Ontario Ministry of Transportation

Windsor-Detroit Gateway

Transaction Structure and High-Level Strategic Risk Analysis

March 12, 2007

*connectedthinking

PRICEWATERHOUSECOOPERS

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Executive Summary

The Ministry of Transportation ("MTO") , in partnership with Transport Canada ("TC"), the Michigan Department of Transportation ("MDOT"), the U.S. Federal Highway Administration ("FHWA"), collectively the "Partnership", is currently considering potential transaction structures to create a new border crossing between Windsor, Ontario and Detroit, Michigan. The crossing will link highway 401 in Ontario to the interstate highway system in Michigan and will include the construction of a new bridge, plazas and access roads with a goal to be completed by 2013.

MTO, on behalf of the Partnership, has engaged PricewaterhouseCoopers LLP ("PwC") to develop a report on potential transaction options and a high-level strategic risk analysis for the Windsor-Gateway Project (the "Project") with due consideration to the multi-jurisdictional Partnership.

Jurisdictional Responsibilities

In the US, jurisdictional responsibility for the bridge, the plaza and the access roads are the responsibility of both the FHWA and MDOT. In Canada, jurisdictional responsibility for the bridge and the plaza rest with TC and responsibility for the access roads rest with MTO. The jurisdictional issues are key to the success of this transaction and must be addressed by the Partnership in the near term.

Assumptions

High level assumptions have been used to conduct the analysis contained within this report. Recommendations made are conceptual and preliminary in nature, and are subject to change. The assumptions may be further refined as additional information is obtained. Detailed assumptions are provided in Section 2 of this report, however, some of the key assumptions are provided below:

- The Project will be procured as a Alternative Financing Procurement ("AFP") / Public Private Partnership ("PPP");
- While the total Project size can be up to approximately $6 billion, the total value of the transaction will most likely be in the range of up to $3 billion;
- All of the partner jurisdictions will pursue enabling legislation to support contractual and other legal arrangements for whatever purpose required to reach a preferred governance model;
- The access roads will not be subsidized by bridge/plaza revenues; and
- Bridge and plazas will be procured together subject to customs and border security requirements and the transaction structure.

Executive Summary

Governance Models

The Partnership has not yet decided on a specific governance model for the transaction. This decision is a necessary step in order to move the Project forward. Three possible options are:

- *Bi-National Authority* – the crossing would be jointly owned through the formation of a single international body or Authority. Reciprocal legislation would required in both countries to enable the construction, maintenance and operation of bridge and plazas.
- *Separate Ownership* – each half of the crossing would be separately owned. In Canada, a Federal Corporation would own the Canadian half of the crossing. In the US, MDOT and FHWA would become the owners of the US half of the crossing.
- Joint Venture ("JV") – the Partnership, or members thereof, would agree to form an entity detailing the responsibilities of each member partner through a joint venture agreement or united shareholder agreement. The JV can take many forms (corporations, partnerships, etc), can be between different parties (TC, MDOT, FHWA and MTO or a subset thereof) and can procure different elements of the crossing. The JV can be structured to procure the crossing as (a):
  - Single Transaction
  - Multiple Transactions

Irrespective of any transaction structure contemplated for the Project, the Partnership requires a **project governance structure** to address interaction among the four jurisdictions. The creation and implementation of a project governance structure will allow the Partnership to specify which parties are responsible for certain activities and devise plans for conflict and issue resolution.

In order to form an effective project governance structure, the Partnership should begin by creating a working committee in order to explore requirements for:

- The formation of a Project Team or Project Office and the roles and responsibilities of individual members of the Project Team/Office;
- The selection of representatives/composition for the Project Team/Office;
- The selection of representatives to committees and/or boards that have overall decision making authority on the Project; and
- The reporting mechanisms for each member of the Partnership.

Executive Summary

Preferred Governance and Transaction Option

The preferred governance option for the transaction is the JV model. The formation and membership of a joint venture is subject to

a) the willingness of each member of the Partnership to enter into a joint venture; and

b) jurisdictional and legislative hurdles faced by each member of the Partnership (as applicable) in trying to form the joint venture.

The recommended option is for the Partnership to procure the Project (i.e. the end-to-end solution) as a single transaction if the jurisdictional issues can be resolved by Summer 2007 and the size of the transaction is within the $3 billion range, in order to meet the current transaction timeline of 2013. The Partnership will need to marshal its resources in order to meet the Summer 2007 deadline. Under a single transaction, jurisdictional issues (coordination and collaboration) would be mitigated and the JV would manage these risks.

If the jurisdictional issues cannot be resolved by Summer 2007, then the recommendation would be to procure the Project under multiple transactions (Canadian access roads, bridge/plazas, US access roads).

Executive Summary

Key Risks to Consider

A number of key high-level Project risks have been identified and are addressed in greater detail in this document. A summary risk register is provided below.

Risk	Risk Allocation			Critical Risk Prior to Going to Market
	Public	Private	Shared	
Political / Project Champion – Risk associated with not having a champion for the Project	✓			✓
Legislative (AFP/PPP) – Risk related to legislation allowing the jurisdictions to enter into a AFP/PPP contract	✓			✓
Jurisdictional / Joint Venture – Risk associated with addressing jurisdictional concerns and being able to form a joint venture (as applicable)	✓			✓
Schedule – Risk related to the overall Project schedule	✓			✓
Land Assembly / Appropriation – Risk associated with obtaining all necessary lands for access roads, bridge and plaza	✓			✓
Size of Transaction – Competitive risk associated with the large size of the transaction	✓			
Environmental – Risk associated with the environmental process of the Project	✓			
Other Planning and Approvals – Risk related to the approvals required for the Project	✓			
Geotechnical – Risk associated with the geotechnical process	✓			

Note: If a check mark (✓) is allocated to both the public and private sector, this risk is dependant on the transaction structure and/or the payment mechanism for the transaction.

Executive Summary

Risk	Risk Allocation			Critical Risk Prior to Going to Market
	Public	Private	Shared	
Utilities – Risk associated with utilities relocation			✓	
Traffic Projections not Prepared to Investment Grade – Risk associated with traffic projections	✓	✓		✓
Toll Evasion – Risk associated with toll evasion	✓	✓		
Competition Behaviour of Existing Bridge – Risk associated with the competitive behaviour of existing operators	✓	✓	✓	✓
Competing Facilities are Built – Risk associated with additional facilities being built			✓	
Connecting Facilities are Not Built – Risk associated with integrating the facilities	✓	✓		✓
Operations and Maintenance – Risk associated with during the operations and maintenance period	✓	✓		
Interest Rates (Pre-Financial Close) – Risk associated with interest rate changes prior to financial close			✓	
Interest Rates (Post-Financial Close) – Risk associated with interest rate changes prior to financial close		✓		
Capital Market Appetite Insufficient for Issues – Risk to be determined during the transaction phase		✓		
Refinancing – Risk associated with refinancing debt during the concession period		✓		

Note: If a check mark (✓) is allocated to both the public and private sector, this risk is dependant on the transaction structure and/or the payment mechanism for the transaction.

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Risk	Risk Allocation			Critical Risk Prior to Going to Market
	Public	Private	Shared	
Force Majeure – Risk associated with categories of risk that are not controllable (e.g. earthquakes, floods, etc)			✓	
Change in Law (including taxes) – Risk associated with general changes in law			✓	
Discriminatory Change in Law - Risk associated with changes in law that specifically affect this transaction	✓			
Customs and Border Security Requirements (Plaza) – Risk associated with integrating specific requirements for Plazas	✓			✓

Note: If a check mark (✓) is allocated to both the public and private sector, this risk is dependant on the transaction structure and/or the payment mechanism for the transaction.

1. Introduction and Purpose

The Ministry of Transportation ("MTO") , in partnership with Transport Canada ("TC"), the Michigan Department of Transportation ("MDOT"), the U.S. Federal Highway Administration ("FHWA"), collectively the "Partnership", have established an aggressive goal of completing a new crossing including plazas and access roads between Windsor, Ontario, Canada and Detroit, Michigan, USA by 2013.

MTO, on behalf of the Partnership, has engaged PricewaterhouseCoopers LLP ("PwC") to develop a report on potential transaction options and a high-level strategic risk analysis for the Windsor-Gateway Project (the "Project") with due consideration to the multi-jurisdictional Partnership.

The analysis contained herein is based on the following information and assumptions:

- Information obtained from a market sounding with North American and international private sector project developers conducted by TC on November 22, 2006;
- Information obtained and discussed at the December 5, 2006 Windsor-Detroit Gateway Project, Project Structure Workshop;
- Information obtained and discussed at the January 18, 2007 Windsor-Detroit Gateway Project, Transaction Structure and Risk Workshop;
- Comments received from the Partnership subsequent to the December 5, 2006 and January 18, 2007 workshops; and
- Past project structuring experience and market knowledge of PwC.

Representatives from all members of the Partnership attended the various workshops and were provided the opportunity to provide input and comments on all aspects of this report.

1. Introduction and Purpose

The analysis of transaction structures is intended to:

- Provide an overview of various transaction structures for the Project;
- Identify the pros and cons of each transaction structure with a focus on entering procurement with one transaction or multiple transactions; and
- Determine the preferred transaction structure.

Payment models will have an impact on the transaction structure and marketability of the Project. Various payment models for the Project are identified and described in this report. Illustrative examples are also provided to show the effect of the payment models on the preferred transaction structure.

The analysis on the high-level strategic risk analysis is intended to provide and discuss a high-level risk register for the Project which outlines:

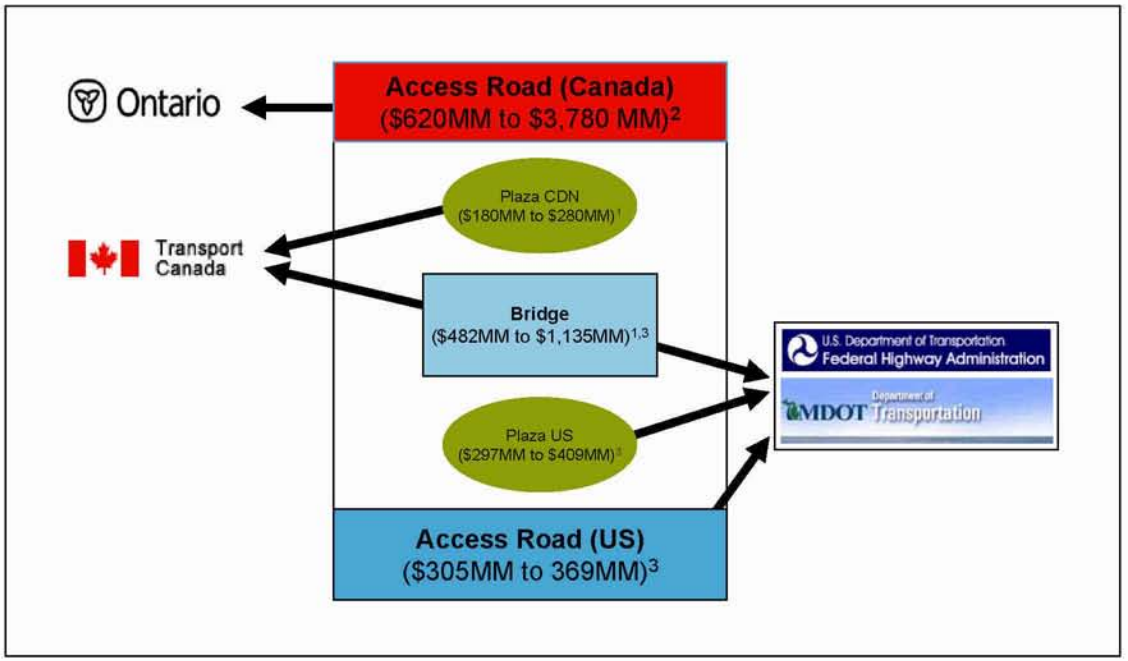
- Risk description;
- Likelihood of the event occurring;
- Potential consequences and impact if the event were to occur;
- Risk allocation; and
- Risk mitigation strategy and actions required by the Partnership.

2. Project Background

The Partnership has carried out studies assessing the nature and extent of existing and future transportation problems and opportunities in the South-eastern Michigan – South-western Ontario border region, and have identified inadequate road-based capacity to support long term travel demand as the principal finding.

The Project forms the core of a long-term implementation strategy to meet the long-term cross-border traffic demand. The crossing will link Highway 401 in Ontario to the I-75 in Michigan and will include the construction of a new bridge, plazas on both sides of the bridge and access roads to the bridge.

The following diagram provides an overview of the scope of the Project. Total Project cost are estimated to be in the range of approximately $1.9 billion to $6.0 Billion.



Source:

1 URS Canada

2 Detroit River International Crossing Study, Public Information Open Houses, December 6 and 7, 2006

3 Corradino Group (US to Canadian exchange of 1.20)

2. Project Background

Project Objectives

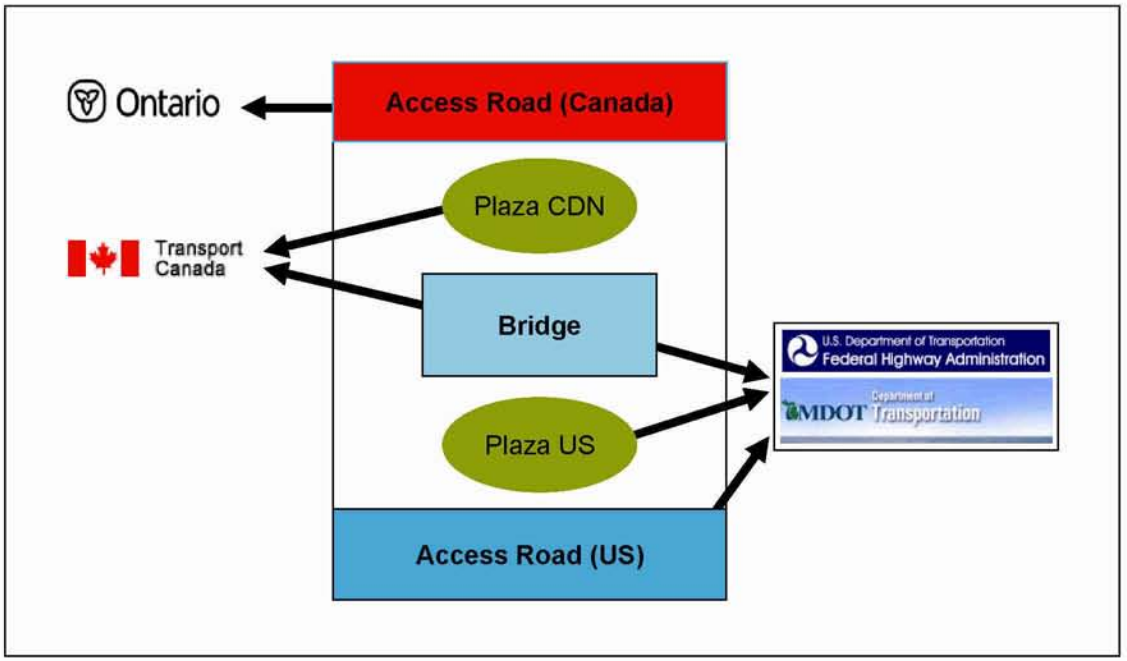
PwC facilitated a Project workshop with the Partnership in order to identify, refine and document the Project objectives which would be used during project development and implementation. These are set out below.

