hospital has created an environment that supports seamless practices, efficient use of staff members time, provides places for leaders to be visible within the unit, and for members of the multidisciplinary team to meet, share information and coordinate care.

Magnet hospital features fall into two main areas, namely design and staff amenities, and these include:

- Minimized walking distances for staff due to decentralized care team stations;
- Overhead lifts in all medical and surgical rooms;
- Dual headwall on either side of the patient bed;
- Wireless, hands-free staff communication system contributing to a quieter work environment;
- Every staff work and rest area will have views to the outdoors;
- Multiple teaching spaces of various sizes throughout the facility;
- Ergonomically designed work areas that are easy to use and safe;
- Logical and efficient equipment location and storage, leading to reduced hunting and gathering behaviours;
- Ease of disposal of soiled items and storage of all equipment;
- Universal floor layout repeated throughout, allowing staff to always know where to find supplies and resources;
- Creating an attractive and calming atmosphere, with the inclusion of positive distractions (e.g. art) is expected to reduce stress;
- Accommodating an evolving staff mix; and
- Provision of staff-focused amenities such as parking, washrooms/lockers, staff lounges, cyclist facilities, pharmacy and other facilities.



*Artist's rendering of a patient room*

- **A sustainable solution that will have a light footprint on the ecosystem through the build, operate and maintain phase**

The Patient Care Centre will incorporate safer building products and working practices, clean air, energy and water efficiency, education, and a commitment to public health demonstrated through waste volume and toxicity reduction. This Pacific Green approach will provide a healthy work and healing environment with a minimal impact on the environment.

The facility will be designed and built to a LEED (Leadership in Energy and Environmental Design) Gold standard. It will contain high indoor air quality (100 per cent fresh air) and maximize the use of natural light. This will create a truly healthy and healing environment for patients and also protect the health of building occupants, the surrounding local communities and the global community, while preserving natural resources.

Other key environmental features of the facility are:

- High energy efficiency;
- Public access to garden space with the incorporation of donated art features on the grounds;
- Opportunities for alternative transportation such as bike lockers, car-pooling and walking;
- Storm water retention and re-use and focus on surface water management (e.g. holding ponds, porous paving);
- Xeriscape landscaping;
- Abundant natural light;
- Reduction of volatile organic compounds (VOCs); and
- Acoustically designed to achieve a quiet and restful care environment.

Thanks to these characteristics, VIHA will be able to market the Patient Care Centre to local, Canadian and international health care workers as one of the most modern and technologically advanced acute care hospitals in Canada.

## 7. Achieving Value for Money

Value for money is a broad term that captures both quantitative factors, such as costs, and qualitative factors, such as service quality. Partnerships BC looks at a broad range of factors in determining whether a project offers value for money to taxpayers, including comparison of the final agreement to other benchmarks – in this case, the expected results of a hypothetical traditional delivery model, and the expected results of a hypothetical partnership delivery model.

Financial value for money is the difference between the net present cost of the annual service payments that will be paid to ISL Health, over the life of the project agreement, and the expected net present cost of the capital cost, facility management and operating costs, lifecycle maintenance costs and transferable risk costs included in the public sector comparator.

Based on the above, it was determined that the hypothetical net present cost of the Patient Care Centre, procured using a traditional delivery model, is an estimated \$363.0 million. The final agreement with ISL Health has a net present cost of \$340.8 million. ***Under conservative assumptions, in financial terms, the final agreement is expected to achieve value for taxpayers' dollars of \$22.2 million.***

It is important to note that facilities management services and costs were significantly underestimated in the calculation of the public sector comparator at the business case stage, due to an absence of reliable data. This had the effect of reducing the value for money proposition below what it would otherwise have been had the full services/costs been articulated. The resulting facilities management package of services contained a number of innovations as described below in Additional Qualitative Benefits.

The net present cost figures above were developed using a discount rate, which represent the costs of capital over time taking into account factors such as inflation and interest rates. The discount rate used for the calculation of value for money was 6.87 per cent. Sensitivity analysis of the discount rate showed that the net present cost of the agreement would have been about \$31.0 million less than that of the public sector comparator if the discount rate was 50 basis points less, and about \$14.0 million less if the discount rate was 50 basis points higher.

