



City of Saskatoon  
Business case to PPP  
Canada for new Civic  
Operations Centre

November 05, 2012  
FINAL

# Important Notice

This report is for the City of Saskatoon ("City" or Saskatoon) and PPP Canada. It is not intended to be used nor relied upon by other third parties. The results of this report were intended to assist the City and PPP Canada in making decisions with respect to the construction and development of a new Civic Operations Centre.

The estimated capital budgets are based on assumptions made which are effective as of the date of this report. The estimates have been provided by a variety of sources. We have not evaluated the support for the assumptions or other information underlying the assumptions.

The underlying assumptions may change subsequent to this report date and changes may have an impact on our analysis and results. Since these assumptions reflect anticipated future events, actual results may vary from the information presented and these variations may be material. As such, we do not provide any opinions or any other form of assurance on the financial estimates.

# Executive Summary

The City of Saskatoon has been provided with a mandate, by City Council, to proceed with plans to relocate their existing Public Transit Operation facilities and Infrastructure Service Department into a new centralized Civic Operations Centre that has easy access to major freeway networks. Due to continuous population and economic growth in Saskatoon, these existing facilities suffer from capacity constraints as well as a series of other issues that reduce their operational efficiency and hinder the City's ability to provide high quality services to its residents. Council also believes that these relocations will provide an opportunity to redevelop existing sites in a manner that support, sustain, and enliven their surrounding neighbourhoods.

In accordance with Environment Canada's Code of Practice for the Environmental Management of Road Salts, the City has also developed its own Salt Management Plan that called for a sufficient level of snow storage and disposal to improve the winter maintenance activities while striving to reduce the effects of road salt on the environment. To implement this Plan, the City has decided to build a permanent snow salt-laden runoff decontamination facility within the Civic Operations Centre to store snow and pre-treat the melt water before re-using or discharging it into the sewer system.

The City also intends to include other functional components within the Civic Operations Centre, such as a biodiesel fuel distribution and storage facility, a Vehicle and Equipment Services facility, radio shop operation facilities, and a Public Works storage yard, mainly with the objective to promote cooperation and coordination between services, facilitating the sharing of resources and improving operational efficiencies.

In late 2010, the City purchased a 180 acre parcel of land that is ideally suited for the Civic Operations Centre. The proximity of this site to the Circle Drive South roadway network makes it strategically well positioned for direct access to all areas of the City. Stantec Consulting has conducted a Phase II Environmental Site Assessment, suggesting that the site has not been impacted by on/off site sources of potential contaminants of concern.

On behalf of the City, Deloitte has prepared and submitted an application for the P3 Canada Fund, seeking approval by PPP Canada to fund 25% of the project's eligible direct costs. Meanwhile City Council has identified this project as a priority and has shown great support and commitment to delivering the project using a P3 model. Related funding plans are already in place to cover both the planning and procurement costs and the performance-based payments required from the City under the P3 delivery. In early October 2011, PPP Canada advised the City that the application had been pre-screened, and, as a next step to support the application, the City was required to submit a business case for review by PPP Canada.

Retained by the City and following the PPP Canada guideline, Deloitte prepared the first draft of the business case, based on the assumption that the entire Civic Operations Centre (an approximately \$200 million project) will be built over three years within one procurement. The draft business case defined the project, assessed a range of alternative procurement methods, and ultimately made a recommendation on the optimal method, along with a credible transaction structure and a realistic implementation plan. The business case also discussed the possibility of "bundling" the Civic Operations Centre project with the infill development in South Caswell Hill area where the current transit facilities are located.

During the course of preparing the draft business case, Deloitte conducted a risk workshop for City staff, developed a comprehensive financial model to do the value for money and affordability analyses, and carried out market sounding consultations with more than a dozen market participants.

All interviewed market sounding participants have shown great interest towards the size and scope of Civic Operations Centre. In addition, to bundle the project with ancillary land development at Caswell Hill area was only considered possible if the bundling is included as innovation and the private sector bears no revenue risks. Market sounding participants suggested that the private partner should deconstruct the building, decommission the land, build the park and community center required by the City, but take no further responsibility beyond construction completion of these ancillary developments. The City would have to clearly define the extent of any environmental clean-up work that is required.

The first draft of business case was submitted to PPP Canada in late October 2011, with the objectives to receive feedback and to ensure it meets PPP Canada's needs. Based on the submitted business case, the City further engaged in discussion with PPP Canada, around the eligibility of the project and PPP Canada's willingness to participate in a DBFOM with "sculpted" payment schedule, a variation to DBFOM that was recommended in the first draft business case to accommodate City's existing affordability thresholds.

Due to P3 Canada Fund's current mandate and criteria, the discussion between the City and PPP Canada in late 2011/early 2012 resulted in the following outcome:

- The Transit Headquarters and Snow Salt-laden Run-off Decontamination Facility are considered eligible for receiving contribution from P3 Canada Fund; and
- PPP Canada is not willing to participate in the "sculpted" DBFOM.

Given the above and in light of budgetary constraints and varied urgencies faced by the City to build different components of Civic Operations Centre, the City has decided to implement a phased approach. Specifically, the entire Civic Operations Centre will be built in two phases: the Transit Headquarters (together with the Caswell Hill infill development) and the Snow Salt-laden Run-off Decontamination facility will be built in Phase 1, while the remainder of Civic Operations Centre will be built in Phase 2. The City has indicated that Phase 2 can be developed / built without impacting Phase 1. As agreed between the City and PPP Canada, the business case will focus on Phase 1, and accordingly the funding support the City seeks from PPP Canada in this business case will be based on Phase 1 only.

The business case has gone through intensive tests, from the qualitative market sounding, jurisdictional scan, procurement objective and constraints analysis, to the quantitative VFM assessment and affordability analysis. A wide range of potential delivery options have been tested and finally the business case confirms the conclusion that **DBFOM is the optimal delivery method for the Civic Operations Centre Phase 1**. This is not only because the DBFOM is anticipated to generate the greatest VFM, but also because the Council has approved a robust funding plan to ensure that all the committed payments from the City to Project Co. under DBFOM will be sufficiently covered during the operation period.

Based on the latest AECOM cost estimates and other assumptions made by the business case, the contribution sought by the City from P3 Canada would be in the order of **\$39.4 million** under the DBFOM delivery method, which consists of a lump sum payment (approximately \$38.5M) upon construction completion that equals to 25% of total project capital costs (including interest expense and financing fees) and another lump sum payment (approximately \$0.9M) at financial close to offset 25% of the City's procurement costs in hiring all the financial, legal and technical advisors. With the funding support from PPP Canada and through the DBFOM delivery method, the City is confident that it will realize significant amount of savings while achieving other social and economic benefits in a timely and efficient manner.

Deloitte believes that there is tremendous interest in this project due to a limited PPP project pipeline in the Canadian marketplace. To maximize competitive pricing tension and to minimize construction inflation uncertainty, it is important to bring the project to market as soon as possible.

The City is looking forward to continuously working with PPP Canada on the Civic Operations Centre and believes that this project will succeed and it will set up an excellent P3 example to deliver other major infrastructure projects in Saskatoon in the future.

# Table of Contents

|      |  |    |
|------|--|----|
| 1    | Introduction .....   | 6  |
| 1.1  | Project Name .....   | 6  |
| 1.2  | Contact information .....  | 6  |
| 1.3  | Purpose of Business Case .....   | 6  |
| 1.4  | Business Case Version Control .....  | 7  |
| 2    | Project Description and Investment Decision .....                                      | 8  |
| 2.1  | City of Saskatoon .....  | 8  |
| 2.2  | Strategic Alignment and Priority .....   | 8  |
| 2.3  | Summary of Needs Assessment .....  | 11 |
| 2.4  | Description and Scope .....  | 13 |
| 2.5  | COC Objectives and Benefits .....  | 18 |
| 2.6  | Summary of Feasibility Study .....   | 19 |
| 2.7  | Investment Decision .....  | 19 |
| 2.8  | Decision Making Process .....  | 21 |
| 2.9  | Potential Delivery Options .....   | 22 |
| 2.10 | Pre-Screen of Options .....  | 25 |
| 2.11 | Market Sounding .....  | 29 |
| 2.12 | Results and Recommended P3 Model for Quantitative Analysis .....                       | 34 |
| 3    | Preliminary Value for Money Analysis .....   | 35 |
| 3.2  | Risk Analysis .....  | 36 |
| 3.3  | Project Costs and Cash Flow Analysis .....   | 38 |
| 3.4  | Risk Analysis and Quantification .....   | 41 |
| 3.5  | Value for Money Assessment .....   | 43 |
| 3.6  | Preferred Delivery Options .....   | 45 |
| 4    | Project Funding and Affordability .....  | 46 |
| 4.1  | Fund Sources and Uses during Construction .....  | 46 |
| 4.2  | Affordability during Operation and Incrementality from P3 Canada Fund Investment ..... | 47 |
| 4.3  | Affordability during Operation and City Approved Funding Plan .....                    | 48 |
| 4.4  | Recommended Delivery Option .....  | 51 |
| 5    | Procurement Strategy .....   | 52 |
| 5.1  | Recommended Procurement Process .....  | 52 |
| 5.2  | Policy and Procurement Framework .....   | 55 |
| 5.3  | Project Governance Structure .....   | 58 |
| 5.4  | Project Team .....   | 59 |
| 5.5  | Project Resourcing and Budget .....  | 60 |
| 5.6  | Key Documents .....  | 61 |
| 6    | Implementation Plan .....  | 62 |
| 6.1  | Project Status and Next Steps .....  | 62 |
| 6.2  | Implementation Considerations .....  | 63 |
| 6.3  | Stakeholder Engagement and Communications .....  | 64 |
| 6.4  | Post-procurement Contract Administration .....   | 64 |

# 1 Introduction

## 1.1 Project Name

Civic Operations Centre as defined in Section 2.4.1 (the “COC” or “Civic Operations Centre”)

## 1.2 Contact information

Primary Contact:

Linda Andal, P3 Project Leader

222 – 3rd Avenue North

Saskatoon, SK S7K OJ5

(306) 975-3251

[Linda.andal@saskatoon.ca](mailto:Linda.andal@saskatoon.ca)

Alternate Contact:

Doug Drever, Project Director

222 – 3rd Avenue North

Saskatoon, SK. S7K OJ5

(306)975-2869

[Doug.drever@saskatoon.ca](mailto:Doug.drever@saskatoon.ca)

## 1.3 Purpose of Business Case

On behalf of the City, Deloitte has prepared and submitted an application for P3 Canada Fund on June 24, 2011 in association with the City’s proposed COC project. As a next step, all applicants who passed the pre-screening process will be required to submit business cases for review by PPP Canada as soon as they are ready.

As such, Deloitte has prepared this business case (the “Business Case”) to support the City’s application. It was also prepared to assist the City’s decision makers in reaching necessary internal consensus and approvals to pursue the project under an appropriate procurement model. Such procurement model should be successfully tested through market sounding and financial viability, and also achieve value for money and meet project objectives.

This Business Case identifies and assesses a range of alternative procurement models (i.e., models that are different than the traditional design-bid-build methodology used by governments and public sector organizations) and makes a recommendation on an optimal procurement model to be pursued along with a credible transaction structure and implementation plan.

## 1.4 Business Case Version Control

As presented in the table below, the following versions have been submitted to the City and PPP Canada during the development of the business case:

| Version            | Date             | Notes   |
|--------------------|------------------|---|
| <b>First draft</b> | October 21, 2011 | Submitted to the City and PPP Canada for feedback;<br><br>Draft was based on the entire COC project (relocations of both Transit Headquarters and Infrastructure Service Department) being built over three years construction period, with a sculpted capital payment during the maintenance term.   |
| <b>Draft 2</b>     | March 7, 2012    | Incorporated feedback from the City and PPP Canada per the first draft;<br><br>Updated quantitative analyses with the latest cost estimates provided by AECOM based on preliminary design. The analyses were done for COC Phase 1 only (Including the Transit Headquarters, Snow Salt-laden Run-off Decontamination Facility, and Caswell Hill infill development, with two years construction);<br><br>Incorporated findings from the Phase II Environmental Site Assessment conducted by Stantec Consulting Inc.;<br><br>Slightly changed the pre-procurement schedule;<br><br>Deleted the sections related to DBFOM with sculpted payment schedule and phased DBFOM/DB(f). |
| <b>Draft 3</b>     | March 30, 2012   | Addressed the questions / comments of PPP Canada per the second draft (as discussed during the conference call on March 20, 2012).  |
| <b>Draft 4</b>     | July 31, 2012    | Addressed questions / comments of PPP Canada per the third draft;<br><br>Updated the procurement schedule.  |
| <b>FINAL</b>       | November 5, 2012 | Confirmed by the City, the maintenance portion of the annual budget approved by the City Council will be inflated during the operation period without additional approvals.<br><br>Added the steering committee to the project governance structure.  |

# 2 Project Description and Investment Decision

## 2.1 City of Saskatoon

Saskatoon is a commercial and educational center in the province of Saskatchewan. It lies along a bend of the South Saskatchewan River, 346 km north of the Canada-US border, 224 km from Alberta and 344 km from Manitoba. It is central Saskatchewan's great crossroads; a hub for water, rail, and highway crossings east and west, north and south. Saskatoon was incorporated as a city on May 26, 1906, and celebrated its 100th birthday in 2006.

Saskatchewan grows half of the entire quantity of Canada's major export crops: wheat, oats, barley, rye, flaxseed and canola. Saskatoon is at the heart of this market, providing a variety of services and products to the farm sector. Mining is also an important part of the economy. The Saskatoon region is the world's largest exporter of uranium, and nearly two-thirds of the world's recoverable potash reserves are located in the Saskatoon region.

Value added food processing is one of the fastest growing industries in Saskatoon, which is considered the agriculture biotechnology capital of Canada. Saskatoon was named "one of the best cities in Canada for knowledge based businesses" by the Globe and Mail in 1995 and the number one city in Canada for air and water quality by Chatelaine magazine.

Saskatoon is Saskatchewan's largest city with an estimated population of 224,300 and growing (as of December 31, 2010), an addition of over 20,000 new residents since the end of 2006. What's more, it is anticipated that by the end of the 2011, Saskatoon's population will easily surpass 230,000 people. According to various economic forecasting agencies, this growth trend is expected to continue. In fact, as the Conference Board of Canada recently said, "a very active labour market in Saskatoon will continue to attract new migrants, bolstering population growth and housing starts" for the foreseeable future. Clearly, Saskatoon finds itself in the midst of a new era of sustained economic development and prosperity.

The City's Projected Growth Concept Plan identifies and anticipates future growth areas in the west, northeast and southeast corners of the City, effectively rounding out development on both sides of the South Saskatchewan River. The way in which the City responds to this growth will ultimately determine how successful it and the community may become.

As the Project Sponsor, the municipality of Saskatoon was established pursuant to the Cities Act, S.S. 2002 Chapter C-11.1 duly authorized by resolution of Council Clause G1, Administrative Report No. 4-2010, as represented by the Mayor of the City of Saskatoon. The Standard & Poor's currently assigns a AAA credit rating to the City, demonstrating a strong fiscal position.

## 2.2 Strategic Alignment and Priority

### 2.2.1 Public Transit Operation

Saskatoon Transit is a branch of City's Utility Services Department. It provides basic high quality service for all citizens. Discounted passes are offered to citizens with low income to assist with their transportation needs. Saskatoon Transit is building its service to attract people away from the automobile. Strong transit ridership reduces greenhouse gas emissions and is inherently a cost effective mode of transportation. It operates twenty four bus routes along approximately 276 kilometres of streets and Access Transit. Transit's fleet size is 178 buses including 59 conventional buses, 78 low-floor buses, 8 low floor diesel/electric hybrid buses, 3 articulating buses, 4 mid-sized low floor buses, and 26 Access Transit buses.

Saskatoon Transit, owned and operated by the City of Saskatoon, currently conducts all of its operations out of four facilities that are decentralized throughout various parts of the city (mainly in the South Caswell Hill residential neighbourhood). Details on location and functionality of these facilities are listed below:



- **The building complex bounded by Avenue C to Avenue D and 24rd Street to 25th Street.** This series of connected buildings contains the primary bus maintenance, repair and rebuilding activities.
- **The building complex bounded by Avenue C to Avenue D and 23rd Street to 24th Street.** The largest area of this two storey building is for bus storage with an adjacent service and wash lane. The second floor consists of administrative and support service offices, including training spaces, uniform storage and fitting areas, management offices and limited mechanical areas.
- **46th Street East building.** This building is temporarily shared with the Access Transit to accommodate overflow vehicles. Saskatoon Transit also utilizes the building as a body shop and for vehicle painting operations.
- **Customer Service Centre and downtown terminal.** This facility is located in the core of Saskatoon's downtown and the primary functions are Transit pass sales, customer inquiries/complaints, and downtown transfer hub for passengers.

## 2.2.2 Infrastructure Service Department

The Infrastructure Services Department is currently located in the Saskatoon Downtown area (the Warehouse District) and is responsible for the planning, designing, operating, and maintaining many of the City's assets including the water distribution system, sanitary sewage collection system, storm water collection system, roadway system, river and roadway bridges, and vehicle and equipment fleet. Specific branches under this Department and a brief description of their responsibilities are listed below:

- **City Yards (Public Works) Branch** is responsible for the operation, maintenance, and preservation of roads, lanes, sidewalks, watermains, sanitary sewer mains, and storm sewer mains.
- **Construction and Design Branch** acts as an 'in-house' civil engineering service, providing functional and detailed design, construction and regulatory services.
- **Strategic Services Branch** was established in order to separate time consuming long-term strategic functions from day-to-day operations.
- **Transportation Branch** provides planning, design, regulation and operation of the City's transportation network.
- **Vehicle and Equipment Section of the Facilities Branch** is responsible for the purchase, repair, and maintenance of the City's vehicle and equipment fleet.
- **Radio Shop Operation of the Facilities Branch** is responsible for the corporate trunked radio system, serving 15 user groups using 1,600 portable and mobile radios.

## 2.2.3 City's Salt Management Plan

In 2001, Environment Canada released an assessment report stating that road salts are entering the environment in large amounts and are posing a risk to plants, birds, fish, lake and stream ecosystems and groundwater. Environment Canada further issued a "Code of Practice for the Environmental Management of Road Salts", with the objective to ensure environmental protection while maintaining roadway safety. This Code made two main recommendations<sup>1</sup>:

1. The development of salt management plans, based on a review of existing road maintenance operations, identification of means and goal-setting to achieve reductions of the negative impacts of salt releases; and
2. The implementation of best management practices in the areas of salt application, salt storage and snow disposal, as outlined in the Transportation Association of Canada's Syntheses of Best Practices.

In accordance with the Code and consistent with Environment Canada's stated objectives, the City's Infrastructure Services Department developed a Salt Management Plan in 2005. The Plan set out a policy and procedural framework, proposing strategies to minimize the amount of salt entering into environment,

<sup>1</sup> Source: <http://www.ec.gc.ca/sels-salts/default.asp?lang=en&n=f37b47ce-1&printfullpage=true>

such as including best salt management practices, and using new technologies to ensure most effective use of salt over the road system.

The Plan further calls for environmental review to improve the snow storage site selection and management. Assisted by External advisors (UMA Engineering), the City carried out a detailed assessment of potential snow disposal sites in 2006. Considerations were given to land use, site compatibility, area of site, flexibility for future expansion, operational needs (e.g., haul distances), site drainage system, and etc. To build the permanent snow salt-laden run-off decontamination facility that is well engineered and monitored within the larger Civic Operations Centre will enable the City to meet all these criteria and align its operation with the best practice of road salt management. Furthermore, the City is investigating the possibility of using low-grade heat from the landfill or other nearby heat source (e.g., river water) to melt the snow on the site, which will further reduce the usage of salt.

## 2.2.4 Summary

Both the Public Transit Operation and the Infrastructure Service Department are strategically important for the City and have direct impact on the City's ability to fulfill its commitment to better serve the residents in Saskatoon. Due to their capacity constraints, the City has been provided with a mandate, by City Council resolutions, to proceed with plans to relocate the Public Transit Operation and the Infrastructure Service Department to the new Civic Operations Centre. Council believes that these moves will also provide an opportunity to improve the land use where these facilities are currently located and redevelop existing sites in a manner that support, sustain, and enliven their surrounding neighbourhoods.

