



CAPITAL ASSET REFERENCE GUIDE for Public Post-Secondary Institutions

Ministry of Infrastructure

Module 1 – Capital Planning & Project Scoping

February 2025

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1.0 Introduction

1.1 Capital Asset Reference Guide

The Capital Asset Reference Guide (CARG) is a tool developed by BC's Ministry of Infrastructure (the Ministry) for public post-secondary institutions (Institutions) to guide project planning, approvals, and implementation for projects that are partially or wholly funded by the Ministry. The document is updated periodically to ensure it reflects current priorities and practices.

The CARG is informed by BC's [Capital Asset Management Framework \(CAMF\) Guidelines](#) and is aligned with its objectives and principles. The CAMF is a set of principles developed by the Government of BC (Government) to help provincial level public sector agencies, which include Institutions, with their approach to capital asset management. It should be noted that the CARG does not replace the CAMF but is informed by the CAMF.

The CARG outlines key requirements and government priorities for capital projects. There are various points of accountability throughout the guide to align the capital planning processes for Institutions and Government.

The CARG is divided into the following modules:

- Module 1 – Capital Planning and Project Scoping
- Module 2 – Capital Programs
- Module 3 – Capital Project Requirements
- Module 4 – Property

1.2 Document Scope

The purpose of the CARG is to:

- Improve and streamline capital planning, approvals, and implementation processes for Institutions and the Ministry
- Ensure accountability and transparency in capital planning
- Ensure that approved capital projects align with the Ministry and Government priorities

2.0 Governance

Under the *University Act* and *College and Institute Act*, the Board of Governors is responsible for the management and maintenance of real property, buildings and structures.

Institutions undertake capital planning to evaluate, prioritize, and execute projects that support the overall educational vision and mission of the institution. This section outlines the governance and roles for projects receiving provincial funding.

2.1 Provincially Funded Projects

For capital projects funded by the provincial government, the capital planning process is governed by numerous government agencies and policies. Each agency plays a specific role in the facilitation, approval and oversight of a post-secondary capital project.

PROVINCIAL AGENCY

Ministry of Finance

Role: Approves the Ministry's 10 Year Capital Plan and sanctions specific Institutions' Business Plans approved by the Ministry.

The Ministry of Finance is responsible for the core financial functions of the Government of British Columbia. Within the Ministry of Finance, Treasury Board is responsible for budget and management matters, the Office of the Comptroller General is responsible for the overall quality and integrity of government's financial management and control systems, and the Provincial Treasury is responsible for the province's borrowing/financing needs and manages banking and cash.

Ministry of Infrastructure

Role: Works collaboratively with Institutions on post-secondary capital priorities and reviews Institutions' Capital Plan and Business Plan submissions.

The Ministry of Infrastructure plays a key role in promoting a collaborative approach for our education and skills training partners to contribute to the prosperity of British Columbians. The Ministry provides oversight of public post-secondary Institutions capital needs through legislation, funding and accountability frameworks.

The Ministry employs the policy of "earned independence" in governing post-secondary Institutions, where the level of reporting required from each Institution varies according to its proven track record in fiscal responsibility. At a minimum, the Ministry provides authorization for Institutions to proceed from a Concept Plan Report to Business Plan Report, and project implementation.

CROWN CORPORATIONS

Infrastructure British Columbia Inc.

Role: Infrastructure BC supports the public sector in meeting its infrastructure needs by providing leadership in the procurement of complex, provincially funded capital projects.

Infrastructure BC is owned by the Province of BC and is accountable to the Ministry of Infrastructure.

LOCAL AGENCIES

Post-Secondary Institutions

Role: Prioritize capital projects for submission to the Ministry and monitor and report on projects underway.

Institutions are responsible for management and maintenance of real property.

Institutions are responsible for reporting to the Ministry on current capital projects as well as submitting a prioritized list of capital project proposals through their Capital Plans. The extent of which Institutions are to report to the Ministry varies according to their proven track record in fiscal responsibility.

3.0 Accessing Government Funding Programs

Government programs are available to support capital priorities at public post-secondary institutions. The five-year capital planning process is the primary approach for institutions to identify and submit priority projects for consideration by Government.

