



Project Report:  
**Emily Carr University  
of Art + Design Campus  
Redevelopment Project**

May 2015

## Purpose of this Report

The purpose of this report is to provide key information to the public about the Emily Carr University of Art + Design Campus Redevelopment Project (the Project). This report describes the need for the Project and how it will be delivered. It also explains how different procurement delivery methods were analyzed, and how Project benefits and innovations are expected to be achieved. A summary of the key aspects of the Project Agreement is also provided.

In all of its procurement processes, the Government of British Columbia (B.C. or the Province) is committed to a high standard of disclosure as part of its accountability for the delivery of public projects. Ministries, Crown Corporations and other government agencies are publicly accountable for projects through regular budgeting, auditing and reporting processes.

The Project Board, which includes representatives from the Ministry of Advanced Education; the Ministry of Transportation and Infrastructure; Emily Carr University of Art + Design (ECUAD or the University); and Partnerships British Columbia Inc. (Partnerships BC); is accountable for the contents of this report.

## Defined Terms and Abbreviations

Capitalized terms are defined in the glossary at the end of this report.

Abbreviations are defined in the table below:

ASP	Annual Service Payment
CPJC	Construction Period Joint Committee
DBB	Design Bid Build
DBFM	Design Build Finance Maintain
ECUAD	Emily Carr University of Art + Design
NPC	Net Present Cost
OPJC	Operating Period Joint Committee
RFP	Request for Proposals
RFQ	Request for Qualifications
VFM	Value for Money

# Table of Contents

Purpose of this Report.....	i
Defined Terms and Abbreviations .....	i
<b>1    Executive Summary .....</b>	<b>1</b>
<b>2    Project Benefits and Key Features.....</b>	<b>3</b>
2.1 State-of-the-Art Technology .....	3
2.2 Flexibility and Adaptability .....	3
2.3 Illumination of Interior Building Spaces .....	3
2.4 Use of Wood .....	3
2.5 Environmental Benefits .....	3
2.6 Economic and Labour Benefits .....	3
<b>3    Project Background, Guiding Principles and Scope.....</b>	<b>4</b>
3.1 Background.....	4
3.2 Design Principles .....	4
3.3 Scope of the Project .....	5
<b>4    Project Delivery Options .....</b>	<b>6</b>
4.1 Methodology .....	6
4.2 Project Procurement Objectives .....	8
4.3 Procurement Options Analyzed.....	8
4.4 Results of Procurement Options Analysis .....	9
4.5 Achieving Value for Money .....	9
<b>5    Competitive Selection Process .....</b>	<b>10</b>
5.1 Evaluation of Proposals.....	11
5.1.1 Affordability Ceiling.....	11
5.1.2 Scored Elements.....	12
5.2 Owner's Project Management Costs .....	12
5.3 Fairness Advisor.....	12
<b>6    The Final Project Agreement.....</b>	<b>13</b>
6.1 Profile of the Private Partner.....	13
6.2 Key Terms of the Project Agreement.....	14
6.3 Performance-Based Payment Principles .....	14
6.4 Adjustments to Annual Service Payments .....	14
6.5 Risk Allocation Summary.....	15
6.6 Financial Summary .....	15
6.7 Quantitative Benefits .....	16
6.8 Accounting Treatment .....	17
<b>7    Ongoing Project Agreement Monitoring.....</b>	<b>18</b>
7.1 Design and Construction Phase.....	18
7.2 Operations and Maintenance Phase.....	18
7.3 Quality Management .....	18
7.4 Hand-Back Requirements .....	19
7.5 Project Board .....	19
<b>8    Glossary of Terms .....</b>	<b>20</b>
<b>9    July 2017 Supplement to Project Report .....</b>	<b>21</b>



East entry and arts plaza

# 1. Executive Summary

Emily Carr University of Art + Design (ECUAD or the University) is an institution of higher learning devoted to excellence and innovation in visual arts, media arts and design, and is one of only four such institutions in Canada. The University is nationally and internationally recognized for excellence and attracts students and faculty from around the world.

The creative and cultural industries are an important and rapidly growing part of B.C.'s modern economy, and demand for ECUAD graduates in these sectors is high.

The University has an excellent international reputation and currently a large proportion of its students come from outside Canada.

ECUAD has outgrown its current home at Granville Island. Student enrollment has more than doubled since 1996 and site constraints at the current campus restrict building size and limit the University's ability to meet the needs of new and emerging program areas as well as service current programs. Further, site constraints limit the University's ability to meet international enrolment targets and demand for its graduate programs. The current site would require a \$12 million investment in the next two to five years to maintain the current buildings in an operational state.

In January 2013, the Province announced funding for a new home for the University at Great Northern Way to accommodate 1,800 students and address the current site challenges. The new purpose-built campus will provide students, faculty and the community a world class state-of-the-art facility for 21st century learning in art, design, media and applied research.

The total all in nominal capital cost of the new campus is estimated at \$122.65 million, including a provincial investment of up to \$101.65 million, with \$21 million to be raised through ECUAD's current capital campaign THE BIG IDEA. The total cost includes elements within and outside of the design, build, finance and maintain arrangement, such as capital design and construction costs plus equipment, procurement, implementation, reserves and contingency costs.

The decision to use the partnership delivery method was based on a thorough analysis of procurement options. The analysis indicated the Project's objectives could best be met and Value for Money (VFM) could be achieved by using the partnership method.

In February 2015, following a competitive selection process based on the principles of openness, transparency and fairness, ECUAD entered into a performance-based, fixed price Project Agreement with Applied Arts Partners (the private partner) to deliver the Project. Applied Arts Partners will design, build, partially finance and maintain the Project for a term of 32 years, which includes the approximate 25-month construction period.

Applied Arts Partners submitted a strong proposal. Its design includes state-of-the-art technologies and relevant systems innovations that provide opportunity for new standards in education. It provides advanced systems integration for display, learning and general information with very strong integration of audio visual (AV) and information technology (IT) solutions. The design is adaptable to potential and evolving future uses and features flexible structural and mechanical building systems. It features effective illumination of interior building spaces through articulation and transparency of the building façade, use of atria and large feature glazing areas, and complies with the Wood First Act. The new campus will be environmentally friendly, and is designed to achieve LEED Gold Certification.

Once construction of the facility is complete, Applied Arts Partners will provide a range of life cycle and facilities management services over the 30-year operating term of the Project Agreement including hard facilities management, roads and grounds maintenance, helpdesk services, utility management and others. Applied Arts Partners will receive a monthly service payment for these services. Those payments will be based on performance, facility availability and service quality. Service payments may be reduced if Applied Arts Partners does not meet the high-quality standards contained in the Project Agreement.

The final partnership agreement between ECUAD and Applied Arts Partners is estimated to achieve a Net Present Cost (NPC) Value for Money (VFM) of \$38.1 million compared to a Design Bid Build (DBB) method. Additional benefits from the DBFM delivery model include:

- Competition and innovation;
- Schedule certainty;
- Cost certainty;
- Integration; and
- Life cycle maintenance.



East arts plaza from the south

## 2. Project Benefits and Key Features

The Project includes a new, 26,550 square-metre (285,800 square-foot) campus located at Great Northern Way in Vancouver. Benefits and key features of the Project and its design are summarized below.