Below is a table that describes the net present cost comparison.

	Final Agreement	PSC
Capital Costs (includes RHD)		\$254.5M
RHD Contribution to ISL Health Capital Cost	\$74.2M	
Lifecycle Costs		\$28.7M
Facility Maintenance Costs		\$36.6M
Risk Adjustment	\$3.4M	\$33.4M
Competitive Neutrality Adjustment (includes GST, insurance and public sector procurement costs)	\$6.8M	\$9.8M
ASP Payment to ISL Health	\$256.4M	
Total	\$340.8M	\$363.0M
Cost Differential	\$22.2M	
Percentage saving from PSC	6.1%	

NOTE: all numbers are NPC discounted at 6.87%

## **Additional Qualitative Benefits**

As a result of a robust and competitive process to select a private partner to deliver the Patient Care Centre, there are a number of additional qualitative benefits that contribute to achieving value for money. These additional benefits are summarized below:

- Reduced height of the building: the ISL Health building is designed to be eight storeys whereas the public sector comparator was based on a building designed to be 10 storeys. The building height is important to surrounding neighbourhoods;
  - Improved patient privacy and infection control: the ISL Health design will result in 83 per cent single-bed patient rooms and no triple-bed units whereas the public sector comparator was based on a design of 74 per cent single-bed patient rooms and some triple-bed units;
  - Integrated support services: the ISL Health design allows for therapy and support services to be incorporated within each unit whereas the public sector comparator placed support services in areas less directly accessible from the patient rooms;
  - Improved lines of sight: the ISL Health design permits a clear line of sight from the hall to the patient's head whereas the public sector comparator had line of sight to patient's feet from the hall;
  - Expanded width of the entrance to patient rooms: the entrance to a patient room will be 167.6 cm (5'6") whereas the public sector comparator was based on a 137.2 cm (4'6") entrance into the patient room; and
  - Improved location of patient washroom: the ISL Health design provides for in-board washrooms as opposed to mid-board washrooms in the public sector comparator designed facility.
- Competition and innovation: the competitive nature of the bidding process encourages the private partner teams to develop innovative solutions in all aspects of the project from design, construction and through to operations.
  - Schedule and cost certainty: the private partner is only paid once the facility is available for use, thereby providing a financial incentive to complete the project on time and within budget.
  - Integration: because the private partner is responsible and accountable for the design and construction, long-term maintenance and rehabilitation of the facility, there are opportunities and incentives to integrate these functions in order to optimize performance of the facility over the duration of the project agreement.
  - Lifecycle maintenance: the private partner is responsible and accountable for ensuring the facility is maintained and rehabilitated over the duration of the project agreement, with financial penalties for non-compliance.

## Appendix: Changes in the Project

During the planning, design and implementation phases, following approval of the business case, there were changes to the Patient Care Centre. The changes deliver considerable additional benefits to taxpayers while ensuring the project remains cost-effective. A summary of the changes and improvements are listed below:

- LEED Gold certification: a new provincial policy was introduced in September 2007 whereby all capitals projects must achieve LEED Gold certification (or equivalent) where possible;
- Changes to the procurement schedule: the release of the RFP was delayed by about three months;
- Changes to the project schedule: the construction schedule for the facility is six months longer than estimated in the business case;

- Facility changes: the scope of the project was adjusted to allow proponents to align the design with the latest health care trends and best practices. For example, changes were made to allow for a greater percentage of single-bed patient rooms. In addition, there were other changes to the project including incorporating physical connections from the new building to the existing structure; upgrading the sewer line at the request of the City; and upgrades to building specifications with higher quality materials; and
- Inflation/market conditions: costs escalated; construction materials (e.g. steel, lumber) and a tight labour market are all contributing factors.

As a result of these changes, the estimate of the project capital cost increased by approximately \$26 million.



*Model of the Patient Care Centre courtyard*



**partnerships**  
British Columbia