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ADMN 598 Policy Report

Public-Private Partnerships for Federal Accommodation Projects:
Addressing the Policy Gaps

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EXECUTIVE SUMMARY

In its mandated role as the common service provider for Canadian federal government departments, Public Works and Government Services Canada (PWGSC) has recently adopted a practice wherein a public-private partnership (P3) option is considered when determining the most appropriate delivery method for large federal real property projects, including large office accommodation projects. However, in contrast with the UK, Australia, Alberta, and British Columbia, Canada's current federal real property policy framework does not provide clear guidance on the delivery of infrastructure projects via a P3 delivery route. This current state motivates an examination of the existing federal real property policy suite with the goal of identifying areas which need to be supplemented or amended so as to better guide an efficient, effective, and consistent evaluation of real property projects considering a P3 delivery option.

Policy problem

With a particular focus on federal office accommodation projects, PWGSC's P3 Development and Advisory Services National Centre of Expertise (P3 NCOE) is seeking an answer to a two-part policy question:

Policy Question – Part 1:

What gaps exist in the current federal real property policy framework which may impede the delivery of federal office accommodation projects via a P3 project delivery route?

Policy Question – Part 2:

What measures should be taken to address the gaps in Part 1, to better guide the delivery of federal office accommodation projects when considering a P3 project delivery route?

Key deliverables and research tasks

To assist the client in answering the two-part policy question, this report assesses current Treasury Board and PWGSC real property policies and guidelines against the policies and practices in jurisdictions with established P3 project delivery frameworks. In conducting the stated assessment, this report executes five core tasks corresponding to five client deliverables:

- 1) Examining government, academic, and grey literature on topics underpinning the policy problem, including the general structural elements underlying P3 project delivery in jurisdictions with established P3 project delivery frameworks;
- 2) Conducting a scan of P3 policies and practices in jurisdictions which possess established P3 project delivery frameworks;
- 3) Distilling and categorizing existing Treasury Board and PWGSC real property policies and guidelines which support and/or set conditions on the exploration and implementation of P3s for federal office accommodation projects;
- 4) Based on the findings in (2) and (3), identifying gaps in the current federal real property policy framework which can impair the efficient and effective implementation of P3s for federal office accommodation projects; and
- 5) Crafting high-level recommendations for addressing the policy gaps identified in (4), accompanied by specific implementation steps for executing the recommendations.

Methodology

The analysis in this report employs an evidence-based conceptual framework which is centred on six structural elements (listed below) underlying the key project delivery activities observed in jurisdictions with established P3 project delivery frameworks. The determination of the six structural elements and their respective domains of definition is executed through a scan and synthesis of government (various jurisdictions) and academic literature.

- Structural Element 1: Infrastructure investment planning
- Structural Element 2: Preliminary project screening
- Structural Element 3: Project business case development
- Structural Element 4: Procurement processes
- Structural Element 5: Project approval processes
- Structural Element 6: Internal (public sector) project management

The six structural elements serve as lenses for identifying relevant P3 practices in selected jurisdictions and as filters for extracting the P3-relevant components of existing federal real property policy instruments. Gaps in current federal real property policies are then identified, per structural element, by comparing the current state of federal accommodation policy against the P3 policies and practices which are common among the selected jurisdictions.

Recommendations for addressing the gaps are crafted by drawing upon specific P3 practices in the sampled jurisdictions and findings from the general P3 literature, mindful of the Canadian federal context into which proposed policies must fit.

In determining common P3 practices, four jurisdictions are selected: two international jurisdictions, Australia and the United Kingdom (UK), and two Canadian provincial jurisdictions, Alberta and British Columbia. The choice of these jurisdictions is guided and justified by the maturity of their P3 project delivery frameworks and similarities between their governance systems and that present in the Canadian federal context. Following a detailed listing of P3 practices in each of the four jurisdictions, the identification of common P3 practice is executed by selecting all practices which are present in at least three of the four cited jurisdictions, provided such practices are germane to the delivery of federal office accommodation projects.

In determining current federal P3 capacity, a fulsome scan of Treasury Board and PWGSC policies is conducted. The primary data sources for PWGSC real property policy instruments are documents linked within PWGSC's *Departmental Policies* intranet website supplemented by documents linked within PWGSC's *National Project Management System* internet website. Primary data sources for Treasury Board real property policy instruments are the Treasury Board of Canada Secretariat's (TBS) *Treasury Board Policy Suite* internet website and TBS's *Real Property Policies and Documents* internet website. The policy scan is filtered by focussing on federal policy instruments which directly impact the delivery of office accommodation assets when viewed through a P3 project delivery lens. The policy scan includes Treasury Board policies which are in the process of government-wide implemented but does not include federal policies or guidelines which are scheduled to be rescinded, nor does it include preliminary draft guidelines which have not been fully vested into the federal real property policy framework.

Findings: primary gaps in federal real property policy

As a first-pass solution to Part 1 of the policy problem, this report identifies seven broad gaps in the existing suite of federal real property policies related to the delivery of federal office accommodation projects via a P3 route. Collectively, these gaps span all six structural elements and provide a contrast between current Treasury Board and PWGSC real property policies and the common P3 practices present in jurisdictions with established P3 project delivery frameworks. Several of the identified policy gaps concur with findings in the earlier related study of Deloitte (2007).

Policy Gap 1: Notwithstanding federal policies and guidelines which implicitly encourage the consideration of P3 project delivery in long-term infrastructure investment planning, there are currently no established mechanisms guiding the systematic identification of potential P3 projects in department-level or government-wide investment plans.

Policy Gap 2: Apart from federal policies and guidelines which encourage the screening of projects for P3 viability at the pre-business case stage, there are currently no federal policies which require that such a screening be conducted for large real property projects, including office accommodation projects. In addition, there are currently no mechanisms (tools) guiding the systematic screening of projects for P3 viability.

Policy Gap 3: Notwithstanding high-level guidance on the use of PWGSC's risk-adjusted *present value cost of accommodation (PVCOA)* approach for quantitative (financial) analyses of project delivery options, current federal policies and guidelines do not explicitly mention nor chart the use of the related *public sector comparator* approach employed in other jurisdictions. In addition, current federal policies and guidelines omit specific cost elements that are generally included in the quantitative analysis of P3 projects and do not provide a detailed methodology for identifying, quantifying, and allocating project risks in the underlying financial models.

Policy Gap 4: In contrast with established P3 practices in other jurisdictions, federal guidelines for real property business cases (investment analysis reports) do not explicitly mention nor require a market sounding for the purpose of gauging private sector interest in delivering an office accommodation project as a newly built asset.

Policy Gap 5: There are currently no federal policies or guidelines outlining the use of a two-stage *request for qualification (RFQ)/request for proposal (RFP)* procurement process for the short-listing and evaluation of proposals from private sector proponents, nor do current policies chart the design and execution of long-term P3 contracts.

Policy Gap 6 (correlated to Policy Gap 5): Current guidelines for the federal approval process for large office accommodation projects do not specify the authorities that should be sought in regards to the issuance of the RFQ and RFP procurement documents, nor do they state the specific authorities that should be sought in regards to entering into a long-term P3 contract with the selected private sector proponent.

Policy Gap 7 (correlated to Policy Gap 5): Associated with existing gaps in federal procurement policy instruments, current federal project management policies and guidelines do not specify the roles and responsibilities of the PWGSC project manager in regards to the issuance and evaluation of an RFQ and RFP, nor do they specify the roles and responsibilities of the project manager and/or other parties in the drafting and finalization of the long-term P3 contract.

Recommendations for addressing the policy gaps

To address the seven identified policy gaps, an ensemble of five recommendations is proposed, offering a high-level first-pass solution to Part 2 of the policy problem. These recommendations are primarily intended to identify areas requiring subsequent in-depth analyses, to be executed by the client and their federal stakeholders at a later date. Several of the recommendations make reference to recent federal P3 projects, the direction provided in the June 2011 Federal Budget, and the preliminary work of various federal entities including the client, P3 NCOE.

Recommendation 1: Revise current federal investment planning policies and guidelines so as to incorporate mechanisms for federal departments to identify a list of potential P3 projects within their departmental investment plans, consisting of all projects with anticipated capital costs of \$100 million or more and life-span 20 years or more

Recommendation 2: Drawing upon existing federal guidelines and elements of P3 NCOE's draft accommodation project screening tool, institute a standardized screening process and accompanying screening tool for assessing the viability of a P3 delivery option for office accommodation projects with capital costs of \$100 million or higher

Recommendation 3: Drawing upon best practices in other jurisdictions, update current federal guidelines for PWGSC investment analysis reports for large accommodation projects by including a requirement for market soundings and translating/transforming the current risk-adjusted PVCOA approach into a public sector comparator approach

Recommendation 4: Drawing upon best practices in other jurisdictions and lessons learned from recent federal pathfinder P3 accommodation projects, develop guidelines for executing a two-stage RFQ/RFP procurement process for office accommodation projects which adhere to the broad principles and standards for federal procurement and which specify the roles and responsibilities of the PWGSC project manager

Recommendation 5: Amend current federal project approval policies and guidelines to incorporate the stages of an RFQ/RFP procurement process for P3 projects, including explicit statements of the authorities sought at various points in the approval process

This report proposes specific steps for implementing the recommendations, each constituting an amendment or addition to existing federal real property policies or guidelines. The recommendations and implementation steps proposed in this report concur with several of the recommendations stated in the earlier related study of Deloitte (2007). Recommendations 2 and 3 are also aligned with the current and ongoing efforts of the client in establishing a P3 investment decision toolkit for federal accommodation projects, referenced in PWGSC (2010d).

Limitations and next steps

The findings in this report were based on literature from the selected jurisdictions and existing federal real property policy instruments. The analysis did not incorporate input from key P3 stakeholders, nor did it examine the preliminary draft P3 tools and guidelines developed by the client or the early findings from recent pathfinder federal P3 accommodation projects. These avenues can be explored in a subsequent assessment of the two-part policy problem. Data from interviews with key policy stakeholders can be used to validate and expand upon the findings in the current report and assist TBS and PWGSC's Real Property Branch in implementing the proposed recommendations.

REPORT CONTENTS

Chapter 1 motivates and defines the underlying two-part policy problem studied in the report and states the key research tasks and client deliverables

Chapter 2 states the research methodology used in the report, including the data sources for conducting the literature review, jurisdictional scan, and federal real property policy scan. Chapter 2 also states the scope and limitations of the findings in the report

Chapter 3 provides the contextual background and technical frameworks underpinning the analyses in the report, including: an identification of key federal policy stakeholders, including a fulsome description of PWGSC's Real Property Branch and its role in policy development; definitions of traditional PWGSC office accommodation delivery models; a description of the P3 project delivery model; a list of drivers for federal accommodation P3s; and an organizational description of the client, PWGSC's P3 Development and Advisory Services

Chapter 4 reviews and synthesizes academic and government literature related to the structural elements underpinning P3 project delivery and develops the conceptual framework used in the report

Chapter 5 provides the justification for selecting the UK, Australia, Alberta, and British Columbia as representative jurisdictions; summarizes the data from the jurisdictional scan of P3 practices in Appendix C; and identifies common P3 practices across the four cited jurisdictions

Chapter 6 summarizes the data from the federal real property policy scan in Appendix D and identifies gaps in current federal real property policy instruments vis-a-vis the common P3 practices present in other jurisdictions

Chapter 7 crafts recommendations for addressing the policy gaps identified in Chapter 6 and proposes steps for implementing the recommendations based on specific P3 practices in other jurisdictions and underlying facets in the existing federal real property policy framework

Chapter 8 presents the conclusions and next steps

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Appendix C contains detailed data from the jurisdictional scans of P3 practices in the UK, Australia, Alberta, and British Columbia

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1. INTRODUCTION

In its mandated role as the common service provider for Canadian federal government departments, Public Works and Government Services Canada (PWGSC) has recently adopted a practice wherein a public-private partnership (P3) option is considered when determining the most appropriate delivery method for large federal real property projects, including large office accommodation projects.¹ This practice was supported by the federal Minister of Finance's 2006 Economic and Fiscal Update which stated the Government of Canada's intention to "facilitate the broader use of P3s in Canadian Infrastructure projects" (Deloitte, 2007, p. 2). More recently, the federal priorities underlying this PWGSC practice have been reinforced in the June 6, 2011 Federal Budget wherein it was stated

"Going forward, federal departments will be required to evaluate the potential for using a P3 for large federal capital projects. All infrastructure projects creating an asset with a lifespan of at least 20 years, and having capital costs of \$100 million or more, will be subjected to a P3 screen to determine whether a P3 may be a suitable procurement option. Should the assessment conclude that there is P3 potential, the procuring department will be required to develop a P3 proposal among possible procurement options" (Government of Canada, 2011a, p. 102)

While PWGSC's initial implementation of the above stated practice was consistent with existing Treasury Board and PWGSC departmental policies, it proceeded without the benefit of explicit guidance within federal real property policy instruments. An earlier related observation was made in Deloitte (2007) which stated "a unique circumstance in the Federal Government as the [P3] Policy Framework has not yet been developed and there is a firm commitment by the Government to undertake P3s" (p. 8). Instead, recent federal pathfinder P3 accommodation projects such as the RCMP "E" Division Headquarters project in Surrey, BC have had to navigate the existing non-P3 oriented federal Treasury Board approval process while employing judicious adaptations of PWGSC's *National Project Management System* (PWGSC, 2011c).

1.1 Policy problem

Motivated by the above situation, there is a need appraise the existing federal real property policy suite "to provide a road map to guide all stakeholders in the effective identification, evaluation and implementation of P3 projects, and outline the process to be followed" (Industry Canada, 2001, p. 12). With a focus on federal office accommodation projects, the client for this present policy report, PWGSC's P3 Development and Advisory Services National Centre of Expertise (P3 NCOE) is seeking an answer a two-part policy question:

Policy Question – Part 1:

What gaps exist in the current federal real property policy framework which may impede the delivery of federal office accommodation projects via a P3 project delivery route? ²

¹ An (*office*) accommodation project constitutes a specific type of *real property project*, the latter of which includes "all real property asset acquisitions or improvements, including entering into a lease, fit-up accommodation space, construction, renovation and remediation of a built-work (building, bridge, dam, road, etc.) or crown-owned land" (PWGSC, 2011d, "Definitions," para. 5).

² To date, the client (P3 NCOE) and various federal stakeholders have crafted preliminary P3 guideline documents which may serve to fill some of the said policy gaps. The analysis of these draft preliminary

Policy Question – Part 2:

What measures should be taken to address the gaps in Part 1, to better guide the delivery of federal office accommodation projects when considering a P3 project delivery option?

1.2 Research objectives and deliverables

To assist the client in answering the two-part policy question in section 1.1, this report will assess current Treasury Board and PWGSC real property policies and guidelines against the practices in jurisdictions which possess established P3 project delivery frameworks. Guided by the client's mandated functions within PWGSC's Real Property Branch, this report will focus on federal policies and guidelines for delivering federal office accommodation projects.

In conducting the stated policy assessment, this report will execute five core research tasks, corresponding to five client deliverables:

- 1) Review and synthesize government, academic, and grey literature related to past federal policy development initiatives and the general structural elements characterizing established P3 project delivery frameworks. This literature review will be supplemented by the findings in the background section which examine: PWGSC's current operating environment, including its mandate and policy stakeholders; modes of accommodation project delivery currently employed by PWGSC; and drivers for the use of P3s for federal office accommodation projects;
- 2) Scan, distil, and synthesize P3 project delivery policies and practices in select jurisdictions which possess established P3 project delivery frameworks;
- 3) Identify, categorize, and synthesize current Treasury Board and PWGSC real property policies and guidelines which support and/or set conditions on the exploration and implementation of P3s for federal accommodation projects;
- 4) Based on the findings from the common P3 practice scan in (2) and the synthesis of existing federal real property policy instruments in (3), identify gaps or deficiencies in the current federal accommodation project delivery framework which can impair the efficient and effective implementation of P3s for office accommodation projects;
- 5) Craft high-level recommendations for addressing the gaps identified in (4).

Deliverables (4) and (5) will provide a first-pass solution to parts 1 and 2 of the stated policy question, respectively. A subsequent analysis of the underlying policy problem will be executed by the client, drawing upon the preliminary findings in this report, augmented by stakeholder input and consultations on the preliminary (draft) P3 tools and guidelines developed by the client. Overall, the intended goal of the present policy report is to provide preliminary guidance to the client and other federal stakeholders toward an anticipated in-depth exploration and development of a federal real property policy suite which provides adequate guidance for the delivery of federal accommodation projects via a P3 route.

guidelines is outside the scope of the current report and will be analyzed by the client and other parties at a later date, assisted in part by the findings and recommendations drawn in this report.

1.3 Relation to past associated policy reports

The present report follows two recent works which focussed on allied policy problems:

- Wong (2007) which examined gaps in Canada's P3 organizational capacity (provincial and federal levels) and offered recommendations for addressing these gaps, based on best practices in relevant jurisdictions and data from elite interviews with key Canadian P3 stakeholders and experts
- Deloitte (2007) which provided a high-level roadmap for fortifying federal real property project delivery mechanisms so as to enable P3 project delivery. Recommendations were delivered in the form of "minimum [project] information requirements" (p. 18) and were based on then-current Treasury Board real property policies and P3 project delivery practices in relevant international and Canadian provincial jurisdictions

Wong (2007) was primarily focussed on general organizational factors including the development of a robust Canadian P3 market, promoting alignment between provincial and federal P3 initiatives, and increasing the level of political commitment for P3s at the federal level. In contrast with the present report, Wong did not fully analyze nor offer recommendations on any specific policies, practices, or structural elements governing P3 project delivery.

The recommendations offered in Deloitte (2007) provide a partial answer to Part 2 of the policy problem in section 1.1. The present report expands, refreshes, and validates the recommendations in Deloitte in three ways:

- i. Expanding the domain of inquiry in Deloitte by examining additional structural elements underlying P3 project evaluation and procurement and by providing a more detailed analysis of the structural elements examined in Deloitte;
- ii. Incorporating recent changes and additions to federal real property policy and practices (post-2007), including an examination of Treasury Board real property policies scheduled for April 1, 2012 government-wide implementation;
- iii. Including PWGSC department-level real property policies when assessing the capacity of the current federal real property policy framework to support P3 project delivery and in crafting recommendations to address policy gaps.

In addition to items (i), (ii), and (iii), novelties in the present report beyond that found in Deloitte (2007) or Wong (2007) include:

- a) Developing and applying a robust evidence-based P3 policy gap identification process which can be modified to include additional P3 structural elements and/or additional jurisdictions; and
- b) Providing a detailed historical and organizational context for the exploration of P3s at the federal level which includes: past and present federal P3 programs and policy development initiatives; recently delivered federal P3 accommodation projects (post-2007); and key drivers for the use of P3s for procuring accommodation assets, post PWGSC's 2007 adoption of a corporate real estate business model.

2. METHODOLOGY

This report is intended as a first-pass at the two-part policy problem stated in section 1.1, aimed at providing the client with preliminary data and analyses to assist in their execution of a broader examination and assessment of federal real property policies and guidelines that may impact P3 delivery of office accommodation projects. The client's subsequent research will include interviews with senior-level informants using established PWGSC stakeholder consultation frameworks. In contrast, the first-pass solution developed in this report will rely solely on existing data drawn from various sources: government literature including Canadian federal real property policy and guideline documents, academic literature, and grey literature including reports generated by consulting firms and other P3 research centres. All data and subsequent analyses in this report are qualitative in nature.

In this report, the identification of P3-related gaps in existing federal policies and guidelines will rely on the outcomes of four research tasks:

- a) Constructing a descriptive foundation which motivates and provides context for examining P3 delivery of federal accommodation projects;
- b) Reviewing academic, governmental, and grey literature related to the policy problem;
- c) Scanning P3 policies and practices in jurisdictions which currently possess established and tested P3 project delivery frameworks; and
- d) Scanning current Treasury Board and PWGSC policies and guidelines that guide the delivery of federal accommodation projects.

2.1 Data sources

This section details the methodology and data sources that will be used in executing the four research tasks listed above. The methodology employed in conducting the policy gap identification is outlined in section 4.1.

2.1.1 Data sources for the descriptive foundation for federal accommodation P3s

The descriptive foundation, constituting Chapter 3 of this report, provides the rationale for the exploration of the policy problem, identifies the key federal entities with mandated roles in real property policy development, and maps the core terminology that underpins the research in subsequent chapters. The research methodology employed in constructing the descriptive foundation is related to but distinct from the literature review (Chapter 4) in that the former is conducted using a PWGSC federal accommodation lens rather than a broad general P3 practice and knowledge lens. Data sources for the descriptive foundation are drawn from academic literature (includes past dissertations and policy reports), grey literature (includes formal discussion papers written by consulting firms on behalf of public agencies), and government sources (includes PWGSC internal documents provided by the client).³

³ None of the PWGSC internal documents cited in this report were protected or classified. Furthermore, none of the cited internal documents contained data— anonymized or otherwise—about individuals (human subjects).

2.1.2 Data sources for literature review

The literature review in Chapter 4 of this report provides a high-level survey of the key structural elements which underpin P3 project evaluation and delivery activities. The literature review complements but is distinct from the jurisdictional scan in (c). Data for the literature review is drawn from academic journals, research monographs, government literature on general P3 methodology (drawn from diverse jurisdictions and entities), and grey literature consisting of official reports and presentation materials generated by or for various governmental and non-governmental entities.

2.1.3 Data sources for jurisdictional scan of P3 procurement practices

The scan of P3 practices, constituting Chapter 5 of this report, synthesizes the key policy instruments in place in select jurisdictions with established P3 project delivery frameworks. The jurisdictions scanned include international jurisdictions such as Australia and the United Kingdom (UK) and Canadian provincial jurisdictions such as Alberta and British Columbia. The choice of jurisdictions is justified by the research methodologies of past related jurisdictional scans in Deloitte (2007) and Wang (2007) and is further guided by the particular policy problem under examination in this report. This research task refreshes, expands, and elaborates on the high-level scan of P3 practices conducted in Deloitte. Data for conducting the scans of P3 practices is drawn from web-based government literature in the cited jurisdictions, complimented by jurisdictionally-relevant academic and grey literature.

2.1.4 Data sources for scan of Treasury Board and PWGSC real property policies

The scan of existing federal real property policy instruments, as contained in Appendix D and distilled in Chapter 6 of this report classifies Treasury Board and PWGSC real property policy instruments according to their impact on various accommodation project delivery activities. The scan conducted in this report uses the high-level preliminary federal real property policy scan conducted by the client (PWGSC, 2011j) as a starting point and validation tool in the identification of salient federal policies.⁴ The primary data sources for PWGSC real property policy instruments are documents linked within PWGSC's *Departmental Policies* intranet website (PWGSC, 2011a) supplemented by documents linked within PWGSC's *National Project Management System* internet website (PWGSC, 2010c). Primary data sources for Treasury Board real property policy instruments are the Treasury Board of Canada Secretariat's (TBS) *Treasury Board Policy Suite* internet website (TBS, 2008a) and TBS's *Real Property Policies and Documents* internet website (TBS, 2010b). The policy scan is filtered by focussing on federal policy instruments which directly impact the procurement of office accommodation assets when viewed through a P3 project delivery lens. The policy scan includes Treasury Board Policy instruments which are in the process of government-wide implementation but does not include federal policies which are scheduled to be rescinded, nor does it include preliminary (draft) P3 guidelines and tools which have not been fully vested into the federal real property framework.

⁴ The federal policy scan in PWGSC (2011j) listed (almost all) Treasury Board and PWGSC policies and guidelines affecting the planning, evaluation, and delivery of federal accommodation projects. In the case of Treasury Board policies, this scan included a brief description of potential impacts and interfaces with P3 delivery of accommodation assets. It did not categorize federal policy instruments according to any underlying structural elements, nor did it provide the level of detail present in Appendix D.

2.2 Scope and limitations of current research

As a first-pass at the policy problem in section 1.1, the present report provides a broad and high-level survey of P3 practices in other jurisdictions and a high-level assessment of the capacity for the existing suite of federal real property policy instruments to support the P3 delivery of accommodation-type real property assets. Assimilating the findings from these research tasks, this report provides high-level recommendations for addressing current gaps in the federal real property policy suite which may impair the delivery of accommodation projects via a P3 route. These recommendations are primarily intended to identify areas requiring subsequent in-depth analyses, the latter to be executed by the client and/or their federal stakeholders at a later date.

The suite of Treasury Board and PWGSC policies analyzed in this report does not include any proposed or preliminary real property policy instruments or practices, including those developed by the client. In addition, the research in this report does not include an analysis of processes and tools employed in recent pathfinder P3 accommodation projects, including the RCMP “E” Division Headquarters Relocation project and the Canadian Security Establishment Canada Headquarters Long-Term Accommodation project. An assessment of these potential procedures and practices will be conducted by the client and their stakeholders at a later date, guided in part by the findings in the current report.

There are limitations inherent in the jurisdictional data used in this report. First, although jurisdictions were selected and validated according to their relevance to the Canadian federal real property context, differences between these jurisdictions and the Canadian federal context may limit the ability for certain P3 practices to be directly imported into the federal real property policy framework. In addition, the analysis of P3 methodologies in other jurisdictions relied solely on the policies and guidelines published in government and academic literature and did not take into consideration any commonly used practices outside of these sources. The findings in this report can be further validated through semi-structured interviews with key stakeholders from the cited jurisdictions, to assess if the P3 practices identified in Appendix C and summarized in Chapter 5 provide adequate and representative coverage.

3. BACKGROUND

This chapter provides the context and rationale for addressing the policy problem stated in section 1.1 and formulates the terminology and technical frameworks that will underpin the policy scans and analyses in subsequent chapters. This chapter also serves as a high-level stand-alone summary of P3s, tailored to the current exploration of P3s for Canadian federal office accommodation projects, i.e., federal real property projects involving the acquisition of office space to house the staff of federal departments.

Apart from the client, various federal entities have a stake and interest in the resolution of the policy problem in section 1.1. Section 3.1 identifies several such entities within PWGSC, Treasury Board of Canada Secretariat, and other federal agencies. Each of these entities has a mandated or supporting role in the development of policies guiding the delivery of federal real property projects. The mandated roles of the client are discussed separately in section 3.5.

Section 3.2 describes three project delivery models which are currently used by PWGSC in procuring new federal office accommodation assets. This is followed by a description of a standard P3 procurement model in section 3.3. (Appendix F provides a comparison and contrast between P3 and non-P3 forms of accommodation project delivery.) Section 3.4 provides a list of drivers motivating the exploration of P3s for delivering federal accommodation assets. These drivers highlight the alignment between PWGSC Real Property Branch's recent move toward a corporate real estate business model and the department's decision to explore the use of P3s for accommodation project delivery.

3.1 Entities involved in federal accommodation procurement and policy development

This subsection provides a high-level survey of the roles and responsibilities of key federal entities in the development and implementation of policy and best practice for real property projects, including accommodation projects. These entities consist of various departments, branches, and sectors which constitute the principal users, overseers, and/or developers of real property policy. An overview of the mandated roles of the client is provided separately in section 3.5.

3.1.1 Treasury Board and Treasury Board of Canada Secretariat (TBS)

When the estimated total costs of an accommodation project exceed the financial delegation limit of the Minister of Public Works and Government Services, the ability to proceed with the project requires approval from Cabinet through the Treasury Board (PWGSC, 2009c; TBS, 2007). In such a case, a formal request for Treasury Board approval is put forward in a *Treasury Board submission*, an official decision document submitted by the Minister on behalf of PWGSC supporting the department's choice of procurement option for the given accommodation project (TBS, 2007).^{5 6} In its role as the "administrative arm" of the Treasury Board (TBS, 2006a, para.

⁵ Given its mandate for the provision of office accommodation, all Treasury Board submissions for accommodation projects are necessarily sponsored by PWGSC. On the other hand, there are cases where Treasury Board submissions for other types of real property assets (e.g., federal laboratories or other research infrastructure) are either jointly sponsored by PWGSC and their client department(s) or are solely sponsored by another government department or agency (TBS, 2009).

1), the Treasury Board of Canada Secretariat (TBS) assists Treasury Board Ministers in analyzing the cost-effectiveness and suitability of the proposals put forward in Treasury Board submissions (TBS, 2006a; TBS, 2009). Working with the department sponsoring the submission, TBS also ensures that projects and their associated proposals conform to relevant legislation and policies (TBS, 2007).

Whereas Treasury Board approves all government-wide policies, TBS is mandated with the development, implementation, and monitoring of these government-wide *Treasury Board policies*, including those governing the delivery of federal real property assets (Government of Canada, 2008; TBS, 2006c). Treasury Board policy instruments are designed to “establish and strengthen a consistent management approach across government” while providing clear direction to individual departments on the execution of departmental programs and projects (TBS, 2008a, para. 9). Although Treasury Board policies are crafted in consultation with affected departments—PWGSC in the case of real property policy—the development of these policies is led by TBS’s various Program Sectors (TBS, 2010e). In the case of real property policy development, this mandated role resides within TBS’s Government Operations Sector, specifically the Sector’s Real Property and Materiel Management Directorate (Government of Canada, 2008).

3.1.2 Public Works and Government Services Canada (PWGSC)—Real Property Branch

In its role as the common service provider for federal departments and agencies, PWGSC is mandated with the provision of federal office accommodation (Department of Justice, 1996, section 6(f), para. 1). This mandated function is executed through PWGSC’s Real Property Branch which provides accommodation project support through all project stages, “from initial investment strategies, [to] the construction and leasing of facilities, to the maintenance, repair and disposal” (PWGSC, 2011h, “Our team,” para. 1).

PWGSC’s Real Property Branch consists of 10 distinct but interacting sectors, each led by a Director General, each reporting to PWGSC’s Assistant Deputy Minister (ADM) of Real Property. Various sectors within the Real Property Branch play significant mandated roles in the delivery of large federal accommodation projects, notably the Major Crown Projects sector for projects with estimated capital costs exceeding \$100 million CAD (Government of Canada, 2009) and the Accommodation and Portfolio Management sector “on matters concerning [Treasury Board] project approval submissions that are in excess of departmental authority or contracting submissions” (PWGSC, 2008, “Directive Details,” para. 3). On the other hand, PWGSC’s real property policy initiatives—including liaisons with TBS Program Sectors—are led by the Real Property Branch’s Program Management sector (Government of Canada; PWGSC). The mandate of the Program Management sector includes the development, oversight, and implementation of departmental policies and frameworks for delivering real property projects, including federal accommodation projects (Government of Canada).