Applied Arts Partners' design for the Project has many features that will help cultivate and strengthen B.C.'s creative sector and advance the use of new technologies to enhance creative learning, including state-of-the-art technologies. The design is flexible and adaptable and the facility benefits from effective illumination throughout. The Project's environmentally friendly design includes the use of B.C. wood, while benefiting the local economy through employment opportunities.

### 2.1 State-of-the-Art Technology

The design implements state-of-the-art technologies and relevant systems innovations, providing opportunities for new standards in education, through use of GPON (gigabit passive optical network) communications infrastructure. This will provide ECUAD with the flexibility it requires as its programs evolve and technological needs change in the future.

Applied Arts Partners has delivered a robust and highly flexible network solution, including a 'creative sandbox' to allow students and faculty to use the network without impacting the security and stability of the overall enterprise network. The systems for display, learning and general information effectively integrate their AV and IT solutions.

### 2.2 Flexibility and Adaptability

The design is flexible for evolving future uses and features adaptable structural and mechanical building systems. The building structure is based on a 10 metre by 10 metre grid, minimizing the number of internal structural supports and providing ECUAD with the freedom to reconfigure program spaces as needed.

The mechanical design includes hydronic heating and cooling systems, paired with extensive heat recovery.

### 2.3 Illumination of Interior Building Spaces

Interior spaces benefit from effective, natural illumination. Transparency and interesting facade articulation is provided by large feature glazing areas into significant spaces such as the Learning Commons, Atria, and the Gallery. Window patterning is varied to provide visual interest and to respond to user requirements within the spaces (e.g. north light for studios; providing a good mix of useful wall space and windows.)

Atrium spaces are provided as a means to connect the floors and effectively connect the entrances to upper levels. Glazing with a high clarity and high energy performance characteristics is used.

### 2.4 Use of Wood

Reflecting B.C.'s Wood First Act, Applied Arts Partners' design incorporates wood, adding warmth and character to the building. Recognizing that walls are essential art display space, wood is used strategically on out-of-reach surfaces, such as soffits, ceilings and atriums, while walls are clad in gypsum board with plywood backing. This strategy ensures wood contributes to the interior character of the facility without compromising the availability of walls for exhibition, work and experimentation.

### 2.5 Environmental Benefits

The new campus will be green and energy efficient. It will be constructed to attain Leadership in Energy and Environmental Design (LEED®) Gold certification, ensuring a high-level of sustainability. The Project features competitively bid energy targets combined with ongoing sharing of energy benefits and costs, enforced by significant penalties for non-performance.

### 2.6 Economic and Labour Benefits

The Project will be a benefit to the local economy, creating an estimated 1,000 jobs in industries supplying goods and services used in construction.<sup>1</sup>

<sup>1</sup> Jobs estimates provided by the Ministry of Technology, Innovation and Citizens' Services

### 3. Project Background, Guiding Principles and Scope

#### 3.1 Background

In January 2013, the Province announced funding for a new home for the University at Great Northern Way to accommodate 1,800 students and address the current site challenges. The new purpose-built campus will provide students, faculty and the community a world class state-of-the-art facility for 21st-century learning in art, design, media and applied research.

The total all in nominal capital cost of the new campus is estimated at \$122.65 million, including a provincial investment of up to \$101.65 million, with \$21 million to be raised through ECUAD's current capital campaign THE BIG IDEA.

#### 3.2 Design Principles

ECUAD developed design principles for the Project reflective of a community devoted to excellence and innovation in visual arts, media arts and design. Those principles included:

- **Students at the Centre:** ECUAD serves a diverse student body across a broad range of programs (graduate, undergraduate, continuing education, low residency, etc.) The University seeks a campus that places the needs of its multiple student audiences at the centre of its physical and social organization.
- **Bringing the Public In/ECUAD Values @ the Core:** The new campus will be inviting and accessible for the many public audiences that ECUAD serves through programs, events, and exhibitions. The design and layout of buildings and grounds will communicate the core values of the institution: creativity and experimentation; support for lifelong learning; community-building; respect for diversity of cultures and indigenous practices; and social and environmental sustainability.
- **Closer to Home:** The new campus is closer to areas of the City where students, faculty, and staff live, is more accessible to major transit lines, with student residences nearby. This will create new opportunities for enhancing the connection between "home and school," including evening and weekend events and programs, and other elements of a residential campus community.
- **Making and Remaking:** Contemporary art, media, and design education is deeply connected to activities of experimentation, visualization, and the making and remaking of actual material things. To support this kind of learning, ECUAD requires buildings and facilities that are adaptive, flexible, and sturdy, and that address the continuous need to adapt, innovate, and remake the processes and spaces that comprise the University's core work.
- **21st Century Infrastructure:** The activities of teaching and learning now take place across a range of locations, platforms, and devices, utilizing global data stores and techniques of ubiquitous virtualization. The new campus will include a suite of technologies, services, and physical designs that are integrated, ergonomic, and supportive of these emergent practices of education and research.
- **Access and Diversity:** ECUAD is a relatively small, public university, with an increasingly diverse global student population. The University's challenge is to provide broad access and support for all students, while retaining a cohesive sense of community and support for individual learning and developmental needs. The design of the new campus should foreground key facilities and functions such as the Learning Commons, the Leeway Open Workshop, the Aboriginal Gathering Place, and student support services that address the twin demands of access and diversity.

- Visibility/Transparency:** ECUAD seeks a campus and a facility that expresses a general openness across disciplines, communities, and workgroups. It should be legible, easy to navigate, and supportive of interdisciplinary and cross-functional exchange. A broad range of core facilities and functions (such as studios, classrooms, workshops, etc.) will be designed to communicate this sense of openness and transparency of function. Sightlines, glazing and wayfinding will be utilized to amplify the visual availability of educational activities and community or public elements of the campus.
- Art Everywhere/Opportunities for Performance:** ECUAD is an intensely visual, material, experimental and performative culture. The design for the new campus will maximize opportunities for both formal and informal display of creative work, for gathering and discussion in the presence of creative work, and for experimental and performative events and activities. Classrooms, studios, hallways, and public spaces will serve as sites for display, exhibition, critique, and performance.

### 3.3 Scope of the Project

The Project includes a new, 26,550 square-metre (285,800 square-foot) campus located at Great Northern Way in Vancouver to accommodate 1,800 students.

The new campus includes spaces grouped in the following four functional areas:

- Learning Support** – includes spaces such as the entrance, concourse/informal learning, general classrooms, lecture theatres, library/learning commons;
- Studio and Academic Programs** – includes spaces such as classrooms, studios, offices and support space;
- Student and Campus Services** – includes spaces such as student commons, aboriginal gathering space, gallery, book/supplies store, food services; and
- Administration and Support Services** – includes spaces such as academic, communications, finance, human resources, information technology services offices, shipping and receiving, faculty and staff lounge.



Main entry off St. George's Plaza

## 4. Project Delivery Options

In accordance with the Province's Capital Asset Management Framework (CAMF), the project team undertook a procurement options analysis to determine an optimal procurement method for the Project.