There are five categories of funding available through the 5-Year Capital Plan, which are described in more detail in Module 2 – Capital Programs:

1. New Priority Investments (including whole asset replacement/renewal)
2. Student Housing
3. Routine Capital (including linear infrastructure)
4. Carbon Neutral Capital Program (CNCP)
5. Information Management/Information Technology

For a project to be considered for Government funding, it must first be submitted as a high-level outline as part of the institution's 5-Year Capital Plan. Projects that are notionally approved through this process are added to the Ministry's Ten-Year Capital Plan and Institutions are requested to submit a formal concept plan and/or business plan for Government consideration. This two-step process enables Government to shortlist

projects for further review and allows Institutions to dedicate their planning funds to projects invited to move forward.

Other potential funding available with the Ministry (not related to the 5-Year Capital Plan), which are also described in more detail in Module 2 – Capital Programs:

1. BC Knowledge Development Fund (BCKDF)
2. Health and Tech Seat Funding

3.1 Project Identification – Strategic Alignment

With limited available funds, it is crucial that Institutions submit projects for Government funding consideration that demonstrate strong strategic alignment.

Key aspects to consider:

- a. Does the project align to the Institution’s vision and mandate? Specifically, how will the project enhance post-secondary education and/or labour market outcomes?
- b. For student housing, is demand sufficient to ensure high occupancy during the academic year and sufficient occupancy during the summer to be self-sustaining?
- c. Could the project outcomes be achieved without incurring a capital expense?
- d. How does the project align with Government’s mandate and strategic priorities?

This list is not exhaustive but provides key aspects that need to be assessed and addressed in any submission.

3.2 Five-Year Capital Plan Submissions

Each year, the Institution will submit their 5-year Capital Plan (the Plan), identifying priority projects for consideration for provincial funding. The Ministry typically initiates the request for the Plan in the Spring (April) with submissions due in the Summer (July). The Ministry reviews these submissions, which informs the Ministry’s 10-Year Capital Plan submission to the Ministry of Finance.

Funding decisions for New Priority Investments and the funding envelopes for capital programs are typically determined through the annual budget cycle (February). Project decisions for individual capital programs are aligned to the five-year capital planning cycle but may have separate deadlines and eligibility criteria. For example, each fiscal year the Ministry sends out a request for Institutions to submit Routine Capital and CNCP proposals in April and May, respectively.

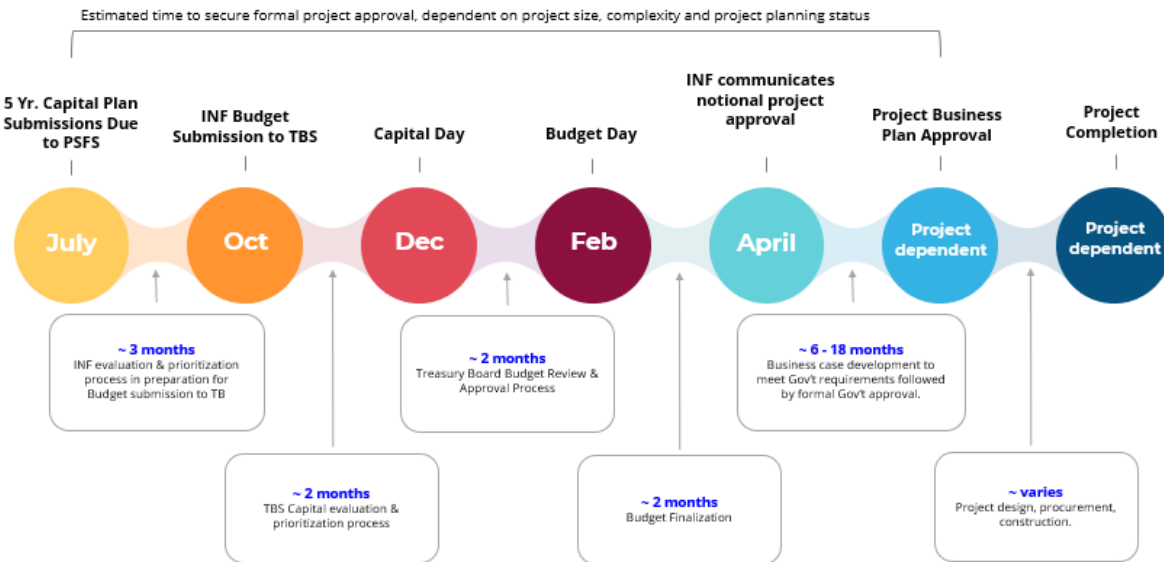
To help standardize Plan submissions from Institutions, the Ministry will provide instructions with detailed requirements in its letter to the Institutions, which are intended to guide Institutions in structuring their Plan submissions and to ensure alignment with Institutional and Government priorities and strategic goals. The Institution’s Board of

Governors (i.e., through a Board resolution) is required to approve the Plan, ideally prior to submission or early in the Fall (e.g. September).