The development of *PWGSC departmental policies* is guided by various principles and governance structures. As extracted from PWGSC (2010a),

⁶ A Treasury Board submission generally follows a *Memorandum to Cabinet*, the latter a decision document reviewed by all Cabinet ministers requesting approval for the broad policy or initiative which supports the underlying project/program. In contrast, Treasury Board submissions only request approval for the particular “design, delivery, and implementation” of the project/program (TBS, 2007, p. 5).

“[PWGSC departmental policy instruments] are used in the absence of, or to augment, policies and other policy instruments from Treasury Board Secretariat (TBS), if deemed necessary. ... They shall have an internal focus and reflect the current departmental vision, mission and business priorities” (“Policy Statement,” paras. 1 and 2).

The authority to approve PWGSC’s departmental policy instruments resides with PWGSC’s Deputy Minister (DM) with the support of the ADMs of PWGSC’s various branches (PWGSC). In the case of PWGSC departmental policies pertaining to real property including accommodation projects, the ADM of Real Property assists the DM by “ensuring that all [real property departmental] policies, directives, and related policy instruments under their sponsorship are in line with department policies and central agency policies and regulations” (PWGSC, “Sponsoring Branch Heads,” para. 1).

With respect to intra-departmental governance for policy development within PWGSC’s Real Property Branch, the Director General of the Program Management sector acts as the chair for PWGSC’s Real Property Policy Steering Committee, a committee with representation from all Real Property Branch sectors which assesses and recommends approval of federal real property policy to PWGSC’s Real Property Management Committee (RPMC), the latter an executive-level committee chaired by the ADM of Real Property (PWGSC, 2010c). In this sense, the authority to approve PWGSC real property policies, including those affecting the delivery of office accommodation assets resides with the ADM of Real Property on the recommendation of the RPMC (PWGSC).

Beyond its role in policy development, PWGSC Real Property Branch’s Program Management sector also ensures consistent application of federal real property policies and adherence to PWGSC’s vested project delivery policies and guidelines, including PWGSC’s *National Project Management System* (PWGSC, 2011c).⁷ Details on the National Project Management System and other relevant PWGSC departmental and Real Property Branch policies and guidelines are chronicled in Appendix D.

3.1.3 Other government departments and agencies

As part of the ongoing evolution of P3 procurement in the federal arena, other federal entities have emerged which may play a role in the development and execution of a P3 policy framework for real property projects. One such agency is PPP Canada Inc., a federal Crown corporation incorporated in May 2008 and reporting to Parliament through the Minister of Finance (PPP Canada Inc., n.d.-a). PPP Canada Inc.’s key activities include the administration of the *P3 Canada Fund* (Government of Canada, 2007; Government of Canada, 2011b) and the provision of advice in relation to P3 projects at the federal level (Government of Canada, 2011b; PPP Canada Inc., n.d.-a). PPP Canada Inc. is poised to play a contributing role in federal P3 policy development through its ongoing dialogues with TBS and PWGSC and its current role in the development of P3 evaluation tools (PPP Canada Inc., 2010b, p. 5).

⁷ Borrowing from terminology commonly used in the client’s organization, a *vested policy* (or vested guideline) is one which has been formally integrated into the federal policy framework through established federal policy development and approval processes. For example, the client, P3 NCOE is currently engaged in the process of vesting various (currently draft) P3 tools and guidelines into PWGSC’s real property policy framework (communicated by the client, March 2011).

3.2 Accommodation delivery options currently considered at PWGSC

When procuring a real property asset on behalf of a federal government department (client), PWGSC selects from among an array of project delivery options in order to best meet the client's program objectives while ensuring value for money for taxpayers (TBS, 2009). This section provides a high-level description of three delivery options commonly considered by PWGSC's Real Property Branch when procuring new federal office accommodation assets: Design-Bid-Build (DBB), Design-Build (DB), and Lease-Purchase (LP).⁸ The descriptions of these three delivery models are guided by PWGSC (2009c), PWGSC (2010f), and TBS. A fourth accommodation delivery option termed Design-Build-Finance-Maintain (DBFM) is defined and described separately in section 3.3.⁹ The DBFM option represents the P3 delivery model that has been used in recent pathfinder federal P3 accommodation projects, including the RCMP "E" Division Headquarters Relocation project (PWGSC, 2011g). The DBFM option will be used to represent the P3 delivery model in this report.

3.2.1 Design-Bid-Build (DBB)

Accommodation projects delivered via a *Design-Bid-Build* (DBB) route—frequently referred to as *Crown construct*—generally follow a two phase process: a design phase and a construction phase (PWGSC, 2010f). Based on current practice within PWGSC, the design phase is commonly executed by a private sector design consultant whose services are procured via a competitive process. The resulting design (blueprints) for the project is developed so as to conform to the prescribed accommodation needs and other requirements of the federal client. Once the design phase is complete, a general contractor is selected through a lowest-bid tendering process to construct the facility according to the specifications in the completed design (PWGSC, 2011e). The federal government (Crown) pays the general contractor on either a milestone or percent-complete basis throughout the construction phase of the project, with final payment being made upon satisfactory delivery of the accommodation facility. Once construction is complete, full responsibility for the asset is reverted to the Crown. These responsibilities include the long-term operations, maintenance, and recapitalization of the facility (PWGSC).¹⁰

3.2.2 Design-Build (DB)

In general terms, *Design-Build* (DB) is similar to the DBB project delivery option with one primary difference. Under DB, Canada enters into a single contract for the combined design and construction of the facility (TBS, 2009). As with DBB, the Crown pays the design-construction general contractor on a milestone basis until construction is complete, at which time responsibility for accommodation asset reverts to the Crown (TBS). In contrast with DBB, the bundling of the design and construction contract in a DB arrangement implies that the private

⁸ In addressing an identified need for office accommodation, PWGSC may consider options which do not involve the acquisition of a new facility, including: short-term leases, long-term leases, retrofitting, refurbishing, or the sale and lease-back of existing office accommodation facilities (TBS, 2009).

⁹ As a guide, with the exception of Lease-Purchase (LP) and Design-Bid-Build (DBB), the letters appearing in each of the listed procurement model acronyms represent the project components which are transferred to the private sector partner.

¹⁰ *Recapitalization* (also termed *rehabilitation* or *refurbishment* in some jurisdictions) refers to periodic re-investment in an asset to ensure it remains functional throughout its intended life-time (Government of Canada, 2006). Recapitalization costs are distinct from ongoing maintenance and operations costs.

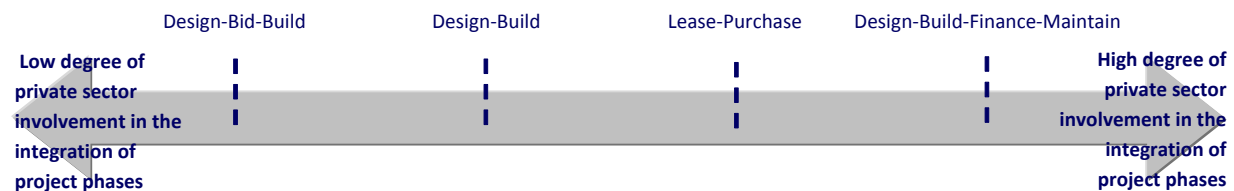
sector party bears responsibility for any oversights or errors in the design phase which may impact construction (Yescombe, 2007).

3.2.3 Lease-Purchase (LP)

Under a *Lease-Purchase* (LP) project delivery option, a private sector entity designs, finances, builds, and maintains a new accommodation facility on behalf of a federal government client, with the design guided by Crown-prescribed accommodation needs and associated performance specifications (PWGSC, 2010f; TBS, 2009). Once construction of the facility is complete, the Crown enters into a long-term lease to occupy the facility, e.g., 25 years. The private sector entity provides maintenance services on a cost recovery basis, i.e., the Crown pays for maintenance services as they are incurred. Unlike DBB and DB options, under LP the ownership of the accommodation asset is retained by the private sector entity for the duration of the lease term. At the end of the lease term, the asset is purchased by the Crown for a nominal dollar amount (PWGSC).¹¹

As illustrated in Figure 3.1, the DBB, DB, and LP project delivery options, in the order listed, exhibit increasing degrees of private sector involvement—defined in terms of project component integration—and increasing degrees of project risk transfer to the private sector (TBS, 2009). A fourth accommodation procurement option, termed Design-Build-Finance-Maintain (DBFM) is examined in the next section. As indicated in Figure 3.1, the DBFM option represents a further progression along the private sector involvement/risk transfer spectrum.

Figure 3.1: A spectrum of real property delivery options, adapted from Deloitte (2007).



Appendix F provides additional details on the difference among the four project delivery options listed in Figure 3.1, in regards to integration of project components and associated risk transfer.

3.3 A primer on public-private partnerships (P3s) for accommodation projects

The use of P3s for acquiring and maintaining various forms of public infrastructure has increased significantly over the past two decades, both in terms of the jurisdictions exploring the use of P3 models (Farrugia, Reynolds, & Orr, 2008) and the types infrastructure being procured via a P3 route (Wong, 2007; Yescombe, 2007). Varied terminology is used for general P3-type models in other jurisdictions including *alternate forms of delivery* (AFDs) at the Ontario provincial level (Infrastructure Ontario, 2007) and *private finance initiatives* (PFIs) at the UK national level (Murphy, 2008).

This section provides a high-level definition of P3s as relevant to the procurement of office accommodation in the Canadian federal context, including the key qualitative features of P3 arrangements germane to the policy problem addressed in this report. This section also details a particular model for a P3 arrangement which is highly relevant to current real property practice

¹¹ A close variant of LP is the *Build-Own-Operate* option, the latter of which constitutes an LP arrangement without transfer of the facility to the Crown at the end of the lease (TBS, 2009).

within PWGSC. A more detailed treatise on the topic of P3s is provided in Yescombe (2007) whereas a fulsome discussion on the benefits and drawbacks of P3s, as evidenced in recent Canadian infrastructure projects is provided in Conference Board of Canada (2010).

3.3.1 Definition of P3s

In broadest terms, the Canadian Council of Public Private Partnerships [CCPPP] (2010) defines a P3 as

“... 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” (para. 2)¹²

This definition of P3s is operationalized in Yescombe (2007) in a manner which is well-suited to the delivery of office accommodation projects:

“... a long-term contract between a public sector party and a private sector party ... for the design, construction, financing, and operation of public infrastructure by the private sector party ... with payments [made] over the lifetime of the [P3] contract to the private sector party ... with the facility remaining in public sector ownership” (p. 3)¹³

3.3.2 The Design-Build-Finance-Maintain (DBFM) project delivery model

Yescombe’s (2007) contractual definition of a P3 can be further operationalized via a specific P3 project delivery model termed *Design-Build-Finance-Maintain* (DBFM). Under the DBFM model, the private sector partner takes on the form of a special purpose company, generically termed *Project Co* which is created specifically to execute the combined design, construction, and long-term maintenance of the asset (Yescombe). Project Co consists of a consortium of private sector project participants which generally includes a construction firm, an engineering firm, an architecture firm, a maintenance services firm, a financial lender, and (optionally) a legal firm (PWGSC, 2010f).

Under the DBFM model, the private sector consortium’s proposal (bid) encompasses all phases of the project as a single package, from design to construction to maintenance to end-of-life asset hand-back to the public sector (PWGSC, 2010f). The public sector partner commences periodic *availability payments* to Project Co upon satisfactory construction and operations of the facility.¹⁴ Availability payments are generally adjusted according to the asset’s ability to meet the mutually agreed-upon performance specifications stated in the P3 project agreement (Yescombe, 2007). Following construction, Project Co is responsible for the ongoing

¹² Both the client (P3 NCOE) and PWGSC have adopted CCPPP’s (2010) general definition of a P3 (communicated by the client, July 2011).

¹³ Although Crown ownership was retained in the two federal accommodation projects recently procured via a P3 model (the RCMP “E” Division Headquarters in Surrey, BC and the Communications Security Establishment Canada Headquarters in Ottawa, ON), Yescombe’s (2007) definition of P3 procurement also permits private sector ownership of the asset during the duration of the long-term P3 contract.

¹⁴ In special circumstances, the public sector party may agree to pay partial milestone payments during construction phase of the project (DBRS, 2010). This was the case in the RCMP “E” Division Headquarters Relocation project (PWGSC, 2011h).

maintenance and recapitalization of the facility, with fees for such services included in the pre-determined availability payment amounts (PWGSC).

3.3.3 Variants of the DBFM P3 delivery model

Several variants of the DBFM P3 model are employed in relevant jurisdictions, including Canadian provincial jurisdictions. One such variant, the *Design-Build-Finance-Operate-Maintain* (DBFOM) model differs from the DBFM model only in that responsibility for long-term operations is added to the bundle of project elements transferred to private sector. The DBFOM model is well-suited to assets which have a complex operations component such as toll bridges, highways, and light-rail transportation infrastructure (Partnerships BC, 2010a; Partnerships BC, 2011), but are less common than DBFM for delivering standard office accommodation assets.

Certain jurisdictions consider a broader class of P3-type project delivery models, each characterized by the removal of certain components from the DBFM model. For example, both Ontario and British Columbia consider *Design-Build-Finance* (DBF) to be a type of P3 for real property projects (Infrastructure Ontario, 2007; Partnerships BC, 2010a). The DBF model increases the degree of private sector involvement present in the DB procurement model by requiring the private sector partner to secure financing for the project.¹⁵ On the other hand, in comparison to the DBFM or DBFOM models, the private partner is not responsible for the provision of long-term maintenance and/or operations for the asset under DBF (Partnerships BC), thus inhibiting an optimal transfer of long-term maintenance and asset performance risk to the private partner (Yescombe, 2007). For this reason, DBF is not considered to be a bona fide P3 option for the purposes of this report.

3.3.4 General suitability of P3s for procuring federal accommodation assets

In comparison to other asset classes, government-owned service delivery buildings, including office accommodation assets are well-suited to P3 procurement given their generally well-defined functional and program requirements, stable long-term operations and maintenance profiles, and the breadth of past precedent projects (Alberta, 2006b). Unlike “one-off projects with obscure characteristics” (Desilets, 2009), there are commonalities exhibited among office accommodation projects in terms of their design and life-cycle components (Alberta, 2006b; PWGSC, 2009c) and their financing risk profiles (Yescombe, 2007). This cross-project homogeneity, which is also observed in allied real property asset classes such as public schools (Alberta, 2011c) and hospitals (Partnerships BC, 2003) enables the crafting of standardized procurement policy and best practice for accommodation projects (South Africa, 2008).

3.4 Drivers for federal office accommodation P3s

In its mandated role as the steward and provider of office accommodation for federal government departments, PWGSC manages a large, diverse, nation-wide office inventory composed of Crown owned, leased, and lease-purchased assets (PWGSC, 2010c).¹⁶ This section provides a high-level assessment of the key issues facing PWGSC in maintaining this portfolio, some of which may be addressed by alternate forms of procurement, including P3s.

¹⁵ Partnerships BC also considers DB as a type of partnering agreement, given the partial transfer of design and construction integration risks inherent in the DB model (Partnerships BC, 2010a).

¹⁶ As of 2011, the size (by floor area) of PWGSC’s inventory was approximately 7.2 million square meters (TBS, 2011a).

These drivers therefore motivate the exploration of the policy problem in section 1.1. Additional drivers for the exploration of P3s for general infrastructure projects can be found in Conference Board of Canada (2010) and Wong (2007).

PWGSC is currently facing several challenges (listed below) which can negatively impact its sustained ability to deliver office accommodation services to federal departments (PWGSC, 2011i). If unaddressed, these challenges may lead to a federal office accommodation deficit (Government of Canada, 2006; Kovessy, 2011), part of the pending infrastructure deficit facing Canada and other nations (Wong, 2007):

- *Advanced average age of office accommodation assets* – approximately 51 years as of 2011 (PWGSC, 2011i, p. 3). Due to this advanced age and past insufficient reinvestment in these assets, residual portfolio-wide recapitalization costs have been estimated in the billions of dollars CAD (Government of Canada, 2006);
- *Tighter requirements for environmental standards in new office accommodation* – for example, PWGSC policy now requires LEED Gold certification for all new office accommodation assets procured for the Crown (Government of Canada, 2006; PWGSC, 2011i), certification which requires a high degree of expertise and innovation on the part of the private sector builder;
- *Project management and risk management deficiencies* – there is tendency for assets procured via traditional means to face both cost and time over-runs (Conference Board of Canada, 2010; Murphy, 2008; PWGSC, 2011i). On the other hand, maintaining overall project costs and timeliness of delivery are essential for meeting the increasing needs of federal accommodation clients in the presence of fiscal constraints (Government of Canada, 2006);
- *Service delivery gap due to increasing business volumes matched with decreasing PWGSC Real Property Branch employee levels* – a 25% increase in business growth has been observed between 2002 and 2008 matched with a 30% decrease in PWGSC full-time staff equivalents (PWGSC, 2009d, p. 16).

In view of these challenges, the consideration of the P3 project delivery model for replacing outdated office accommodation assets is motivated by the model's inherent incentives for on-time, on-budget, high-quality, and innovative project delivery (Kovessy, 2011; Murphy, 2008; Yescombe, 2007). The P3 model can also help mitigate the historical tendencies for governments to under-invest in the upkeep of existing accommodation assets (Vanier, Lacasse, & Danylo, n.d.) by committing the public sector to long-term predictable funding for life-cycle maintenance and recapitalization costs through the terms of the performance-driven long-term P3 project agreement (PWGSC, 2011g). In addition, the use of P3s can help address the cited federal accommodation service delivery gap by enabling the public sector to focus more on oversight and less on the operation-oriented tasks (PWGSC, 2009d), thus "enabling the public sector to focus on outcomes and core business ... instead of inputs" (Deloitte, 2006). A move toward a primary oversight role both supports and is supported by PWGSC Real Property Branch's 2007 adoption of a *corporate real estate business model*, as charted in the Branch's *National Service Management Strategy* (PWGSC, 2009d).

3.5 The client: PWGSC's P3 Development and Advisory Services

The client for this policy report is PWGSC's Public-Private Partnership Development and Advisory Services National Centre of Expertise (P3 NCOE, alternately, "the NCOE"). P3 NCOE formally came into existence in 2009 and constitutes one of the 10 sectors in PWGSC's Real Property Branch (PWGSC, 2009b). Although its main office and staff are situated at PWGSC's Pacific Regional office in Vancouver, BC, P3 NCOE exercises various headquarters functions and interacts closely with other Real Property Branch sectors.

Within PWGSC's Real Property Branch, P3 NCOE has various mandated roles. As extracted from PWGSC (2010d), these roles include but are not limited to:

- 1) Providing P3 methodology and advisory support to real property accommodation project teams in PWGSC and/or other federal departments when the P3 delivery option is among the procurement options being considered
- 2) In collaboration with PWGSC Real Property Branch's Program Management sector, supporting the research, development, and implementation of federal accommodation P3 policy and best practice within the Real Property Branch's policy framework

The research contained in this report is intended to support the client's current initiatives in regards to their mandated functions in (2).

4. LITERATURE REVIEW

Although variations exist across jurisdictions and the types of infrastructure projects being procured, a survey of government (various jurisdictions) and academic literature led to the identification of six key structural elements which underpin P3 project evaluation and delivery activities through various project phases, from project identification to the selection of private sector partners (financial close):¹⁷

- 1) infrastructure investment planning
- 2) preliminary project screening
- 3) project business case development
- 4) procurement processes
- 5) project approval processes¹⁸
- 6) internal project management

This chapter explores the literature on these six structural elements, in relation to their roles in facilitating the evaluation and delivery of projects in which consideration is given to a P3 option.¹⁹ The cross-jurisdictional review of P3 practices in Chapter 6 provides additional depth on specific organizational requirements underpinning each structural element.

Infrastructure investment planning

To assist governments in procuring essential infrastructure while enabling government-wide P3 procurement programs and initiatives, it is essential that both central agencies and affected departments or ministries be aware of the types and volume of projects which should receive consideration for P3 delivery (KPMG, 2010; Murphy, 2008; Ontario, 2004). This corresponds to the notion of a *P3 project pipeline*, defined in Wong (2007) as

“[a] central registry listing all P3 activity in the country including current and prospective projects” (p. 21)

Such project pipelines are built into the long-term infrastructure investment planning of most jurisdictions with established P3 project delivery frameworks (Deloitte, 2007). In the Canadian federal context, the P3 initiative warranting the identification of such a pipeline is the proposed requirement that projects with life-span of at least 20 years and capital costs in excess of \$100

¹⁷ Subsequent phases for P3 projects are the construction phase and long-term project monitoring (operations) phase (Yescombe, 2007). The analysis of federal policy gaps for either of these phases is outside the scope of this report and is thus excluded from the literature review.

¹⁸ In this report, the term *approval process* refers exclusively to that in which executive decision making bodies, e.g., Treasury Board, grant approval to proceed at key project stages. Other related studies consider preliminary project screening, business case development, the procurement process, and internal project management processes as constituent elements of a fulsome project approval process (Deloitte, 2007). Separating the cited structural elements out of the approval process and adopting a narrower definition of project approvals will assist the analysis in subsequent chapters.

¹⁹ These structural elements will inform the conceptual framework in section 4.1.

million CAD be identified for consideration for P3 procurement (Government of Canada, 2011a). The integration of a P3 pipeline into long-term infrastructure investment planning is also aligned with current federal P3 initiatives related to the P3 Canada Fund (PPP Canada Inc., 2011a).

When infrastructure investment planning incorporates mechanisms for forecasting P3 project flows, governments can better achieve various procurement planning and co-ordination objectives in parallel, including: assisting departments or agencies which lack P3 procurement experience in long-term integrated project planning; providing support to line departments in accessing opportunities for partnership arrangements; sharing of procurement best practice across departments; and cultivating a life-cycle costing perspective in capital investment planning, both centrally and within departments (Ontario, 2004). Additional advantages of investment planning mechanisms which effectively identify the pipeline of projects with P3 potential include reduced barriers to competition (Murphy, 2008), increased capacity for private sector consortia to predict work volumes and deal flow (KPMG, 2010), and a more strategic approach to infrastructure financing (Infrastructure Investor, 2010).

Preliminary project screening

In jurisdictions with established P3 project delivery frameworks, the pool of candidate P3 projects is generally broad, consisting of all large infrastructure projects in targeted sectors where large is generally measured in terms of estimated construction costs (KPMG, 2010). However, not all large infrastructure projects are necessarily well-suited to P3 procurement (Conference Board of Canada, 2010), necessitating a judicious determination of which projects “have a high potential to be a successful P3” (PPP Canada Inc., 2011b, p. 32). This early determination of P3 potential corresponds to the notion of preliminary project screening, defined in Conference Board of Canada as

“[an assessment based on] specific guidelines to help public sector bodies determine whether a P3 is worth considering as an appropriate delivery mechanism” (p. 41)

The purpose of such a screening is to determine if P3 is a viable delivery method for a given project, not to determine if P3 is the most suitable (preferred) option for delivery (European Commission, 2003). In addition to assessing projects based on their ability to address high-level qualitative criteria, preliminary project screening can also assist in identifying P3 “deal-breakers,” defined as “fatal flaws that would prevent project success [under P3 procurement]” (Orr & Tchou, 2009, p. 24).

The screening of infrastructure projects for P3 potential is an established practice in international jurisdictions such as UK and Australia (Deloitte, 2007), Canadian provincial jurisdictions such as Alberta, British Columbia, Ontario, and Quebec (Conference Board of Canada, 2010), and select Canadian municipal jurisdictions such as the City of Calgary (Calgary, 2008). Differences in screening methodologies among jurisdictions are primarily manifested in the criteria used to conduct the screening assessment (Conference Board of Canada; Deloitte). Preliminary project screening has also been cited as a future federal direction in Government of Canada (2011a), wherein it was proposed that “all [federal] infrastructure projects creating an asset with a lifespan of at least 20 years, and having capital costs of \$100 million or more, will be subjected to a P3 screen to determine whether a P3 may be a suitable procurement option” (p. 92).

Project business case development

If a preliminary project screening determines that a project may be suitable for P3 procurement, a more fulsome analysis is conducted “[to] decide in principle to proceed with the project on a [P3] basis” (Yescombe, 2007, p. 74). This analysis is developed and presented in a *project business case* which is defined in broad terms in Queensland (2002) as

“[A document used to] identify the Project Delivery Option most likely to provide the best value for money outcome [and] provide information ... to enable [public authorities] to determine the preferred project delivery option” (p. 3)²⁰

In jurisdictions where consideration of a P3 option is common practice, a project business case compares the P3 procurement option against traditional procurement options on the basis of key qualitative and quantitative factors (Alberta, 2006b; Australia, 2006c; HM Treasury, 2011a; Ontario, 2004; Partnerships BC, 2010) including project objectives, whole-of-life costs, and project risk profiles. Business cases generally include market surveys (*market soundings*) to gauge the ability and willingness of the private sector to deliver the underlying project under various procurement methods (Calgary, 2008). These factors and the criteria for assessing them can be informed by the outputs of the project screening phase (Queensland). In some jurisdictions, the business case also analyzes project affordability criteria in relation to budgets and funding mechanisms for the underlying project (Partnerships BC). It is also common for the analyses in project business cases to be updated at specific stages in the procurement process (Farrugia *et al.*, 2008). These updates are done so as to incorporate more accurate cost estimates and “any new information discovered about existing [project] assumptions” (Partnerships BC) as well “to review previous steps in order to verify the continued efficacy of work undertaken in the earlier phases” (Flanagan & Nicholls, n.d., p. 9).

Given the long-term operations and maintenance components inherent in P3 arrangements, P3 business cases analyze the shortlisted delivery options on a whole-of-project-life basis as opposed to limiting such analyses to the design and construction phases of the project (Australia, 2006c; Partnerships BC, 2010a). However, business cases for P3 projects do not factor in the effects various externalities (Conference Board of Canada, 2010; Vining & Boardman, 2008). Instead, the analysis of socio-economic factors is generally conducted by sponsoring department(s) during the pre-business case project development phase (Conference Board of Canada).

The literature cites several key roles for business case development in the P3 project delivery process. First, business cases support transparency by detailing estimated project costs and benefits, per procurement option, thus providing an objective and auditable account of the key information used in investment decision making (Flanagan & Nicholls, n.d.; Yescombe, 2007). This level of detail also aids in gauging the relative ability of each delivery option to achieve “value for money and protect[ion of] the public interest” (Partnerships BC, 2010a, p.1) while being commercially viable and feasible (Flanagan & Nicholls). Secondly, by requiring inclusion of compulsory components and adherence to pre-determined formats of analysis (Alberta,

²⁰ For real property projects, assessing *value for money* (VFM) generally entails comparisons of total project costs under various delivery options. Some jurisdictions adopt a broader definition of value for money which considers both quantitative (financial) and qualitative factors (Alberta, 2006b; HM Treasury, 2006). A detailed treatise on assessing value for money through a *public sector comparator* approach falls outside of the primary scope of this report; see Yescombe (2007) for details.

2006b; Australia, 2006c; Ontario, 2004; Partnerships BC), business cases ensure that uniform evaluation processes are maintained across projects “to support a rigorous standard and consistent approach for undertaking the procurement options analysis” (Partnerships BC, p. 1). Finally, in their capacity as formal decision documents—or documents supporting formal decision documents—business cases assist decision making bodies in their assessments of the recommended procurement option (Alberta; Australia; HM Treasury, 2011a; Partnerships BC, 2010; Ontario).

Procurement processes

Once a preferred project delivery option has been identified and approved, the public sector proceeds with the selection of a private sector entity “with the skills, experience and resources necessary to secure the desired services in the most efficient way possible” (Ontario, 2004, p. 57). In most jurisdictions, the selection of the private sector entity is invariably conducted through a competitive process termed either a *bidding process* (Yescombe, 2007) or *procurement process* (KPMG, 2010). In general terms, this process can be defined as the phase of the project in which “bids are accepted and received, and a bidder is chosen” (Yescombe, 2007, p. 74) leading to the *financial close* phase at which time construction of the project can begin.

Under a traditional Design-Bid-Build (DBB) project delivery route, the acquisition of design and construction services for procuring an accommodation asset is executed through two separate competitive processes (European Commission, 2003; PWGSC, 2010f; PWGSC, 2011e). In contrast, under a P3 procurement route, the public sector solicits proposals from private sector bidders for the combined design, financing, construction, long-term operations and/or maintenance, and rehabilitation of the facility (PWGSC, 2010f; Yescombe, 2007). This bundling of project components implies both a higher level of complexity in the procurement process and a greater requirement for diligence in drafting and evaluation P3 procurement documents (Kwak *et al.*, 2009; Yescombe). In further contrast to DBB, to facilitate optimal design and construction innovation on the part of the private partner, P3 procurement documents are generally less prescriptive than traditional procurement (tendering) documents, the former “stat[ing] the desired end goal but leav[ing] the bidders to propose solutions” (European Commission, p. 42).

There are inherent difficulties in crafting a universal definition of the procurement process under the P3 mode of delivery due to differences among jurisdictions in terms of the stages of the selection process, the nature of the procurement documents issued for release to private sector bidders, and bid/proposal evaluation procedures (Farrugia *et al.*, 2008; KPMG, 2010; Yescombe, 2007). Notwithstanding these limitations, a generic four-stage definition of the P3 procurement process can be extracted from KPMG which applies to the jurisdictions which are relevant to the Canadian federal context:

“A multi-stage ... process, consisting of an [expression of interest] EOI stage, an [request for proposals] RFP stage involving interaction with bidders, [a] selection of a preferred bidder [stage] and [a] pre-award contract negotiations [stage]” (p. 7)

This description is aligned with the findings in Kwak *et al.* (2009) which defines the general stages of the P3 procurement process as “inviting expression of interest, prequalifying tenders, evaluating tenders, and negotiating with the preferred tender(s) to select the most suitable concessionaire” (p. 62). A greater level of detail on these stages is provided in the cross-jurisdictional P3 practice scan in Chapter 5 and Appendix C.