### 4.1 Methodology

The evaluation of procurement options is mainly concerned with identifying the method of delivering the Project that will result in the greatest qualitative benefits and VFM both on a financial (quantitative) and qualitative basis. In financial terms, VFM is established by calculating the estimated cost of a project, based on a particular partnership procurement method, and comparing it to the estimated cost if the project were procured using another method.

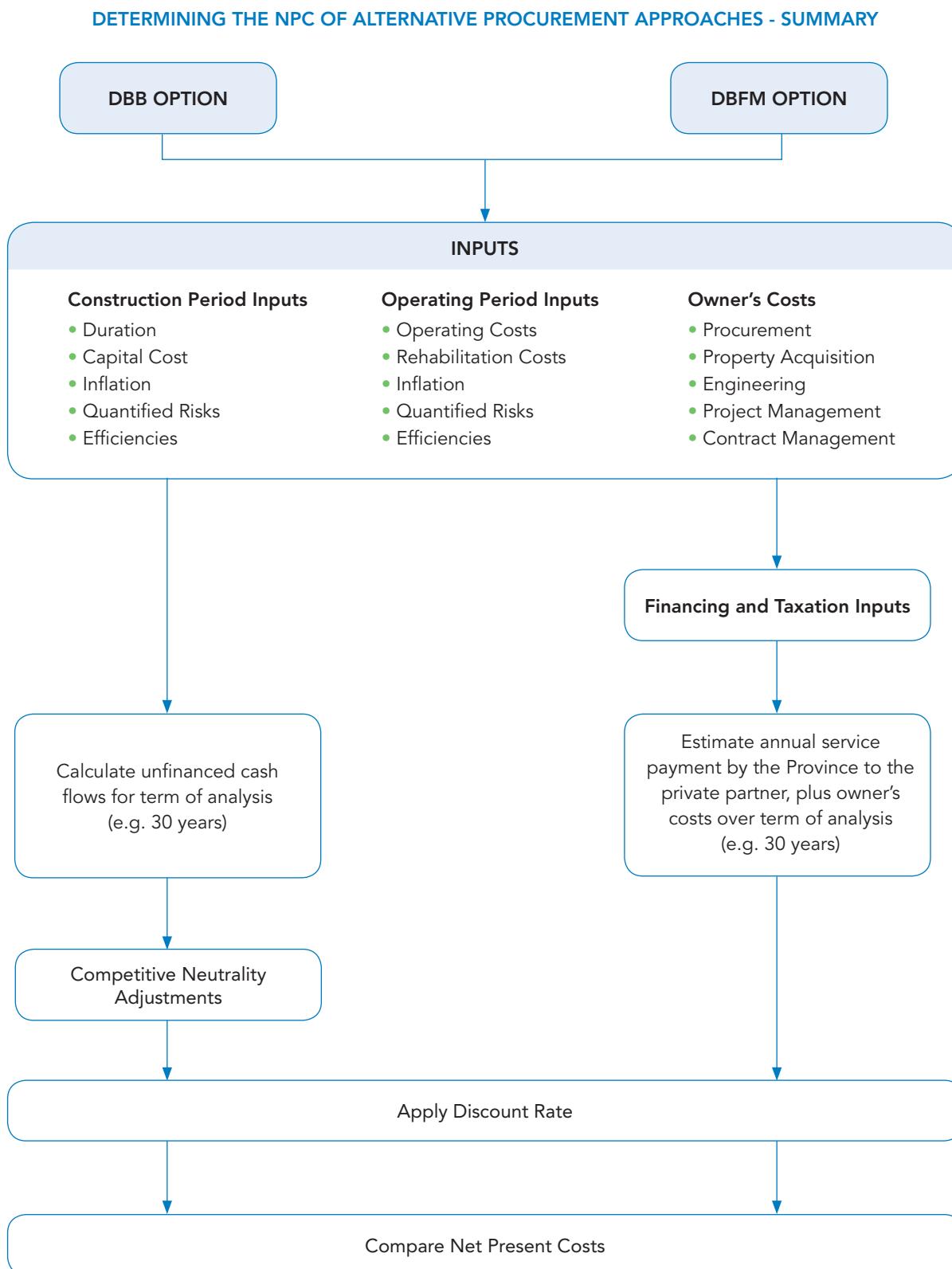
The evaluation of procurement options involves two main steps. The first step identifies key procurement objectives, and provides a qualitative assessment of two procurement options.

The second step in the assessment involves a more detailed, quantitative analysis that compares the two methods. A comprehensive risk analysis is conducted and financial models representing the two procurement methods are developed and compared. Both procurement methods consider detailed numerical inputs that reflect key project components during the construction and operating periods, as well as associated public sector costs under each option.

To ensure that a complete comparison is being made, the analysis also considers inputs that address financing and taxation issues along with adjustments to ensure Competitive Neutrality that include items such as how each model accounts for insurance costs. Without these adjustments, some costs may be understated in some areas and consequently would not reflect the true cost to government. When the procurement models being compared result in significantly different cash flows, a Discount Rate is applied to the projected future cash flows to facilitate an accurate comparison of the two approaches in present day dollars. Discounting allows procurement methods with different cash flow impacts—such as all payments made in the first year of a 15-year period versus payments spread over the 15 years—to be compared on a like-for-like basis. Comparing competing options in this way provides an objective means of determining the approach that provides the best value in terms of cost.

The results of this quantitative comparison between the two procurement methods, together with the qualitative criteria, are used to determine the method that is expected to provide the best potential VFM.

The following graphic illustrates the financial modeling approach used to compare procurement models.



## 4.2 Project Procurement Objectives

Procurement options were carefully considered through the development of procurement objectives based on the project objectives. The following procurement objectives were developed by the project team to provide guidance in the selection and analysis of procurement options:

- Schedule certainty
- Cost certainty
- Asset performance throughout life cycle
- Adaptability of final design to meet user requirements
- Overall VFM

## 4.3 Procurement Options Analyzed

The project team analyzed two procurement delivery options for the project: Design Bid Build (DBB) and Design Build Finance and Maintain (DBFM). The two options are described below.

**Design Bid Build (DBB):** ECUAD would engage an architect to develop a detailed design (working drawings) for the facility. The architect would complete the working drawings and then ECUAD would issue a tender call for a construction contract. The lowest qualified price would be selected and an industry standard construction contract would be used. The construction contractor would take responsibility for construction to the specifications detailed in the working drawings developed for ECUAD by its architect. ECUAD would remain effectively responsible for errors and omissions in the design and would make monthly progress payments to the contractor. Once construction of the facility is completed, ECUAD would take possession and maintain and operate the facility for its entire lifespan.

ECUAD would retain key design and construction risks, such as schedule, construction cost and life cycle maintenance costs. Separate parties would design, build and maintain the various components of the facility. ECUAD would be responsible to coordinate the involvement of design and maintenance groups.

**Design Build Finance Maintain (DBFM):** This partnership delivery model involves a two-stage competitive selection process. The first stage is a Request for Qualifications (RFQ), whereby respondent teams would submit qualifications to be received and evaluated, resulting in a shortlist of proponent teams. The second stage invites the shortlisted proponent teams to submit proposals as part of the Request for Proposals (RFP) process. At the RFP stage, ECUAD would provide Performance Specifications and seek proposals from the proponents to design, build, partially finance and maintain the facility.