Economic vitality of the region and the two countries	A key objective of the Project is to facilitate economic trade/vitality of the region and the two countries, while protecting federal and sovereign interests. This includes: • Commercial traffic facilitation • Transportation efficiency and reliability ▪ Adequately addressing Customs and CBP concerns • Satisfy on-going transportation requirement ▪ Physical Safety ▪ Efficient ▪ Be available 24hours a day, 7 days a week
Affordability	Affordable to Governments (to address any shortfalls from toll revenue as applicable).
Flexibility	Flexible in order to accommodate future changing circumstances, technologies, etc.
Public Oversight	Public oversight of the land and bridge is a commitment made by the Partnership.
Private Sector Competitiveness	The operator needs to have flexibility in its tolling structure/rates in order to be responsive to the marketplace and remain competitive.

2. Project Background

Jurisdictional Responsibilities

- In the US, jurisdictional responsibility for the bridge, the plaza and the access roads are the responsibility of both the FHWA and MDOT.
- In Canada, jurisdictional responsibility for the bridge and the plaza rest with TC and responsibility for the access roads rest with MTO.



2. Project Background

Key Issues and Policy Considerations

The following are key issues and policy considerations for the Project.

- **Jurisdictional and Legislative**: Four jurisdictions over two countries imposes a number of legislative challenges and issues in terms of how different components of the new crossing will be funded and regulated and who the ultimate owner of the new crossing would be. Furthermore, new legislation may be required in order for the partners to be able to jointly procure the transaction.
- **Jurisdictional Collaboration and Dispute Resolution**: A number of key decisions regarding the procurement, delivery, financing and governance have not yet been made. The Partnership will need to specify which parties are responsible for certain actions and devise plans for conflicts and issue resolution. This issue will need to be addressed through either a joint venture agreement, a united shareholders agreement or separate agreements among contracting parties.
- **Environmental Assessment ("EA"):** The Project is subject to challenge for environmental risk after the Fall of 2007 (post site selection) in both Canada and the US. Challenges can be filed up to 180 days after the site selection is determined. The procurement process and construction can continue, both in Canada and the US, subject to an injunction being issued.
- **Effective Public Oversight**: The construction of a new international crossing must address Canadian and US. national concerns. Key amongst these are security and safety, efficient crossings, accountability and transparency; value for money and responsiveness to public interest concerns which can be significant on such a "visible" asset. Regulatory requirements and the approval process may be more involved as the project involves federal, provincial, state and municipal stakeholders who may have different objectives.
- **Competition for Other Crossings in Windsor-Detroit**: Competition exists from three other crossings, namely the Ambassador Bridge, the Windsor-Detroit Tunnel and the Windsor-Detroit Truck Ferry.

2. Project Background

Key Issues and Policy Considerations (cont'd)

- **Travel Demand and Forecasts**: The reliability of estimated traffic demand is one of the key risk areas for a road project. In cases, where traffic demand is underestimated, the project has the potential to run into financial difficulty, attract significant media attention and, at worst, become a drain on public funds. Given the significant dependence of the Windsor-Detroit Gateway on sufficient and sustained long-term traffic demand, careful attention must be dedicated to exploring traffic forecasting risks. An investment grade forecast will be required in order to satisfy the concerns of potential lenders.

- **Land Assembly**: The process for land procurement is underway in Ontario and Michigan. The land must be appropriated in the near term to ensure that the land is available for the Project.

- **Environmental Process**: The Project is subject to challenge for environmental risk after the Fall of 2007 (post site selection) in both Canada and the US. Challenges can be filed up to 180 days after the site selection is determined. The procurement process and construction can continue, both in Canada and the US, subject to an injunction being issued.

- **Choice of Procurement Model**: The feasibility of various procurement models (i.e. DBFO, DBFM, DBF, etc) are dependent on the economics of the Project and the Partnerships preference with respect to the allocation of risks. If the Project is not self financing it will likely require public support in the form of construction and/or operating subsidies regardless of the model used.

- **Concession Fees/Payments to the Private Sector**: The timing and risks associated with concession fee payments including the type of payment model to be used (e.g. revenue/cost sharing versus upfront fee/payment). To the extent the fees/costs are payable through some sort of revenue/cost sharing formula rather than an upfront payment, the Partnership or members of the Partnership would be exposed to greater risk and uncertainty (i.e. payments may be lower if actual revenues are greater than projected). However, the Partnership or members of the Partnership may also benefit from higher payments (i.e. actual revenues are greater than projected) and would receive a stream of income over time.

2. Project Background

Key Issues and Policy Considerations (cont'd)

- **Cross Border**: The Project is unique in its location. Being cross border would be viewed by the private sector, including financiers, as more complex as there is the potential for multiple policies and a more bureaucratic process, particularly stemming from severe inspection protocols and sovereign government policies with implications on structures and funding.
- **Maximize the Use of Federal/State/Provincial Innovative Funding Programs –** Programs such as Transportation Infrastructure Finance and Innovation Act, private activity bonds, can be used to lower the overall financing cost of the Project, given that they are typically offered at more favourable terms (although they are restricted in terms of how much is available for a project).
- **Risk Allocation Between Parties (i.e. Private Sector, Partnership or Shared)**: The risks allocation between parties needs to be carefully reviewed to ensure they are consistent with the Project Objectives and that the Partnership is comfortable assuming the risks that are being retained based on its ability to effectively manage them. Risks should be allocated to the party that can best manage them.
- **Timeline**: The timeline is a key consideration in assessing the options that are available to the Partnership and provides guidance to the Partnership with respect to prioritizing issues and deliverables. A high-level Project timeline is provided below:
  - Development period – 2007
  - Environmental assessment completed – Fall 2008 (F2008)
  - Procurement process – 2008
  - Design – 2009
  - Construction – 2010 to 2013
- **Schedule:** Given public announcements of the timeline, the schedule for the Project is heavily dependant on many of the key issues and policy considerations. Issues affecting the schedule are highlighted and discussed in the risk register.

2. Project Background

Assumptions

- At this time, no decision has been made in Ontario whether its portion of the Project will be procured as an AFP. FHWA does not have the ability to enter into PPP contracts. Michigan currently does not have legislation to enter into PPP transactions, although Design Build contracts and maintenance contracts are entered into from time-to-time. US Federal PPP legislation has been passed which will be used by MDOT as a model for state PPP legislation. MDOT has indicated that it will require enabling legislation. MDOT has not made a decision whether the Project will be a PPP. TC has indicated that it is exploring private partnerships for its portion of the Project.
  - **Assumption:** PPP legislation will pass in Michigan prior to the Project entering the market and members of the Partnership, either individually, through an alliance or contractual arrangement with another member, will procure their respective portion of the Project as PPP/AFP transaction(s).
- MDOT is exploring its ability to enter into contracts with TC, MTO and private partners.
  - **Assumption**: All of the partner jurisdictions will pursue enabling legislation to support contractual and other legal arrangements for whatever purpose required to reach a preferred governance model.
- While the total value of the Project can be up to approximately $6 billion, the total value of the transaction will most likely be in the range of up to approximately $3 billion.
- The access roads will not be subsidized by bridge/plazas revenue. As a result, a payment maybe required from one or more governments to fund the access roads or the access roads may be funded by some other tolling method.
- Bridge and plazas will be procured together subject to customs and border security requirements and transaction structure.

Governance and Transaction Structuring Options

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3.a. Governance Options

Irrespective of any transaction structure contemplated for the Project, the Partnership requires a **project governance structure** to address interaction among the four jurisdictions. The creation and implementation of a project governance structure will allow the Partnership to specify which parties are responsible for certain activities and devise plans for conflict and issue resolution.

In order to form an effective project governance structure, the Partnership should begin by creating a working committee in order to explore requirements for:

- The formation of a Project Team or Project Office and the roles and responsibilities of individual members of the Project Team/Office;
- The selection of representatives/composition for the Project Team/Office;
- The selection of representatives to committees and/or boards that have overall decision making authority on the Project; and
- The reporting mechanisms for each member of the Partnership.

The project governance structure should be formed to address the day to day decision making authority of the Project Team by explicitly stating principles to govern their decision making process.

Appendix A provides a sample of the project governance structure utilized in the RAV Project. A project office was created to administer the RAV Project. A project company was created shortly thereafter with a board of directors responsible for decision making with respect to structuring the transaction and negotiating with the private sector.

3.a. Governance Options

The Partnership seeks to determine the preferred transaction structure for the Project. At the same time, the Partnership has not yet decided on a specific governance model for the transaction. This decision is a necessary step in order to progress the transaction structure analysis and selection.

Current governance options include the **Bi-National Authority** Model (Peace Bridge Model) and the **Separate Ownership** Model (Blue Water Bridge Model). Both of these models have their own advantages and disadvantages and in order to provide flexibility for different procurement options and Project structuring options, a hybrid model, in the form of a **Joint Venture,** may provide opportunities to capitalize on the strengths of each governance model.

Each of the above governance structures has implications on the structuring of the transaction. These models are discussed in detail in the following slides.

3.a. Governance Options

Bi-National Authority Model

A Bi-National Authority model would mean that the crossing would be jointly owned through the formation of a single international body or Authority. Reciprocal legislation would required in both Canada and the US to enable the construction, maintenance and operation of the Windsor-Detroit Gateway project. This model is similar to that used on the Peace Bridge.

Under the Bi-National Authority model, the effect of the transaction option would be for:

1. MTO to procure the Canadian access roads
2. FHWA, MDOT and TC to create a Bi-National Authority to procure the bridge and the plazas
3. FHWA and MDOT to procure the US access roads

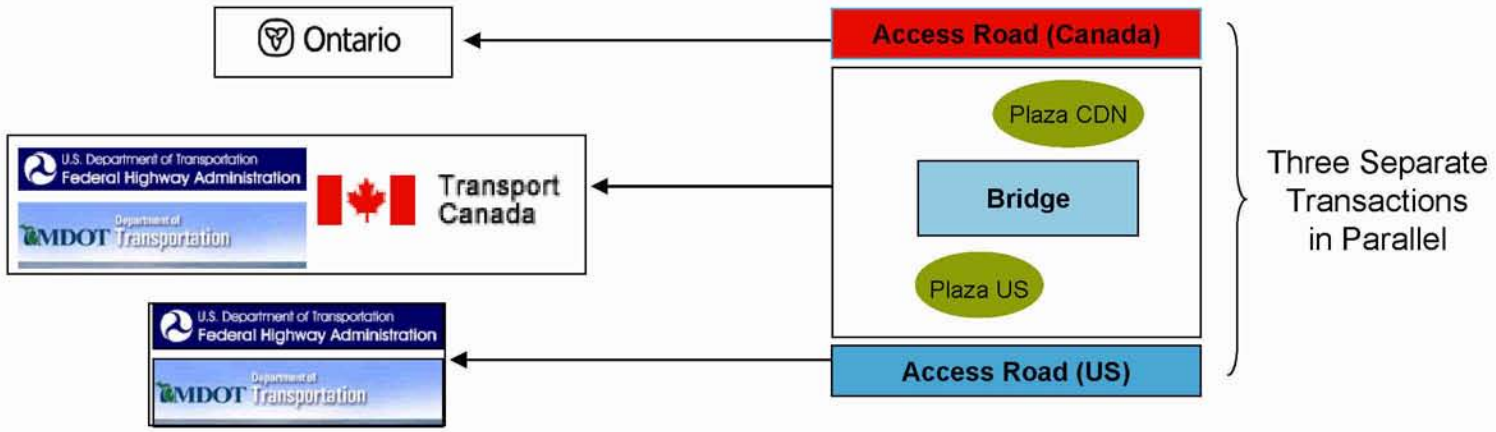
The advantages and disadvantages of this model are as follows:

- Potential advantages of the Bi-National Authority model:
  - A single authority would be responsible for all activities of the bridges and plaza resulting in a coordinated strategic direction for the crossing
  - The bridge and plazas would be operated and maintained as a single asset
  - There would be consistent service levels and performance standards for the bridge and plazas

3.a. Governance Options

Bi-National Authority Model (cont'd)

- Potential disadvantages of the Bi-National Authority model:
  - There is a potential loss of sovereign interests
  - Significant coordination and compromise is required in order to function effectively
  - Specific legislation is required in order to create the authority which may add an additional layer of complexity and time.



3.a. Governance Options

Separate Ownership Model

Under a Separate Ownership model, each half of the crossing would be separately owned. In Canada, this would likely require the establishment of a Federal Corporation (subject to the passing of current legislation that is in progress) that would own the Canadian half of the bridge. In the US, MDOT and FHWA would become the owners of the US half of the bridge. This model is similar to that used on the Blue Water Bridge.

Under the Separate Ownership model, the effect of the transaction options would be for:

1. MTO would procure the Canadian access roads;
2. TC would procure the Canadian portion of the bridge and plaza; and
3. MDOT and FHWA would procure the US portion of the bridge and plaza and US access roads as one transactions or two transactions (separating the access roads).