To build a permanent snow salt-laden run-off decontamination facility that is centralized, engineered and monitored is one of the best practices suggested by the Salt Management Plan. It will significantly improve the City's winter maintenance activities while striving to reduce the impact of road salt on the environment.

All these initiatives are aligned with the City's Mission Statement and Strategic Goals<sup>2</sup>, excerpts of which are presented below:

| Mission Statement  | Strategic Goals  |
|--|--|
| <p>Our Corporation, the City of Saskatoon, exists to provide excellent local government through leadership, teamwork, partnership and dedication to the community.</p> <p>We will be innovative and creative in the efficient and effective delivery of public services for the economic, environmental, social and cultural wellbeing of the community.</p> | <p>The transportation network includes an accessible and efficient transit system and a comprehensive network of bike routes. People still use cars, but they also rely on public transit, walking, cycling and other alternative modes for moving around.</p> <p>Saskatoon's growth is environmentally and economically sustainable and contributes to a high quality of life. The city has grown upward and outward, balancing 'greenfield' development with significant 'infill' development in key locations.</p> <p>Saskatoon is a green city that exists in harmony with nature, conserves resources and consistently demonstrates environmental leadership.</p> |

Council has identified the Public Transit Operation, Infrastructure Services Department and the Snow Salt-laden Run-off Decontamination Facility as a priority, and has approved related funding plans. Summary of needs assessment and more details about the Civic Operations Centre will be further discussed in the following Sections of this Business Case.

<sup>2</sup> Source: "City of Saskatoon Strategic Plan 2012-2022", adopted by City Council on February 6, 2012.

## 2.3 Summary of Needs Assessment

### 2.3.1 Relocation of Public Transit Operation

Through a series of studies conducted by both City staff and external advisors, the City has come to realize the necessity to relocate its Public Transit Operation facility and centralize its services within one strategically positioned location with the Civic Operations Centre that is compatible with anticipated expansion plans and operational needs.

Projected growth within the City, resulting traffic volumes, as well as the City's desire for "greener" developments will increase the demand for Saskatoon Transit services and will ultimately require additional routes and buses within the City. However the current facilities have serious capacity constraints and are already inadequate to meet current needs. The current site has no room for expanding and as such will be inadequate to meet the increasing demand for bus storage, maintenance and operation.

For instance, due to significant lack of paved staging and testing areas, the current facilities require the use of City streets. The circulation of transit vehicles between different transit functions also requires City streets adjacent to the 24th Street. This is not acceptable in terms of traffic, safety, noise and potential liability issues. The traffic management and safety goal for transit facilities is to separate bus movements, car movements, pedestrians and delivery vehicle movement from both public traffic and each other.

Also due to the space constraint, diesel fuel is dispensed in the service lane and bio-diesel is manually mixed in a holding tank prior to fuelling. This is not in compliance with best practices which require fuelling and servicing activities to be located in separate areas for both fire risk and ventilation considerations.

The above needs are reinforced by Saskatoon's desire to redevelop the neighbourhood in Caswell Hill. The Caswell Hill Local Area Plan was completed in November 2001 by the City's Community Service Department and included many recommendations that were adopted by the City Council. These recommendations focused on the following issues identified by the neighbourhood:

- Deficiency of park space;
- Traffic calming and neighbourhood safety;
- Desire to establish a "creative hub" for the local arts community; and
- Land use incompatibility (industrial zoning vs. residential uses).

The vision for the redevelopment of Caswell Hill is to establish a unique mixed-use area within the City that will support the local arts community, provide additional parks and open space areas for residents, and provide affordable housing options for a range of people. To relocate the current Transit facilities was deemed as a critical step to realize this goal. Subsequently, the City retained AECOM Canada Ltd. in late 2009 to carry out an independent study to determine an optimum new location for the transit facilities, as well as an appropriate building size and conceptual design. Several alternative locations as well as their advantages and disadvantages were examined in the AECOM report.

### 2.3.2 Relocation of Infrastructure Service Department

Needs were also identified to relocate the Infrastructure Service Department from its current location in the Saskatoon Downtown area to a centralized service facility, to increase its capacity and meet the demand from continuous population and economic growth in Saskatoon.

City's internal estimates indicate that as of July 1, 2010, Saskatoon's population has reached 227,327. Growing at 2.5% a year, the population is anticipated to become nearly 265,000 by year 2016. In addition, Saskatoon is increasing its capacity of major street networks. Both the Major expressway (Circle Drive) and the arterial network are increasing in size with extra lanes, new roads and signals. The expressway system itself is increasing by about 25% and the arterial network has increased about 7-10% from 2006 to 2011.

Again, such needs to meet the requirement of population and economic growth are reinforced by the City's desire to boost the commercial/residential infill development in the downtown area, which is still perceived to be "industrial" with the City Yards occupying a large portion of the lands directly north of the Warehouse District. The Warehouse District Local Area Plan was developed by the City's Community

Service Department and presented to City Council in October 2002. This local area plan was founded on the premise that change needs to happen to ensure the long-term success of the downtown area. It facilitated an exchange between private sector interests and public sector responsibility and served as the first in-depth study of the district. The City Council adopted many recommendations, one of which was to pursue the relocation of the Infrastructure Service Department and subsequently create a Downtown Warehouse Development Incentives Program to offer tax incentives for all types of development within the Warehouse District.

Faced with the potential to more than double its population over 50 years, Saskatoon is at a critical point in its evolution. It has the opportunity to learn from other cities where rapid outward growth has had negative consequences, such as high infrastructure and servicing costs, increase in traffic congestion and lack of investment in the core. By balancing low-impact “greenfield” development at the city’s edges with sensitive “infill” development, the city can realize many benefits, including: lower infrastructure and servicing costs, more housing diversity, more support for small businesses, the revitalization of declining areas, and more support for transit, walking and cycling.

In 2009 Stantec Inc. was retained by the City to investigate the space required for the future growth of Infrastructure Service Department and the needs for a new site. The Stantec report compared two relocation options: the Southwest Industrial Neighbourhood through a multi-phased development versus acquiring another site with sufficient land area to develop all phases together. Both options were discussed in terms of growth management, long-term flexibility, operating cost implications, and capital cost implications. The final recommendation was to acquire a larger site, which will allow for more freedom to create a master plan to accommodate future growth. It will also allow the design of infrastructure, site development and building forms that respond more efficiently to the functions they serve than to the constraints of a small site.

### **2.3.3 Snow Salt-laden Run-off Decontamination Facility**

During the course of winter, the snow built up along roadways can be contaminated with salts or other ice control chemicals, oil and grease, heavy metals, litter and debris, as well as normal dirt, dust and airborne pollutants. These contaminants must be treated before they are discharged back into the environment to avoid hazard to the public and impairing winter maintenance operations. Although the least expensive approach is to handle and dispose of the snow close to where it accumulates, which typically works well in rural areas with plenty of roadside storage capacity, it is not a practical option for a fast-growing urban area, such as the City of Saskatoon.

As long as a dedicated snow dump site is accessible within a reasonable haul distance, the Syntheses of Best Practices (TAC, 2003) also doesn’t recommend using mobile snow melters to melt the snow at the roadside and dispose of the meltwater through the storm water sewer system, especially given concerns around the capacity of existing storm water sewer system and the contaminants. As such, one alternative suggested is to remove the accumulated snow by transporting and melting it in a place where it can be handled, stored and disposed of in an efficient and environmentally responsible manner.

The City hauls and disposes of approximately 10,000 – 12,000 loads of snow every year. However, it only has 4-6 unimproved, temporary snow dump sites to store and dispose of the snow. The locations of these existing dump sites were not selected to achieve optimal hauling efficiency. These sites also have not been engineered nor monitored to identify the environmental impact of their operations.

Embracing the concepts from the Salt Management Guide (TAC 1999) and Syntheses of Best Practices (TAC, 2003) developed by the Transportation Association of Canada, the City’s Salt Management Plan set out implementation guidelines to carry out environmental review of snow storage areas to improve site selection and management of practices that impact the environment.

In 2006, UMA Engineering (a legacy AECOM company) was engaged by the City to complete a preliminary design for a permanent snow dump site. In accordance with the Plan, the study divided the City into four quadrants and site selection criteria included land use, haul routes, site compatibility, area of site, flexibility for future expansion, and etc. A total of 20 sites across the City were accessed and ranked. A number of shortlisted sites were identified and pending resolution to land acquisition.

In late 2010, the City purchased a 180 acre parcel of land in Saskatoon's south west quadrant (as show in Section 2.4.3). The proximity to the Circle Drive South roadway network, which is currently under construction and slated to open for traffic in September 2012, will provide the site with direct access to all areas of the City, including the downtown districts.

The City has been using a small area in the south western corner of the COC site for temporary snow storage. This corner is where the proposed Snow Salt-laden Run-off Decontamination Facility is going to be located, as part of the bigger COC project. The City believes that this facility, once completed, will significantly increase the City's ability to manage meltwater and debris to meet the current and future operation requirements. It will also enable the City to minimize the impact of snow contaminants, including the road salt, on the City's environment.

## 2.4 Description and Scope

### 2.4.1 Civic Operations Centre Project

Based on findings from both the AECOM reports and the Stantec report, the City has decided to move and consolidate the Public Transit Operation and the Infrastructure Service Department, together with relevant facilities (such as the permanent Snow Salt-laden Run-off Decontamination Facility), into one centralized new location with easy access to major freeway networks. The decision was made to achieve the following major objectives:

- To improve cooperation and coordination between services, facilitating the sharing of resources, tools and equipments, administrative and meeting space, and support functions such as mechanical services;
- To reduce costs and improve service quality through increased efficiency and productivity; and
- Gain direct access to the South Bridge and Circle Drive road system, which will enable both departments to move equipment, materials, people and vehicles more quickly across the City.

Supported by the Council resolution, the City purchased a 180 acre parcel of land in late 2010. The proximity of this site to the Circle Drive South roadway network makes this site strategically well positioned for direct access to all areas of the City.

The proposed COC project will eventually include the following components:

- Saskatoon Transit Headquarters. As the replacement of current transit headquarters located in the Caswell Hill neighbourhood, this facility will be used to provide all stages of maintenance, bodyshop, storage and office space required for Saskatoon Transit. This facility will consist of four segments: the bus storage building, the service lanes, the maintenance area and the administration area, which in total represent an area of 23,662m<sup>2</sup> (254,704 square feet). Each of the four segments is further discussed below<sup>3</sup>:
  - The bus storage building will be a large enclosed heated area for the storage of buses. The space is configured to accommodate 160 buses in a blend of 12m (40') and 18m (60') nominal length vehicles. The space will meet code and operational issues with heating and ventilation along with appropriate doors and circulation spaces.
  - The service lanes are the area where buses are fueled, cleaned and washed. It is where fare boxes are emptied and fare data is collected or downloaded. The area will house fuel pumps, drive through bus washers cleaning equipment and fluids for topping up. There are restrictions on this area for fire safety and traffic control.
  - The maintenance area or garage is the space where buses are serviced, maintained, repaired and inspected prior to returning to service. The work here includes full mechanical repairs, rebuilds, body work, painting and vehicle interior works. There is accommodation for mechanics included here and a significant stores area for parts, tires and consumables. The area will house both portable and in-ground hoists, access

---

<sup>3</sup> Source: "City of Saskatoon – Saskatoon Transit - Update of Estimated Construction Costs for Saskatoon Transit Operations and Maintenance Facility" by AECOM dated January 31, 2012

platforms, inspection pits, paint booth, and all other tools and specialty equipment, such as lathes and various machining tools as well as electronic diagnostics and repair tools to fabricate certain parts locally.

- The administration area will house the operational staff, management, and drivers areas. This will include locker rooms and rest areas for drivers, training rooms, meeting rooms, fare storage, uniform storage, administrative offices and dispatch areas. The main computer and communications equipment will be housed here as well.

The basic building is of steel frame construction with a combination of metal and masonry cladding on the exterior. The areas specific to bus storage, movements and maintenance will have painted exposed structures and be very industrial in nature. The facility will use a radiant heating system for all floors. In the bus storage area, this will put the heat where it is needed and be more efficient than heating through the HVAC systems.

All roof drainage can be collected, stored and used as the water source for the bus wash equipment. The exterior areas will have access points, staff parking areas and bus movement areas being separated for safety.

- Snow Salt-laden Run-off Decontamination Facility. This permanent facility will be 34.6 acres in size and will consist of the following key components that account for most of the required capital costs: surface storage area, drainage collection system, and melt-water storage pond and settling system. This facility will be utilized to store snow throughout the winter. As the snow melts, the melt water will be sorted and treated<sup>4</sup> prior to being discharged into the sewer system thus improving the quality of storm water effluent.

Access to the site is via an off-site roadway ramp connecting to the South Circle Drive freeway. Key features of the site will include<sup>5</sup>:

- Design for snow volume of 1,000,000 cubic meters and stockpile up to 10 meters high;
  - Trucks will dump the snow from west to east with peak hour traffic of 450 trucks/hours;
  - Surfaced with asphalt to facilitate site operation (movement of heavy trucks, drainage of meltwater), maintenance, and cleaning;
  - Perimeter lighting to ensure safe operation during night hours;
  - One way access and egress will be provided to minimize traffic conflicts during peak hours. Trucks will enter the site from the south and then exit to the north;
  - Site will be fenced to prevent uncontrolled dumping;
  - An on-site detention pond, with a storage volume of 50,000 cubic meters, will be used to recycle and treat snow meltwater for re-use. Treatments mainly consist of physical settling and/or chemically assisted clarification. A meltwater collection channel would convey the water to the pond. The pond will also provide some detention for summer rain fall events;
  - A sampling manhole will be provided for surface meltwater quality monitoring; and
  - Ground water monitoring wells may be included, dependent on the site ground water regime and geology.
- Biodiesel fuel distribution and storage facility. This facility will be used to store and distribute biodiesel fuel mix (5%) mainly to the City's Vehicle and Equipment Services. Given that the Saskatoon Transit Branch also has a Green Fleet initiative, this centralized facility can create additional efficiencies and economy of scales due to its proximity to both the new Vehicle and Equipment Services Section and the public transit facilities within the proposed COC site.
  - City's Vehicle and Equipment Services ("V&E Services") facility, and radio shop operation facilities. The V&E Services Section will be used to store and maintain the City's fleet of light and heavy duty units. Of this fleet, approximately one hundred units are considered heavy duty. As essential component of the Disaster Removal Team, the V&E Services heavy fleet is critical for the City to respond effectively to extreme weather and mitigate hazardous road conditions. An

---

<sup>4</sup> Snow treatment will follow standard industry practices, which typically includes the removal of oil, grits, salt, and other particular matter from the melt-water runoff prior to discharging into the sewer system.

<sup>5</sup> Source: "City of Saskatoon Civic Operation Centre - Snow Dump Site Conceptual Study" by AECOM (January, 2012). Final specifications will be based on industry standard and local regulations.

800MHz trunked radio system will also be housed in the proposed COC site. This radio system consists of approximately 1,700 mobile and portable radios. In case of emergencies the system will provide invaluable inter-agency communication among Fire, Police, Transit, RCMP and other public safety departments.

- Public Works storage yard. This covered storage yard will be used to store heavy equipment and vehicles required by Public Works Branch to operate, maintain, and rehabilitate roads, lanes, sidewalks, water mains, sewer mains, and storm water mains.
- Public Works facility. This building will house the light equipment and staff who are responsible for the operation, maintenance, planning and preservation of City's roads, lanes, sidewalks, water distribution, sanitary sewer, and storm sewer system. It will house the Environmental Services Branch staffs who are responsible for the environmental programs, recycling, waste bylaw enforcement, garbage collection, landfill operations, departmental labs, and environmental management system. It will also house the Construction and Design, Strategic Services, and Transportation branches under the Infrastructure Services Department. Responsibilities of these branches include data collection, monitoring of Intelligent Transportation System, network modeling and public consultation.

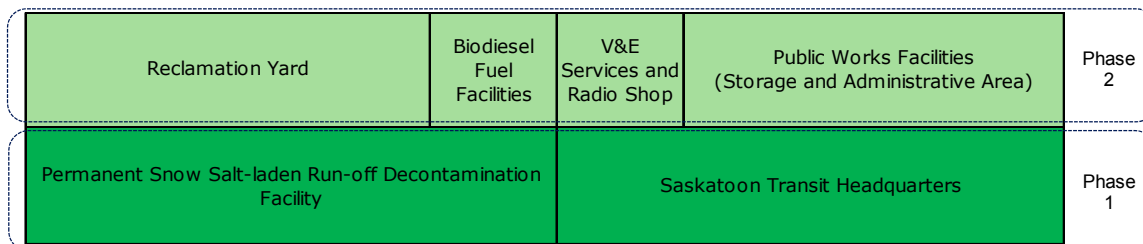
An exciting project for all parties involved, the COC will eventually result in more effective and efficient operations of Public Transit and Infrastructure Services Department. It will also contribute to the City's Salt Management Plan and facilitate the revitalization of the Caswell Hill neighbourhood and the Warehouse District in Saskatoon.

## 2.4.2 Phasing of COC

The proposed COC project will become one of the largest infrastructure projects in Saskatoon's history. The City staff are working to examine all possible delivery methods to ensure that all the expected social, economic, and environmental benefits can be achieved in an affordable manner to Saskatoon's residents.

In light of budgetary constraints and varied urgencies faced by the City to build different components of COC, Saskatoon has decided to take a phased approach to deliver the COC. Specifically, the entire COC will be built over two phases. As illustrated in the Figure 1 below, the Transit Headquarters and the permanent Snow Salt-laden Run-off Decontamination Facility will be built in phase 1 ("COC Phase 1"), while the remainder of COC will be built in phase 2 ("COC Phase 2").

**Figure 1 – Building COC in Two Phases**



*Note: Different COC components in the above chart are not scaled and therefore not reflective of their respective area or cost.*

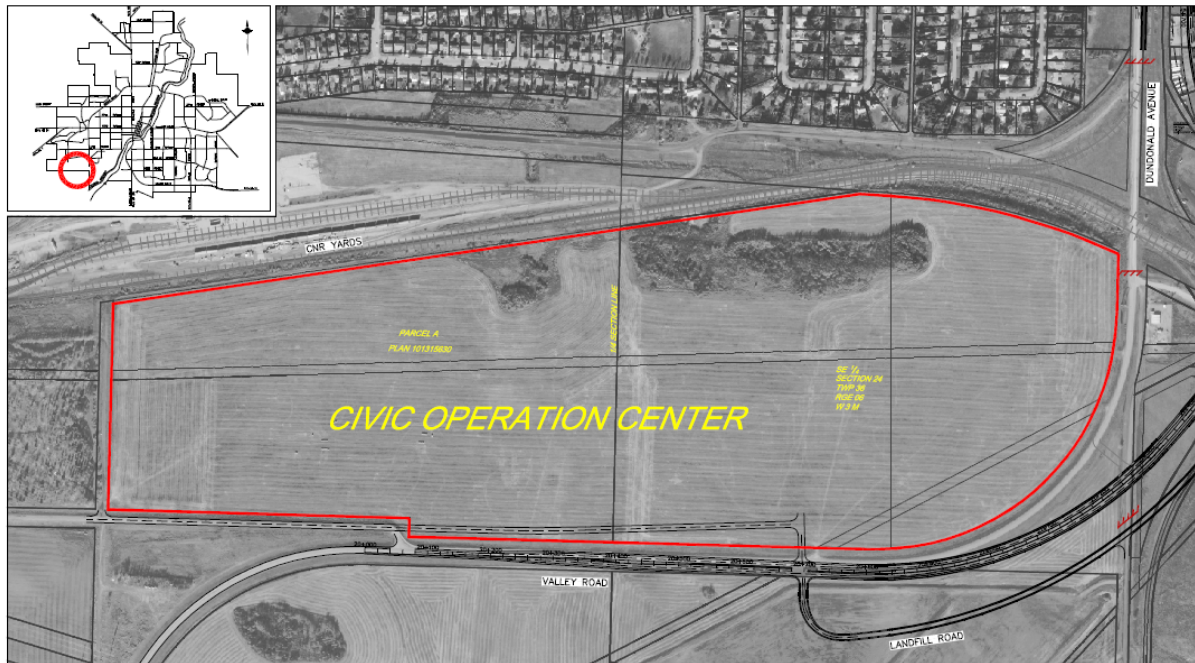
This phased approach will provide flexibility for the City to mobilize its resources and stay focused on the components that are in most urgent needs. It will also provide an opportunity for City staff to assess the methodology and concepts of Public-Private-Partnership ("PPP" or "P3") and for the residents of Saskatoon to better understand the benefits of P3 before the City proceeds to COC Phase 2. Most importantly, regardless of how Phase 1 is built, procured (with / without a PPP) and funded, the City needs to ensure that its broader long-term strategic needs regarding Phase 2 will be met.