The project team would evaluate these proposals to determine a proponent with which it would enter into a final Project Agreement. Under the Project Agreement, the successful proponent would be required to design, build, partially finance and maintain the Project over the specified term of the agreement.

Performance payments would be made monthly to the private partner over the life of the agreement, at a fixed rate determined at Financial Close. Payments only commence once the facility is completed. To ensure that the private partner receives full payment, they must meet defined and measurable performance and availability standards on a continuous basis. The DBFM approach provides a financial structure that aligns the incentives of the private partner and ECUAD. Under the DBFM option, the private partner would be responsible for:

- Arranging partial project financing, including equity, for facility construction and maintenance over a specified term (32 years, which includes an approximate 25-month construction period);
- Designing and building the facility; and
- Maintaining the facility over the life of the Project Agreement and handing it back at the end of the contract term in the prescribed condition.

## 4.4 Results of the Procurement Options Analysis

Based on the procurement options analyzed, the DBFM method was determined to be the preferred procurement option, expected to best meet ECUAD's procurement objectives and overall project objectives.

## 4.5 Achieving Value for Money

VFM is a term that captures the quantitative and qualitative benefits that are expected to be achieved by delivering the Project using the partnership method. Quantitative VFM is achieved through the lower project cost resulting from a particular procurement method. Qualitative value is achieved when a particular procurement method is best able to support the broader objectives of a project.

### PARTNERSHIP PROJECTS TYPICALLY PROVIDE THE FOLLOWING QUALITATIVE BENEFITS

- **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 and construction through to operations.
- **Schedule certainty:** The private partner receives a significant portion of their payment through monthly availability payments once the facility is available for use, thereby providing a financial incentive to complete the Project on time.
- **Cost certainty:** The Project Agreement is a fixed price contract, protecting taxpayers from cost overruns.
- **Integration:** The private partner is responsible for the design and construction, maintenance and rehabilitation of the facility. This creates opportunities and incentives to integrate these functions to optimize performance of the facilities over the duration of the Project Agreement.
- **Life cycle maintenance:** The private partner is responsible and accountable for ensuring the facility is maintained and rehabilitated over the duration of the Project Agreement otherwise the Annual Service Payment may be reduced.

## 5. Competitive Selection Process

A two-stage, competitive selection process was undertaken for the Project.<sup>2</sup> During the RFQ stage, respondents were asked to present their qualifications for the Project. Eight teams responded to the RFQ. A shortlist of three proponent teams was selected and invited to participate in the RFP stage.

The shortlisted teams were comprised of Vancouver-based, national and international companies that brought to the Project a beneficial combination of local knowledge and experience and international expertise. The teams that were shortlisted are described below.

PROPOUNDER	PROJECT CO LEAD	EQUITY PROVIDER	DESIGN-BUILDER	DESIGN FIRM	SERVICE PROVIDER
Applied Arts Partners	Brookfield Financial Corp	Brookfield Infrastructure Partners L.P. EllisDon Capital Inc. Fengate Capital Management Inc.	EllisDon Corporation	Diamond Schmitt Architects Inc. Chernoff Thompson Architects	Johnson Controls Inc.
BC Education Partners	Bouygues Building Canada	Bouygues Building Canada Inc. Bouygues Energies and Services Canada Ltd. InfraRed Capital Partners	Bouygues Building Canada	Bing Thom Architects	Bouygues Energies and Services Canada
Tandem Education Partners	Balfour Beatty Investments, a division of Balfour Beatty group Canada Inc.	Gracorp Capital Advisors Ltd. Connor Clark & Lunn GVest Traditional Infrastructure LP	Graham Design Builders LP Balfour Beatty Construction	B+H Architects Inc. Zeidler Partnership Architects	Balfour Beatty Communities

The RFP required each proponent to submit a proposal to design, build, partially finance and maintain the Project under the Affordability Ceiling. The Affordability Ceiling was set by the Authority to ensure the Project was affordable once proposals were received from proponents.

During the RFP stage, collaborative and topic meetings were offered so that each team had the opportunity to discuss issues or concerns related to commercial, legal, design and construction and facilities management matters. Prior to the closing date for submissions, a final draft Project Agreement was issued and it served as the common basis for all proposals.

<sup>2</sup> The RFQ and RFP procurement documents are publicly available at [www.partnershipsbcc.ca](http://www.partnershipsbcc.ca)

The timeline of the competitive selection process is outlined in the table below.

PROCUREMENT STAGE	TIMING	OUTCOME
RFQ	March 2013 to May 2013	The Project was marketed locally, provincially, nationally and internationally. Submissions from eight respondents were evaluated and the following shortlist of three teams was announced: <ul style="list-style-type: none"> <li>• Applied Arts Partners</li> <li>• BC Education Partners</li> <li>• Tandem Education Partners</li> </ul>
Specifications development and approvals	May 2013 to December 2013	Project specifications were developed and approvals required to enter RFP stage were acquired.
RFP	December 2013 to October 2014	The three shortlisted teams submitted proposals.
Selection of Preferred Proponent	November 2014	After evaluation of the proposals, Applied Arts Partners was identified as the preferred proponent.
Project Agreement Finalization	February 2015	The Project Agreement was signed by ECUAD and Applied Arts Partners.

## 5.1 Evaluation of Proposals

The overall objective of the evaluation was to select the proposal that best met the requirements of the RFP. The Project Board appointed an evaluation committee to evaluate the proposals based on the criteria set out in the RFP and to recommend a Preferred Proponent.

As part of the evaluation process, Proponents were asked to submit proposals based on a two-part submission process—a technical submission followed by a financial submission. Each submission had to substantially satisfy the requirements of the RFP and the final draft Project Agreement.

Proponents technical proposals that were determined to have satisfied the requirements of the RFP were invited to submit a subsequent financial proposal. All three Proponents met the mandatory requirements of the technical evaluation and were invited to make a financial submission.

The first step of the financial evaluation process was to examine and identify the extent to which, if at all, Scope Ladder items had been used to achieve the affordability requirements. Proposals were evaluated and ranked in accordance with the Proponents' use of Scope Ladder items such that the Proponent using the least number of Scope Ladder items would be ranked the highest and the Proponent using the most Scope Ladder items would be ranked the lowest.

None of the three Proponents used any of the Scope Ladder items and, therefore, all three Proponents' financial submissions were evaluated.

### 5.1.1 Affordability Ceiling

In a DBFM, the private sector partner is paid an Annual Service Payment (ASP) consisting of the initial capital costs (e.g. design and construction), operational costs (e.g. facility management), major repairs and replacement of building elements (e.g. the roof) throughout the term of the Project Agreement. All of these costs are captured in the NPC of the Project. The Affordability Ceiling is the NPC of the maximum government will pay in ASPs over the life of the project.

To ensure ECUAD received affordable proposals, it was mandatory for the cost of proposals to be equal to or lower than the Affordability Ceiling. For the Project, the Affordability Ceiling was set at \$130.1 million NPC.

All three Proponents met the Affordability Ceiling and delivered the Project scope in its entirety, as outlined in the Project Agreement.

### 5.1.2 Scored Elements

As a learning community devoted to excellence and innovation in visual arts, media arts and design, ECUAD sought a design solution that would strongly correlate with its vision. The concept of Scored Elements was incorporated into the procurement process for this reason.

