



Disraeli Bridges Project Value for Money Report



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Introduction

This Value for Money (“VFM”) Report summarizes the public-private partnership between the City of Winnipeg (“City”) and Plenary Roads Winnipeg (“Plenary”) for the redevelopment of the Disraeli Bridges. This partnership has resulted in an innovative solution for the redevelopment of this vital infrastructure, which includes entirely new bridges constructed within the City’s budget while minimizing traffic disruption.

The need for this project arose due to the age and condition of the previously existing Disraeli Bridges, which form a part of the Disraeli Freeway (which itself is part of Route 42). In December, 2006 an engineering consultant retained by the City submitted a Condition Assessment which found numerous deficiencies that necessitated major rehabilitation. Accordingly, City Council authorized the rehabilitation of the roadways and bridges that stretch from Main Street to Henderson Highway at Hespeler (the “Disraeli Bridges”, or “Project”).

City Council directed that the Project be carried out based on a design-build-finance-maintain (“DBFM”) project delivery structure, which is a form of public-private-partnership. The DBFM approach is expected to result in overall benefits for the City over the long term, as it has transferred overall responsibility for the design, construction, and long-term maintenance of the Project to a single private sector party. Among other things, the DBFM structure incentivizes design innovation, long-term infrastructure asset quality, and accountability.

Following Council’s direction, City staff initiated a competitive process for the procurement of a private sector partner to carry out the Project. This process attracted competitive bids from numerous nationally and internationally recognized design, construction and highway maintenance firms. The procurement process emphasized City budget constraints, minimizing traffic disruption during construction, bridge quality and aesthetics, and promotion of active transportation. Based on this process, the City selected a private sector consortium, Plenary, for the development of the Project.¹ Plenary developed a solution for the redevelopment of the Project which involved the construction of new bridges beside the old structures, followed by the demolition of the old Disraeli Bridges. This solution vastly improves the quality, load capacity, aesthetics and active transportation capabilities of the bridges. It has also minimized traffic disruption during construction as the old structures remained in use during construction. The Project has also been delivered on-time and on-budget.

The innovative “new bridge” approach to redeveloping the Disraeli Bridges likely would not have resulted from pursuing the Project under a traditional design-bid-build, or design-build procurement as the conceptual design had specified a rehabilitation approach that required a prolonged closure of the existing structures. The DBFM procurement utilized for this Project allowed for innovation as bidders (“Proponents”) were able to choose their own design solution either as a refurbishment of existing structures, construction of new structures, or as a combination of refurbishment and new structures. Criteria on a fixed affordability cap and the minimization of closure time were included to strongly incentivize an optimal solution that minimized traffic disruption.

The end result of the DBFM approach was a ‘new bridge’ design solution developed by Plenary. The benefit brought by the DBFM through the “Bundling” of design, construction, and long term maintenance with one private sector partner drove Plenary to strike the optimal balance between the up-front design

¹ The Plenary Roads Winnipeg consortium includes Plenary Group (Canada) Ltd, PCL Constructors Canada Inc., Wardrop Engineering Inc. and Stantec Consulting Ltd.

and construction costs and long term maintenance costs (i.e. consider the total lifecycle costs of the Project versus just considering construction costs).

Plenary is contractually responsible for the design, construction, financing, and long-term maintenance (30 years) of the new Disraeli Bridges. However, the Disraeli Bridges are owned by the City at all times. The City will make payments to Plenary based on a lump sum payment upon commissioning that provides partial payment for capital costs, followed by regular payments over 30 years that pay for the remainder of the capital cost as well as regular maintenance costs.

What is a Public-Private Partnership?

A Public-Private Partnership (often termed a “PPP”) is a long-term performance-based approach for procuring public infrastructure, where the public sector contracts with a private sector partner who assumes a major share of the responsibility for the delivery of the infrastructure. Most PPPs involve the private sector partner assuming the majority of the responsibility for the design, construction, maintenance, and financing of the asset. Other key characteristics of a PPP approach include an output-based approach (e.g. the public sector specifies outputs, rather than inputs) as well as significant levels of risk transfer to the private sector under the contract.

PPPs have become a relatively well-established procurement and contracting method for governments in Canada. In particular, the provinces of British Columbia, Ontario, and Quebec as well as the Canadian government have made clear policy commitments to PPP by setting up agencies dedicated to the delivery and/or funding of PPP projects. To date, over 150 infrastructure projects in Canada have or are being procured as PPPs, with the majority of these projects in areas such as hospital and healthcare facilities, transportation, courthouses and corrections, and recreational/cultural facilities.² Globally, PPPs are also a well-established form of procurement in jurisdictions such as the United Kingdom, Australia, France and the Netherlands. As but one example, as of 2010, the website of Partnerships UK listed 920 public-private partnership projects in the United Kingdom.³

Winnipeg is one of the first municipalities in Canada to take advantage of the PPP model for municipal infrastructure. The Chief Peguis Trail Extension project, which opened to vehicle traffic in December of 2011, was also developed using a similar PPP structure to the Disraeli Bridges Project.

Taxpayer Value

The capital value of this Project was significant to the City and cost overruns had the potential to impact the City’s finances and future property tax rates. As such, achieving cost certainty and protecting taxpayers from cost overruns was a significant consideration in selecting the DBFM approach. To ensure taxpayer value was achieved, the City engaged Deloitte & Touche LLP (“Deloitte”) to conduct a third party assessment of the value for money of the DBFM approach.

Global Financial Crisis

It should also be noted that the Request for Proposal (RFP) was issued in December 2008, which was in the midst of the global financial crisis. During the subsequent RFP process, the City and its financial advisors continually monitored market rates and the impact that the rates had on the Project’s VFM estimate. The City’s financing structure was adjusted during the RFP process in order to maximize the value for money achieved by the Project.

Purpose of this Report

This report is intended to provide a summary description of the Project, including its key technical, financial, commercial and contractual features. The report will illustrate the process followed for choosing the PPP model, the procurement process for selecting the private sector partner, as well as the expected value savings achieved through utilizing the PPP model.

² Refer to the “project database” feature of the website of the Canadian Council for Public-Private Partnerships (CCPPP), accessed June 9, 2011 at: <http://projects.pppcouncil.ca>

³ Partnerships UK has been absorbed by a new UK agency known as Infrastructure UK. The Partnerships UK project database can be accessed at: <http://www.partnershipsuk.org.uk/PUK-Projects-Database.aspx>

Project Description

Project Need

The need for this Project arose due to the age and condition of the previously existing bridges (collectively the “Existing Facility”):

- The previously existing bridges spanned the Red River and a Canadian Pacific Railway (“CPR”) line, and were first opened in 1959 and 1960;
- These bridges formed a part of the Disraeli Freeway, which connects Henderson Highway with Main Street, providing a vital link between the downtown and the northeastern portion of the City;
- The original Red River bridge was approximately 319 m long and spanned the Red River as well as Midwinter Avenue, Rover Avenue and Gladstone Street; and
- The original CPR Overpass was approximately 388 m long and spanned the CPR Mainline as well as Sutherland Avenue and Higgins Avenue.

In 2006, the City retained an engineering consultant to undertake a preliminary design study for the rehabilitation of the Disraeli Freeway between Main Street and Hespeler Avenue. In December 2006, the engineering consultant submitted a condition assessment which identified numerous deficiencies that necessitated major rehabilitation. These rehabilitation needs included: rehabilitation of the concrete piers and abutments, replacement of the bearings for improved performance, blasting and metal coating of girders for added protection against future corrosion, and replacement of the bridge deck, including sidewalks, expansion joint, and barriers.

Accordingly, City Council authorized the rehabilitation of the roadways and bridges that stretch from Main Street to Henderson Highway at Hespeler. This approximately 2 kilometer stretch included approach streets, traffic interchanges, an overpass for pedestrians, as well as the two bridges spanning the CPR mainline and the Red River. This overall package of rehabilitation work is termed the Project.

The City’s expectation at the initial planning stage of the Project was that the construction costs could be minimized by a structural rehabilitation and comprehensive refurbishment of the Existing Facility. It should be noted that this approach also required a prolonged closure of the Existing Facility and did not quantify the lifecycle maintenance costs.