The figure below illustrates the typical annual capital planning process for the Institution and the Ministry as part of Government’s annual budget cycle.

Figure 3.2-1 Capital Planning Process

Capital Project – Typical Approval Timeline*



*various factors may impact timeline, including project planning status, size, complexity, INF vs. Treasury Board approval, etc.

3.3 Concept Plans & Business Plans

For projects that are added to the Ministry’s 10-Year Capital Plan, Institutions need to prepare either a Concept Plan or a Business Plan. In general, Concept Plans are only required for complex priority investment projects, which carry greater risk. Ministry staff will provide advice on submission requirements for each project.

This section also discusses the level of effort suggested for Concept and Business Plans.

Concept Plans

A Concept Plan is prepared for a proposed project to ensure that all viable options have been evaluated to make the best strategic decision. The Concept Plan includes an options analysis and selects a preferred option before committing additional time and resources for further analysis in a Business Plan. The rigor applied to the Concept Plan should be proportionate to the scope, complexity, and risk profile of the proposed project.

The project begins to take form in the Concept Plan, by preparing/updating a campus master plan and concept drawings. The Concept Plan begins by clearly defining the need

for investment and a broad scan of the environment. This includes identifying industry trends and political, economic, social, and technological factors that impact the project, as well as similar projects completed in other jurisdictions.

The key element of the Concept Plan is the program delivery option analysis, which examines the range of options available to address the opportunity. The options are evaluated against the Institution's criteria to identify potential viable options. Each viable option is then further analyzed with a preliminary estimate of a capital/operating budget, financing, procurement options, risk assessment, and schedule to select a preferred option. Typically, a Class D Cost Estimate is required at this stage.

Examples of evaluation criteria include:

- **Program/ Labor Market Demand:** responds to specific program demand growth or labour market demand.
- **Strategic Alignment:** Alignment with government priorities (e.g., Mandate Letter) and Institutional priorities (e.g., mission statement, master planning, etc.).
- **Quality Education:** Improves student learning outcomes, and/or improve access to learning and/or student full-time equivalents (FTE) and space utilization rates.
- **Space/Infrastructure Improvements:** Existing functional space efficiency increase or Facility Condition Index (FCI) improvement and/or reduction of life safety & occupational health risks.
- **Cost Effectiveness:** Funding potential or existing partnerships and/or cost benefits throughout lifecycle.
- **Energy Usage and GHG Emissions:** Describe how and to what extent the project will reduce energy usage and greenhouse gas emissions.

The risk assessment includes the completion of the Capital Infrastructure Project Risk Screen to determine the level of oversight and approval required for the project. This tool evaluates risk on both the organizational and project level.

Refer to the [government website](#) for Template 6 – Capital Project Risk Screen Tool.

Based on the tool, it may be determined that a Project Board is required for the proposed project. This arises from best practices in managing capital projects across the public sector. The Terms of Reference will be project-specific and Board membership will include Institution and Government representatives. Project Boards will be responsible for providing overall direction, project oversight and key decision-making on scope, budget, schedule, risks, procurement, communications, and consultation.

Note that the Institution may recover costs associated with developing the Concept Plan (including supporting information such as an engineering pre-feasibility report) from the Institution's annual Facilities Maintenance Grant funding allocation. Costs associated with the planning of small projects are not capitalized, because the funds to implement those same projects are not spent in the same year as the planning.

Refer to the [government website](#) for Template 2 – Concept Plan Business Case and other relevant documents.

Priority Investments Business Cases

The Business Case is the final deliverable in the planning process, and defines the demand, strategic alignment, scope, cost (Class C cost estimate), risks, procurement, governance, and schedule certainty for the project. This ensures that funding for the recommended option, if approved, is sufficient to successfully implement the project. A Business Case demonstrates the need, viability, desirability, and affordability for the recommended option and requires all three levels of approval – the Institution, the Ministry, and the Ministry of Finance.