From the set of eight design principles identified in Section 3.2, a series of design objectives was established for the Project. Proponents were challenged to deliver a building solution that excelled in the following categories: Superior Learning Environment for Art and Design Education; Making and Remaking; Architecture and Urban Design; and Meaningful Consultation and Integrated Design Process.

For each category, Proponents could earn points, which would then be converted into a dollar value adjustment to moderate their financial submission. Each point was valued at \$130,000, allowing Proponents the opportunity to adjust their financial submission by up to 10 per cent of the Affordability Ceiling. In doing so, ECUAD successfully incented Proponents to focus specific aspects of their proposals on ECUAD's design principles and objectives.

After a rigorous evaluation of the proposals, it was deemed that Applied Arts Partners' proposal best satisfied the requirements of the RFP, was under the affordability ceiling, and had the lowest adjusted cost after the scored elements were taken into consideration. The evaluation committee recommended to the Project Board that Applied Arts Partners be declared Preferred Proponent. The Project Board accepted the recommendation.

The following highlights outline some of the design achievements from Applied Arts Partners' solution:

- Implements state-of-the-art technologies and relevant systems innovations to provide opportunity for new standards in education;
- Provides advanced systems integration for display, learning and general information with very strong integration of their AV and IT solutions;
- Excellent future flexibility and adaptability of structural and mechanical building systems;

- The illumination of interior building spaces through skylights and clerestory glazing is highly effective; and
- The design finalization process articulates a very good process of co-creation with the Core User Groups.

### 5.2 Owner's Project Management Costs

The owner's project management costs, including the competitive selection process, are included in the VFM analysis. The total owner's project management costs in nominal dollars, from approval of the Business Case to completion of construction, are \$7.7 million. This includes the cost of developing Performance Specifications, preparing procurement documentation and monitoring the design and construction of the facility using ECUAD's project management team and external advisors.

In addition, Partial Compensation of \$250,000, inclusive of any GST payable, was paid to each of the unsuccessful proponents. Partial Compensation can encourage competition, ensure the quality of proposals submitted, secure access to intellectual property and partially mitigate costs incurred by proponents in developing their proposals.

### 5.3 Fairness Advisor

A fairness advisor, Jane Shackell, Q.C., of Miller Thomson LLP was engaged to monitor the competitive selection process and offer an assessment of the procedures and whether 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 both the RFQ and RFP stages.

The fairness advisor issued reports for both the RFQ and the RFP stage of the competitive selection process. In her report on the RFP process, the fairness advisor concluded that "I am satisfied that the procurement process as described in the RFP was fair and reasonable, and that the Project team fairly and reasonably implemented and complied with that process."

The fairness advisor's reports are publicly available at [www.partnershipsbc.ca](http://www.partnershipsbc.ca).

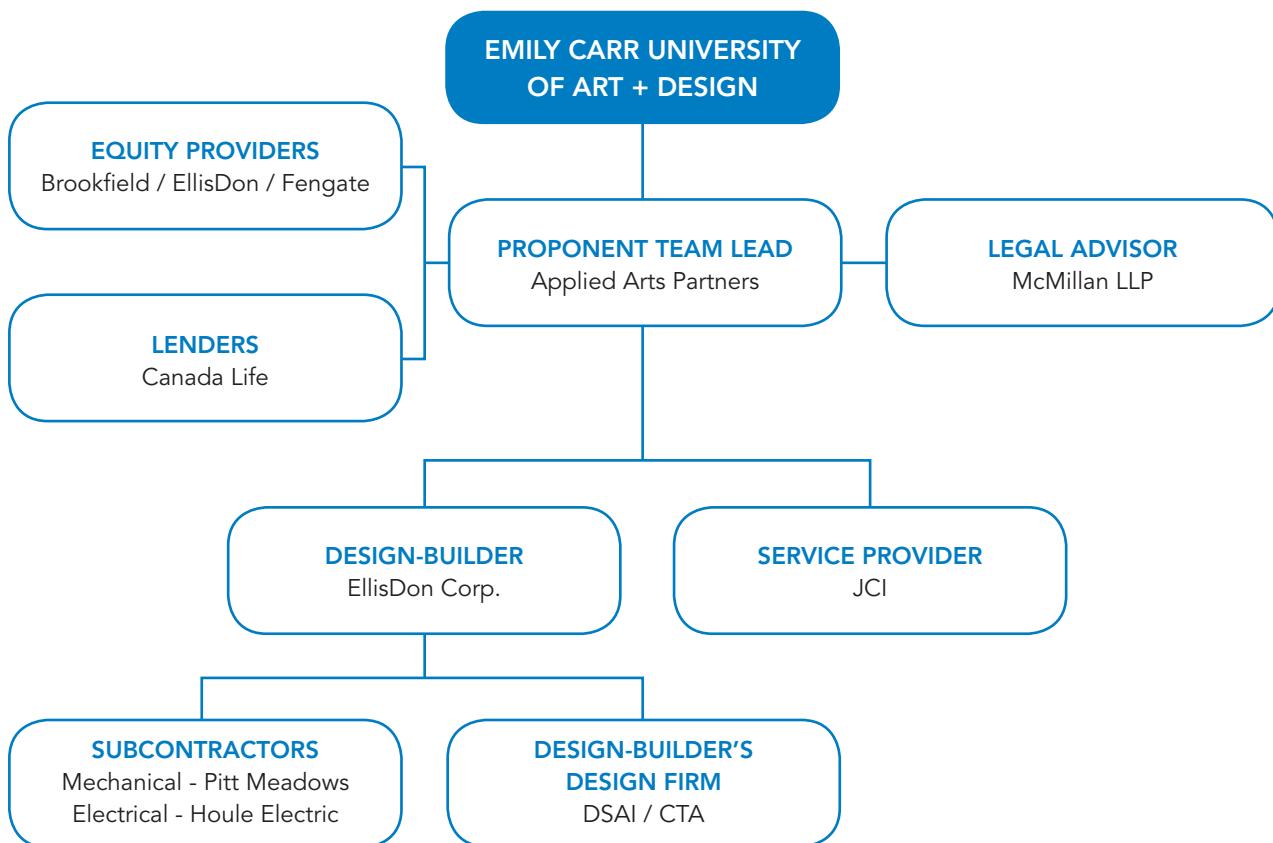
## 6. The Final Project Agreement

QUICK FACTS ABOUT THE FINAL PROJECT AGREEMENT	
Private Partner	Applied Arts Partners
Project Owner	Emily Carr University of Art + Design
Government contributions to Capital Cost including Philanthropy (nominal)	\$43.4 million
Construction Completion	2017
Term of the Project Agreement	32 years, including construction
NPC of ASPs	\$96.1 million

### 6.1 Profile of the Private Partner

Applied Arts Partners is the private partner for the Project. Applied Arts Partners is a consortium of companies qualified through the RFQ process and consisting of the following key members identified in Figure 1 below.