Selected Design and Construction Solution

Through the RFP process, the City was able to select a private sector partner offering a design and construction solution that met the City’s objectives for the asset rehabilitation, through an innovative approach which involved a complete reconstruction of the two bridge spans.

The design and construction solution brought forward by Plenary was a cost-effective, affordable proposal which built completely new bridges beside the old structures that were kept in service during construction. Once the new structures are placed into service, the old structures are to be demolished. This “new bridge” approach was intended to minimize disruption to commuters during construction, eliminate difficult issues related to latent girder defects associated with the old bridge, as well as substantially increase load capacity.

Plenary's design and construction solution for the Project includes the following key features:

- **New bridges:** The Red River bridge and CPR overpass were replaced with entirely new structures. The new Red River bridge is immediately west of the previous structure, and the new CPR Mainline overpass east of the previous overpass. Most of the existing road alignments were unaltered.
- **Minimal Traffic Closures:** A minimum of four lanes remained open throughout the construction period, during all peak travel times.
- **Active Transportation Benefits:** A separate, new active transportation bridge is being developed to provide cyclists, pedestrians and other non-motorized users with an easily accessible crossing of the Red River. The "ped bridge" was designed and constructed as a new, lower elevation bridge and added to the vehicular bridge spanning the Red River. This structure will connect the cycling paths at Brazier Street and Annabella Street. There are also some cycling path improvements.
- **Future Expansion:** The bridge and overpass spans have been designed to accommodate future expansion to six lanes, in case the option is pursued.
- **Aesthetics:** Improved lighting, landscape features and aesthetic elements have been implemented to create a more attractive and residential feel for the adjoining neighbourhoods.

Figure 1: Project Overview Map with Landscaping



Project Outcome and Benefits

The Project will be completed on-time and on-budget.

The roadway was opened to vehicular traffic on October 19, 2012 as per the originally scheduled completion date. Certain active transportation elements are on schedule for completion in spring of 2013. There have been no extensions to the original construction schedule.

The City's payments to Plenary for the development of the Project are within the City's budgetary limits for the Project. There were no claims for additional costs during the construction period. The PPP model has provided strong incentives for Plenary to complete the construction on time, since Plenary is not paid until completion and late completion would have resulted in Plenary being responsible for additional debt service charges to its lenders.

The Project will provide significant benefits due to improvement of active transportation, attractive landscaping, public art and strong aesthetic elements for the City.

The design and performance of the new bridge will improve the primary surface for vehicle, bicycle and pedestrian traffic and will protect the underlying girders and substructures from the effects of winter de-icing salts. The design will also enable improvements in the bridge's roadway geometry, roadside safety measures and pedestrian and cyclist accessibility.

Council Approvals

Winnipeg City Council approvals in relation to the Project include the following:

- On December 18, 2007, Winnipeg City Council approved funding in the 2008 capital budget and 2009 to 2013 Five Year Forecast related to the Disraeli Bridges Rehabilitation Project for cash to capital for procurement, administration, internal contract works, and property acquisition in 2008-2010 and lease payments in 2010, 2011, 2012, 2013 and beyond intended for a DBFM.
- On May 14, 2008, Winnipeg City Council concurred with the recommendation that the Winnipeg Public Service be authorized to proceed with the Disraeli Bridges Rehabilitation Project based on the DBFM delivery model and authorized the approval and issuance of the Request for Qualifications ("RFQ") and RFP for the Project.
- On September 24, 2008, Winnipeg City Council approved the conceptual design for the Project, which included:
 - the addition of a separate new Pedestrian/Cycle bridge over the Red River; and
 - the delegation of the Chief Administrative Officer with the authority to award the DBFM contract.

Public Consultation Process

The City has maintained a Project website intended to provide information about the Project as well as facilitate public comment and input.⁴

The City underwent an extensive public consultation process relating to the conceptual design for the Project. At the end of June 2009, the Public Works Department completed a comprehensive public consultation process that examined 3 preliminary design concepts for four-lane bridge rehabilitation. The City worked in consultation with a key Stakeholder Advisory Committee ("SAC"), which included representation from area residents, businesses and city-wide organizations, to review design concepts.

As part of the public consultation process, information on the Project was distributed to area residents and businesses to solicit feedback. The distributed information included a newsletter, a survey, and

⁴ The website is accessible at: <http://www.winnipeg.ca/publicworks/majorprojects/disraelibridges>

advertisements in the Winnipeg Free Press, Winnipeg Sun and The Herald. In addition, 3 public open houses provided a forum for the public to ask questions and provide feedback.

As part of this process, the City received approximately 700 individual responses with feedback which was given consideration by Public Works Transportation Planning Engineers and Bridge Engineers. Public input was positive about providing additional amenities to serve cyclists and pedestrians. The most significant concern expressed by stakeholders during the process was the closure of the Existing Facility. In addition, an option was put forward to build an additional cyclist/pedestrian bridge adjacent to the new vehicular bridge. This option was highly rated by the SAC and was recommended to City Council by the Public Works department after further analysis.

Public consultation was continued during the design and construction phase of the Project. Plenary met with community liaison groups to update them on designs, landscaping and schedule. Community outreach throughout the construction period has included press releases, website updates, letter box drops and radio traffic reports to notify of changing access and traffic conditions.

Project Timeline

The table below sets out the high-level Project schedule for the design and construction of the Project that was targeted by Plenary.

Table 1: Projected timeline

Detailed Design	
Fall 2010	Detailed design, material delivery and environmental permitting
Construction	
January 2011	Start river bridge construction
March 2011	Construction of overpass across CP Rail Mainline
October 2012	New vehicular bridge and overpass open to traffic; start demolition of old bridge, and begin construction of Active Transportation bridge
August 2013	Active Transportation bridge open and landscaping completed

Project Procurement

Procurement Alternatives

This section will review the processes followed by the City to:

- select a procurement and project delivery model; and
- select a private sector partner for delivery of the Project.

Delivery options

The City retained transaction, financial, and technical advisors (Deloitte and The MMM Group (“MMM”)) to review several projects identified in the City’s 2008 Capital Budget to assess whether they would be suitable for a PPP. This analysis culminated, in respect of the Disraeli Bridges Project, in a report titled *Analysis of Private Sector Involvement for the Disraeli Bridges Project* dated February 18, 2008 (“Business Case”). An executive summary of this analysis was included in the May 14, 2008 report to Council which recommended the Project be pursued using a DBFM approach.

The Business Case identified four potential procurement alternatives for the Project. The four models identified were: conventional delivery (“Traditional”), Design-Build (“DB”), Design-Build-Maintain (“DBM”), and DBFM.⁵ A brief description of the options considered is set out below:

Table 2 – Delivery options considered

Option	Procurement Alternative	Description
1	Traditional	<p>Design and Construction: Design-Bid-Build process, under which the City develops a close-to-complete design of the asset and tenders the work to the lowest bidder.</p> <p>Financing: The City finances the construction through progress payments during the construction period.</p> <p>Maintenance: Following completion, the City maintains the asset.</p>
2	Design-Build	<p>Design and Construction: A single contractor develops the design and is responsible for construction.</p> <p>Financing: The City finances the construction through progress payments during the construction period.</p> <p>Maintenance: Following completion, the City maintains the asset.</p>
3	Design-Build-Maintain	<p>Design and Construction: A single contractor is responsible for design and construction.</p> <p>Financing: The City finances the construction through progress payments during the construction period.</p> <p>Maintenance: Following completion, the contractor maintains the asset based on a maintenance fee.</p>

⁵ The terminology used in the Business Case for the four options was “Conventional”, “Design-Build, Operate”, “Design-Build-Operate”, and “Design-Build-Finance-Operate-Transfer”. These options correspond to, respectively, the “Traditional”, Design-Build”, “Design-Build-Maintain”, and “Design-Build-Finance-Maintain” procurement alternatives set out in Table 2 above. The terminology in this Report has been updated for ease of understanding to reflect nomenclature more commonly used in the current Canadian infrastructure market.