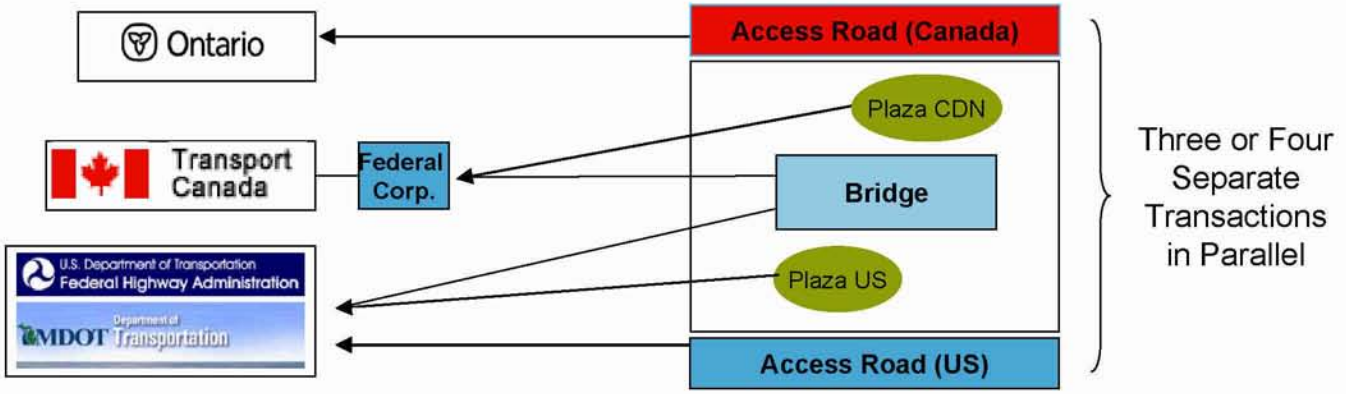
The advantages and disadvantages of this model are as follows:

- Potential advantages of the Separate Ownership model:
  - Provides for co-ordination of major policy decisions
  - Maintains sovereign interests since each government has control of their portion of the bridge, plazas and access roads

3.a. Governance Options

Separate Ownership Model (cont'd)

- Potential disadvantages of the Separate Ownership model:
  - Each party has separate responsibility for their part of the proposed crossing thereby increasing the risk that the bridge is operated and maintained as two halves
  - There is potential for different toll structures on the two sides of the bridge
  - Service levels and performance standards may differ for one side of the bridge compared to the other



3.a. Governance Options

Joint Venture Model

Under a JV model, all or some members of the Partnership would agree to form an entity detailing the responsibilities of each partner through a joint venture agreement or a united shareholder agreement. The formation of a JV is subject to a) the willingness of each member of the Partnership to enter into a JV and b) jurisdictional and legislative hurdles faced by each member of the Partnership (as applicable) in trying to form the JV.

The JV can take many forms (corporations, partnerships, etc), can be between different parties (TC, MDOT, FHWA and MTO or a subset thereof) and can procure different elements of the crossing.

Under the JV model, the effect of the transaction options would be for:

1. A JV to be established in order to procure the bridge, plazas (and access roads). The JV or a subsidiary thereof, would become the contractual party with the private sector partner.

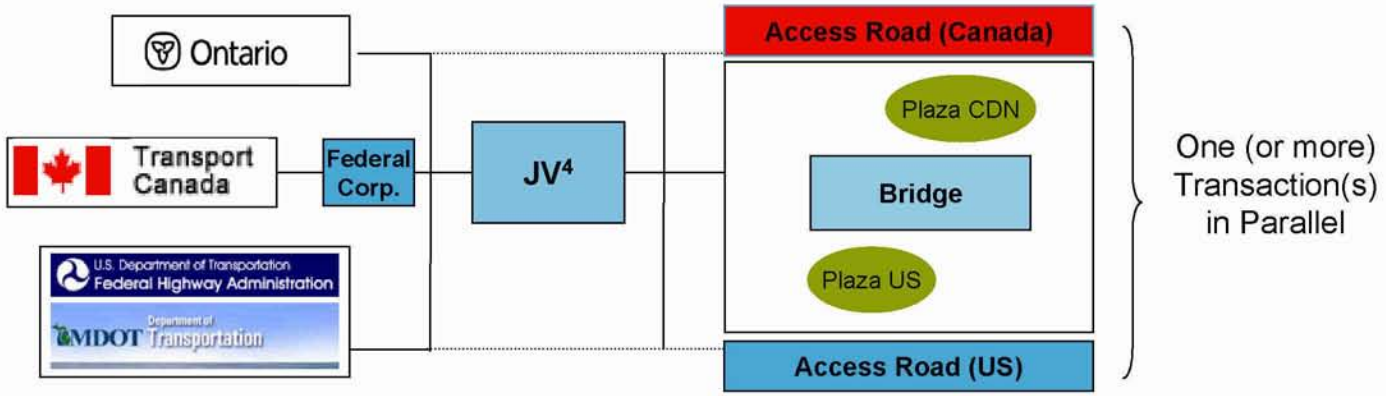
The advantages and disadvantages of this model are as follows:

- Potential advantages of the JV model:
  - The joint venture would represent individual national interest
  - Potential single asset approach to operations and maintenance
  - A joint legal agreement would be formed to establish governance, service, operating and performance standards

3.a. Governance Options

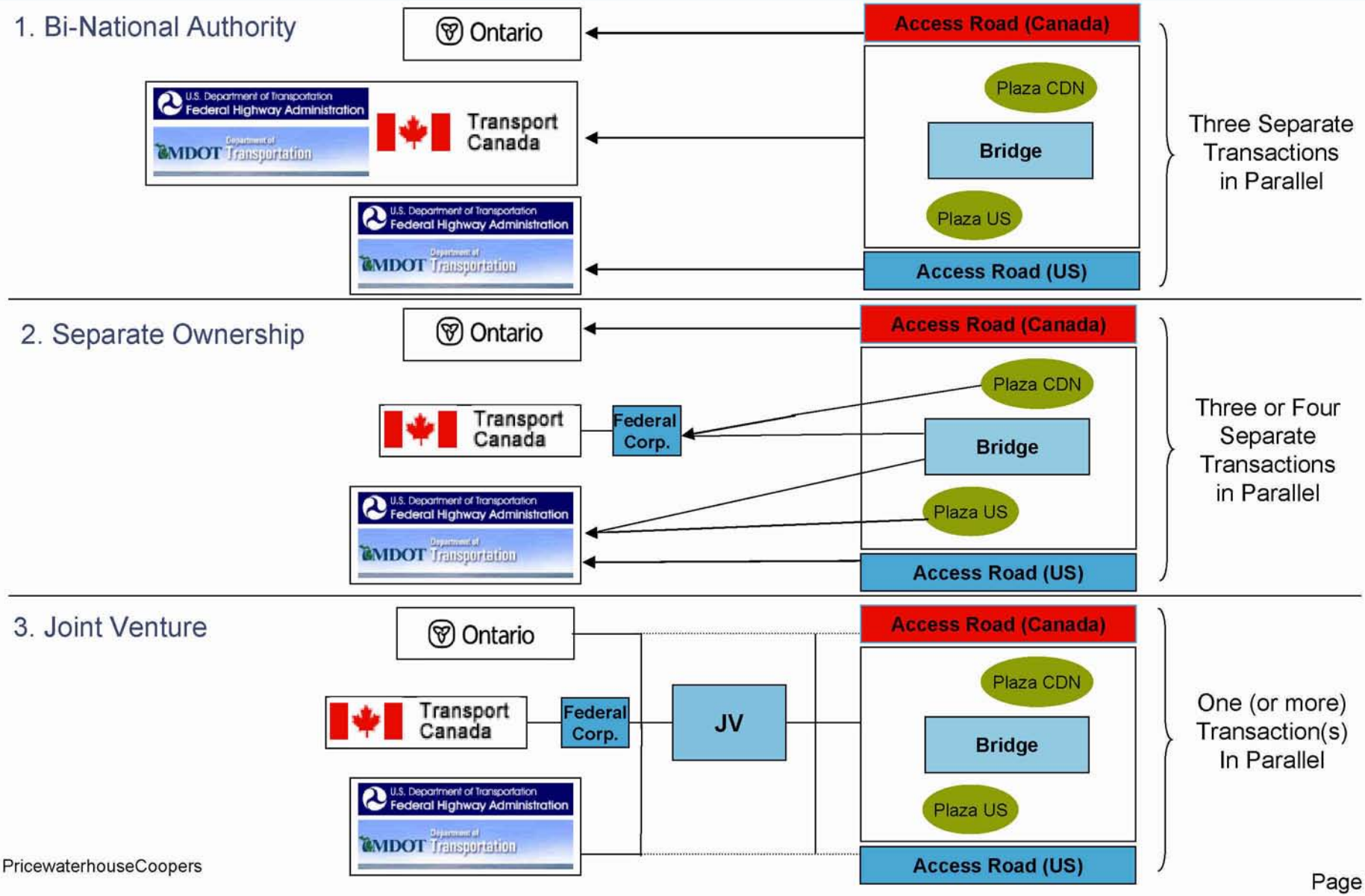
Joint Venture Model (cont'd)

- Potential disadvantages of the JV model:
  - Since a single entity is responsible for decision making, there is a potential loss of sovereign interests under the JV structure
  - Michigan will require legislation in order to enter into contractual arrangements
  - The JV requires compromise to function effectively as the jurisdictional interests of up to four parties need to be considered
  - Coordination of major policy decision from up to four jurisdictions on the access roads may be sub-optimal



[4]The Joint Venture can take the form of a corporation, partnership or limited partnership depending on the contractual ability of the Partnership to enter into either of these forms of a Joint Venture.

3.a. Governance Options – Summary



3.a. Governance Options

Summary of Governance Options

The following tables summarizes the governance issues of potential transaction options for the Project:

		Potential Transaction Options For Crossing		
		Bi-National Authority	**Separate Ownership**	**Joint Venture**
Potential Assets		• Bridge • Plazas	• Bridge • Plazas • Access Roads	• Bridge • Plazas • Access Roads
Governance	**Pros**	• Coordinated strategic direction • Single asset approach to operations and maintenance • Consistent service levels and performance standards for bridge and plazas	• No need for coordination of major policy decisions • Each government has control of their portion of the bridge, plazas and access road	• Ownerships interest in of joint venture would represent individual national interest • Potential single asset approach to operations and maintenance • A joint legal agreement could be formed to establish governance, service, operating and performance standards
	Cons	• Potential loss of sovereign interests • Requires compromise to function effectively • Requires legislation to be passed (additional time) • Access roads would be separately governed	• Multiple asset approach to operations and maintenance • Different toll structures on the two sides of the bridge • Service levels and performance standards may differ for one side of the bridge compared to the other	• Potential loss of sovereign interests • Requires legislation to support contractual arrangements of the JV • Requires compromise to function effectively • Coordination of major policy decision from four jurisdictions

The joint venture model can be applied to both a single and multiple transaction model and are discussed in further detail on the following pages.

3.b. Transaction Structuring Options

Joint Venture Option: Single Transaction

FHWA, MDOT, TC and MTO would form a JV to award and manage the concession for bridge, plazas and access roads as a single transaction.

The potential advantages of a single transaction JV model are as follows:

- Private sector deals with one governing body for entire Project
- Allows Partnership to choose the best overall bid for the Project
- Schedule/completion risk is passed on to the private sector
- Reduces integration risk of the bridge and plazas with adjoining access roads
- Reduces transaction costs for private sector and public sector as one concession agreement is developed and one transaction is procured

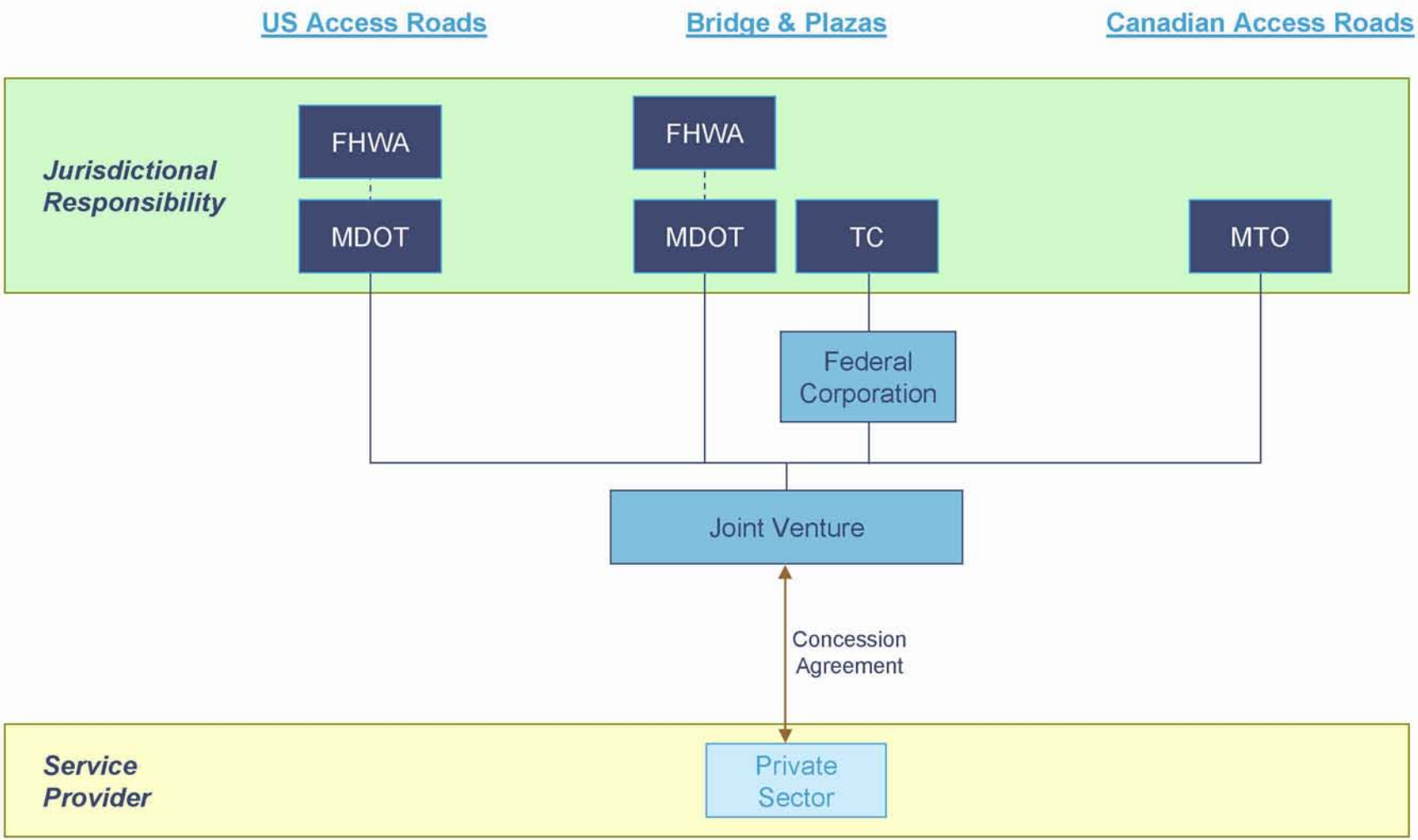
The potential disadvantages of a single transaction JV model are as follows:

- Market for transaction may be limited due to size of Project.
  - Largest closed PPP bridge transactions in Canada and the UK are $1billion and £1 billion respectively
  - Largest closed road privatizations in North American are in the $3 billion range (Chicago Skyway, 407 ETR, Indiana)
- May reduce the amount of innovative funding programs available to the private sector (eligibility of US funding programs (TIFIA, PABS, etc) would need to be confirmed)
- Jurisdictional issues would need to be fully analyzed, addressed and resolved by summer 2007 in order to progress the Project and achieve the 2013 deadline

The structure for a single transaction JV is illustrated diagrammatically on the next page.