The Business Case ensures that scalable options have been considered and describes the preferred option with a sufficient degree of accuracy to demonstrate it can be successfully implemented. Specifically, the Business Case confirms the project's alignment with the Institution's mandate and Government priorities, and includes a detailed capital/operating budget, project risk assessment, and project schedule. Project capital budgets are to be based on a Class C cost estimate or above.

The financing section identifies all the sources of capital funding (including estimated amounts) expected to contribute to the total project cost and includes a table that summarizes the anticipated cash flow over the course of the project development by fiscal year and by funding source.

If there is a fundraising component to the project, provide as much detail as is available, including status. If applicable, identify any potential for contributions or gifts in kind (e.g., donation of equipment and materials). An implementation plan should also be developed, which includes the recommended procurement option and governance structure for the proposed project.

In addition to the capital infrastructure, Capital Infrastructure Project Risk Screen risks are also identified in a [Standard Risk Register \(.xlsx\)](#) and evaluated on a preliminary basis for each viable option in accordance with the Ministry of Finance [Risk Management Guideline for the B.C. Public Sector](#). The risk register should be updated throughout the project lifecycle monthly and submitted quarterly to the Ministry.

Institutions are encouraged to engage with the Capital Planning team at the Ministry early and often with drafts of their business plan.

Refer to the [government website](#) for Template 1 – Priority Investment Business Case.

Level of Full-Time Effort

Each activity of the capital planning, approvals and reporting process requires a different level of effort.

The Concept Plan and Business Plan require supporting appendices to be completed for submission to the Ministry in addition to the main body of the report. Table 3.3-1 provides an estimate of time required to complete each of these planning activity reports including supporting appendices. However, the Level of Full-Time Effort for supporting appendices varies in accordance with the project scope, complexity, and risk profile. The last row indicates an illustrative estimated total effort for each activity as a percentage of the total capital project cost.

Table 3.3-1 Illustrative Level of Full-Time Effort per Capital Planning Activity¹

	CAPITAL PLANNING ACTIVITIES	
	Concept Plan	Business Plan
Level of Full-Time Effort for Main Report	2 - 4 months	3 - 10 months
Level of Full-Time Effort for Supporting Information		
Ministry Budget Model Output/Contractor Estimate	✓	✓
Capital Project Risk Screen Tool	✓	✓
Risk Register	✓	✓
Campus Master Plan/Concept Drawings	✓	
Engineering Pre-feasibility Studies	✓	
Initial Functional Program		✓
Indicative Design		✓
Quantity Surveyor Cost Estimate	✓	✓
Geotechnical Report		✓
Environmental Assessment		✓
Engineering Feasibility Studies		✓
Percentage of Total Capital Project Cost	0.1% - 0.5%	0.5% - 1.5%

¹ Based on the American Association of Cost Engineers

3.4 Project Approval

Following finalization of the provincial budget, typically in the Spring, the Ministry will send each Institution a Budget Outcome letter, advising the Institution of any capital projects that have been notionally approved in the Ministry's 10-Year Capital Plan.

The Institution will then develop and submit a Concept Plan or Business Plan based on direction from the Ministry and the Ministry will seek formal Government approval of the project. If approved, the Ministry will send the Institution a Formal Project Approval letter, outlining the terms and conditions of the project funding.