FIGURE 1: RELATIONSHIP BETWEEN ECUAD AND APPLIED ARTS PARTNERS



## 6.2 Key Terms of the Project Agreement

Under the terms of the Project Agreement, Applied Arts Partners is responsible for the following:

- Arranging financing for a portion of the construction and agreed facilities operations for a specified term (construction plus a 30-year Operating Period);
- Designing and building the facility;
- Providing facility management services, including:
  - Hard facilities management;
  - Utilities and energy;
  - Roads and Grounds;
  - Environmental and sustainability services;
  - Housekeeping and waste management;
  - Pest management;
  - Plant services;
  - General management; and
  - Helpdesk services.

## 6.3 Performance-Based Payment Principles

During construction, ECUAD will make construction payments based on a percentage of the eligible construction costs incurred by Applied Arts Partners in a specific month as certified by an Independent Certifier.

Applied Arts Partners is incented to perform through a payment mechanism based on the principles of performance, facility availability and service quality. Once construction is complete and Service Commencement has been achieved, Applied Arts Partners will begin receiving an ASP from ECUAD. These payments will be made monthly and are based on the facility availability and the quality of facility maintenance services provided by Applied Arts Partners. The performance of Applied Arts Partners will be continuously monitored based on key performance indicators. If the performance standards in the Project Agreement are not met, ECUAD may apply deductions to the ASP.

Payment deductions are based on the severity of the failure to meet the performance indicator, the importance of the room or department area affected, and the level of unavailability. An unavailability deduction applies when a functional unit (room or department) fails to comply with the condition specified in the Project Agreement. For example, if power was not available to the animation studio, that room would be considered unavailable, and payment deductions could be applied.

## 6.4 Adjustments to Annual Service Payments

The ASP is comprised of three components: capital cost, operations and maintenance/facilities management costs, and rehabilitation/life cycle costs. The ASP may be adjusted to reflect specific circumstances as defined in the Project Agreement, including:

- **Indexation:** The capital component of the ASP will not be indexed. The facility maintenance (FM) services component and life cycle costs of the ASP are indexed by the Consumer Price Index (CPI).
- **Changes:** If ECUAD requires the private partner to make a physical change or amend the services, ECUAD can pay the cost up front or have the cost financed. If ECUAD chooses to have the change financed, the cost will be reflected in an amended ASP.
- **Change in Law:** If there is a change in law targeted at universities, the ASP may be amended to leave the private partner 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 a lump sum payment or as an adjustment to the ASP.
- **Life Cycle:** The life cycle costs are not uniform throughout the term of the contract and the lifecycle component of the ASP will fluctuate.
- **Market Testing:** The housekeeping and elevator services will be market-tested on the third anniversary of Service Commencement and thereafter every sixth anniversary of that date.

## 6.5 Risk Allocation Summary

The Project Agreement includes detailed risk allocation provisions over the construction period and 30-year operating term. This approach transfers key risks to Applied Arts Partners – such as construction, cost and schedule – and adds value through design and private sector innovation.

The table below summarizes key risk allocation retained by ECUAD, transferred Applied Arts Partners and shared between the two parties.

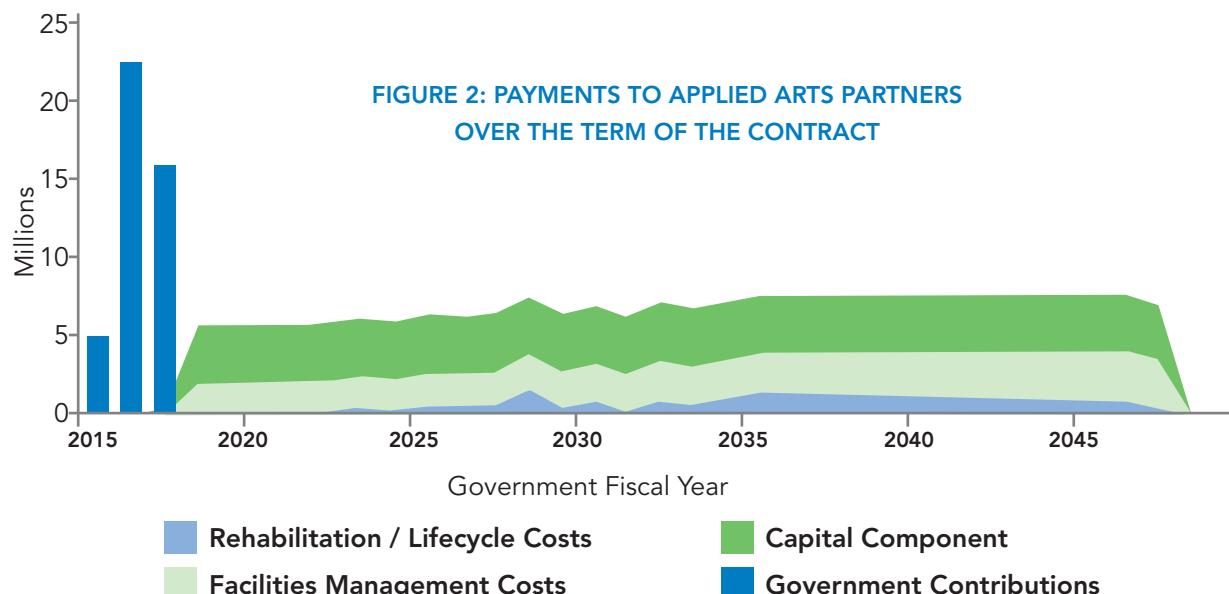
ECUAD RISKS	SHARED RISKS	APPLIED ARTS PARTNERS RISKS
Existing site conditions	Change in law	Commissioning
Ownership of the Facility	Force Majeure	Construction
Program delivery		Design
Authority initiated scope changes		Financing after contract execution
		Geotechnical conditions
		LEED Gold certification
		Life Cycle
		Maintenance
		Schedule

The risk allocation is supported by the following provisions in the Project Agreement:

- Applied Arts Partners will only start receiving the ASP from ECUAD at the Service Commencement date, thus providing an incentive to complete construction on time and on budget;
- The expiry date of the Project Agreement is fixed, so any delays in completing construction will reduce payments to Applied Arts Partners, providing them with a strong incentive for timely completion of the facility; and
- Provisions are in place to reduce the ASP if Applied Arts Partners does not meet the performance standards in the Project Agreement for facility availability and maintenance.

## 6.6 Financial Summary

The graph below demonstrates the cash flows to Applied Arts Partners over the term of the contract. The graph is expressed in nominal dollars and assumes two per cent inflation for facilities management and life cycle costs. Payment projections assume no penalties or deductions.



### OPTIMIZING PRIVATE SECTOR FINANCING

- In projects that include private financing, an analysis is completed to determine the necessary level of private versus public financing. This analysis takes into consideration both financial and non-financial factors. The objective is to have sufficient private financing in a deal to offset transferred risk over the term of the Project Agreement. The part of the PPP that is not financed by the private sector is financed by government, at a lower borrowing cost.
- For further information regarding levels of private financing, refer to the Methodology for Quantitative Procurement Options Analysis Discussion Paper, at [www.partnershipsbc.ca/publications/resources](http://www.partnershipsbc.ca/publications/resources).

The Project is being funded by a variety of sources, including government contributions during construction, philanthropic funding, and private sector financing arranged by Applied Arts Partners. The weighted cost of capital, taking into account the sources of funds and their respective costs, is 3.17 per cent. The cost of private sector financing alone, over the 32 year duration of the contract, is 4.80 per cent.