Option	Procurement Alternative	Description
4	Design-Build-Finance-Maintain	<p>Design and Construction: A single private sector entity ("Project Co.") is responsible for design and construction.</p> <p>Financing: Project Co. finances all or a portion of the construction through private debt and equity financing.</p> <p>Maintenance: Following completion, Project Co. maintains the asset.</p> <p>Payment Mechanism: Project Co. is paid an annual service fee, which includes repayment of the capital costs of construction as well as a maintenance fee.</p>

Options analysis

The Business Case included three specific analytical components that informed the City’s ultimate choice of the DBFM procurement model. These components included:

- Preliminary Value for Money analysis:** The preliminary VFM analysis was included as part of the business case to support a PPP structure for the Project. The City’s advisors (Deloitte and MMM) led a risk workshop with City staff in order to develop a thorough risk register that contained the risks applicable to the Project and to quantify the impact of these potential risks. This risk analysis was integrated with cash flow models to develop an estimate of the total risk-adjusted cost of all three procurement options under consideration. The preliminary VFM analysis demonstrated that the DBFM model had the most potential to provide savings in comparison to the Traditional model, in the range of 10% to 16% savings.
- Qualitative Analysis:** The City’s advisors carried out a qualitative analysis of each procurement option, based on key criteria for the Project developed in consultation with the City, case studies of other Canadian infrastructure projects, and advisors’ knowledge and experience. These criteria included consideration of a delivery option’s ability to transfer and mitigate risk, maintain the City’s operating flexibility, and deliver value for money. Based on these criteria, Option 4, which is the DBFM procurement methodology, was expected to deliver the greatest opportunity for the City to obtain overall value for money. A summary of the analysis is set out below.

Table 3 – Delivery Options Analysis

Criteria	OPTION			
	1	2	3	4
1. Degree To Which Retained Risks Are Reduced				
2. Degree To Which Key Retained Risks Can be Mitigated				
3. Degree To Which Financing Costs to the City are Minimized				
4. Degree to Which The City Maintains Operational Flexibility				
5. Degree to Which Option Meets Industry Best Practice For Construction Risk Mitigation				
6. Degree To Which Option Meets Industry Best Practice for Life-Cycle Risk Mitigation				
7. Degree To Which the Option Provides Value for Money to the City				
8. Degree To Which the Option is Consistent with the City’s Previous Experience With Models Of This Type for Projects Of This Size				

Key:



- Lowest Benefit ;



- Medium Benefit;



- Highest Benefit

- **Market Soundings:** Subsequent to the finalization of the business case, the City consulted a selection of market participants. The market sounding process concluded that there was sufficient interest from contractors as well as financiers to competitively procure the Project using the DBFM procurement model.

Report to Council

The City's Corporate Finance and Public Works Departments submitted a report to the City's Executive Policy Committee ("EPC"), recommending that the City pursue the DBFM model for the Project delivery and subsequent maintenance of the Project. The EPC concurred in this recommendation, and submitted the report to Winnipeg City Council. On May 14, 2008, City Council approved the plan to move forward with the Project based on the DBFM model. The text of the EPC recommendation which was approved by Council is reproduced below.

Text of Council Resolution

1. *That the Winnipeg Public Service be authorized to proceed with the Disraeli Bridges Rehabilitation Project based on a Design/Build/Finance/Maintain delivery model and that the Chief Administrative Officer be authorized to approve and issue the Request for Qualifications and the Request for Proposals for the Project.*
2. *That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.*

Advantages of the DBFM procurement model

The DBFM procurement model was critical to the success of the Project. The DBFM model helped to elicit the innovative design solution based on two new bridge spans, and drove the Project to be completed on time. The DBFM model, as described in greater detail below, provides strong incentives for innovation, balancing construction cost versus whole of life maintenance cost, and on-time completion.

Under the DBFM procurement model selected, the City owns the infrastructure at all times. The City determines the technical and performance standards that must be met for the design, construction, and maintenance of the Disraeli Bridges, including the approach roads, intersections, bridge structure and roadway. For example, the City provides minimum performance standards for maintenance elements such as litter removal, roadway condition, bridge structural inspections and follow-up (required repairs). The City's private sector partner is required to design, construct and maintain the infrastructure (for a 30 year term) to meet these standards. The City has also prescribed "hand-back" requirements to ensure that the assets are returned to the City in good condition at the end of the 30 year term.

The DBFM model requires the private sector partner to obtain private debt and equity financing. This is because payment to the private partner is withheld during the construction period, and the partner only receives partial payment for construction following commissioning of the Project. Therefore, the private partner must obtain private debt and equity financing to fund construction of the Project.

The advantages of the DBFM procurement model include:

- **Innovation:** Under a DBFM, the City can provide bidders with more scope to provide design innovation, since the private sector will be responsible to not only design and build the infrastructure but also to maintain it for 30 years with private capital at risk. The City sets the output requirements for the asset and allows the private sector to determine how best to meet these requirements. For the Disraeli Bridges, the City used the bid evaluation criteria and the Project contract to incent bidders to provide improved load capacity, minimal disruption to traffic during construction, as well as aesthetic and active transportation benefits. Plenary determined that it was best able to meet these requirements by developing a new bridge, which was an innovative solution that was not originally foreseen by the City within the budgetary constraints of the Project.

- **Bundling of Roles:** “Bundling” the design, construction and maintenance roles into one contract with one private sector partner has efficiencies including: a reduction in design coordination issues, strong incentives to design the Project in a manner which can be constructed efficiently and which will have optimal lifecycle performance, and clear accountability for the long-term condition of the assets.
- **Risk Transfer:** The private sector is responsible for most key risks related to the design, construction, and long-term maintenance of the asset, including risks of construction delay, cost overruns, and construction defects.
- **On-time Delivery:** There is a strong incentive for the private partner to overcome delays during construction and complete the works on schedule, since the majority of its payment is not provided until commissioning.
- **Performance-based Payment:** The City has defined performance standards for the maintenance of the bridge. If these standards are not met, the City is entitled to deduct amounts from the scheduled service payments to the private sector, providing the partner with strong incentives to meet service standards.
- **Oversight Role of Private Capital:** Private capital providers are incented to provide strong third-party oversight and due diligence on the Project, since their funds are at risk if construction, maintenance, or operation of the asset does not go according to plan or does not meet service standards.
- **Cost Certainty:** Fixed price contracts for construction and maintenance services transfer the risks associated with cost overruns and schedule delays to the private sector, and provide the public sector with cost certainty.
- **Long-term Asset Quality:** The private partner is required to develop a 30-year maintenance plan for the bridge, and must plan a lifecycle reserve account to ensure that a portion of Project revenues are set aside to fund planned lifecycle maintenance. The private partner is also responsible for meeting the hand-back requirements at the end of the 30-year term, which have been prescribed by the City up-front as part of the Project Agreement.

Procurement Process

Following the City’s decision to proceed based on the DBFM procurement and project delivery model, the City embarked on a procurement process to select a private sector partner. The City used a two-stage procurement process, which included an RFQ, followed by an RFP issued to consortia that were pre-qualified through the RFQ process.

Request for Qualifications process

The RFQ was intended to select no more than three qualified consortia who would be invited to continue on to the RFP stage.

The RFQ was issued on August 19, 2008. The RFQ document contained background information on the Project, an outline of the procurement process to be followed, and submission requirements intended to elicit information on each consortium’s proposed approach, qualifications and experience. An optional RFQ information session with registered prospective bidders was held in Winnipeg on September 4, 2008. The RFQ submissions were received on October 17, 2008.

The RFQ evaluation criteria were intended to assess the approach, experience and qualifications, and financial strength and capacity of RFQ respondents. The evaluation criteria and sub-criteria are set out below. The RFQ stipulated that in order for a respondent to be considered qualified, its submission must obtain a minimum of 60% of the points for each evaluation criterion.

