

# Alberta Infrastructure and Transportation

## Management Framework: Assessment Process

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#### Purpose

This document is a guide to Alberta Infrastructure and Transportation's approach to assessing and approving Public Private Partnerships (P3s) for capital infrastructure projects.

#### Public Private Partnerships

Public private partnership is a generic term for a “cooperative venture between the public and private sectors, built on the expertise of each partner that best meets clearly defined public needs through the appropriate allocation of resources, risks and rewards.”<sup>1</sup> The term can be used to describe a wide variety of working arrangements from loose, informal and strategic partnerships to design build finance and operate (DBFO) type contracts and formal joint venture companies.<sup>2</sup>

#### Definition of Government of Alberta P3's

For the purposes of Government of Alberta capital projects, a Public Private Partnership (P3) is defined as a form of procurement for the provision of capital assets and associated long term operations that includes a component of private finance. Payment to the contractor is performance based.

#### Background

The Financial Management Commission<sup>3</sup> recommended that government and Supported Infrastructure Organizations (school boards, health authorities and post-secondary institution boards, known as SIOs) should be allowed to enter into alternative funding arrangements for capital projects, under specific conditions and with appropriate guidelines. The Government of Alberta accepted this recommendation.

On February 11, 2003 Cabinet established a process for approving capital projects and alternative financing of capital projects, which includes public-private partnerships. Previously all capital spending was on a pay-as-you-go basis. Under the new capital plan, alternative funding may be used. This could include, for example, P3s, capital leases, capital bonds and other borrowing.

Alternative financing may be used both for government-owned capital projects and for government-supported projects owned by SIOs (school boards, health authorities and post-secondary institutions).

An Advisory Committee on Alternative Capital Financing (ACACF) was announced on May 21, 2003. The Committee's role is to:

- Provide recommendations to Treasury Board regarding guidelines for alternative funding of capital projects.

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<sup>1</sup> The Canadian Council for Public-Private Partnerships.

<sup>2</sup> 4ps (Public private partnership programme). UK government

<sup>3</sup> "Moving from Good to Great – Enhancing Alberta's Fiscal Framework". Alberta government, July 8, 2002

- Evaluate capital projects and supporting business cases and make recommendations to Treasury Board.
- Provide support to Ministries on the advantages and limitations of alternative funding and the relationship to the delivery of the government's multi-year capital plan.
- Maintain an ongoing overview of public policy developments both nationally and internationally concerning the various funding approaches supporting public infrastructure development.

The Committee consists of private sector individuals with expertise in areas such as finance and investment management, real estate development and commercial law.

### Context

#### Traditional Model

In the past, Alberta Infrastructure and Transportation has used the traditional model of project delivery to develop priority infrastructure projects for government-supported and government-owned infrastructure. In this model, the government generally funds 100% of the facility either by providing a capital grant to the SIO (partial funding of post-secondary institutions) or by building its own facility. The design/bid/build procedure is used to tender and build the project. This traditional approach involves extensive work before the project is approved and funded. Formal sets of guidelines and procedures are used throughout the three-stage process of planning, design and implementation.

#### P3 Model

Analysis by other jurisdictions<sup>4</sup> has shown that the Alberta P3 model is most appropriate for major and complex capital projects with significant ongoing maintenance requirements. For these projects, the contracting entity (Service Provider) can offer project management skills, innovative design and risk management expertise that can bring substantial benefits. Properly implemented, a P3 helps to ensure that desired service levels are maintained, that new services start on time and facilities are completed on budget, and that the assets built are of sufficient quality to remain high standard throughout their life. A P3 ensures that Service Providers are bound into long-term operational contracts and carry the responsibility for the quality of the work they do<sup>5</sup>.

The benefits from a P3 are not automatic but they only result from well-planned and rigorously appraised schemes. The criteria and procedures for identifying and approving P3 projects are set out in this document to ensure that only suitable projects are selected for this process.

The Government has gained experience with P3 methods through the Calgary Courts, a design, build, operate contract and Edmonton/Calgary Ring Road projects, design, build, finance, operate contracts.

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<sup>4</sup> "PFI: Meeting the Investment Challenge". HM Treasury, UK government, July 2003

<sup>5</sup> "Review of Operational PFI and PPP Projects". 4ps, UK government. 2005

### Capital Plan

The annual cross-government capital planning process (CPI) is managed by the Deputy Ministers Capital Planning Committee. The Capital Plan is designed to assist government decision makers when considering capital grants to support infrastructure projects and purchase of equipment by SIOs, municipalities and other local authorities; and capital investment in government owned infrastructure, equipment and inventories, and funding to rehabilitate government capital assets.

- The P3 approach, based upon value for money, represents an alternative way to deliver major capital projects that are part of the Capital Plan.
- The P3 approach requires initiation, review, evaluation, and decision-making, as well as regular reporting to Treasury Board, within the Capital Plan process.
- The P3 approach strives to provide both Government and proponents with as much certainty as possible at each stage, thereby strengthening the collaboration element of P3 procurement.
- The P3 approach recognizes that emerging projects with limited windows of opportunity should be reviewed with the same thoroughness as if submitted in the regular cycle of review.
- The P3 approach will result in the business case for a project providing the parameters for delivery of the infrastructure, thereby allowing some flexibility to the implementing department to deal with minor adjustments. Treasury Board approval will be based on the risk profile and costing as outlined in the business case. Ministries are required to report status to Treasury Board regularly. Further Treasury Board approvals should not be required unless the risk profile or the costing changes from that outlined in the business case.
- The P3 approach is suitable only for capital projects of a sufficient size and complexity (greater than \$100 million) to justify the Government of Alberta's and the proponent's transaction costs.
- Suitable projects must be considered for P3 applicability prior to inclusion in the Capital Plan.

### Assessment and Approval Procedures

The procedures described in this framework document are intended to help Alberta Government ministries, SIOs and private sector enterprises explore the possibility of setting up P3s related to capital infrastructure projects under the mandate of Alberta Infrastructure and Transportation. Such partnerships would respond to the infrastructure needs of SIOs and government program ministries. The goal of these partnerships is to better serve Alberta communities.

P3 procedures are designed to enable efficient and timely consideration of P3 proposals by the Ministry. They are flexible enough to allow innovation, while ensuring that only needed projects are undertaken.

Both solicited and unsolicited P3 initiatives will be considered. This will allow innovative proposals to be brought forward and assessed.

There are two phases to the assessment process. The first phase is a feasibility analysis by the project sponsor, so that the project can be reviewed by Alberta Infrastructure and Transportation's P3 Review Committee (P3RC) and CPI before extensive work has been done. P3RC will assess the feasibility analysis in accordance with the criteria in Section 5 and determine if the project should be pursued as a P3.

This feasibility analysis phase must be conducted before a project is included in the Capital Plan. The P3 potential of a project will be identified in the Capital Plan.

Projects may move on to the second stage if Alberta Infrastructure and Transportation deems them feasible and supportable. The second phase requires more detailed information, in the form of a business case, to be prepared by the project sponsor.

Treasury Board approval of the business case, based on the recommendation of ACACF, initiates the start of the P3 procurement process. Separate guidelines for P3 Procurement are available (Alberta Infrastructure and Transportation's P3 Management Framework: Procurement Process).

### Program Ministries' and Stakeholders' Involvement

Program ministries (such as Learning, Advanced Education and Health and Wellness) will remain key players in assessing all projects that address their specific program. The SIOs and program ministries will work closely with the line areas of Alberta Infrastructure and Transportation to ensure that projects meet the requirements of the program being addressed.

### Acknowledgements

1. Information Bulletin, Information on Public-Private Partnerships, Alberta Government, Infrastructure, January 2003.
2. Industry Canada, Public-Private Partnership: A Canadian Guide, June 2001
3. Partnerships Victoria, State of Victoria (Australia), Department of Treasury & Finance, March 2001
4. Department of the Environment and Local Government, Public Private Partnership Assessment, Ireland, April 2000
5. Alternative Procurement Implementation Guide, Capital Division, Treasury Board Staff, and Ministry of Finance and Corporate Relations, January 2000.
6. New South Wales Treasury, Working with Government, guidelines for Privately Financed Projects, Australia. November 2001.
7. PFI: Meeting the Investment Challenge. HM Treasury, U.K., July 2003.