There is no universal agreement among jurisdictions on the terminology used for the cited phases. The EOI phase is commonly replaced by or renamed as the *request for qualifications* (RFQ) phase. In an RFQ, private sector bidders specify their qualifications for delivering the project (technical, financial, and past P3 project experience), but do not submit a full proposal for executing the project (Industry Canada, 2001; Yescombe, 2007). Among jurisdictions which employ the RFQ/RFP terminology, an additional phase termed *request for expressions of interest* (REOI) phase may be included (Alberta, 2011a). In such cases, the REOI precedes the RFQ and is intended to solicit a preliminary assessment of market interest in the project, i.e., market sounding (Alberta; Industry Canada).

A standardized and efficient bidding process “is at the core of the PPP process” (Yescombe, 2007, p. 77). Given the complexities of the P3 proposals received from private sector bidders, such processes can significantly reduce the time and costs of P3 transactions (Kwak *et al.*, 2009; Ontario, 2004), especially in facilitating a fair and judicious selection (short-listing) from among a potentially large pool of prospective bidders (Yescombe). The crafting of standardized procurement documentation—including RFQ (EOI) and RFP templates and P3 project agreement clauses—can help public and private sector parties identify and mitigate procurement risks by communicating project and procurement requirements and in an efficient, consistent, fair, and transparent manner (Alberta, 2006a; Kwak *et al.*; Ontario). The standardizing of both procurement processes and procurement documentation templates is also critical in achieving alignment between the stages of the procurement process and key decision points in the project approval process (Alberta; British Columbia, 2002; Ontario).

Project approval processes

In most jurisdictions, when the size of an infrastructure project exceeds a certain cost or complexity threshold, the authority to proceed at key project stages—including approval for the release of procurement documents to potential private sector bidders—resides with executive decision making bodies (Yescombe, 2007; Deloitte, 2007; TBS, 2007; Ontario, 2004). Supported by various committees, these decision makers base their approvals on quantitative and qualitative project information contained in project business cases and/or other decision documents (Partnerships BC, 2010a; HM Treasury, 2011a). In the context of Canadian federal accommodation projects delivered by PWGSC via a DBB procurement route, if estimated capital costs exceed \$30 million CAD, authority to proceed with the design and construction phases of the project—including approvals to solicit bids from the private sector—is granted through the Treasury Board, based on the content of Treasury Board submissions; see also Appendix E.

As exhibited with the P3 procurement process, variations in practices among jurisdictions prohibit a universal definition of the project approval process in the P3 project delivery context (Deloitte, 2007). However, a generic definition can be crafted by extracting elements of the approval processes present in key jurisdiction, including Alberta (Alberta, 2011a), British Columbia (British Columbia, 2002), Ontario (Ontario, 2004), Australia (Australia, 2006a), and UK (HM Treasury, 2011b):

A process which outlines the key decision points at which executive authority must be sought; the level of project information required at various decision points; and the roles

and responsibilities of executive bodies in granting and/or facilitating approvals at various decision points ²¹

The project approval process plays several critical roles in the execution of real property projects under any procurement method, including the P3 route. It ensures that project costs, schedules, and risks have been carefully reviewed by the project team and are consistent with underlying legislative, policy, and planning frameworks (HM Treasury, 2010a; Alberta, 2011a). Requiring executive authority for the release of procurement documents mitigates the risk that key milestones in the procurement process will contravene broader government fiscal activities and priorities (Ontario, 2004). Furthermore, as expressed in TBS (2006b) for the Canadian real property context, the policies and procedures underpinning the project approval process “[support] the role of Treasury Board ministers in making effective management and expenditure decisions in the context of assets and acquired services while ensuring Parliamentarians have the necessary information for the oversight of management and spending in the Estimates process” (para. 5).

Internal project management

P3 project evaluation and delivery entails complex, multi-stage, multi-stakeholder processes characterized by strong dependencies among activities and a high-degree of interface between various public and private sector parties (Yescombe, 2007). It is therefore essential that the public sector possess sufficient internal capacity to direct, oversee, and execute all P3 project stages inherent in the project approval and procurement processes (Kwak *et al.*, 2009; Yescombe). In broad terms, this inferred capacity corresponds to the notion *project management*, defined in TBS (2010d) in the context of real property project delivery as

“the systematic planning, organizing and control of allocated resources to accomplish identified project objectives and outcomes ... encompass[ing] the structure (framework) within which projects are initiated, planned, executed, controlled and closed” (“Definitions,” paras. 1 and 2) ²²

In the context of P3 project evaluation and delivery for real property projects, an effective project management process assists the project team in “mak[ing] proactive and timely decisions that will enhance the likelihood of project success” (Ontario, 2010a, p. 6) by “identifying early in projects where corrective action may be required” (Australia, 2006b, p. 2).

Effective project management for P3 projects requires a clear project governance structure with well-defined roles and responsibilities for the members of the public sector project team (Industry Canada, 2001). Led by a *project manager*, the primary tasks executed by the P3 project team include but are not limited to the continuous identification of project critical issues, the crafting and monitoring of project timelines, facilitating liaisons with various public and private project stakeholders, the crafting of communication plans, and preparing and reviewing reports to be delivered to executive committees and cabinet (Alberta, 2011a; Australia, 2006a). Furthermore, a dedicated project team enables the retention of knowledge and expertise

²¹ In this report, the term *approval process* refers exclusively to that in which ministers (or delegated executive committees) grant authority for a project to progress through key stages. It does not include other types of approval processes, such as stakeholder approvals (Ontario, 2010a).

²² Private sector parties also require significant internal project management capacity during the procurement and delivery stages of a P3 project (Industry Canada, 2001; Yescombe, 2007).

throughout the stages of a project and, through the capture of lessons learned from closed projects, enables the transfer of best practices to subsequent P3 projects (Farrugia *et al.*, 2008; Murphy, 2008; PPP Canada Inc., n.d.-d). Specific roles and functions of the project manager and project team in regards to facilitating project business case development and overseeing a P3 procurement process are detailed in the jurisdictional literature in Appendix C.

Additional structural elements

A review of the literature identified additional structural elements underlying P3 project evaluation and delivery processes. These elements were either of a secondary nature (sub-elements of the above structural elements) or pertained to P3 project phases beyond project financial close and, hence, were beyond the scope of the present report:

- Sub-elements of the business case development process were identified, including: choice of discount rates (Alberta, 2006b; Partnerships BC, 2010a; Yescombe, 2007), accounting classification of P3 projects (Australia, 2006c; British Columbia, 2002; Yescombe), and selection of cost components in the *public sector comparator* risk-adjusted P3 financial model (Partnerships BC; Alberta; Australia; Yescombe)
- Sub-elements of the procurement process were identified, including: the role of independent procurement fairness advisors (Partnerships BC, 2010b); and procedures for dealing with unsolicited proposals for a P3 project (Alberta, 2011a)
- Sub-elements of internal project management were identified, including: the role of central P3 offices and/or centres of expertise in facilitating P3 project delivery (Farrugia *et al.*, 2008; Wong, 2007) and the monitoring of construction and operations activities, post financial close (Alberta, 2011a; Partnerships BC, n.d.).

Additional details on the cited sub-elements can be found in Farrugia *et al.* (2008), Wong (2007), and Yescombe (2007).

4.1 An evidence-based conceptual framework

Motivated by the conceptual framework in Apro (2006), the six structural elements identified earlier in Chapter 4 will provide the analytical lenses for executing two broad research tasks:

- Identifying and synthesizing common P3 practices in relevant jurisdictions (Chapter 5, Appendix C); and
- Assessing the capacity of existing federal real property policies and guidelines to support P3 delivery of federal office accommodation projects (Chapter 6, Appendix D).

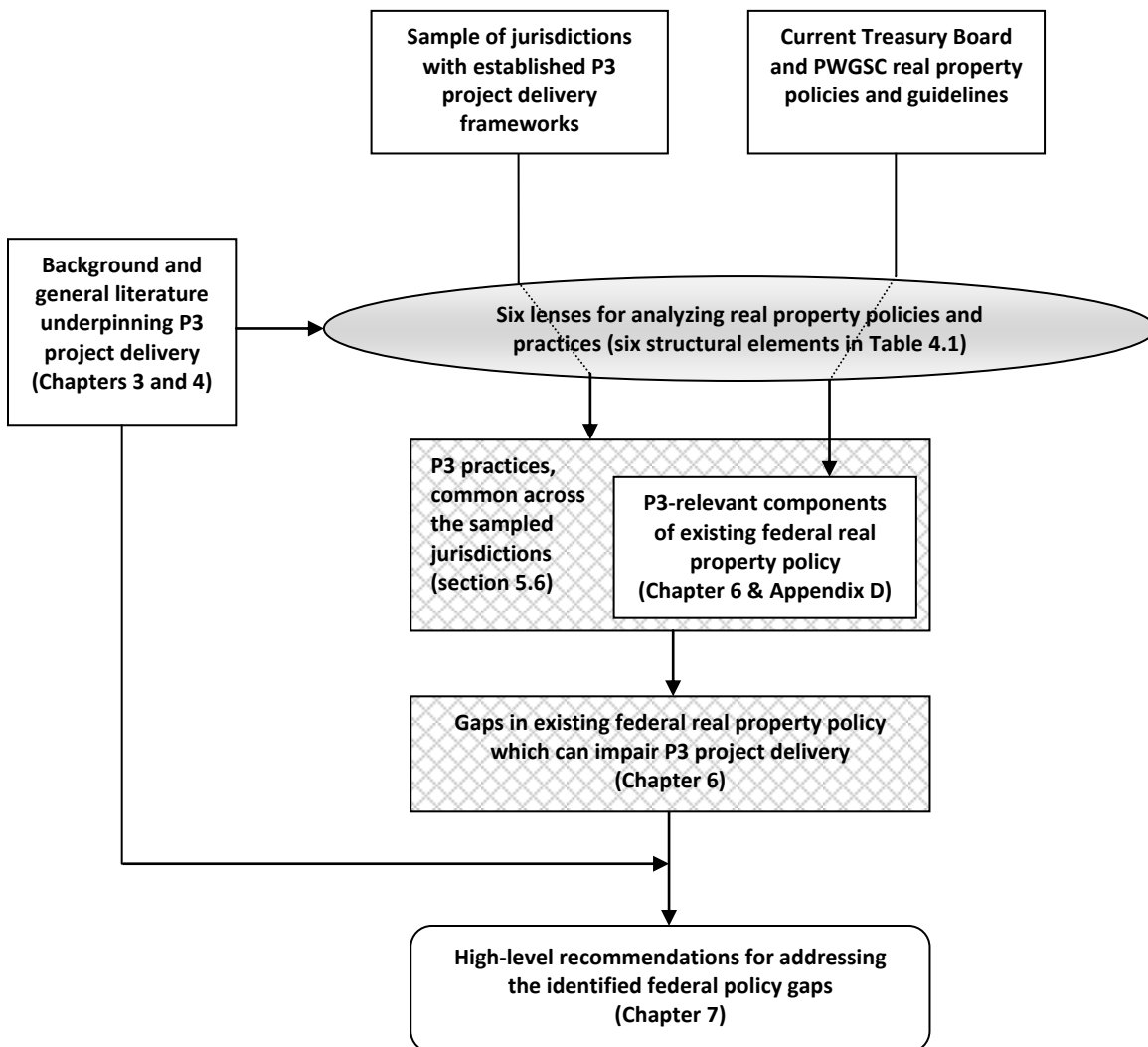
The outputs of these two research tasks will constitute the data used to address the two-part policy problem in section 1.1, namely the identification of gaps in the current federal real property policy framework that can impair the delivery of federal accommodation projects via a P3 delivery route (Chapter 6) and the crafting of high-level recommendations for addressing these gaps (Chapter 7). Table 4.1 lists the six structural elements (lenses) and their respective domains of definition, as extracted from the previous discussion in this chapter.

Table 4.1: Key structural elements underlying P3 project evaluation and delivery. (The domains of definition for each element are drawn from the discussion in Chapter 4.)

Structural elements	Real property P3-related domain of definition
<i>Infrastructure Investment Planning</i>	Mechanisms which aid in the systematic early identification of real property projects which may be candidates for P3 procurement
<i>Preliminary Project Screening</i>	Mechanisms which assist public sector bodies in assessing (at an early stage of a project) whether a P3 option should be included among the shortlisted real property project delivery options
<i>Project Business Case Development</i>	Mechanisms which ensure a consistent format and level of detail in analyzing whether a P3 option is the best-suited mode of project delivery in the sense of addressing real property project objectives and ensuring value for money for taxpayers
<i>Procurement Processes</i>	Mechanisms which identify the key stages in the selection of the private sector party(ies) delivering the project (including stages in the issuance and evaluation of procurement documents) and mechanisms which guide the flow of information between the public sector and private sector bidders
<i>Project Approvals Processes</i>	Mechanisms which identify the key stages of a real property project at which executive approval must be sought (approval points), the specific authorities sought at approval points, and the level of project information required by executive decision makers at approval points
<i>Internal Project Management [up to financial close]</i>	Mechanisms which facilitate the systematic planning, organizing and control of public sector resources to accomplish project objectives and outcomes encompassing the structure within which real property projects are initiated, planned, and executed

The policy gap identification and analysis process employed in this report is encapsulated in Figure 4.1. The background section and literature review are used to identify and define the key structural elements underlying established P3 project delivery frameworks. These structural elements serve as filters/lenses for identifying relevant P3 practices in jurisdictions with established P3 project delivery capabilities and for extracting the P3-relevant components of current Treasury Board and PWGSC real property policy instruments. Gaps in current federal real property policies and guidelines are identified by comparing the current state of federal accommodation policy against that present in the selected jurisdictions. Recommendations are then crafted to address the policy gaps, drawing upon P3 practices in the selected jurisdictions and the findings in the general literature, mindful of the federal real property context presented in the background chapter of the report.

Figure 4.1: A process for identifying and addressing gaps in current federal real property policy which may impair the P3 delivery of federal office accommodation assets.



5. JURISDICTIONAL SCANS OF P3 POLICIES AND PRACTICES

This chapter gleans salient P3 policies and practices currently employed in four jurisdictions: the United Kingdom (UK), Australia (national level), Alberta, and British Columbia. Each of the four selected jurisdictions possesses an established P3 policy framework which supports the delivery of general infrastructure projects, including accommodation-type projects (Deloitte, 2007). Furthermore, each of the four cited jurisdictions shares sufficient similarities with the Canadian federal context to permit the import of key P3 practices.

The jurisdictional scans executed in this report yield a collection of P3 practices—organized according to the structural elements listed in Table 4.1—which are common to (almost) all of the four sampled jurisdictions (Table 5.1). The ensemble of common P3 practices in Table 5.1 yields an evidence-based framework for gauging the capacity of existing federal real property policies in supporting the delivery of federal accommodation projects via a P3 route. This framework is applied in Chapters 6 and 7 in identifying gaps in existing federal real property policy and crafting high-level recommendations for addressing the identified gaps, respectively.

In this report, the output from the jurisdictional scans is presented in three formats. Appendix C presents detailed lists of P3 practices, supported by fulsome descriptions and references to the literature. Appendix C serves as a stand-alone annotated reference guide on established P3 planning, evaluation, and procurement practices, per structural element, per jurisdiction. Secondly, summarizing the findings in Appendix C, sections 5.2 through 5.5 provide high-level synopses of the P3 practices (per structural element) employed in the four selected jurisdictions.²³ Finally, synthesizing the P3 practices in sections 5.2 through 5.5, Table 5.1 presents a list of P3 practices which are common in at least three of the four jurisdictions.

5.1 Selection of jurisdictions

The UK, Australia (national level), Alberta, and British Columbia were selected as a sample of relevant jurisdictions based on justifications provided in earlier related studies. As noted in Wong (2007), the two cited international jurisdictions possess mature P3 project delivery frameworks and exhibit similarities to the Canadian federal context in regards to underlying parliamentary (governance) systems. Likewise, guided by the methodology in Deloitte (2007), the two cited Canadian provincial jurisdictions were selected based on their P3 project delivery track-records and similarities between their provincial-level governance structures and that present at the federal level, e.g., the role of provincial Treasury Board and/or Ministry of Finance in approving major infrastructure projects.

In conducting a jurisdictional scan for a related policy problem, Deloitte (2007) included other international jurisdictions (Ireland, South Africa, and Australia—State of Victoria) and other Canadian provincial jurisdictions (Ontario and Quebec). Apart from references to broad P3 practices in the literature review (Chapter 4), P3 practices in South Africa and Ireland were not scanned in the present report due to adequate coverage from the UK and Australia and due to relatively stronger similarities among the UK, Australia (national level), and Canada. The

²³ In contrast with the detailed descriptions appearing in Appendix C, the majority of jurisdiction-dependent terminology has been removed from the summaries in sections 5.2 through 5.5, to facilitate cross-jurisdictional comparisons of P3 practices

exclusion of the Australian State of Victoria and other Australian states and territories was both justified and necessitated by the recent nation-wide standardization of Australian P3 policy and practices (Australia, 2011a).

Concerning the omission of various provincial jurisdictions, the P3 practices in Quebec were not assessed in the present report, given the relatively short track-record of its recently retooled P3 project delivery framework (Québec, 2010). On the other hand, although general P3 practices from Ontario were drawn upon in conducting the literature review, a fulsome scan of Ontario's P3 policies and practices was omitted on two grounds. First, a high-level review of Ontario's P3 practices in regards to business case development (Ontario, 2004; Infrastructure Ontario, 2007), the procurement process (Ontario, 2004; Infrastructure Ontario), the project approval process (Ontario, 2004; Ontario, 2010a), and internal project management (Ontario, 2010a) indicated adequate similarities to other jurisdictions, implying sufficient coverage through the four selected jurisdictions. Secondly, the literature did not state explicit P3 practices in Ontario in regards to infrastructure investment planning and preliminary project screening; an observation noted in CCPPP (2004) and Deloitte (2007), respectively.²⁴

5.2 United Kingdom (UK)

Among the four selected jurisdictions, the UK has the longest history of P3 procurement, dating to the *public finance initiatives* (PFIs) of the early 1990s (Wong, 2007). The UK is also cited as the first jurisdiction to establish a central P3 agency, Partnerships UK for overseeing and coordinating various P3 project delivery activities (Farrugia *et al.*, 2008).

Partnerships UK constituted a public-private venture with 51% public ownership, operating "as an integrated part of the Treasury organization ... support[ing] procurement authorities at the central, local, and regional levels of [UK] government" (Farrugia *et al.*, 2008, p. 18). Among its public sector business activities, Partnerships UK supported the development of P3 policy and procurement best practice (Partnerships UK, 2009). In 2010, following the planned disposal of various Partnerships UK business lines, a subsequent P3 office, Infrastructure UK was created. Infrastructure UK currently operates as a unit within Her Majesty's (HM) Treasury, "providing central [UK] government departments with assurance about the value for money of a project" (Infrastructure UK, 2011, "How we work," para. 2). In this capacity, Infrastructure UK plays a key role in evaluating and executing national P3 projects in the UK.

The remainder of this section contains summaries of the scans in Table C.1, in regards to the UK's current P3 policies and practices, per the six structural elements listed in Table 4.1. To aid the flow of discussion, citations for specific P3 practices in the UK have been suppressed. See Table C.1 for fulsome citations and detailed descriptions of particular P3 practices.

Infrastructure investment planning

The pipeline (pool) of potential P3 projects is identified through the UK's *National Infrastructure Plan* under the co-ordination of Infrastructure UK and in accordance with *Spending Reviews*, the latter of which constitute multi-year department-level budgeting plans which are strategically aligned to government-wide priorities, including infrastructure renewal.

²⁴ During the infrastructure planning process, Ontario classifies projects as being *major* or *minor*; business cases for major infrastructure projects are open to consider a P3 option (Ontario, 2004). However, the literature does not indicate any formal assessment of P3 viability prior to the crafting of the business case.

Preliminary project screening

Primary screening for suitability of a P3 option is conducted at the broad programme-level (versus the screening of projects individually) prior to developing business cases for projects. This screening assesses suitability of a P3 option on the basis of high-level qualitative and quantitative (cost) information, the latter originating from representative past projects. Projects must meet a minimum capital cost threshold in order for a P3 option to be considered suitable.

Project business case development

When a P3 is deemed a viable delivery option for a project, the project business case is developed in two main stages, outline and final, with periodic updates and assurance reviews conducted at key procurement milestones. The finalization of analyses and cost estimates in the business case occurs just prior to final negotiations with the selected private sector proponent. Business cases recommend a preferred procurement option based on qualitative and quantitative assessments. Quantitative (financial) assessments in the business case are made on a whole-of-life net present cost basis where the cost components include: whole-of-life project costs (construction, maintenance); quantified values of project risks, either transferred or retained by public sector; taxation differences among procurement options; and the effects of estimation biases. Business cases generally include a market sounding which gauges private sector interest in the project under a PFI/P3 route prior to the solicitation of bids. Business cases are developed in accordance with standardized guidelines, including guidelines for conducting financial analyses.

Procurement processes

A multi-stage procurement process is used. Private sector proponents submit their expressions of interest which are evaluated, leading to a shortlist of pre-qualified bidders which are then invited to participate in the formal tendering (bidding) stage. The tendering stage makes use of a *competitive dialogue* process during which the specific bidding package (including project agreement) is crafted, based in part on the experience and expertise of the private sector bidders involved in the dialogue. PFI/P3 project agreements are crafted in accordance to standardized guidelines and draw upon lessons learned from past projects.

Project approval processes

There are three *approval points* in HM Treasury's P3 project approval process. At the first point, approval is sought for government commitment to the project and is supported by the findings in the project screening. At the second point, approval is sought to release procurement documents, starting with a call for expressions of interest, and is supported by the analyses in the initial business case. At the third and final point, approval is sought for finalization of the P3 project contract, including authority to enter into the contract with the preferred private sector proponent. Decisions at the third approval point are supported by the analyses in the final business case which provide comparisons between the bid of the preferred proponent and best estimates of project costs.

Internal project management

Entities within HM Treasury facilitate business case development and revision, including ongoing assurance reviews. Additional oversight and assistance in facilitating approvals at key decision points is provided by the department(s) sponsoring the project, including functional, technical, and auditing assurances for the project. Compliance with the cited assurance mechanisms is mandatory for securing HM Treasury approvals.

5.3 Australia (national level)

Similar to the UK, Australia has an extensive track-record for P3 procurement of public infrastructure projects (Farrugia *et al.*, 2007). However, unlike the UK, Australia's national-level capacity for delivering P3 projects followed pre-existing P3 initiatives and frameworks in various Australian states and territories, notably the states of Victoria and New South Wales (KPMG, 2010; Yescombe, 2007).

In 2008 the Australian *National PPP Guidelines* policy framework was endorsed (Infrastructure Australia, 2008). This federal P3 policy framework replaced previous state and territory-level frameworks (Infrastructure Australia, 2011c) and "applies to all State and Territory Governments as well as the Commonwealth Government in relation to the procurement of infrastructure via PPPs" (Infrastructure Australia, 2008, p. 6). In this capacity, the national policy framework standardized P3 policy and practices across state, territorial, and national levels (KPMG, 2010).

Since 2008, Australia's P3 initiatives have been supported by a central P3 office, Infrastructure Australia, which reports to Australia's Council of Australian Governments through Australia's Federal Minister for Infrastructure and Transport (Infrastructure Australia, 2011d). Among its primary functions, Infrastructure Australia provides advice to key public and private sector stakeholders in regards to P3 policy, procurement, and project identification and planning (Infrastructure Australia, 2011b).

The remainder of this section contains summaries of the scans in Table C.2, in regards to Australia's current P3 policies and practices, per the six structural elements listed in Table 4.1. To aid the flow of discussion, citations for specific P3 practices in Australia have been suppressed. See Table C.2 for fulsome citations and detailed descriptions of particular P3 practices.

Infrastructure investment planning

In Australia, potential P3 projects are identified through multi-year infrastructure plans which are developed and communicated among national, state, and territorial-level governments. The identification of P3 projects is further enabled through the use of long-term strategic infrastructure planning and prioritizing tools which are aligned with national priorities. According to national guidelines, the pool of potential P3 projects includes any infrastructure project with estimated capital costs exceeding a certain threshold.

Preliminary project screening

An assessment of suitability of the P3 option is conducted at the early stages of a project, prior to the development of the project business case, employing a standardized screening tool. The output from the screening process is used as an input in subsequent project documents (scoping study, qualitative analyses in business case). High-level estimates of whole-of-life costs for the project are factored into the screening assessment.

Project business case development

The project business case is developed in two main stages: interim and final. The final business case updates the interim business case following the receipt of bids during the tendering (procurement) process. The final business case includes a plan for finalizing the P3 project agreement with the preferred proponent. In both the initial and final business cases, quantitative (financial) comparisons among project delivery options are made using a *public sector comparator* approach which compares whole-of-life project costs among options on a net

present cost basis, accounting for quantified (financial) values of project risks, when quantifiable, which are either retained by the public sector or transferred to the private sector. Standardized guideline documents are used in determining net present costs per project delivery option. The initial business case includes a market sounding which provides an assessment of private sector interest in the project as a P3.

Procurement processes

When a P3 is the recommended project delivery option, a two-stage procurement process is used. In the *expression of interest* (EOI) stage, private sector proponents submit proposals and take part in public sector-led briefing and information sessions to ensure EOI documentation clearly communicates the project scope. EOI submissions are then evaluated, resulting in a shortlist of proponents which are invited to participate in the subsequent *request for tenders* (RFT) stage. In the RFT stage, the shortlisted proponents prepare proposals based on a draft preliminary project agreement which is only released to the shortlisted teams. RFT proposals are then evaluated, leading to the identification of a preferred private sector proponent.

Project approval processes

There are two approval points in Australia's project approval process. At the first point, approval is sought for: the estimated budget of the project, as indicated in the initial business case; the recommended project delivery option; and authority to release the EOI and RFT procurement documents. At the second point, approval is sought for government to authorize the terms of the finalized project agreement and to enter into the long-term P3 contract with the preferred proponent. Approvals at the first and second points are supported by formal submission documents, themselves supported by the information in the initial and final business cases, respectively. Any project with an estimated whole-of-life project cost exceeding a certain threshold requires full government approval at both approval points.

Internal project management

An internal public sector project management team oversees the development and execution of key project documentation, including project screening, business case, EOI and RFT procurement documents, P3 project agreement (contract), and formal submission documents in support of approvals. The project team is also responsible for overseeing the procurement process and ensuring the business case and other relevant documents are kept current between approval points. The project management team is headed by a project director who leads the procurement team and reports to/is supported by various project committees, including support from Australia's central P3 office, Infrastructure Australia.

5.4 Alberta

Whereas the original framework for supporting P3-type arrangements in Alberta was established through Cabinet in 2003, Alberta's current P3 project delivery framework was developed by entities within Alberta Treasury Board, "replac[ing] the management frameworks developed by Infrastructure and Transportation in 2006" (Alberta, 2011a, p. 6). Under the current framework, Alberta's program ministries sponsor specific P3 projects which address program needs within their respective ministries while service delivery ministries assist program ministries with the evaluation and execution of P3 projects, including project management assistance (Alberta).

The evaluation, negotiation, and execution of P3 projects in Alberta are facilitated by various entities which either lie within or report to Alberta's Ministry of Treasury Board (Alberta, 2011b).

Such entities include the Alternative Capital Financing Office (ACFO), a unit within Alberta Treasury Board which “lead[s] the development of P3 guidelines to provide[s] consistent standards, policies and accountabilities across capital projects and ministries” (Alberta, 2011a, p. 10) and the Advisory Committee on Alternative Capital Financing (ACACF), a committee composed of private-sector experts in P3-relevant fields including finance, law, and real estate development. The ACACF advises Alberta Treasury Board on national and international P3 policy developments and supports Treasury Board in assessing proposals for specific capital projects (Alberta, n.d.-b). In addition, Alberta Treasury Board plays a central role in the development and updating of P3 policies and guidelines in support of various provincial ministries (Alberta, 2011a).

The remainder of this section contains summaries of the scans in Table C.3, in regards to Alberta’s current P3 policies and practices, per the six structural elements listed in Table 4.1. To aid the flow of discussion, citations for specific P3 practices in Alberta have been suppressed. See Table C.3 for fulsome citations and detailed descriptions of particular P3 practices.

Infrastructure investment planning

Potential P3 projects are identified by ministries through Alberta’s long and short-term capital planning processes, facilitated by various units within Alberta Treasury Board and various cross-ministry P3 project review committees.

Preliminary project screening

The provincial ministry or agency sponsoring a candidate P3 project requests that Treasury Board (through ACFO) conduct a preliminary project screening. This screening is used to assess if a P3 should be given further consideration as a delivery option for the project and thus be included among the options analyzed in the project business case. Screening occurs in two phases. If a P3 is not ruled out in the preliminary phase, a more fulsome screening is conducted in accordance with a prescribed and detailed template (screening tool) from which the final decision to investigate a P3 option is made. The screening tool covers both qualitative and quantitative project considerations, including a high-level estimate of project costs and risk allocation between public and private partners.

Project business case development

If the screening process supports the consideration of a P3 option, a fulsome project business case is developed which builds on the high-level preliminary qualitative and quantitative project information gathered during the screening process. The financial analysis in the project business case is updated at two points during the procurement process: first just prior to receipt of bids to reflect updated project scope, then following the receipt of financial bids to determine if Alberta is achieving value for money through the transaction. Quantitative (financial) comparisons among procurement options are made using a *public sector comparator* approach which takes into account the whole-of-life net present costs of the project under various procurement options, incorporating quantified values of transferred/retained risks under each procurement option. The discount rate used in calculating the net present costs of the project is updated and finalized just prior to receipt of financial bids. The business case gauges private sector interest in the project by conducting a market sounding or by issuing a *request for expressions for interest* (REOI) prior to the procurement process.²⁵ Alberta employs a

²⁵ Although Alberta classifies the REOI as a procurement document, it is designed for market sounding purposes only and, as such, is not part of the procurement process in that responses from the REOI are neither evaluated nor shortlisted for participation in subsequent stages of the procurement process.

descriptive and standardized business case template to ensure consistency of analyses across projects.

Procurement processes

Alberta employs a two-stage P3 procurement process composed of an RFQ and RFP stage. During the RFQ stage, private sector parties submit responses according to the project description stated in the RFQ document, supplemented with judiciously and equitably disseminated information obtained through project meetings between Alberta and RFQ participants. RFQ responses are then evaluated and three short-listed proponents are selected to participate in the RFP stage. Short-listed proponents receive a draft preliminary project agreement which they review and comment upon. This review process ensures clarity of project requirements and assists Alberta in crafting the final project agreement. Relevant and non-proprietary information arising from pre-bid meetings is appropriately distributed to RFP participants through an RFP *electronic data room*. RFP submissions are evaluated in stages, reflecting increasing levels of technical detail, with the successful bidder entering into the final project agreement.