3.b. Transaction Structuring Options

Joint Venture Option: Single Transaction



3.b. Transaction Structuring Options

Joint Venture Option: Multiple Transactions

Two Multiple Transactions JV Options (JV Model – Option A and JV Model – Option B) are outlined below and on the following pages.

JV Model – Option A

FHWA, MDOT and TC would form a JV to award and manage a concession for the bridge and plazas. MTO and MDOT each would award and manage concessions for Canadian and US access roads, respectively and pay the private sector for services provided. MTO and MDOT/FHWA would enter into separate agreements with the JV that document responsibilities of each partner, including procurement schedule, construction schedule and funding.

The potential advantages of a multiple transaction JV Model – Option A are as follows:

- Interests of each jurisdiction are maintained
- Allows pricing for each transaction separately and the Partnership, or member thereof, to choose the best bid for each of the bridge/plazas and the access roads
- Market appetite may increase
- Jurisdictional issues may be addressed during the detailed project structuring phase while still progressing each project component.

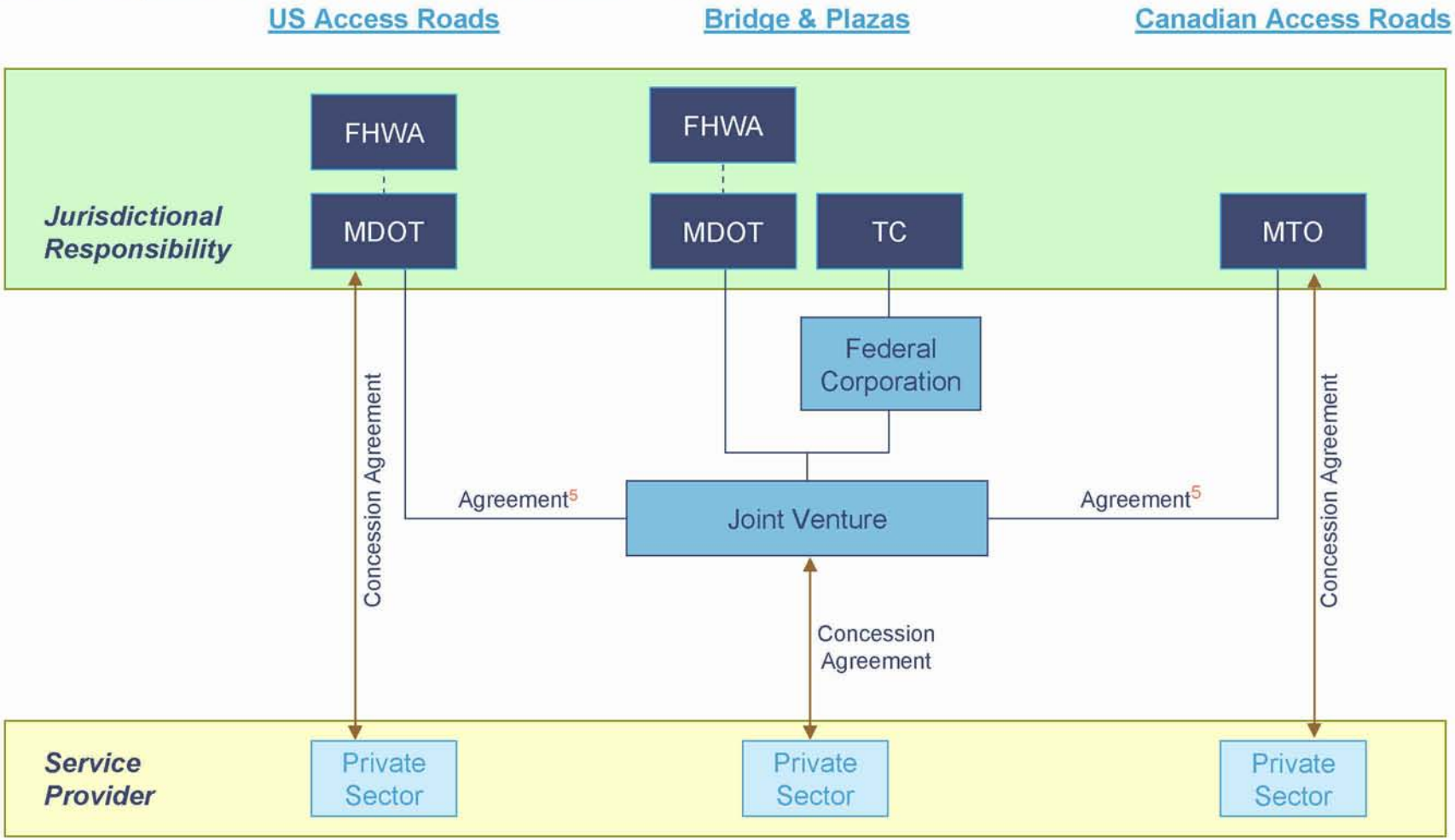
The potential disadvantages of a multiple transaction JV Model – Option A are as follows:

- Private sector deals with multiple governing bodies and variations in risk appetite and multiple concession agreements
- Procurement risk increases the chance of schedule delays. Project timelines and procurement timelines must be coordinated to minimize any delays from occurring
- Procurement costs increase as multiple transactions will be run simultaneously both from the public sector's perspective and the private sector's perspective. This may impact the private sector's ability to bid multiple transactions
- Integration risk of managing multiple transactions and concessions is retained by the Public sector

The structure for a multiple transaction JV Model - Option A is illustrated diagrammatically on the next page.

3.b. Transaction Structuring Options

Joint Venture Option: Multiple Transactions JV Model – Option A



[5] No direct agreement with private sector. Agreement between JV and MTO and FHWA / MDOT setting out commercial, operational and funding responsibilities, as required.

3.b. Transaction Structuring Options

Joint Venture Option: Multiple Transactions

JV Model – Option B

FHWA, MDOT and TC would form a JV to award and manage a concession for the bridge and plazas. MTO and MDOT each would award and manage concessions for Canadian and US access roads, respectively and pay the private sector for services provided. MTO would enter into a separate agreement directly with TC. These agreements would coordinate the responsibilities for each partner, including procurement schedule, construction schedule and funding.

The potential advantages of a multiple transaction JV Model – Option B are as follows:

- Interests of each jurisdiction are maintained
- Allows pricing for each transaction separately and the Partnership, or member thereof, to choose the best bid for each of the bridge/plazas and the access roads
- Market appetite may increase
- Jurisdictional issues may be addressed during the detailed project structuring phase while still progressing each project component.

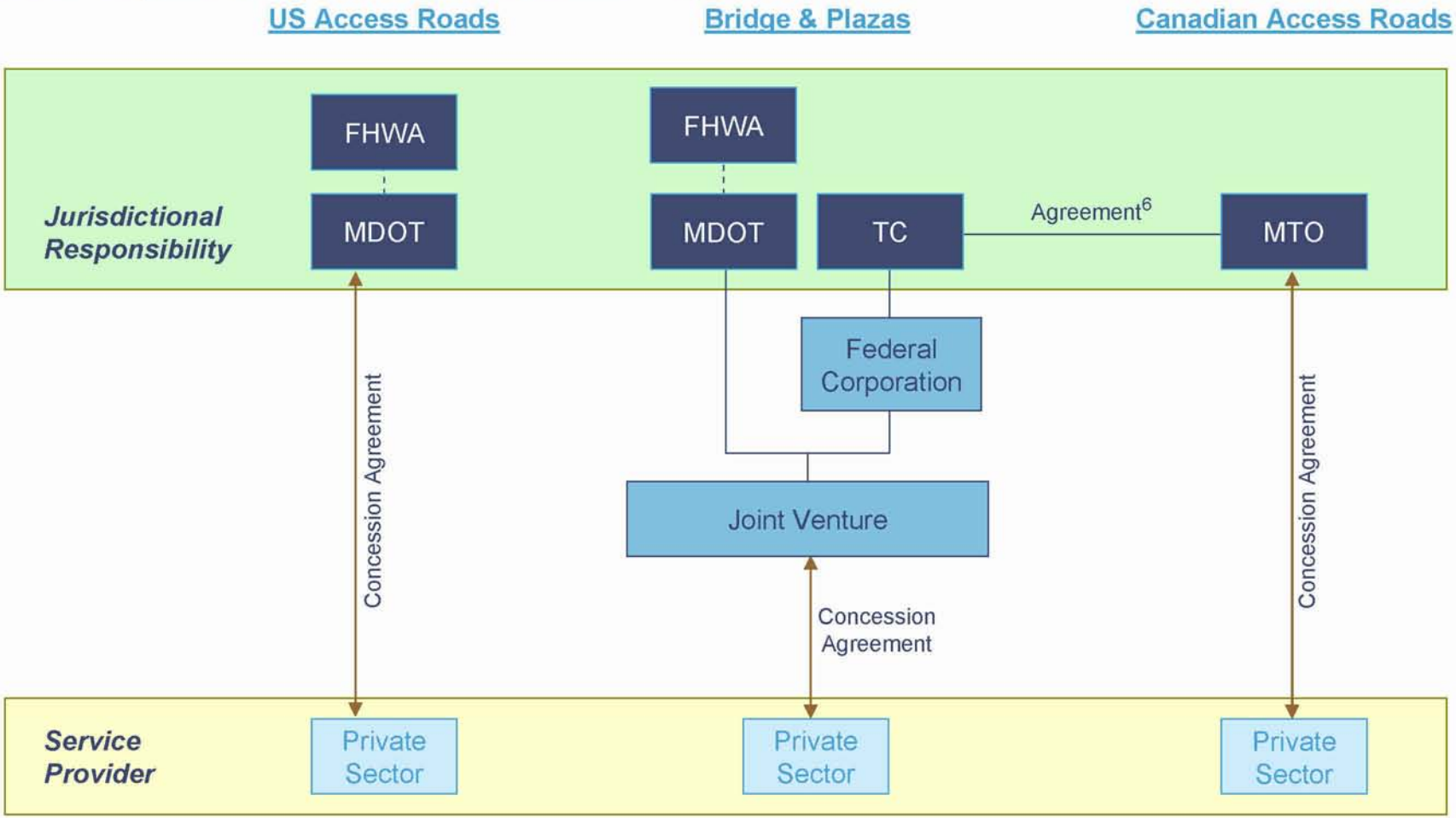
The potential disadvantages of a multiple transaction JV Model – Option B are as follows:

- Private sector deals with multiple governing bodies and variations in risk appetite and multiple concession agreements
- Procurement risk increases the chance of schedule delays. Project timelines and procurement timelines must be coordinated to minimize any delays from occurring
- Procurement costs increase as multiple transactions will be run simultaneously both from the public sector's perspective and the private sector's perspective. This may impact the private sector's ability to bid multiple transactions
- Integration risk of managing multiple transactions and concessions is retained by the Public sector
- Private sector may require a direct contractual agreement between MTO/MDOT and the JV to address issues of integration

The structure for a multiple transaction JV Model - Option B is illustrated diagrammatically on the next page.

3.b. Transaction Structuring Options

Joint Venture Option: Multiple Transactions JV Model – Option B



[6] No direct agreement with private sector. Agreement between TC and MTO setting out commercial and funding responsibilities, as required.

3.b. Transaction Structuring Options

Joint Venture Option: Multiple Transactions

Under a multiple transactions structure, the JV would have the rights and obligations of contracting with a private sector party for the procurement of the bridge and plazas. MTO and MDOT/FHWA will not have direct agreements with the private sector party that deals with the JV. Separate concession agreements will govern the access roads with a selected private sector party. This selected private sector party need not be the same contractual party as the private sector counterparty to the JV agreement.

- Under JV Model – Option A, the private sector party (counterparty to the JV) will expect the JV to enter into separate agreements with MTO and MDOT/FHWA to address coordination issues related to the integration of the access roads.
- Under JV Model – Option B, MTO would enter into an agreement directly with TC which would address the commercial, operational and financial responsibilities, as well as coordination issues related to the integration of the Canadian access roads.

3.b. Transaction Structuring Options

Preferred Governance and Transaction Option

The preferred governance option for the transaction is the JV model. The formation and membership of a joint venture is subject to

a) the willingness of each member of the Partnership to enter into a joint venture; and

b) jurisdictional and legislative hurdles faced by each member of the Partnership (as applicable) in trying to form the joint venture.

The recommended option is for the Partnership to procure the Project (i.e. the end-to-end solution) as a single transaction if the jurisdictional issues can be resolved by Summer 2007 and the size of the transaction is within the $3 billion range, in order to meet the current transaction timeline of 2013. The Partnership will need to marshal its resources in order to meet the Summer 2007 deadline. Under a single transaction, jurisdictional issues (coordination and collaboration) would be mitigated and the JV would manage these risks.

If the jurisdictional issues cannot be resolved by Summer 2007, then the recommendation would be to procure the Project under multiple transactions (Canadian access roads, bridge/plazas, US access roads).

Payment Models

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4. Payment Models

In this section we describe payment models that compensate the private sector for the Project. Irrespective of the payment model chosen, users will need to pay a toll for the use of the bridge. However, no decision has yet been made on whether users will be tolled on access roads. While the payments models can be applied as a whole to the Project or each element of the Project, for discussion purposes, payment models are described as they would apply to the entire Project. This section also includes a discussion on the types of payment models and the effect of the payment models on the Joint Venture transaction model.