Table 4 – RFQ evaluation criteria

Evaluation criteria	Overall Category Weighting
Project Lead <ul style="list-style-type: none"> • Organization, competitive advantage and management plan • Experience and qualifications of Project Lead • Experience and qualifications of Key Individual(s) 	25
Design-Construction Member of Respondent’s Team <ul style="list-style-type: none"> • Organization and plan • Experience and Qualifications of Member organization(s) • Experience and Qualifications of Key Design Individuals(s) • Experience and qualifications of Key Construction Individual(s) 	30
Maintenance Member of Respondent’s Team <ul style="list-style-type: none"> • Organization and plan • Experience of Member Organization • Experience and Qualification of Key Individuals 	20
Financing Member of Respondent’s Team <ul style="list-style-type: none"> • Financial Condition • Financial Capacity • Track Record and Experience • Approach 	25
	100

The City received a number of submissions in response to the RFQ. Each of the submissions met the minimum requirements of the RFQ, i.e. each of the submissions obtained at least 60% of the points in each criterion.

Consistent with the terms of the RFQ, the three highest rated RFQ respondents were short-listed to participate in the second phase of the procurement process:

- **KMC Winnipeg:** Kiewit Management Co. (Project, Design-Construction, and Financing Lead); Bituminex Paving Ltd. (Maintenance Lead)
- **Plenary Roads Winnipeg:** Plenary Group (Project, Financing Lead), PCL Constructors Canada Inc. (Design-Construction Lead), Plenary Group (Canada) Ltd. (Maintenance Lead)
- **SNC Lavalin Inc.:** SNC-Lavalin Inc. (Project, Design Lead), SNC-Lavalin Constructors (Pacific) Inc.(Construction Lead), SNC-Lavalin ProFac Inc. (Maintenance Lead), SNC-Lavalin Inc., Investment Division (Financing Team Lead)

The Fairness advisor’s report stated:

As Fairness advisor, we observed this RFQ process, from submission close until selection of the successful respondents in the first phase of this two-phase procurement process. Given this involvement, we can attest to the fact that the RFQ was an open, fair and competitive process.

Request for Proposals process

The RFP process focused on achieving the City’s objectives for the Project, while staying within a 30-year affordability budget established by the City. The City’s goal for the procurement process was to obtain “the best possible bridge, within the available budget”. The key objectives for the procurement process are listed below, and were reflected in the evaluation criteria at RFP stage. This provided clear direction to the Proponents and incited them to develop proposals which focused on the City’s objectives.

- Within City affordability budget
- Increase bridge load capacity
- Promote active transportation
- Bridge aesthetics
- Minimize traffic disruption during construction

The RFP was issued to the short-listed teams (referred to as Proponents) on December 19, 2008. An RFP information meeting was held on January 21, 2009.

The draft Project legal Agreement (“Project Agreement”) was issued with the RFP. The draft Project Agreement included detailed technical specifications for the design, construction, and maintenance of the Project. Proponent comments on the draft form of the Project Agreement were sought and considered throughout the process, via Commercially Confidential Meetings (“CCMs”) as well as through written comments provided by Proponents.

The RFP process followed a staged approach which required multiple submissions by Proponents to the City. During the first stage, known as SR Package 1, Proponents were required to provide general information as well as selected preliminary technical reports disclosing any unique design and construction intentions it may have. There was also an optional innovation submission. The second stage, known as SR Package 2, was divided into two parts namely SR Package 2-A and SR Package 2-B. SR Package 2-A required Proponents to provide more detailed technical plans and designs. SR Package 2-B required the submission of a financial requirement appropriate to the proponent’s technical plan, including its indicative financial model and indicative financing plan. The City engaged in engineering and construction focused CCMs with Proponents to review the SR Package 2 submissions, and in cases where the submissions did not meet the City’s technical requirements, provided appropriate written feedback. The third stage of the process, known as SR Package 3, required each Proponent to submit an updated financial model, a final financing plan and a financial offer. SR Package 3 submissions were submitted on October 28, 2009.

The Fairness advisor was in attendance at all of the CCMs.

The SR Package 3 submissions were evaluated based on a combination of pass-fail and rated evaluation. Notably, the pass-fail criteria included a cap on the amount of the Annual Service Payment proposed by a Proponent, in order to ensure that the Project fit within the City’s available budget. There was also a rated financial criteria, which awarded points based on lowest price (net present value basis) as well as the quality of the financing plan. Therefore, Proponents were required to price below the City’s Annual Service Payment cap, and were rewarded with additional points to the extent that they reduced their price further. The rated technical evaluation criteria were designed to incent Proponents to address the City’s key priorities for the Project. These criteria addressed, among other things, the load capacity of the proposed design, the extent to which traffic would be disrupted during construction, and the inclusion of active transportation elements. Proposals which included higher load capacity, minimized traffic disruption, and maximized active transportation elements, were rated higher based on these criteria.

The evaluation criteria are summarized in the tables below:

Table 5 – RFP pass - fail evaluation criteria

Pass- Fail Evaluation Criteria	Evaluation method
Technical Criteria <ul style="list-style-type: none"> – Project Schedule – Environmental Approval Plan – Construction Management Plan – Safety Plan – Public Communications Plan – Maintenance Plan – Safety Audit Plan – Quality Management System – Environmental Management 	Pass/Fail
Financial Criteria <ul style="list-style-type: none"> – Amount of Annual Service Payment 	Pass/Fail

Table 6 – RFP rated evaluation criteria

Rated Evaluation Criteria – At-Grade Alternative	Overall Category Weighting
Load capacity of Vehicular bridges increased	20
Lane Closure Plan for Construction Period	20
Traffic Management Plan	10
Design Enhancements	20
Pedestrian/Cycling Corridor Solutions	10
Financial Offer	15
Financial Plan, Financial Capacity, and Ability to Reach Financial Close	5

SR Package 3 Evaluation Process

The RFP submissions were reviewed and evaluated by City staff with technical, financial, procurement and legal expertise. City staff were supported by outside technical, financial, and legal advisors who provided input as requested by City evaluators. The SR Package 3 submissions were evaluated by the Completeness and Compliance Review Team to ensure that all mandatory submission requirements were complied with and all required items had been submitted. The Technical and Financial Evaluation Teams evaluated the score of each SR Package 3 submission based on the rated evaluation criteria set out in the RFP. There were also Subject Matter Experts that provided support and advice on an as-needed basis to the respective Evaluation Teams.

Each participant was bound by a Confidentiality Agreement and Undertaking, and the Evaluation Coordinators were required to sign the agreement. During the Evaluation Process, participants could only communicate with regard to the process with other members of their team or with the Evaluation Coordinators. In addition, strict standards of security were adhered to throughout the process. The SR Package 3 submissions were received at City offices and kept in a secure room located at the City offices.

The scoring process was comprised of two steps. First, there was an Individual Review, where each member of the Technical Evaluation Team and the Financial Evaluation Team reviewed the parts of the submissions relevant to their evaluation, taking into account the general direction provided on the worksheets. The next step was a consensus scoring and recording of results. Each team lead ensured that an appropriate level of due diligence was completed during the individual evaluation process, and that appropriate due diligence was exercised during the consensus scoring session. The Evaluation

Committee also completed due diligence on the results of each of the Technical Evaluation Team and the Financial Evaluation Team.

The consensus scoring was facilitated by City's Materials Management staff and the Fairness advisor was also in attendance.

At the end of the Evaluation Process, Plenary was selected as the Preferred Proponent to enter into negotiations with the City.

The report of the Fairness advisor on the RFP process stated:

As Fairness Advisor, we observed the RFP process, from the preparation of the draft RFP document until selection of a Preferred Proponent. Given this involvement, we can attest to the fact that this RFP process was an open, fair and competitive process.

Commercial and Financial Close

After Plenary was selected as the Preferred Proponent, the City engaged in negotiations with Plenary to finalize the financial aspects of the final agreement and fine-tune the scope of the Project in order to provide the best value for the City. The City and Plenary achieved commercial and financial close on March 26, 2010, signifying that the Project Agreement was signed by both parties and that Plenary concluded all its financing arrangements.

Advisors

The City's core project management, procurement, technical and finance team was advised throughout the procurement process by external transaction, financial, capital markets, fairness, and legal advisors. The external advisory team is listed in the table below.

Table 7 – City advisors

Advisory Team	
Transaction and Financial Advisor	Deloitte & Touche LLP
Capital Markets and Financial Advisor	CIBC World Markets
Fairness advisor	Knowles Canada Consultancy Services Inc.
Legal Advisor	Aikens

Commercial and Financial Features

Contractual Structure

The terms of the public-private partnership between the City and Plenary are set out in the Project Agreement. The Project Agreement dictates the technical specifications for the Project, the roles and responsibilities of the City and Plenary, as well as the payments to be made from the City to Plenary. This section provides a summary of the key elements of the Project Agreement.