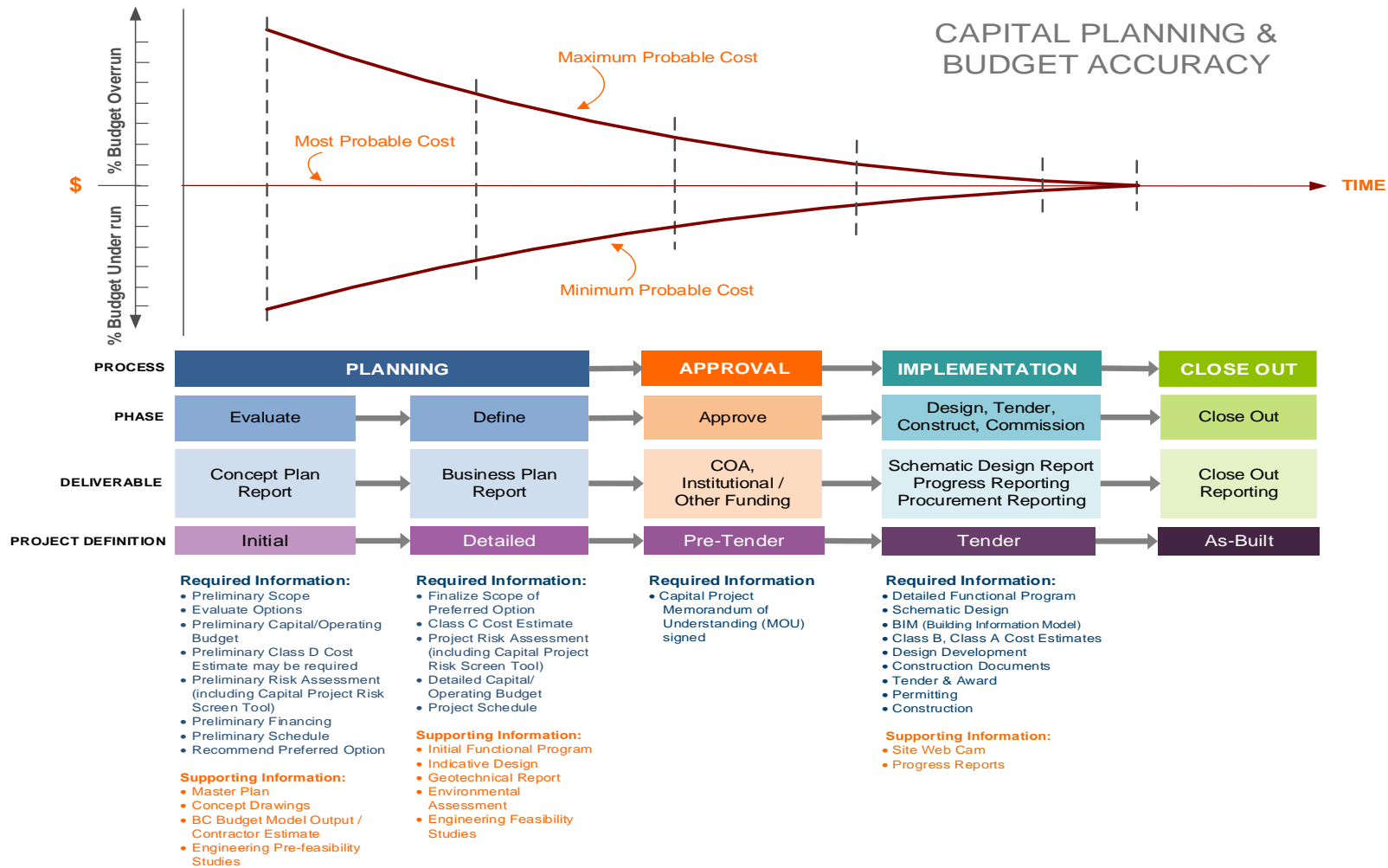
4.0 Project Definition & Budget Accuracy

The capital planning process supports quality decision making to advance a proposed project and to ensure the right strategic decisions are being made in a structured and efficient manner.

Following project approval, timely and accurate reporting by the Institution is key to the Ministry's ability to monitor the Project's progress to ensure that planning, design, construction, and project closeout proceeds in accordance with the terms and conditions of the project approval letter and in alignment with the CAMF.

4.0-1 below illustrates how accuracy of the project scope, budget, schedule, and risk profile increases as the project progresses through the planning, approval, implementation and closeout phases of the capital planning process. It also specifies the tasks and activities the Institution undertakes as well as corresponding approvals and reporting requirements.

Figure 4.0-1- Capital Planning & Budget Accuracy Model



Note: Does not apply to Routine Capital or CNCP Projects

5.0 Funding Sources

5.1 Overview

The Concept Plan or Business Plan submission should indicate the proposed sources of capital funding for the Project in support of the capital cost estimate. Funding sources may include Provincial Government grants or loans (e.g., Student Housing), Institution loan or cash contribution, Federal Government grants, or Private Donor cash or in-kind contributions.

The submission should also identify the sources of operating funding for the Project based on a detailed operating budget. Unless directed by the Ministry, capital projects must be self-supported, with no additional operating funding from Government.

5.2 Provincial Government Financing

Provincial Government Grants

The Province may provide capital financing as a transfer of funds made directly to the Institution to finance capital projects fully or partially. Although non-repayable, some direct capital funding may have specific conditions for use, whereas others may be unconditional. Funding letters outline key conditions of any transfer.