#### Definitions

- a) **Advisory Committee on Alternative Capital Financing (ACACF)** is a committee established by the Minister of Finance to advise Treasury Board on the feasibility and cost-effectiveness of alternative financing proposals including P3s.
- b) **Alternative Financing** includes private financing through P3 contractual arrangements and financing arranged for capital project development by the Government of Alberta (GOA) or by Supported Infrastructure Organizations (SIO).
- c) **Capital Plan** is the current approved capital expenditure plan that documents projects approved to commence in the three years and includes projects proposed within the five-year plan as submitted to Treasury Board.
- d) **Conventional Project Delivery** means the project ownership, management and delivery process that is normally employed by a ministry or SIO, generally a design/bid/build process for developing infrastructure using the private sector consultants and contractors.
- e) **Deputy Ministers' Capital Planning Committee (DMCPC)** is a committee established to oversee capital planning and to advise the Treasury Board Subcommittee on Capital Planning.
- f) **Public-Private Partnership (P3)**, for the purposes of this policy, is a form of procurement for the provision of capital assets and associated long term operations that includes a component of private finance. Payment to the contractor is performance based.
- g) **Supported Infrastructure Organizations (SIO)** means local authorities that include school boards, post-secondary institutions and health authorities, and other organizations eligible for GOA capital and/or operating budget support.
- h) **Treasury Board Subcommittee on Capital Planning** is a committee established by Treasury Board to make capital plan recommendations to Treasury Board.
- i) **P3 Review Committee (P3RC)** is a cross-ministry committee established by the Minister of Infrastructure and Transportation to review and provide advice to DMCPC and ministries on alternative procurement opportunities for all projects in the Capital Plan and to recommend which are suitable for P3s.

#### Scope of Policy

- (1) This policy applies to P3 projects of GOA ministries or SIOs and that:
  - a. require GOA capital or operating financial support;
  - b. involve private financing; and
  - c. are for the provision of capital assets and associated long term services.
- (2) This policy does not apply to municipalities.

#### Reasons for P3s

- (1) P3s are an alternative procurement model for GOA ministries and SIOs for providing infrastructure.

(2) P3s are a method of:

- a. Encouraging innovation, collaboration, and appropriate risk sharing with the private sector, drawing on the expertise and strengths of the public and private sectors.
- b. Maximizing value for money by considering life-cycle costs, opportunities for third party provision of ancillary services, e.g. caretaking, food service, etc., and third party revenue opportunities.
- c. Delivering infrastructure with certainty in terms of costs and schedule.

### Principles for Assessing and Approving P3s

- a. Project must be a priority as determined by the Capital Plan.
- b. Project must be accommodated within both the approved Capital Plan and the projected operating budget of the program ministry.
- c. The P3 selection process must be competitive, equitable, transparent, accountable and timely.
- d. Project procurement and financing methods will be selected to provide best value for money over the project lifecycle with appropriate consideration of risk transfer, opportunities for innovation and economic growth, and community issues.
- e. Capital Plan and Fiscal Plan impacts must be equitable and comparable relative to other procurement and financing alternatives, and not impact the value for money assessment of the P3.

### P3 Approval Process

Section 3, "Roles and Responsibilities" and Section 4, "Approval and Implementation" illustrate and explain the roles and process for identifying, assessing, approving and implementing P3 projects.

### Determination of Value for Money

Value for money must be determined through a net present value comparison of the comparable costs and risks of the proposed P3 project with the conventional project delivery over the same life cycle, as demonstrated by the detailed business case.

### Budgeting for P3 Projects

#### Operating Lease

For P3s that are classified, for accounting purposes, as an operating lease, the payments are a voted, budgetary expense under the Expense and Equipment/Inventory Purchases vote at the time the payments are due.



### Capital Lease

For P3s that are classified, for accounting purposes, as a capital lease, the budget impact is as follows:

- The acquisition value of the asset is equal to the net present value of the lease payments plus any GOA cash investment (if any), which includes interest accumulated during the construction period. This value is included in the GOA Capital Plan upon acceptance of the asset by the GOA or as the asset is constructed, depending on the terms of the agreement.
- The acquisition value of the capital asset is a statutory capital investment and, as such, is not included in the Ministry voted appropriations. Both the liability corresponding with the asset acquisition and asset acquisition are recorded in the ministry balance sheet.
- The principal portion of payments is a voted, non-budgetary expenditure. Principal repayment reduces the liability corresponding with the asset acquisition.
- The interest portion of payments is a voted, budgetary debt servicing expense under the Expense and Equipment/Inventory Purchases vote.
- Amortization of the capital asset is a voted, budgetary expense under the Expense and Equipment/Inventory Purchases vote.

### Accounting Treatment for GOA P3 Projects

The accounting treatment for P3 projects will be in accordance with the accounting policies and reporting practices of GOA, which follow the recommendations of the Public Sector Accounting Board of the Canadian Institute of Chartered Accountants.

The accounting treatment for P3s will:

- Be open and transparent;
- Promote accountability by providing information to assess the Government's use of resources and its financial position; and
- Follow the nature of the transaction. The intent is to capitalize all P3 transactions that meet the criteria for treatment as a capital lease.

### Third Party Revenues

Third party revenues arrangements will be considered as long as the associated uses are compatible with the GOA/SIO use of the infrastructure.