Roles and Responsibilities

The following table sets out a high-level summary of the roles and responsibilities of the City and Plenary in relation to the Project. Note that the City has elected to maintain certain operational works since it has been determined that the City has the operational scale to best carry out these items.

Table 8 – Roles and responsibilities

	Plenary	City of Winnipeg
Design	<ul style="list-style-type: none"> Detailed and final design in compliance with Technical Requirements 	<ul style="list-style-type: none"> Preliminary Design Report Design specifications (Technical Requirements) Review and comment on detailed design (ensure compliance with Technical Requirements)
Construction	<ul style="list-style-type: none"> Construction of Project in compliance with Technical Requirements 	<ul style="list-style-type: none"> Provide access to site and rights of way
Financing	<ul style="list-style-type: none"> All financing for the design and construction of the Project 	<ul style="list-style-type: none"> The City will pay a commissioning payment of \$75 million to Plenary, at substantial completion
Maintenance	<ul style="list-style-type: none"> Inspection and reporting Emergency maintenance Operational maintenance of all designated Right of Way components including but not limited to pedestrian level lighting, landscaping, drainage, pavement markings, guide signs, cleanup, snow clearing and ice control Pavement surface maintenance Bridge structure maintenance (including bridge structural and operational repairs); Snow clearing and ice control Landscape maintenance Drainage maintenance 	<ul style="list-style-type: none"> Monitoring and enforcement of payment adjustment regime Regulatory signs Roadway lighting and sign control maintenance

Risk Allocation

One of the main features of PPP projects is that they transfer significant project related risks to the private sector partner. In general, a PPP project should transfer to the private sector partner risks that the partner is best equipped to control, for example, the risk of construction delay. The public sector should also retain risks that it is best equipped to control. An example of a risk that the public sector is best equipped to bear is the risk of land acquisition.

The matrix below provides a high-level summary of the allocation of key design, construction, maintenance and financial risks between the City and Plenary in the Project Agreement. Consistent with the PPP model, the Project Agreement allocates significant risk to the City's private sector partner.

Table 9 – Risk matrix

	The City	Plenary
DESIGN AND CONSTRUCTION		
Design & construction approvals – including environmental		•
Design deviation from concept approval		•
Design error		•
Patent infringement		•
Weather		•
Historical resources and environmental (known and disclosed)		•
Historical resources and environmental (unknown)	•	
Water/air/soil pollution – unknown pre-existing	•	
Water/air/soil pollution – known pre-existing	•	
Water/air/soil pollution – arising from work, inc. from known pre-existing sources		•
Land Acquisition by the City to expand the Right of Way	•	
Land acquisition – possible lay down area	•	
All Permits and Regulatory authorizations		•
Delays by agencies, regulators, etc. other than the City		•
Delays by the City	•	
Construction cost overruns		•
Latent defects in refurbished bridge components, subject to City acceptance of design	•	
Latent defects in all replaced and new components of the Works		•
Adequacy of Insurance		•
Sub-contractor insolvency		•
Changes in design and construction standards during the Construction Period	•	
Geotechnical and soil conditions		•
Labour disputes		•
Utility re-location and protection		•
Defective materials		•
Quality assurance and quality control		•
Achieving Construction Standards and Specifications		•
Injunctions against construction (not caused by Plenary)	•	
Labour and material availability		•
Workplace Health and Safety		•
FACILITY EXPANSION RISKS		
Future interchanges or additional lanes ad ramp or expansion	•	
RISKS DURING MAINTENANCE TERM		
Changes in standards, depending on nature of change	•	•
Weather		•
Labour disputes		•
Actual maintenance costs higher than anticipated		•
Damage/injury to third parties		•
Damage to Works, dependent upon the cause	•	
Water/air/soil pollution		•
Third party claims and accidents		•

	The City	Plenary
Increased usage of authorized overload vehicles		•
Increased legal load limits	•	
Traffic accidents during Maintenance Term due to the performance of the Contractor		•
Meeting Hand-back standards		•
Meeting performance requirements		•
Labour and material availability		•
Change in law (general)	•	•
Force majeure	•	•
OTHER RISKS		
Discriminatory acts and discriminatory change in City by-laws	•	
FINANCIAL RISKS		
Changes in Benchmark Rate between date of submission of SR-3 Package and date of Financial Close (if Proponent elects to participate in Capital Payment Adjustment mechanism in Form G-2)	•	
Changes in Benchmark Rate between date of submission of SR-3 Package and date of Financial Close (if Proponent does not elect participate in Capital Payment Adjustment mechanism in Form G-2)		•
Credit spread Risk (shared in accordance with Credit Spread Re-Set mechanism)	•	
Refinancing Risk		•
All other financing risks		•
Inflation on Construction Costs		•
Inflation on estimated Maintenance portion of City Payments (per Index Factor)	•	

In addition to the conventional risk transfer components, the Project was further complicated by the existence of a known environmental contamination. The City, during the bid process, worked closely with Proponents and their lending teams as well as its own advisors to develop a specifically tailored risk transfer protocol to deal with the pre-existing contamination and related permitting issues. The City also mitigated this risk by purchasing special purpose environmental insurance.

Payment Mechanism

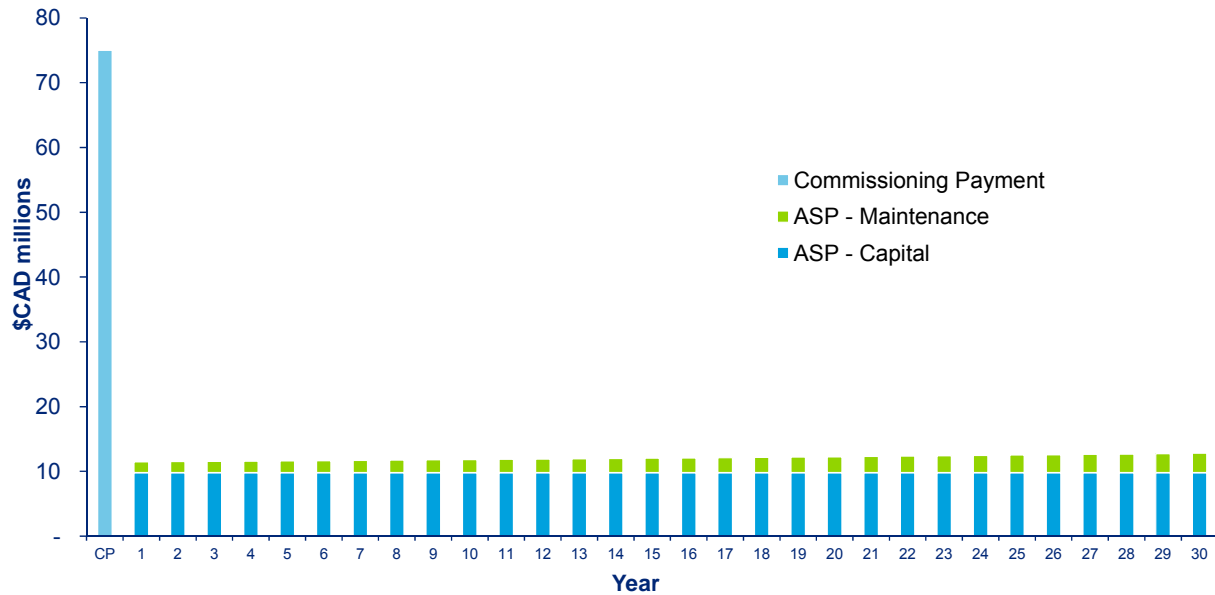
The City will pay Plenary over the term of the Project Agreement, which is 30 years in duration. The majority of the City's payment to Plenary is not provided until Plenary has substantially completed construction of the Project. Of that amount, a significant portion of payment to Plenary is "performance based" meaning that amounts paid to Plenary are dependent on the quality of services provided by Plenary. The payments to Plenary are as follows:

Table 10 – Payment mechanism

Type of payment	Description	Amount
Commissioning Payment	Lump sum payment provided to Plenary following substantial completion of roadway and structures.	\$75 Million
Annual Service Payments	Periodic payments provided to Plenary during the 30-year maintenance term. Include a Capital component (repayment of capital costs of construction) as well as a Maintenance component (service fee for costs of maintenance). The Maintenance component is expected to escalate over time due to inflation. The Annual Service Payment is subject to deductions under the contract, if technical requirements relating to maintenance of the Project are not met.	Average of \$12.1 Million per year

The graph below illustrates the timing, magnitude and type of payments provided by the City to Plenary based on the financial model submitted at financial close.