### 2.4.3 Location of COC

The proposed COC will be situated on a 180 acres land parcel the City purchased in late 2010, along Valley Road south of the CN rail yard and west of Dundonald Avenue. The aerial view of the entire COC site is shown in Figure 2 below.

Figure 2 – Aerial view of the COC site

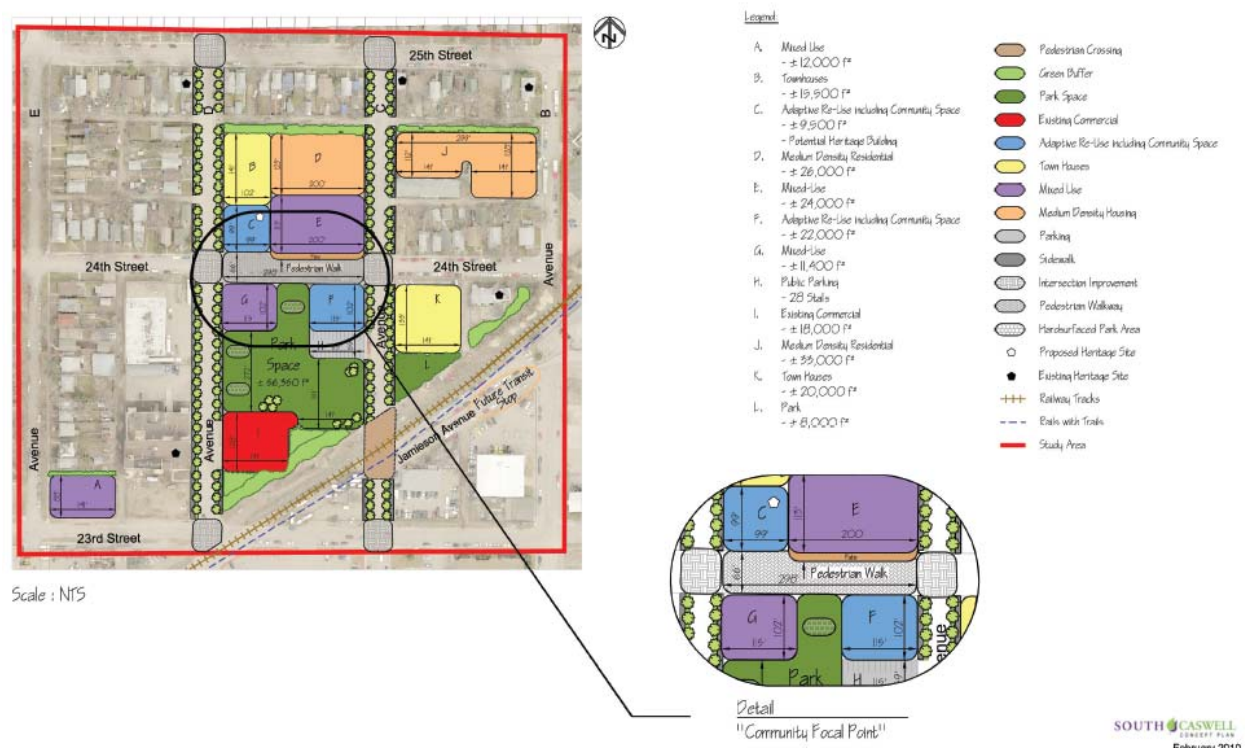


### 2.4.4 Ancillary Land Redevelopment

After the Public Transit Operation Facilities are relocated from the South Caswell Hill area to the proposed COC, the City-owned land (approximately 5 acres) and buildings will become vacant and subject to redevelopment. Based on the land use concept plan guiding the redevelopment over the next five to ten years, the City has assigned priority to building a park and a community center within the vacant land. It is envisioned to have the park on the south side of 24<sup>th</sup> street where the current bus storage is located, and have the current Public Transit office buildings adapted into a community center to support local art communities. The map of land use concept plan presents a preliminary vision for this area (Figure 3). Within the map, component C and F refer to potential community space. Component L and the green area to its left refer to the potential park area.



**Figure 3 – Map of South Caswell Hill Land Use Concept Plan**



It is estimated to cost \$1 million to construct the park and adapt existing buildings to the community space. The City intends to retain its ownership for both the park and community center. The remainder of the developable land (approximately 4 acres), however, will be left for other development, such as town houses, mixed uses and parking. The City is flexible and open to different types of land uses proposed by private developers (with the exception of industrial purpose). This business case will examine different options to bundle the Caswell Hill redevelopment with the COC project (refer to Section 2.11 Market Sounding).

## 2.4.5 Project Schedule

Assisted by external advisors, the City has developed a preliminary schedule<sup>6</sup> to track the progress of Project delivery (see Table 1 below):

**Table 1: Preliminary Project Schedule for COC Phase 1<sup>7</sup>**

| Procurement Stage                            | Estimated Date / Duration |
|--|---------------------------|
| Business Case Presented to PPP Canada Board  | Fall 2012                 |
| Release RFQ                                  | Q1-Q2 2013                |
| Release RFP (and draft concession agreement) | Q3 2013                   |
| Select preferred bidder                      | Q3 2014                   |
| Target financial close                       | October 31, 2014          |
| Construction commencement                    | November 1, 2014          |

<sup>6</sup> The schedule is subject to Council approval. Despite its preliminary nature, the same schedule above is applied to different delivery options in our analyses. As such, any variation from this schedule (other than changes in construction term and operation term) shall not affect our recommendation on the optimal procurement method.

<sup>7</sup> Only COC Phase 1 will be examined for the purpose of this Business Case. The Business Case is not intended to recommend on the optimal procurement model for COC Phase 2.

|                         |                 |
|-------------------------|-----------------|
| Construction term       | 2 years         |
| Construction completion | October 31 2016 |
| Operation commencement  | November 1 2016 |
| Operation term          | 25 years        |

The City has recognized the impact of the next general election (scheduled for the fall of 2012) on the project schedule and therefore has pushed forward the RFQ release to March/April 2013. Sufficient time buffer has also been built in the above schedule, e.g., nine months of RFP open period, to sustain any potential delay risks (e.g., PPP is relatively new to the City), and to better align the project schedule with both the City's fiscal cycle and PPP Canada's funding cycle. The detailed procurement schedule can be found in Section 6.1.

## 2.5 COC Objectives and Benefits

The proposed COC, once successfully completed, will become the City's first P3 project and will demonstrate and encourage the use of P3 for future projects. In addition to the objectives that are presented in Section 2.4.1, the COC will create significant public and social benefits demonstrated below:

- The new public transit facilities will address many drawbacks of existing facilities, which:
  - are decentralized and have minimal amenity areas for mechanic and maintenance staff;
  - are bounded primarily by residential land-uses and necessitate the use of local city streets to move vehicles, resulting in unnecessary congestion and traffic issues;
  - generates intrusive noise and poor quality air for adjacent residential neighbourhood; and
  - have outdated configuration not suitable for future growth.
- The relocation of the transit facilities from Caswell Hill will help to improve mobility, increase efficiency, and contribute to sustainable municipal development and land-use planning. It will also help to improve safety by removing the fueling function for the bus fleet out of residential area. The proposed COC is strategically positioned to have better access to the roadway networks, resulting in reduced travel time and Green House Gas ("GHG") emissions.
- The permanent Snow Salt-laden Run-off Decontamination Facility will reduce the overall usage of road salt. It will pre-treat the melt water before discharging into the sewer system, thus improving the quality of storm water effluent. The City also plans to harvest and re-use the grey water to wash the buses, flush the toilets and meet other non-potable water requirements, further aligning this facility with the City's commitment to becoming a sustainable community.
- The biodiesel fuel distribution and storage facilities will be an essential component to the V&E Services Green Fleet Policy implementation plan, which introduces a five percent biodiesel fuel mix to reduce the City's GHG emissions by approximately seven percent a year. Given that the City's Transit Branch also has a Green Fleet initiative, this centralized facility can create additional efficiencies and economy of scales due to its proximity to both the new Vehicle and Equipment Services Section and the public transit facilities on the COC site.
- City's V&E Services heavy equipment fleet is essential to ensure that the City can respond effectively to snow events and mitigate hazardous road conditions and ensure the roads are open for Fire, Police and ambulance, as well as the City's citizens. The V&E Services heavy fleet is also an essential component of the Disaster Removal Team, as these teams are directed through the Emergency Operations Centre to remove debris that may be blocking roadways and preventing Fire, Police and ambulance from attending emergencies.
- The radio shop facilities are considered mission critical, and are widely used by Fire, Police, Transit and most civic departments. It has the ability to "patch" communications to the RCMP, MD Ambulance, Department of Corrections, Public Safety and Policing, and the University of Saskatchewan. This interoperability feature is critical in dealing with emergencies that require inter-agency communication.
- The relocation of equipment and staff (Infrastructure Service Department) from the existing Warehouse District will create an opportunity for the City to nurture this district from "a forgotten urban core to a vibrant people place that supports arts and culture, in harmony with a variety of mixed uses".

Saskatoon already has a number of policies in place to support the sustainability and to measure the success of development, including the Salt Management Plan, the Official Community Plan (Bylaw 8769), a Strategic Plan, an annual business planning process, and an Energy and Greenhouse Gas Management Plan. For example, the Official Community Plan provides the framework to define, direct, and evaluate the development in the City, ensuring that the development takes place in an orderly and rational manner, balancing the environmental, social, cultural, and economic needs of communities.

All these policies will be used to guide City's continuous effort in measuring the above public and social benefits and provide a necessary feedback mechanism to ensure that the development is consistently aligned with the City's strategic objectives.

## 2.6 Summary of Feasibility Study

A Phase II Environmental Site Assessment ("Phase II ESA") has been conducted by Stantec on the COC site in early 2012, with the objective to confirm the presence, or absence, of potential contaminants of concern at the site and to further delineate the impacted soil and groundwater, if encountered<sup>8</sup>.

Given its methodology, the Stantec Report suggests that "the Site has not been impacted by on or off Site sources of potential contaminants of concern given the applicable receptors in the area of the Site", a preliminary result that is satisfactory to the City at this stage.

## 2.7 Investment Decision

Based on all the needs and merits demonstrated in previous Sections of this Business Case, City Council has identified the COC as an investment priority and approved associated funding plans. The City has also decided to explore the P3 delivery method, recognizing the following potential benefits realized through a P3:

- Risk transfer. Risks can be allocated to the party that is best able to manage them. Private financing helps secure the risk transfer as the payments will be deferred until substantial completion or made over the life of asset and linked with operational performance. Availability payments from the City will become at risk if the construction and/or operational performance does not meet specifications.
- Time and budget certainty. P3s provide greater certainty for the City to budget its fiscal plan. The fixed price submitted in the proposal requires the private partner to assume all price uncertainties over the life of the contract. The private partner will also have a strong incentive to complete the project within committed timelines because they will need the stream of performance based revenues to repay the capital costs or need the substantial completion payment to pay off the short term debt.
- Innovation. The City's requirements will be defined in output terms as part of the procurement providing opportunity for innovation. For example, shifting long-term operation & maintenance responsibilities to the private sector creates incentive to ensure long term construction and operations quality and innovation as it is responsible for those costs many years down the road.
- Bring construction forward. P3 will enable the City to defer the cost of infrastructure investment and/or spread it over the lifetime of the asset, creating more budgetary room for simultaneous capital projects.
- Accountability. P3 will provide the City with single point of accountability for the asset and its performance over the full construction and maintenance period, as well as the asset condition at the end of the term. Performance standards will be clearly defined and payment is linked to the private partner's ability to deliver against these standards.

---

<sup>8</sup> Source: "Phase II ESA – Portion of South ½ 24-36-06 W3M: Future Civic Operation Centre" by Stantec Consulting Ltd. ( February 2012)

- Undeferred maintenance. P3s facilitate long-term maintenance of infrastructure by transferring maintenance requirements to the private partner. Conversely, the P3 will require the City to invest in the full life-cycle of the project, reducing the possibility of maintenance deferrals.

To determine whether or not the COC is a suitable P3 candidate, the City has considered all aspects of the project and benchmarked each against a series of screening criteria (see Table 2 below):

**Table 2: High-level P3 suitability screening criteria**

| Category                  | Criteria  | Yes/No |
|---------------------------|---|--------|
| <b>Contract Bundling</b>  | Is there potential to bundle a number of contracts into a single long term contract?                                      | Yes    |
| <b>Demand Consistency</b> | Will the performance requirements and use of the project be relatively stable over time?                                  | Yes    |
| <b>Duration</b>           | Is the service life of the capital asset at least 20 years?   | Yes    |
|                           | Is there a long term maintenance, operation, or service need associated with the capital project?                         | Yes    |
| <b>Innovation</b>         | Is there scope for innovation in the design of the solution and/or the provision of operation, maintenance, and services? | Yes    |
| <b>Legal Barriers</b>     | Are there any legislative or regulatory prohibitions to a P3 approach for the project?                                    | No     |
| <b>Market</b>             | Are there likely to be a sufficient number of bidders for the project if it is procured as a P3?                          | Yes    |
|                           | Are there precedent projects in other jurisdictions?  | Yes    |
|                           | Does the private sector have the expertise to deliver on the performance specification?                                   | Yes    |
| <b>Payment</b>            | Can payment be tied to measured performance?  | Yes    |

The result of this assessment suggests that the COC is potentially a good P3 candidate, and the City has demonstrated strong commitment to delivering the project using a P3 model.

In the following Sections, this Business Case will further assess and compare the traditional delivery procurement method and various P3 delivery options to make a recommendation that best suits the City's objectives and constraints.

**As noted in Section 2.4.2 of this Business Case, the analyses included in the following sections will be focused on COC Phase 1. Accordingly, the funding support that the City seeks from PPP Canada in this Business Case will be based on COC Phase 1 only.**

**This Business Case is not intended to assess and recommend on the optimal procurement model for COC Phase 2.**

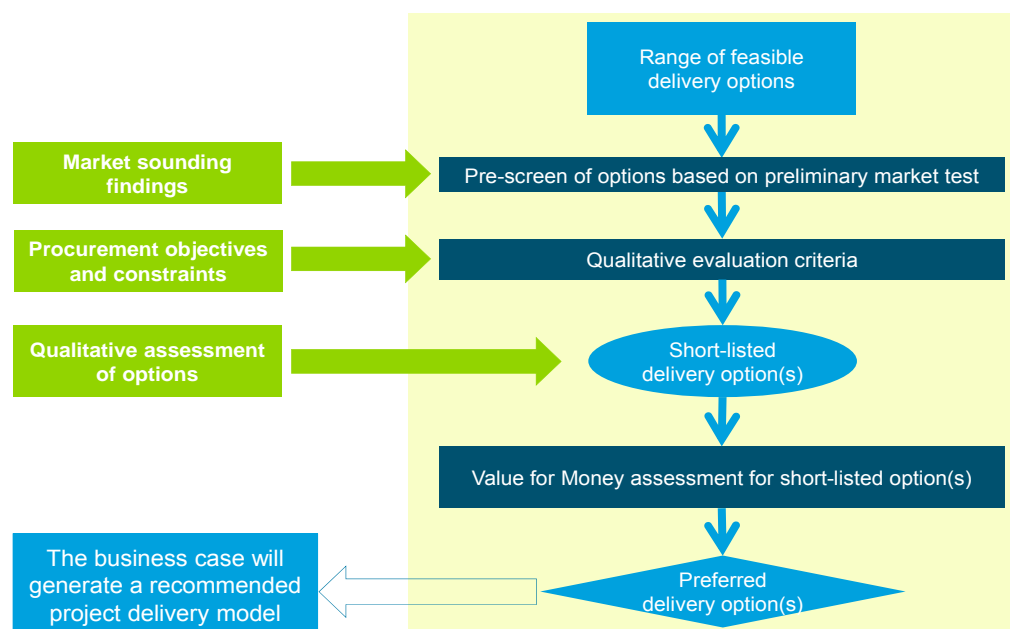
## 2.8 Decision Making Process

Procurement delivery models refer to the manner in which the public sector contracts with a private sector partner to deliver an infrastructure project. There exists a range of potential delivery models from conventional public sector-led design, tender, construct and operate models to P3s involving varying levels of responsibilities and risks allocated between the public and private sector. As mentioned in Section 1.3, one of the main objectives of this Business Case is to determine the preferred delivery model that:

- Appropriately allocates the COC Phase 1 risks to the party best able to manage them;
- Is commercially viable; and
- Results in value for money for the City as the project sponsor.

Figure 4 illustrates the methodology utilized to select the recommended model for the Project.

**Figure 4 - Project Delivery Option Assessment Process**



The process entails screening all identified options against the stated project goals, objectives and constraints to ensure that the ultimate recommendation will at a minimum meet these parameters and requirements. The second screening of options is applied based on the results and insights gathered during the market sounding test. The market testing is intended to assess the extent to which each option is likely to attract sufficient private sector interest for it to be considered a viable delivery model for the COC Phase 1. The short listed delivery options are then put to the final test, a Value for Money ("VFM") assessment which will confirm whether the short-listed options are expected to generate positive value for money relative to the traditional delivery model. Confirmation of positive VFM will thus enable the identification of the preferred option(s) for the COC Phase 1. The optimal delivery model will then be recommended as the one that drives the highest value for money, working within the project's goals, objectives and constraints.

This Section of Business Case targets to generate a short list of delivery option(s) which will be further tested in terms of VFM in Section 3.

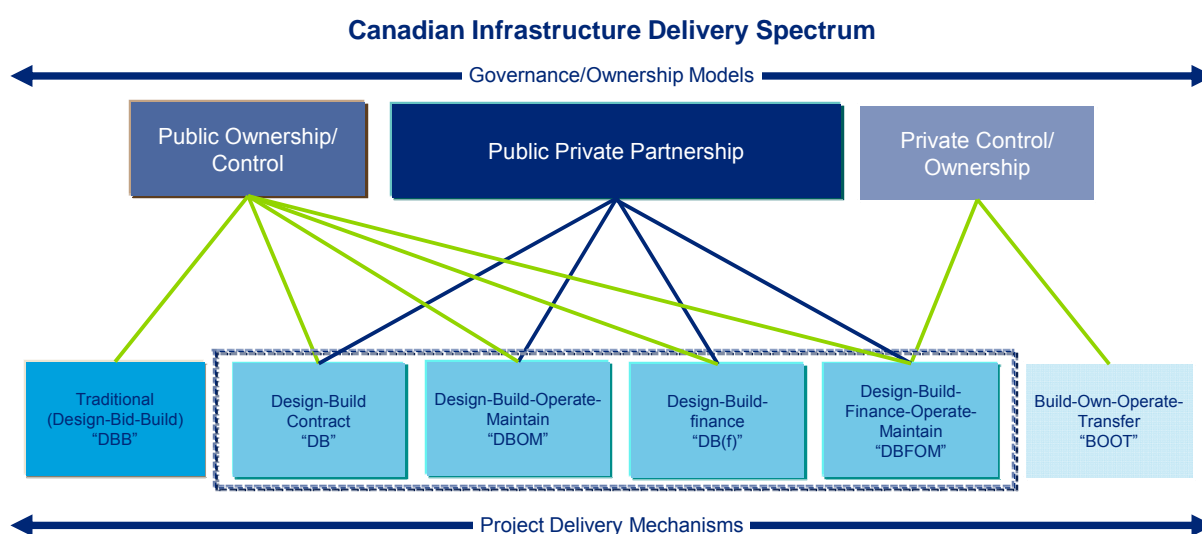
## 2.9 Potential Delivery Options

At a high level, delivery of an infrastructure project includes design, construction, maintenance and/or operation of the asset(s) as well as financing of construction. Project delivery options generally differ from one another in terms of:

- Allocation of responsibility for design, construction and maintenance; and,
- The timing and method of paying the private sector partner, and whether the selected timing and method of payment is deferred thereby requiring the private sector to obtain financing.