Project approval processes

There are two approval points in Alberta's project approval process. At the first point, Alberta Treasury Board grants approval for the project to proceed as a P3, including approval to release procurement documents and approval for the preliminary estimated whole-of-life project budget. At the second point, approval is sought from Alberta Cabinet to enter into a P3 project agreement with the preferred proponent. Approvals at both points are supported by the contents of the project business case, with approvals at the second point relying on the findings in the updated business case, including comparisons between the final updated financial models and the bids received in the RFP process. Whereas approval at the first point is granted by Alberta Treasury Board, approval at the second point is granted by Cabinet on the recommendation of Treasury Board.

Internal project management

A dedicated project manager leads a project team (including various advisors and consultants) which execute and/or oversee key stages of the project. With the support of the project team, the project manager leads the drafting of the project business case and oversees the development and evaluation of procurement documents. The project manager is accountable for ensuring the project reaches financial close on schedule and within scope.

5.5 British Columbia

The formal inclusion of P3s into British Columbia's infrastructure and service acquisition framework was initiated in 2002 through the introduction of the province's *Capital Asset Management Framework* (CAMF) (Deloitte, 2007). Cohn (2008) defines CAMF as "a province-wide set of guidelines that all ministries, agencies, and other public organizations seeking a provincial capital contribution must follow" (p. 71). Under British Columbia's CAMF framework, all projects seeking provincial capital investments in excess of \$50 million consider the P3 option as the base mode of procurement "unless there is a compelling reason to do otherwise" (British Columbia, 2009, para. 2).

Concurrent with the introduction of CAMF, British Columbia created a dedicated, full-service P3 agency, Partnerships British Columbia [Partnerships BC] to assist in the evaluation and delivery of large complex infrastructure projects (Farrugia *et al.*, 2008; Partnerships BC, 2009). To

maintain an arms-length relationship with provincial government—including separation from executive decision making bodies within British Columbia Treasury Board—this agency was created as a provincial Crown corporation which reports to Cabinet through British Columbia’s Minister of Finance (Partnerships BC, 2009). Partnerships BC has two broad mandated roles: facilitating and managing projects involving P3s on behalf of British Columbia’s public sector ministries and agencies, including the provision of P3 advisory services; and leading the establishment of P3 policies and best practices per the agency’s role as British Columbia’s P3 centre of expertise (Partnerships BC, n.d.). Through these two mandated roles, Partnerships BC “work[s] with the Province and public sector clients to improve the quality and comprehensiveness of procurement options analyses for major capital projects” (Partnerships BC, 2009, p. 7). The P3 services delivered by Partnerships BC span various project stages and include: leading the business planning process; managing the procurement process; providing oversight during project construction; providing recommendations to British Columbia Treasury Board; and leading general P3 knowledge management on behalf of the provincial government (Partnerships BC, 2009).

The remainder of this section contains summaries of the scans in Table C.4, in regards to British Columbia’s current P3 policies and practices, per the six structural elements listed in Table 4.1. To aid the flow of discussion, citations for specific P3 practices in British Columbia have been suppressed. See Table C.4 for fulsome citations and detailed descriptions of particular P3 practices.

Infrastructure investment planning

Provincial P3 projects are identified and prioritized according to aggregated *capital asset management plans* of individual provincial ministries and agencies. The prioritization of potential P3 projects, resulting in *project lists* is based on the findings in summary business cases for individual projects, per ministry, and is executed so as to reflect whole-of-life project costing and to support ministry-level service plans. The aggregated, ranked project lists form part of the province-wide *consolidated capital plan* which informs British Columbia’s annual budgeting exercise.

Preliminary project screening

The P3 option is given automatic consideration as a potential procurement option—hence no screening necessary—if the anticipated level of provincial contributions exceeds a fixed threshold (currently \$50 million CAD). Projects falling below this threshold but above a fixed lower-limit threshold (currently \$20 million CAD) undergo a preliminary project screening to determine if a P3 procurement option should be given further consideration in the project business case. Project screening is conducted using a standardized screening tool.

Project business case development

Building on the findings of a broad preliminary assessment of project delivery models, the project business case identifies and recommends a preferred procurement option among various P3 and traditional procurement options, crafted according to high-level guideline documents which outline required business case elements. The recommendation of preferred option in the business case is based on qualitative and quantitative (financial) analyses, the latter conducted through a public sector comparator approach which compares traditional and P3 project delivery options on a whole-of-life net present cost basis which factors in the quantified values of project risks, where risks are allocated between the public and private sector parties, per procurement option. The qualitative analyses in the business case are supported by a survey of private sector market interest in the project (market sounding) and a

public interest assessment. The quantitative analyses in the business case are periodically updated to reflect changes to project scope and/or project costs. The underlying financial models, including estimated costs and the discount rate are locked-down immediately following receipt of bids in the RFP process, with the locked-down values used in evaluating private sector RFP submissions. A finalized, post-financial close version of the business case is also compiled and released, comparing the locked-down financial model against the bid of the preferred proponent for the purpose of reporting the degree to which value for money was achieved through the transaction.

Procurement processes

The P3 procurement process in British Columbia is executed in two stages, an RFQ and an RFP stage. During the first stage, the RFQ procurement document is posted on a web-based provincial bidding site. Private sector parties submit their RFQ submissions and may be interviewed by British Columbia following the close of the RFQ. RFQ submissions are evaluated and a shortlist of no more than three private sector proponents is selected to participate in the RFP stage. Only shortlisted proponents receive the RFP procurement document and draft preliminary P3 project agreement which, combined, constitutes the basis on which proposals are crafted. RFP proposals are then evaluated, leading to the selection of a preferred proponent. Following the announcement of the preferred proponent, negotiations on the final project agreement are conducted, leading to financial close and commencement of construction. The process for determining the timing and degree of public disclosure for various procurement process outcomes and procurement documents is guided by a high-level provincial procurement disclosure toolkit.

Project approval processes

In contrast with jurisdictions whose approval processes apply to all projects over a certain cost threshold, British Columbia employs a risk-based approach in which the level of approvals and the number of approval points depends on the size and complexity of the project and the risk profile of the sponsoring ministry/agency. Low-risk projects sponsored by agencies with low-risk profiles require less oversight and, hence, require less formal and frequent approvals from Treasury Board and/or Cabinet. On the other hand, if project complexity is high, a P3 project may potentially require approval at three points. At the first point, Treasury Board approval is sought for the recommended procurement option, including preliminary project budget, as supported by the project business case. At the second point, approval is sought to issue RFQ and RFP procurement documents, again supported by the findings in the project business case. At the third potential point, approval is sought to enter into a long-term P3 project agreement with the preferred proponent, supported by the findings in the finalized business case.

Internal project management

According to policy, the composition and governance of the project management team is directly dependant on the complexity (risk profile and size) of the project. Complex projects require a formal project charter which communicates the roles and responsibilities of various public sector entities involved in the project. In all projects, the project team is led by a project director selected from within the ministry/agency sponsoring the project. Significant project management support is provided by Partnerships BC during the project evaluation and procurements stages, including oversight into the finalization of the project agreement.

5.6 Cross-jurisdictional synthesis of common P3 practices

This section identifies P3 practices which are common among the UK, Australia, Alberta, and British Columbia. This identification involves a cross-jurisdictional synthesis of the P3 practices summarized in sections 5.2 through 5.5, augmented by the jurisdictional data in Appendix C. Given variances among the P3 practices in the four cited jurisdictions, three intuitive decision rules are adopted for identifying and framing common P3 practices, per structural element:

1. P3 practices must be present, in some form, in at least three of the four cited jurisdictions. Sub-practices which are present in only two of the four jurisdictions are included if deemed applicable and transferable to the federal real property context;
2. Given the federal office accommodation focus of the present report, practices related to the integration of provincial, territorial, and/or local-government infrastructure planning and project delivery are excluded from common P3 practices;
3. Practices are stated in general terms rather than jurisdiction-dependent terms, necessitating the omission of jurisdiction-dependent parameters such as fixed minimum capital thresholds and names of specific government entities.

The P3 practices listed in Table 5.1 are generated by applying the three rules to the general P3 practices summarized in sections 5.2 through 5.5. For each of the common P3 practices in Table 5.1, the identification of jurisdictions (listed within square braces, []) is based on an explicit reference to the underlying practice in either sections 5.2 through 5.5 or Appendix C. Given the reliance on jurisdictional literature, the omission of a jurisdiction for a particular P3 practice does not necessarily imply the omitted jurisdiction does not support the said practice.

Table 5.1: A high-level synthesis of common P3 practices, per structural element, based on the practices currently employed in UK, Australia (AU), Alberta (AL), and British Columbia (BC). (See Table 4.1 for the P3-related domains of definition, per structural element.)

Structural elements	Common P3 practices [jurisdiction(s) in which practice is present]	Comments and observed variances
<i>Infrastructure Investment Planning</i>	<ul style="list-style-type: none"> ➤ The pool of potential P3 projects is identified through annual and multi-year planning and budgeting exercises [UK, AU, AL, BC] ➤ Candidate P3 projects are identified by individual sponsoring departments and are rolled into government-wide infrastructure plans under the direction of central agencies [AL, BC] in alignment with overall government priorities [UK, AU, BC] ➤ Identification of potential P3 projects is facilitated by broad practices requiring the consideration of P3 for projects above a certain capital threshold or receiving a threshold amount of government funding [UK, AU, BC] 	The practice of requiring projects to be above a certain cost and/or public funding threshold in order to be considered among the pool of potential P3 projects constitutes a form of project pre-screening (see next structural element) and is explicitly built into the screening mechanisms in some jurisdictions [UK, AU, BC].

Structural elements	Common P3 practices [jurisdiction(s) in which practice is present]	Comments and observed variances
<i>Preliminary Project Screening</i>	<ul style="list-style-type: none"> ➤ Screening is required for all projects exceeding a certain capital cost threshold and/or seeking an amount of investment from government above a certain threshold [UK, AU, BC] ➤ The output of the project screening determines if a P3 procurement option will be included in the fulsome project business case [AU, AL, BC] with (updated) elements of the screening output incorporated into the subsequent project business case [AU, AL] ➤ A standardized screening tool is used (e.g., template) [AU, AL, BC] for determining viability of a P3 option based high-level preliminary project information, including high-level estimates of project costs [UK, AU, AL] 	<p>Some jurisdictions conduct multi-stage preliminary project screenings prior to initiation of business case development, with the output from the final stage of project screening constituting direct input into the project business case [AL].</p>
<i>Project Business Case Development</i>	<ul style="list-style-type: none"> ➤ Project business cases employ a <i>public sector comparator</i> approach [AU, AL, BC] which compares whole-of-life project costs under P3 and non-P3 procurement options on a <i>net present cost</i> basis where total project costs incorporate the dollar value of quantified project risks, either retained by public sector or transferred to private party, per procurement option [UK, AU, AL, BC] ➤ Business cases include <i>market soundings</i> which assess the degree of market interest in the project, prior to commencing the procurement process [UK, AU, AL, BC] ➤ Business cases are updated at judicious points during the procurement process to reflect updates in cost estimates and project scope [UK, AU, AL, BC] with cost estimates in the final business case locked-down (finalized) following the receipt of private sector bids but prior to bid evaluation [AU, AL, BC] ➤ Standardized business case templates and/or guidelines are used to ensure a consistent approach to procurement options analysis across projects [UK, AU, AL, BC] 	<p>Guideline documents, per jurisdiction, indicate the specific cost elements which are incorporated into the public sector comparator financial models [UK, AU, AL, BC]. The definitions and types of cost elements—including the methodology for selecting the <i>discount rate</i> used to calculate net present costs—vary across jurisdictions.</p> <p>In the present table, the term <i>bid</i> refers to a fulsome proposal submitted by a private sector entity in response to the RFP; see next structural element.</p>

Structural elements	Common P3 practices [jurisdiction(s) in which practice is present]	Comments and observed variances
<i>Procurement Processes</i>	<ul style="list-style-type: none"> ➤ Depending on the recommendation put forward in the project business case, the P3 procurement process consists of two stages: a <i>request for qualifications</i> (RFQ) stage and a <i>request for proposals</i> (RFP) stage [AU—see comment on right, AL, BC] ➤ Evaluation of RFQ submissions results in the short-listing of three or less [AL, BC] private sector proponents which then participate in the RFP stage. During the RFP stage, short-listed proponents receive the draft <i>P3 project agreement</i> [AU, AL, BC] ➤ The evaluation of RFP proposals (bids) results in the selection and recommendation of a preferred proponent which will enter into the long-term finalized P3 project agreement, following final negotiations [AU, AL, BC] 	<p>In some jurisdiction(s), the RFQ stage is referred to as the <i>expression of interest</i> (EOI) stage [AU] whereas in some jurisdiction(s) the RFP stage is referred to as the <i>request for tenders</i> (RFT) stage [AU].</p> <p>Some jurisdiction(s) cite the usage of a <i>competitive dialogue</i> process in finalizing the project scope and associated project agreement, involving the fair and equitable use of input provided by the private sector parties participating in the procurement process [UK].</p> <p>A two-stage procurement process concurs with the findings in Deloitte (2007).</p>
<i>Project Approval Processes</i>	<ul style="list-style-type: none"> ➤ Projects require multiple approvals from executive decision making bodies, e.g., Treasury Board or Cabinet [UK, AU, AL, BC], the mode being two <i>approval points</i> [AU, AL] ²⁶ ➤ At the first approval point, approvals are sought for the recommended procurement option (e.g., DBFM) [AU, AL, BC], the preliminary project budget [AU, AL, BC], and authority to issue procurement documents (RFQ and RFP, or equivalent) [AU, AL] ➤ At the second approval point, approvals are sought for the terms in the final P3 project agreement [UK, AU] and authority to enter into a long-term contract with the private sector proponent selected through the RFP competition [UK, AU, AL, BC] ➤ Approvals at the decision points are supported by the recommendations and cost estimates in adequately updated versions of the project business case [UK, AU, AL, BC] ²⁷ 	<p>Some jurisdictions have more than two formal approval points [UK, BC] whereas others employ a risk-based approach in which the number of approval points—and the degree of oversight required—is dependent on the complexity and risk profile of the underlying project [BC].</p> <p>In some jurisdictions, authority to issue/release procurement documents constitutes a stand-alone approval point, separate from the approvals for the recommended procurement method and preliminary project budget [UK, BC].</p> <p>The four cited common P3 practices concur with the findings in Deloitte (2007).</p>

²⁶ Notwithstanding the detailed practices cited in Appendix C, Deloitte (2007) classifies all four jurisdictions as having a two-staged project approval process, i.e., having two formal approval points.

Structural elements	Common P3 practices [jurisdiction(s) in which practice is present]	Comments and observed variances
<p><i>Internal Project Management</i> [up to financial close]</p>	<ul style="list-style-type: none"> ➤ The public sector's project management activities are led by a <i>project manager</i> originating from or representing the department/ministry/agency sponsoring the project [AL, BC]. The project manager oversees the activities of a dedicated <i>project team</i> [AU, AL, BC] ➤ The project team leads the development and quality assurance of the project business case throughout the procurement and project approval processes [UK, AU, AL, BC] and leads key aspects of the procurement process including the drafting and issuance of procurement documents [AU, AL, BC] and overseeing the evaluation stages [AU, AL, BC] ➤ Project management activities are supported by various units that are within or report to central agencies [UK, AU, AL, BC], e.g., P3 offices 	<p>In some jurisdictions, compliance with specified project management mechanisms and processes is mandatory for obtaining formal project approvals [UK].</p> <p>In some jurisdictions, key project management activities are led by entities either within or reporting to central agencies, with the support of the department sponsoring the project [UK, BC].</p> <p>Some jurisdictions institute <i>project charters</i> to outline the roles and responsibilities of various public entities [BC].</p>

²⁷ In some jurisdictions, e.g., Australia, the decisions made at approval points are supported by formal *submission documents* other than the project business case. These formal submission documents build upon the recommendations and cost estimates that appear in the project business case.

6. CURRENT FEDERAL POLICY: SYNTHESSES AND GAPS

In contrast with the UK, Australia, Alberta, and British Columbia, Canada's current federal real property policy framework does not provide an explicit guide for delivering infrastructure projects via a P3 delivery route (Deloitte, 2007; PPP Canada Inc., 2010). However, the current suite of federal policies is sufficiently flexible to support certain aspects of P3 project delivery. These flexibilities are suggested in the broad but infrequent mention of P3s in select federal policy instruments (PWGSC, 2009c; 2011b; 2011d; TBS, 2009).

This chapter assesses the degree to which the current federal real property policy suite can support the common P3 practices cited in section 5.6. This assessment leads to the identification of gaps in current federal policy which can impair the delivery of accommodation and other real property assets via a P3 route. The gap identification in this chapter constitutes a first-pass solution to Part 1 of the policy problem in section 1.1. High-level recommendations for addressing the identified gaps are provided in Chapter 7.

In reference to the conceptual framework in Figure 4.1, policy gaps are identified by comparing current federal real property policies and guidelines against the common P3 practices listed in Table 5.1.²⁸ In the process of executing the policy gap identification, the detailed scans of Treasury Board and PWGSC policies in Appendix D are summarized, per the six structural elements cited in Table 4.1.²⁹ To aid the flow of discussion, the names and citations of specific federal policy instruments are suppressed, unless required. Direct reference to such instruments, including fulsome details on their relevance to specific P3 structural elements are provided in Tables D.1 through D.6 (Appendix D).

Federal policies and guidelines relevant to infrastructure investment planning

As evidenced in Table D.1, under current Treasury Board policy, short and long-term investment planning originates at the federal department level through *departmental investment plans*. These plans are developed in consultation with TBS and approved by Treasury Board to ensure alignment and integration with government-wide strategies and priorities. Existing federal policies and guidelines indirectly support the consideration of P3s in departmental investment plans, evidenced by the stated requirement that such plans employ a risk-based, whole-of-life costing approach which takes long-term maintenance and operations components into account. In addition, current Treasury Board policy requires that consideration be given to alternate forms of project/service delivery, although such policies do not state specific conditions or indicators necessitating such exploration.

²⁸ In this report, the term *policy* generically refers to an established federal policy instrument which places mandatory requirements on certain activities whereas the term *guideline* refers to an instrument which provides (voluntary) best/smart practices, including the suggested use of certain tools and templates.

²⁹ Based on the assumptions underlying the policy scan in Appendix D, the content of all six policy summaries in this chapter are based on existing Treasury Board and PWGSC policy instruments. Preliminary (draft) guidelines which have not been fully vested into the federal real property policy framework are excluded.

Comparing current federal infrastructure investment planning policy (Table D.1) against the common P3 practices for investment planning listed in Table 5.1, there is one high-level policy gap related to this structural element:

Policy Gap 1: Notwithstanding federal policies and guidelines which encourage the consideration of P3 project delivery in long-term infrastructure investment planning, there are currently no established mechanisms guiding the systematic identification of potential P3 projects in department-level or government-wide investment plans.

The identified policy gap should be tempered against the recent federal direction on P3s proposed in the June 2011 Federal Budget. Although not currently implemented into federal real property policy, the June budget stated requirements that federal departments “evaluate the potential for using a P3 for large federal capital projects” (Government of Canada, 2011a, p. 102). The potential impact of this budget announcement is further elaborated on in the recommendations in Chapter 7.

Federal policies and guidelines relevant to preliminary project screening

The screening of projects for P3 potential is supported by several federal policy instruments listed in Table D.2. For example, Treasury Board real property guidelines cite the potential usage of P3 project screening and provide a high-level prescribed list of P3 screening criteria. However, these guidelines are not accompanied by specific screening methodologies (tools or templates), nor do they specify project screening among the required stages of project evaluation.

According to established PWGSC guidelines, the initial decision to include a P3 option among the delivery options analyzed in a project business case is made when crafting the mandatory pre-business case *feasibility report*. The decision to include a P3 option in the feasibility report must be accompanied by a rationale. However, this rationale is not based on a formal screening of the P3 option’s viability.

The above summary indicates a gap between current federal policy and the P3 screening practices found in other jurisdictions, the latter listed in Table 5.1:

Policy Gap 2: Apart from federal policies and guidelines which encourage the screening of projects for P3 viability at the pre-business case stage, there are currently no established federal guidelines indicating when such a screening should be conducted. In addition, there are currently no mechanisms (tools) guiding the systematic screening of projects for P3 viability.

Related to the caveat stated below Policy Gap 1, the current absence of an established federal screening tool should be tempered against the recent direction on P3s proposed in the June 2011 Federal Budget. Although not currently integrated into the federal real property policy framework, the June budget stated requirements that “[a]ll infrastructure projects creating an asset with a lifespan of at least 20 years, and having capital costs of \$100 million or more, will be subjected to a P3 screen to determine whether a P3 may be a suitable procurement option” (Government of Canada, 2011a, p. 102). As an additional caveat to Policy Gap 2, both the client, P3 NCOE and the federal agency, PPP Canada Inc. have drafted preliminary P3 screening tools for accommodation projects and general infrastructure projects, respectively (PPP Canada Inc., 2011b; PWGSC, 2010d). The potential impact of the June budget

announcement and the potential roles of the cited preliminary screening tools are further elaborated on in the recommendations in Chapter 7.

Federal policies and guidelines relevant to project business case development

Referring to the policy scan in Table D.3, established PWGSC business case guidelines include templates and procedures for drafting *investment analysis reports* (IARs). An IAR is a form of project business case used to analyze potential real property investment options, leading to the recommendation of the best-suited option for project delivery. Although instituted by PWGSC's Real Property Branch, IARs must adhere to broad Treasury Board standards for business cases, including the requirement that the quantitative (financial) analyses of real property investment options be made on the basis of life-cycle (whole-of-life) project costs which incorporate an appropriate *discount rate* which takes the opportunity costs of capital and the time-value of money into account, i.e., whole-of-life *net present costs*. The cost estimates used in IARs are updated at key project stages, reflecting different information requirements and objectives at different stages of the project approval process.

PWGSC's current IAR guidelines permit consideration of P3-type project delivery options. If a P3 option is included in an project IAR, PWGSC guidelines support the use of a risk-based investment analysis approach, termed *risk-adjusted present value cost of accommodation* (PVCOA) which compares project delivery options on a net present cost basis where project risks are quantified and their costs allocated to the appropriate party (public or private), per delivery option.³⁰ Although the risk-adjusted PVCOA approach is generally consistent with the *public sector comparator* approach used in other jurisdictions (Table 5.1), neither PWGSC nor Treasury Board policy instruments make direct reference to the latter.

Based on current PWGSC guidelines, the qualitative analysis of project delivery options in a project IAR is executed using a standardized *evaluation matrix* approach. Qualitative analyses for accommodation projects include an appraisal of market availability of leasable accommodation. On the other hand, current IAR guidelines do not indicate the use of *market soundings* for the purpose of gauging market interest in delivering the project as a newly built asset.

Two primary policy gaps are identified by comparing established federal policies and guidelines for investment analysis reports against the common P3 practices for project business case development in Table 5.1:

Policy Gap 3: Notwithstanding high-level guidance on the use of a risk-adjusted PVCOA approach for the quantitative analysis of project delivery options, current federal policies and guidelines do not explicitly mention nor chart the use of the related *public sector comparator* approach employed in other jurisdictions. In addition, current federal policy and guidelines omit specific cost elements that are generally included in the quantitative analysis of P3 projects and do not provide a detailed methodology for identifying, quantifying, and allocating project risks in the underlying financial models.

Policy Gap 4: In contrast with established P3 practices in other jurisdictions, current federal guidelines for real property business cases (IARs) do not explicitly mention nor

³⁰ Although the term *accommodation* appears in the PVCOA acronym, the PVCOA methodology stated in current IAR guidelines can be applied to real property projects other than accommodation-type projects (PWGSC, 2009c).

require a market sounding for the purpose of gauging private sector interest in delivering the project as a newly built asset.

Federal policies and guidelines relevant to the procurement process

The level of detail and direction provided in existing federal procurement guidelines varies according to the project delivery option being pursued. A significant degree of detail is provided in the case of Design-Bid-Build (DBB) or Lease-Purchase (LP) project delivery (PWGSC, 2011d; 2011e). On the other hand, the federal policies and guidelines summarized in Table D.4 only provide high-level speculative guidelines for the procurement process under a P3 option.

Current federal procurement guidelines possess flexibilities which can support elements of a P3 procurement process. These procurement guidelines permit the use of methodologies aligned with industry best practice, so long as such methods comply with broad federal procurement standards. These standards include adherence to the *principle of best value to the Crown* and ensuring a fair and open competition which enables all suitable market participants to have a reasonable chance of participating in the procurement process. Current standards and guidelines also require that the evaluation criteria used in the selection process be determined prior to issuance of procurement documents and remain constant throughout the procurement process. Furthermore, any federal procurement process must ensure that responses from private sector proponents are gathered and disseminated in an appropriate manner, including the appropriate incorporation of responses into procurement documents.

Among the established federal procurement methods which adhere to the above standards, PWGSC's procurement guidelines detail a generic one-stage *request for proposals* (RFP) process.³¹ Although P3s are not directly referenced in this RFP process, its broad underlying characteristics are consistent with the general P3 procurement practices stated in Table 5.1. Current PWGSC guidelines suggest the use of an RFP process in situations requiring flexibility of project design and the achievement of specified performance objectives. Under PWGSC's stated RFP process, private sector proponents submit detailed proposals and a preferred proponent is selected based on their ability to address performance-related criteria, not solely on cost. In contrast, PWGSC employs a lowest-cost tendering process for selecting a general contractor to execute the construction phase of a DBB accommodation project (PWGSC, 2011e).

Notwithstanding the inherent flexibilities in federal procurement practice and the general alignment of PWGSC's RFP process with elements of P3 procurement processes in other jurisdictions (Table 5.1), the above assessment indicates a policy gap related to the P3 procurement process:

Policy Gap 5: There are currently no established federal guidelines outlining the use of a two-stage RFQ/RFP-type procurement process for the short-listing of private sector proponents and selection of a preferred proponent, nor do current guidelines chart the design and use of P3 project agreements.^{32 33}

³¹ In reference to the stated PWGSC procurement guideline, the RFP process was designed for use in selecting a design consultant for the design component of a Design-Bid-Build project (PWGSC, 2011e).

³² The absence of an RFQ/RFP-type procurement process was previously identified in Deloitte (2007).

Federal policies and guidelines relevant to the project approval process

All federal accommodation projects delivered by PWGSC with estimated capital costs exceeding \$30 million require approval from Treasury Board at key project stages.³⁴ If the project is being delivered through a Design-Bid-Build (DBB) route, Treasury Board approval is sought at two stages, termed *preliminary project approval* (PPA) and *effective project approval* (EPA). Under DBB, PPA and EPA seek approval for funds (expenditure authority) for the design and construction phases, respectively, with EPA granting authority to initiate a tendering process for selecting a general contractor to construct the accommodation asset (PWGSC, 2011d).

Federal policies and guidelines cited in Table D.5 make reference the applicability of the two-stage PPA/EPA approval process for projects pursuing a P3 delivery option. According to PWGSC guidelines, under a P3 option, the authorities sought from Treasury Board at PPA would entail the release of funds to undertake a more detailed costing and analysis of the project and authority to initiate and execute the P3 procurement process. At EPA, a P3 project would seek Treasury Board approval to proceed with the construction of the asset, including expenditure authority for whole-of-life project costs, based on the final estimates in an updated investment analysis report. General principles for determining whole-of-life project costs at EPA are outlined in various federal guidelines.

For large federal accommodation projects, the decisions made at PPA and EPA are both supported by *Treasury Board submissions*, formal decision documents which are themselves supported by the findings in the project's investment analysis report, i.e., project business case. Whereas the investment analysis report supporting PPA relies on *indicative cost estimates*, under current federal guidelines, EPA requires an updated post-PPA investment analysis report which incorporates *substantive cost estimates* and conducts a re-examination of all shortlisted project delivery options to ensure that the recommended option remains optimal for the project. In addition to Treasury Board submissions and investment analysis reports, approvals for large accommodation projects are also supported by a formal *project brief* which communicates the findings in the investment analysis report and "confirms alignment with preliminary project approval" (PWGSC, 2011d, Annex A, para. 2).

Comparing current federal policies and guidelines for project approvals against the high-level common practices employed in jurisdictions with established P3 project delivery frameworks (Table 5.1), there are no significant policy gaps associated with the proposed usage of the PPA/EPA approval process for P3 projects. However, given the correlation between the P3 procurement process and the project approval process, an allied policy gap can be identified:

Policy Gap 6 (correlated to Policy Gap 5): The proposed usage of the current federal PPA/EPA approvals process for P3 accommodation projects does not explicitly state the specific authorities that should be sought in regards to the issuance of the RFQ and RFP procurement documents at PPA, nor does it state the specific authorities that should be

³³ Although omitted from established federal real property policy, a two-stage RFQ/RFP procurement process was successfully executed by PWGSC in the recent RCMP "E" Division Headquarters P3 federal accommodation project (PWGSC, 2009e; 2011h).

³⁴ As mentioned in footnote 6, proceeding with Treasury Board approvals assumes that Cabinet has previously approved the underlying federal program that the real property asset is intended to support.

sought in regards to entering into a long-term P3 project agreement with the preferred proponent at EPA.³⁵

Federal policies and guidelines relevant to internal project management

In comparison to the previous five structural elements analyzed in this chapter, Table E.6 indicates sufficient federal mechanisms for overseeing the general activities associated with P3 project evaluation and delivery. For accommodation projects delivered through PWGSC, project management activities are guided by PWGSC's *National Project Management System* (NPMS) and its accompanying policies and guidelines. Under NPMS, the planning, evaluation, and delivery of accommodation projects are facilitated by a project team which is led by a PWGSC *project manager*. The project manager oversees the activities of the project team and reviews the outcomes of previous decisions at key project stages, including decisions related to the investment analysis report and Treasury Board submissions. The project manager also prepares and updates a formal *project management plan* which is reported to Treasury Board.