Figure 2 – City payments to Plenary



Consortium Structure and Relationship with the City

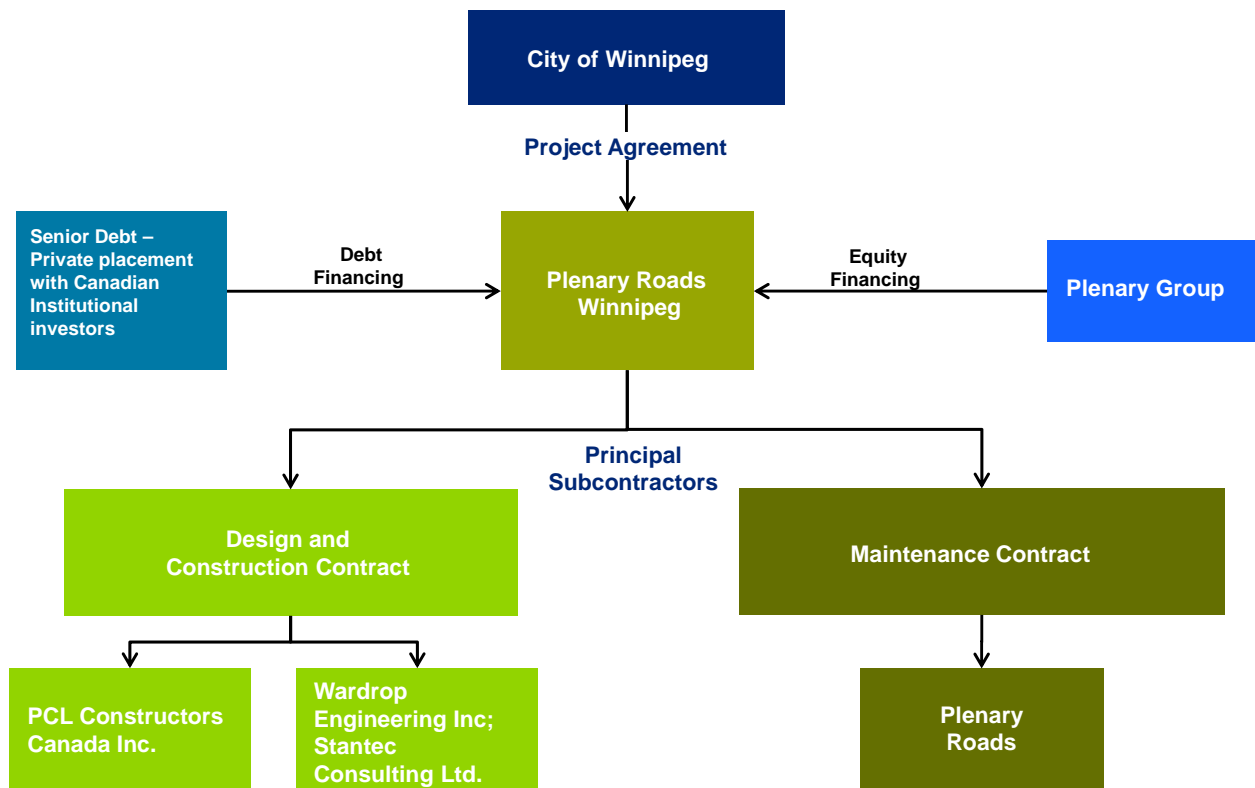
The City signed the Project Agreement with Plenary, a special purpose vehicle formed to carry out the Project. Plenary Group Limited has provided 100% of the equity capital for the Project and the senior debt for the Project was provided through a private placement with Canadian institutional investors. Plenary has subcontracted its design, construction, and maintenance obligations. PCL Constructors Canada Inc. is serving as construction subcontractor, Wardrop is the prime design consultant, Stantec is responsible for the roadwork design, underground utility design and the coordination of other utilities. In addition, Plenary Roads, which is a subsidiary of Plenary Group is responsible for the operations and maintenance of the Project.

Use of a special purpose vehicle structure, which subcontracts key obligations to and is supported by equity funders, is recognized as standard and accepted practice for Canadian PPP projects.

The payments to Plenary are contingent on substantial construction completion (“Commissioning Payment”), and continued performance of maintenance obligations in compliance with the City’s technical requirements (“Annual Service Payments”). If Plenary is unable to earn payments based on construction or maintenance performance, its equity, as well as the debt financing, may be at risk.

The diagram below illustrates the consortium structure.

Figure 3 – Consortium structure



Other Key Terms and Conditions

Other key terms and conditions of the Project Agreement include the following:

- Traffic Management:** One of the main objectives of the City was to minimize traffic disruption during construction. Through the procurement process, Plenary was evaluated based on its plan for lane closure during construction (see above section re: RFP Evaluation Criteria). During the construction period, Plenary’s actual performance relative to its lane closure target will be monitored under the Traffic Accommodation Incentive Plan. If Plenary’s performance is worse than planned, it will be subject to “lane rental” fees for additional lane closures.
- Ownership:** The City owns the infrastructure and land at all times. The City provides Plenary with non-exclusive access to and use of relevant lands for the purposes of executing the Project, via a license granted in the Project Agreement. Note that this ownership also covers any fixed improvements that Plenary may from time to time construct upon the lands.
- Hand-Back:** The City has specified, in detail, the minimum hand-back standards, which Plenary must meet upon the expiry of the 30-year maintenance term in the Project Agreement. Hand-back inspections will be carried out over approximately 5 years prior to the expiry of the term with the City’s participation to ascertain the condition of the Project. If its condition falls short of the hand-back requirements, Plenary must either carry out a work plan designed to remedy the shortfall, or the City will be entitled to deduct the amount of funds required to carry out the work plan from the Annual Service Payments and perform the work itself to fulfill the hand-back requirements.
- Payment Adjustments:** The Project Agreement includes specified adjustments to the Annual Service Payment to Plenary, in respect of non-performance of technical and service standards set out in the Project Agreement. In some cases, this adjustment may be an addition/incentive. Examples of events which would result in payment deductions include: unplanned lane closures after the commissioning date, or failure to remove graffiti within a defined response period. Plenary

is responsible for reporting all relevant non-conforming events and the payment adjustments to the City. This is subject to the City's right of review and final determination.

- **Refinancing:** If at any time during the agreement, Plenary obtains debt financing at a lower rate than it currently has in place, the City is entitled to receive a 50% share of the refinancing gain.

Financing Structure

The Project is being funded by a mixture of private sector debt and equity financing. The City funds will be provided as a lump sum City payment provided at completion following certification of the roadway from a safety auditor, which is the Commissioning Payment.

Private Sector Financing

Plenary sourced private debt financing using a private placement with Canadian institutional investors to fund approximately 90% of the costs of construction during the Project. The other 10% of the construction cost is being funded by equity. Plenary Group has provided all of this equity for the Project. The debt and equity financing will be repaid through the payments Plenary receives from the City following the completion of the construction phase of the Project, and over the 30-year term of the Project.

City Funding

Upon opening of the new works to traffic (commissioning), the City will make a lump sum payment to Plenary in the amount of \$75.0 million. The City will then make annual payments averaging approximately \$12.1 million per year over the 30 year term of the agreement.

Approximately 15% of the annual payments to Plenary are dedicated to the maintenance of the works and are adjusted for CPI on an annual basis. The remaining 85% of the annual payments are designed to pay off the capital cost of the bridge over the 30 year period.

Plenary forecasted total capital costs of \$184 million for the construction of the bridge. These capital costs include the pure construction costs plus additional costs of financing and overhead costs.