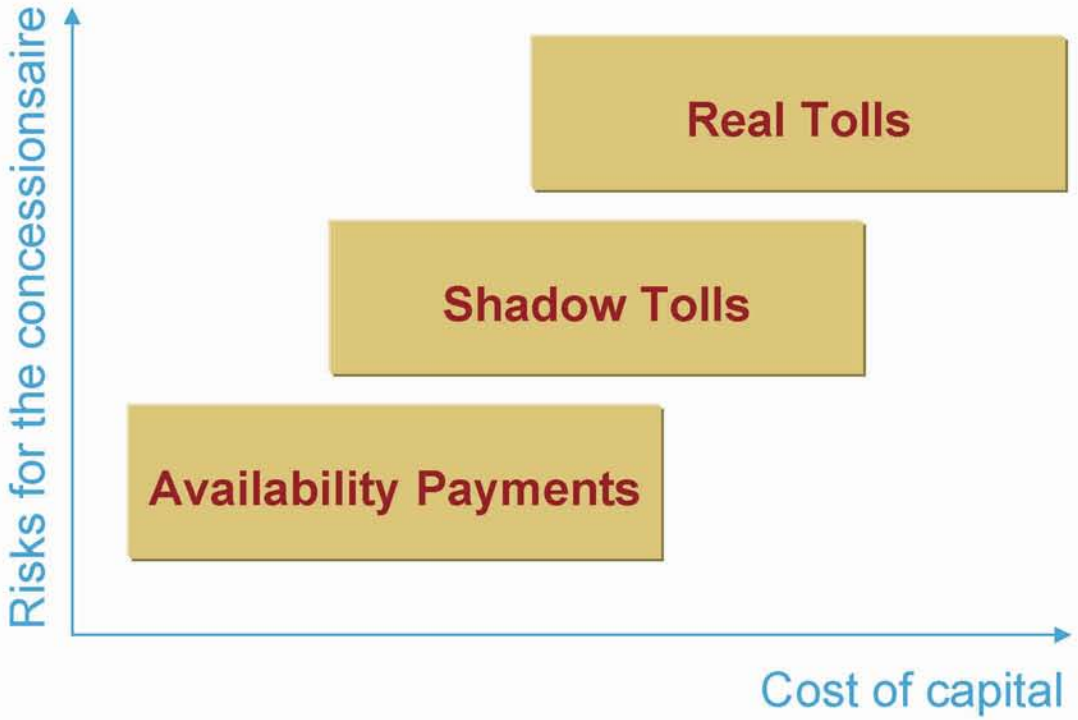
Payment Models:

- Availability Payments – Users pay tolls to the JV which in turn makes payment to the concessionaire. Payment to the concessionaire is based on the availability of the structure for use and will not depend on the volume of traffic on the bridge and/or access roads. The collection of the toll may be performed by the concessionaire.
- Shadow Tolls – Payment to the concessionaire is based on the volume of traffic on the bridge. Traffic counted on the access roads and a degree of volume risk would be built into the access road structure. Any user paid tolls would be paid to the JV.
- Real Tolls – Users pay tolls to the concessionaire based on the volume of traffic on the bridge and/or access roads (concessionaire bears full volume risk).

Final payment structures for each of the Project component may comprise one or more of the above.

4. Payment Models

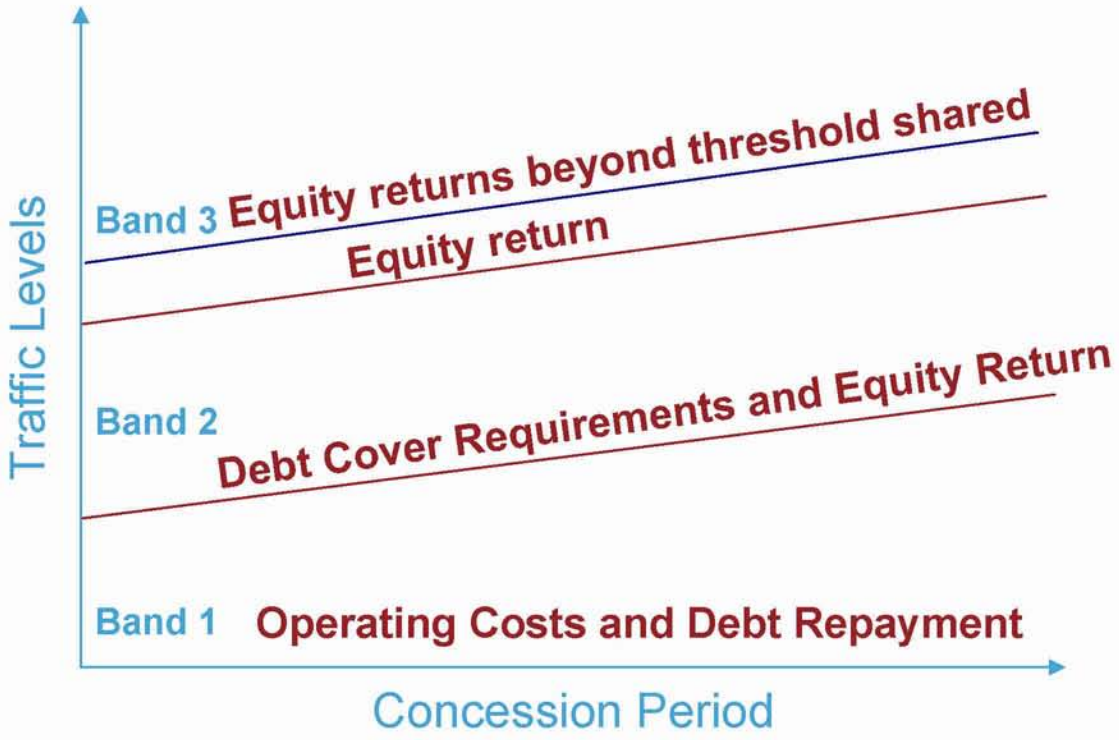
The cost of capital for the payment model increases with the risks allocated to the concessionaire. Availability payments present the lowest risk profile (from a private sector view) for the Project as the concessionaire will be compensated based on the availability of the structure resulting in a lower cost of capital. Shadow tolls transfer a degree of volume risk to the concessionaire as their revenue is dependant on users of the bridge and/or access roads, resulting in a higher cost of capital. Real tolls present the highest level of risk to the concessionaire as full demand risk is transferred from the public sector resulting in the highest cost of capital.



4. Payment Models

Banded Tolls

The banded toll mechanism is designed to transfer some level of demand risk to the private sector while capping the upside return on equity and the public sector's exposure. The following diagram illustrates typical bands of a toll transaction that address operating costs, debt repayment, debt cover requirements and equity returns.



4. Payment Models

The table below describes features of Real Tolls, Shadow Tolls and Availability Payments.

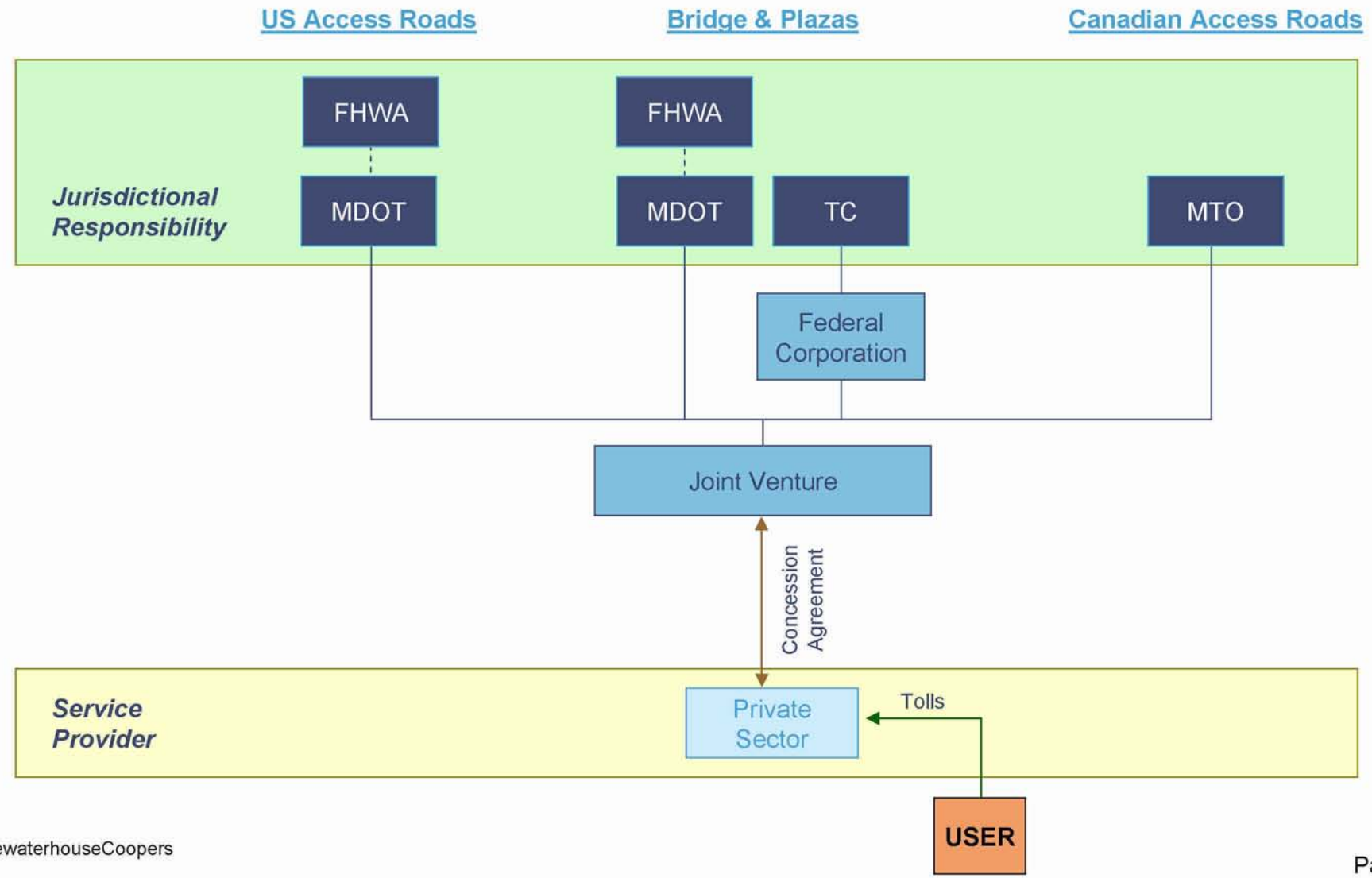
Type	Real Tolls	Shadow	Availability
Who pays the Private Sector?	User	Government	Government
Who sets tolls?	Private sector (SPV) / Public sector	Government / Public sector	Government
Who takes volume risk?	Private sector (SPV) / Public sector	Government / Public sector	Government
Effect of performance risk?	Low complexity	Medium complexity	High complexity
Examples	Canada / US bridges UK Spain 407 ETR	Portugal UK Spain	UK Canada Mexico Poland
Typical Concession Period[7]	25 to 30 years post construction; can be as high as 99 years	25 to 30 years post construction	25 to 30 years post construction

[7] The concession period for a road/bridge is governed by the terms of financing as it is not possible to efficiently finance these assets over their useful life.

The following three diagrams illustrate the differences between Real Tolls, Shadow Tolls and Availability Payments under a Joint Venture scenario.

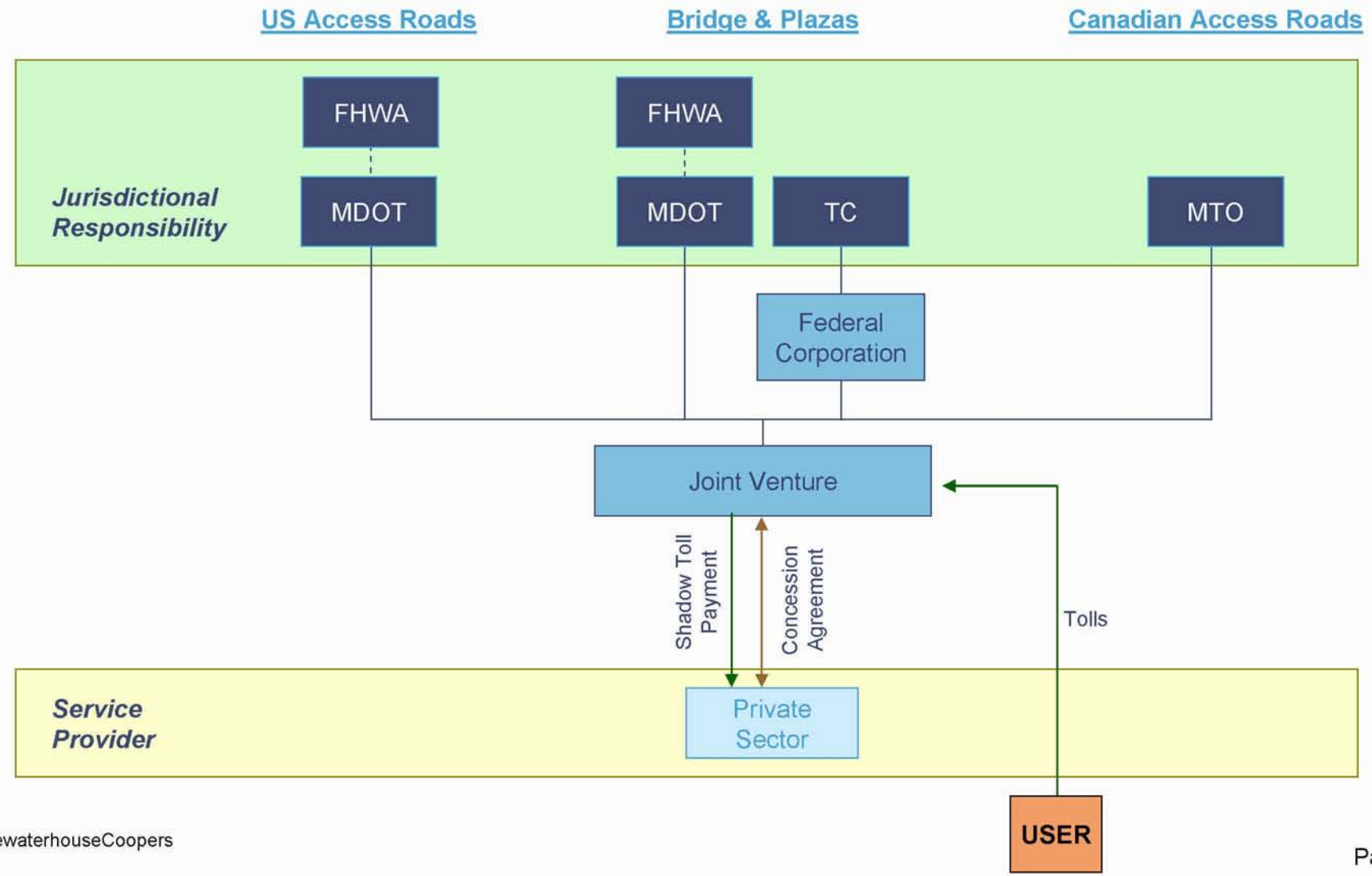
4. Payment Models

Joint Venture Option: Single Transaction – Real Toll Payment (Traffic Risk)