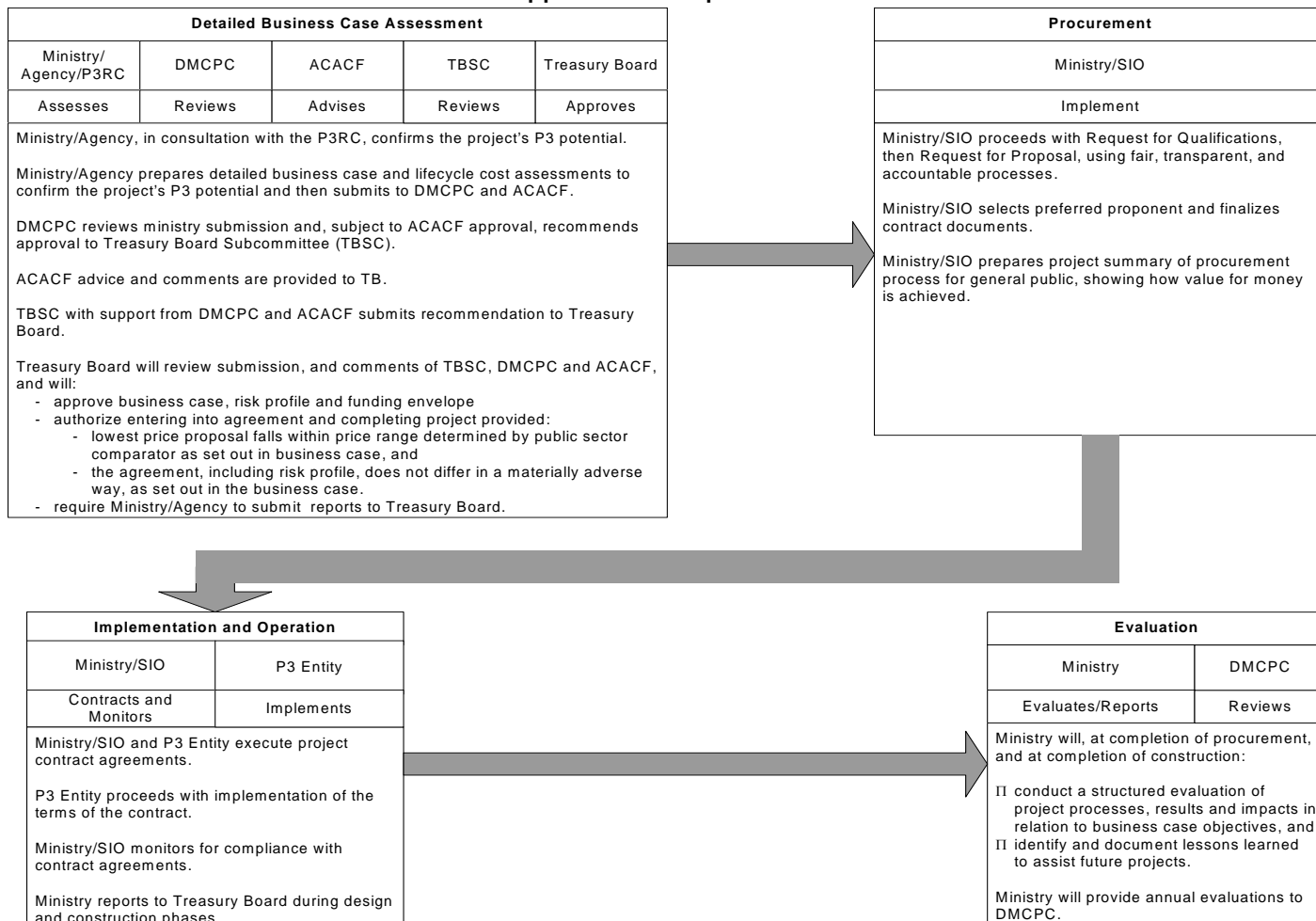
### Roles and Responsibilities

Cabinet	<ul style="list-style-type: none"> <li>• Approves GOA Capital Plan, which identifies those projects with P3 potential.</li> <li>• Authorizes Ministries to proceed to procurement phase for P3 projects.</li> </ul>
Treasury Board	<ul style="list-style-type: none"> <li>• Recommends the inclusion of projects with P3 potential in the GOA Capital Plan.</li> <li>• Reviews detailed P3 business case assessments and approves P3 projects to proceed to the procurement phase based on the risk profile and the cost estimate presented in the business case.</li> <li>• Receives status reports on individual P3 projects.</li> </ul>
Treasury Board Subcommittee (TBSC)	<ul style="list-style-type: none"> <li>• Review Capital Plan P3 projects.</li> <li>• Provide Treasury Board with recommendation on P3 projects, detailed business case and risk profile.</li> </ul>
Advisory Committee on Alternative Capital Financing (ACACF)	<ul style="list-style-type: none"> <li>• Provides advice and recommendations to Treasury Board on P3 capital projects and supporting business cases.</li> </ul>
Program Ministries	<ul style="list-style-type: none"> <li>• Review all proposed projects greater than \$100 million for P3 potential.</li> <li>• Ensures projects are included in the Capital Plan.</li> <li>• Collaborate with Infrastructure and Transportation in completing feasibility analyses and detailed business case assessments for projects with P3 potential.</li> <li>• Collaborate with Infrastructure and Transportation in seeking Treasury Board approval to pursue a P3 procurement model, based on the risk profile and cost estimate presented in the business case analysis.</li> <li>• Collaborate with Infrastructure and Transportation during the procurement and implementation phases of P3 projects.</li> </ul>
SIOs	<ul style="list-style-type: none"> <li>• In consultation with Infrastructure and Transportation and program ministries, review proposed supported projects greater than \$100 million for P3 potential.</li> <li>• Collaborate with program ministry and Infrastructure and Transportation in completing feasibility analysis and detailed business case assessment for projects with P3 potential.</li> <li>• Support program ministry and Infrastructure and Transportation in seeking Treasury Board approval to pursue a P3 procurement model, based on the risk profile and cost estimate presented in the business case analysis.</li> <li>• Collaborate with program ministry and Infrastructure and Transportation during procurement and implementation phases of P3 project.</li> </ul>

<p>Infrastructure and Transportation</p>	<ul style="list-style-type: none"> <li>• Reviews all proposed projects, in collaboration with program ministries (where applicable), greater than \$100 million for potential P3s.</li> <li>• Ensures projects are included in the Capital Plan.</li> <li>• Completes, in collaboration with program ministry where applicable, feasibility analysis and detailed business case assessments for projects with P3 potential.</li> <li>• Seeks Treasury Board approval, with support of the program ministry (where applicable), to pursue a P3 procurement model based on the risk profile and cost estimate presented in the business case.</li> <li>• Oversees the procurement and implementation phases, in collaboration with program ministries (where applicable), of the P3 project and contracts.</li> <li>• Prepares and issues P3 implementation documents in accordance with Treasury Board approval, and pursues a competitive, equitable, transparent, accountable, and timely selection process.</li> <li>• Undertakes, with program ministries (where applicable), a post-implementation review of the P3 project, identifies lessons learned, and makes appropriate adjustments for future P3 projects.</li> </ul>
<p>Finance</p>	<ul style="list-style-type: none"> <li>• Advises Treasury Board on options to fund the Capital Plan and capital financing alternatives, including P3s.</li> <li>• Advises Treasury Board on feasibility and value for money of proposed P3 projects.</li> <li>• Provides advice to Infrastructure and Transportation and program ministries on structuring and evaluation of the financial terms for P3 projects.</li> <li>• Provides assistance during procurement and implementation phases of P3 project.</li> </ul>
<p>Justice</p>	<ul style="list-style-type: none"> <li>• Provides advice to Infrastructure and Transportation on contract and other legal issues.</li> <li>• Provides advice to Infrastructure and Transportation and program ministries on structuring and evaluation of legal terms for P3 projects.</li> <li>• Provides assistance during procurement and implementation phases of P3 project.</li> </ul>
<p>Deputy Ministers' Capital Planning Committee (DMCPC)/ Capital Planning Initiative (CPI) Working Committee</p>	<ul style="list-style-type: none"> <li>• Reviews and makes recommendations on feasibility of proposed P3 projects.</li> <li>• Recommends capital budget scenarios including potential P3 projects to Treasury Board Subcommittee on Capital Planning.</li> <li>• Reviews detailed business case assessments for all proposed P3 projects and makes recommendations to the Treasury Board Subcommittee.</li> </ul>
<p>P3 Review Committee (P3RC)</p>	<ul style="list-style-type: none"> <li>• Identifies projects with P3 procurement potential for the approved Capital Plan.</li> <li>• Provides advice to DMCPC on P3 procurements</li> </ul>

### Approval and Implementation

#### Approval and Implementation



### Agreement Award

All Agreements shall be awarded in accordance with the department Expenditure Officer Authority Guidelines provided that the successful proposal falls within the price range determined by the Public Sector Comparator (PSC) approved by Treasury Board and the Agreement, including the risk profile, does not differ materially from that approved by Treasury Board.

### Material Changes

Material changes would include:

- The retention of a risk originally approved to be transferred to the private sector.
- Changes in ownership of the capital asset.
- Changes to financing, payment or revenue mechanisms.

If these conditions are violated, the award of the Agreement must be referred back to Treasury Board for re-approval.

Changes in project scope that result in the deletion or addition of capital work that changes the PSC initial capital cost by +/- 15% need to be reassessed for value for money (Section 5) and resubmitted for approval.

### Feasibility Analysis

The feasibility analysis is a preliminary analysis that provides evidence that the project has sufficient potential to provide value for money when compared to a traditional procurement process. The results of the feasibility analysis are reported in the Opportunity Paper. The Opportunity Paper is used by the P3 Review Committee (P3RC) to recommend which projects are suitable for P3s and should proceed to the development of a detailed Business Case.

#### P3 Characteristics

A Government of Alberta P3 contract has the following characteristics;

- The provision or enhancement of capital assets and associated services by a private sector "operator".
- A long term service contract between the public sector body and the operator.
- Annual payments which cover investment, operations, maintenance and/or services.
- The integration of design, building, financing and operation by the operator.
- The allocation of risk to the party best able to manage and price it.
- Service delivery measured against performance standards set out in a performance or output specification.
- A performance related payment mechanism.

Because a P3 is characterized by a long term whole-of-life commitment by the private sector to deliver and maintain new or expanded public infrastructure, it will only be suitable for certain types of investment. The feasibility of any potential P3 must be assessed to ensure that its use is appropriate in the given circumstances.

#### Prerequisites

In assessing the feasibility of the use of a P3 the following criteria must be satisfied;

- Capital project of a sufficient size and complexity (greater than \$100 million).
- Provision of the capital asset can be defined in a performance or output specification.
- There are significant associated ongoing operation, maintenance and/or service requirements.
- The long term operation or service needs can be clearly defined in a performance or output specification.
- The performance requirements must be relatively stable throughout the duration of the contract or changes need to be predictable upfront.
- Payment (and/or revenue) can be tied to performance.
- A fair, accountable and transparent selection process can be used.
- It can be demonstrated that the P3 approach is likely to offer greater value for money to the Government or SIO compared to other forms of procurement.

In addition the P3 approach should satisfy the following criteria:

- The private sector has the expertise to deliver.
- There is sufficient interest in the private sector to compete for the project (minimum of 3 qualified proponents desirable).

- The bundling of design, build and operate will likely result in an expedited completion of the capital asset, and will likely result in innovation, reduced cost and reduced duplication in the assumption of risk.
- On-time/on-budget delivery and protection against scope creep is important.
- The nature of the assets and services are capable of being costed on a whole of life, long term basis. Investments with a time horizon of 5-10 years is unlikely to benefit from a P3 approach.
- Risk allocation can be clearly determined.
- Competitive private sector financing can be obtained, and the cost of private sector financing will be offset by delivery and/or user savings.