For COC Phase 1, Deloitte has identified a long-list of delivery options as set out in Figure 5 below. These options are based on market knowledge and experience as well as case studies of similar projects from other jurisdictions. Generally speaking, most infrastructure delivery models in Canada fall in the middle of the spectrum and stop short of full privatization, i.e., P3. A P3 arrangement allows the public sector to transfer risks to the private sector that it does not wish to or is able to manage.

**Figure 5 – Long List of Delivery Options for COC Phase 1\***



\*: The City does not intend to transfer the operation and maintenance of its Transit system (i.e., the bus fleet) to a private contractor, in order to avoid complex policy issues and to stay focused on a target P3 market. The "Operational" components under consideration in this Business Case only refer to the facility management (mechanical and electrical systems), monitoring the storm water quality, dredging, cleaning and disposal of sediments for the Snow Salt-laden Run-off Decontamination Facility.

The DBB, DB and DBOM options do not require any significant financing from the private sector partner. The DB(f) option only requires short-term private financing, while the DBFOM option requires both short and long-term private financing. A description of each of these project delivery options is provided below.

### 2.9.1 Traditional Public Sector Procurement Approach (Design - Bid - Build (DBB))

Under this option, the public sector leads the design and construction of the asset in a sequential manner. The public sector will first procure the design of the asset, either through its own public works department or from a private sector design firm. Following the completion of the design documents, the public sector will then tender the construction works based on the completed design, usually on a low-bid basis. The public sector must assume all risks associated with the design, to the extent that it cannot recover from the design firm. In particular, design coordination issues that increase construction costs typically fall to the public sector under this delivery option. During construction, the public sector must manage and oversee the general contractor. If the construction works have been contracted out to more than one general contractor, the public sector must also coordinate the contractors.

The public sector pays for the asset through progress or milestone payments to construction contractors during the construction period, based on work in place. Due to this method of payment, construction



contractors do not have to obtain significant amounts of private financing in order to carry out construction. Performance is secured through less liquid methods including performance bonding and limited construction warranties. At completion, the public sector leads the testing and commissioning process.

Following completion, the asset is turned over to the public sector which then assumes full responsibility for operations and maintenance (“O&M”). The method of budgeting and payment for O&M is carried out according to the public sector’s established practices. Under this Project Delivery Option, the public sector maintains ownership of assets at all times.

## **2.9.2 Design Build (DB)**

Under this option, the public sector contracts with a single private sector design-builder which carries out the final design and Engineering-Procurement-Construction (“EPC”) role for constructing the asset. This option integrates the final design and construction roles with one private sector firm, transferring design coordination risks to the private sector partner as well as compressing the schedule to the extent that design and construction can proceed contemporaneously. Under this model the private sector typically leads the procurement based on specifications provided by the public sector.

Similar to the DBB model, the public sector pays for the asset through progress or milestone payments to the design-build contractor during the construction period based on the value of work in place. Due to this method of payment, the design-builder does not have to source significant amounts of private financing. Performance security is also limited to less liquid methods including performance bonding and construction warranties.

Also similar to the DBB model, following completion, the asset is turned over to the public sector which then assumes full responsibility for funding and implementing O&M. Under this Project Delivery Option, the public sector maintains ownership of assets at all times.

## **2.9.3 Design Build Operate Maintain (DBOM)**

Under the DBOM model, the private sector has final design and construction responsibilities, and similar to the DB option, transfers design coordination risks to the private sector partner as well as compress the schedule to the extent that design and construction can proceed contemporaneously. The public sector pays for the asset through progress or milestone payments to the design-build contractor during the construction period and the design-builder does not have to source significant amounts of private financing. Performance security is also limited to less liquid methods including performance bonding and construction warranties.

However, this option differs from the DB in that the private sector would continue to be involved in the Project following substantial completion, providing O&M services for a long-term period typically 15-30 years in length. However, there is no long-term private financing outstanding during the 15-30 year O&M period. The private sector may be paid using a performance-based method during the term of the O&M period for its services. This payment is in respect of the O&M services only and does not represent private capital at risk.

The scope of services will generally include the operation, regular and rehabilitative maintenance of the asset. Under this option, the public sector maintains ownership of the asset at all times.

## **2.9.4 Design Build Finance (DB(f))**

Under this option, the public sector contracts with a single private sector design-builder which carries out the final design and EPC role for constructing the asset. This option transfers design coordination risks to the private sector partner as well as compresses the schedule to the extent that design and construction can proceed contemporaneously. Under this option’s payment mechanism, payments during construction are a combination of milestone, with a significant amount withheld until substantial completion is achieved. Therefore, the private sector partner must obtain construction financing from third party lenders. This payment mechanism provides a more liquid form of security for the public sector, since

payment for construction is performance-based in a sense that the contractor is not paid until it demonstrates compliance with the public sector's technical specifications for construction of the facility.

As with the DBB model, the asset is turned over to the public sector following completion, and the public sector assumes full responsibility for funding and implementing O&M. Under this option, the public sector maintains ownership of the asset at all times.

### **2.9.5 Design Build Finance Maintain (DBFOM)**

Under this option, the final design, construction, and long-term maintenance responsibilities are all integrated with the private sector partner. However, the private sector partner is not fully paid for construction of the asset following completion of construction, but is paid in installments over the length of the maintenance term (typically 15-30 years). Alternatively, the private sector partner may be partially paid for construction during construction and/or at substantial completion, with the remaining portion being paid in installments over the term of the agreement.<sup>9</sup>

After the asset is constructed, the private sector's scope of work includes operation and regular and rehabilitative maintenance of the asset. As noted above, the private sector partner will receive at least a portion of its payment via monthly payments throughout the length of the operation and maintenance term. The monthly payments include:

- A fixed capital repayment component, which effectively repays the private sector's long-term debt and equity investors for their financing of the construction works; and
- An additional O&M component to compensate the private sector partner for its ongoing operation and maintenance work. The payment is typically performance-based and is subject to deductions for failing to meet contractually specified performance standards. If deductions are quite severe, they may reduce the capital repayment component as well.

Therefore, the private sector has long-term debt and equity capital at risk throughout the term of the project<sup>10</sup>, which results in enhanced oversight and due diligence from third party private capital providers. Since the private partner will be responsible for major and minor maintenance (which is secured by the fixed capital payment component), the EPC component results in a more robust asset that is built to last the term of the contract. Under this Project Delivery Option, the public sector maintains ownership of assets at all times.

### **2.9.6 Build Own Operate Transfer (BOOT)**

Under this option, the private sector is fully responsible for final design, construction, financing, operation, and maintenance of the facilities and will typically receive payment through the revenue generated by the facility from the facility users and/or a fixed availability payment from the public sector. The private sector owns the asset during the operational period, and transfers the asset back to the public sector following the expiry of a defined operational period. It is rare to find this delivery method being applied to projects without any revenue.

---

<sup>9</sup> In most cases, the public sector provides partial payment for construction during the construction period via public capital contributions consisting of milestone payments and/or a lump sum payment on substantial completion, in order to reduce the long-term financing requirements. In this scenario, the private sector partner will utilize a combination of public financing (milestone payments), short-term private financing and long-term private financing in order to finance construction. Therefore, the private sector partner will be partially paid for construction of the asset during and/or immediately following the construction period, and will be paid for the remainder of the capitalized cost of construction through installments over the length of the maintenance term. Public sector capital contributions of this nature are relatively common in the North American P3 market, particularly on projects with high capital costs, and have been utilized on a number of recent comparable projects.

<sup>10</sup> Note that "equity capital" does not refer to ownership of the assets themselves. Equity capital, in this context, refers to the capital contributed by equity investors in the project company required by lenders to secure the debt financing (e.g. a "down-payment").



## 2.10 Pre-Screen of Options

### 2.10.1 Procurement Constraints

It is important to identify any constraints that could prohibit the City from pursuing certain delivery options. These constraints are described below:

- **COC Phase 1 needs to be under public ownership.**


The existing facilities and yards are under public ownership, and relevant operating budgets are approved by the City Council on an annual basis. It is anticipated that the COC Phase 1 would be in part funded through the increase of mill tax levied by the City. As such, the need to retain public ownership is related to the perception that the City would be funding a private sector owned facility through taxation. Private ownership would require that the private sector purchase the land again to avoid the perception of the public sector providing a private operator with any type of subsidy. In addition, the integrated nature of the COC will make it difficult to provide for partial private ownership – i.e. private ownership of the office buildings only and public ownership of the transit and other facilities.

- **Desire to pay for performance and require private sector to finance construction obligations.**

The City currently has limited capital to build the COC on its own and would need to obtain funding from various levels of government to complete this project. Having the ability to obtain a fixed price and withhold payment until substantial completion of the construction would allow the City to appropriately mitigate against possible construction risks, such as project delays, holding the private sector responsible for obtaining construction financing at a minimum and managing within a fixed budget.

Figure 6 below provides an assessment of the delivery options against the City's constraints defined above.

**Figure 6 – Procurement Constraints for COC Phase 1**



| Delivery options                      | Feasible ? | Explanation  | Potential implications (if the delivery option is selected)  |
|---------------------------------------|------------|--|--|
| Traditional DBB                       | No         | <ul style="list-style-type: none"> <li>• No private financing component involved.</li> <li>• Does not meet criteria to pay for performance.</li> </ul>   | <ul style="list-style-type: none"> <li>• City is required to raise financing on its own and to fund construction cost as and when they occur.</li> <li>• Lack of innovation or efficiency in the design and construction aspects.</li> </ul>   |
| Design-Build                          | No         | <ul style="list-style-type: none"> <li>• No private financing component involved.</li> <li>• Does not meet criteria to pay for performance.</li> </ul>   | <ul style="list-style-type: none"> <li>• City is required to raise financing on its own and pay as costs are incurred.</li> </ul>  |
| Design-Build-Operate-Maintain         | No         | <ul style="list-style-type: none"> <li>• Same as above.</li> </ul>   | <ul style="list-style-type: none"> <li>• Same as above.</li> </ul>   |
| Design-Build-Finance                  | Yes        | <ul style="list-style-type: none"> <li>• Would allow City to be under the ownership of the public sector and retain its operations.</li> <li>• City will pay private sector at substantial completion based on inspection against specifications.</li> </ul> | <ul style="list-style-type: none"> <li>• Private sector will be responsible to raise construction financing.</li> <li>• City will need to obtain funding at substantial completion.</li> <li>• City will retain its operations and maintenance services.</li> </ul>  |
| Design-Build-Finance-Operate-Maintain | Yes        | <ul style="list-style-type: none"> <li>• Similar to DB(f), with the exception that City will pay private sector over time.</li> </ul>  | <ul style="list-style-type: none"> <li>• Similar to DB(f), with the exception that City will transfer the operation and maintenance aspects of the facility to the private sector.</li> <li>• City will need to obtain funding at substantial completion (if substantial completion payment is required).</li> </ul> |
| Design-Build-Own-Operate              | No         | <ul style="list-style-type: none"> <li>• This delivery option falls under private ownership and will not allow for any public control.</li> </ul>  | <ul style="list-style-type: none"> <li>• Private sector would assume ownership of the facility.</li> </ul>   |

**Design-Build-Finance (“DB(f)”) OR Design-Build-Finance-Operate-Maintain (“DBFOM”) appears to best suit the City’s constraints.**

## 2.10.2 Procurement Objectives

Assisted by advisors, the City has also identified the following primary objectives to be achieved through an appropriately selected procurement method (see Table 3 below).

**Table 3 – Primary Procurement Objectives for COC Phase 1**

| Primary Objectives                 | Description   |
|------------------------------------|---|
| <b>Cost and Schedule Certainty</b> | There should be strong incentives in place for the construction to be completed on time and on budget, and the party responsible for construction should bear the consequences of delay and/or cost overruns. |
| <b>Risk Transfer</b>               | The City wishes to transfer appropriate risks to the private sector.  |
| <b>Performance Security</b>        | The private sector's performance should be assured through a liquid form of performance security which can easily be leveraged by the City if need be.  |

Both the DB(f) and the DBFOM options meet the primary objectives set out above and their alignments with these objectives are summarized below (Table 4).

**Table 4 – Alignment between City Objectives and Project Delivery Options**

| Primary Objectives                 | Explanation  | DB(f) | DBFOM |
|------------------------------------|--|-------|-------|
| <b>Cost and Schedule Certainty</b> | <ul style="list-style-type: none"> <li>Defers the majority of payment for construction until following the completion of construction. This provides strong incentives for the private sector partner to complete construction on time.</li> </ul> | √     | √     |
|                                    | <ul style="list-style-type: none"> <li>Fixed maintenance prices for the entire term of the project, with little scope for cost escalation except in narrowly defined circumstances.</li> </ul>   |       | √     |
| <b>Risk Transfer</b>               | <ul style="list-style-type: none"> <li>Transfers significant design and construction risks to the private sector, reducing the risks borne by the City with respect to the project.</li> </ul>   | √     | √     |
|                                    | <ul style="list-style-type: none"> <li>During the construction period, private capital is at risk and ultimately bears performance risks.</li> </ul>   | √     | √     |
|                                    | <ul style="list-style-type: none"> <li>During the operations period, private capital is at risk and ultimately bears performance risks.</li> </ul>   |       | √     |
| <b>Performance Security</b>        | <ul style="list-style-type: none"> <li>Performance is secured during the construction phase by very liquid forms of security.</li> </ul>   | √     | √     |
|                                    | <ul style="list-style-type: none"> <li>Performance is secured during the operations period by very liquid forms of security.</li> </ul>  |       | √     |

## 2.10.3 Results of Pre-Screening and Jurisdictional Scan

The pre-screening results suggest that the City should continue to assess the DB(f) and DBFOM options through the market sounding analysis. To reaffirm the plausibility of these two options, a high level jurisdictional scan was conducted by Deloitte and indicated that same or similar delivery options have been successfully tested in precedent projects.

Infrastructure Ontario ("IO") has reached financial close for the Markham Stouffville Hospital, London Health Science Centre and St. Joseph Health Care London using the DB(f) delivery model. IO is also at the RFP open stage of using DB(f) to procure the Pan Am Games facilities.

To further evidence the plausibility of DB(f) in delivering similar transit facility projects, both the Barrie Transit Facility and the new commuter train maintenance center in Lachine will be using the DB(f) model to form their public private partnership.

A Design-Build-Finance-Maintain (“DBFM”) model has been applied to the Chief Peguis Trail and Disraeli Bridge projects in Winnipeg. Both projects have successfully reached financial close. The Disraeli Bridge is currently under construction. The Chief Peguis Trail was completed one year ahead of the schedule.

Another example is the new Sheppard East maintenance and storage facility (“MSF”) which will be used to house new light rail vehicles operating on the Sheppard East LRT and Scarborough RT<sup>11</sup>. A car-house, storage track, maintenance of way building, brake test track and traction power substation will be included in the new maintenance and storage facility. IO is in the process of procuring a team to design, build, finance and maintain this facility, i.e., DBFM. This project is currently at the RFP open stage.

#### **2.10.4 Allocation of Roles and Responsibilities**

The typical allocation of roles and responsibilities for each of the DB(f) and DBFOM is set out in detail in Table 5 on the following page. This information has been used to guide our discussion with market sounding participants and will continue to play an important role in providing clear lines of accountability and risk transfer during future steps of the procurement. The process and results of market sounding analysis will be illustrated in Section 2.11 of this business case.

---

<sup>11</sup> <http://www.infrastructureontario.ca/What-We-Do/Projects/Project-Profiles/Sheppard-East-Maintenance-Storage-Facility/>

**Table 5: Summary of Roles and Responsibilities for Each Project Delivery Option to Be Evaluated**

| Partner  | Design-Bid-Build   | Design-Build-finance   | Design-Build-Finance-Operate-Maintain   |
|--|--|--|---|
| <div>City of<br/>Saskatoon</div>  | <b>DBB</b>   | <b>DB(f)</b>   | <b>DBFOM</b>  |
|  | Program Management   | Program Management   | Program Management  |
|  | Planning and Land Use Policies   | Planning and Land Use Policies   | Planning and Land Use Policies  |
|  | Environmental Assessment Approval (Federal and Provincial) , Study & Approval  | Environmental Assessment Approval (Federal and Provincial) , Study & Approval  | Environmental Assessment Approval (Federal and Provincial) , Study & Approval   |
|  | Property. Acquisition, Purchase, Zoning and Site Condition   | Property. Acquisition, Purchase, Zoning and Site Condition   | Property. Acquisition, Purchase, Zoning and Site Condition  |
|  | Project Budget   | Project Budget   | Project Budget  |
|  | Preliminary Design   | Preliminary Design   | Preliminary Design  |
|  | Service Integration & Planning   | Service Integration & Planning   | Service Integration & Planning  |
|  | General Admin/Insurance/Security   | General Admin/Insurance/Security   | General Admin/Insurance/Security  |
|  | Operation – Transit  | Operation – Transit  | Operation – Transit   |
|  | Operation – Snow Salt-laden Run-off Decontamination Facility (Collection and Haulage of Snow, Storm Water Quality Monitoring and Testing, Water Treatment and Maintenance Regulation, Dredging, Cleaning and Disposal of Sediment) | Operation – Snow Salt-laden Run-off Decontamination Facility (Collection and Haulage of Snow, Storm Water Quality Monitoring and Testing, Water Treatment and Maintenance Regulation, Dredging, Cleaning and Disposal of Sediment) | Operation – Snow Salt-laden Run-off Decontamination Facility (Collection and Haulage of Snow; Water Treatment and Maintenance Regulation, Provision of Quantity Sizing Criteria and a Baseline of Typical Chemical Composition of Snow) |
|  | Facility Management (Mechanical and Electrical Systems)  | Facility Management (Mechanical and Electrical Systems)  |   |
|  | Utilities & Other Operating Expenses   | Utilities & Other Operating Expenses   | Utilities & Other Operating Expenses  |
|  | Labour Relations – Operations  | Labour Relations - Operations  | Labour Relations - Operations   |
|  | Labour Relations – Maintenance   | Labour Relations - Maintenance   |   |
|  | Maintenance – FF&E (Furniture, Fixtures & Equipment)   | Maintenance – FF&E (Furniture, Fixtures & Equipment)   | Maintenance – FF&E (Furniture, Fixtures & Equipment)  |
|  | Maintenance - Storm Water Management and Drainage System   | Maintenance - Storm Water Management and Drainage System   |   |
|  | Maintenance - HVAC (Heating, Ventilating, and Air Conditioning)  | Maintenance - HVAC (Heating, Ventilating, and Air Conditioning)  |   |
|  | Maintenance - Building and Structure   | Maintenance - Building and Structure   |   |
|  | General Site Maintenance   | General Site Maintenance   |   |
|  | Progress-Based Const. Payment  | Performance-Based Constr. Payment  | Performance-Based Constr. Payment   |
|  | Traditional Pmt. of O&M Costs  | Traditional Pmt. of O&M Costs  | Performance-Based Availability Payment  |
|  | Public Sector Financing (Long Term)  | Public Sector Financing (Long Term)  |   |
|  | License/Concession of Infrastructure   | License/Concession of Infrastructure   | License/Concession of Infrastructure  |
|  | Ownership of Assets  | Ownership of Assets  | Ownership of Assets   |
| Private Sector   | Engineering (Final Design)   | Engineering (Final Design)   | Engineering (Final Design)  |
|  | Procurement & Construction   | Procurement & Construction   | Procurement & Construction  |
|  | Grey Water Reuse and Rainwater Harvesting  | Grey Water Reuse and Rainwater Harvesting  | Grey Water Reuse and Rainwater Harvesting   |
|  |  |  | Facility Management (Mechanical and Electrical Systems)   |
|  |  |  | Labour Relations - Maintenance  |
|  |  |  | Operation – Snow Salt-laden Run-off Decontamination Facility (Storm Water Quality Monitoring and Testing, Dredging, Cleaning and Disposal of Sediment)  |
|  |  |  | Maintenance - Storm Water Management and Drainage System  |
|  |  |  | Maintenance - HVAC (Heating, Ventilating, and Air Conditioning)   |
|  |  |  | Maintenance - Building and Structure  |
|  |  |  | General Site Maintenance  |
|  |  | Private Construction Financing (Short Term Bridge Financing)   | Private Construction Financing (Short Term Bridge Financing)  |
|  |  |  | Private Long-Term Financing (Debt and Equity)   |
|  |  |  |   |
|  |  |  |   |

## 2.11 Market Sounding<sup>12</sup>

### 2.11.1 Introduction

A market sounding consultation was conducted by Deloitte to gain further insight into the two delivery models shortlisted through the pre-screening, i.e., DB(f) and DBFOM. The purpose of market sounding was to engage in an interactive session with developers, contractors, financiers and local real estate market participants to learn their perspectives on the current market environment, experiences with similar projects, potential interest in this transaction, and ability to undertake this project as a P3.