If a real property project is delivered by PWGSC on behalf a federal department (client department) other than PWGSC, a *project leader* is appointed from the client department. The project leader is the primary point of contact between the sponsoring department and the PWGSC project manager and is responsible for ensuring that all required approvals, including Treasury Board approvals are sought in accordance with established policy and practice. The roles and responsibilities of the project manager, project leader, and principal members of the project team are specified in a formal *project charter* which outlines the agreement between PWGSC and the client department sponsoring the project.

The above synthesis of the policies and guidelines in Table D.6 does not reveal any high-level gaps in federal project management practice which may impair P3 delivery of an accommodation project. However, in comparison with the common P3 practices cited in Table 5.1, NPMS does not currently indicate the potential role(s) of the PWGSC project manager in overseeing a P3 procurement process. This omission is a direct consequence of the gap identified within federal procurement policy (Policy Gap 5):

Policy Gap 7 (correlated to Policy Gap 5): Associated with existing gaps in federal procurement policy, current NPMS-related policies and guidelines do not specify the roles and responsibilities of the PWGSC project manager in regards to the issuance and evaluation of an RFQ and RFP under a P3 delivery option, nor do they specify the roles and responsibilities of the project manager and/or other parties in the drafting and finalization of a long-term P3 project agreement.

³⁵ The identification of RFQ/RFP-related omissions in the federal project approval process is aligned with the findings Deloitte (2007).

7. RECOMMENDATIONS FOR ADDRESSING POLICY GAPS

This chapter presents high-level recommendations for addressing the policy gaps identified in Chapter 6, representing a first-pass solution to Part 2 of the policy problem in section 1.1. Five recommendations are proposed, each identifying avenues for future federal policy development. The recommendations are accompanied by specific actions for implementation, entailing amendments or additions to current federal real property policy instruments.³⁶ Both the recommendations and associated implementation steps are informed by the common P3 practices summarized in Table 5.1 and detailed in Appendix C. All recommendations have been crafted in consideration of the current federal context, as presented in the background section of this report (Chapter 3). For several of the recommendations, the implementation actions make reference to recent federal P3 projects and the preliminary work of various federal entities, including the client, P3 NCOE. Earlier related recommendations in Deloitte (2007) are cited in various footnotes and summarized in section 7.1. As in Chapter 6, citations for specific P3 practices in other jurisdictions are suppressed in this chapter, unless required. Direct references and citations for particular P3 practices are provided, per jurisdiction, in Tables C.1 through C.4 (Appendix C).

Recommendations for addressing Policy Gaps 1 and 2

In jurisdictions such as the UK, Australia, and BC, there is an association between the early identification of potential P3 projects at the investment planning stage and the subsequent screening of projects for P3 viability. In these jurisdictions, the early identification of potential P3 projects in multi-year investment plans is facilitated, to varying degrees, by requiring all infrastructure projects with speculated capital costs exceeding a fixed capital threshold to be included in the pool of potential P3 projects. Projects within this pool can be subsequently screened for P3 viability at the pre-business case stage.

In the current Canadian federal context, a proposed direction on investment planning and associated project screening was stated in the June 2011 Federal Budget. This direction prescribed the requirement that infrastructure projects with capital costs of \$100 million or more and a life-span of at least 20 years be screened for P3 potential and, if such potential was indicated, that the sponsoring department include a P3 option in the subsequent analysis (business case) for the project. The use of \$100 million as a capital threshold is partially validated by the findings in British Columbia (2009) which observed “all [British Columbia provincial] projects recommended to be a PPP have been over \$100 million with the exception of one” (para. 3).

The following recommendation addresses Policy Gap 1 by applying the recent federal direction on major infrastructure investment to existing federal investment planning mechanisms:

Recommendation 1: Revise current federal investment planning policies and guidelines so as to incorporate mechanisms for federal departments to identify a list of potential P3

³⁶ In accordance with the mandated roles of Treasury Board and PWGSC, the implementation of recommendations (or steps thereof) related to policy for office accommodation assets would be led by PWGSC whereas Treasury Board would lead the implementation of policy recommendations related to general federal real property holdings; see section 3.1. In relation to the recommendations proposed in this report, Recommendations 1 and 5 would be implemented by Treasury Board whereas Recommendation 2, 3, and 4 would be implemented by PWGSC.

projects within their departmental investment plans, consisting of all projects with anticipated capital costs of \$100 million or more and life-span 20 years or more.³⁷

In certain jurisdictions including Australia and British Columbia, a preliminary P3 screening is required at the pre-business case stage of the project. These screenings are executed using standardized screening tools which make assessments according to specified *screening criteria*. The use of uniform screening criteria is intended to ensure consistent appraisals of P3 viability and to align the outputs and preliminary findings from the screening with inputs of the subsequent project business case.

Whereas the P3 screening tools in Australia and British Columbia are applicable to general infrastructure projects, any tool intended for screening federal accommodation projects will require screening criteria which are tailored to this particular class of assets. These criteria can be informed by or directly based on those appearing in current federal real property guidelines (TBS, 2009) and/or those appearing the client's (P3 NCOE) current draft P3 screening tool (PWGSC, 2010d), the latter crafted for accommodation projects in accordance with the primary business lines of P3 NCOE.

The following high-level recommendation addresses Policy Gap 2, mindful of the nuances of accommodation-type assets, the draft screening tool developed by the client, the recent federal direction on P3 screening for large infrastructure investments, and the phases of project development specified in PWGSC's *National Project Management System* (PWGSC, 2011c):

Recommendation 2: Drawing upon existing federal guidelines and elements of P3 NCOE's draft accommodation project screening tool, institute a standardized screening process and accompanying screening tool for assessing the viability of a P3 delivery option for accommodation projects with capital costs of \$100 million or higher.³⁸

The execution of Recommendation 2 will involve:

- Developing a standardized P3 screening tool (or validating P3 NCOE's current draft screening tool), employing screening criteria tailored to accommodation projects; and
- Updating existing PWGSC policies and guidelines to state requirements for preliminary P3 project screening for large accommodation projects and integrating these requirements within the pre-business case *feasibility phase* of PWGSC's *National Project Management System*.³⁹

³⁷ Alternately, explicit capital cost and life-span thresholds can be replaced by thresholds related to project risk and complexity metrics, such as those determined through application of the federal *Project Complexity and Risk Assessment Tool* cited in TBS (2011c).

³⁸ Newly built federal accommodation assets have a generic life-time of 25 years (TBS, 2009), hence the omission of the minimum 20 year life-span condition stated in the June 2011 Federal Budget. See also footnote 37 in regards to potential alternatives to fixed capital cost thresholds.

³⁹ The second implementation step is aligned with the recommendations in Deloitte (2007). However, Deloitte does not state specific recommendations in regards to amending/updating PWGSC's *National Project Management System* in regards to inclusion of a preliminary project screening stage.

Recommendations for addressing Policy Gaps 3 and 4

Policy Gaps 3 and 4 identified shortcomings in existing federal policy in regards to the standards for project business cases in situations where a P3 is among the delivery options analyzed. The two primary shortcomings were an absence of a market sounding component (Policy Gap 4) and an insufficient level of detail in the quantitative (financial) assessment guidelines, including an omission of the industry-standard *public sector comparator* approach for comparing delivery options. Whereas the inclusion of a market sounding component addresses Policy Gap 4, the recommendations for addressing Policy Gap 3 entail an assessment of the standards employed in other jurisdictions, informed by the common P3 practices in Table 5.1 and the particular methodologies in Appendix C.

The jurisdictional literature cited in Appendix C indicates the use of standardized guidelines and templates for developing project business cases in situations where a P3 is among the potential project delivery options. These guidelines specify the required structure and content of a P3 business case, ensuring uniform consideration of key qualitative and quantitative information, thus enabling a fulsome consideration of the nuances inherent in P3 project delivery. For example, these guidelines specify key cost elements which are associated with the P3 mode of project delivery, including private sector financing costs and various procurement-related transaction costs. Of particular importance, these guidelines outline methodologies for identifying, quantifying, and allocating project risks between the public and private parties. Integrating these methodologies and cost elements, all four of the selected jurisdictions conduct quantitative (financial) analyses of procurement options by employing a public sector comparator approach. This approach facilitates quantitative assessments by comparing project delivery options according to their discounted risk-adjusted whole-of-life costs, i.e., their risk-adjusted net present costs.

Utilizing flexibilities in current federal real property business case guidelines, Recommendation 3 entails an import of quantitative analysis best practices from other jurisdictions:

Recommendation 3: Drawing upon best practices in other jurisdictions, update current federal guidelines for PWGSC investment analysis reports for large accommodation projects by including a requirement for market soundings and translating/transforming the current risk-adjusted PVCOA approach into a public sector comparator approach.⁴⁰

In executing Recommendation 3, the import of P3 best practices into the quantitative analysis component of current federal investment analysis report guidelines would involve:

- Specifying a clear and standardized methodology for the identification, quantification, and allocation of risks, in line with current P3 best practice in other jurisdictions;
- Requiring the inclusion of cost elements associated with a P3 delivery option such as private sector financing costs and general P3-related transaction costs;

⁴⁰ The client, P3 NCOE has developed a preliminary (draft) guideline which addresses each of the items specified in Recommendation 3 (PWGSC, 2010d).

- Executing and reporting the quantitative analyses of project delivery options in terms consistent with the public sector comparator approach.⁴¹

Recommendations for addressing Policy Gaps 5 and 7

Based on the cross-jurisdictional assessment of P3 procurement practices in Chapter 5, Policy Gap 5 identified a lack of formal procedures for guiding an efficient and fulsome evaluation of private sector proposals for the combined design, construction, financing, and life-cycle maintenance components underlying a Design-Build-Finance-Maintain (DBFM) delivery option. In particular, unlike jurisdictions such as Australia, Alberta, and British Columbia, there are currently no established federal policies or guidelines navigating a standard RFQ/RFP-type procurement process, including the pre-qualification (short-listing) of proponents at the RFQ stage and the selection of a preferred proponent at the RFP stage. Likewise, there are currently no established federal guidelines for the drafting and finalization of a long-term P3 project agreement at the pre and post-RFP stages of procurement, respectively.

In jurisdictions with established P3 project delivery frameworks, the public sector project manager and other members of the project team play significant roles in an RFQ/RFP procurement process. As drawn from the P3 practices stated in Appendix C, these roles generally include: leading and/or providing oversight into the development, issuance, and evaluation of procurement documents (RFQ, RFP, draft and final P3 project agreement); managing the procurement team; ensuring procurement timelines are adhered to; and overseeing internal approvals in regards to the procurement process. In contrast, due to the current absence of RFQ/RFP-type procurement process in the federal arena, similar roles and responsibilities are not charted in PWGSC's *National Program Management System* or other federal guidelines (Policy Gap 7).

Mindful of the requisite principles and standards to which federal procurement processes must adhere, the following recommendation addresses Policy Gaps 5 and 7 by drawing upon P3 practices in other jurisdictions and the experiences from the RFQ/RFP procurement processes executed in the RCMP "E" Division Headquarters Relocation project and the Communications Security Establishment Canada Headquarters Long-Term Accommodation project:

Recommendation 4: Drawing upon best practices in other jurisdictions and lessons learned from recent federal pathfinder P3 accommodation projects, develop guidelines for executing a two-stage RFQ/RFP procurement process for large accommodation projects which adhere to the broad principles and standards for federal procurement and which specify the roles and responsibilities of the PWGSC project manager.⁴²

Apart from the creation of standardized guidelines for RFQ, RFP, and P3 project agreement development, issuance, and evaluation, the execution of Recommendation 4 will involve the following amendments and additions to current federal policy instruments:

⁴¹ Recommendation 3 and its three proposed implementation steps are consistent with the earlier findings in Deloitte (2007).

⁴² Recommendation 4 and its proposed implementation steps concur with earlier findings in Deloitte (2007). However, in contrast with the present report, Deloitte (2007) did not propose amendments to any specific PWGSC guidelines, including PWGSC's *National Project Management System*, nor did Deloitte have awareness of the stated federal P3 pathfinder projects, both of which were procured in 2009/2010.

- Updating current PWGSC procurement policies and guidelines by outlining the stages in an RFQ/RFP process for selecting a preferred proponent when procuring a project under a P3 delivery route;
- Imbedding a roadmap for a standard two-stage RFQ/RFP procedure into PWGSC's *National Program Management System* which integrates the sequencing of document development, issuance, evaluation, and finalization (RFQ, RFP, and P3 project agreement) alongside the System's current project delivery steps;
- Amending PWGSC's *National Project Management System* policies and guidelines by detailing the roles and responsibilities of the PWGSC project manager and/or client department's project leader in facilitating and overseeing the stages of the RFQ/RFP process.

Recommendations for addressing Policy Gap 6

Existing federal guidelines indicate the broad applicability of the current two-stage PPA/EPA Treasury Board approval process for accommodation projects delivered via a P3 route. This two-stage approval process bears resemblance to the two-stage P3 project approval processes employed in Australia, Alberta, and British Columbia. However, given the current absence of federal guidelines for executing an RFQ/RFP-type procurement process (Policy Gap 5), there are inconsistencies between the approval process indicatively proposed for P3 projects in the current federal guidelines and that present in the cited jurisdictions.

Specific omissions in the current federal approval process are indicated by the common P3 practices in Table 5.1. At the first approval point (PPA), the primary omissions entail the seeking of authority to issue and evaluate the RFQ and RFP, including issuance of the draft P3 project agreement at the RFP stage. At the second approval point (EPA), omissions entail the seeking of approval of the terms of the final P3 project agreement and authority to enter into a long-term P3 contract with the preferred proponent. Recommendation 5 is intended to capture all of these cited omissions:

Recommendation 5: Amend current federal project approval policies and guidelines to incorporate the stages of a standardized RFQ/RFP procurement process for P3 projects, including the statement of authorities sought at PPA and EPA under such a process.⁴³

The client is referred to Deloitte (2007) for proposed steps in implementing Recommendation 5, including detailed steps for incorporating the authorities sought at PPA and EPA and recommendations on the level of project funding (expenditure authority) to be sought at PPA.

7.1 Relation to recommendations in past studies

As illustrated in the footnotes to Chapters 6 and 7, several of the identified gaps and proposed recommendations in this report concur with those in Deloitte (2007). In this respect, the findings in this report—based on the detailed data in Appendices C and D—validate key findings in Deloitte. In addition, the recommendations and associated implementation steps proposed in this report update those which appear in Deloitte by incorporating recent developments in the federal landscape, e.g., recent pathfinder P3 accommodation projects and the recent direction

⁴³ Recommendation 5 concurs with the earlier findings in Deloitte (2007).

on P3s stated in the June 2011 Federal Budget. Furthermore, this report offers a greater level detail on the implementation of several of the recommendations appearing in Deloitte, including specific steps for updating PWGSC's *National Project Management System*. On the other hand, Deloitte provides a greater level of detail in regards to amending the current Treasury Board approval process in regards to importing project screening, the stages of P3 business case development, and stages of an RFQ/RPF procurement process into the current PPA/EPA approval process. In regards to implementing Recommendation 2, the client is also referred to Deloitte for a detailed study of potential P3 qualitative screening criteria, applicable to general real property projects.

8. CONCLUSIONS AND NEXT STEPS

This report provided a first-pass solution to a two-part policy problem, aimed at identifying and addressing gaps in current Treasury Board and PWGSC real property policy which can impair the delivery of federal accommodation projects via a P3 route. Drawing upon detailed jurisdictional data from the UK, Australia, Alberta, and British Columbia, seven broad policy gaps were identified, leading to five high-level recommendations for addressing the gaps. Implementation steps were proposed per recommendation, entailing amendments or additions to current federal real property policy instruments.

The analysis in this report employed an evidence-based conceptual framework which was centred on six structural elements underpinning established P3 project delivery frameworks. These structural elements served as lenses for identifying relevant P3 practices in select jurisdictions and as filters for extracting the P3-relevant components of existing federal real property policy instruments. Gaps in current federal real property policies were then identified, per structural element, by comparing the current state of federal accommodation policy against the P3 policies and practices in the selected jurisdictions. Recommendations for addressing the gaps were crafted by drawing upon P3 practices in the selected jurisdictions and the findings in the general P3 literature, mindful of the federal context into which any proposed policies must fit.

Synthesizing the principal recommendations put forward in this report, there is a need to institute a standardized P3 project screening process, to aid in assessing the viability of a P3 option at an early stage of an accommodation project. To facilitate the crafting of accommodation project business cases when a P3 option is included among viable delivery options, there is a need to update current federal investment analysis methodologies so as to conform with industry best practice, thus ensuring that the recommendation put forward is based on complete project information, including a fulsome consideration of the effects of risk transfer, P3 transaction costs, and market interest in the project. For situations where the project business case indicates a P3 as the best-suited delivery option for an accommodation project, an RFQ/RFP-type procurement process needs to be charted within the federal real property policy framework to guide the fair, transparent, and efficient selection of a preferred private sector proponent while ensuring best value to the Crown. Finally, in the case of P3 procurement, guidelines for the Treasury Board approval process need to integrate the stages, authorities, and funding requirements underlying an RFQ/RFP procurement process.

The findings in this report were based solely on literature from the selected jurisdictions and existing federal real property policy instruments. The analysis did not incorporate input from key P3 stakeholders, nor did it examine the preliminary draft P3 tools and guidelines developed by the client or the early findings from recent pathfinder federal P3 accommodation projects. These avenues can be explored in a subsequent assessment of the two-part policy problem. Data from interviews with key policy stakeholders can be used to validate and expand upon the findings in the current report and assist Treasury Board and PWGSC's Real Property Branch in implementing the proposed recommendations.

REFERENCES

- Alberta (2006a, September). Procurement document preparation (draft). *Alberta Infrastructure and Transportation Management Framework*. Retrieved April 19, 2011 from <http://www.infrastructure.alberta.ca/Content/doctype309/production/ait-p3-procurementdocumentguide.pdf>
- Alberta (2006b, September). Assessment process. *Alberta Infrastructure and Transportation Management Framework*. Retrieved April 29, 2011 from <http://www.infrastructure.alberta.ca/Content/doctype309/production/ait-p3-assessmentframework.pdf>
- Alberta (2011a, March). Alberta's public-private partnership framework and guideline. *Alberta Treasury Board*. Retrieved May 17, 2011 from <http://treasuryboard.alberta.ca/docs/Alberta-P3-Framework-and-Guideline-with-appendices.pdf>
- Alberta (2011b). Appendix A.1: approval process for alternately financed projects. *Documents and Resources*. Retrieved May 17, 2011 from <http://treasuryboard.alberta.ca/docs/Appendix-A1-Approval-Process.pdf>
- Alberta (2011c). ASAP II New Schools project: questions and answers. *Initiatives, Projects and Reviews*. Retrieved May 6, 2011 from <http://www.education.alberta.ca/departement/jpr/p3project/asapii/qa.aspx>
- Alberta (2011d). Appendix C.7: project manager roles and responsibilities. *Documents and Resources*. Retrieved May 17, 2011 from <http://treasuryboard.alberta.ca/docs/Appendix-C7-Project-Manager-Roles-and-Resp.pdf>
- Alberta (n.d.-a). About Treasury Board. Retrieved May 17, 2011 from http://www.treasuryboard.alberta.ca/About_Us.cfm
- Alberta (n.d.-b). Advisory Committee on Alternative Capital financing. *Documents and Resources*. Retrieved May 17, from <http://treasuryboard.alberta.ca/1188.cfm>
- Alberta (n.d.-c). Strategic capital planning. Retrieved May 17, 2011 from <http://www.treasuryboard.alberta.ca/CapitalPlanning.cfm>
- Apro, R. (2006). *Shared accountability for horizontal initiatives: lessons and good practices for Service Canada*. Master of Public Administration capstone project, University of Victoria, Victoria, Canada
- Australia (2006a, December). Australian government policy principles for the use of public private partnerships. *Financial Management Guidance* no. 21. Retrieved April 13, 2011 from http://www.pppinharyana.gov.in/ppp/general/ppp_FMG_Policy_Principles_FINAL.pdf
- Australia (2006b, August). Guidance on the Gateway Review Process—a project assurance methodology for the Australian government. *Financial Management Guidance*. Retrieved May 20, 2011 from <http://www.finance.gov.au/publications/gateway-publications/docs/FMG20.pdf>

Australia (2006c, December). Public private partnerships: business case development. *Financial Management Guidance* no. 17. Retrieved April 13, 2011 from http://www.finance.gov.au/publications/fmg-series/docs/FMG_Business_Case_Development_FINAL.pdf

British Columbia (2002, May). Capital Asset Management Framework. Retrieved April 15, 2011 from http://www.fin.gov.bc.ca/tbs/camf_guidelines.pdf

British Columbia (2009, November 3). Province raises capital standard threshold for PPPs. *Information Bulletin*. Retrieved June 2, 2011 from <http://www.partnershipsbcc.ca/documents/IB-50m-cap-std-update-03nov09.pdf>

Calgary (2008, December 15). Public-private partnership (P3) policy. *Council policy*. Retrieved May 3, 2011 from http://www.calgary.ca/docgallery/bu/cityclerks/council_policies/fcs014.pdf

Canadian Council of Public Private Partnerships [CCPPP] (2004). Ontario Government releases infrastructure framework. *For the Record*. Retrieved May 23, 2011 from <http://www.pppcouncil.ca/pdf/frmwkfr.pdf>

CCPPP (2010). Definitions. *Resources*. Retrieved April 8, 2011 from <http://www.pppcouncil.ca/resources/about-ppp/definitions.html>

CCPPP (2011). Canadian PPP project database. Retrieved May 5, 2011 from <http://projects.pppcouncil.ca/ccppp/src/public/search-project?pageid=3d067bedfe2f4677470dd6ccf64d05ed>

Canadian Mortgage and Housing Corporation (2011). History of CHMC. *Corporate Information*. Retrieved May 9, 2011 from <http://www.cmhc-schl.gc.ca/en/corp/about/hi/index.cfm>

Canadian Security Establishment Canada (2011, January 21). Public-private partnerships and national security: myths vs. reality. Retrieved April 19, 2011 from <http://www.cse-cst.gc.ca/home-accueil/accommodation-installation/facts-faits-eng.html>

Conference Board of Canada (2010, January). Dispelling the myths: a pan-Canadian assessment of public-private partnerships for infrastructure investment

Cohn, D. (2008). British Columbia's Capital Asset Management Framework: moving from transactional to transformational leadership on public-private partnerships, or a "railroad" job? *Canadian Public Administration* 51(1), pp. 71-97

DBRS (2010, February 3). PPP milestone and completion payments: bigger is not always better. *Commentary*. Retrieved May 15, 2011 from http://www.pppcouncil.ca/pdf/DBRS_payments_02032010.pdf

Defence Construction Canada (2011, May 5). Corporate information. Retrieved May 12, 2011 from http://www.dcc-cdc.gc.ca/english/corporate_info.html

Deloitte (2006). Closing the infrastructure gap: the role of public-private partnerships. Retrieved April 20, 2011 from http://www.deloitte.com/assets/Dcom-Shared%20Assets/Documents/dtt_ps_closinggap061307.pdf

Deloitte (2007). Screening criteria and minimum information requirements for the use of the P3 model for real property projects (Government of Canada internal document)

Department of Finance (2006). Advantage Canada: building a strong economy of Canadians. Retrieved May 2, 2011 from <http://www.fin.gc.ca/ec2006/pdf/plane.pdf>

Department of Justice (1996). *Department of Public Works and Government Services Act*. Retrieved April 4, 2011 from <http://laws-lois.justice.gc.ca/PDF/P-38.2.pdf>

Department of Justice (2002). *Canadian Strategic Infrastructure Fund Act*. Retrieved April 16, 2011 from <http://laws-lois.justice.gc.ca/PDF/C-10.3.pdf>

Department of National Defence (2010, October 4). Government of Canada to modernize intelligence monitoring infrastructure. *News Room*. Retrieved April 23, 2011 from <http://www.forces.gc.ca/site/news-nouvelles/news-nouvelles-eng.asp?cat=00&id=3583>

Desilets, B. (2009). American style P3s. *Institute for Public-Private Partnerships*. Retrieved May 7, 2011 from <http://www.ip3.org/american-style-p3.html?print=1&tmpl=component>

European Commission (2003, March). Guidelines for successful public-private partnerships. Retrieved April 30, 2011 from http://ec.europa.eu/regional_policy/sources/docgener/guides/ppp_en.pdf

Farrugia, C., Reynolds, T., and Orr, R. J. (2008, August). Public-private partnership agencies: a global perspective. *Collaboratory for Research on Global Projects* (working paper #39). Retrieved April 5, 2011 from http://www.nawc.org/uploads/documents-and-publications/documents/document_02445830-0b21-4f61-8b65-bad5f5989467.pdf

Flanagan, J. and Nicholls, P. (n.d.). Public sector business cases using the Five Case Model: a toolkit. Retrieved May 10, 2011 from http://www.hm-treasury.gov.uk/d/greenbook_toolkitguide170707.pdf

Freshfields Bruckhaus Deringer (2006, March). The new UK procurement regulations. Retrieved May 17, 2011 from <http://www.freshfields.com/publications/pdfs/2006/14533.pdf>

Giannini, A. (2008). *A tentative national infrastructure policy for Canada*. Master of Engineering thesis, McGill University, Montreal, Canada. Retrieved May 1, 2011 from http://digitool.library.mcgill.ca/R/SLVHII77B7EURRVDGMUAJ84Y5D54U6L8YIMVDS6RFCB3E3GLIB-00813?func=results-jump-full&set_entry=000032&set_number=000454&base=GEN01

Government of Canada (2006, September 15). PWGSC awards contract with respect to certain real estate assets. *Canada News Centre*. Retrieved April 15, 2011 from <http://news.gc.ca/web/article-eng.do?crtr.sj1D=&mthd=advSrch&crtr.mnthndVI=12&nid=239269>

Government of Canada (2007). Building Canada: modern infrastructure for a stronger Canada. Retrieved April 5, 2011 from http://dsp-psd.pwgsc.gc.ca/collection_2008/ic/lu154-4-2007E.pdf

Government of Canada (2008). Treasury Board of Canada Secretariat. *Info Source*. Retrieved April 15, 2011 from <http://www.infosource.gc.ca/inst/tbd/fed04-eng.asp>

Government of Canada (2009). Public Works and Government Services Canada. *Info Source*. Retrieved April 12, 2011 from <http://www.infosource.gc.ca/inst/svc/fed04-eng.asp>

Government of Canada (2011a, June 6). Budget 2011: the next phase of Canada's Economic Action Plan—a low-tax plan for jobs and growth. Retrieved June 6, 2011 from <http://www.budget.gc.ca/2011/plan/Budget2011-eng.pdf>

Government of Canada (2011b, July 8). PPP Canada Inc. *Governor in Council Appointments*. Retrieved July 14, 2011 from <http://www.appointments.gc.ca/prflOrg.asp?OrgID=PPPC&lang=eng>

Gross, M., Shouldice, R., and Douglas, H. (2010, September 24). Spreading out from Canadian PPP. *Project Finance*. Retrieved April 20, 2011 from <http://www.projectfinancemagazine.com/Article/2676736/Spreading-out-from-Canadian-PPP.html>

Her Majesty's Treasury [HM Treasury] (2006, November). Value for money assessment guide. Retrieved April 30, 2011 from http://webarchive.nationalarchives.gov.uk/+http://www.hm-treasury.gov.uk/media/4/4/vfm_assessmentguidance061006opt.pdf

HM Treasury (2007, March). Standardisation of PFI contracts (version 4). Retrieved May 14, 2011 from http://www.hm-treasury.gov.uk/d/pfi_sopc4pu101_210307.pdf

HM Treasury (2010a, October). National Infrastructure Plan 2010. Retrieved May 14, 2011 from <http://www.hm-treasury.gov.uk/d/nationalinfrastructureplan251010.pdf>

HM Treasury (2010b). PFI and PPP. Retrieved July 14, 2011 from <http://www.docstoc.com/docs/67903999/Mr-Peter-Livesey---PowerPoint-Presentation>

HM Treasury (2011a, April). Major project approval and assurance guide. Retrieved April 22, 2011 from http://www.hm-treasury.gov.uk/d/major_projects_approvals_assurance_guidance.PDF

HM Treasury (2011b). Public private partnerships. Retrieved April 17, 2011 from http://www.hm-treasury.gov.uk/ppp_index.htm

HM Treasury (n.d.-a). An introduction to Spending Review. Retrieved May 18, 2011 from http://www.hm-treasury.gov.uk/spend_spendingreview_introduction.htm

HM Treasury (n.d.-b). Green book: appraisal and evaluation in central government. Retrieved April 22, 2011 from http://www.hm-treasury.gov.uk/d/green_book_complete.pdf

HM Treasury (n.d.-c). Infrastructure UK. Retrieved May 15, 2011 from http://www.hm-treasury.gov.uk/ppp_infrastructureuk.htm

Huxley, A. L. (2002, June). Estimate classes: an explanation. *Construction Economist*. Retrieved May 19, 2011 from <http://www.ciqs.org/docs/EstimateClasses.pdf>

Industry Canada (2001, June). Public-private partnerships: a Canadian guide. Retrieved May 3, 2011 from http://replay.web.archive.org/20040116093458/http://strategis.ic.gc.ca/pics/ce/p3guide_e.pdf

Industry Canada (2002, May). The public sector comparator: a Canadian best practices guide. Retrieved May 5, 2011 from http://replay.web.archive.org/20040414145335/http://strategis.ic.gc.ca/pics/ce/ic_psc.pdf

Infrastructure Australia (2008, December). National public private partnerships policy framework. Retrieved May 16 from http://www.infrastructureaustralia.gov.au/public_private/files/National_PPP_Policy_Framework_Dec_08.pdf

Infrastructure Australia (2010, October). Better infrastructure decision-making: guidelines for making submissions to Infrastructure Australia's infrastructure planning process, through Infrastructure Australia's Reform and Investment Framework. Retrieved May 16, 2011 from http://www.infrastructureaustralia.gov.au/reform_investment/files/Better_Infrastructure_Decision_Making_Guidelines.pdf

Infrastructure Australia (2011a, April 15). Infrastructure plans. Retrieved May 16, 2011 from http://www.infrastructureaustralia.gov.au/infrastructure_plans/

Infrastructure Australia (2011b, April 15). Infrastructure Australia functions as set out in the *Infrastructure Australia Act 2008*. Retrieved May 29, 2011 from <http://www.infrastructureaustralia.gov.au/about/functions.aspx>