The use of a P3 will be unsuccessful where;

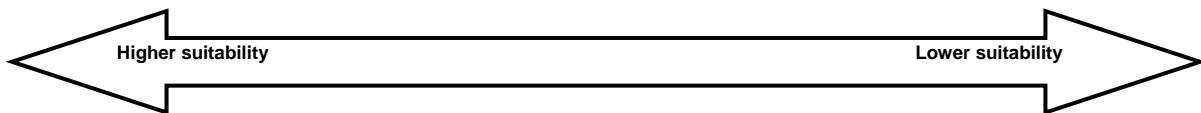
- Accountability in public service could not be met, as in most forms of frontline service delivery.
- Private sector investment is not available or cannot be obtained at an acceptable cost.
- The transaction costs of pursuing the P3 are disproportionate compared to the value of the investment.
- The fast pace of technological change make it too difficult to establish long term requirements, such as Information Technology.
- High levels of systems integration make risk allocation difficult.
- The form of the capital asset will be chosen through a design competition.
- There are substantial regulatory or legal restrictions on the provision of the service.
- There is insufficient support within the department (and SIO) to champion and resource the P3 procurement.

### Asset Class Suitability

The general suitability of various infrastructure asset classes for a P3 procurement has been assessed based on the current Government of Alberta fiscal, legal and administrative regimes. This asset class spectrum is indicative only; individual projects must be assessed independently as project specific factors will make them more or less suitable to a P3 approach.



- |   |  |  |  |  |   |  |  |   |
|---|--|--|--|--|---|--|--|---|
| <ul style="list-style-type: none"> <li>• Proven model</li> <li>• Well defined requirements</li> <li>• Stable long term O&amp;M</li> <li>• Innovation and economies of scale</li> <li>• Low financial risk</li> <li>• Government payment stream</li> </ul> | <ul style="list-style-type: none"> <li>• Defined and stable functional requirements</li> <li>• Defined and stable program requirements</li> <li>• Stable long term O&amp;M</li> <li>• Government payment stream</li> <li>• Lessons learned</li> <li>• Deal flow</li> </ul> | <ul style="list-style-type: none"> <li>• Defined performance criteria</li> <li>• Stable long term O&amp;M</li> <li>• Low financial risk</li> <li>• Government payment stream</li> <li>• Expansion requirements</li> <li>• Limited innovation and economies of scale</li> </ul> | <ul style="list-style-type: none"> <li>• Defined and stable operating and performance criteria</li> <li>• Utility type function</li> <li>• Jurisdictional issues (municipal)</li> <li>• Need GoA payment guarantee</li> <li>• Asset ownership</li> </ul> | <ul style="list-style-type: none"> <li>• Specialized program and functional requirements</li> <li>• One-off buildings</li> <li>• Architectural/design competition</li> <li>• Long term performance criteria change</li> <li>• Technology change</li> <li>• Severance of operations and maintenance</li> <li>• Limited deal flow</li> </ul> | <ul style="list-style-type: none"> <li>• Building complexity</li> <li>• Premature obsolescence</li> <li>• Technological change</li> <li>• Jurisdictional issues</li> <li>• Need GoA payment guarantee</li> <li>• Severance of operations and maintenance</li> <li>• Limited deal flow</li> <li>• Asset ownership</li> </ul> | <ul style="list-style-type: none"> <li>• Limited economy of scale</li> <li>• Premature obsolescence</li> <li>• Size/bundling</li> <li>• Program inconsistency</li> <li>• Jurisdictional issues</li> <li>• Need GoA payment guarantee</li> <li>• Severance of operations and maintenance</li> <li>• Limited deal flow</li> <li>• Asset ownership</li> </ul> | <ul style="list-style-type: none"> <li>• Partial GoA funding</li> <li>• Specialized technology</li> <li>• Technological change</li> <li>• Building complexity (labs)</li> <li>• Jurisdictional issues</li> <li>• Need GoA payment guarantee</li> <li>• Limited deal flow</li> <li>• Asset ownership</li> </ul> | <ul style="list-style-type: none"> <li>• Latent defects</li> <li>• Unforeseen risks</li> <li>• Limited deal flow</li> </ul> |
|---|--|--|--|--|---|--|--|---|
- \* e.g. general office space, warehouses, training centres, maintenance facilities etc.  
 \*\* signature buildings e.g. museums, galleries, interpretative centres, courts etc.



## Value for Money

A P3 should only be used where it offers the best value for money and not necessarily the least cost. Value for money is a combination of whole life cost and quality to meet the user requirements. In establishing value for money it is necessary to ensure that;

- There is no bias in evaluating procurement options.
- Quality standards can be maintained and the long term viability of a P3 service provider can be expected.
- A full evaluation of costs and benefits on a whole life basis is undertaken including an assessment of risk.

## Public Sector Comparator (PSC)

A PSC can be defined as an estimate of the hypothetical risk adjusted cost (using net present value), if a project were to be financed, owned and implemented by government (i.e. the full and true cost to government for meeting the output specification under a traditional procurement delivery method).

Wherever possible, the costing for the PSC is based on previous infrastructure projects. Alberta Infrastructure and Transportation can provide benchmark costing that may help in identifying the costs. These costs should include the internal cost of undertaking the project. The PSC is used to establish the full and true cost of providing a facility and/or a service under a traditional

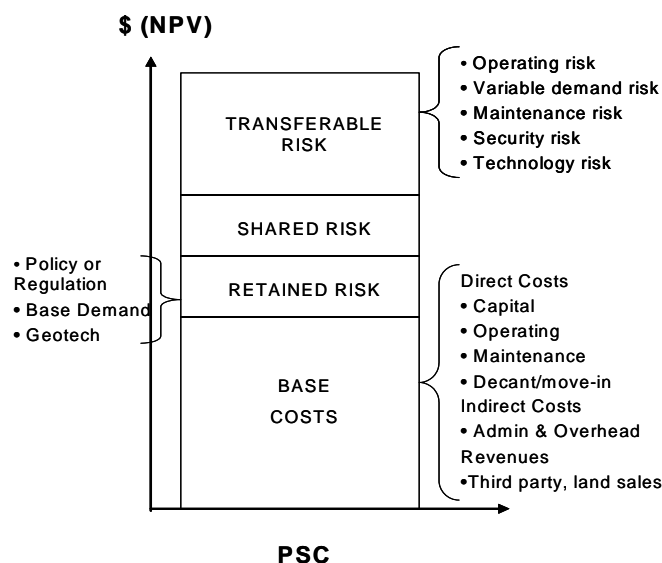


procurement model. It will serve as a “benchmark” to evaluate the P3 alternative and to examine the impacts of changing key project parameters and assumptions such as output specifications and risk allocation.

## Components of the PSC

- Base Costs – represents the base cost to government of producing and delivering the project including those costs associated with the design, construction and operation. In addition it should include those periodic costs associated with the delivery of services (e.g. major maintenance, rehabilitation and replacement of components).
- Transferable Risk – those risks that are likely to be transferred to the private sector because they are best able to manage the risk at least cost.
- Retained Risk – those risks that government proposes to bear itself.
- Shared Risk – those risks that are jointly shared with government and private sector.
- The PSC is the Net Present Value (NPV) of each component added together to establish the total net present value of a traditional procurement.

Note: Alberta Finance should be consulted for further understanding/clarification around NPV.



Early, rigorous and realistic analysis of risk allocation is needed to achieve efficiencies in the P3 procurement. Section 6 provides guidance on risk identification.

A risk register (Section 6) should be developed during the feasibility analysis and updated as the project moves through the approval process.

## Shadow Bid

While the PSC establishes a benchmark for comparison purposes, the PSC alone does not allow an estimation of potential P3 costs/benefits.

As part of the feasibility analysis, a P3 financial model(s) is developed to estimate the potential costs and to identifying areas where expected benefits could occur. This Shadow Bid is developed by modeling the project as if it were delivered as a P3 procurement. A comparison

between the PSC and Shadow Bid can identify areas where expected value for money could occur, and would be the basis for determining whether to proceed with a P3 delivery model.

The shadow bid can be used:

- As part of the value for money assessment of the P3 in a comparison of the PSC.
- As a benchmark to assess the RFP submissions in the procurement phase.

The competitive multi-stage/low price proposal approach eliminates the need for a shadow bid at financial submission and evaluation. The competitive pricing will indicate the true market price for the project. A shadow bid may have some value when qualitative criteria are used depending on the price/quality weighting, and must be used if a best and final offer approach is adopted.