Provincial Government Loans

Government may provide loans as a transfer of funds directly to the Institution to finance capital projects fully or partially. This is currently only available for student housing projects, where revenue can be used to repay the loan.

Institutions can access short-term loans during the construction period. These loans are consolidated into a long-term loan upon project completion. Interest during construction on the short-term loans must be calculated in any project proposal and can either be covered by Institution funds or included in the long-term loan at consolidation. Long-term loans must be paid back over a specific term, typically 30 years and typically in the form of semi-annual coupon payments. For larger loans, a sinking fund may also be used. Terms and conditions of borrowing are established with the Provincial Treasury.

The amount of any loan available for a project is informed by a financial model, and financial analysis of the project proposal.

5.3 Institution Self-Financing

Internal Payback Project

Internal payback projects are similar to self-supporting projects except that future cost savings, not external revenues, are used to support incremental operating, capital, and debt service costs. An example of an internal payback project would be an energy retrofit project where future utility savings were sufficient to carry the debt servicing costs on the

capital improvements. An internal payback project is deemed to be sustainable if it generates a positive net present value over the useful life of the project, on a pro-forma basis.

5.4 Capital and Operating Leases

Capital and operating leases are in effect a “renting” (leasing) of an asset for a stated period in exchange for periodical payments. The terminology for each party in a lease arrangement is the ‘lessee’ being the party making the payments and the ‘lessor’ the party receiving the payments. In all situations, the lessor has full recourse to the lessee for payments for the lease term.

Differentiation of capital and operating leases is based primarily on ownership of the asset and the transfer of risk, as described below.

Operating Lease

An operating lease is a lease where substantially all of the risks and rewards of asset ownership remain with the lessor. This is generally represented by the use of an asset for a shorter duration and subsequently returning the asset back to the lessor well before the asset’s economic life has expired. Essentially, any lease where none of the lease criteria listed below is present can be treated as an operating lease.

Capital Lease

A capital lease is a lease which transfers ‘substantially all’ of the risks and rewards of asset ownership to the lessee as evidenced by any of the following conditions:

- Ownership of the asset transfers to the lessee at the end of the lease term
- The lessee has an opportunity to purchase the asset at a ‘bargain price’ that is much lower than the asset’s fair market value
- The term of the lease is at least 75% of the economic life of the asset
- The present value¹ of the lease payments over the term of the lease is at least 90% of the fair market value of the asset

In regard to capital lease approvals, Institutions require approval from the Minister of Infrastructure prior to entering into a lease agreement. Institutions are advised to consult with the Ministry prior to commencing any lease negotiations.

Refer to Module 4 – Property for details and requirements for approval of leases and for additional information on acquisition and disposition of property.

¹ The lessee’s incremental borrowing rate is used to discount the lease payments to present value

5.5 External Financing

Borrowing directly from financial markets in certain instances is allowable, but subject to appropriate government authorization. To be eligible for borrowing from financial markets, a project must be a Self-Supporting Project, Internal Payback Project (see section 5.3), or other project where the portion of the project to be financed from financial markets is supported by external (non-taxpayer) revenues.

Self-Supporting Project

Typically, self-supporting projects are outside the Government Reporting Entity, such as a property trust. Self-supporting projects rely on identifiable external (non-taxpayer) revenues to cover all operating costs, capital maintenance costs, and debt servicing costs. To be considered self-supporting, a project must demonstrate the following to be sustainable:

- Positive net income after depreciation
- Debt service coverage ratio (free cash flow/debt service cost) of one-to-one

The measures are considered sustainable if evidenced by the previous three years' operations and/or for the life of the project on a pro-forma basis.

Alternate Funding Approaches

If Institutions are wanting to explore external financing, please reach out to the Ministry to discuss prior to entering into any commitments.

5.6 Asset Leveraging

Asset leveraging is a financing method where Institutions use existing assets to provide financing for new projects. Typical examples of asset leveraging include selling unused land and/or buildings, sale and leaseback transactions, leasing unused portions of buildings, and mortgage receivables (i.e. purchase over time).

The revenue obtained must be used strictly for educational purposes or to offset the costs of new educational capital projects that would typically require provincial funding. For an Institution to dispose of an asset, the Institution must first declare the asset as surplus to its long-term needs (e.g., 25 years).