### 2.11.2 Options to Bundle COC with South Caswell Hill Redevelopment

As discussed in Section 2.4.4, there is an opportunity to bundle the COC project with a brownfield redevelopment in the South Caswell Hill area around the current site of the Public Transit facility, which will become vacant after it is relocated to the new COC. To access whether or not this redevelopment is an attractor to the overall COC project or marketable at all, Deloitte has been asked to include the following additional bundled options (illustrated in Table 6) in the market sounding consultation:

**Table 6: Options to Bundle with South Caswell Hill Redevelopment**

| Option   | Key Features   |
|--|--|
| <b>DB(f)/DBFOM (COC) with ancillary land decommissioning</b> | <ul style="list-style-type: none"><li>• COC project bundled with ancillary land development in one procurement</li><li>• Roles/responsibilities and payment structure for COC project as outlined for DB(f) / DBFOM options in Table 5.</li><li>• Private sector is required to demolish existing public transit facilities and provide decommissioned land to City with extra costs added to the bid.</li><li>• Under DB(f), City withholds a small portion of Substantial Completion Payment (“SCP”) until the site is decommissioned.</li></ul>   |
| <b>DB(f)/DBFOM (COC) with ancillary land lease</b>           | <ul style="list-style-type: none"><li>• Point 1 and 2 same as above</li><li>• Private sector is responsible for land decommissioning, park construction as well as the community space adaptation (extra costs can be added and capitalized into the bid)</li><li>• Over the term of land lease agreement, private sector gains the right to earn revenues on the developable land, but also retains the revenue risk from the development</li><li>• Under DBFOM the annual service payment from the COC project will be netted off the annual lease payment the private sector owes to the City</li></ul> |
| <b>DB(f)/DBFOM (COC) with ancillary land sale</b>            | <ul style="list-style-type: none"><li>• Point 1 and 2 same as above</li><li>• Private sector purchase and develop the land to earn revenues, and retains the revenue risk from the development</li><li>• The City will use the proceeds from land sale to reduce its substantial completion payment under DB(f) or to reduce the outstanding long term</li></ul>   |

<sup>12</sup> When the market sounding was conducted in June/July 2011, the participants were asked to provide their inputs based on the entire COC project, i.e., both COC Phase 1 and COC Phase 2, being built concurrently. Decreasing the project size by approximately 50%, i.e., COC Phase 1 only, may result in higher private financing cost, however, this is unlikely to prohibit the COC Phase 1 from being procured using either DBFOM or DB(f) method, mainly for two reasons: first, during the market sounding although the participants showed preference towards larger projects, they also mentioned that no one would walk away from a smaller deal. Second, we observed that projects with similar size to (or even smaller than) COC Phase 1 have gone to market successfully and attracted enough competition. As such, the results of this market sounding are still believed to be valid for COC Phase 1.

| Option | Key Features  |
|--------|---|
|        | private capital at substantial completion under DBFOM |

### 2.11.3 Market Sounding Approach

Assisted by City staff and Deloitte's local office, a list of private sector firms was developed and 17 firms active on the market were approached to participate in the market sounding consultation. Some local contractors and real estate developers were included in this list to ensure a balanced pool of interviewees, while also considering the need to test the bundled options which may incur the involvement of local firms. Each market sounding interview, conducted via telephone or in person by representatives from Deloitte, lasted approximately one hour. Participants were provided with a market sounding guide which gave a brief description of the project, the proposed site developments, types of delivery model considered, projected timeline, capital cost estimates as well as the market sounding questionnaire.

The key findings gathered from the market sounding (refer to Section 2.11.5) have not been attributed to any specific participant to ensure that each participant's confidentiality is respected.

### 2.11.4 Market Sounding Responses

Of the 17 private sector firms approached, 11 firms agreed to participate in the market sounding. Table 7 below provides the list of firms approached and their responses. For those who participated, the time and location of interviews as well as the names and titles of interviewees are also presented below.

**Table 7: Market Sounding Responses**

| Firm  | Type      | Participated ? | Date    |
|---|-----------|----------------|---------|
| <b>Plenary</b>                              | Developer | Yes            | June 13 |
| <b>SNC</b>                                  | Developer | No             | N/A     |
| <b>Macquarie</b>                            | Developer | Yes            | June 17 |
| <b>Bilfinger Berger Project Investments</b> | Developer | Yes            | June 17 |
| <b>Concert Infrastructure</b>               | Developer | Yes            | June 15 |
| <b>Scotia Capital</b>                       | Lender    | Yes            | June 16 |
| <b>CIBC</b>                                 | Lender    | Yes            | June 14 |
| <b>RBC</b>                                  | Lender    | Yes            | June 13 |

| Firm                           | Type                  | Participated ? | Date    |
|--------------------------------|-----------------------|----------------|---------|
|                                |                       |                |         |
| <b>PCL</b>                     | Contractor            | Yes            | June 30 |
| <b>Ellis Don</b>               | Contractor            | Yes            | June 16 |
| <b>Quorex</b>                  | Local Contractor      | No             | N/A     |
| <b>Wright</b>                  | Local Contractor      | No             | N/A     |
| <b>Colliers McClocklin</b>     | Real Estate Developer | No             | N/A     |
| <b>ICR</b>                     | Real Estate Developer | No             | N/A     |
| <b>Harvard Development</b>     | Real Estate Developer | No             | N/A     |
| <b>Mid-West Group</b>          | Real Estate Developer | Yes            | July 11 |
| <b>Northridge Developments</b> | Real Estate Developer | Yes            | June 16 |

### 2.11.5 Market Sounding Key Findings

The market sounding gathered input on various topics such as:

- Private sector interest in the Project;
- Project scope and delivery options for COC, focused on DB(f) or DBFOM options;
- Infill development potential in South Caswell Hill area and possibility of bundling with COC;
- Financial viability and strategy; and
- Project risks.

Key findings are summarized below:

**Table 8: Key Findings from Market Sounding**

| Topics                                    | Key findings   |
|---|--|
| <b>Interest in Project</b>                | <ul style="list-style-type: none"> <li>• All interviewed market sounding participants have shown great interest towards the size and scope of the COC project.</li> <li>• The fact that the City is relatively new to P3 is not a concern to the participants, who claimed to have portable approach for the delivery of COC in Saskatoon.</li> <li>• Participants expressed a stronger preference for the base case options (i.e., stand-alone COC facilities) while noting challenges associated with those bundled options as described in Section 2.11.2.</li> </ul> |
| <b>Project Scope and Delivery Options</b> | <ul style="list-style-type: none"> <li>• Either DBFOM or DB(f) delivery model are accepted. DBFOM would attract more bidders.</li> <li>• The project as sized fits perfectly within the Canadian PPP market. Decreasing size of the project (e.g. smaller scope or completion payment greater than 25% under DBFOM) may reduce competitive tension for long-</li> </ul>  |

| Topics   | Key findings  |
|--|---|
|  | <p>term financing.</p> <ul style="list-style-type: none"> <li>Some developers lean towards DBFOM. They prefer larger scope of maintenance (more than maintaining the envelope of buildings), such as janitorial and management services.</li> <li>Some construction contractors lean towards DB(f) due to: <ul style="list-style-type: none"> <li>the uncertainty around pricing “maintenance” over 25 years considering the diversified nature of COC; and</li> <li>local contractors lack of experience to maintain the COC. The consortium may need to bring in (sub) contractors from out of country at a “premium” cost. These external contractors may choose to stay afterwards, resulting in increased competition for local businesses.</li> </ul> </li> </ul>   |
| <b>Infill Development Potential and Possibility of Bundling with COC</b> | <ul style="list-style-type: none"> <li>Prefer not to bundle the COC with ancillary land development at Caswell Hill due to the following challenges or concerns: <ul style="list-style-type: none"> <li>Although P3 will not increase the ancillary land value, lots of time and cost spent on the “sideshow” creates a distraction for developers from the core project and too often jeopardize the core project in complications (e.g. time lag between two construction completion dates, payment schedule, cross default issues, if two project agreements are required then how the two are interacting);</li> <li>Potential environmental risks associated with the ancillary land as well as different risk profile between the COC and ancillary development would create concerns for lenders; and</li> <li>If revenue risk were borne by the private partner, lenders may impose aggressive assumptions, charging premium in lending towards the overall development, which means the City might be better off developing the ancillary land by itself or selling the land in a separate tender.</li> </ul> </li> <li>Bundling was only considered possible to the extent that it is included as an innovation and that the private sector will not bear any revenue risks. Common option from market sounding participants is to have the private partner deconstruct the building, decommission the land, build the park and community center but take no further responsibility beyond construction completion of the ancillary development, i.e., similar to the first bundled option as described in Section 2.11.2.</li> <li>To avoid the potential cross default issue and comfort lenders, it was suggested to have two SCPs in place and/or use a letter of credit to cover the late work required for ancillary development.</li> <li>Bundling may achieve construction efficiency in term of better EPC price or mobilizing resources between two sites. However, such benefit is minimal given that the ancillary land development is too small and the land is six miles apart from the COC site. Option is to use a different contractor for the ancillary land development.</li> <li>Conflicting views were observed from local real estate developers. Some are very positive and interested in the overall Caswell Hill redevelopment plan. They believed that the new park and community center will increase the property value in the neighbourhood and will make the residential/commercial development more profitable. The proceeds from land sale should be more than enough to cover the costs required to build the park and community center. However, some other real estate developers thought negatively, interested only in the commercial/residential development. Their concerns were mainly around the potential site contamination issues and below-average development potential compared with other area of the City.</li> <li>Commercial development was not deemed profitable on the ancillary land. Townhouse was considered the most likely form of residential development.</li> </ul> |
| <b>Financial Viability and Strategy</b>                                  | <ul style="list-style-type: none"> <li>Financiers favor bigger project partially because they need to go through the same process in preparing the bid for smaller projects as they would for larger</li> </ul>   |



| Topics               | Key findings   |
|----------------------|--|
|                      | <p>project. The SCP is accepted as long as it is below 50% of construction costs. If the SCP is too large (i.e., more than 50%) or the project scope is reduced to below \$100M, the tension among lenders could be notably reduced. Some lenders may drop COC for larger projects, assuming many projects are competing over financing when the RFP for COC goes out.</p> <ul style="list-style-type: none"> <li>• No financiers anticipated charging a premium to finance a project at the municipal level. In fact, considering the City's AAA credit rating and the continuous growth in Saskatoon, more than one financier thought that the financing cost for COC could be even lower than some projects in Ontario.</li> <li>• Either 25 years or 30 years of operation term is accepted. Some financiers prefer 30 years to be consistent with other infrastructure projects on the market. However it is also noted that an operation period that is shorter than 25 years could attract more European banks that prefer using long term bank loan rather than bond to finance a DBFOM project. Long term bank loans are usually cheaper than bond.</li> <li>• Should the City choose DB(f) to deliver the COC, a "contingency equity" needs to be secured during the construction period to mitigate the default risk faced by lenders. This requirement depends on the strength of security package and lender compensation rights in the project agreement. It becomes more important if lenders include European banks. Same gearing and equity IRR should be applied to the contingent equity as they are under DBFOM.</li> <li>• Key financing parameters confirmed with financiers: <ul style="list-style-type: none"> <li>- Debt to equity ratio: 92/8 to 90/10.</li> <li>- Equity IRR: 10% to 12% (based on when the equity is committed).</li> <li>- Long term spread: 200 to 250bps (driven by the strength of contractors).</li> <li>- Short term spread: 125 to 175bps.</li> <li>- Underwriting fee: 1.5%.</li> <li>- Standby fee (if bank loan): 40% of spread.</li> </ul> </li> <li>• The involvement of P3 Canada fund is perceived by the lender as a good indicator, and so is the City as a "diversification player".</li> </ul> |
| <b>Project Risks</b> | <ul style="list-style-type: none"> <li>• <u>Environmental risks</u>. The City needs to complete related EA studies when the RFQ is out. A clear dividing line is required to define the roles and responsibilities between private and public.</li> <li>• <u>Availability risk</u>. Should there be challenges of sourcing materials / equipments / labour, bigger companies are better able to manage and mobile their resources across the nation.</li> <li>• <u>Political risks</u>. Considering that P3 is still relatively new to Saskatoon, how would the City administration secure continuous political support? Would annual Council approval be required to make service payment?</li> </ul>   |

As noted above, the market soundings were based on an earlier survey which contemplated Phase 1 and Phase 2 concurrently. The main concern regarding the re-configuration to Phase 1 only will result in a smaller project which may limit market interest. The deal structure should be set to ensure that the Project achieves risk transfer objectives, while maximizing the amount of private capital required to the extent possible. This relates specifically to the amount of construction costs that are withheld and deferred / amortized over the maintenance terms and forms the basis of the capital payment.

To reassure that the COC Phase 1 is still attractive to the market, Deloitte consulted with five developers (Plenary, Fengate, Macquarie, Forum, and Brookfield) in March 2012<sup>13</sup> and received immediate responses. All responses were very positive, indicating strong market interest despite of the smaller

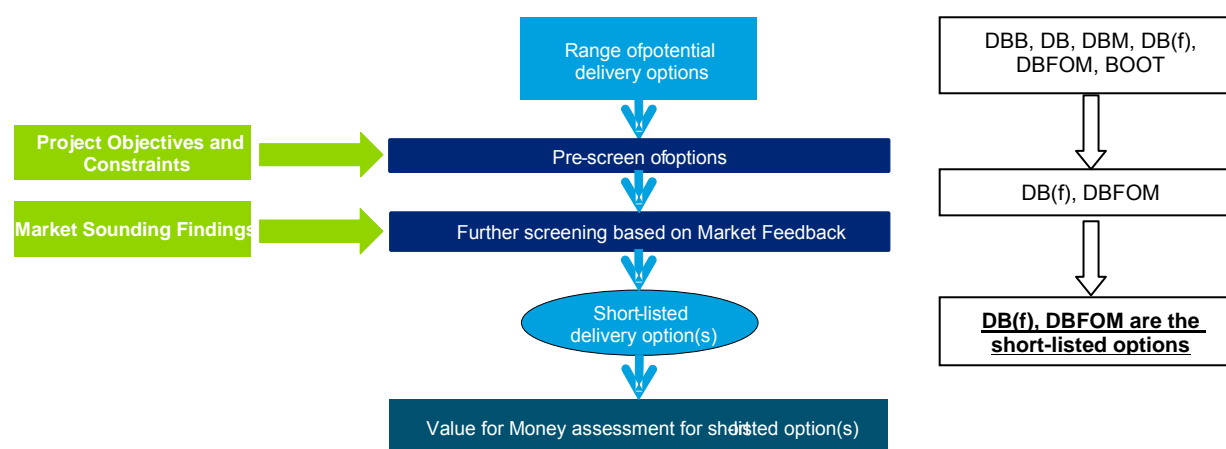
<sup>13</sup> The results of first market sounding (in June/July 2011), clearly concluded that the market had no interest in bundling the COC project with any commercial redevelopment in South Caswell Hill. As such there was no further discussion around bundling during the second market sounding conducted in March 2012.

project size. It was highlighted again by some developers that the level of substantial completion payment should not exceed the P3 Canada Fund contribution (25%) to ensure that the project still involves sufficient level of private capital. Also, given that this project is one of first PPPs in the Province, some developers highlighted again their needs for a transparent procurement process as well as clarity on funding commitment by both the City and PPP Canada (e.g., disclosure of affordability target based on funding commitment).

## 2.12 Results and Recommended P3 Model for Quantitative Analysis

Illustrated in Figure 7 below, the DB(f) and DBFOM combined with the Caswell Hill redevelopment have passed both the pre-screening and market sounding tests. As the short-listed delivery options, they will be further assessed quantitatively in the following Section, where the DBB model is used as the basis for comparing the risk adjusted cost for evaluative purposes.

**Figure 7 – Project Delivery Option Assessment**



It should be noted that based on the market sounding, bundling was only considered acceptable to the extent that it is included as an innovation and that the private sector will not bear any revenue risks. One acceptable option by market sounding participants was to have the private partner deconstruct the building, decommission the land, build the park and community center (the “Infill Development”) but take no further responsibility beyond construction completion, a scope similar to the first bundled option defined in Table 6 under Section 2.11.2. The market has not shown any interest in bundling the COC with a commercial development in the neighborhood, due to the relatively small land size, less premium location, and the distraction caused to the availability-based PPP process.

As such, the remainder of this Business Case will only assume the scope of any bundled options to be the COC Phase 1 plus the Infill Development, with extra costs added to the bid price (collectively, the “Bundled COC Project”). It should also be noted that the City will need to complete necessary site environment condition studies and determine the extent to which the site needs to be decommissioned, in order to bundle the infill development at South Caswell Hill with the COC project.

# 3 Preliminary Value for Money Analysis

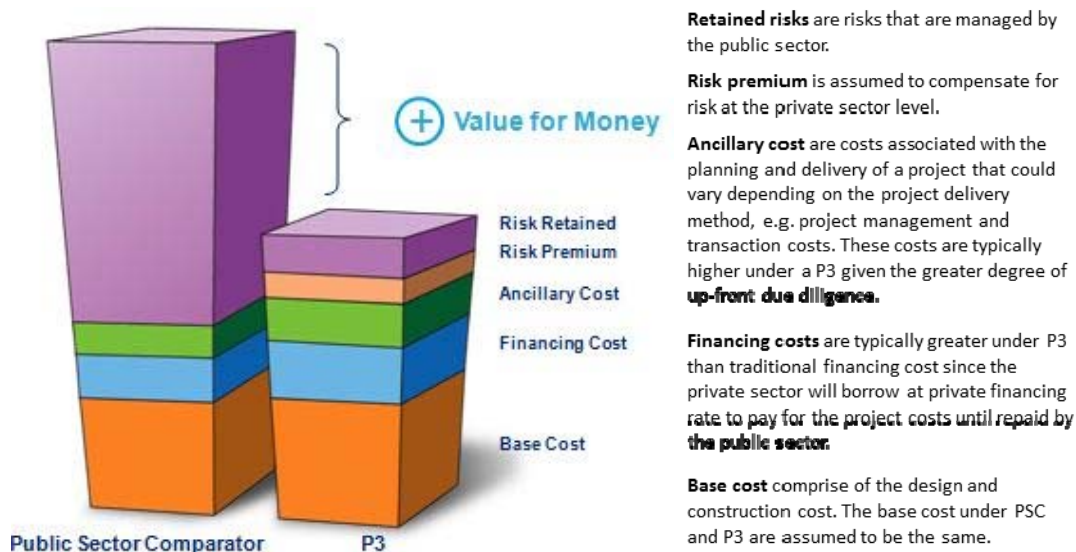
## 3.1.1 Value for Money Methodology

Based on the pre-screening of the delivery models and insight gathered through the market sounding, both the DB(f) model and the DBFOM model have been assessed to be the short-listed delivery models. The final step in the project delivery assessment process is to confirm whether these options are expected to deliver positive value for money through a quantitative assessment.