### 6.7 Quantitative Benefits

The estimated NPC of the Project delivered using a DBB approach is \$189.2 million. The estimated NPC of the Project delivered using the DBFM approach and Applied Art's Partners' proposal is \$151.1 million. A comparison of these numbers is provided below. In financial terms, the final Project Agreement is estimated to achieve a NPC VFM of \$38.1 million when compared to the alternative procurement option.

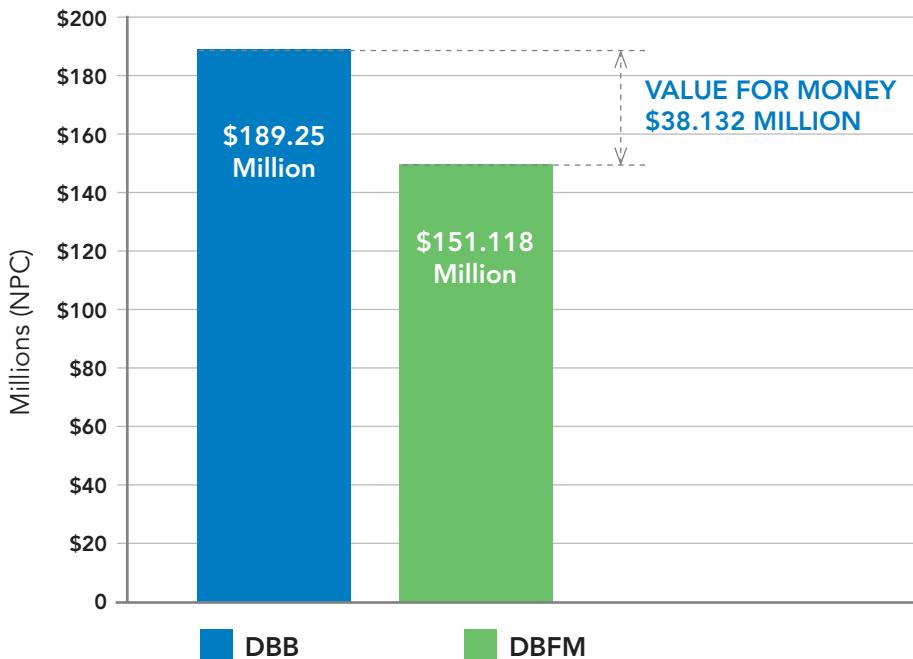
**TABLE 1: VALUE FOR MONEY**

NET PRESENT COST (\$, millions)	FINAL PROJECT AGREEMENT	DBB OPTION
ASPs to Applied Arts Partners	96.100	
Capital costs		101.886
Provincial construction payments	41.423	
Life cycle and operating costs		51.181
Risk adjustment	3.247	21.687
Project management costs, including GST, insurance and partial compensation	10.348	14.496
<b>Total</b>	<b>151.118</b>	<b>189.250</b>
Cost differential		38.132
Percentage savings		20.10%

Significant factors contributing to VFM include:

- Applied Arts' capital cost;
- Integrated audio visual/information technology solution;
- Effective integration of service provider with design-build team; and
- Efficient allocation of risk.

The VFM analysis was made following established methodology.<sup>4</sup> The NPC of the figures described above were developed using a Discount Rate<sup>5</sup> of 4.8 per cent at February 11, 2015, which represents the costs of capital over time, taking into account factors such as inflation and interest rates.

**FIGURE 3: VALUE FOR MONEY COST COMPARISON**

## 6.8 Accounting Treatment

B.C.'s Office of the Comptroller General, responsible for the overall quality and integrity of the Province's financial management and control systems, has established accounting guidelines for partnership projects.

Based on accounting guidelines, and for accounting purposes, the total all in nominal capital cost of the Project is \$122.65million. This figure includes the capital cost for the design and construction, the associated interest during construction, and Applied Arts Partners' bid development and financing costs. It also includes costs for ECUAD-purchased equipment, insurance, GST, the competitive selection process, implementation and contingencies. These costs are accrued to ECUAD through the construction period as the costs are incurred.

<sup>4</sup> Partnerships BC's Discussion Paper: Methodology for Quantitative Procurement Options Analysis is publicly available at [www.partnershipsbc.ca](http://www.partnershipsbc.ca)

<sup>5</sup> The Discount Rate used for the calculation of VFM is 4.8 per cent. To test the impact of a change in the Discount Rate on the quantitative VFM proposition of the DBFM model versus the DBB model, the modeling results were re-calculated assuming a Discount Rate 50 basis points higher and 50 basis points lower than the base Discount Rate. It should be noted that no change in the estimated value of risks was undertaken in conjunction with the change in Discount Rates used in the sensitivity analysis. A change in the Discount Rate, either higher or lower, would require a reassessment of the risks of the project. The results of the sensitivity analysis of the Discount Rate showed that the NPC of the final Project Agreement would have been approximately \$15.5 million less than the DBB if the Discount Rate was 50 basis points lower, and about \$30.2 million less if the Discount Rate was 50 basis points higher.

## 7. Ongoing Project Agreement Monitoring

The Project Agreement with Applied Arts Partners includes specific provisions to ensure project delivery, performance and quality standards are met. Monitoring spans every phase of the Project, from Financial Close through design and construction, facility operations and maintenance. There are a number of major phases in the project monitoring schedule, with roles and responsibilities assigned to project participants at each stage.

### 7.1 Design and Construction Phase

The Project Agreement stipulates that both ECUAD and Applied Arts Partners must appoint design and construction representatives. The ECUAD representative will review, approve, accept or confirm Applied Arts Partners' activities in accordance with the Project Agreement. The ECUAD representative is supported by a compliance team of professionals. The ECUAD representative and the compliance team will have full access to the construction site, drawings and specifications, and will report observations to ECUAD regularly.

In addition, a Construction Period Joint Committee (CPJC) will be formed at the commencement of construction. The CPJC formalizes communications between ECUAD and Applied Arts Partners with the purpose of providing a formal forum for the parties to consult and cooperate on all matters relating to the Project during construction. The CPJC is a requirement of the Project Agreement and will remain in place until construction is complete and Service Commencement has been reached.

In support of the aforementioned monitoring activities, ECUAD and Applied Arts Partners have also jointly appointed an Independent Certifier who will monitor and report on construction progress, and provide certification that the conditions for Service Commencement have been achieved.

ECUAD has established a full-time project office dedicated to the Project which will report through the chief project officer to the Project Board.

### 7.2 Operations and Maintenance Phase

The Project Agreement stipulates that both ECUAD and Applied Arts Partners must appoint a representative to serve as a member of the Operating Period Joint Committee (OPJC) over the 30-year operating term of the agreement. The OPJC is a formal forum for the parties to consult and cooperate on all matters related to Project during the operational term.

During the operations phase, Applied Arts Partners will provide ECUAD with the following plans for review and approval:

- Life cycle report and start-up plan;
- Annual service plan and five year maintenance plan;
- Life cycle asset and rehabilitation plan;
- Environmental management plan; and
- Energy management plan.

### 7.3 Quality Management

The Project Agreement is designed to motivate Applied Arts Partners to ensure delivery, performance and high standards of quality given the monetary consequences of failing to meet these requirements.