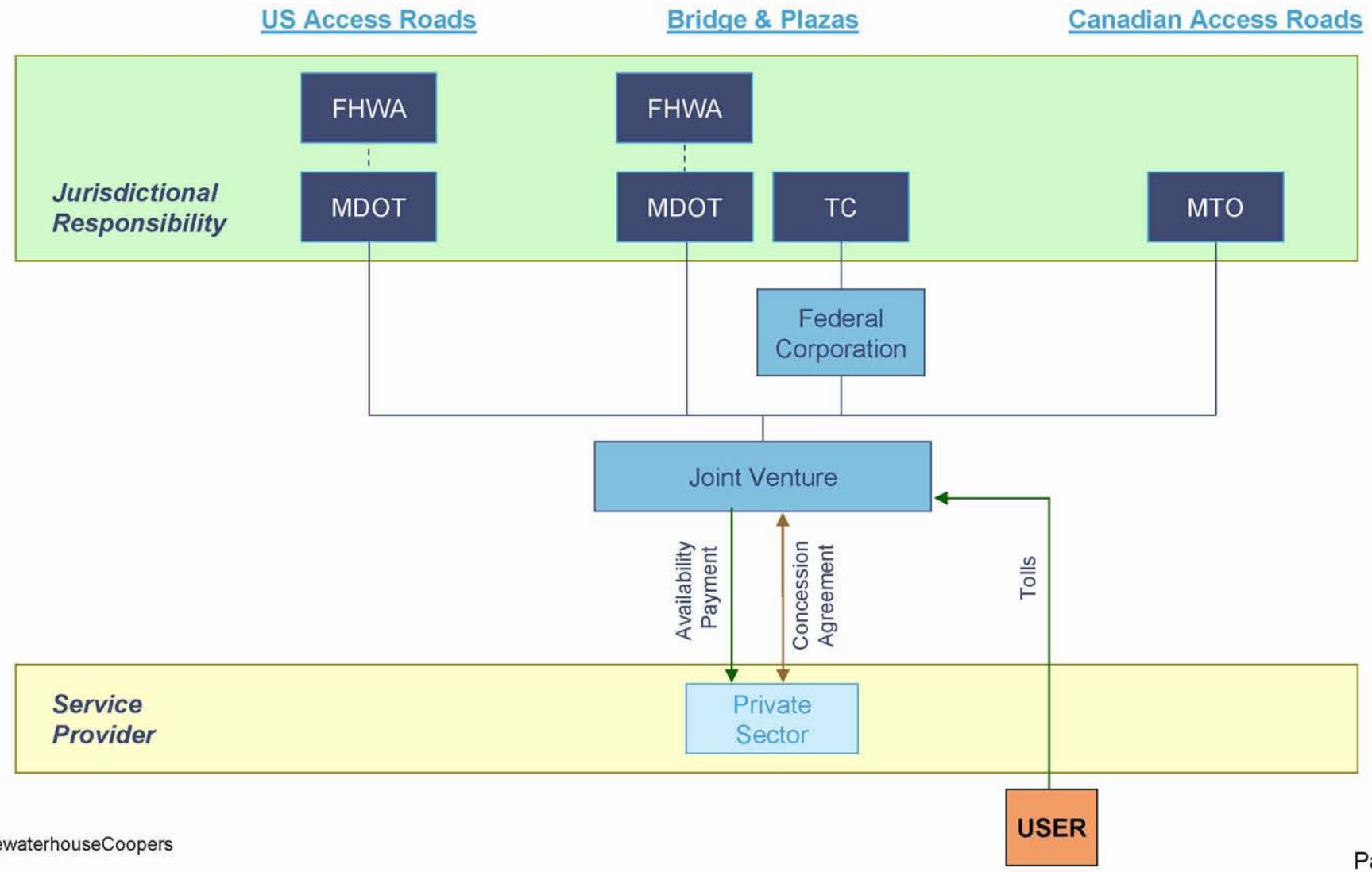
4. Payment Models

Joint Venture Option: Single Transaction – Shadow Toll Payment (Some Traffic Risk)



4. Payment Models

Joint Venture Option: Single Transaction – Availability Payment (No Traffic Risk)



4. Payment Models

The following table provides a summary of advantages and disadvantages of the three Payment Models.

Type	Real Tolls	Shadow Toll	Availability
Pros	• Traffic risk transferred to private sector • Maintains private sector competitiveness with competing crossings • Banding allows usage risk to be "tweaked" and improves efficiency of financing • Banding can allow for capping the upside return on equity that the bidder could expect and also caps the public sector's exposure	• Some level of traffic risk transferred to private sector • Banding allows usage risk to be "tweaked" and improves efficiency of financing • Banding can allow for capping the upside return on equity that the bidder could expect and also caps the public sector's exposure • No disruption of traffic	• Payment model may allow for more flexibility in changes to policy. • Payment model provides incentive to optimize design from a lifecycle perspective • Lenders and investors regard as lower risk compared to volume based payments, as a result lower financing costs and higher rate of participation
Cons	• Concessionaire may require some level compensation for policy changes that effect traffic volumes and revenues • Public sector may not support Joint Venture setting tolls and competing with the private sector • May reduce market size for transactions, fewer investors will be willing to take on the risk • Amount of debt that can be borrowed will be lower and financing premiums higher to reflect higher risk (although some investors have a preference for volume based concessions, which is a potential upside)	• Bidders take traffic risk without the ability to influence the level of traffic or interact with the user (i.e. no possibility of offering discounts to users) • Amount of debt that can be borrowed will be lower and financing premiums higher to reflect higher risk (however lower than real tolls)	• Traffic risk retained by public sector • Alternative sources to fund payment to private sector would be required if toll revenue is insufficient or tolls are not implemented.

4. Payment Models

The following table provides a summary analysis of a single transaction option and multiple transactions option utilizing availability payments real tolls.

	Joint Venture Transaction Structure			
	Single Transaction		Multiple Transactions	
	Option 1 – Availability	Option 2 – Real Toll	Option 1 – Availability	Option 2 – Real Toll
Number of Governing Bodies	One	One	Multiple	Multiple
Risk Transfer	Excludes traffic risk	Includes traffic risk	Excludes traffic risk	Includes traffic risk
Market Attractiveness	• Lenders and investors regard as lower risk compared to volume based, as a result lower financing costs and higher participation	• May reduce market size for transactions, fewer investors will be willing to take on the risk • Amount of debt that can be borrowed will be lower and financing premiums higher to reflect higher risk	• Lenders and investors regard as lower risk compared to volume based, as a result lower financing costs and higher participation	• May reduce market size for transactions, fewer investors will be willing to take on the risk • Amount of debt that can be borrowed will be lower and financing premiums higher to reflect higher risk
Preferred Solution	Best overall bid for the Project	Best overall bid for the Project	Best for each element of the Project	Best for each element of the Project
Transaction Costs	Lower	Lower	Higher	Higher

4. Payment Models

Summary

The choice of payment model can be a function of the market acceptance of the risk profile of the Project. Some concessionaires may not want to bid on the Project if all (or a large portion) of the demand risk is transferred to them.

Furthermore, the transaction can contain a combination of each of the payment models if structured appropriately. Some combinations are provided in the table below:

	Option						
	1	**2**	**3**	**4**	**5**	**6**	**7**
Access Road (CDN)	A	S	A	A	S	S	A
Bridge/Plaza [1]	R	R	R	A	A	A	A
Access Road (US)	A	A	S	A	S	A	S

Key:
A = Availability
S = Shadow
R = Real Toll

[1] Assumption that the users will pay a toll on the bridge

High-Level Strategic Risk Analysis

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5. High-Level Strategic Risk Analysis

In this section we describe high-level strategic risks that impact the Project based on a PPP/AFP transaction structure. The risks have been grouped into broad categories with an analysis of the following elements:

- Risk description – this element provides a description of the applicable risk under the category that it has been grouped under
- Potential consequences if the event were to occur – this element is addressed in terms of affecting the Project from a delay in schedule, loss of revenues or increased costs
- Likelihood of the event occurring – this element addresses the probability of the risk occurring (measured using a low, medium and high scale)
- Impact if the event occurs – this element addresses the effect of the risk on the Project with consideration to the potential consequences of the event and likelihood of it occurring (measured using a low, moderate and significant scale)
- Risk Allocation – this element addresses the main party bearing the risk (either Public-Private sector or shared)
- Risk mitigation strategy and actions required by the Partnership – this element addresses actions required in order to mitigate the risk

5. High-Level Strategic Risk Analysis

Risk categories (detailed on the following pages) are as follows:

- Governance
- Procurement
- Technical
- Traffic and Revenue
- Integration
- Operations and Maintenance (O&M)
- Finance
- Force Majeure
- Change in Law
- Plaza Specific

5. High-Level Strategic Risk Analysis

Risk Category – Governance

Risk Description	Potential Consequences	Likelihood	Impact	Risk Allocation	Risk Mitigation Strategy
Governance					
Political/Project Champion*	Delayed Procurement	Low	Significant	Public Sector	A political/project champion (in each jurisdiction) needs to emerge in order for the Project to gain traction on both sides of the border. This champion must have a strong commitment to move the project forward once the form is chosen. Having a political champion will allow for follow on activities to be expedited and set the stage for creating a structure to support the Project. **Action Required: Senior level political support for the Project and a designated project champion/lead, if not already prevalent or designated.**
Legislative (AFP/PPP) *	Delayed Procurement	**TC** – Low **MTO** – Low **MDOT**- Medium / High	Significant	Public Sector	**TC** Legislative concerns are not an issue for TC. **Action required: Decision on whether the transaction for the bridge/plazas will be structured as a PPP or traditional build.** **MTO** Legislative concerns are not an issue for Ontario. **Action required: Decision on whether the transaction for the access roads will be structured as a AFP or traditional build.** **MDOT** Currently there is a lack of PPP legislation in Michigan. However, the Federal DOT has provided model legislation for private sector involvement in transportation projects which may assist Michigan in the process to enter into PPPs. **Action required: Designate Project Champion for MDOT. The Project Team needs to gain an understanding of what is required in Michigan in order to pursue PPP legislation and timing. Decision must also be made on whether the transaction for the bridge, plazas and access roads will be structured as a PPP and/or traditional build.**

* Critical risk prior to going to market

5. High-Level Strategic Risk Analysis

Risk Category – Procurement

Risk Description	Potential Consequences	Likelihood	Impact	Risk Allocation	Risk Mitigation Strategy
Procurement					
Jurisdictional Risk/Joint Venture (JV)*	Delayed Procurement	Medium	Significant	Public Sector	Upfront design of the project governance structure needs to address interaction among the four jurisdictions in order to mitigate issues related to jurisdictional risk such that a governing body can be established. The Partners will need to specify which parties are responsible for certain actions and devise plans for conflicts and issue resolution. ▪ FHWA has devolved authority to MDOT and has worked under this arrangement in previous situations. **Action required:** **1. A policy decision is required in order to go forth.** **2. Once a policy decision has been reached, the Partnership should form a working group(s) to formulate and document TC and MTO relationship and Canada/US relationship.** **3. Once consensus is achieved at the working group(s), seek approval from the individual parties of the Partnership.** The structure and processes of the JV need to be developed in order to specify: 1. How the JV will operate 2. The composition/membership of the JV 3. Decision making and approvals ability of the JV 4. Reporting relationships of the JV 5. Funding for the JV **Action required: The governance issues for the project need to be resolved and the approvals process for creating the JV needs to begin.**

* Critical risk prior to going to market

5. High-Level Strategic Risk Analysis

Risk Category – Procurement (cont'd)

Risk Description	Potential Consequences	Likelihood	Impact	Risk Allocation	Risk Mitigation Strategy
Procurement					
Schedule*	Delayed Procurement/ Increased costs	Medium/ High	Moderate	Public Sector	A critical path with major milestones needs to be established in order to track progress. This critical path should identify owners and expected completion dates of particular tasks. This will allow the project team to monitor progress against the critical path and make adjustments as necessary. Each partner will need to develop a subset of tasks which thereafter can be merged into a single document. ▪ The timeline should also include a decision point on whether the transaction should be structured as a PPP and achieving completion of all elements of the Project (bridge, plazas, access roads) at the same time. ▪ The impact of a tight project schedule on the Developer must also be considered in developing/setting realistic timelines. **Action required: All parties work together to develop a detailed project schedule, including:** **1. Reviewing any existing timelines that Partners may have developed.** **2. Refine timelines for new information.** **3. Merge timelines into a single document.** **4. Establish critical path for consolidated timeline.**

* Critical risk prior to going to market

5. High-Level Strategic Risk Analysis

Risk Category – Procurement (cont'd)

Risk Description	Potential Consequences	Likelihood	Impact	Risk Allocation	Risk Mitigation Strategy
Procurement					
Land Assembly/ Appropriation*	Delayed Procurement/ Increased costs	Medium	Significant	Public Sector	MTO and MDOT are required to finalize road alignment and identify potential land that is required for access roads. TC, MDOT/FHWA to address land requirements for bridge and plazas. Work completed to date needs to be reviewed in order to assess current gaps that need to be filled. Legislative provisions can be used in order to secure land as required. Action required: MTO and MDOT to provide analysis, status and detailed plan and schedule for completion of land assembly and appropriation of lands for access roads. MDOT/FHWA to begin process to acquire land for US bridge and plazas. TC to begin process to acquire land for Canadian bridge and plaza.
Size of transaction ($3 Billion for private sector involvement)	Increased costs Reduced competition	Medium	Significant	Public Sector	The size of the transaction can cause competitive risk as only a few players or consortium in the marketplace will be able to bid on $3 billion complex cross border project. Separate transactions will increase the field of competition, however, consortia may selectively bid on each element of the transaction due to cost and resources. This may result in fewer bid submissions affecting the competitive outcome of the procurement but it may increase local bid competition. **Action required: Finalize costing for MTO access roads and then decide on whether to separate the transaction (bridge + plaza + access roads/ bridge + plaza/ bridge).**

* Critical risk prior to going to market

5. High-Level Strategic Risk Analysis

Risk Category – Technical

Risk Description	Potential Consequences	Likelihood	Impact	Risk Allocation	Risk Mitigation Strategy
Technical					
Environmental	Delayed Procurement/ Cancelled Project	Medium	Significant	Public Sector	The environmental process currently being conducted will dictate most of the environmental risk for the project. Given the nature of the environmental process, the Project Team will identify which risk will be transferred and retained and mitigate strategies based on results of environmental process. The results of the environmental process will impact the schedule. **Action required: Await results of environmental process and analyze impact on transaction and timeline. Assess interim reports if available and valid. Update project schedules and timelines if information is available. (The Project Agreement will dictate which party bears environmental risk during construction and operations.)**
Other Planning and Approvals	Delayed Procurement	Medium/ High	Moderate	Public Sector	A number of approvals will be required for the Project including municipal approvals, Other approvals and permits will be required, however, these may not be obtainable until a Proponent is selected and detail designs are provided. **Action required: Map out a detailed process and milestones for the project. Identify required and time sensitive approvals. Where approvals can be and must be obtained in advance, the process should commence as approvals have a direct impact on the Project schedule.**