Consistent with IO's value for money assessment methodology outlined in *Assessing Value for Money: A Guide to Infrastructure Ontario's Methodology*<sup>14</sup>, the VFM assessment quantifies and compares the risks retained by the public sector under the traditional method of procurement (in this case, Design-Bid-Build or known as the Public Sector Comparator ("PSC")), to the P3 models (in this case, DB(f) and DBFOM) in addition to a comparison of the projected cash flows under each delivery model. The differential in net present cost between the PSC and P3 options, inclusive of retained risk, is estimated as the value for money savings of the P3 model.

Figure 8 illustrates how the value is demonstrated through the VFM calculation. The cash cost in the P3 model before adjusting for risk is higher than the cash cost under the public sector comparator. However, after adjusting for risks transferred, the P3 model may present a lower risk adjusted cost. This is because the higher financing costs (i.e. ancillary cost and risk premium) incurred by the private sector are potentially offset by the risk transfer and mitigation of public sector risks under a P3 model.

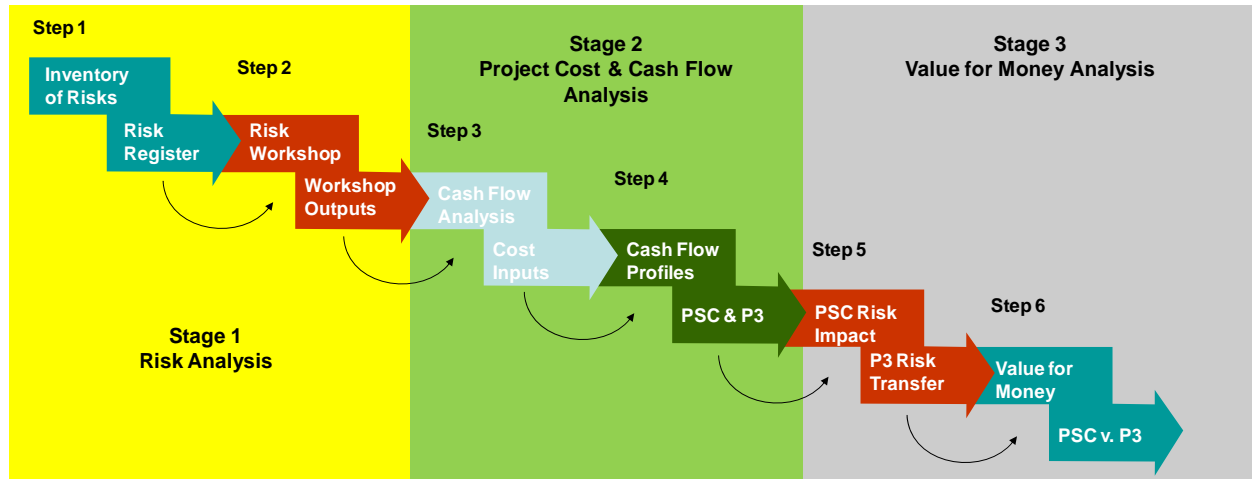
Figure 8 – Comparison between PSC and P3 Delivery Model



The methodology for determining the VFM is described in Figure 9 and consists of three stages and six associated steps. The details of each stage are outlined below. City's inputs, historical data, and results from market soundings will all be used to develop the VFM assessment.

<sup>14</sup> <http://infrastructureontario.org/en/projects/files/VFM%20GUIDE%20WEB.pdf>

**Figure 9 – Outline of Project Risk and Value for Money Approach**



## 3.2 Risk Analysis

### 3.2.1 Introduction

All major infrastructure investments have inherent risks related to their design, construction, operation and maintenance over their useful life. Risk is defined as “the threat or probability that an action or event, will adversely or beneficially affect an organization's ability to achieve its objectives.” Understanding the risks is critical to enable the public sector owner to make informed and appropriate decisions on how best to manage risks so that value is delivered to the sponsor efficiently and on-budget.

A prudent principle to follow when identifying and determining how to manage project related risks, is to allocate risks to the party best able to manage those risks. Certain risks are generally best managed by the public sector such as: policy, programming and approvals risks. Other risks may be better managed by the private sector, particularly in areas that fall into the private sector partner's core area of business or expertise. If the risks associated with a major infrastructure investment are not properly managed, risks materialize into substantial events that lead to increased costs to a project through delays or unanticipated emergency investments to correct critical faults.

The level of risk that the public sector may wish to transfer to a private partner is largely defined by the:

- Complexity of the project;
- Sponsor's internal capacity to manage or mitigate project related risks; and
- Market capacity to take on the project.

A more complex project, whether that complexity is related to the size or scope of a project or the relative infrequency with which a public sector sponsor undertakes such a project, will inherently have more risks than a less complex project. The risks include program and approval risks through to construction, operation and lifecycle maintenance.

Different delivery models may result in different risk exposure to the public sector. In order to identify the types of related risks to the Project as well as assessing the impact of such risks, a risk assessment was conducted with the purpose of i) identifying the major risks facing the City as it moves forward with the Project, ii) point ranking the risks based upon their likelihood of occurring and the expected consequences when such risks occur and iii) assessing how risks will be managed (avoiding, mitigating, retaining, transferring or sharing with the private sector partner).

### 3.2.2 Develop Risk Register

The initial identification of risks is based on Deloitte's global risk registry of over 100 risks which was short-listed based on its relevance to delivering the project using either DB(f) or DBFOM methods. In total, 52 risks have been identified in the following categories that are considered most applicable to the COC:

- Policy and Strategy;
- Environmental Assessment;
- Property Acquisition, Approvals and Site Condition;
- Infrastructure Design & Technology Specification;
- Procurement;
- Construction;
- Operation and Maintenance;
- Ownership and Concession Management; and
- Project Agreement ("PA").

### 3.2.3 Conduct Risk Workshop<sup>15</sup>

A risk workshop was conducted by Deloitte on behalf of the City on May 18, 2011. Participants included representatives from the City Manager's office (Linda Andal, Doug Drevor, Jill Cope), Public Works Department (Doug Parsons, Jeanna South), Transit Department (Bev Stanley, Mitch Riabko), Administration (Shelley Korte) and PPP Canada (Pat Santoianni, Gary Webster).

The workshop consisted of two half-day sessions. A P3 101 training was delivered during the morning session, with the objectives to i) develop a uniform and basic level of P3 knowledge among the project team and user group; ii) Obtain training and training materials that facilitate continuous learning and development among City staff and stakeholders; and iii) Increase the understanding and awareness of the caveats and benefits of different P3 methodologies and processes.

During the afternoon session, a basic VFM training session was first conducted to provide the City staff with a basic understanding of the VFM methodology and to illustrate how their inputs would affect the computation of VFM. Subsequently, out of the 52 risks, 15 key risks were discussed in full detail during the workshop. Guided by a workbook (see Table 9) participants were asked to allocate each risk to the party best able to mitigate it and provide their qualitative perspective on the probability of the risk occurring and the impact that risk would have on COC in terms of project costs under a traditional DBB delivery structure and various P3 procurement models.

The workbook contained preliminary estimates of the allocation, probability, and impact (collectively the "Risk Parameters") for each of the key risks as well as relevant explanation. These preliminary estimates were based on benchmark risk data from comparable public infrastructure and maintenance shed facility projects. These benchmark data were further adjusted/fine-tuned for the COC project based on Deloitte's professional experience and judgement.

**Table 9 – Extract of Risk Assessment Workbook – Key Risks**

| Risk                             | Description                         | Traditional  | DB(f)  | DBFOM         |
|----------------------------------|-------------------------------------|--|--|---------------|
| <b>3.01 –Utility Relocations</b> | The risk that an unforeseen utility | <ul style="list-style-type: none"><li>• Significant probability risk</li></ul> | <ul style="list-style-type: none"><li>• Significant probability risk</li><li>• Low impact ranging from</li></ul> | Same as DB(f) |

<sup>15</sup> Although the Risk Workshop was conducted based on an earlier assumption that Phase 1 and Phase 2 are procured together and built concurrently, the risk data gathered from the workshop are still valid for the Bundled COC Project. This is because the risk matrix didn't assume any synergies between Phase 1 and Phase 2 and therefore the removal of Phase 2 will not affect the risk profile. The risk matrix "self-adjusts" through the reduction of input cost for construction and lifecycle maintenance, which ultimately drives the retained risk quantification. The risk matrix (probabilities and impacts) related to the overall COC, as it applied to each specific risk, was not dependent on phasing, and further discretization is beyond the level of accuracy of VFM.

| Risk | Description   | Traditional  | DB(f)   | DBFOM |
|------|---|--|---|-------|
|      | relocation or upgrade of municipal services (to meet the needs of the Project) is required, which could result in delays or additional costs. | <ul style="list-style-type: none"> <li>Low impact ranging from negligible costs to .5% of D&amp;C costs.</li> <li>Risk is 100% borne by City - all unforeseen conditions in the ground are compensable.</li> </ul> | <ul style="list-style-type: none"> <li>negligible costs to .5% of D&amp;C costs.</li> <li>Risk is shared. PPP contracts reviewed vary in terms of risk allocation but generally place at least some responsibility on private sector for utility relocation.</li> </ul> |       |

City's inputs around the risks that were not discussed during the workshop were collected afterwards and considered in the VFM assessment. At the end of the workshop a risk assessment workbook, which contained the description and preliminary estimates of risk parameters for all 52 risks, was distributed to participants as their "homework" (Figure 10).

**Figure 10 – Extract of the Risk Assessment Workbook**

| City of Saskatoon - Civic Operations Center Risk Register |                                |   |                       | Traditional |            |             |      |             | DB(f)     |            |             |      |             |
|---|--------------------------------|---|-----------------------|-------------|------------|-------------|------|-------------|-----------|------------|-------------|------|-------------|
|   |                                |   |                       | Prob. (%)   | Impact     | Allocation  |      |             | Prob. (%) | Impact     | Allocation  |      |             |
|   |                                |   |                       |             | Optimistic | Pessimistic | City | Priv. Sect. |           | Optimistic | Pessimistic | City | Priv. Sect. |
| 1.00  | Policy and Strategic Risks     |   |                       |             |            |             |      |             |           |            |             |      |             |
|   | Risk                           | Description   | Project Budget        |             |            |             |      |             |           |            |             |      |             |
| <b>Program Management</b>                                 |                                |   |                       |             |            |             |      |             |           |            |             |      |             |
| 1.01  | City Policy Changes            | The risk that a change in City policy changes or terminates the Project. This risk can occur either: (a) prior to financial close, in which case it could lead to the City being required to pay break fees; or (b) following financial close, in which case it would lead to the City being required to pay termination penalties. In either case, there may also be an impact on the City's | Total Contract        | Remote      | 10%        | 25%         | 100% | 0%          | Remote    | 10%        | 25%         | 100% | 0%          |
| 1.02  | Public Resistance to an Option | The risk that the public will not accept the role of the private sector in developing, operating, and/or maintaining the Project.   | Total Contract        | Remote      | 0%         | 5%          | 100% | 0%          | Remote    | 0%         | 5%          | 100% | 0%          |
| 1.03  | Litigation Risks               | The risk that the Project is delayed (via a stop work order) during the planning, procurement, or construction phase due to litigation raised by groups opposed to the Project, for example litigation regarding labor issues. Delay to the Project could result in additional costs due to cost inflation (time), or increased sense of uncertainty over the Project.                        | Design & Construction | Remote      | 0%         | 5%          | 100% | 0%          | Remote    | 0%         | 5%          | 100% | 0%          |

Adding to City's tool box, scales for risk assessment were also provided, allowing the workshop participants to "calibrate" their assessment of project risks within the framework of the project cost estimates.

Results of the risk workshop were analyzed and run through a statistical analysis to establish the dollar value of the risks retained by the public sector under different delivery models. Section 3.4 provides greater details on how risk transfer translates into value for money.

### 3.3 Project Costs and Cash Flow Analysis

Deloitte has developed a comprehensive monthly cash flow model for the Bundled COC Project, using cost inputs provided by AECOM as well as other financing related assumptions verified with the market sounding consultation. Relevant key assumptions are discussed below.

#### 3.3.1 Base Project Costs for both PSC and Shadow Bid

The project schedule presented in Section 2.4.5 is applied to the VFM analysis. Both PSC and the short-listed P3 delivery options use common cost assumptions as follows:

**Table 10 – Summary of Design and Build Costs**

Design and build costs (in \$2012) <sup>1</sup>

|   |           |                    |
|---|-----------|--------------------|
| Transit building & site                                     | \$        | 85,319,000         |
| Transit building & site soft costs                          | \$        | 15,984,400         |
| Snow Salt-laden Run-off Decontamination Facility            | \$        | 18,618,300         |
| Snow Salt-laden Run-off Decontamination Facility soft costs | \$        | 3,502,400          |
| Caswell Hill infill development <sup>2</sup>                | \$        | 1,000,000          |
| <b>Total</b>  | <b>\$</b> | <b>124,424,100</b> |



*Note:*

1. Land purchase has become a sunk cost and therefore not included above. Cost data (except the Caswell Hill Infill Development) were provided by AECOM in July 2012 based on conceptual building design and site layouts. AECOM's cost estimate has built in approximately 13% contingency allowance.

2. The City assumed \$1 million for the Caswell Hill Infill development (park construction and community space adaptation).

3. Suggested by AECOM and reaffirmed by Deloitte's market observation, the annual inflation for construction costs was assumed to be 4% which brought the real design and build costs to a total nominal of **\$141 million** over 2 years construction period.

4. Based on comparable projects, a generic monthly spending curve was applied to translate the nominal design and build costs into monthly cash outflows for both PSC and the short-listed P3 delivery options.

In addition to the \$141 million total nominal design and build costs, a separate risk premium is assumed under the P3 delivery models to account for the preliminary design and inflation risks faced by the private sector in locking down the bid price in their proposal. The premium is considered hypothetical in nature, allowing for the VFM result to be more conservative by "penalizing" P3 delivery options. Based on recent comparable projects, such premium is assumed to be 10% under DBFOM or 5% under DB(f) of the original \$114M design and build costs for the VFM analysis.

Considering that the VFM is a comparative assessment between P3 delivery options and PSC with cost inputs common on both sides, Deloitte believes that the above conceptual design and cost estimates capture appropriate level of details that is commonly required at the business case stage.

**Table 11 – Summary of Maintenance Costs during Operation Period**

|   |    |            |
|---|----|------------|
| Total lifecycle maintenance and capital repair cost <sup>1</sup> (in \$2012)      | \$ | 58,172,991 |
| Annual O&M <sup>2</sup> costs   |    |            |
| Transit Headquarters <sup>1</sup> (in \$2012)                                     | \$ | 845,009    |
| Snow Salt-laden Run-off Decontamination Facility <sup>2</sup> (% of DB hard cost) |    | 3.80%      |
| Snow Salt-laden Run-off Decontamination Facility (in \$2012)                      | \$ | 707,495    |

*Note:*

1. The estimated lifecycle maintenance and capital repair cost schedule for both Transit Headquarters and the Snow Salt-laden Run-off Decontamination Facility were provided by AECOM in July 2012 based on conceptual building design and site layout. The lumpy schedule included in the AECOM Report has a total estimated cost of \$58,172,991 (in \$2012), with the majority of costs to be incurred in year 10, 15, 18, 20, and 25. The AECOM Report also included a forecast of the annual O&M cost for the Transit Headquarters at \$845,009 per year (in \$2012).

2. The annual O&M cost for the Snow Salt-laden Run-off Decontamination Facility was based on City's preliminary estimate, which was 3.8% of related design and build cost (\$18,816,300, refer to Table 10). This estimate covered all day-to-day facility management, storm water quality monitoring, dredging, clearing and disposal of sediments. However, it should be noted that no snow collection and haulage costs were included above as the City intends to retain these core responsibilities by itself, regardless of the delivery methods.

3. Based on Deloitte's market observation, the inflation rate for annual O&M costs was assumed to equal target CPI at 2%. To be conservative, the annual inflation for capital repair cost was assumed to be same as that for design and build costs at 4%, which brought the real lifecycle maintenance and capital repair costs to a total nominal of \$100M over 25 years.

The capital repair costs (or lifecycle costs) are driven by refurbishing / replacing the building shell / structure and the electrical and mechanical systems. These cost estimates will be updated at RFP release stage, on the basis of the PA Output Specifications that is derived from the Basis of Design (i.e., design life), Preliminary Level Design (20% to 30%), and hand-back conditions. The final lifecycle cost profile will be based on the preferred bid and will then reflect value-engineering that occurs during the RFP open period, to ensure that the PA Output Specifications are "right-sized".

Although it is accepted that lumpy payment regime is more efficient for a project, in a sense that it uses as little capital as required and avoids excessive reserves which are expensive, the Business Case

recognizes that lenders may require Project Co. to set up a Major Maintenance Reserve Account (“MMRA”) under DBFOM to smooth the lumpy lifecycle payments received from the government. As such, this Business Case has assumed that Project Co will set up a MMRA under DBFOM, based on a commonly observed approach which requires, at any time point during operation, the outstanding balance of MMRA equal to 100% of first year forward-looking lifecycle costs, plus 66% of second year forward-looking lifecycle costs, and plus 33% of third year forward-looking lifecycle costs.

It should be noted that the MMRA assumption was only applied under the DBFOM delivery option. Under PSC and DB(f), the Business Case assumes that the City will still follow the original capital repair costs schedule and make payments once the actual work is performed and tested.

### 3.3.2 Financial Assumptions

Based on the market sounding consultation, the following key financing assumptions are applied in the VFM analysis.

**Table 12 – Summary of Financial Assumptions**

| Financing Assumptions           | Traditional   | DBFOM                       | DB(f)                       |
|---------------------------------|---------------|-----------------------------|-----------------------------|
| <b>Debt</b>                     | <b>Public</b> | <b>Private <sup>1</sup></b> | <b>Private <sup>1</sup></b> |
| Term (Years)                    | 25            | 25                          | 3 <sup>3</sup>              |
| Interest rate <sup>2</sup>      | 3.83%         | 4.53%                       | 4.35%                       |
| Spread                          |               |                             |                             |
| Underwriting fee                | 0.00%         | 1.50%                       | 1.50%                       |
| Standby fee (annual)            | 0.00%         | 0.00%                       | 0.60%                       |
| Weight (% of total capital)     | 100.0%        | 90.0%                       | 100.0%                      |
| Repayment frequency             | Annual        | Monthly                     | Bullet                      |
| <b>Equity</b>                   |               |                             |                             |
| Target IRR                      | N/A           | 12.0%                       | N/A                         |
| Weight (% of long term capital) | N/A           | 10.0%                       | N/A                         |
| Payment frequency               | N/A           | Monthly                     | N/A                         |

*Note:*

1. City debenture will still be involved under DBFOM and DB(f) to the extent that the City will need to make substantial completion payment under DBFOM or pay off the private short term financing under DB(f). The debenture rates are assumed to be same as those under traditional delivery method.

2. The public interest rate was provided by the City, based on the yield on a 25 years Government of Canada (GOC) bond (as of July 17<sup>th</sup>, 2012) plus the Saskatchewan spread of 0.95% and the Saskatoon spread of 0.6%. The private long term debt rate was based on the same GOC benchmark bond yield plus a spread that is reflective of the midpoint of market sounding range.

3. The short term interest rate under DB(f) is a blended rate, representing 90% in construction bridge loan financing at 3.5% plus 10% in “contingent equity” at 12% target IRR. This assumption is consistent with Deloitte’s market observations.

4. For the VFM analysis, there is no P3 Canada Fund contribution assumed to offset the amount of debenture issuance by the City. However, the incrementality of P3 Canada Fund contribution will be examined in the context of affordability analysis under Section 4 of this Business Case.