Applied Arts Partners is required to have a performance monitoring program in place during the operating period that will monitor the delivery of services. All reports and supporting data generated from this program are readily available to ECUAD at any time for audit purposes. Monthly reports delivered to ECUAD will contain a variety of information, including:

- A summary of calls made to the facilities management help desk and their resolution;
- A summary of unavailability events and service;
- A calculation of the monthly service payment owed to Applied Arts Partners; and
- A summary of all life safety actions and statutory testing (e.g. fire extinguisher inspections).

These reports allow for a thorough review and analysis on a monthly basis by ECUAD to ensure the facility is performing as intended. It will also ensure building operations and conditions are consistent and achieving established Project objectives. The reports provide key information that determines if the facilities are being properly maintained in accordance with the performance standards set out in the Project Agreement.

There are strict penalties if Applied Arts Partners misrepresents the monthly report.

#### 7.4 Hand-Back Requirements

At the end of the 30-year operating term, the facility must be in a condition that is consistent with the services and maintenance specifications in the Project Agreement. For example, it would not be acceptable for the building fabric to be failing, the flooring to be unreasonably worn or the general environment to be unkempt. Applied Arts Partners and ECUAD will jointly appoint and pay for an independent party to inspect and survey the condition of the building in advance of the end of the project term. Applied Arts Partners is responsible for meeting the hand-back requirements at the end of the project term.

Keeping facility conditions up during the operations period through ongoing maintenance will ultimately lead to hand-back conditions being satisfactory.

#### 7.5 Project Board

The Project Board was established in 2012 to provide guidance and oversight for the implementation of the Project, including the capital components outside of the DBFM arrangement. Members of the Project Board include representatives from: the Ministry of Advanced Education; the Ministry of Transportation and Infrastructure; Emily Carr University of Art + Design; and Partnerships BC.

ECUAD has assembled an integrated project management team that will be responsible for implementing the project through design, construction and transitioning into the operating period. The project team reports through the chief project officer to the Project Board.



North elevation

## 8. Glossary of Terms

**Affordability Ceiling:** A number identified in the RFP representing the NPC of the maximum government expects to pay based on an assumed discount rate of 7.3% over the life of the Project.

**Annual Service Payment (ASP):** The mechanism by which a private partner in a DBFM arrangement is compensated. According to performance standards specified in a Project Agreement, an ASP is paid to the private partner for capital and operating costs, as well as their required rate of return, over the term of the agreement.

**Business Case:** Document prepared pursuant to CAMF.

**Competitive Neutrality:** A circumstance where competitive advantages that typically accrue to government as a result of public sector ownership are neutralized through a series of adjustments that permit a fair comparison of non-public sector alternatives.

**Discount Rate:** A rate used to relate present and future dollars. Discount rates are expressed as a percentage and are used to reduce the value of future dollars in relation to present dollars. This equalizes varying streams of costs and benefits so that different alternatives can be compared on a like-for-like basis.

**Financial Close:** The point in the procurement process where negotiations with a preferred proponent are finalized and a Project Agreement is executed, allowing construction to begin.

**Independent Certifier:** An independent, third-party certifier engaged jointly by ECUAD and the private partner to verify and certify whether certain conditions of the Project Agreement are being satisfied.

**Net Present Cost (NPC):** The value of periodic future cost outlays when they are expressed in current, or present day, dollars by discounting them using the Discount Rate.

**Nominal Cost:** Costs calculated in nominal terms at current prices recognizing adjustments for inflation.

**Partial Compensation:** A payment made to unsuccessful shortlisted proponents in an RFP process as partial compensation for expenses incurred in submitting a proposal.

**Performance Specification:** Specifications developed by ECUAD that define the output and performance levels required in relation to construction and life cycle performance of an asset, to ensure the completed project satisfies the objectives of a project with respect to meeting ECUAD's service delivery needs.

**Project Agreement:** The Project Agreement sets out the requirements for the delivery of an asset under a DBFM in terms of cost, schedule and life cycle performance that typically govern the performance-based payment of the ASP to a private partner.

**Request for Proposals (RFP):** Document issued by ECUAD for qualified proponents to submit formal proposals to deliver the Project.

**Request for Qualifications (RFQ):** Document issued by ECUAD inviting parties interested in participating in an RFP, to submit their qualifications for delivering the Project.

**Scope Ladder:** A mechanism that allows a proponent to reduce the scope of the Project by one or more of the scope items set out in an approved list outlined in the RFP in order to meet the Affordability Ceiling.

**Service Commencement:** The date upon which the following activities have been achieved: the architect certifies substantial performance of the building; an occupancy permit has been issued and all construction commissioning activities are complete.

**Value for Money (VFM):** Also commonly referred to as value for taxpayer dollars, VFM describes the benefits to the public expected to be realized through a particular procurement method, which can be quantitative and/or qualitative in nature. Quantitative VFM is achieved through the lower cost of a project resulting from the procurement method, whereas qualitative value is achieved when a particular procurement method better supports the goals and objectives of a project without necessarily costing less.

## 9. July 2017 Supplement to Project Report

The following table provides nominal cash flows that represent the underlying numbers used to create the net present costs in the Value for Money table in Section 6.7 of the Project Report. The cash flows in the following table have been annualized and include all categories of costs included in the Value for Money table in the Project Report. To clarify, the number in the Final Project Agreement column includes both payments to the Project Co as well as all of the Province's costs (e.g. project management). They have not been updated for any changes to the Project Agreement or performance issues after contract execution. It is important to note that the cash flows used to derive the net present cost numbers for the DBB and Final Project Agreement columns in the Value for Money table are based on a combination of monthly, quarterly and semi-annual cash flows. Discounting the annual cash flows will produce net present cost numbers, similar, but not exactly the same as in the Project Report. The calculation of net present cost numbers is dependent on the timing of the cash flows, so a difference in the net present cost numbers is to be expected.

FISCAL YEAR END (March 31)	FINAL PROJECT AGREEMENT Cash flows for deal that make up Value for Money (\$000s)	DBB OPTION Cash flows for deal that make up Value for Money (\$000s)
2013	2,000	-
2014	2,011	4,236
2015	6,891	9,754
2016	24,030	53,786
2017	22,009	64,480
2018	6,177	5,450
2019	5,646	3,053
2020	5,720	4,044
2021	5,789	3,274
2022	5,830	3,261
2023	6,097	4,258
2024	5,977	3,492
2025	6,403	3,485
2026	6,311	4,488
2027	6,459	3,728
2028	7,471	3,726
2029	6,431	4,735
2030	6,906	3,982
2031	6,310	3,987
2032	7,008	5,002
2033	6,721	4,255
2034	7,180	4,267
2035	7,662	5,289
2036	7,673	4,549
2037	7,660	4,568
2038	7,665	5,598
2039	7,654	4,866
2040	7,676	4,893
2041	7,707	5,931
2042	7,672	5,207
2043	7,742	5,243
2044	7,737	6,289
2045	7,734	5,575
2046	7,789	5,619
2047	7,234	6,675
2048	-	567



**partnerships**  
British Columbia



**Partnerships British Columbia Inc.** PO Box 9478 Stn Prov Govt, Victoria, BC V8W 9W6 | [www.partnershipsbc.ca](http://www.partnershipsbc.ca)