### Life Cycle Cost Analysis

Both the PSC and Shadow Bid will be based on a full life cycle cost analysis. All costs and expected benefits resulting from each alternative should be analyzed for each viable alternative. This methodology provides a total cost picture and includes both capital and operating expenditures. The analysis should identify one-time costs of establishing the partnership, including the procurements process, as well as costs associated with monitoring the contract and liaising with the partner through the life of the contract.

Early assumptions around preliminary planning, architectural and design work, and financial projections will be required to complete these cost estimates. These estimates should only be high-level and not overly complex at this stage but should be supported by previous procurements wherever possible. Typically, the cost estimates will be based on functional program level studies. The assumptions will be further refined in the business case (Appendix 2). At the business case stage the project definition will typically include pre-design studies such as; the finalized functional design, preliminary design, project concept definition and/or schematic design. Detailed design should not be started.

### Timeframe:

The appropriate analysis timeframe should be used based on the type of capital project being considered (e.g. 30 years for roads)

### Costs:

Identify all relevant costs over the chosen project timeframe. These may include:

Capital Items:

- Construction
- Property, plant, and/or buildings
- Land / facility assets
- Specialized machinery / equipment
- Information technology / specialized software
- Fixtures and furnishings
- Change orders / scope changes
- Demolition / site preparation
- Decanting / occupant placement costs

### Annual Operating Items:

- Program salary and benefits
- Program supplies and services
- Lease payments
- Facility operating and maintenance
- Administration costs

### Cyclical Items:

- Repairs and maintenance
- Information technology / software upgrades
- Fixtures and furnishings

### Receipts:

- 3rd party lease revenue
- Parking or other revenue
- Gain on sale of land and/or buildings
- Grants / donations

### Residual Value:

- Buildings
- Land
- Machinery and Equipment
- Loss on sale of land or buildings

Consideration should be given to when the costs will be incurred, who will incur the costs and certainty of costs.

### Benefits:

Benefits should include both agency and user benefits and may include.

- Early completion
- Capital savings
- Operational savings
- Revenue generation
- User cost savings
- Innovation
- Reduced environmental impacts

Consideration should be given to when the benefits will be achieved, who will be the recipient of the benefits and certainty of benefits.

### Sensitivity Analysis

The life cycle cost analysis should only be conducted using high-level estimates at the feasibility stage, supported wherever possible by past procurements. Overly complex modeling should be avoided at this stage due to the inherent uncertainties. The quantitative assessment will be developed further during the preparation of the Business Case.

The estimated NPV life cycle cost will be based on a number of assumptions. A sensitivity analysis should be undertaken to show the effects of different assumptions on the relative value for money of the procurement options. This analysis should be used to identify the changes in assumptions that are significant enough to change the recommendations. The analysis should assess the change to one or other of the procurement options (traditional or P3) but not both at the same time. The assessment should also identify which assumptions are most likely to change, the level of uncertainty and whether these assumptions are significant in the value for money estimate.

The sensitivity analysis should also recognize that not all risks would occur simultaneously. Expert advice in risk modeling should be obtained to determine the best method to use for the specific project.

### Opportunity Paper

The findings of the quantitative and qualitative feasibility assessment are presented in the P3 Opportunity Paper. The document template is provided in Appendix A.

The Opportunity Paper contains;

- Project Description.
- Strategic Alignment (including alignment to the Capital Plan and commentary on how well the project meets the scope of GOA P3's).
- Business and Operational Impact (including how the project meets the P3 prerequisites).
- Preliminary allocation of risk.
- Cost/benefit Analysis (preliminary PSC and Shadow Bid, and sensitivity analysis)
- Project Schedule and Team
- Conclusion and Recommendation

### Acknowledgements

1. Value for Money Assessment Guideline. HM Treasury, U.K., August 2004.
2. Responsible PPP Procurement for British Columbia. The Canadian Council for Public-Private Partnerships. April 2005
3. Working with Government, guidelines for Privately Financed Projects. New South Wales Government, Australia. November 2001.

### Risk Identification

When undertaking a P3 project it is critical to understand all factors or events that may jeopardize the proponents' ability to achieve the anticipated benefits of the project, or that may increase the cost of the project. These factors or events are project risks. It is essential to assess the probability and impact of each category of risk, and to determine how each risk will be mitigated or managed. The private sector should be consulted to properly identify and allocate risk.

There are many ways of categorizing risk but the purpose is to clearly define risks and select appropriate risks to transfer to the private sector. These are the risks that the private sector can price, mitigate and/or insure. The government should retain those risks that it can manage more effectively than the private sector. Risks that are outside the control of either party should be shared.

The inappropriate transfer of risk to the private sector will impact the value for money offered by a P3. Transferring risk that the private sector should not carry will result in cost premiums; retaining risks with the government that should be transferred or shared will reduce private sector incentive.

The business case template (Appendix B) includes a table of typical risks for a Government of Alberta P3 project but must not be relied upon as a substitute for proper analysis. The identification, allocation and management of risk will ultimately be considered project by project.

#### Potential Project Risks

Potential risks may be categorized as;

- Site risk including physical suitability, availability, environmental, historical resources, statutory approvals, traditional land use, geotechnical.
- Design, construction and commissioning risk.
- Contractual risk including that the private sector party (usually a special purpose vehicle created by a consortium) its sub-contractors or the government/SIO will not fulfill their contractual obligations.
- Financial risks including that private financing will not be available, that the project cannot be financed competitively, changes in the financial parameters before financial close or that the project fails financially later.
- Operating and performance risk.
- Industrial relations risk.
- Demand or usage risk.
- Asset ownership risk including latent defect, obsolescence, upgrade, residual and force majeure.
- Change in law.

#### Acknowledgement

1. Working with Government, guidelines for Privately Financed Projects. New South Wales Government. Australia. November 2001.

### Unsolicited Proposals

Alberta Infrastructure and Transportation will accept unsolicited proposals, usually through SIOs.

In addition to meeting all the criteria identified in Section 5, Feasibility Analysis, the unsolicited proposal must satisfy;

- The need for the project must be clearly demonstrated and must reflect government priorities (Capital Plan).
- The project must be clearly defined and based on a sound business case.
- The proponent is qualified to enter into a P3 arrangement.
- The P3 arrangement must clearly show how the risks are shared between the proponent, SIO and the department.
- The proposal must be supported by the SIO and program ministry.

A fair, transparent and accountable review and selection process will be used;

- The P3RC will determine if the proposal is in the public interest as demonstrated through the Opportunity Paper.
- The P3RC will determine whether another proponent is interested in entering into a competitive process to provide the same facility or service. To do so, the department may issue a Request for Expressions of Interest (REOI). The REOI will protect the initial proponent's proprietary information.
- If there are other interested proponents, P3RC will advise the SIO/proponent that the competitive procurement process will be followed.
- If there is no other proponent is interested the SIO/proponent will be advised to provide a full business case analysis. Upon approval of the business case, the department would negotiate with the proponent using the PSC and Shadow Bid as its value for money benchmarks.
- If after review by the P3RC, the proposal is not deemed supportable, the P3RC will inform the SIO, program ministry and proponent that either the proposal does not meet the established criteria (with reasons) or what additional information is required to complete the analysis.

### Business Case

The business case is an in-depth analysis that provides evidence that the project should provide value for money when compared to a traditional procurement process and that the project warrants proceeding to market as a P3 procurement. The business case is used to obtain support from the external Advisory Committee on Alternative Capital Financing and Treasury Board approval to proceed with the project as a P3.

The business case builds upon the Opportunity Paper but must be able to stand alone as a complete justification for the recommended procurement approach. The focus of the business case is on further developing the assessment and allocation of risk, the cost/benefit analysis and procurement implementation strategy.

Industry consultation, possibly through the issuance of a Request for Expression of Interest, is advisable to ascertain private sector interest.

#### Cost Benefit Analysis

Expert assistance will likely be required for the detailed cost/benefit analysis. This may be from within the department, such as Cost Management, Capital Projects Division, or by external advisors. Any external advisors, e.g. financial, contractors or engineers, would be excluded from participating on proponent teams.

#### Public Sector Comparator:

Wherever possible, the costing for the public sector comparator (PSC) is based on previous infrastructure projects. Alberta Infrastructure and Transportation can provide benchmark costing that may help in identifying the costs. These costs should include the internal cost of undertaking the project. The public sector comparator alternative is used to establish the full and true cost of providing a facility and/or a service under a traditional procurement model. It will serve as a "benchmark" to evaluate the P3.