The traditional delivery model assumes that the City will issue a debenture at the beginning of each construction year to fund the capital cost incurred over the next twelve months. Each debenture will be amortized over 25 years and serviced directly by the City. Given the AAA credit rating the City currently holds, the City has no issue in raising the debt required to fund project capital costs under the traditional delivery model.

The DBFOM model assumes that the private consortium will issue a long term bond and also commit the necessary amount of equity at the beginning of the construction. After the money raised through a bond is



fully depleted, the consortium will shift to draw against a short term bank loan facility and subsequently its committed equity to fund the construction period costs. The short term bank loan will be paid off by the SCP which is assumed to be 25% of the capital costs (including interest expense and fees) at the end of construction. Both the long term bond and equity will be serviced by the consortium during operation through its received Annual Service Payment (“ASP”) from the City. The ASP is made up of a flat capital payment, a flat / indexed annual O&M cost component, and lumpy / indexed MMRA payments. The ASP will be made to Project Co, following a conventional structure in line with the Alberta contract template that will be used for the Bundled COC Project..

The DB(f) model assumes that the private consortium will use a short term bank loan to fund the construction period costs until the accumulated borrowed amount is paid off by a “take out” payment at the end of construction. Such “take out” payment is funded by the City debenture.

To compare different delivery options on a common ground, a discount rate of 4.81%, which is assumed to be same as City’s debenture rate, is used to calculate the present value of City’s cash outflows under both PSC and P3 delivery options.

### **3.3.3 Other Cost Assumptions**

Other cost inputs include ancillary costs generally associated with the planning and delivery of an infrastructure project. This includes transaction costs (e.g. legal, financial advisory fees) and project management costs during construction and operation of the project.

Based on the AECOM Report and analogous projects, the VFM model assumes \$2.6M transaction costs under the traditional delivery model and \$4.5M (\$3.5M for all the financial, legal, and technical advisors, \$500K honoraria paid to unsuccessful bidders, and \$500K extra payroll expenses during the procurement process) under the P3 delivery methods.

Verified with PPP Canada, the costs related to hiring advisors are eligible for P3 Canada Fund contribution. Calculated based on 25% of the \$3.5M noted above, an additional \$875,000 of P3 Canada Fund contribution has been assumed in the financial model and related analyses in this Business Case.

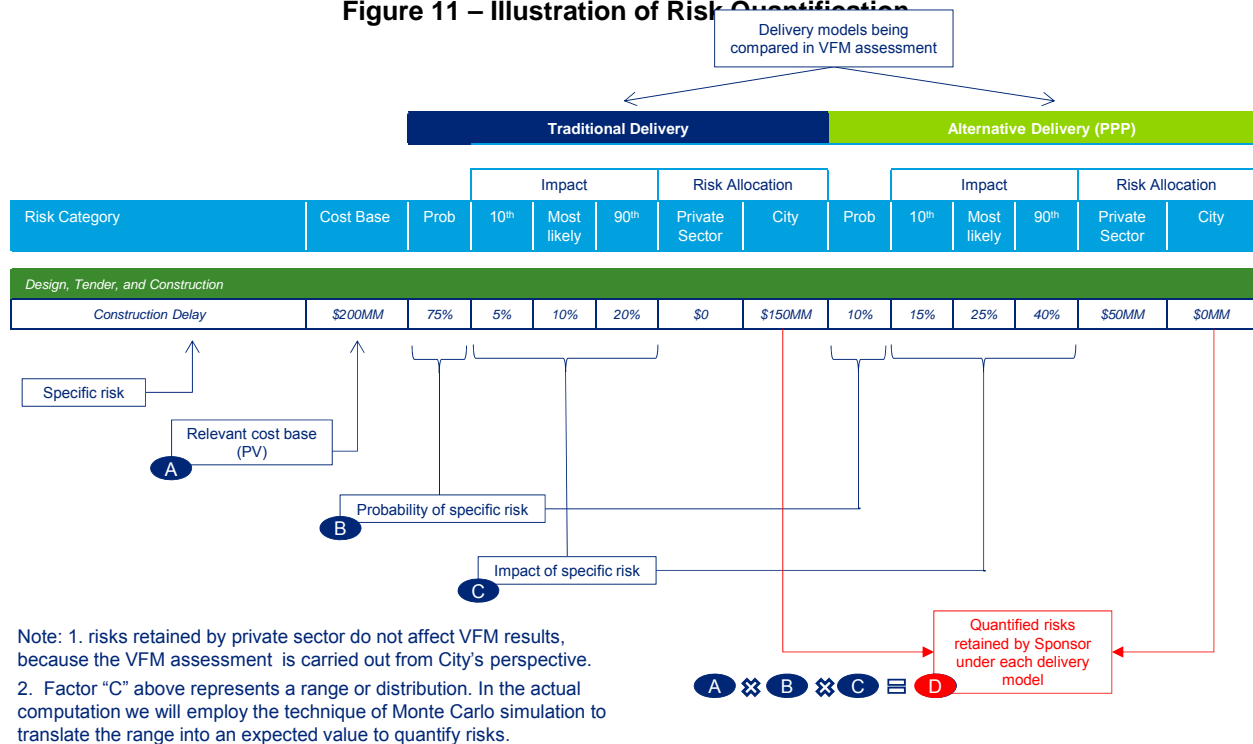
The project management costs are relatively small and are typically similar across different delivery models, having minimal impact on the VFM results. In addition, we assume that after financial close the City will leverage its existing manpower and incur minimal incremental costs to manage the project. As such, the project management costs are not included in the VFM analysis.

## **3.4 Risk Analysis and Quantification**

Based on the inputs gathered from City staff during and after the risk workshop, a final risk matrix has been prepared and included in the VFM cash flow model to quantify risks retained by the City under different delivery options.

Figure 11 below illustrates how the risk retained is quantified mathematically for the VFM.

**Figure 11 – Illustration of Risk Quantification**



The risk quantification results are summarized in Table 13 below by different risk categories, showing the value of the risks retained and transferred under both the PSC and Shadow Bid.

**Table 13 – Summary Risk Quantification Table (in \$Million)**

| Risk Category                                      | Traditional     | DBFOM           |                        | DB(f)           |                        |
|--|-----------------|-----------------|------------------------|-----------------|------------------------|
|  | Retained<br>(a) | Retained<br>(b) | Transferred<br>(a)-(b) | Retained<br>(c) | Transferred<br>(a)-(c) |
| Policy and Strategic Risks                         | 2.9             | 4.3             | -1.4                   | 4.3             | -1.4                   |
| Environmental Assessment                           | 0.2             | 0.1             | 0.1                    | 0.1             | 0.1                    |
| Property Acquisition, Approvals and Site Condition | 5.2             | 1.6             | 3.6                    | 1.6             | <b>3.6</b>             |
| Infrastructure Design & Technology Specification   | 5               | 0.2             | <b>4.8</b>             | 0.2             | <b>4.8</b>             |
| Procurement Risk                                   | 10.5            | 7.1             | 3.4                    | 8.8             | 1.7                    |
| Construction Risk                                  | 23.4            | 2.8             | <b>20.6</b>            | 2.8             | <b>20.6</b>            |
| Operation and Maintenance Risk                     | 75.5            | 15              | <b>60.5</b>            | 75.5            | 0.0                    |
| Ownership and Concession Management                | 0.0             | 0.4             | -0.4                   | 0.4             | -0.4                   |
| Project Agreement                                  | 0.0             | 1.2             | -1.2                   | 1.2             | -1.2                   |
| <b>Sum</b>   | <b>122.7</b>    | <b>32.7</b>     | <b>90</b>              | <b>94.9</b>     | <b>27.8</b>            |

*Note:*

1. Negative figures above are due to risks that are increased under P3 compared with PSC, either in terms of probability or impact. For example, the City policy change was deemed more likely under P3, leading to higher Policy and Strategic risks compared with PSC. Another example is the project agreement risk which does not exist under traditional delivery.

The top three categories showing the most risk transfer benefits under DBFOM are: Operation and Maintenance, Construction, and Infrastructure Design & Technology Specification. The top three categories for risk transfer under DB(f) are Construction, Infrastructure Design & Technology Specification, Property Acquisition, and Approvals and Site Condition.

DBFOM can transfer significant amount of operation and maintenance risks to the private sector. For instance, the residual value risk (\$42M under PSC) is contractually allocated to the private partner and firmly anchored by robust performance security. DBFOM contracts typically have hand-back regimes which allow for withholding of capital payment if hand-back condition is in danger or not being met.

Design and construction risks are also largely transferred to the private sector. For example, any construction delays or increased costs, caused by schedule acceleration, lack of resources (equipments, materials, labour), inefficient coordination with subcontractors, or final design not conforming to the City's performance and service specifications, will be accounted by the private partner under both DBFOM and DB(f) delivery methods. The project agreement will use the SCP or take-out payment to ensure the construction budget and schedule being met.

The geotechnical risk under the Property Acquisition, Approvals and Site Condition category is reduced under P3 delivery options mainly because lenders will focus significant due diligence on this issue and will demand a very thorough ground condition baseline report by a reputable consultant, and only the unforeseeable ground conditions are compensable under most P3 contracts.

The above risk quantification is consistent with City's objectives documented in Section 2.10.2., calling for the cost and schedule certainty, performance security and optimal risk transfer, which will be secured by a well-articulated project agreement.

### 3.5 Value for Money Assessment

Based on the input assumptions discussed in Section 3.3 and risk quantification described in Section 3.4, the VFM cash flow model generated the following VFM results:

**Table 14 – Value for Money Assessment Results**

| <b>Traditional</b>                                 |                | <b>PPP</b>   |                |                |
|--|----------------|--|----------------|----------------|
|  |                |  | <b>DBFOM</b>   | <b>DB(f)</b>   |
| <b>Nominal, \$'s MM</b>                            |                |  |                |                |
| Non-Financed Construction Costs                    | \$141.3        | Non-Financed Construction Costs                    | \$141.3        | \$141.3        |
| Risk Premium (CDC)                                 | N/A            | Risk Premium (CDC)                                 | \$14.1         | \$7.1          |
| Annual Maintenance Costs                           | \$54.9         | Annual Maintenance Costs                           | \$54.9         | \$54.9         |
| Major Capital Repair Costs                         | \$100.1        | Major Capital Repair Costs                         | \$100.1        | \$100.1        |
| <b>PV Terms, \$'s MM</b>                           |                |  |                |                |
| Base PSC (PV)                                      | \$199.2        | Base Payments (PV)                                 | \$236.2        | \$206.6        |
| Ancillary Procurement Costs<br>- Transaction Costs | \$2.3          | Ancillary Procurement Costs<br>- Transaction Costs | \$4.1          | \$4.1          |
| Risks Retained by City                             | \$122.6        | Risks Retained by City                             | \$32.8         | \$95.0         |
| <b>PV of PSC</b>                                   | <b>\$324.1</b> | <b>PV of PPP</b>                                   | <b>\$273.1</b> | <b>\$305.7</b> |
| <b>VFM Savings (\$)</b>                            |                |  | <b>\$51.0</b>  | <b>\$18.4</b>  |
| <b>VFM Savings (%)</b>                             |                |  | <b>15.7%</b>   | <b>5.7%</b>    |

The 15.7% VFM under DBFOM wasn't driven by any project specific risk innovations or efficiencies, but as the direct result of a conventional availability-based social infrastructure project under a standard DBFOM contract which is well understood in the Canadian market and typically involves or incurs:

- Very competitive pricing of capital;
- Greater financial strength of DB and O&M counterparties;
- Higher / added due-diligence and oversight from direct lender(s); and
- Risk transfer anchored by the capital portion of the ASP.

Between Business Case and financial close (up to two years), the VFM result will vary with many events, such as:

- Final cost estimates at RFP stage (based on the project agreement and output specifications);
- The preferred bid; and
- Capital market variations.

To improve the credibility of this VFM, sensitivity analysis was conducted to test the impact of different model input assumptions on the VFM result, with a focus on the downside potentials. Table 15 below summarizes the findings.

**Table 15 – Summary of VFM Sensitivity Analysis**

| Scenarios  | # | DBFOM |                | DB(f) |                |
|--|---|-------|----------------|-------|----------------|
|  |   | VFM   | Diff from Base | VFM   | Diff from Base |
| Base Case  |   | 15.7% | -              | 5.7%  | -              |
| Construction costs +10%                                  | 1 | 15.6% | -0.1%          | 5.9%  | 0.2%           |
| Lifecycle maintenance costs +10%                         | 2 | 16.1% | 0.3%           | 5.6%  | -0.1%          |
| Lifecycle maintenance costs -50%                         | 3 | 13.9% | -1.9%          | 6.3%  | 0.7%           |
| Long term private financing cost +100bps                 | 4 | 11.8% | -3.9%          | 5.7%  | 0.0%           |
| D/E ratio 85/15 (also applies to contingent E for DB(f)) | 5 | 14.3% | -1.4%          | 5.5%  | -0.2%          |
| Short term private financing cost +100bps                | 6 | 15.6% | -0.1%          | 5.3%  | -0.4%          |
| Discount rate (City debenture rate) -100bps              | 7 | 11.7% | -4.0%          | 4.8%  | -0.9%          |
| #4 and #7 together (unlikely)                            | 8 | 7.5%  | -8.2%          | 4.8%  | -0.9%          |

The VFM result is not very sensitive to construction or O&M costs mainly because any changes to these costs will be equally applied to both sides of the comparison. However, the VFM is sensitive to certain financing assumptions, particularly the long term private interest rate and discount rate. To test the VFM under extreme conditions, scenario #8 was created, assuming 1% higher of the private long term interest rate and 1% lower of the discount rate/City debenture rate. This is an unlikely scenario because in reality the City's borrowing rate, although lower than private partner's, usually trends with the capital market. Even under this unlikely scenario, both DBFOM and DB(f) show positive results, demonstrating that strong value for money can be achieved through P3 delivery models.

Based on the scenarios tested above, it is further observed that the DBFOM delivery method offers much higher VFM than DB(f), ranging from 12% to 16%. with the only "exception" under the extreme scenario #8 where the VFM difference between the two delivery methods is smaller but still in favor of DBFOM.

Deloitte also compared the COC VFM against other projects in Quebec, Ontario, Manitoba, and Alberta, and concluded that this VFM benchmarked well within the range, which reassured that this VFM has made reasonable assumptions and has applied the VFM methodology consistently.

Figure 12 below demonstrates the relative position of the Bundled COC Project, among other projects, in terms of the final VFM result.

**Figure 12 –Benchmarking – VFM Result**

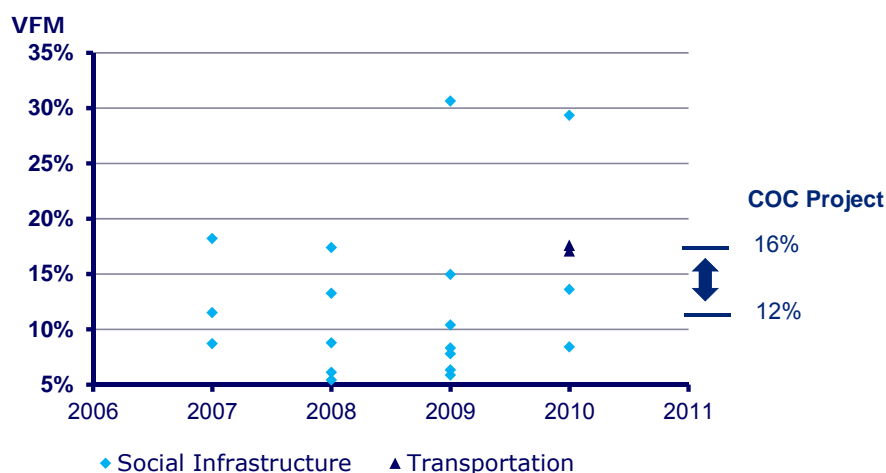
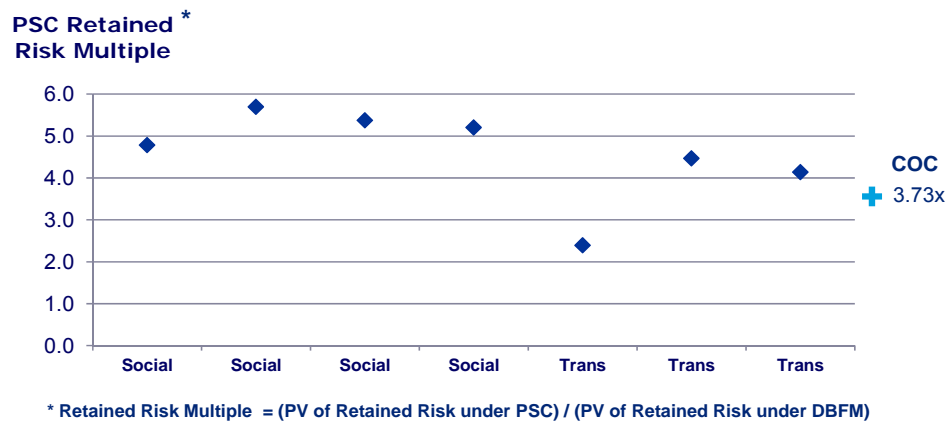


Figure 13 below demonstrates the relative position of the Bundled COC Project, among other projects that have reached financial close, in terms of the level of retained risks. Reduction in retained risk is a direct result of the DBFOM contract and the mechanisms used to transfer risks as compared to PSC:

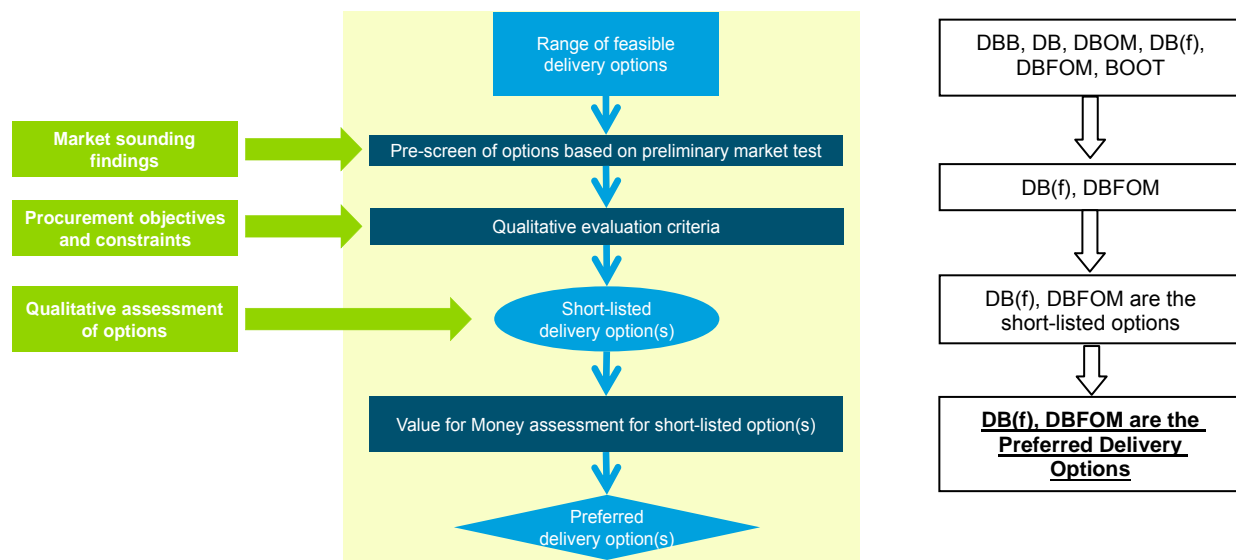
**Figure 13 – Benchmarking - Retained Risk Multiple**



### 3.6 Preferred Delivery Options

The initial results demonstrate positive value for money savings if the project is delivered through the DBFOM or DB(f) delivery models as compared to the traditional delivery model under a range of sensitivity assumptions. Based on these quantitative results combined with the market sounding findings and overall qualitative evaluation described previously, both the DBFOM and the DB(f)<sup>16</sup> structure can be confirmed as the preferred delivery models (the “Preferred Delivery Options”) for the Bundled COC Project and will be further examined in the context of City’s affordability in the following Section.