6.0 Legislative & Policy Requirements

In addition to the Capital Asset Management Framework and the Capital Asset Reference Guide, Institutions must ensure that projects comply with relevant legislation, frameworks, policies and trade agreements.

6.1 Legislative Requirements

College and Institute Act and University Acts

Institutions need to comply with their relevant legislation; specifically the [College and Institute Act](#), [University Act](#), [Royal Roads University Act](#), and [Thompson Rivers University Act](#).

Wood First Act

The purpose of the [Wood First Act](#) is to facilitate a culture of wood by requiring the use of wood as the primary building material in all new provincially funded buildings, in a manner consistent with the building regulations within the [Building Act](#).

Government is actively taking steps to advance the use of wood and innovative wood construction technologies through its [Wood First Initiative](#).

Climate Change Accountability Act

The [Climate Change Accountability Act](#) enables Government to set emissions reduction targets, provide a framework to develop reports on climate change risks and progress, and set Greenhouse Gas (GHG) emissions reduction targets for provincial public sector organizations to achieve.

Declaration on the Rights of Indigenous Peoples Act (DRIPA)

Advancing reconciliation for Indigenous peoples is an essential consideration for capital planning. The Ministry encourages Institutions to engage with First Nations and Indigenous peoples when planning their overall capital infrastructure needs. This may look different by Institution and/or campus, recognizing the unique interests and needs of First Nations, Métis and Inuit peoples across the province. It is important that Institutions consider a [distinctions-based approach](#) for structuring their engagements.

A key aim of this engagement is to ensure that all learners – Indigenous and non-Indigenous – feel welcome when attending or living on public post-secondary campuses. It is of particular importance that student housing considers the culture, traditions, and history of First Nations on the traditional territory where the campus is located, while recognizing that learners from various communities may stay in student housing.

Institutions are required to consult with First Nations rightsholders for land dispositions by sale, lease, statutory right of way or mortgage, including land dispositions for property trusts. In addition, for major developments within a property trust, Institutions need to outline how they have engaged with First Nations rightsholders and how the proposal may benefit First Nations. See Module 4 for further information.

6.2 Policy Requirements & Considerations

Cost Estimates

Institutions are required to engage a qualified cost consultant (e.g. Quantity Surveyor) to provide a Class D cost estimate with Concept Plan submissions and a Class C cost estimate

with Business Plan submissions. Project submissions will not be considered without their respective level of estimate.

BC Knowledge Development Fund projects may require a cost estimate based on size and scope of the project. Please check with your Capital Planning Officer.

Environmental, Social, and Governance Framework for Capital

The Environmental, Social, and Governance (ESG) Framework for Capital (the Framework) provides guidance to project owners on how to include Government ESG priorities in provincial infrastructure projects that meet specific criteria. The Framework consists of a suite of tools, guidance documents, and requirements to support project teams in various phases of the project lifecycle.

The Framework supports four provincial strategies: climate change (CleanBC), labour objectives, mass timber, and child care. The Framework is related to and should be considered in conjunction with the [Wood First Initiative](#) and the [Climate Change Accountability Act](#).

Contact your Capital Planning Officer for questions about applying the Framework for specific projects.

Apprenticeship Policy

For projects with a provincial investment over \$15 million, the [Apprenticeship Policy](#) requires Prime contractors to demonstrate engagement in apprenticeship training by utilizing registered apprentices for specified trades on project-related contracts valued at \$500,000 or greater.

For projects with provincial investments of less than \$15 million, if appropriate or applicable, Institutions may also choose to implement the apprenticeship policy.

Archaeological Assessments

[Archaeological assessments](#) may be required for capital projects. Requirements and guidelines are available to support project teams.

Procurement Requirements

Provincial requirements are in place for public sector organizations, including Institutions, to practice fair, open and transparent procurement at all times, as per the [New West Partnership Trade Agreement](#) and the [Capital Asset Management Framework](#).

Public sector organizations are required to post qualifying solicitation opportunities for goods, services and construction to [BC Bid](#).

The Ministry of Finance has developed a [Capital Procurement Checklist](#) as a guide to assist public sector organizations with following the CAMF principles. The checklist includes objectives, risks, criteria, evidence, and sample policy references for the design, approval, and tender and award phases of the project.