The PSC is an extension of the preliminary analysis completed during the feasibility assessment

#### Shadow Bid:

The PSC establishes a benchmark for comparison purposes. However, the PSC alone does not allow an estimation of potential P3 costs/benefits. As part of the Detailed P3 Analysis, the detailed Shadow Bid is developed to estimate the potential costs and to identifying areas where expected benefits could occur. This Shadow Bid is developed by modeling the project as if it were delivered as a P3 procurement. The analysis should include one-time costs of establishing the partnership, including the procurements process, as well as, costs associated with monitoring the contract and liaising with the partner through the life of the contract.

The detailed shadow bid should be prepared with the assistance from experts in financial modeling, cost management and project delivery. Private sector advisors may be used but they cannot then participate on a Proponent team.

The shadow bid is an extension of the preliminary analysis completed during the feasibility assessment

### Sensitivity Analysis

The estimated NPV life cycle cost will be based on a number of assumptions. A sensitivity analysis should be undertaken to show the effects of different assumptions on the relative value for money of the procurement options. This analysis should be used to identify the changes in assumptions that are significant enough to change the recommendations. The analysis should assess the change to one or other of the procurement options (traditional or P3) but not both at the same time. The assessment should also identify which assumptions are most likely to change, the level of uncertainty and whether these assumptions are significant in the value for money estimate.

The sensitivity analysis is an extension of the preliminary analysis completed during the feasibility assessment. A probabilistic analysis is likely appropriate at the time of the business case. Expert advice in risk modeling should be obtained to determine the best method to use for the specific project.

### Business Case

The document template is provided in Appendix B.

The Business Case generally follows the Alberta government standard template and contains;

- Executive Summary.
- Business Need and Project Description
- Strategic Alignment
- Business and Operational Impacts
- Project Risk Assessment
- Value Analysis (including detailed PSC, Shadow Bid and sensitivity analysis)
- Conclusions and Recommendations
- Implementation Strategy
- Review and Approval



### Procurement Related Disclosure

The Alberta government is committed to open, transparent and accountable procurement. The aim is to disclose as much as possible in the public interest without impacting the government's ability to generate value for money for taxpayers.

While the goal of transparency in P3's is important, openness must not harm the competitive process, the government's negotiating position and must not discourage bidders.

#### Disclosure Guidance

Disclosure of any documents related to the assessment and approval of a P3 capital infrastructure project shall be in accordance with the current version of Alberta Infrastructure and Transportation's P3 Management Framework: Procurement Process.

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# Appendix A

## P3 Opportunity Paper Template

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**NOTE TO READER:**

This document is to be used to assess the potential of using P3 procurement for a capital project and is the first of several steps required to obtain P3 approval. It is to be completed for all projects that may have P3 potential prior to inclusion in the Capital Plan and for unsolicited P3 proposals.

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    Preliminary Shadow Bid ..... 4

    Value for Money ..... 4

Preliminary Project Schedule and Team ..... 4

Conclusion & Recommendation ..... 4

## Section

## 1

## Project Description

**[Project Name]**

Provide a brief description of the project including:

- a) A brief description clearly defining the problem or opportunity the project will address;
- b) A brief description of the project and how it will address the business problem/opportunity;
- c) An outline of the program and infrastructure objectives of the project;
- d) Brief description of what is in scope;
- e) Brief description of what is out of scope; and
- f) Identify stakeholders that are involved or impacted by the project.

## Section

## 2

## Strategic Alignment

Describe how the project aligns with the Capital Plan and the government, department, program ministry and Supported Infrastructure Organization strategic directions.

Outline why undertaking a P3 approach will further support the strategic alignment.

Describe how well the project meets the scope of a Government of Alberta P3:

- Require GOA capital or operating financial support
- Opportunity for private financing
- Provision of capital assets and associated long term services
- The capital project of sufficient size and complexity

## Section

## 3

## Business &amp; Operational Impact Assessment

Assess the P3 potential of the project in terms of business and operational impacts using the following criteria:

**Technical**

- Does the project have any inherent technical constraints that cannot be solved by a private/not for profit sector partner?
- Can the public sector develop appropriate performance/output specifications for the project?
- Can appropriate mechanisms be established to monitor the private/not for profit sector partner's performance?

- How will the bundling of design, build and operate result in expedited completion of the capital asset and reduced costs?
- Can payment and/or revenue be tied to performance?
- Does the project offer opportunities for innovation by a private sector partner?
- Is the project free of jurisdiction and liability issues that prevent a public body from using a P3 approach?

#### **Operational**

- Can a public sector organization develop appropriate operating standards for the project?
- Are there any operational and accountability issues that cannot be realistically addressed by a private/not for profit sector partner?
- Can the private/not for profit sector partner be held accountable for appropriate performance?

#### **Acceptability**

- Is there potential for objections to the use of a P3 approach and the involvement of a private/not for profit sector partner in the project by the public, elected officials, public sector staff, unions or other stakeholders?
- Where applicable, is the use of a P3 supported by the Supported Infrastructure Organization (SIO)?

#### **Implementation**

- Does the private sector have the expertise to deliver?
- Is there sufficient interest in the private sector to generate meaningful competition in P3 procurement?
- Can a fair, accountable and transparent selection process be used?
- Can an internal project champion be found?
- Can the project champion access the resources necessary to be a competent partner?
- Can a successful transition plan be developed?

#### **Timing**

- Are the timelines adequate to develop operating specifications, contract documents and to undertake a P3 solicitation and evaluation?
- Can the issues raised in the items above be addressed in the project timelines?

## Section

# 4

## Preliminary Project Risk Assessment

Provide a preliminary risk profile and allocation identifying which risks will be;

- transferred to the private sector
- shared and
- retained by the public sector

Identify how the P3 approach may lead to more effective risk management. Also identify all risks that may relate to undertaking the project as a P3. Where possible indicate potential mitigation strategies.

## Section

# 5

## Preliminary Cost/Benefit Analysis

### Preliminary Public Sector Comparator

Prepare a cost estimate based on the assumption that the project is carried out by the traditional methods of providing the proposed facilities and program delivery.

## Preliminary Shadow Bid

Identify opportunities where the P3 may result in achieving:

- a) cost savings
- b) improved efficiency
- c) improved quality of service
- d) impact on the timeline for implementation
- e) innovations

Prepare an initial shadow bid modeling the project as if it were delivered as a P3.

## Value for Money

Both the PSC and Shadow Bid will be full NPV life-cycle cost analyses.

Early assumptions around preliminary planning, architectural and design work, and financial projections will be required to complete these cost estimates. These estimates should only be high-level and not overly complex at this stage but should be supported by previous procurements wherever possible. The assumptions will be further refined in the business case.

Provide an initial sensitivity analysis identifying the key assumptions that are significant enough to change the value for money estimate.

### Section

## 6

## Preliminary Project Schedule and Team

Provide an overview of the project schedule, including key milestones.

Provide an overview of the implementation schedule for both traditional procurement and P3 procurement.

Identify the Project Champion and the likely resources required to procure the project as a P3.

### Section

## 7

## Conclusion & Recommendation

Provide a conclusion as to why undertaking the project as a P3 will or will not result in the most effective and efficient approach to achieving the objectives of the project from both a program delivery and infrastructure view.

Identify specific recommendations that are required to move the project forward.

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# Appendix B

## P3 Business Case Template

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**NOTE TO READER:**

This document is to be used to justify a P3 approach to a project. Projects should have government commitment through the Capital Planning Process. It is an extension of the analysis and ideas submitted in the P3 Opportunity Paper.

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## Section

## 1

# Executive Summary

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## [Project Name]

**Purpose of an Executive Summary:**

The purpose of an Executive Summary is to provide a concise summary of the key highlights of the P3 Analysis. The reader should have a brief description of the project and understand how the project improves the overall efficiency and/or effectiveness of the public sector if delivered by a P3 procurement method.

**Description:**

While the Executive Summary appears at the beginning of the P3 analysis, it is written last.

The Executive Summary will describe the objective of the project, the current state of the problem and the resulting P3 opportunity. It outlines the scope of the project, provides a brief description of the business impact, and the risks of undertaking the project as P3 procurement. Finally, it concludes with recommendations and the financial impact of the project. This summary should also be written with the media in mind as this is often the only part of a report that the media read. The Executive Summary is also often used to prepare a press release.