Financial Summary

This section summarizes the financial implications of the Project from the City's perspective.

Commissioning Payment

The City will provide Plenary with a lump sum Commissioning Payment of \$75 Million. This payment will be triggered by substantial completion and commissioning of the roadway and structures.

Annual Service Payment

Once the Project has been commissioned into use, the City will provide Plenary with regular payments throughout the course of Plenary's 30-year maintenance term, known as the Annual Service Payment. The Annual Service Payment includes two components:

- **Capital Payment:** This component is intended to pay Plenary for the outstanding portion of the capital cost of constructing the Project. This payment is similar to a mortgage with a fixed monthly payment over a 30-year period.
- **Maintenance Payment:** This component is intended to pay Plenary for its annual costs of maintaining the Project. These payments are indexed to a measure of inflation (Statistics Canada consumer price index) and therefore likely to rise over time.

Over the course of the contract term, the capital portion is projected to form approximately 85% of the total Annual Service Payment, with maintenance component expected to form the other 15%.

Net Present Value

The net present value (NPV) of the Annual Service Payments to be paid by the City to Plenary, over the 30-year maintenance term, is approximately \$141.2 million. This calculation assumes a 6% discount rate and is based as of the date of Project financial close (March 2010).

Global Financial Crisis

The RFQ for this Project was issued in late 2008 during the global financial crisis. The original proposal called for 100% private sector financing, which was consistent with the Canadian DBFM market at the time. As the financial markets recovered, the spreads between the City's borrowing rate and the private sector borrowing rate (the spread) increased. This increased spread had a negative impact on the City's projected VFM for the Project.

To deal with these changing capital markets, the City worked closely with its financial and transaction advisors (CIBC World Markets ("CIBC") and Deloitte) as well as the three Proponents to optimize the financing of the Project and improve VFM.

The City is able to borrow at a lower rate than the private sector. By replacing private sector debt with City issued debt, the financing costs of the DBFM are reduced improving VFM. Careful consideration was made as to the amount and timing of the payment as reducing private sector capital at risk 'too much' or 'too soon' could alter the risk transfer in the Project, reducing VFM. Thus, the City optimized the financing structure to leverage the City's lower borrowing rate while still maintaining the risk transfer to the private sector.

The City amended the RFP to make a \$75 million payment on commissioning of the works. The City has no capital at risk until the bridges are open to traffic. By optimizing the financing structure, the City was able to achieve an estimated VFM of 17.1% in comparison to a Traditional delivery approach.

Value for Money Assessment

Overview

The capital value of this Project is significant to the City and cost overruns had the potential to impact the City's finances and future property tax rates. As such, achieving cost certainty and protecting taxpayers from cost overruns was a significant consideration in selecting the PPP approach. To ensure taxpayer value was achieved, the City engaged Deloitte to conduct a third party assessment of the VFM of the PPP approach.

A VFM assessment is a comparison of the costs of delivering an infrastructure project using a PPP, as opposed to a "Traditional" procurement method such as Design-Bid-Build ("DBB"). The objective of VFM analysis is to ensure that the City is using the procurement and project delivery method which provides taxpayers with the best overall value solution.

The VFM assessment compares the estimated total costs to the City of two potential methods of executing the Project:

1. **Public-Private Partnership:** These are the total costs to the City of delivering the Project based on the DBFM PPP model. These costs are based on the City's future service payments to the private sector partner, and also include an adjustment for risks retained by the City under this model.
2. **A Public Sector Comparator ("PSC"):** The PSC is an estimation of the total costs to the City of delivering the Project, based on the City's Traditional DBB method of delivering public infrastructure projects. Under this approach, the City is assumed to finance the Project by issuing a bond. The costs of the PSC also include an adjustment for risks retained by the City under this model.

Process

The VFM assessment was carried out by the City's external financial advisors. City staff provided input into the VFM assessment as required. They were fully briefed as to the assumptions, methodology, and process utilized in developing the VFM. As well, the City Auditor and a representative from the Canadian Union of Public Employees (CUPE) attended workshops on VFM assessment and provided input into the analysis of project risks.

A Preliminary VFM assessment ("PVFM") was carried out during the business case stage of the Project, prior to Council approval. This initial PVFM assessment was used to determine which procurement and project delivery model was likely to provide the City with the best value, and influenced the decision to proceed based on the DBFM model. The PVFM was based on estimated costs of the PPP and PSC options.

The PVFM analysis was updated throughout the procurement process, in order to ensure that the PPP approach chosen continued to provide the City, and by extension taxpayers, with better value than a Traditional procurement approach. The PVFM updates were based on estimated costs of the PPP and PSC options, which incorporated more precise information as the Project progressed.

The VFM was finalized following commercial and financial close of the Project. The final VFM was based on the actual costs of Plenary's accepted proposal.

Table 11 – Evolution of VFM assessment

VFM Assessment	Rationale
Business Case Stage (February 2008)	VFM was first assessed as part of the Project business case. The VFM assessment indicated that there was best value to the City in procuring the Project based on a DBFM structure, as opposed to a Traditional procurement or other form of PPP and estimated the VFM savings for the City between 10% and 16%.
Release of RFP (December 2008)	Prior to release of the RFP, VFM was re-assessed to confirm that the DBFM transaction structure still provided value to the City, in comparison to a Traditional procurement method. The updated Preliminary VFM was estimated at this point to be between 7% (post-credit crisis scenario) and 13% (pre-credit crisis scenario).
Update During RFP Open Period (June 11, 2009)	The VFM was updated as necessary during the procurement of the RFP open phase. The update was done to reflect a fully developed RFP and Project Agreement, a revised risk assessment, updated financing assumptions, and the addition of a new scenario which included a commissioning payment of \$50 million. The VFM was estimated at this time to be between 7.5% (no commissioning payment) and 12.7% (with commissioning payment).
Preliminary VFM update (June 24, 2009)	The VFM was updated again based on the City's decision to provide a commissioning payment of \$75 million. The risk register was therefore adjusted. The VFM at this point was estimated to be 14.9%.
Preferred Proponent Stage (January 2010)	The VFM was updated based on the Preferred Proponent's bid, reflecting the actual construction, maintenance, lifecycle and financing costs. This VFM was based on the final form of Project Agreement. The VFM savings were estimated at 15.6% at this point.
Financial Close: Final VFM (March 2010)	The VFM was re-assessed at Financial Close, based on the final Project Agreement and pricing agreed with Plenary. The Final VFM provides a snapshot of the value that the City expects to receive over the life of the contract, in comparison to a Traditional approach. The final VFM savings were estimated to be 17.1%.

Final Value for Money Assessment

As noted above, the Final VFM Assessment (“Final VFM”) was concluded following commercial and financial close of the Project. The Final VFM was assessed using the actual costs of Plenary’s bid. Therefore, the Final VFM compares the actual price charged by Plenary to develop the Project, with the estimated cost to the City of developing the Project based on a Traditional DBB method.

The Final VFM results demonstrate that the PPP approach provides the City with estimated value savings of approximately \$47.7 Million, in comparison to the Traditional delivery approach. This represents a 17.1% savings.

This result indicates that the City will obtain value savings from the PPP approach, throughout the lifecycle of the Project. The VFM results indicate that the City’s responses to the capital markets challenges that were encountered by the Project, have on balance maintained and supported the Project’s VFM proposition. In addition, the City’s provision of a Commissioning Payment will support the VFM with minimal erosion of risk transfer.

The VFM results however did not consider the transfer of environmental approvals process risks (“EA Risks”) in the Project Agreement, and accordingly represent a conservative approach. If EA Risks were considered in the analysis, the VFM would likely have been higher.

Analysis

A detailed breakdown of the VFM assessment is presented below. All costs are presented in \$ Millions, on a Net Present Value (NPV) basis using the City’s discount rate of 6%.