Infrastructure Australia (2011c, June 10). Public private partnerships. Retrieved June 17, 2011 from http://www.infrastructureaustralia.gov.au/public_private/

Infrastructure Australia (2011d, June 20). About Infrastructure Australia. Retrieved June 25, 2011 from <http://www.infrastructureaustralia.gov.au/about/>

Infrastructure Canada (2006). Report on plans and priorities 2006-2007. Retrieved May 8, 2011 from <http://www.tbs-sct.gc.ca/rpp/2006-2007/inf-c-inf-c/inf-c-inf-c-eng.pdf>

Infrastructure Canada (2011, June 27). Canadian Strategic Infrastructure Fund. *Programs*. Retrieved July 14, 2011 from <http://www.inf-c.gc.ca/ip-pi/csif-fcis/categories-eng.html#sf>

Infrastructure Investor (2010, December). Canada: and intelligence report. Retrieved April 10, 2011 from <http://www.p3canada.ca/files/file/Canada-Report.pdf>

Infrastructure Ontario (2007). Assessing value for money: a guide to Infrastructure Ontario's methodology. Retrieved April 14, 2011 from <http://www1.infrastructureontario.ca/en/projects/files/VFM%20GUIDE%20WEB.pdf>

Infrastructure UK (2011). About IUK. Retrieved May 29 from http://www.hm-treasury.gov.uk/iuk_about_us.htm

Kovessy, P. (2011, April 5). The public-private partnerships building Ottawa's future. *Ottawa Business Journal*. Retrieved April 6, 2011 from <http://www.obj.ca/Opinion/2011-04-05/article-2401578/The-public-private-partnerships-building-Ottawa%26rsquo%3Bs-future/1>

KPMG (2010, May). PPP procurement: review of barriers to competition and efficiency in the procurement of PPP projects. Retrieved April 13, 2011 from <http://www.kpmg.com/NZ/en/IssuesAndInsights/ArticlesPublications/SmarterProcurement/Documents/Review-of-barriers-to-competition.pdf>

Kwak, Y. H., Chih, Y. Y., and Ibbs, C. W. (2009). Towards a comprehensive understanding of public private partnerships for infrastructure development, *California Management Review* 51(2), pp. 51-78. Retrieved April 3, 2011 from http://home.gwu.edu/~kwak/Infra_PPP_Kwak_Chih_Ibbs.pdf

Murphy, T. J. (2008). The case for public-private partnerships in infrastructure. *Canadian Public Administration* 51(1), pp. 99-126

National Research Council (2003, April). Alternate funding mechanisms. *National Guide to Sustainable Municipal Infrastructure*. Retrieved May 2, 2011 from http://www.sustainablecommunities.fcm.ca/files/InfraGuide/Decision_Making_Investment_Planning/Alternative_Funding_Mechanisms.pdf

Ontario (2004). Building a better tomorrow: an infrastructure planning, financing and procurement framework for Ontario's public sector. Retrieved April 14, 2011 from http://www.moi.gov.on.ca/pdf/en/BBT-Framework_EN.pdf

Ontario (2010a, February 1). Delivering project success: an owner's guide. Retrieved April 14, 2011 from https://www.infrastructureapp.moi.gov.on.ca/en/docs/Delivering_Project%20Success_An%20Owner's%20Guide_Guide.pdf

Ontario (2010b, July 7). Infrastructure Ontario. Retrieved April 14, 2011 from <http://www1.infrastructureontario.ca/en/about/index.asp>

Orr, R. J. and Tchou, J. (2009, July 3). Project viability screening: a method for early-stage merit-based project selection. *Stanford University Collaboration for Research on Global Projects*. Retrieved April 29, 2011 from http://crgp.stanford.edu/publications/articles_presentations/Orr_project_viability_screening.pdf

Partnerships British Columbia [Partnerships BC] (2003, June). An introduction to public private partnerships. Retrieved April 18, 2011 from <http://www.partnershipsbc.ca/pdf/An%20Introduction%20to%20P3%20-June03.pdf>

Partnerships BC (2008). Request for qualifications for BC Cancer Agency's Centre for the North project. Retrieved May 29, 2011 from <http://www.partnershipsbc.ca/pdf/BCCA-RFQ-121508.pdf>

Partnerships BC (2009). 2009/10–2011/12 service plan. Retrieved May 29, 2011 from http://www.partnershipsbc.ca/files/documents/partnershipsbc2009-10to2011-12serviceplanfinal_000.pdf

Partnerships BC (2010a, January). Methodology for quantitative procurement options analysis: discussion paper. Retrieved April 16, 2011 from http://www.partnershipsbc.ca/files/documents/pbc-methodology-quantitative-procurement-options-analysis-29jan10_000.pdf

Partnerships BC (2010b, January). Procurement related disclosure for public private partnerships. Retrieved May 29, 2011 from http://www.partnershipsbc.ca/files/documents/pbc-disclosure-guidance-19jan10-update_000.pdf

Partnerships BC (2011). Canada Line. Retrieved April 20 from <http://www.partnershipsbc.ca/files/documents/CanadaLinecasestudy.pdf>

Partnerships BC (n.d.). Frequently asked questions. Retrieved May 29, 2011 from <http://www.partnershipsbc.ca/files/faqs.html#6>

Partnerships UK (2009). What we do. Retrieved May 29, 2011 from <http://www.partnershipsuk.org.uk/What-PUK-Do.aspx>

Philpotts, T. and Willcocks, G. (2008, March). Public-private partnerships in Canada. Retrieved May 2, 2011 from http://www.pppcouncil.ca/pdf/cali_pres_022008.pdf

Pirie, J. D. (1997). The Confederation Bridge: project structure and risk. *Canadian Journal of Civil Engineering* 24(6), pp. 867-874

PPP Canada Inc. (2009). 2008-2009 annual report. Retrieved April 28, 2011 from http://www.p3canada.ca/files/file/PPP-Annual-Report_EN.pdf

PPP Canada Inc. (2010). Improved infrastructure delivery: annual report 2009-2010. Retrieved April 15, 2011 from http://www.p3canada.ca/files/file/PPP_Canada_Annual_Report_2009-10_en.pdf

PPP Canada Inc. (2011a). P3 introductory workshop. Retrieved May 14, 2011 from <http://www.amm.mb.ca/documents/P3CanadaWorkshop.pdf>

PPP Canada Inc. (2011b). Summary corporate plan 2010-2015, operating and capital budgets 2010/11. Retrieved May 12, 2011 from http://www.p3canada.ca/files/file/2010_11_Summary_Corporate_Plan.pdf

PPP Canada Inc. (n.d.-a). Corporate information. Retrieved April 16, 2011 from <http://www.p3canada.ca/corporate-information.php>

PPP Canada Inc. (n.d.-b). P3 Canada Fund investments map. Retrieved April 28, 2011 from <http://www.p3canada.ca/investment-project-map.php>

PPP Canada Inc. (n.d.-c). P3 Canada Fund milestones. Retrieved April 28, 2011 from <http://www.p3canada.ca/p3-canada-fund-milestones.php>

PPP Canada Inc. (n.d.-d). RCMP closes P3 deal for new headquarters in Surrey, B.C. *P3 Success Stories*. Retrieved May 7, 2011 from http://www.p3canada.ca/files/file/3901_PPP_Factsheet_02_P3%20Success%20Stories.pdf

Public Works and Government Services Canada [PWGSC] (1989). Investment analysis policy. *Real Property Services Branch—Office Accommodation Services* (PWGSC official internal document)

PWGSC (2007). Real Property Branch policy management framework (PWGSC intranet)

PWGSC (2008). Dealings with Treasury Board Secretariat officials on Real Property Branch business line matters—directive. *The Source—Document Centre* (PWGSC intranet)

PWGSC (2009a). Fairness monitoring policy. *Departmental Policies* (PWGSC intranet)

PWGSC (2009b). For consultation: organization and governance structure, P3 Development and Advisory Services National Centre of Expertise (PWGSC official internal document)

PWGSC (2009c, January). Guide for the preparation of investment analysis reports. *Accommodation and Portfolio Management*. Retrieved April 6, 2011 from <http://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/bi-rp/livra-deliv/invest/documents/rai-iar-eng.doc>

PWGSC (2009d). National Service Management Strategy: capacity building priorities 2009-2013 (PWGSC intranet)

PWGSC (2009e). Request for proposals for RCMP “E” Division Headquarters: executive summary. Retrieved May 20, 2011 from <http://www.tpsgc-pwgsc.gc.ca/biens-property/nouvelles-news/documents/ddpgrc-rfprcmp-eng.pdf>

PWGSC (2010a). Framework for departmental policy instruments within PWGSC. *Departmental Policies* (PWGSC intranet)

PWGSC (2010b, April 20). National Project Management System (NPMS) policy. *National Project Management System*. Retrieved May 10, 2011 from <http://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/politique-policy-eng.html>

PWGSC (2010c). Policy and policy-related document development procedure (PWGSC official internal document)

PWGSC (2010d, February 23). Public-private partnerships (P3s): making them work for you. *Real Property Institute of Canada 2009-10 Breakfast Speaker Series*. Retrieved April 11, 2011 from <http://www.rpic-ibic.ca/downloads/Breakfast/rupert022310-e.pdf>

PWGSC (2010e, December 6). Real property. *Fact Sheets*. Retrieved April 15, 2011 from <http://www.tpsgc-pwgsc.gc.ca/apropos-about/fi-fs/bi-rp-eng.html#portfolio>

PWGSC (2010f). Selected real property delivery options: a primer (PWGSC draft internal document)

PWGSC (2011a). Departmental policies (PWGSC intranet)

PWGSC (2011b, April 26). Guide and template for the preparation of feasibility reports. *National Project Management System*. Retrieved May 14, 2011 from <http://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/bi-rp/livra-deliv/faisa-feasi/guide-eng.html>

PWGSC (2011c). National Project Management System. Retrieved April 4, 2011 from <http://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/index-eng.html>

PWGSC (2011d, April 20). NPMS directive for real property projects. *National Project Management System*. Retrieved May 12, 2011 from <http://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/bi-rp/procedure-eng.html>

PWGSC (2011e, July 5). Procurement process. *National Project Management System*. Retrieved July 14, 2011 from <http://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/bi-rp/conn-know/approv-procure/plan-eng.html>

PWGSC (2011f, February 3). PWGSC's building management contract. *Features*. Retrieved April 4, 2011 from <http://www.tpsgc-pwgsc.gc.ca/comm/vedette-features/cgi-bmc-eng.html>

PWGSC (2011g). Project report: RCMP "E" Division Headquarters relocation project. Retrieved April 19, 2011 from <http://www.tpsgc-pwgsc.gc.ca/biens-property/nouvelles-news/documents/rp-pr-eng.pdf>

PWGSC (2011h, March 15). Real Property Branch. Retrieved April 5, 2011 from <http://www.tpsgc-pwgsc.gc.ca/biens-property/dgd/bi-rpb-eng.html>

PWGSC (2011i). The capital conundrum: finding a sense of urgency (PWGSC draft internal document).

PWGSC (2011j). Vesting P3 investment tools—note for discussion (PWGSC draft internal document)

Québec (2010). Framework policy for the governance of major public infrastructure projects. Retrieved May 25, 2011 from http://www.tresor.gouv.qc.ca/fileadmin/PDF/publications/Politique-cadre_2010_ANG.pdf

Queensland (2002, August). Business case development. *Public Private Partnerships Guidance Material*. Retrieved April 28, 2011 from http://www.sd.qld.gov.au/dsdweb/docs-bin/v2/major_proj/ppp_bus_case_dev.pdf

Smith, A. (2009, April 23). The roles and responsibilities of central agencies. *Parliamentary information and Research Service—Library of Parliament*, PRB 09-01E. Retrieved April 12, 2011 from <http://www2.parl.gc.ca/content/lop/researchpublications/prb0901-e.htm#a13>

South Africa (2004, August). Public-private partnerships manual. *National Treasury PPP Unit*. Retrieved April 29, 2011 from <http://www.ppp.gov.za/PPPManual.htm>

South Africa (2007, November). Terms of reference for the development of a office accommodation public private partnership toolkit. Retrieved April 21, 2011 from <http://www.ppp.gov.za/Callsforbids/20080422/TOR%20ACCOMMODATION%20TOOLKIT%20adjusted%20%20April%202008%20doc.pdf>

Tadros, G. (1997). The Confederation Bridge: an overview. *Canadian Journal of Civil Engineering* 24(6), pp. 850-866

Toronto Transit Commission (2005, December 16). Canadian Strategic Infrastructure Fund (CSIF) contribution agreement. Retrieved May 2, 2011 from http://www3.ttc.ca/About_the_TTC/Commission_reports_and_information/Commission_meetings/2005/Dec_14_2005/Other/Canada_Strategic_Inf.jsp

Treasury Board of Canada Secretariat [TBS] (2006a, February 6). About the Secretariat. Retrieved April 11, 2011 from <http://www.tbs-sct.gc.ca/tbs-sct/abu-ans/tbs-sct/abu-ans-eng.asp>

TBS (2006b, June 6). Policy framework for the management of assets and acquired services. *Treasury Board Policy Suite*. Retrieved June 11, 2011 from <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12022§ion=text>

TBS (2006c, June 26). Policy on management of real property. *Treasury Board Policy Suite*. Retrieved April 8, 2011 from <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12042§ion=text>

TBS (2007). A guide to preparing Treasury Board submissions. Retrieved April 4, 2011 from http://www.tbs-sct.gc.ca/pubs_pol/ojepubs/TBM_162/gptbs-gppct-eng.pdf

TBS (2008a, June 24). Foundation framework for Treasury Board policies. *Treasury Board Policy Suite*. Retrieved April 6, 2011 from <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=13616§ion=text>

TBS (2008b, February 19). Treasury Board policy suite. Retrieved April 4, 2011 from <http://www.tbs-sct.gc.ca/pol/index-eng.aspx?tree=a2z>

TBS (2009, June 27). Guide to the management of real property. *Treasury Board Policy Suite*. Retrieved July 14, 2011 from <http://www.tbs-sct.gc.ca/rpm-gbi/doc/gmrp-ggbi/gmrp-ggbi-eng.aspx>

TBS (2010a, June 8). Real property management. Retrieved June 12, 2011 from http://www.tbs-sct.gc.ca/rpm-gbi/site/home_accueil-eng.aspx

TBS (2010b, December 29). Real property—policies and publications. Retrieved April 4, 2011 from http://www.tbs-sct.gc.ca/pubs_pol/dcgpubs/realproperty/siglist-eng.asp

TBS (2010c, February 24). Policy on investment planning—assets and acquired services. *Treasury Board Policy Suite*. Retrieved May 9, 2010 from <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=18225>

TBS (2010d, February 24). Policy on the management of projects. *Treasury Board Policy Suite*. Retrieved May 7, 2010 from <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=18229§ion=text>

TBS (2010e). Treasury Board advisory committee on real property. Retrieved May 11, 2011 from http://www.tbs-sct.gc.ca/rpm-gbi/site/home_accueil-eng.aspx?id=041

TBS (2011a, April 13). Organizations by floor area. *Directory of Federal Real Property*. Retrieved July 25, 2011 from <http://www.tbs-sct.gc.ca/dfrp-rbif/reports-rapports/top-haut/floor-plancher-eng.aspx?>

TBS (2011b, March 28). Standard for organizational project management capacity. *Treasury Board Policy Suite*. Retrieved May 9, 2011 from <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=21252>

TBS (2011c, March 28). Standard for project complexity and risk. *Treasury Board Policy Suite*. Retrieved May 9, 2011 from <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=21261>

University of Western Ontario (2011). P3s. Retrieved May 4, 2011 from <http://www.lib.uwo.ca/programs/generalbusiness/p3s.html>

Vanier, D. J., Lacasse, M. A., and Danylo, N. H. (n.d.). Innovations in infrastructure asset management: the need for business process re-engineering. *Innovations in Urban Infrastructure*. Retrieved May 7, 2011 from <http://www.nrc-cnrc.gc.ca/obj/irc/doc/pubs/nrcc41339.pdf>

Vining, A. R. and Boardman, A. E. (2008). Public-private partnerships in Canada: theory and evidence. *Canadian Public Administration* 51(1), pp. 9-44

Wong, C. (2007). *Exploring options to strengthen Canada's capacity for public-private partnerships*. Master of Public Policy capstone project, Simon Fraser University, Burnaby, Canada. Retrieved April 8, 2011 from <http://ir.lib.sfu.ca/bitstream/1892/4116/1/etd2825.pdf>

Yescombe, E. R. (2007). *Public-private partnerships: principles of policy and finance*. Oxford, UK: Elsevier.

APPENDIX A: INDEX OF KEYWORDS AND TERMINOLOGY

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APPENDIX B: COMMONLY USED ACHRONYMS

ADM – Assistant Deputy Minister
CCPPP – Canadian Council of Public Private Partnerships
DB – Design-Build
DBB – Design-Bid-Build
DBF – Design-Build-Finance
DBFM – Design-Build-Finance-Maintain
DBFOM – Design-Build-Finance-Operate-Maintain
DM – Deputy Minister
EOI – Expressions of Interest
EPA – Effective Project Approval
IAR – Investment Analysis Report
LP – Lease-Purchase
NPMS – National Project Management System
NSMS – National Service Management Strategy
P3 – Public-Private Partnership
P3 NCOE – P3 Development and Advisory Services National Centre of Expertise
PPA – Preliminary Project Approval
PPP (see P3)
PVCOA – Present Value Cost of Accommodation
PWGSC – Public Works and Government Services Canada
REOI – Request for Expressions of Interest
RFP – Request for Proposal
RFQ – Request for Qualifications
RFT – Request for Tenders
RPB – Real Property Branch
RPMC – Real Property Management Committee
TBS – Treasury Board of Canada Secretariat
TB – Treasury Board
VFM – Value for Money

APPENDIX C: DATA FROM JURISDICTIONAL SCANS

This appendix presents data from a scan of P3 policies and practices in the UK, Australia, Alberta, and British Columbia. The scan, as recorded in Tables C.1 through C.4, classifies P3 practices according to their impact on the six structural elements listed in Table 4.1. The data in Tables C.1 through C.4 is summarized in sections 5.2 through 5.5, respectively, and is synthesized across jurisdictions in section 5.6. The policy scans in Tables C.1 through C.4 also serve as stand-alone annotated reference guides for P3 practices in the sampled jurisdictions. See section 2.1.3 for the methodology guiding the collection of jurisdictional data and section 5.1 for justification for selecting the four cited jurisdictions.

Table C.1: P3 practices, per structural element, at the UK national level. (See Table 4.1 for P3-related domains of definition, per structural element.)

Structural elements	P3 policies and practices in UK
<i>Infrastructure Investment Planning</i>	<ul style="list-style-type: none"> • States the use of multi-year <i>Spending Reviews</i> to “allocate resources across all government departments, according to the Government’s [long-term] priorities” (HM Treasury, n.d.-a, para. 1). • Respective of directions set in <i>Spending Reviews</i>, identification of key areas for P3 infrastructure development in the <i>National Infrastructure Plan</i> (HM Treasury, 2010a) and subsequent identification of projects which may be suited for P3 procurement through the central P3 unit, Infrastructure UK whose role is “to coordinate the planning, prioritisation and enablement of investment in UK infrastructure” (HM Treasury, 2011a, p. 6).
<i>Preliminary Project Screening</i>	<ul style="list-style-type: none"> • A screening mechanism is used “[to] consider [if] PFI [P3] may be a suitable procurement route based on <i>prima facie</i> evidence” prior to in-depth project assessments and prior to engagement with potential private sector bidders (HM Treasury, 2006, p. 15). • The minimum capital threshold for projects to be consideration for P3 delivery: 20 million UK pounds (Deloitte, 2007, p. 67). • Projects initially assessed qualitatively at the <i>programme level</i> (Deloitte). <i>Program Level Assessment</i> is accompanied with high-level quantitative cost estimates based on past projects (Deloitte, p. 67).⁴⁴ • A Programme Level Assessment is conducted on “the subset of investment[s] identified as potentially suitable for PFI [P3]” in alignment with <i>Spending Review</i> (HM Treasury, 2006, p. 15). • A qualitative <i>Project Level Assessment</i> forms part of “outline business case” for a project and involves similar, albeit more detailed screening criteria than used for Program Level Assessments (Deloitte, p. 66; HM Treasury, 2006).
<i>Project Business Case Development</i>	<ul style="list-style-type: none"> • Business cases for specific infrastructure projects are developed in two stages: (i) outline business case (OBC) which assesses all procurement options in detail following the programme-level assessment (screening) and (ii) final business case (FBC) prior to finalizing negotiations and P3 contract (HM Treasury, 2011a) ⁴⁵ In addition, continuous assurance reviews and updates are made to business case at key project milestones, up to and beyond financial close (HM Treasury). • OBCs and FBCs assess various qualitative and quantitative factors in determining if the PFI/P3 option delivers better <i>value for money</i> (VFM) than other options, where VFM is defined as “the optimum combination of whole-of-life costs and quality of the good or service to meet the user’s requirement” (HM Treasury, 2006, p. 7).

⁴⁴ HM Treasury (2011a) defines a programme as “[a] structure created to coordinate, direct and oversee the implementation of a set of related projects and activities” (p. 4), versus a project.

⁴⁵ The OBC is preceded by a program-level business case termed a “strategic outline business case” (SOBC). Like the OBC, the SOBC makes assessments of procurement options based on qualitative and quantitative (financial) information, the latter drawn from past UK PFI/P3 projects. The evidence and analysis appearing in the SOBC is less detailed than that found in the OBC (HM Treasury, 2006).

Structural elements	P3 policies and practices in UK
	<ul style="list-style-type: none"> • As a good practice, OBC generally includes a <i>market sounding</i> which gauges general private sector interest in the project under a PFI/P3 route at a pre-bid solicitation stage (HM Treasury, 2006). • The quantitative (financial) assessment of procurement options is made by estimating the whole-of-life costs of assets and services underlying the project, factoring in associated project risks (HM Treasury, 2006). Total project costs, per procurement option, are calculated on a <i>net present value</i> basis which incorporates a fixed <i>discount rate</i> and includes quantified costs of risks and biases (e.g., optimism bias in cost estimates) and adjustments to account for taxation differences among options (HM Treasury, n.d.-b).⁴⁶
<i>Procurement Processes</i>	<ul style="list-style-type: none"> • Key stages in the procurement process are: (1) receipt of expressions of interest following the posting of the project on the <i>Official Journal of European Union</i>; (2) pre-qualification of bidders among those submitting expressions of interest; (3) <i>competitive dialogue</i> with pre-qualified bidders; and (4) submission and evaluation of tenders (bids) (Freshfields Bruckhaus Deringer [FBD], 2006; HM Treasury, 2007). • The multi-stage competitive dialogue process permits the public sector procurer “to discuss contract specifications with potential bidders” during the procurement process (FBD, 2006, p. 1). The desired outcome of competitive dialogue is the identification of a general solution(s) that can meet the project needs and will, thus, be bid upon in the tendering process. The crafting of such a solution draws upon the experience of private sector competitive dialogue participants, while ensuring confidentiality (FBD). • The crafting of PFI/P3 project agreements is guided by the <i>Standardisation of PFI Contracts</i> guideline, itself based on lessons learned from past PFI/P3 projects and direction from Treasury (HM Treasury, 2007)
<i>Project Approval Processes</i>	<ul style="list-style-type: none"> • Process has three <i>Treasury Approval Points</i> (TAPs) at which HM Treasury/Infrastructure UK grants approvals to proceed to subsequent stages of major infrastructure projects (HM Treasury, 2011a, p. 5): at TAP 1, approval is sought for government commitment to project; at TAP 2 approval is sought for issuance of procurement documents; at TAP 3, approval is sought for finalization of commercial contracts (financial close). • Decisions at the three TAPs are supported by contents of the SOBC, OBC, and FBC, respectively (HM Treasury, 2011a), i.e., decisions supported by (updated) business cases.

⁴⁶ The method cited above is essentially the *public sector comparator* (PSC) approach to quantitative analysis employed by the other three jurisdictions. Reference to the PSC approach is omitted in the literature for UK, with the only prominent mention of the term found in the glossary section of HM Treasury (n.d.-b), not in the general description of the quantitative assessment process.

Structural elements	P3 policies and practices in UK
<p><i>Internal Project Management</i> [up to financial close]</p>	<ul style="list-style-type: none"> • Assurance reviews of the business case are conducted periodically by the <i>Major Projects Authority</i> (MPA) to support HM Treasury at TAPs (HM Treasury 2011a). • Additional project assurance and approvals provided by department(s) sponsoring the project. Departmental oversight is in the form of functional, technical, and auditing assurances (HM Treasury, 2011a) • Above review actions are mandatory: “HM Treasury will not normally approve projects if the appropriate assurance processes ... have not been followed” (HM Treasury, 2011a, p. 14).

Table C.2: P3 practices, per structural element, at the Australian national level. (See Table 4.1 for P3-related domains of definition, per structural element.)

Structural elements	P3 policies and practices in Australia (national level)
<i>Infrastructure Investment Planning</i>	<ul style="list-style-type: none"> • The use of medium-term <i>infrastructure plans</i> outlining specific infrastructure investment opportunities; “[t]hese plans contain approved projects as well as potential projects, some of which may be delivered as Public Private Partnerships” (Infrastructure Australia, 2011a, para.1). The general infrastructure plan strategy is shared across Australian national, state, and territorial governments (Infrastructure Australia, 2011c). • In addition to projects cited in infrastructure plans, any project with capital costs in excess of \$50 million AUD must be given consideration as a P3, in accordance with Australia’s <i>National PPP Policy</i> (Infrastructure Australia, 2008). • Infrastructure Australia’s <i>infrastructure pipeline</i> provides a long-term infrastructure plan aligned with seven national priorities, in collaboration with state and territorial governments (Infrastructure Australia, 2010).
<i>Preliminary Project Screening</i>	<ul style="list-style-type: none"> • The <i>PPP Suitability Checklist</i> is used “in assessing whether a PPP option should be explored in the initial stages of project development” (Australia, 2006c, p. 53). • The minimum estimated whole-of-life cost threshold for projects to be considered for P3 delivery: \$20 million AUD pounds with emphasis on projects with whole-of-life costs in excess of \$100 million AUD (Australia, 2006c, p. 54). • The outcome of the PPP Suitability Checklist informs the project <i>Scoping Study</i>, which “in most cases result[s] in a government decision on whether or not to further examine the delivery options brought forward,” including the P3 delivery route (Australia, 2006c, p. 14).
<i>Project Business Case Development</i>	<ul style="list-style-type: none"> • The project business case is developed in two stages: (i) the <i>Interim Business Case</i> (IBC) which “provide[s] government with sufficient information about the expected value for money of the available delivery options to assist the government in making a decision on the preferred option” (Australia, 2006c, p. 16) in advance of the procurement process; and (ii) the <i>Final Business Case</i> (FBC) which “confirm[s] that best value for money is achievable [through selected option]” and provides direction on “finalising a contract with the preferred tenderer” (Australia, p. 36). Both the IBC and FBC support formal submissions to government, re: formal project approvals documents (Australia). The business case is continually updated between the IBC and FBC stages (Deloitte, 2007). • In the IBC, the qualitative assessment of procurement options is based on the data obtained in the PPP Suitability Checklist (project screening) in conjunction with a refined project scope/project plan, risk analyses, and an assessment of private sector market interest (Australia, 2006c). The quantitative assessment (determination of value for money) is based on a <i>public sector comparator</i> (PSC) approach. The PSC approach compares the whole-of-life costs of the project under a P3 option against that of traditional (non-P3) procurement option on a net present value basis, where cash flows per procurement option incorporate an allocation of quantified costs of risks (when quantifiable) and a judiciously selected discount rate (Australia). Details on the calculation of the PSC are provided in Appendix A of Australia.

Structural elements	P3 policies and practices in Australia (national level)
	<ul style="list-style-type: none"> • The FBC updates the IBC, post <i>request for tenders</i> (RFT), by incorporating “the actual tender data received in the RFT process,” leading to a final value for money assessment of the P3 procurement option against the traditional mode of procurement (Australia, 2006c, p. 36). The FBC also “set[s] out the final scope and cost of the project” and provides a plan for finalizing the project agreement (long-term P3 contract) with the preferred tenderer (Australia, p. 36). • For both IBC and FBC, techniques and elements used in calculating the net present costs of delivery options is detailed in various standardized guidance documents (Australia, 2006c).
<i>Procurement Processes</i>	<ul style="list-style-type: none"> • The two key stages in the procurement process are the <i>expression of interest</i> (EOI) stage and <i>request for tenders</i> (RFT) stage. Both stages follow the completion of the IBC (Australia, 2006c). • Proceeding to the EOI stage “assumes that PPP is the recommended and preferred delivery option” (Australia, 2006c, p. 26). Key sub-stages and intended outcomes of the EOI stage are: development of EOI documentation which “provide[s] clear guidance and sufficient detail on the project’s service delivery requirements and the agency’s evaluation processes” (Australia, p. 27); advertising of the EOI documentation, followed by <i>briefing sessions</i>, “giving the [public sector] agency an opportunity to clarify its view of the project’s scope, gain further market feedback on the project structure and deliverables and discuss any other relevant matters” (Australia, p. 27); and the evaluation phase, leading to the short-listing of at least three private sector parties based on their technical and financial capabilities. • Only the parties shortlisted in the EOI stage will proceed to the RFT stage and receive the <i>formal bid documents</i>, constituting an updated project brief and (preliminary) P3 project contract (Australia, 2006c, p. 27). Key sub-stages and outcomes of the RFT stage: the development of project tender documentation; the release of tendering documents to all shortlisted bidders; and evaluation of proposal, “resulting in the identification of a preferred tenderer” (Australia, p. 31)⁴⁷
<i>Project Approval Processes</i>	<ul style="list-style-type: none"> • Following the identification (and approval) of potential project delivery options through the project scoping study, the P3 project approval process involves formal executive approvals at two decision points: (1) approval of preferred delivery option, estimated budget for the project, resources for executing project tendering process, and authority to develop and release EOI and RFT documentation; and (2) approval of choice of preferred tenderer, authority to enter into a P3 contract with preferred tenderer, and approval of the terms of the final contract (Australia, 2006c; Deloitte, 2007). The formal submissions (<i>approval documents</i>) corresponding to these two approval points are supported by the IBC and FBC, respectively (Australia). • The submission for decision point (2), as supported by the FBC, “identify[ies] the preferred tenderer, the expected terms of the contract, ... recommend[s] a specific approach to project delivery, ... [and] clearly outline[s] the funding requirements for the proposal including the budget

⁴⁷ If there are significant unresolved issues following bid evaluation and/or if there are difficulties in distinguishing a clear winner among bidders (*inseparability of bids*), Australia may include an additional Best-And-Final-Offer (BAFO) sub-stage to the RFT evaluation stage (Australia, 2006c).