* Critical risk prior to going to market

5. High-Level Strategic Risk Analysis

Risk Category – Technical (cont'd)

Risk Description	Potential Consequences	Likelihood	Impact	Risk Allocation	Risk Mitigation Strategy
Technical					
Geotechnical	Delayed Procurement	Medium/ High	Moderate/ Significant	Public Sector	This risk is dependant on the work being conducted in the environmental process. Due diligence/ engineering studies are required during the site selection process in order to mitigate geotechnical risks. **Action required: Await results of environmental process/engineering studies and analyze impact on transaction and timeline.**
Utilities relocation	Delayed Procurement	Medium	Moderate	Public Sector/ Private Sector	The private sector will have the onus of negotiating this risk and will price it as part of the transaction. However, government negotiation can be used in dealing directly with the utility as required. **Action required: Determine extent of government involvement in negotiations for this risk.**

* Critical risk prior to going to market

5. High-Level Strategic Risk Analysis

Risk Category – Traffic and Revenue

Risk Description	Potential Consequences	Likelihood	Impact	Risk Allocation	Risk Mitigation Strategy
Traffic and Revenue					
Traffic projections not prepared to investment grade*	Loss of revenue	Medium/ High	Significant	Public Sector/ Private Sector	Current traffic forecasts are provided by IBI Group. Investment grade traffic studies must be prepared and then audited by an independent specialist consultant to provide enough comfort to lenders. The decision to compensate the private partner through real tolls or availability payments will have a significant impact on the transaction. **Real Tolls** The concession partner bears the risk associated with real tolls. Some guarantees (floors) with respect to traffic volumes will likely be required in order to secure financing. **Shadow Tolls** The concession partner can bear some volume risk associated with shadow tolls depending on the risk transfer profile of the Project. **Availability Payments** The concession partner does not face volume risk but is penalized for unexpected downtime (affecting operations and maintenance). However, if traffic volumes are not achieved the public sector will have to find alternative sources to fund payments **Action required: Begin process to achieve investment grade traffic forecast.**
Toll evasion (bridge specific)	Loss of revenue	Low	Low	Public Sector/ Private Sector	Prosecution of the vehicles that do not pay the toll fees. Enforcement by the government and police forces will also help mitigate these risks. Barriers and Electronic Toll Collection systems can also help mitigate these risks. As part of the forecasts, a certain percentage loss of the total toll revenue will be considered. **Action required: Liaise with authorities in order to create approvals to allocate adequate enforcement personnel.**

* Critical risk prior to going to market

5. High-Level Strategic Risk Analysis

Risk Category – Integration

Risk Description	Potential Consequences	Likelihood	Impact	Risk Allocation	Risk Mitigation Strategy
Integration					
Competition - behaviour of existing bridge*	Loss of revenue	High	Significant	Public Sector/ Private Sector	Competition exists from current crossing facilities. The toll charges on the new crossing will be directly related to toll charges at other crossings. **Action required: Engage traffic expert. Use traffic projections and cross elasticity of demand to determine effect on revenue due to existing competition (i.e. observe Ambassador Bridge pricing).**
Competing Facilities are built	Loss of revenue	Low	Low	Public Sector/ Private Sector	Clarity in concession agreements regarding what constitutes a competing facility and measures to address if a new one is developed. The basis of payments to the private sector will determine the type and size of compensation. For example if the transaction is based on volume payments (tolls), then the private sector will require some sort of compensation for lost revenues. If the payment is based on availability, the private sector will not require compensation; however the public sector will bear the risk of a volume decrease related to a competing facility. **Action required: Devise compensation scheme for scenarios where an additional competing facility is allowed to be built.**
Connecting Facilities not built*	Loss of revenue	Low	Significant	Public Sector/ Private Sector	Coordination during construction of the bridge/plaza/access roads will be necessary in addition to using realistic traffic and revenue forecasts in order to compensate (in the form of liquidated damages) the private partner for delays as incurred. This would apply also in the case of delays due to Customs/CBP issues. **Action required: If the project is conducted as 1 transaction, this risk is mitigated. If the project is conducted as multiple transactions, estimate delay (cost per day/month) expected if facilities not built on time. Create compensation scheme for private sector for delays caused by integration of the bridge/plaza/access roads.**

* Critical risk prior to going to market

5. High-Level Strategic Risk Analysis

Risk Category – Operations and Maintenance

Risk Description	Potential Consequences	Likelihood	Impact	Risk Allocation	Risk Mitigation Strategy
Operations and Maintenance (O&M)					
O&M	Increased costs	Low	Low	Public Sector/ Developer	The payment mechanism (real tolls or availability) will influence the O&M aspect of the operation. **Availability** Under an Availability Concession, the Concessionaire incentivized to design and build the project to optimize future life cycle and operating costs and to ensure good operation and availability in order to receive payments. Shadow and Real Tolls The payment mechanism under this model will incentivize the Concessionaire to design and build the project to optimize future life cycle and operating costs and to ensure good operation and congestion management to maximize traffic and revenues. **Action required: Risk tied to decision on payment mechanism of transaction.**

* Critical risk prior to going to market

5. High-Level Strategic Risk Analysis

Risk Category – Finance

Risk Description	Potential Consequences	Likelihood	Impact	Risk Allocation	Risk Mitigation Strategy
Finance					
Interest rates (pre financial close)	Additional cost	Low	Low to Moderate	Public Sector Private Sector	Public sector typically bears this risk. Typically do not put any mitigation strategies in place. Although Developer may also be able to take this risk depending on time period between bid submission and financial close. **Action required: Address during procurement period via RFP/Project Agreement.**
Interest rates (post financial close)	Additional cost	Low	Low to Moderate	Private Sector	Hedging plan will be established in accordance with lenders' request. The Developer will conclude a fixed interest rate swap for all/part of the loan term. Alternatively the Developer can borrow the funds using fixed rate instruments (i.e. bond). **Action required: Address during procurement period via RFP/Project Agreement.**
Capital Markets Appetite insufficient for issues	Additional cost of financing	Low	Low	Private Sector	Once the project is defined, the capital markets appetite for issues need to be considered. Underwriter to share risk of full subscription. European bank debt financing options to also be considered. **Action required: Address during procurement period via consultation with capital market participants.**
Refinancing	Additional (or lower) cost of financing	Low	Low to Significant	Private Sector	If the concessions are for less than 40 years, sufficiently long term financing can be put in place to eliminate this risk although refinancing gains can also occur as project risks typically decrease after construction, the project may outperform expectations and there may be a general decrease in rates. If the concession is for a longer period, the private sector takes a view on long term rates and the level of refinancing risk. **Action required: Determine length of concession and impact of refinancing.**

* Critical risk prior to going to market

5. High-Level Strategic Risk Analysis

Risk Category – Force Majeure

Risk Description	Potential Consequences	Likelihood	Impact	Risk Allocation	Risk Mitigation Strategy
Force Majeure	Loss of revenue / Additional cost	Low	Low	Public Sector/ Private Sector	Typically shared, but mostly borne by the public sector and the Developer is provided with adequate compensation to cover costs associated with the event. Some relief may also be provided with respect to certain contractual obligations (i.e. timetable for delivery of the asset). Some protection may also be provided by insurance policies that are put in place. **Action required: Address during procurement period via Project Agreement.**

* Critical risk prior to going to market

5. High-Level Strategic Risk Analysis

Risk Category – Change in Law

Risk Description	Potential Consequences	Likelihood	Impact	Risk Allocation	Risk Mitigation Strategy
Change in Law					
Change In Law (including taxes)	Additional cost Loss of revenue	Medium	Low	Private Sector	General changes in law are borne by the Private Sector. **Action required: Address during procurement period via Project Agreement.**
Discriminatory Change in Law	Additional cost Loss of revenue	Low	Medium	Public Sector	Discriminatory changes in law are likely borne by the Public Sector (i.e. any changes that are directed at PPP's or the project itself). Compensation may be in the form of temporary relief from various obligations or compensation. **Action required: Address during procurement period via Project Agreement.**

* Critical risk prior to going to market

5. High-Level Strategic Risk Analysis

Risk Category – Plaza Specific

Risk Description	Potential Consequences	Likelihood	Impact	Risk Allocation	Risk Mitigation Strategy
Plaza specific					
Customs/Border Security requirements*	Additional cost	Medium	Significant	Public Sector	Customs requirements for both the US and Canada present unique issues to structuring the transaction. Decisions need to be made on the following issues: 1) Are US plazas included as part of the transaction? 2) What approvals are required in order to include plazas? 3) If plazas are not included as part of the transaction, coordination costs of integration may increase. **Action required: Engage Customs / Border Security regarding requirements at a high-level. Determine if procurement can be provided as part of the transaction. Decide how their impact will be included from a technical and contractual perspective.**

* Critical risk prior to going to market

5. High-Level Strategic Risk Analysis

Summary of Critical Risks Prior to Going to the Market

- Political/Project Champion
- Legislative
- Jurisdictional / Joint Venture
- Schedule
- Land Assembly / Appropriation
- Investment Grade Traffic Forecasts
- Competition (existing)
- Connecting Facilities not Build
- Customs / Border Security Requirements (Plazas)

Conclusion

Governance Models

The Partnership has not yet decided on a specific governance model for the transaction. This decision is a necessary step in order to move the Project forward. Three possible options are:

- *Bi-National Authority* – the crossing would be jointly owned through the formation of a single international body or Authority. Reciprocal legislation would required in both countries to enable the construction, maintenance and operation of bridge and plazas.
- *Separate Ownership* – each half of the crossing would be separately owned. In Canada, a Federal Corporation would own the Canadian half of the crossing. In the US, MDOT and FHWA would become the owners of the US half of the crossing.
- *Joint Venture* – the Partnership would agree to form an entity detailing the responsibilities of each partner through a USA.
  - Single Transaction
  - Multiple Transactions

Preferred Governance and Transaction Option

The preferred governance option for the transaction is the JV model. The formation and membership of a joint venture is subject to

a) the willingness of each member of the Partnership to enter into a joint venture; and

b) jurisdictional and legislative hurdles faced by each member of the Partnership (as applicable) in trying to form the joint venture.

The recommended option is for the Partnership to procure the Project (i.e. the end-to-end solution) as a single transaction if the jurisdictional issues can be resolved by Summer 2007 and the size of the transaction is within the $3 billion range, in order to meet the current transaction timeline of 2013. The Partnership will need to marshal its resources in order to meet the Summer 2007 deadline. Under a single transaction, jurisdictional issues (coordination and collaboration) would be mitigated and the JV would manage these risks.

If the jurisdictional issues cannot be resolved by Summer 2007, then the recommendation would be to procure the Project under multiple transactions (Canadian access roads, bridge/plazas, US access roads).

Appendices

*connectedthinking

PRICEWATERHOUSECOOPERS

A. Richmond/Airport/Vancouver Project Governance

Project Name and Location

Richmond/Airport/Vancouver Rapid Transit Project (RAVCO), the project office was set up by the multiple public sector authorities including Translink, the Government of British Columbia, the Government of Canada, and the Vancouver Airport Authority (YVR).

Project Description

RAV is a rail-based rapid transit line that will link central Richmond, the Vancouver International Airport, and Vancouver along the Cambie corridor to the emerging transportation hub at Waterfront Station in downtown Vancouver. It is a significant element in the Greater Vancouver regional transportation network, providing much-needed access between dense and growing residential areas and key employment, commercial, hospital and institutional centres. It will be 19.5 km/12.1 miles long with 18 stations.

Project Size

$1.9 billion

Status of Project

Financial close occurred in late July 2005.

Consortium

SNC Lavalin, British Columbia Investment Management Corporation and Caisse de Depot.

Project Delivery:

DBFO – 35 year concession, 7 year upfront construction period.

Funding

CDN $1.9 billion of up front investment for the construction of the line funded as follows:

- CDN $1.2 billion from the Provincial and Federal Government
- CDN$ 700 million from private finance (long term project finance bank debt and equity)

Payments

Private sector receives annual concession payments once construction is complete and line is deemed available for use:

- 70% based on availability
- 20% based on quality
- 10% based on patronage (demand)

A. Richmond/Airport/Vancouver Project Governance

Governance

Project Office Composition

March/April of 2002, Greater Vancouver Transit Authority (GVTA or TransLink) and the other funding agencies created a Project Team to establish project scope, technical analysis and assess the financial feasibility of the Project.

- Project Director
- Technical Director
- Finance Director
- Communications Officer

Day to day decisions were made by the Project Office and milestone approvals taken back to the funding agencies

September 2002, RAV Project Management Ltd. (RAVCO) formed as a subsidiary of GVTA for Project implementation

The private partner negotiated with the Project Office (and later RAVCO) during all stages of the procurement

CLCO (RAVCO) Board Composition

October 2003, the RAVCO Board was established, by the Local Funding Agencies to oversee project design, procurement, construction and implementation.

The Board is comprised of 8 directors, 5 of whom are independent (including the Chair).