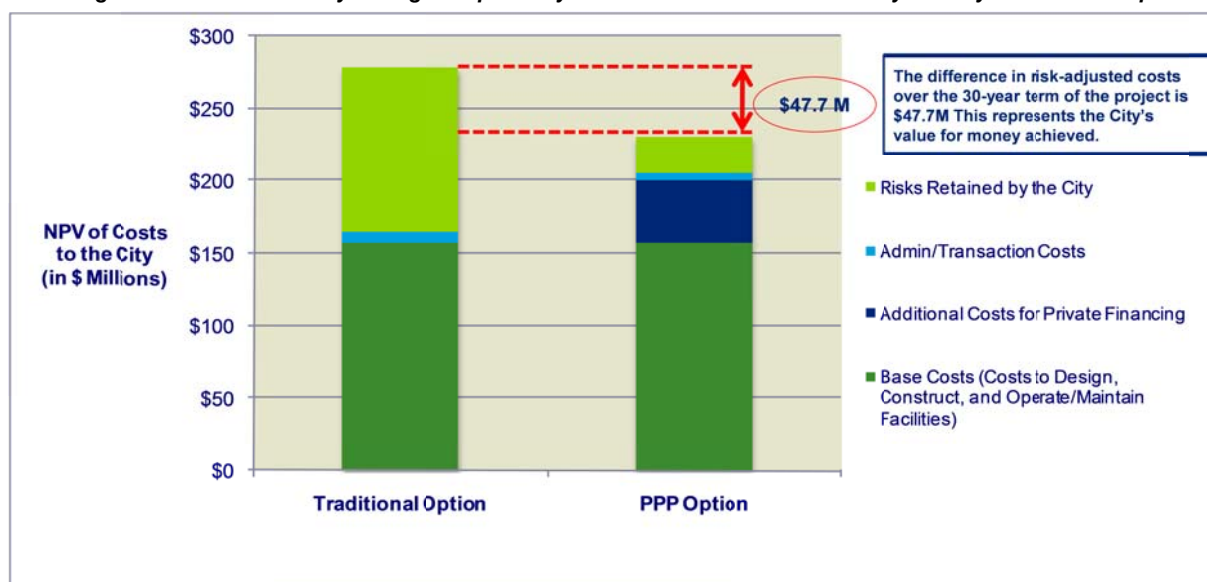
Table 12 – Detailed VFM assessment

	Public Sector Comparator (Traditional)	PPP (Design-Build-Finance-Maintain)
All costs provided on a Net Present Value (discounted) basis (Million)		
Base Costs	\$157.9	\$200.4
Administration and Overhead	\$6.2	\$3.4
Transaction Costs	\$1.2	\$1.8
Risks Retained by the City	\$113.4	\$25.4
Net Present Cost	\$278.7	\$231.0
Value for Money Savings (\$)*		\$47.7
Value for Money Savings (%)**		17.1%

* Net Present Cost of PSC – Net Present Cost of PPP

** (Net Present Cost of PSC – Net Present Cost of PPP) / Net Present Cost of PSC

Figure 4 – Value for money savings are primarily due to reduced risks retained by the City under DBFM option



The cost categories contained in the table and figure above are described in greater detail as follows:

Base Costs - PSC

The estimated costs to the City for procuring the design and construction of the Project using a Traditional DBB method, financing the project using City financing, and maintaining the Project for a period of 30 years. During preliminary assessments of the VFM, the Base Costs for the PSC were based on the City's cost estimates. However, for the Final VFM, the construction cost (not including financing) in Plenary's bid is used as the Base Cost, as they are assumed to be reflective of competitively priced construction costs at that point in time.

Base Costs – PPP

Plenary's bid price for designing, building, and maintaining the Project for a 30 year term.

The Base Costs under PPP are higher since Plenary’s bid price includes additional costs related to private sector financing, over and above the “pure” construction costs that form the PSC Base Costs. The additional costs for private financing are shown separately in Figure 4 above.

Administration and overhead

The City’s estimated future costs of managing the Project under the PSC and PPP method. The City’s costs are under PPP are lower since many project management functions are now performed by the private sector.

Transaction Costs

The City’s costs related to financial and technical advisors.

Risks Retained by the City

This is the estimated quantified value of project risks borne by the City under the PSC and PPP options. The risk assessment is explained in greater detail below.

City discount rate and borrowing costs

The VFM assessment has assumed an all-in cost of borrowing rate for the City of 6.05%. This represents a best estimate of the City’s costs of issuing a 30-year bond to raise funds for the capital costs of the Project, at the time of financial close (March 2010). This estimate was developed in consultation with the City’s finance department and CIBC. The VFM assessment also assumes a discount rate equal to the City’s borrowing rate.

Although assumptions regarding the City’s long-term borrowing rate do affect the VFM, as the table below demonstrates, the Project provides robust value to taxpayers under a range of City financing assumptions.

Table 13 – City borrowing rate assumptions

Assumed All-In City Borrowing Rate	VFM Savings through PPP transaction
5.00%	11.5%
5.50%	14.3%
6.05%	17.1%
6.50%	19.3%

Risk assessment

The structure of a PPP transaction allows the City to transfer and/or mitigate risks associated with designing, construction, and maintaining large infrastructure projects such as the Disraeli Bridges Project. Some examples of risk transfer and/or mitigation include:

- **Contractual Risk Transfer:** The contractual terms of the PPP transaction requires the private sector to bear most of the risks associated with design deficiencies, construction cost overruns, and maintenance and major capital (lifecycle) repair cost overruns. Typically, a Traditional approach requires the City to bear most of these risks.
- **Co-ordination:** The PPP transaction structure requires a single party to undertake the design, construction, and long-term maintenance of the asset, thereby greatly reducing co-ordination risks.

- **Private Capital Due Diligence:** Financing risk is borne by debt and equity investors, who undertake thorough up-front due diligence and long-term planning, thus reducing both the probability and impact of certain risks.

The VFM assessment has quantified risk transfer based on a methodology which is best practice in Canadian PPP transactions. This methodology estimates the probability and cost impact of a range of risks associated with infrastructure projects, in consultation with technical experts. The chart below summarizes the risk transfer profile for the Project, based on key categories of risks. Risk probability and impact under both the PSC (Traditional) and PPP (DBFM) delivery model is assessed based on historical data for risks associated with infrastructure projects, adjusted for specific factors in consultation with technical consultants. Note that each Risk Category is comprised of a number of more detailed risks, each assessed individually.

Table 14 – Risk assessment

Risk Category	Estimated Quantified Risks Retained by the City under PSC (Traditional) Model	Estimated Quantified Risks Retained by the City under PPP (DBFM) Model
Project Planning and Approvals Risks	\$28.5 M	\$7.6 M
Environmental and Site Conditions Risks	\$2.5 M	\$1.5 M
Design and Construction Risks	\$38.3 M	\$11.5 M
Operations, Maintenance, and Lifecycle Risks	\$44.2 M	\$4.8 M
Total	\$113.5 M	\$25.4 M

Appendix A – Value for Money Letter

April 5, 2010

Henry Hunter
Disraeli Bridges Project Lead
City of Winnipeg
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Dear Mr. Hunter,

Re: Value for Money Assessment at Financial Close – Disraeli Bridges Project

Deloitte & Touche LLP (“Deloitte” or “We”) has prepared the Value for Money (“VFM”) assessment for the Disraeli Bridges Project (“Project”) at the Financial Close stage, in accordance with Canadian best practices for value for money assessment methodology.

The VFM assessment is based on a comparison of the net present costs (“NPC”) for the Project under:

1. The traditional delivery approach, as reflected in the Public Sector Comparator (“PSC”) model; and
2. The Public-Private Partnership approach (“PPP”), as reflected in the Selected Bid submitted by Plenary Roads Winnipeg, as at the date of Financial Close (March 26, 2010).

The VFM assessment was compiled using the following information (collectively the “Information”):

1. A risk matrix developed in accordance with Canadian best practices and adapted to reflect project specific risks, in consultation with the City as well as the City’s technical advisors; and
2. Cost and other input assumptions extracted from the Selected Bid.

The VFM assessment submitted to you on March 31, 2010, demonstrates that the PPP approach will provide an estimated value savings of 17% (in comparison to the traditional delivery approach), using a 6.05% discount rate.

We confirm, based on our familiarity with VFM methodologies in other jurisdictions and current market data, that the VFM methodology is reasonable, yields a fair estimate of value for money and that the Information has been appropriately used in the VFM model.

Yours very truly,



Deloitte & Touche LLP

www.deloitte.ca

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