Structural elements	P3 policies and practices in Australia (national level)
	<p>impact, accounting classification and any taxation implications” (Australia, 2006c, p. 39).</p> <ul style="list-style-type: none"> • The level of approvals required depends on the estimated whole-of-life value of the project in addition to other project factors, e.g., projects valued at over \$50 million AUD require full government approval (Australia, 2006c)
<p><i>Internal Project Management</i> [up to financial close]</p>	<ul style="list-style-type: none"> • Internal project management team oversees the development of key project documents, including: scoping study (for preliminary screening), IBC and FBC; procurement documents (EOI, RFQ, Project Brief, and P3 contract); and the formal decision documents (submissions) required at the decision points in the project approval process (Australia, 2006c). The project team also oversees and provides internal approvals in regards to the procurement process, from issuance of EOI to identification of preferred tenderer, and facilitates continuous updates of the business case between formal decision points (Australia). • “[A] stable and dedicated project team should be established and a core element of staff retained throughout the assessment and implementation stages [of a project]” (Australia, 2006c, p. 8). The project management team is primarily composed of a <i>Project Steering Committee</i> which “provides direction and has ultimate accountability for a project” and <i>project director</i> “responsible for delivery of the project and for the management of the procurement team” (Australia). Activities of the project management team are supported by Infrastructure Australia and other internal oversight bodies (Australia) • P3 project management capacity is further supported and guided by <i>Gateway Review</i> processes (Australia, 2006b).

Table C.3: P3 practices, per structural element, at the Alberta provincial level. (See Table 4.1 for P3-related domains of definition, per structural element.)

Structural elements	P3 policies and practices in Alberta
<i>Infrastructure Investment Planning</i>	<ul style="list-style-type: none"> • Use of three-year <i>capital plans</i> which, themselves, fit into the long-term (20 year) <i>strategic capital plan</i> (Alberta, n.d.-c). Early identification of potential P3 projects is facilitated through Alberta Treasury Board's <i>Alternative Capital Financing Office</i> [ACFO] (Alberta, n.d.-a) and other units and committees, notably the <i>Government of Alberta P3 Review Committee</i>, "a cross-ministry committee established by the Minister of Infrastructure and Transportation to review and provide advice ... on alternative procurement opportunities for all projects in the Capital Plan and to recommend which are suitable for P3s" (Alberta, 2006b, p. 5). • "[I]dentification of projects with P3 potential first occurs during the capital planning process ... project could be identified by the ministry itself or by an SIO [supported infrastructure organization, e.g., school board or municipality]. This identification is performed in accordance with the guidance in Alberta's (internal) <i>Capital Planning Manual</i>" (Alberta, 2011a, pp. 27-28).
<i>Preliminary Project Screening</i>	<ul style="list-style-type: none"> • If an infrastructure project is identified and added to the pool of potential P3 projects (see above), the ministry sponsoring the project contacts ACFO who facilitates "an initial high-level feasibility assessment ... to determine if there is any potential for value in a P3 procurement ... and determine if the project should be further considered as a P3" (Alberta, 2011a, p. 27) • "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" (Alberta, 2006b, p. 3). • If initial assessment does not rule out a P3 option, ACFO and sponsoring ministry proceed with developing an <i>Opportunity Paper</i> for the project, a high-level draft business case-type assessment which "provides a more in-depth look at the project's P3 potential than the initial assessment, but does not require extensive work to complete" (Alberta, 2011a, p. 27). If findings in opportunity paper continue to support P3 option, Treasury Board initiates development of project business case (Alberta). A standardized template for crafting an opportunity paper is provided in Alberta.
<i>Project Business Case Development</i>	<ul style="list-style-type: none"> • If the opportunity paper for an infrastructure project does not rule out the use of a P3 delivery option (see above), a project business case is developed which "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" (Alberta, 2011a, p.30). • Following the authorization to issue procurement documents to the private sector, the quantitative (financial) analysis in the project business case is formally updated at two critical stages during the procurement process: (i) prior to the receipt of financial bids, "to reflect the final project scope and risk allocations" (Alberta, 2011a, p. 48); and (ii) following receipt of financial bids. The finalized financial analysis in (ii) is then compared to the private sector proponents' financial bids so as to determine if Alberta is achieving value for money (Alberta).

Structural elements	P3 policies and practices in Alberta
	<ul style="list-style-type: none"> • The project business case “builds upon the opportunity paper ... [by] further developing the assessment and allocation of risk, the value analysis and procurement implementation strategy” (Alberta, 2011a, p. 30) where <i>value for money</i> is defined as “a combination of whole of life costs and quality to meet the user requirements” (Alberta, 2006b, p. 14). • Quantitative (financial) analyses of procurement options are conducted on a “full life cycle cost basis,” employing a public sector comparator (PSC) methodology which compares the discounted, risk-adjusted net present costs of each option (Alberta, 2006b). Estimates of individual cost components in the PSC financial model are generally based on those observed in past infrastructure projects (Alberta, 2011a). A final update of the discount rate used in determining whole-of-life project costs occurs at (i) (see above) (Alberta, 2011a). • “As an input into the Business Case, industry consultation, possibly through the issuance of a Request for Expression of Interest or a market sounding may be used to ascertain private sector interest” (Alberta, 2011a, p. 30) • To ensure consistency in the analysis among projects, Alberta employs a descriptive standardized business case template (Alberta, 2011a).
<i>Procurement Processes</i>	<ul style="list-style-type: none"> • Alberta (2011a) indicates two main stages in the procurement process: (1) a <i>request for qualifications</i> (RFQ) stage; and (2) a <i>request for proposals</i> (RFP) stage. The RFP stage is followed by a <i>commercial and financial close</i> stage involving the successful bidder meeting all necessary conditions and entering into the finalized project agreement. A <i>request for expressions of interest</i> (REOI) stage is conducted earlier during the P3 assessment stage of the project and is not part of the procurement process (Alberta, 2006a). • The RFQ stage “announces the start of the procurement process ... [by issuing] an open call for qualified [private sector] teams to submit a response” (Alberta, 2011a, p. 43). Following information meetings with RFQ respondents, including the use of an “open RFQ electronic data room,” RFQ submissions are evaluated, leading to a shortlist of three respondents, termed <i>proponents</i> (Alberta, p. 43). • Participation in the RFP stage—including receipt of the formal RFP documents—is limited to the three respondents shortlisted in the RFQ stage. As in the RFQ stage, the RFP process involves the use of an open RFP electronic data room which ensures equal access to information and that “information is sufficient for [proponents] to fully understand the opportunity” (Alberta, 2011a, p. 44). RFP submissions are received and evaluated in stages (concept, preliminary technical, detailed technical). The preliminary project agreement is distributed to the three shortlisted proponents for their review and comments, informing the final project agreement to be signed by the winning (preferred) proponent (Alberta, 2006a). • Alberta (2011a) indicates estimated durations (schedules) for the RFQ, RFP, and financial close stages and provides high-level guidelines for ensuring a fair and competitive procurement process.
<i>Project Approval Processes</i>	<ul style="list-style-type: none"> • The Government of Alberta (GOA) approval process for P3 projects has two approval points: (i) Treasury board grants “approval to proceed with the project as a P3” (Alberta, 2011a, p.30) including approval to initiate the P3 procurement process and “approval of public sector comparator,”

Structural elements	P3 policies and practices in Alberta
	<p>i.e., approval of preliminary project budget based on whole-of-life project costs in business case (Alberta, 2011c, p. 2); (ii) GOA Cabinet grants approval to enter into a project agreement with the preferred proponent (Alberta, 2011c).⁴⁸</p> <ul style="list-style-type: none"> • Treasury Board approval in (i) is based on the contents of the project business case, as informed by the review and recommendation of the external <i>Advisory Committee on Alternative Capital Financing</i> (Alberta, 2011c). • GOA Cabinet approval in (ii) is based on Treasury Board's recommendation which, in turn, is based on comparisons between the proponents' bids and that estimated in the finalized (updated) business case through the public sector comparator financial model (Alberta, 2011c).
<p><i>Internal Project Management</i> [up to financial close]</p>	<ul style="list-style-type: none"> • All project management activities are co-ordinated through a dedicated project manager which leads the project team. The project manager is selected from an Alberta <i>service delivery ministry</i> which also leads the procurement process (Alberta, 2011a). • "The Project Manager is responsible for delivering the assigned project ... in accordance with [established] scope, budget, timelines, and guidelines ... [and] is accountable for all aspects of project development and delivery" (Alberta, 2011c, p. 1). • Specific responsibilities of the project manager include: (a) leading the development of the project business case, including recommendations; (b) leading the development and evaluation of procurement documents (RFQ, RFP, draft and final project agreement); (c) managing the project team, including advisors and consultants; (d) overseeing preparation of reports to Treasury Board and GOA Cabinet; and (e) liaising with all public and private project stakeholders (Alberta, 2011d).

⁴⁸ Alberta's P3 project approvals process, as outlined in Alberta (2011a) and Alberta (2011c) differs from the single-stage process described in Deloitte (2007), the latter of which comprised the approval point cited in item (i).

Table C.4: P3 practices, per structural element, at the British Columbia provincial level. (See Table 4.1 for P3-related domains of definition, per structural element.)

Structural elements	P3 policies and practices in British Columbia
<i>Infrastructure Investment Planning</i>	<ul style="list-style-type: none"> • The identification and prioritization of provincial P3 projects is facilitated through the use of <i>capital asset management plans</i>. Each provincial agency/ministry develops such a plan so as to “flow from and support their service plans, and reflect the cost of managing assets through their life cycles (i.e. all operating and capital costs)” (British Columbia, 2002, p. 23). • Individual capital plans are then aggregated over all agencies into the <i>consolidated capital plan</i>, “a single provincial capital plan, as part of the government’s annual budgeting and approval process” (British Columbia, 2002, p. 61). • Capital asset management plans are based on an agency’s <i>project list</i>, defined as “aggregated summaries of [project] business cases ranking projects or programs in order of priority and identifying [three to five-year funding strategies” (British Columbia, 2002, p. 51). • Capital asset management plans are updated continuously (year-round) are subject to annual Treasury Board approvals (British Columbia, 2002).
<i>Preliminary Project Screening</i>	<ul style="list-style-type: none"> • No preliminary project screening is required for projects above a certain funding threshold: “for projects with \$50 million or more of provincial funding, a public private partnership will be considered the base case unless there is a compelling reason to do otherwise” (Partnerships BC, 2009, p. 3). • “For projects with \$20 million to \$50 million in provincial funding, a preliminary project screening will be undertaken to determine if the project has any characteristics that would make it suitable to be delivered as a public private partnership” (Partnerships BC, 2009, pp. 3-4). • Preliminary project screening is conducted using a standardized screening tool, the <i>Capital Project Public Private Partnership Early Screening Tool</i> (Partnerships BC, 2010a) and is applied “before an agency invests in detailed and costly business case development and analysis” (British Columbia, 2002, p. 43). • If screening does not rule out a P3 option, this option is included among the options analyzed in the project business case (Partnerships BC, 2010a).
<i>Project Business Case Development</i>	<ul style="list-style-type: none"> • The development of a project business case is preceded by a <i>strategic options analysis</i> (SOA) which recommends a general <i>service delivery option</i>, e.g., P3 option (no P3 model specified) or traditional procurement option (no traditional procurement model specified) (British Columbia, 2002). The SOA selects a preferred service delivery option on the basis of quantitative and qualitative analyses, including preliminary estimates of whole-of-life project costs (British Columbia).⁴⁹ The SOA can be viewed, itself, as a high-level preliminary business case for the project. • Building on the findings in the SOA, the project business identifies a preferred procurement option, e.g., DBFM, DB, on the basis of qualitative and quantitative (financial) analyses (Partnerships BC, 2010a). The

⁴⁹ A simplified business case format may be used, depending on the size, level of complexity, and risk profile of the underlying project (British Columbia, 2002).

Structural elements	P3 policies and practices in British Columbia
	<p>selection of a preferred procurement option is facilitated by the use of <i>multiple criteria analysis</i> “to evaluate options based on numerous criteria, including value for money” (Partnerships BC, 2010a, p. 43).</p> <ul style="list-style-type: none"> • The quantitative (financial) analysis in the project business case employs a <i>public sector comparator</i> methodology which compares traditional and P3 procurement options on a whole-of-life, risk-adjusted, net present value basis using a judiciously selected discount rate (corresponding to the project’s <i>internal rate of return</i>) where “risks are identified, analyzed and quantified where meaningful, and then allocated to the private partner or retained by the owner based on the proposed risk allocation of the project” (Partnerships BC, 2010a, p. 45). • Quantitative analyses are “continually updated during the procurement process to reflect any new information discovered about existing [project] assumptions” (Partnerships BC, 2010a, p. 44). However, the financial models (e.g., PSC) are <i>locked-down</i> (fixed) following the submission of final bids (in RFP) and these locked-in values are used in evaluating the RFP bids (Partnerships BC). • A post-financial close <i>project report</i> (version of the business case) is publically released, highlighting the outcome of the multiple criteria analysis and the value for money achieved against the winning proponent’s bid, the latter measured using the locked-down financial model in the final project business case (Partnerships BC, 2010b). • The qualitative (non-financial) analyses/data in the project business case include <i>public interest assessments</i> and a survey of market interest in the project (British Columbia, 2002). • Business case development is guided by a high-level guideline documents that specify which elements are to be covered in the business case (Partnerships BC, 2010a).
Procurement Processes	<ul style="list-style-type: none"> • BC employs a two-stage procurement process (Partnerships BC, 2008) with a <i>request for qualifications</i> (RFQ) stage “inviting [private sector] parties interested in participating in an RFP to submit their qualifications for delivering a project” (p. 79) and a <i>request for proposals</i> (RFP) stage where pre-qualified proponents submit their full proposals for completing the project (Partnerships BC, 2010a). • The RFQ stage involves: the posting of the RFQ document on publically accessible website (<i>BC Bid</i>); disseminating any post-issuance amendments to the RFQ respondents; and evaluating the RFQ responses, leading to the selection (short-listing) of no more than three proponents that will proceed to the RFP stage (Partnerships BC, 2008; Partnerships BC, 2010b). Names of shortlisted proponents are publically announced at end of RFQ stage (Partnerships BC, 2010b). • The RFP stage involves: the issuance of RFP document and draft P3 project agreement to the shortlisted proponents; disseminating the final draft project agreement (incorporating input obtained from proponents) to the shortlisted RFP respondents; evaluating project proposals and selecting/announcing the preferred proponent; negotiating the final project agreement; and financial close (Partnerships BC, 2008; Partnerships BC, 2010b). • <i>Procurement related disclosure</i> is guided by a best practice document, charting: commencement of procurement stages, release of (select) procurement documents, and publishing the names of successful parties (Partnerships BC, 2010b).

Structural elements	P3 policies and practices in British Columbia
<p><i>Project Approval Processes</i></p>	<ul style="list-style-type: none"> • Based on British Columbia’s “risk based approach to capital management oversight,” requirements for formal Treasury Board project approvals—including the number of <i>Treasury Board decision points</i>—can vary depending on project size (costs) and complexity (risk-profile), and the track-record of the agency sponsoring the project, with “the lower the [project] risk and the better the agency’s track record, the fewer conditions Treasury Board requires for central oversight” (British Columbia, 2002, p. 65). • Depending on the complexity of the project and risk-profile of the agency sponsoring the project, the project approval process can include up to four decision points: (1) approval of service delivery option recommended in SOA; (2) approval of procurement option recommended in project business case; (3) approval to issue procurement documents (RFQ/RFP); and (4) approval to enter into contract with preferred proponent if, for example, “[the] final contract negotiated [with the preferred proponent] materially deviates from the approved project parameters” (British Columbia, 2002, p. 85).
<p><i>Internal Project Management</i> [up to financial close]</p>	<ul style="list-style-type: none"> • Mirroring the risk-based approach to British Columbia’s project approvals process, the composition and governance of the project management team depends on the complexity (risk profile, size) of the project, with more complex projects requiring “a higher degree of formal project management expertise or management structures” at an earlier project stage (British Columbia, 2002, p. 71). • The provincial agency sponsoring the project appoints a <i>project director</i> “with clear overall responsibility and accountability for the project’s success” which include a role in co-ordinating a public sector project team, supported by/supporting various project management committees (British Columbia, 2002, p. 71). • For complex projects, a <i>project charter</i> is crafted “to help ensure that all parties [project team and/or committees] fully understand the project and their respective roles and responsibilities” (British Columbia, 2002, p. 72). • Significant project management support is provided by Partnerships BC, including: review and oversight of project business cases analysis/writing; management of procurement process including the drafting and issuance of procurement documents and managing the proposal evaluation processes; and assisting in final contract negotiations with the preferred proponent (Partnerships BC, n.d.).

APPENDIX D: DATA FROM THE FEDERAL POLICY SCAN

This appendix presents data from a scan of current Treasury Board and PWGSC federal real property policy instruments, with the various instruments classified according to their impact(s) on the six structural elements listed in Table 4.1. The result of this scan, per structural element, is recorded in Tables D.1 through D.6 and is distilled in Chapter 6. The policy scans in Tables D.1 through D.6 also serve as stand-alone annotated lists of P3-relevant federal policies and guidelines. In the latter capacity, the policy scan in this appendix is deliberately broader than required for the identification of policy gaps, citing P3-related nuances in the existing federal real property policy suite which are not necessarily present in the four jurisdictions studied in Chapter 5.

The underlying policy scan was filtered by focussing on federal real property policy instruments which directly impact the planning, evaluation, and/or procurement of federal office accommodation assets, viewed through a P3 project delivery lens. Consideration was given to all PWGSC department-level policy instruments and all Treasury Board policy instruments residing under the *Policy Framework for the Management of Assets and Acquired Services* (TBS, 2006b), including those currently in the process of government-wide implementation. On the other hand, the current policy scan did not include instruments which are scheduled to be rescinded.⁵⁰ The present scan also omitted preliminary (draft) P3 guidelines, tools, and templates developed by the client and other federal entities.

The policy scan in this appendix is deliberately non-exhaustive due to the breadth and complexity of the suite of federal policy instruments affecting real property project delivery. Instead, the scan aimed at achieving an adequate representation of the Treasury Board and PWGSC policy instruments most frequently used and most closely associated with the delivery of office accommodation assets while ensuring adequate coverage of the key facets underlying the six structural elements listed in Table 4.1. See section 2.1.4 for the specific methodology employed in the federal policy scan, including reference to a prior high-level policy scan conducted by the client as part of their early exploration of the policy problem in section 1.1.

Based on official terminology in TBS (2008a) and PWGSC (2010a), the terms *policy*, *directive*, and *standard* refer to policy instruments that set mandatory conditions on various activities whereas the terms *guideline* and *tool* refer to policy instruments that set (voluntary) best or smart practices and/or provide “guidance, advice, or explanation to managers or functional area specialists” (TBS, section 3, “Scope,” para. 2). By comparison, in the body of this report, the term *policy* generically refers to a mandatory policy instrument (policy, directive, or standard) whereas use of the term *guideline* generically refers to a voluntary policy instrument (guideline or tool).

⁵⁰ As part of the 2006 policy renewal exercise led by TBS, various Treasury Board real property policies are scheduled to be rescinded on April 1, 2012 and replaced by a reduced suite of real property policies aimed at “mak[ing] the Treasury Board policy instruments more targeted and accessible” (TBS, 2006a).

Table D.1: Treasury Board and PWGSC policy instruments relevant to infrastructure investment planning, as germane to the P3 mode of federal accommodation project delivery.

Federal policy instruments [level; effective date; source]	Relevance to Infrastructure Investment Planning
<p><i>Policy Framework for the Management of Assets and Acquired Services</i></p> <p><u>Level:</u> Treasury Board <u>Effective Date:</u> November 1, 2006 <u>Source:</u> TBS (2006b)</p>	<ul style="list-style-type: none"> Indirectly supports the consideration of P3-type arrangements in investment planning by emphasizing role of risk-based, life-cycle management approaches to the acquisition and maintenance of real property assets
<p><i>Policy on Investment Planning – Assets and Acquired Services</i></p> <p><u>Level:</u> Treasury Board <u>Effective Date:</u> Started December 10, 2010; government-wide implementation to be complete by April 1, 2012 <u>Source:</u> TBS (2010c)</p>	<ul style="list-style-type: none"> Guides the activities of all federal departments in regards to multi-year <i>departmental investment plans</i>, requiring consultation with TBS and approval of Treasury Board Ensures departmental investment planning is aligned with broader government-wide strategies and priorities Requires departmental investment planning activities to give consideration to alternate forms of delivery, including <i>external delivery models</i> and to take whole-of-life asset costs into consideration when conducting such planning Supports investment decisions which balance “risk, benefits and return between the crown and third parties” (“Context,” para. 2)
<p><i>Standard for Organizational Project Management Capacity</i></p> <p><u>Level:</u> Treasury Board <u>Effective Date:</u> Revised December 9, 2010; government-wide implementation to be complete by April 1, 2012 <u>Source:</u> TBS (2011b)</p>	<ul style="list-style-type: none"> As outlined in this standard, a periodic assessment of organizational project management capacity is required of all federal departments/agencies to ensure they possess requisite internal project approval capacity for the projects they are sponsoring through their departmental investment plans
<p><i>Policy on Management of Real Property</i></p> <p><u>Level:</u> Treasury Board <u>Effective Date:</u> November 1, 2006 <u>Source:</u> TBS (2006c)</p>	<ul style="list-style-type: none"> Indirectly supports consideration of P3-type arrangements in long-term investment planning by requiring that “acquisition, operation, maintenance and disposal strategies are developed based on ... economic and program analysis that considers the full life-cycle costs and benefits of real property options” (section 6, para. 4)

Table D.2: Treasury Board and PWGSC policy instruments relevant to preliminary project screening, as germane to the P3 mode of federal accommodation project delivery.

Federal policy instruments [level; effective date; source]	Relevance to Preliminary Project Screening
<p><i>Guide to the Management of Real Property</i></p> <p>Level: Treasury Board <u>Effective Date</u>: 2009; no specific date specified in <i>TBS Policy Suite</i> webpage <u>Source</u>: TBS (2009)</p>	<ul style="list-style-type: none"> Provides seven generic qualitative criteria which can aid departments in crafting a mechanism to determine if P3 is a viable procurement option for the project. However, does not provide a tool/template for conducting the screening
<p><i>Guide for the Preparation of Investment Analysis Reports</i></p> <p>Level: PWGSC <u>Effective Date</u>: updated January 2009 <u>Source</u>: PWGSC (2009c)</p>	<ul style="list-style-type: none"> Suggests “screening out those options that are clearly not viable ... in order to generate a manageable list of key options for an in-depth analysis” (p. 17) Above options selection is part of the formal <i>project feasibility report</i> (see next policy instrument)
<p><i>Guide and template for the Preparation of Feasibility Reports</i></p> <p>Level: PWGSC <u>Effective Date</u>: none stated (web-posting of guide updated April 24, 2011; template dated December 14, 2010). Supporting policy, PWGSC’s <i>NPMS Directive for Real Property Projects</i> in effect as of December 2010 <u>Source</u>: PWGSC (2011b)</p>	<ul style="list-style-type: none"> In general, the <i>project feasibility report</i> provides a high-level preliminary assessment of qualitative and quantitative (cost) factors prior to crafting an <i>investment analysis report</i> [IAR]⁵¹ The project feasibility report includes the identification and preliminary analysis of “all available options for meeting the identified project requirements” (section 4, para. 1) and can include the P3 option when the project considers a newly built asset Makes mention of a pending PWGSC P3 screening tool Project feasibility report “will include the rationale to support viable options (to be analyzed in the next phase, within the IAR [project business case]) and the justification to screen-out non-viable options” (section 4, para. 1) Mechanism for including specific procurement options among those analyzed in the project feasibility report is governed by brainstorming and not a judicious project screening (in the sense described in Table 5.1)

⁵¹ Within PWGSC, an *investment analysis report* (IAR) refers to a PWGSC-internal decision document which plays the role of a (formalized) project business case. See PWGSC (2009c) for details.

Table D.3: Treasury Board and PWGSC policy instruments relevant to project business case development, as germane to the P3 mode of federal accommodation project delivery.

Federal policy instrument [level; effective date; source]	Relevance to Project Business Case Development
<p><i>Guide to the Management of Real Property</i></p> <p>Level: Treasury Board <u>Effective Date:</u> 2009; no specific date specified in <i>TBS Policy Suite</i> webpage <u>Source:</u> TBS (2009)</p>	<ul style="list-style-type: none"> • Investment analyses for real property assets must be based on a life-cycle (whole-of-life) costing of delivery options which incorporates “all known current and future real property costs, to provide a coherent view of the true overall cost of the property to government” (p. 27) and which incorporates the “opportunity costs and the value of money over time” (p. 27), i.e., using a discount rate • Concerning the quantitative (financial) analyses in the project business case, “[t]he final product in life cycle costing should be a summary of all relevant real property costs over the expected life of a given property, put into present value terms” (p. 28), i.e., using net present costs • Stated in the broad context of real property management, but affecting the incorporation of risks into real property investment analyses (re: business case development), “[a]n accurate lifetime costing of real property assets will include an estimate of the cost to mitigate potential risk and/or deal with its consequences” (p. 15), i.e., analyses incorporating costs of allocated project risks • Openness to inclusion of P3 option among potential delivery options cited twice: the requirement that investment analyses “weight various options for possible private-sector involvement in the delivery of real property” (p. 39) and mention of P3 models, including variants of DBFM in selection of potential delivery options
<p><i>Policy on the Management of Projects</i></p> <p>Level: Treasury Board <u>Effective Date:</u> started December 10, 2009; government-wide implementation to be complete by April 1, 2012 <u>Source:</u> TBS (2010d)</p>	<ul style="list-style-type: none"> • “Business cases are to be prepared according to standards or guidance issued by the Treasury Board Secretariat” (Appendix B, section 4.6.1)
<p><i>National Project Management System (NPMS) Policy</i></p> <p>Level: PWGSC <u>Effective Date:</u> December 17, 2010 <u>Source:</u> PWGSC (2010b)</p>	<ul style="list-style-type: none"> • This policy implies the broad requirement that the project business case (or allied project analysis document) be crafted to ensure that “the [project delivery] solution undertaken has been assessed, including identification of risks, to ensure that the best investment solution is selected” (section 8, para 2)

Federal policy instrument [level; effective date; source]	Relevance to Project Business Case Development
<p><i>Guide for the Preparation of Investment Analysis Reports</i></p> <p><u>Level:</u> PWGSC <u>Effective Date:</u> updated January 2009 <u>Source:</u> PWGSC (2009c)</p>	<ul style="list-style-type: none"> • The guide provides a general template and guidelines for crafting an <i>investment analysis report</i> (IAR), a formal decision document which plays the role of a project business case for real property projects in PWGSC • The guide encourages consideration of P3-type arrangements among potential real property investment options in an IAR: “there is now an expectation that IARs for major projects include the evaluation of a P3 option as part of the analysis” (p. 18) • To facilitate meaningful comparisons among project delivery options when a P3 option is included in a project IAR, the guide outlines a <i>risk-based investment analysis approach</i>, which involves “identifying, assessing and evaluating the probability and impact of the risks that apply to each of the options” (p. 18). Under the proposed risk-based approach, quantified values of project risks are added to other (risk-neutral) whole-of-life project costs. The total risk-adjusted whole-of-life project costs are calculated on a net present cost basis by incorporating an appropriate discount rate. The resulting costing of the option is termed the <i>risk-adjusted present value cost of accommodation</i> (PVCOA).⁵² • The IAR is periodically (formally) updated to reflect the different information requirements and objectives at different stages of the project approval process (see next structural element). In particular, when requesting preliminary project approval (defined in next structural element), the quantitative analysis in the supporting IAR is based on <i>indicative project cost estimates</i> whereas when requesting the subsequent effective project approval (defined in next structural element), the quantitative analysis in the supporting IAR is based on <i>substantive cost estimates</i>.⁵³ • An IAR must also include analysis of qualitative (non-financial) factors in determining the preferred project delivery option. The assessment of qualitative project factors is facilitated by an <i>evaluation matrix</i> approach. • The IAR guideline does not require nor indicate any mechanism for including a <i>market sounding</i> component for gauging market interest in delivering the project as a newly built asset. The only form of market appraisal supported under the current guideline relates to a survey of market rates and availability of leasable accommodation space

⁵² The use of *discounted cash flows*, i.e., net present costs in comparing procurement options is further supported by PWGSC Real Property Branch’s (RPB) *Investment Analysis Policy*. This Branch-level operational policy only applies to RPB investments with capital value under \$100 million (PWGSC, 1989).

⁵³ In the context of Treasury Board approvals, Huxley (2002) defines *indicative cost estimates* as being “[b]ased on a full description of the preferred option, construction/design experience, and market

Table D.4: Treasury Board and PWGSC policy instruments relevant to procurement processes, as germane to the P3 mode of federal accommodation project delivery.