- Representing Vancouver International Airport Authority – President/CEO,
- Representing TransLink - CEO, Vice President,

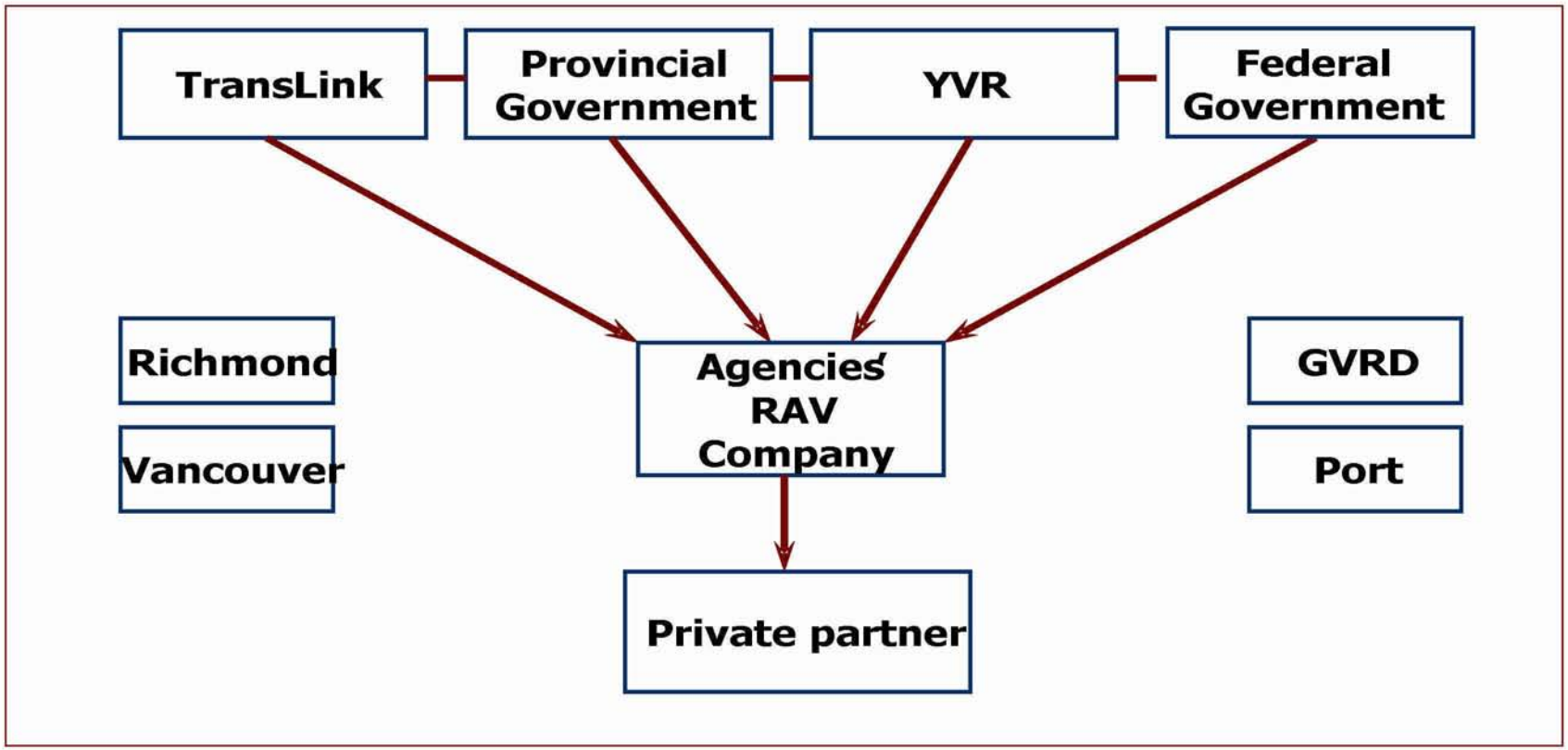
In addition to directors, one senior representative from the City of Richmond and the City of Vancouver attend Board meetings in a non-voting capacity. A representative from Western Economic Diversification Canada also attends as an observer (non-voting).

Decisions at RFP and BAFO stages made at CLCO board level with members reverting to the funding agencies for financial approvals.

The Federal government involvement in the project was limited to mainly funding. TransLink and the Vancouver International Airport Authority played a greater role given the provincial nature of the transaction and the resulting board membership on CLCO.

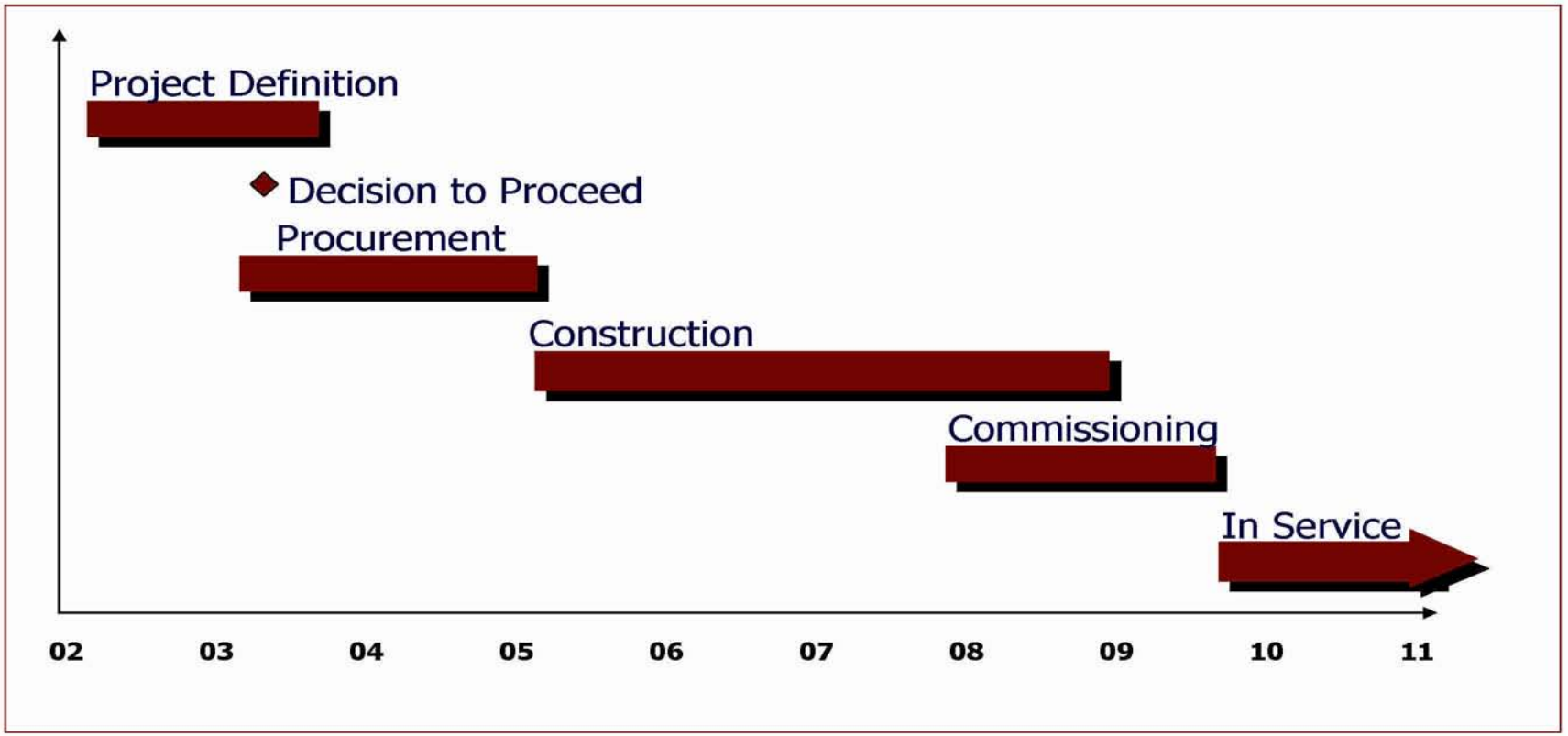
A. Richmond/Airport/Vancouver Project Governance

Project Structure



A. Richmond/Airport/Vancouver Project Governance

Outline Schedule



B. AFP/PPP Options

Alternative Finance Procurement / Public Private Partnership Options

The Partnership is investigating Alternative Finance Procurement ("AFP")/PPP options for the Project. The elements of the procurement options include:

- Design;
- Build (Construction) / Finance; and
- Operations and Maintenance.

The elements are bundled together under the following procurement options. Each of the elements is discussed in further detail in the rest of this section. It should be noted that the level of inclusion of each of the elements will be dependent on the level of risk transfer the Partnership is comfortable with and any legislative or operational restrictions which may exist

Model	Description
Design-Build-Finance-Maintain ("DBFM")	• The private sector designs, builds and finances the assets throughout the contractual term • The private sector maintains the hard facility maintenance responsibilities during the term of the contract
Design-Build-Finance-Operate ("DBFO")	• The private sector designs, builds and finances the assets typically under a long-term concession contract • The private sector then operates the asset during the term of the contract
Design-Build-Finance ("DBF")	• The private sector designs, builds and finances the assets until the end of the construction period • The public sector pays a fixed sum to the private sector at the end of construction and begins to operate the asset

B. AFP/PPP Options

Design Impacts on AFP/PPP Procurement Option

There are three main options of how design can impact the procurement option:

1. Partnership develops a detailed design prior to RFP process and private sector merely prices the construction of the design given to them.
2. Partnership provides a detailed design to bidders and bidders are asked to propose innovations to the existing design. The Partnership design can break down space components into three categories as follows:
   - Must adhere to the defined mandatory element
   - Partial - opportunity to apply innovation and change within parameters
   - Full - full private sector freedom to innovate and change
3. Partnership provides bidders with a facility program (preliminary design with performance outcomes) only. Bidders then submit their own designs, and a multi-stage interactive process is used with the bidders ensure design integrity

The amount of potential innovation increases as you move from Option 1 to Option 3. The design of the bridge, the plazas and the access roads have an impact on operational and construction efficiencies, as well as life-cycle management. Design innovations may also provide increased value for money for the Project.

Market Perspective

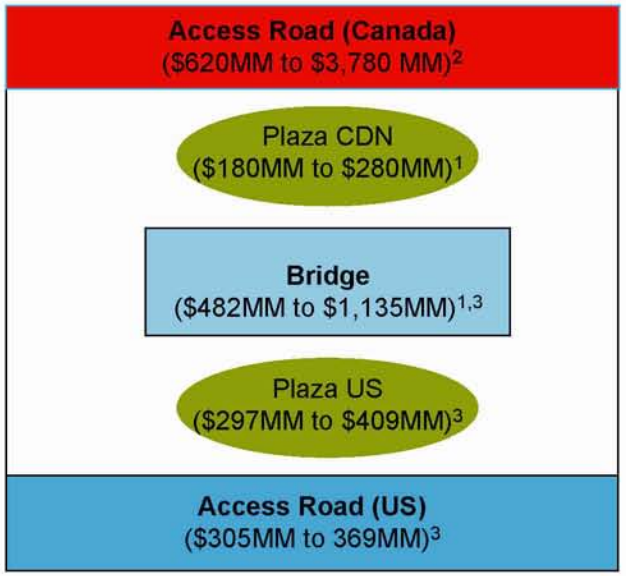
The bidding community encourages, and more often than not prefers, the ability to provide design innovations and efficiencies in a procurement process. It allows bidders to develop innovative solutions that set them apart from other bidders and provide additional value to tax payers. In most cases where a design is provided there is limited to no scope for improvements/risk transfer. Bidders are often discouraged when AFP/PPP transactions are used primarily to arrange financing.

Given that a detailed design for any element of the Project does not currently exist, Option 3 may be the most attractive option in order to meet the Project timeline and objectives.

B. AFP/PPP Options

Build (Construction) and Finance impacts on AFP/PPP Procurement Options

- Current construction estimates for the Project range from $1.9 billion to $6.0 billion.



Source:

1 URS Canada

2 Detroit River International Crossing Study, Public Information Open Houses, December 6 and 7, 2006

3 Corradino Group (US to Canadian exchange of 1.20)

- Financeability of the Project will be highly dependent on the strength of traffic forecasts for the Project. Toll rates and structures for the bridge and the access roads will impact demand, especially considering that there are competing crossings.
- Based on preliminary high-level estimates and assumptions, it has been determined that the Project will require government funding. The source, timing and amount of government funding is still to be determined.

B. AFP/PPP Options

Build (Construction) and Finance impacts on AFP/PPP Procurement Options (Cont'd)

- The extent to which elements of the Project (bridge, plazas and access roads) will be included in the transaction is highly dependent on:
  - The financeability/affordability of the Project (including such elements as government funding, term of concession and risks of the project, etc).
    - Government funding can come from federal, provincial and state governments. Depending on the funding needs, funding may be provide upfront or over the concession period.
    - The concession length is often governed by the useful life of the asset and often expire once an asset's useful life expires; however, in the case for road/bridge, the useful life is so long that it is not possible to finance these assets efficiently over this duration. The term of finance and the payment mechanism often becomes a key driver.
    - The level of risk of the Project is dependent on the risk allocation. The key is to allocate risk to the appropriate party. Allocating too many risks to the private sector can increase costs (construction and financing).
  - The payment mechanism may be structured as a real toll, shadow toll, availability payment or some combination of the tolls for different elements of the Project.

Market Perspective

Some key considerations from a construction and financing perspective for the Project would likely be:

- Market capacity – Adequate debt and equity should be available to finance the Project, a question will be the capital structures for the Concessionaires which will be driven by the lenders requirements and be based on the risk profile of the Project.
- Traffic demand and forecast – Traffic forecasts for greenfield projects are inherently more risky, especially for this Project, considering there are competing crossings. If traffic risk is borne by the private sector they may require some sort of guaranteed payments if traffic demand is inadequate.
- Competing tolls – Tolls from competing crossings will impact tolls for this Project. The private sector may consider government subsidies should tolls rates decrease below current levels due to hostile price wars.
- Concession length – The concession lengths are generally governed by the payment mechanism and are in the range of 25-30 years.
- Quality of the financial guarantees from the governments and newly created vehicle to govern the Project.
- That environment approvals and government approvals are obtained in a timely manner to meet the Project timeline.

B. AFP/PPP Options

Operations and Maintenance impacts on AFP/PPP Procurement Options

Two operations and maintenance options are being considered under the AFP/PPP procurement approach.

- Maintain – Private sector maintains the hard facility maintenance (major maintenance) requirements of the Project during the term of the concession contract
- Operate - Private sector provides the operational and maintenance requirements of the Project during the term of the concession contract.

Choosing between the Maintain Option and the Operate Option is impacted by legislative scope restrictions and the risk appetite of the Partnership. The inclusion of additional operating services (i.e. the Operate Option) allows the private sector to introduce additional innovations and the potential for increased value for money for the transaction.

Operational and security requirements are different for Canada and the US and must be addressed when defining the Project scope for operations and maintenance for the Project. For example:

- Plazas in the US are normally operated and maintained by the US authorities (this is also a stated policy and objective of the Project), whereas in Canada operations and maintenance plazas can be operated and maintained by the private sector.
- Day -to-day maintenance, accident management, cleanliness, policing, etc fall under the Operate Option. Consideration must be made to the requirements of the various jurisdictions involved in the Project (e.g. Canadian and US federal police are responsible for policing the bridge, Michigan state police are responsible for policing the US access roads and Ontario provincial police are responsible for policing the Canadian access roads).

Market Perspective

The bidding community encourages the use of operational and maintenance innovations to the extent the risks can be appropriately transferred to the private sector. Concerns arise when too many risks are transferred to the private sector, driving up costs and not enough risks being transferred, reducing value for money on the Project. The key is to allocate risks to the party that can best manage them.

B. AFP/PPP Options

Summary

- From a market perspective a DBFO or DBFM structure is suitable for the bridge, the plazas and the access roads as a single transaction approach or a multiple transaction (bridge/plazas and access roads) approach.
- The key to structuring the procurement is appropriate risk transfer. The risks allocation between parties needs to be carefully reviewed to ensure they are consistent with the Project's and the Partnership's objectives and that the Partnership is comfortable assuming the risks that are being retained based on its ability to effectively manage them. Risks should be allocated to the party that can best manage them.
  - The Partnership must decide what elements of design, build and operations and maintenance to include as part of the Project
- A key decision to the procurement model will also be potential transaction structuring options which are discussed in the next section.