The summary should be a maximum of 2 pages in length.

**Checklist for Executive Summary:**

1. Does it provide an overall summary of the contents of the P3 Analysis?
2. Does it contain any information that is not contained in the body of the P3 Analysis? (should not)
3. Is the Executive Summary less than 2 pages?
4. Can the Executive Summary be treated as a stand-alone document?

## Section

## 2

## Business Need &amp; Project Description

## Business Problem / Opportunity

Briefly, outline the underlying business problem or opportunity that the project will address. This may originate from either a program or infrastructure perspective. For example, the need for a new building may be based primarily on increasing cost to maintain or may be primarily based on supporting a program need. Include both program and infrastructure needs.

## Project Description

Describe the project. Include how the project will address the business problems/opportunity.

## Project Objectives

This section outlines what the project will accomplish, in clear and measurable terms within a specified time frame.

## Scope

This section defines parameters of the project, including cost, time, tasks and results.

## Out of Scope

This section includes items that are specifically excluded from the project from both a program and infrastructure perspective.

## Stakeholders

Identify any stakeholders that may only be involved in certain procurement alternatives. Include any information that may indicate the level of interest from the private sector to participate in a P3 approach.

## Project Team

Identify the proposed project team that will be responsible for the project. Identify any prior P3 procurement experience.

**Checklist for Business Need & Project Description Section:**

1. Is it clear what the project will accomplish from both a program and infrastructure perspective?
2. Are the general project elements understood in enough detail to provide the reader with adequate context?
3. Is it clear what is not included in the project and what it will not accomplish from both a program and infrastructure perspective?

## Section

## 3

## Strategic Alignment

**Purpose of the Strategic Alignment Section:**

The reason for writing the Strategic Alignment Section is to provide the reader with an understanding of how the project aligns with the Capital Plan and the overall business plan of the ministry. The project should align with the business plan goals for Alberta Infrastructure and Transportation and, where appropriate, the program ministry and/or Supported Infrastructure Organization (SIO). This section should clearly identify that the project is supported by all stakeholders and contributes to their long-term business direction and strategy. The section also identifies how a P3 would further support the goals of the department, program ministry/SIO and why other forms of alternate financing, such as capital bonds or debt financing are not appropriate.

**Description:**

Review the business plans of all internal stakeholders and identify specific goals that the project will help achieve. Identify the extent to which the project will help achieve the various business plans' goals by scoring it using the following guidelines:

- 1 indicates a high extent.
- 2 indicates a medium extent.
- 3 indicates a relatively low extent.

Goal from Ministry Business Plan	Level of extent	Explanation (if required)

Describe why undertaking a P3 approach will further support the strategic direction.

Describe how well the project meets the scope of a Government of Alberta P3. Describe why other alternatives to traditional procurement and financing (e.g. capital bonds) are not appropriate.

**Checklist for Strategic Alignment:**

1. Have business plan goals from both AIT and the program ministry/SIO been included?
2. For goals that have been assigned a high level of impact, is the project truly critical to achieving the goal?
3. Does the explanation support the evaluation of how the project impacts the goal?
4. Does the project align with the current Capital Plan, business strategy and business plan?
5. Will there be support for this project using a P3 approach?
6. Does the explanation support the elimination of other forms of alternative capital funding?

Section

4

# Business & Operational Impacts

**Purpose of the Business & Operational Impacts Section:**

The Business & Operational Impacts Section provides the reader with a list of all business and operational impacts for each stakeholder. Each impact is described and analyzed for each alternative (P3 and traditional).

**Description:**

For each stakeholder (outlined in Section 2) identify all impacts from the project. For a capital project these will include the following categories of impacts: technical, operational, acceptability, implementation and timing.

For each impact identify the magnitude of impact (high, medium, low, or none) for each alternative using the following guidelines:

**High** indicates that the magnitude of impact is significant and stakeholder support and preparation is critical to the alternative's success

**Medium** indicates that there is a manageable impact to the stakeholder

**Low** indicates the alternative will have a minor impact to the stakeholder

**None** indicates that the stakeholder will not be impacted by the alternative

If necessary, document the rationale for the evaluation.

Impact & Description	Alternative 1	Alternative 2	Alternative 3
<b>Stakeholder 1:</b>			
Technical Impacts			
Operational Impacts			
Acceptability Impacts			
Implementation Impacts			
Timing Impacts			
<b>Stakeholder 2:</b>			

**Checklist for Business & Operational Impacts Section:**

1. For each stakeholder, have all business & operational impacts been identified?
2. Has the magnitude of impact been accurately evaluated for each alternative?
3. Have all stakeholders been considered?
4. Have risks that specifically relate to each alternative been included?

## Section

## 5

## Project Risk Assessment

**Purpose of the Project Risk Assessment Section:**

The Project Risk Assessment Section provides the reader with an understanding of the risks that are related to the P3 and traditional model alternatives and how these risks may vary by viable alternative. This section includes a risk mitigation strategy for each risk.

**Description:**

Identify and allocate all risks that may relate to each alternative (P3, traditional). A risk is a factor or event that may jeopardize the project from achieving the anticipated benefits or increase the cost of the project.

**Risk Identification**

Project risks have been identified and categorized by other agencies. The following table provides a checklist in helping to identify the risks a project can present.

<b>Risk Category</b>	<b>Description of risk</b>
Commissioning risk	The risk that the infrastructure will not receive all approvals to satisfy an output specification, such as expected changes in legislation which allow for a specific output specification not materializing
Construction risk	The risk that the construction of the assets required for the project will not be completed on time, budget or to specification
Demand (usage) risk	The risk that actual demand for a service is lower than planned
Design risk	The risk that the proposed design will be unable to meet the performance and service requirements in the output specification
Environmental risk	The risks that the project could have an adverse environmental impact, which affects project costs not foreseen in the environmental impact assessment
Financial risk	The risk that the private sector overstresses a project by inappropriate financial structuring
Force majeure risk	An act occasioned by an unanticipated, unnatural or natural disaster such as war, earthquake or flood of such magnitude that it delays or destroys the project and cannot be mitigated
Industrial relations risk	The risk that industrial relations issues will adversely affect construction costs, timetable and service delivery
Latent defect risk	The risk that an inherent defect exists in the structure being built or equipment used, which is not identified upfront and which will inhibit provision of the required service
Operating risk (service under-performance)	The risks associated with the daily operation of the project, including an unexpected change in operation costs over budget
Performance risk	The risk that the operator will not perform to the specified service level, such as a power generator supplying less power than demanded
Change in law risk	The risk that the current regulatory regime will change materially over the project or produce unexpected results
Residual value risk	The risk that the expected realizable value of the underlying assets at the end of the project will be less than expected
Technology obsolescence risk	The risk that the technology used will be unexpectedly superseded during the term of the project and will not be able to satisfy the requirements in the output specification
Upgrade risk	The risks associated with the need for upgrade of the assets over the term of the project to meet performance requirements

Having identified and allocated the risks engendered by a project the next task is to establish the expected value of those risks. A possible approach to estimating the value of the risks could include assessing their costs and probability of the risks. These costs should be reflected in the Value Analysis Section.

For each risk, identify the probability of the risk occurring and the financial impact it may have on each alternative, using the following guidelines:

**Impact of Risk (\$)**

High indicates that the event has a significant impact to the project

Medium indicates that the event will impact the project

Low indicates that the impact is relatively minor to the project

None indicates that the risk will not impact the project

**Probability of Risk (%)**

High indicates that the event is high likely to occur

Medium indicates that the event is likely to occur

Low indicates that the event is not likely to occur

**Expected Value (\$)**

Is the weighted average of dollar value impacts

(i.e. [High Impact (\$) x High Probability (%)] + [Med Impact (\$) x Med Probability (%)] + [Low Impact (\$) x Low Probability (%)] = Expected Value (\$))

**Allocation**

Government – Government retains responsibility for managing the risk.

Private Sector – Risk is transferred to the Private Sector. They are responsible for managing the risk.

Shares – Government and Private Sector shares responsibility for managing the risk

If necessary, document the rationale for the evaluation. Typical risk to consider in capital projects would be: commission risks, construction risks, demand (usage) risks, design risks, environmental risks, financial risks, force majeure risks, industrial relations risks, latent defect risks, operating (service under-performance) risks, performance risks, change in law risks, residual value risks, technology obsolescence risks, and upgrade risks.