Federal policy instruments [level; effective date; source]	Relevance to Procurement Processes
<p><i>Guide to the Management of Real Property</i></p> <p>Level: Treasury Board <u>Effective Date</u>: 2009; no specific date specified in <i>TBS Policy Suite</i> webpage <u>Source</u>: TBS (2009)</p>	<ul style="list-style-type: none"> • Permissible methods (each germane to P3-type procurement processes) for the selection of private sector partner(s) for delivering real property assets include: (i) “public advertising, including an open bidding system” (p. 70), (ii) “public notice that is consistent with generally accepted trade practices” (p. 70), (iii) “use of a system that ... given the subject and nature of the acquisition ... provides a reasonable likelihood that potentially interested persons or firms will become aware of the proposed acquisition ... [and] promotes a fair and equitable consideration of offers” (p. 71). • “The principle of best value to the Crown must always guide decision making as it relates to real property transactions” (p. 70) • General guideline governing solicitation of offers from private sector: “the factors and criteria that determine the best value [on which offer is selected] should be identified prior to the solicitation of offers ... [and] should remain constant during the solicitation and selection process” (p. 70)
<p><i>Guide for the Preparation of Investment Analysis Reports</i></p> <p>Level: PWGSC <u>Effective Date</u>: updated January 2009 <u>Source</u>: PWGSC (2009c)</p>	<ul style="list-style-type: none"> • In contrast to the tendering procedures employed in traditional procurement such as DBB (see section 3.2.1), this guideline indicates sufficient flexibility in federal real property practices to allow for a P3-type procurement process in which “the private sector is invited to develop proposals to provide accommodation to the Crown under general conditions with flexible design specifications. For example, the Crown may wish to invite proposals on performance specifications giving the design/build responsibility to the successful proponent” (p. 80)
<p><i>Fairness Monitoring Policy</i></p> <p>Level: PWGSC <u>Effective Date</u>: June 30, 2009 <u>Source</u>: PWGSC (2009a)</p>	<ul style="list-style-type: none"> • This policy sets requirements on the monitoring of PWGSC’s mechanisms for communicating project information among potential private sector bidders or proponents • Assessment of requirement for independent <i>fairness monitor</i> is mandatory for all projects “that require [PWGSC] Minister’s approval or above” (section 4.1, para. 1) • Role of fairness monitor is to ensure “PWGSC’s large and complex procurement activities are conducted in a fair, open, and transparent manner” (section 1, para. 2)

conditions ... [and] sufficient for making the correct investment decision” whereas *substantive cost estimates* are defined as “of sufficiently high quality and reliability so as to warrant Treasury Board approval as a cost objective for the project phase under consideration” (p. 12).

Federal policy instruments [level; effective date; source]	Relevance to Procurement Processes
<p><i>Procurement Process</i> [part of the <i>National Project Management System (NPMS)</i> guideline; PWGSC (2011c)]</p> <p><u>Level</u>: PWGSC</p> <p><u>Effective Date</u>: none stated (web-posting of guide updated April 24, 2011; template dated December 14, 2010). The supporting policy, PWGSC's <i>NPMS Directive for Real Property Projects</i> in effect as of December 2010</p> <p><u>Source</u>: PWGSC (2011e)</p>	<ul style="list-style-type: none"> • This guideline indicates “[the] design-bid-build [DBB] methodology is the norm” in which the selection of a general contractor to execute the post-design construction of the assets involves “solicit[ing] tenders from contractors ... [where] cost is the primary evaluation criterion, with lowest bid awarded the contract.” (“Planning,” “Tools and Techniques,” para. 3). (See section 3.2 for a brief overview of the general DBB procurement process.) • This guideline mentions the differences between the DBB lowest-cost tendering process and the <i>request for proposal</i> methodology which “encourage[s] both competition and creative input from proponents ... detail[ing] the 'what', 'when', and 'why' but not the 'how'” (“Planning,” “Tools and Techniques,” para. 4) • In DBB (traditional) procurement, a one-stage request for proposals process is used for selecting a <i>design consultant</i> for the design portion of the DBB project • This guideline indicates potential flexibilities in establishing procurement methodologies which are aligned to alternate forms of project delivery, including P3s: “[t]he use of other methodologies such as design build or construction management requires senior management approval and custom tailored contract documentation and processes” (“Planning,” “Tools and Techniques,” para. 4) • General conditions are stated, under which a request for proposals process would be used: “Request for Proposals are utilized when [PWGSC’s Real Property Branch] RPB is looking for the solution to a problem and the solutions are expected to be varied and difficult to evaluate. Cost is not the primary evaluation criterion, and the final selection of the proponent is expected to be complex” (“Planning,” “Tools and Techniques,” para. 4) • The guideline indicates PWGSC’s established process for disseminating information to potential bidders/proponents, including the use of <i>bidder conferences</i> which are “held before bids or proposals are received to ensure that all prospective consultants and contractors have a clear, common understanding of the procurement requirements (technical, contractual, environmental, etc.)” (“Solicitation,” “Tools and Techniques,” para. 1) • The potential role of proponents’ comments in the crafting of procurement documents, including the fair and equitable use of this information is indicated: “[r]esponses to [proponents’] questions may be incorporated into the procurement documents as amendments. All potential bidders/proponents must remain on equal standing during this process” (“Solicitation,” “Tools and Techniques,” para. 1)

Table D.5: Treasury Board and PWGSC policy instruments relevant to project approval processes, as germane to the P3 mode of federal accommodation project delivery.

Federal policy instruments [level; effective date; source]	Relevance to Project Approval Processes
<p><i>Standard for Project Complexity and Risk</i></p> <p>Level: Treasury Board Effective Date: Revised December 9, 2010; government-wide implementation to be complete by April 1, 2012 Source: TBS (2011b)</p>	<ul style="list-style-type: none"> Broadly informs the level of information required to support Treasury Board approvals, “[o]nly those specific phases of the project that have [been] appropriately defined and costed can be approved” (“Requirements,” para. 2), including requirements for reporting changes in the complexity and/or risk profile in a project.
<p><i>Policy on Management of Real Property</i></p> <p>Level: Treasury Board Effective Date: November 1, 2006 Source: TBS (2006c)</p>	<ul style="list-style-type: none"> This policy sets “transaction approval limits and conditions” above which Treasury Board approvals are required; \$30 million for PWGSC in regards to lease or acquisition of office accommodation assets (“Appendix B,” “Transaction Approval Limits and Conditions”)
<p><i>Policy on the Management of Projects</i></p> <p>Level: Treasury Board Effective Date: started December 10, 2009; government-wide implementation to be complete by April 1, 2012 Source: TBS (2010d)</p>	<ul style="list-style-type: none"> For sufficiently large and/or complex projects (including projects exceeding departmental transaction limits), executive decisions at approval points are supported by the contents of a <i>project brief</i>, a formal project document supplied to Treasury Board which is intended to convey “a clear understanding of the proposed [project] initiative and is supported by a business case, project charter and project management plan” (Appendix B, para. 1) A project brief includes the findings from the project business case “reflecting the results of the benefit-cost and options analyses ... based at a minimum on a preliminary asset life-cycle cost estimate for each [option]” (Appendix B, section 4.6)
<p><i>NPMS Directive for Real Property Projects</i></p> <p>Level: PWGSC Effective Date: December 2010 Source: PWGSC (2011d)</p>	<ul style="list-style-type: none"> This directive suggests that large (over \$30 million) accommodation projects delivered by P3-type arrangements would follow a two-stage project approval process: (i) a <i>preliminary project approval</i> (PPA) stage—supported by the findings in the project Investment Analysis Report (IAR)—in which authority (including spending authority) is sought to initiate and run the procurement process and (ii) an <i>effective project approval</i> (EPA) stage—supported by the findings in the revised IAR—which occurs at the end of the procurement process. (Further details on authorities sought under PPA and EPA appear in next policy instrument.)

Federal policy instruments [level; effective date; source]	Relevance to Project Approval Processes
<p><i>Guide for the Preparation of Investment Analysis Reports</i></p> <p><u>Level:</u> PWGSC <u>Effective Date:</u> updated January 2009 <u>Source:</u> PWGSC (2009c)</p>	<ul style="list-style-type: none"> • For large accommodation projects, both PPA and EPA approvals (defined in the previous policy instrument) are supported by <i>Treasury Board submission</i> documents, themselves supported by <i>investment analysis reports</i> (IARs): “The finalized IAR is the source document for the preparation of a [Treasury Board] TB submission” (p. 19) • “PPA ... is required to enable [PWGSC’s Real Property Branch] RPB to undertake detailed technical investigations and to disburse the funds necessary to get more precise cost estimates and to support the full definition of the project” (p. 4) • “The granting of EPA provides the authority to proceed with the implementation of the project and establishes the critical objectives for the project in terms of cost, scope and timing” (p. 5) • “An IAR [or Treasury Board Submission, if project exceeds \$30 million] seeking EPA must use <i>substantive cost estimates</i> for the project being recommended for approval. It should also re-examine all of the available options previously identified in order to ensure that the recommended option is still the most beneficial approach for meeting the requirement” (p. 5) (See footnote 50 for the definition of substantive cost estimates.) • To align P3 <i>availability payment mechanisms</i> (see section 3.3.2) with the existing federal real property framework, the guideline classifies a P3 project as “a lease project that will result in the creation of a new building” (p. 5).⁵⁴ As such, the guideline states that the expenditure authority (total project budget) sought from Treasury Board at the EPA stage equals the “total amount that will be paid to the landlord over the term of the lease (not discounted to their present value), including fit-up, O&M and taxes if these are passed through the landlord, expressed in budget year (year of disbursement) dollars” (p. 5)

⁵⁴ Contrary to the distinction drawn between P3 and Lease-Purchase in Appendix E of this report, PWGSC’s *Guide for the Preparation of Investment Analysis Reports* considers Lease-Purchase to constitute a type of P3, hence the Lease-Purchase-type expenditure and project funding model proposed for (potential) P3s PWGSC (2009c).

Table D.6: Treasury Board and PWGSC policy instruments relevant to internal project management, as germane to the P3 mode of federal accommodation project delivery.

Federal policy instrument [level; effective date; source]	Relevance to Internal Project Management
<p><i>Standard for Organizational Project Management Capacity and Standard for Project Complexity and Risk</i></p> <p><u>Level:</u> (both) Treasury Board <u>Effective Date:</u> (both) Revised December 9, 2010; government-wide implementation to be complete by April 1, 2012 <u>Source:</u> TBS (2011b) and TBS (2011c), respectively</p>	<ul style="list-style-type: none"> • Both standards ensure real property projects are managed in a consistent manner which takes project complexity and risk into account • Combined, the two standards state the methodology for assessing the project management capacity of the department sponsoring the project, based on the complexity and risk profile of the project and the inherent project management capacity of the sponsoring department
<p><i>Policy for the Management of Projects</i></p> <p><u>Level:</u> Treasury Board <u>Effective Date:</u> Started December 10, 2010; government-wide implementation to be complete by April 1, 2012 <u>Source:</u> TBS (2010d)</p>	<ul style="list-style-type: none"> • States the broad scope of required real property project management activities • States the broad roles and responsibilities of the department sponsoring the project in managing “the initiation, planning, execution, control, and closing of projects” (section 6.1, para. 1) • States requirements for sponsoring departments to ensure that appropriate Treasury Board approvals are sought and that project management activities are monitored and adequately reported to TBS • States the project management monitoring and reporting requirements, per the formal <i>project brief</i> that is submitted to Treasury Board in support of approvals • Highlights role of PWGSC in real property project procurement and project management, as guided by the <i>Department of Public Works of Government Services Act</i>
<p><i>National Project Management System (NPMS) Policy</i></p> <p><u>Level:</u> PWGSC <u>Effective Date:</u> December 17, 2010 <u>Source:</u> PWGSC (2010b)</p>	<ul style="list-style-type: none"> • Sets the requirements for project management activities for PWGSC-led real property projects, e.g., office accommodation projects and real property projects which are sponsored by other government department <i>clients</i> of PWGSC • Underlying principles of the policy include: ensuring there are “appropriate project resources necessary to develop and deliver the project” (section 8, para. 2), and that “appropriate project documentation is maintained” (section 8, para. 2) • The policy states broad requirements and expectations of the project management team in regards to quality assurance in project business case, including ensuring “the solution undertaken has been assessed, including identification of risks, to ensure that the best investment solution is selected” (section 8, para. 2)

Federal policy instrument [level; effective date; source]	Relevance to Internal Project Management
<p><i>NPMS Directive for Real Property Projects</i></p> <p><u>Level:</u> PWGSC <u>Effective Date:</u> December 2010 <u>Source:</u> PWGSC (2011d)</p>	<ul style="list-style-type: none"> • Describes the general project management framework which must be adhered to for large real property projects. Key components include: the <i>NPMS model</i> which “defines distinct control points that are linked to PWGSC’s project approval processes and identifies critical deliverables required at each phase” and <i>NPMS roadmaps</i> which constitute “guidance documents that identify the generic activities and tasks required in each stage and phase of the NPMS” (section 5, para. 2) • The directive sets the overarching requirements for real property project governance, including PWGSC as <i>project manager</i> whose roles and responsibilities include: managing the project team and “day-to-day management of the project” (section 4, para. 2); reviewing previous decisions and outcomes of project stages, including those related to the project feasibility report, the investment analysis report (business case), submission documents for Treasury Board approvals (PPA and EPA); preparing and updating the formal <i>project management plan</i>; and ensuring the documentation and transfer of lessons learned in accordance with directive requirements⁵⁵ • When the real property project is being sponsored by a federal department other than PWGSC, a <i>project leader</i> is appointed from the department sponsoring the project (constituting PWGSC’s <i>client</i>). Roles and responsibilities of the project leader include: serving as the primary contact between the client department and the PWGSC project manager and project team and “seeking and obtaining appropriate project approvals” (section 4, para. 1) including preliminary and effective project approvals from Treasury Board if necessitated by project size and complexity • This directive defines the content, use, and process involved in crafting a <i>project charter</i> “to obtain [federal department] client and PWGSC agreement on all the key parameters of the project” (section 3, para. 3)

⁵⁵ Guided by the *Department of Public Works and Government Services Act* (Department of Justice, 1996), PWGSC’s prominent role in project management for real property projects is dictated by its mandated role in the provision of office accommodation assets and optional (fee-for-service) role in the provision of various real property services for other federal departments.

APPENDIX E: PAST FEDERAL P3 PROGRAMS AND POLICY INITIATIVES

In contrast with Canadian provincial jurisdictions such as Alberta, British Columbia, Ontario, and Quebec (Deloitte, 2007) and select Canadian municipal jurisdictions such as the City of Calgary (Calgary, 2008), there is a current and historical absence of a descriptive framework guiding the delivery of real property projects via a P3 route at the Canadian federal level (Deloitte; Industry Canada, 2002; PPP Canada Inc., 2010). On the other hand, dating from the early 1990s to present, several federal projects have been delivered using a P3 model while various federal sponsorship programs have been created to support provinces, territories, and municipalities in the use of P3s for delivering public infrastructure. Based on a review of academic, government, and grey literature, this appendix chronicles and synthesizes former federal P3 projects and programs, including past attempts at federal policy development that were associated directly or indirectly with these projects and programs.

Past and present federal P3 programs

To date, there have been two broad federal programs which have fostered the use of P3s for delivering federally-sponsored provincial or municipal infrastructure projects.⁵⁶ The first such program was the \$2 billion CAD *Canadian Strategic Infrastructure Fund* (CSIF), created in 2002 to “provide for the payment of contributions ... [for] carrying out large-scale strategic infrastructure projects” (Department of Justice, 2002, section 3(1); Toronto Transit Commission, 2005).⁵⁷ CSIF was administered through Infrastructure Canada, a federal department established in 2002 to support various levels of government and private sector suppliers in procuring public infrastructure (Giannini, 2008). Guidance on the use of P3s in delivering CFIS-sponsored projects was indirect and mentioned only once in the *Canadian Strategic Infrastructure Fund Act* wherein it was stated that “[the] Fund shall, where appropriate, promote the use of partnerships between public and private sector bodies” (Department of Justice, section 2). CSIF, which is currently entering its sunset phase (Infrastructure Canada, 2011) has provided funding for several large-scale provincial and municipal P3 projects, including the Canada Line light-rail commuter project connecting Vancouver, BC and Richmond, BC (Infrastructure Canada, 2006).

In contrast to the CSIF, an ongoing federal program with an explicit P3 focus is the \$1.25 billion CAD *P3 Canada Fund*, part of the \$33 billion CAD infrastructure investment fund created under the 2007 *Building Canada* plan (Government of Canada, 2007). The P3 Canada Fund, originally proposed by the Minister of Finance in the 2006 *Advantage Canada* federal economic plan (Department of Finance, 2006) was designed to support P3 projects delivered by provincial, territorial, municipal, or First Nations governments by offering partial funding for infrastructure costs “in accordance with the policies and authorities established by the Treasury Board” (PPP Canada Inc., 2010, p. 13). Beyond the goal of improving public infrastructure, this program was intended to promote a P3 market in Canada (Gross, Shouldice, & Douglas, 2010), motivated by the 2007 observation that “Canada generally lags behind [other jurisdictions] in the use of P3s”

⁵⁶ This section of the appendix focuses on broad sector-wide federal P3 programs. It does not include sector-specific programs such as the Canadian Mortgage and Housing Corporation’s (CMHC) Canadian Centre for Public Private Partnerships in Housing (CMHC, 2011).

⁵⁷ This fund was provided an additional \$2.3 billion CAD in the 2006 federal budget (Infrastructure Canada, 2006, p. 13).

(Government of Canada, p. 26). In this sense, the P3 Canada Fund bears resemblance to programs in other jurisdictions which aim to increase national P3 capacity through grant financing (European Commission, 2003).

To administer the P3 Canada Fund, a dedicated unit was created in 2008 in the form of a federal Crown corporation named PPP Canada Inc. reporting to Cabinet directly through the Minister of Finance (Government of Canada, 2011b). In this and other capacities, PPP Canada Inc. fulfils one of the key objectives of the Building Canada plan, “[to] facilitate a broader use of P3s in Canadian infrastructure projects, including ... the identification of P3 opportunities at the federal level” (Government of Canada, 2007). To date, PPP Canada Inc. has overseen two rounds of project funding applications through the P3 Canada Fund. The first round, which closed in October 2009, supported three P3 infrastructure projects, two at the provincial-level and one at the municipal-level (PPP Canada Inc., n.d.-b). The second round, which closed in June 2010, received 68 proposals, approximately equally divided between municipal-level projects and provincial or territorial-level projects (PPP Canada Inc., n.d.-c).

There are two auxiliary programs funded through the Build Canada plan which encourage the consideration of a P3 model for large infrastructure projects. These are the \$8.8 billion CAD *Building Canada Fund* and the \$2.1 billion CAD *Gateways and Border Crossings Fund* (Philpotts & Willcocks, 2008; Government of Canada, 2007). Projects supported by either of these funds are required to consider the P3 option if they are seeking \$50 million CAD or more in sponsorship (Government of Canada). Although both funds are primarily administered through Infrastructure Canada, the assessment of P3 viability for such projects is conducted through PPP Canada Inc. to “[encourage] the development and use of P3 best practices” (Government of Canada, p. 27) in alignment within PPP Canada Inc.’s broad corporate objectives (PPP Canada Inc., 2010).

Past and present federal P3 projects

Since 1990, three federal projects have been delivered via a P3 route.⁵⁸ The first such project was the 12.9 kilometre Confederation Bridge linking the provinces of New Brunswick and Prince Edward Island. The project delivery model used was a variant of DBFM, with ownership of the asset being retained by the private sector party over the 35 year duration of the \$840 million CAD project agreement (Pirie, 1997).⁵⁹ The procurement process, as overseen by the then-named Department of Public Works Canada extended from the posting of request for expressions of interest in May 1987 to financial close in October 1993 (CCPPP, 2011; Tados, 1997). This 77 month schedule is significantly greater than the current 16 month average procurement time observed in P3 projects across Canadian jurisdictions (KPMG, 2010, p. 3). Among other factors, this variance can be attributed to the lack of precedent Canadian federal-level P3 projects at the time of procurement (Yescombe, 2007).

More recently, two federal accommodation projects received Treasury Board approval for delivery as P3s. The first of these projects was the 76,000 square meter RCMP “E” Division Headquarters Relocation Project in Surrey, BC. This project was procured via a DBFM P3 arrangement, negotiated through PWGSC wherein the Crown entered into a 25 year contract

⁵⁸ This tally only includes projects involving the building of a new asset and does not include projects for which the procurement process is still in progress (CCPPP, 2011).

⁵⁹ See section 3.3 for general terminology related to P3s.

valued at \$966 million CAD to be paid through monthly availability payments (PWGSC, 2011g). The other P3 project was the 72,000 square meter Canadian Security Establishment Canada (CSEC) Long-Term Accommodation Project in Ottawa, ON which was procured through a DBFM arrangement negotiated through Defence Construction Canada (Department of National Defence, 2011).⁶⁰ Under CSEC's 30 year project agreement, the Crown will pay periodic availability payments to cover the total contract amount of \$4.1 billion CAD, \$867 million representing construction costs with the remainder representing the private sector consortium's bid for design and 30 years of maintenance and recapitalization services (Canadian Security Establishment Canada, 2011). The procurement processes for the RCMP "E" Division and CSEC projects extended 22 months and 13 months, respectively (CCPPP, 2011). Although neither the RCMP "E" Division Headquarters nor CSEC Headquarters projects were part of a broader federal P3 development program, both reflected and were motivated by the current direction within PWGSC to give consideration to P3s as a potential project delivery option for large complex accommodation projects (PWGSC, 2009c).

Past and present federal P3 policy development initiatives

Complementing past federal P3 sponsorship programs and select federal projects delivered via a P3 route, to date there have been several federal initiatives aimed at supplementing real property policy instruments so as to better guide P3 project delivery. These past initiatives, summarized according to host federal department, have ranged in scope from the creation of federal P3 offices for promoting sustainable federal P3 project delivery to the development of draft P3 policy-guiding documents.

Beginning in 2001, Industry Canada piloted several initiatives aimed at promoting P3 policy development for general public infrastructure projects (Wong, 2007; University of Western Ontario, 2011). These efforts predated and ran concurrent to the implementation of the 2002 Canadian Strategic Infrastructure Fund and were primarily co-ordinated through Industry Canada's former Public-Private Partnership Office. The mandate of this P3 office, operating under Industry Canada's Service Industry branch was "to increase awareness of public-private partnerships by providing a centre of knowledge and expertise on P3 issues" (Strategis, 2003, as cited in University of Western Ontario, para. 4). Key activities undertaken by Industry Canada's P3 office included the crafting of a high-level guideline for developing federal P3 policy and best practice (Industry Canada, 2001) and drafting a guideline for writing business cases for assessing the P3 delivery option (Industry Canada, 2002). In addition, as a department reporting to the Minister of Industry, Infrastructure Canada contributed to general procurement best practice through its Research and Analysis Division by offering high-level guidance on the inclusion of the P3 delivery option, including guidance on the role of life-cycle costing in assessing viable project delivery options (Giannini, 2008; National Research Council, 2003).

Following the launch of the 2006 *Advantage Canada* federal economic plan (Department of Finance, 2006), the Department of Finance has indirectly supported the development of P3-guiding policies for infrastructure projects through the activities of its Crown corporation, PPP Canada Inc. (PPP Canada Inc., n.d.-a). In its role as administrator of the P3 Canada Fund for

⁶⁰ Notwithstanding PWGSC's mandate for the provision of accommodation assets for federal departments, Defence Construction Canada—a Crown corporation reporting to the Minister of Public Works and Government Services—commonly facilitates the delivery of infrastructure, including real property assets on behalf of the Department of National Defence (Defence Construction Canada, 2011).

municipal and provincial/territorial-level P3 projects, PPP Canada Inc. has proposed guidelines for the evaluation of funding proposals for projects applying for sponsorship under the said fund (Gross *et al.*, 2010; PPP Canada Inc., 2011b). PPP Canada Inc.'s corporate objectives also include a "federal business line" which is intended to work in partnership with relevant federal departments and agencies in developing federal P3 guidelines (PPP Canada Inc, 2011b, p. 24). PPP Canada Inc.'s past and current efforts in federal P3 best practice development have included the drafting of a P3 project screening guideline for general infrastructure projects, conducting assessments of the impacts and issues associated with current federal infrastructure delivery policy vis-a-vis those required for P3 project delivery, and engaging in dialogues with TBS and PWGSC (PPP Canada Inc., 2011b).

In executing its mandate for delivering office accommodation for federal departments, PWGSC has made several key contributions toward the development of P3-guiding policy and guidelines for federal accommodation projects. In alignment with PWGSC Real Property Branch's 2007 move toward a corporate real estate business model (PWGSC, 2009d), PWGSC has instituted a practice requiring all large and/or complex accommodation projects to consider alternate forms of project delivery, including P3 options during the investment analysis phase (PWGSC, 2009c). This move was further actualized through the formal creation of the P3 Development and Advisory Services National Centre of Expertise (P3 NCOE) as a sector within PWGSC's Real Property Branch in 2009 (PWGSC, 2009b). Among its mandated functions, P3 NCOE plays a role in the development of department policy and best practice related to P3 delivery of federal accommodation assets (PWGSC, 2009b). To date, P3 NCOE has drafted a preliminary P3 investment options analysis toolkit for accommodation projects which is comprised of a preliminary project screening guideline, a project *risk register* guideline, and a *value for money* quantitative (financial) options analysis guideline (PWGSC, 2010d).

PWGSC executed the P3 procurement process for the RCMP "E" Division Headquarters Relocation Project by drawing upon best practices imported from Canadian provincial jurisdictions (PPP Canada Inc., n.d.-d). PWGSC is currently in the process of capturing lessons learned from the RCMP "E" Division project which will yield tools for guiding subsequent federal P3 accommodation projects (PPP Canada Inc.). These efforts reflect an approach to P3 policy development in which "projects are assessed on a case-by-case basis ... [and] enabling legislation and regulations are developed as part of the P3 process" (Industry Canada, 2002, p. 7).

APPENDIX F: COMPARISONS OF REAL PROPERTY PROJECT DELIVERY OPTIONS

This appendix compares and contrasts four project delivery options currently considered by PWGSC when delivering office accommodation assets for federal government departments: *Design-Bid-Build* (DBB), *Design-Build* (DB), *Lease-Purchase* (LP), and *Design-Build-Finance-Maintain* (DBFM).⁶¹ The pursuit of a DBFM P3 option implies the building of a new facility. Likewise, each of the DBB, DB, and LP project delivery options also involves a new build, thus permitting meaningful comparisons among the four options. Key differences between P3 options such as DBFM and *Design-Build-Finance-Operate-Maintain* (DBFOM) and non-P3 options such as DBB, DB, and, to a lesser degree, LP relate to the degree of integration among key project components and the associated affects on project risk transfer (see Figure 3.1). This appendix expands upon the discussion in section 3.3. See section 3.3 for additional details on the four listed project delivery options, including their definitions.

As a first comparison, under DBB and DB, the private sector party bids solely on the design and/or construction components of the project and, therefore, is not responsible for long-term maintenance and recapitalization of the asset (PWGSC, 2010f). Consequently, issues related to long-term operations and maintenance are generally not factored into the design and construction of an asset under either DBB or DB arrangements (Yescombe, 2007). In contrast, DBFM P3 project agreements include various asset performance requirements such as long-term energy consumption targets, long-term asset functionality requirements, and minimal standards for the end-of-lifecycle quality of the asset which encourage a whole-of-life cost and quality focus on the part of the private sector partner (Conference Board of Canada, 2010; PWGSC).

A defining characteristic of the DBFM model is the private sector partner's responsibility for securing long-term private financing for the project. This incentivizes the private sector consortium (Project Co) to complete the project on time and on budget since Project Co incurs debt interest charges upon commencement of construction but only receives the pre-determined availability payments upon satisfactory completion and operation of the project (Murphy, 2008; Yescombe, 2007).⁶² By comparison, both DBB and DB are financed by the public sector in the sense that the public sector covers all construction costs during the construction phase of the project, with final payment made upon completion and commissioning of the asset (PWGSC, 2010f). The payment mechanisms under DBB and DB can lead to construction cost and time over-runs, due in part to *optimism bias* related to the public sector's tendency to under-estimate the costs and complexity of a project coupled with the observed tendency for scope creep in which "costly enhancements or changes [are made] to the project after the initial contract award" (Murphy, 2008, p. 102).

Although the LP procurement model shares many characteristics with the DBFM model including a long-term contract and private sector financing, LP does not constitute a bona fide P3 arrangement in that key project risks are necessarily retained by the Crown under a standard LP contract. For example, although the private sector party provides long-term maintenance for

⁶¹ See section 3.2 for definitions of the four delivery options.

⁶² See footnote 14 on p. 12 for exceptions to this model.

the facility under an LP arrangement, this is executed on a cost-recovery basis with no standard penalties associated with poor asset performance (PWGSC, 2010f). Likewise, liability for construction defects under an LP arrangement is generally restricted to a limited-term post-construction warranty so that any consequences of poor construction on the long-term operations and maintenance of the facility are primarily retained by the public sector partner (PWGSC). On the other hand, the financial penalties built into availability payments under a DBFM P3 contract act as a proxy life-time warranty for the facility to the degree that any defects affecting the operations of the facility and/or affecting the asset's state at the end of the P3 contract will result in penalties, including reductions to availability payments (Yescombe, 2007).

Under current PWGSC real property business practices, the design, construction, and long-term maintenance of federal accommodation assets are commonly procured from private sector parties, regardless of the procurement model selected (PWGSC, 2010f; 2011e; 2011f). Therefore, the essential differences between non-P3 (DBB, DB, or LP) and P3 procurement of office accommodation in the current federal context are not defined in terms of which party (public or private) provides various facility components. Instead, P3 project delivery is characterized by the degree to which the private sector partner is responsible for the integration of key project components (Conference Board of Canada, 2010; Yescombe 2007). The varying degrees of private sector involvement (in terms of integrating key project phases) and the associated degrees of risk transfer to the private sector parties under the DBB, DB, LP, and DBFM procurement models are illustrated in Figure 3.1. Moving from left to right in Figure 3.1, procurement options exhibit higher degrees of integration of private sector activities among project phases (design, construction, maintenance, recapitalization) and correspondingly higher degrees of risk transfer to the private sector service provider(s).

In summary, the lack of fulsome integration among various components of a project under DB, DBB, and LP impairs the opportunity for an optimal transfer of risks associated with time and cost over-runs, construction quality of the asset, and long-term maintenance of the asset (Conference Board of Canada, 2010; PWGSC, 2010f). On the other hand, while an optimal transfer of project risks to the private sector partner can be facilitated through a DBFM P3 arrangement, the costs of such risk transfer are factored into the private sector partner's bid, as are the added costs of private sector financing (Conference Board of Canada; Vining & Boardman, 2008) in addition to the relatively higher transaction costs under a P3 arrangement (Conference Board of Canada). Therefore, the benefits of project integration and associated risk transfer must be weighed against their costs to determine if a project will yield value for money if delivered via a P3 procurement route (Partnerships BC, 2010a; Yescombe, 2007).