Risk	Impact (\$)			Probability (%)			Expected Value (\$)	Allocation
	High	Med	Low	High	Med	Low		
<b>P3</b>								
Risk 1 /Risk 1 Mitigation								
Risk 2 /Risk 2 Mitigation								
Risk 3 /Risk 3 Mitigation								
etc								
<b>Traditional</b>								
Risk 1 /Risk 1 Mitigation								
Risk 2 /Risk 2 Mitigation								
Risk 3 /Risk 3 Mitigation								
etc								

**Checklist for Project Risk Assessment**

1. Have all risks been identified?
2. Have all risks specific to each alternative been identified?
3. For each risk has the specifics of each alternative been taken into consideration when evaluating the probability and impact?
4. Has the value and allocation of each risk been supported?
5. Has a risk mitigation strategy been identified for unacceptable levels of risk?

## Section

## 6

## Value Analysis

**Public Sector Comparator:**

Wherever possible, the costing for the public sector comparator (PSC) is based on previous infrastructure projects. Alberta Infrastructure and Transportation can provide benchmark costing that may help in identifying the costs. These costs should include the internal cost of undertaking the project. The public sector comparator alternative is used to establish the full and true cost of providing a facility and/or a service under a traditional procurement model. It will serve as a “benchmark” to evaluate the P3.

The PSC is an extension of the preliminary analysis completed during the feasibility assessment

**Shadow Bid**

The PSC establishes a benchmark for comparison purposes. However, the PSC alone does not allow an estimation of potential P3 costs/benefits. As part of the Detailed P3 Analysis, the detailed Shadow Bid is developed to estimate the potential costs and to identifying areas where expected benefits could occur. This Shadow Bid is developed by modeling the project as if it were delivered as a P3 procurement. The analysis should include one-time costs of establishing the partnership, including the procurements process, as well as, costs associated with monitoring the contract and liaising with the partner through the life of the contract.

The detailed shadow bid should be prepared with the assistance from experts in financial modeling, cost management and project delivery. Private sector advisors may be used but they cannot then participate on a Proponent team.

The shadow bid is an extension of the preliminary analysis completed during the feasibility assessment

**Quantitative Analysis – Financial Cost & Benefit:****Full Life Cycle Cost Analysis**

The detailed analysis will include a full life cycle cost analysis. All costs and expected benefits resulting from the P3 alternative should be analyzed and compared to the costs and benefits of a PSC. This methodology provides the reader with a total cost picture and includes both capital and operating expenditures.

The full life cycle cost analysis is an extension of the preliminary analysis completed during the feasibility assessment.

Sample of a Summary Cost Benefit Template:

<b>Summary of Quantitative Cost/Benefit</b>	<b>PSC</b>	<b>P3</b>
Capital Items		
Annual Items		
Leases		
Program		
Building Operations		
Cyclical Items		
Receipts		
Residual Value		
<b>Total NPV over 25 years</b>		

Sample Costing Template for each Alternative:

Quantitative Analysis – Alternative 1	Year 0	Year 1	Year 2	...	Year 25
Capital Items:					
Planning and bridging					
Construction					
Building Purchases					
Land Purchases					
Specialized equipment					
Information Technology					
New Furnishings					
Change Orders/Scope Changes					
Annual Operating Items:					
Program Salary and Benefits					
Program Supplies and Services					
Leases					
Building Operations					
Cyclical Items:					
Building maintenance					
Information Technology					
Furnishings					
Receipts:					
3rd Party Lease Revenue					
Parking Revenue					
Sale of existing land					
Sale of existing buildings					
Residual Value:					
Buildings					
Land					
<b>Net Cost (Revenue):</b>					
<b>Net Present Value (X%):</b>					

Provide a projection of the total annual payments, including annual operating and maintenance costs, which would be incurred over the concession period and how these costs will be accommodated within the Ministry's Business Plan and the government's fiscal plan.

## Sensitivity Analysis

The estimated NPV life cycle cost will be based on a number of assumptions. A sensitivity analysis should be undertaken to show the effects of different assumptions on the relative value for money of the procurement options. This analysis should be used to identify the changes in assumptions that are significant enough to change the recommendations. The analysis should assess the change to one or other of the procurement options (traditional or P3) but not both at the same time. The assessment should also identify which assumptions are most likely to change, the level of uncertainty and whether these assumptions are significant in the value for money estimate.



## Qualitative Analysis – Non-Financial Benefits & Costs:

Some of the costs and benefits may not be quantifiable (difficult to attach a dollar value).

Examples of non-financial benefits typically associated with a P3 alternative are:

- Improved service quality
- Increased innovation resulting in more effective and/or efficient delivery of service
- Additional social and economic benefits
- Risk transfer as a benefit

Examples of non-financial costs typically associated with a P3 alternative are:

- Loss of control or accountability
- The change associated with partnering
- Loss of in-house expertise
- Risk transfer as a liability

All non-financial benefits and costs should be outlined for each alternative

Qualitative Summary	Description	Stakeholder(s) Impacted
<b>Benefits:</b>		
Benefit 1	Description of benefit 1	
Benefit 2	Description of benefit 2	
<b>Costs:</b>		
Cost 1	Description of Cost 1	
Cost 2	Description of Cost 2	

## Assumptions

All assumptions used to determine, both quantitative and qualitative, costs and benefits should be clearly documented. This would include general assumptions as well as assumptions specific to each alternative. Any assumptions used to forecast the status quo, develop the public sector comparator, and establish the P3 alternative should be well documented. These assumptions will be re-visited as the project moves through the various stages of implementation and may be changed or removed.

### Checklist for Cost/Benefit Analysis Section

1. Has a Public Sector Comparator been included for comparative purposes?
2. Are assumptions applied equally across alternatives?
3. Has the discount rate been identified and consistently applied to each alternative?
4. Has an inflation factor been used fairly and consistently across each alternative?

## Section

## 7

## Conclusions &amp; Recommendations

**Purpose of the Conclusion & Recommendation Section:**

The Conclusion & Recommendation Section provides the reader with a selected alternative based on an overall evaluation of the alternatives in terms of impact, risk, and cost/benefit. Specific recommendations for moving the project forward are also presented.

## Conclusions

**Description:**

This section will recap each of the alternatives based on their Business & Operational Impact, Project Risk Assessment, and Value Analysis. Based on these results, a conclusion on which alternative should be chosen is made.

	<b>Traditional</b>	<b>P3</b>
Business & Operational Impact	Describe overall assessment	Describe overall assessment
Risk Assessment	Describe overall assessment	Describe overall assessment
Quantifiable Value Analysis	Describe overall assessment	Describe overall assessment
Non-quantifiable Value Analysis	Describe overall assessment	Describe overall assessment

Choose the recommended alternative based on the above recap, selecting the alternative that maximizes the effectiveness and efficiency, minimizes the government's exposure to risk, and clearly shows value for money.

**Identify how payments will be accommodated within the Ministry's Business Plan and the government's fiscal plan.**

## Recommendations

**Description:**

This section will make specific recommendations on proceeding with the project using a P3 approach.

The extent of the recommendation may range from recommending approval for full project implementation to recommending a more detailed requirements analysis be done to validate some key P3 analysis components.

## Section

## 8

## Implementation Strategy

**Purpose of the Implementation Strategy Section:**

The Implementation Strategy Section is to ensure that those approving the P3 Analysis understand the resources they must allocate (people, dollars, time) to complete the recommended next steps of the project, and ensure successful implementation of the project.

**Description:**

Outline the proposed implementation plan for the recommended next steps at a high level.

This section should include:

- Major project phases
- High-level work plan, deliverables and target dates for completion
- Costs (\$) required to carry out the implementation plan
- Personnel (departments, roles, competencies) required
- Outside resources required (consultants, etc)
- Proposed implementation project structure
- Assign responsibility for implementing and monitoring the risk mitigation strategies.
- Post Implementation Review approach

## Section

## 9

## Review &amp; Approval

**Purpose of the Review & Approval Process Section:**

The purpose of writing the Review & Approval Section is to clearly present the reader with whom and how the business case has been reviewed and approved. This section will also contain the final outcome of the business case. If the business case is approved the evidence of the approval should be included. If the business case is not approved, the business decision behind either rejecting the project or deferring the project should be documented.

## Review Process

**Description:**

Who will review the business case?

## Approval Process

**Description:**

What is the approval process and who is involved?

## Business Case Signoff

**Description:**

The business case should be signed and dated by the approving person(s), indicating whether or not the business case is approved. If applicable, approval conditions should be identified. If the business case is not approved, reasons for the decision should be documented.