**Figure 14 – Project Delivery Option Assessment**



<sup>16</sup> Although not generating the greatest VFM savings, the DB(f) method has not been “ruled out” at this stage, a logical step taken in our analysis in case the City cannot afford (will be examined in Section 4) DBFOM which is generally more expensive than DB(f) before considering any risk transfer benefits.

# 4 Project Funding and Affordability

## 4.1 Fund Sources and Uses during Construction

The P3 Canada Fund contribution plays an important role in the affordability analysis because the City only needs to issue a debenture to the extent that the expected SCP under DBFOM or “take-out” payment under DB(f) exceeds the lump sum contribution from P3 Canada Fund.

Based on financial assumptions described in Section 3.3.2, the following summary of fund uses and sources during construction (Table 16) is generated by the cash flow model, assuming no P3 Canada Fund contribution.

**Table 16 – Summary Fund Uses and Sources during Construction without P3 Canada Fund**

| Fund Uses (In Nominal \$)                  | Traditional    | DBFOM          | DB(f)          |
|--|----------------|----------------|----------------|
| Design and build costs                     | \$ 141,323,770 | \$ 141,323,770 | \$ 141,323,770 |
| City debenture service during construction | \$ 14,854,399  | \$ -           | \$ -           |
| Private financing fees                     | \$ -           | \$ 2,441,607   | \$ 3,091,340   |
| Private Interest                           | \$ -           | \$ 10,110,651  | \$ 7,107,767   |
| Sum  | \$ 156,178,168 | \$ 153,876,028 | \$ 151,522,876 |

| Fund Sources (In Nominal \$) | Traditional    | DBFOM          | DB(f)          |
|------------------------------|----------------|----------------|----------------|
| P3 Canada Fund contribution  | \$ -           | \$ -           | \$ -           |
| City debenture issuance      | \$ 156,178,168 | \$ 38,469,007  | \$ 151,522,876 |
| Private long term bond       | \$ -           | \$ 103,866,319 | \$ -           |
| Equity                       | \$ -           | \$ 11,540,702  | \$ -           |
| Sum                          | \$ 156,178,168 | \$ 153,876,028 | \$ 151,522,876 |

*Note:*

- 1. The private short term bank facilities applied under Preferred Delivery Options are not presented in the table to avoid double counting. The short term bank facility will be paid off at substantial completion by the City debenture issuance (and P3 Canada Fund contribution), both of which have already been included on the fund sources side of the table.*
- 2. Total of fund uses under traditional delivery appears higher than that under DBFOM. This is because the City will incur both interest and principal repayments on its debenture during construction period, whereas under the DBFOM only the private interest/fees are current paid while the principal repayments are postponed until operation starts.*
- 3. Total of fund uses under DBFOM is higher than that under DB(f) because the long term private capital (debt and equity) involved under DBFOM is often more expensive than short term capital involved under DB(f).*

The fund uses and sources with P3 Canada Fund contribution are summarized in Table 17 below. The contribution sought by the City from PPP Canada would be in the order of **\$38.5 million under DBFOM or \$37.9 million under DB(f)<sup>17</sup> plus additional P3 funding that is related to eligible ancillary procurement costs (e.g., the advisor fees)**. The contribution of \$38.5M (or \$37.9M under DB(f)) is assumed to be paid in lump sum upon construction completion and equal to 25% of total project capital costs (including interest expense and financing fees).

An additional contribution of approximately \$875,000 is assumed to be paid in lump sum at financial close to offset 25% of the City’s procurement costs in hiring all the financial, legal and technical advisors (refer to Section 3.3.3). However, it should be noted that such additional contribution is not included in the affordability analysis as it is not related to any construction or O&M costs, and will not affect the City’s affordability during the operation period. This is covered separately in our analysis in Section 3.3.3 and Section 5.5.

<sup>17</sup> Estimate only. The actual contribution from P3 Canada Fund will depend on the final bid prices.

**Table 17 – Summary Fund Uses and Sources during Construction with P3 Canada Fund**

| Fund Uses (In Nominal \$)                  | Traditional    | DBFOM          | DB(f)          |
|--|----------------|----------------|----------------|
| Design and build costs                     | \$ 141,323,770 | \$ 141,323,770 | \$ 141,323,770 |
| City debenture service during construction | \$ 14,854,399  | \$ -           | \$ -           |
| Private financing fees                     | \$ -           | \$ 2,441,607   | \$ 3,091,340   |
| Private Interest                           | \$ -           | \$ 10,110,651  | \$ 7,107,767   |
| Sum  | \$ 156,178,168 | \$ 153,876,028 | \$ 151,522,876 |

| Fund Sources (In Nominal \$) | Traditional    | DBFOM          | DB(f)          |
|------------------------------|----------------|----------------|----------------|
| P3 Canada Fund contribution  | \$ -           | \$ 38,469,007  | \$ 37,880,719  |
| City debenture issuance      | \$ 156,178,168 | \$ -           | \$ 113,642,157 |
| Private long term bond       | \$ -           | \$ 103,866,319 | \$ -           |
| Equity                       | \$ -           | \$ 11,540,702  | \$ -           |
| Sum                          | \$ 156,178,168 | \$ 153,876,028 | \$ 151,522,876 |

*Note: the total fund uses and sources are the same as those under Table 16.*

Unlike the VFM assessment, the affordability analyses assumes no risk premium on total design and build costs under P3 delivery options, such that the result is only driven by the actual cash cost projections.

Note that Table 16 and Table 17 above should not be used on a standalone basis to determine the relative expensiveness among different delivery options. Full costs, including the O&M and capital repair costs, should be considered over the entire lifecycle of the project, which will be discussed in Section 4.2.

## 4.2 Affordability during Operation and Incrementality from P3 Canada Fund Investment

The objective of the analysis in Section 4.2 and 4.3 is to assess City's affordability during the operation period in terms of paying for the O&M and capital repair costs as well as servicing the capital required to fund the project's construction. In particular, this analysis assesses and compares the City's annual funding commitment under Preferred Delivery Options, i.e., DBFOM or DB(f), vs. traditional delivery.

Based on the financial model, the table below summarizes the total nominal payments required from the City during operation period under different delivery methods, assuming no contribution from P3 Canada Fund.

**Table 18 – Summary Fund Uses during Operation without P3 Canada Fund**

|                             | Traditional    | DBFOM          | DB(f)          |
|-----------------------------|----------------|----------------|----------------|
| O&M costs                   | \$ 54,902,826  | \$ 54,902,826  | \$ 54,902,826  |
| Capital repair costs        | \$ 100,070,420 | \$ 100,070,420 | \$ 100,070,420 |
| City debenture P&I          | \$ 230,606,656 | \$ 60,460,710  | \$ 238,144,457 |
| Private debt P&I            | \$ -           | \$ 172,112,332 | \$ -           |
| Equity dividend             | \$ -           | \$ 35,518,524  | \$ -           |
| Total nominal over 25 years | \$ 385,579,902 | \$ 423,064,813 | \$ 393,117,703 |

*Note:*

1. Under traditional delivery, the City was assumed to issue a debenture at the beginning of each construction year to fund the capital costs incurred during the next twelve months.
2. Under DBFOM, the City was assumed to make a SCP that is equivalent to 25% of the project total capital costs (including interest expense and fees) to lower the long term private capital that needs to be serviced during operation. It was further assumed that City will issue a debenture at substantial completion to fund such a payment.
3. Under DB(f), the City was assumed to issue a debenture at substantial completion to fully repay the short term private financing employed during construction.



Regardless of the delivery method, the City's ability to issue debenture to fund its share of construction period cost is believed to be unhindered, given the AAA credit rating the City currently holds.

Because of the more expensive private financing costs, during operation period the payments under Preferred Delivery Options are higher than those under traditional delivery model.

Table 19 below summarizes the total nominal payments required from the City during operation, assuming a lump sum contribution (approximately \$38.5 million under DBFOM or \$37.9 million under DB(f)) from P3 Canada Fund upon construction completion.

**Table 19 – Summary Fund Uses during Operation with P3 Canada Fund**

|                             |    | Traditional | DBFOM          | DB(f)          |
|-----------------------------|----|-------------|----------------|----------------|
| O&M costs                   | \$ | 54,902,826  | \$ 54,902,826  | \$ 54,902,826  |
| Capital repair costs        | \$ | 100,070,420 | \$ 100,070,420 | \$ 100,070,420 |
| City debenture P&I          | \$ | 230,606,656 | \$ -           | \$ 178,608,343 |
| Private debt P&I            | \$ | -           | \$ 172,112,332 | \$ -           |
| Equity dividend             | \$ | -           | \$ 35,518,524  | \$ -           |
| Total nominal over 25 years | \$ | 385,579,902 | \$ 362,604,103 | \$ 333,581,589 |

*Note:*

*1. Within this Business Case, we assumed that the contribution will be at the same level 25% under DB(f) as it is under DBFOM. However, further consultation with P3 Canada is required to confirm such assumption.*

Our analysis found that the contribution from P3 Canada Fund will make the P3 delivery options much more affordable to the City. Assuming that a lump sum contribution is made upon construction completion and is equivalent to 25% of total project capital costs, the City will no longer need to issue debenture to fund its SCP under the DBFOM option. Similarly under the DB(f) option, the City will require a smaller debenture to take out the private short term construction debt with the remainder paid off by the contribution. As a result, the City debenture repayment during the operation period will be significantly reduced by approximately \$2.4 million per year or \$60 million in total under each of the P3 options. Note that with P3 Canada Fund contribution, the total payments under Preferred Delivery Options are lower than those under traditional delivery model, which means the City can realize the benefit of P3 risk transfer for free.

### **4.3 Affordability during Operation and City Approved Funding Plan**

#### **4.3.1 Estimated Annual Budget Required for DBFOM**

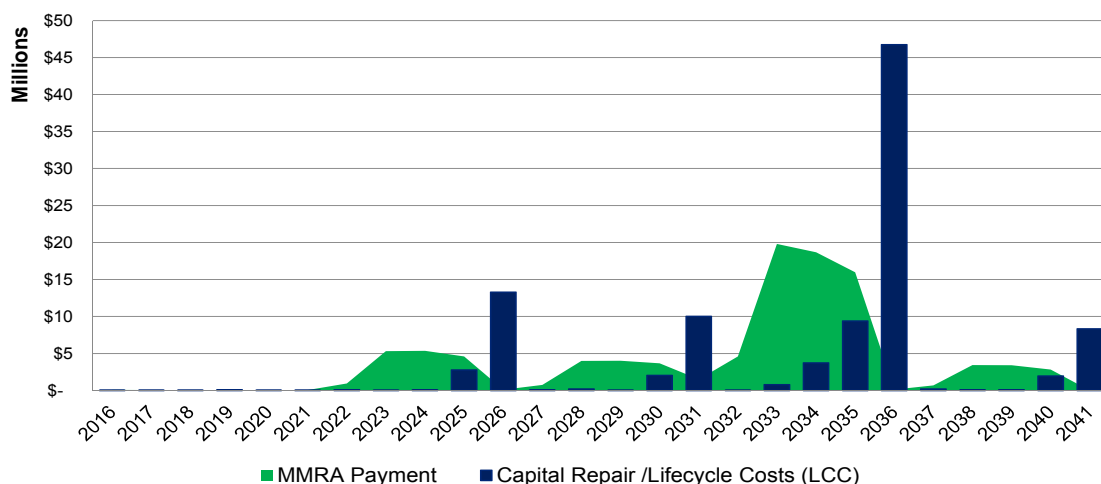
To ensure that the City meet its payment commitment to Project Co. in any given year during operation, City's annual budget should be in line with the required ASP and include the following components:

- A flat capital payment to service the private capital that has been injected to fund the project's construction. This annual payment will remain flat over the operation period and equal to \$8,305,234, which is the sum of private debt P&I (\$172,112,332) and equity dividend (\$35,518,524) (refer to Table 19) divided by 25 years.
- A flat / indexed O&M payment to pay Project Co. for the annual O&M work performed every year during operation. This annual payment will be started with \$1,552,504 (in 2012) and inflated at 2% a year. The initial payment of \$1,552,504 equals to the sum of annual maintenance cost for Transit Headquarters (\$845,009) and O&M costs for the Snow Salt-laden Run-off Decontamination Facility (\$707,495) (refer to Table 11).
- A lumpy / indexed MMRA payment to Project Co for the capital repair work performed in certain years.

As explained in Section 3.3.1 and illustrated by Figure 15 below, by calling for payments earlier than the actual work, the MMRA can help converting the the original lumpy capital repair and lifecycle costs to a

smoother series of payments to Project Co., without changing the the total nominal payments over 25 years (\$100M) (refer to Table 11).

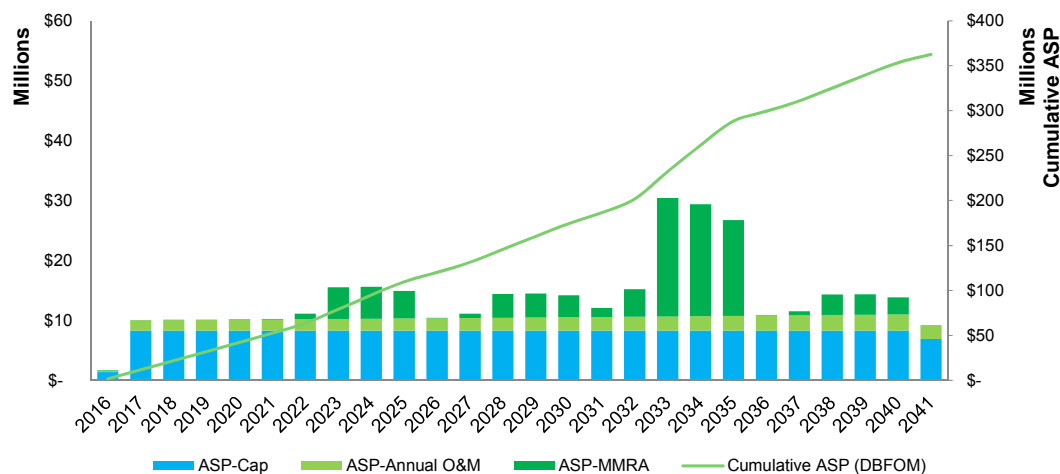
**Figure 15 – MMRA Payments vs. Actual Capital Repair / Lifecycle Costs Schedule**



|      | MMRA Payment | Capital Repair /Lifecycle Costs (LCC) |      | MMRA Payment   | Capital Repair /Lifecycle Costs (LCC) |
|------|--------------|---------------------------------------|------|----------------|---------------------------------------|
| 2016 | \$ 80,159    | \$ 3,593                              | 2029 | \$ 4,004,251   | \$ 34,745                             |
| 2017 | \$ 51,234    | \$ 21,702                             | 2030 | \$ 3,672,007   | \$ 2,029,435                          |
| 2018 | \$ 53,306    | \$ 36,519                             | 2031 | \$ 1,506,508   | \$ 10,004,079                         |
| 2019 | \$ 56,459    | \$ 93,218                             | 2032 | \$ 4,596,177   | \$ 39,083                             |
| 2020 | \$ 57,631    | \$ 24,411                             | 2033 | \$ 19,795,697  | \$ 780,978                            |
| 2021 | \$ 59,962    | \$ 41,079                             | 2034 | \$ 18,678,872  | \$ 3,743,930                          |
| 2022 | \$ 939,071   | \$ 104,857                            | 2035 | \$ 15,973,754  | \$ 9,379,236                          |
| 2023 | \$ 5,318,202 | \$ 27,459                             | 2036 | \$ 113,233     | \$ 46,750,344                         |
| 2024 | \$ 5,350,632 | \$ 46,208                             | 2037 | \$ 691,545     | \$ 188,842                            |
| 2025 | \$ 4,601,567 | \$ 2,771,170                          | 2038 | \$ 3,419,420   | \$ 49,453                             |
| 2026 | \$ 92,677    | \$ 13,296,986                         | 2039 | \$ 3,405,177   | \$ 99,111                             |
| 2027 | \$ 743,166   | \$ 61,905                             | 2040 | \$ 2,826,840   | \$ 1,945,528                          |
| 2028 | \$ 3,982,873 | \$ 182,314                            | 2041 | \$ 0           | \$ 8,314,236                          |
|      |              |                                       | Sum  | \$ 100,070,420 | \$ 100,070,420                        |

Adding up all three components of the ASP, the annual budget required from the City is presented in the figure below. The superimposed cumulative spending curve suggested that the total payments from the City will amount to approximately \$360M by the end of operation period (year 25).

**Figure 16 – City’s Annual Budgetary Requirement under DBFOM**



### 4.3.2 City Approved Funding Plan

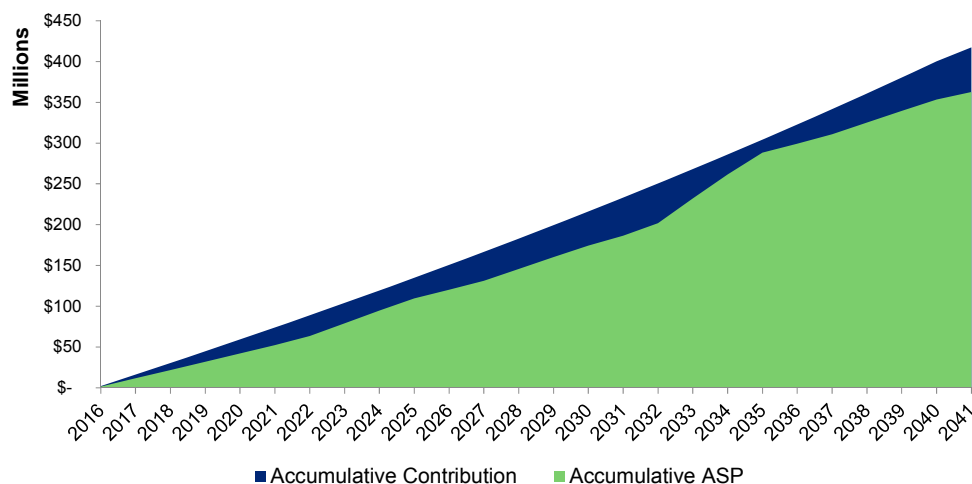
The City's affordability during the operation period depends on i) availability of P3 Canada Fund contribution ii) payments required to fund a portfolio of other capital projects in Saskatoon iii) the incrementality of following revenue sources:

- Annual incremental increase to property taxes;
- Dedication of incremental amount from the Municipal Operating Grant (MOG); and
- Dedication of incremental amount of tax revenue resulting from assessment growth.

Weighing the above revenue sources and the needs from other projects, City Council has approved a plan that supports the City's committed payments for the Bundled COC Project under Preferred Delivery Options, assuming that the P3 Canada Fund contribution is available.

As illustrated by the figure below, at any given point of operation period, the cumulative funding support dominates the cumulative ASP required by Project Co, suggesting that this is a generous budget that not only allows the City to cover all the payments required under DBFOM but also enable the project to sustain, to some extent, potential adverse market fluctuations when the procurement starts (such as cost increase or interest rate hike). This once again demonstrated the City's strong commitment to delivering the COC project (both Phase 1 and Phase 2<sup>18</sup>) using P3, and reassured that it will be very unlikely that the COC Phase 1 project fails because of any budgetary constraint.

**Figure 17 – Approved Budget vs. Projected Spending (Cumulative)**



### 4.3.3 Affordability Stress Test

To demonstrate the City's ability to sustain adverse market fluctuation with the approved budget level, the model generated the following results through a series of stress tests:

**Table 20 – Stress Test Results**

| Test objective                  | "Breakeven" Point <sup>1</sup> |
|---------------------------------|--------------------------------|
| Construction costs              | +10%                           |
| Capital repair costs            | +17%                           |
| Long term private interest rate | +1.00% <sup>2</sup>            |

*Note: 1. Breakeven point reflects the maximum level of changes to a particular model input where the approved*

<sup>18</sup> The approved budget is intended to allow for any unused budget / surplus to be put aside to fund the COC Phase 2.

*budget can still allow the City to meet its payment commitment to Project Co. at any time point during the operation period under DBFOM.*

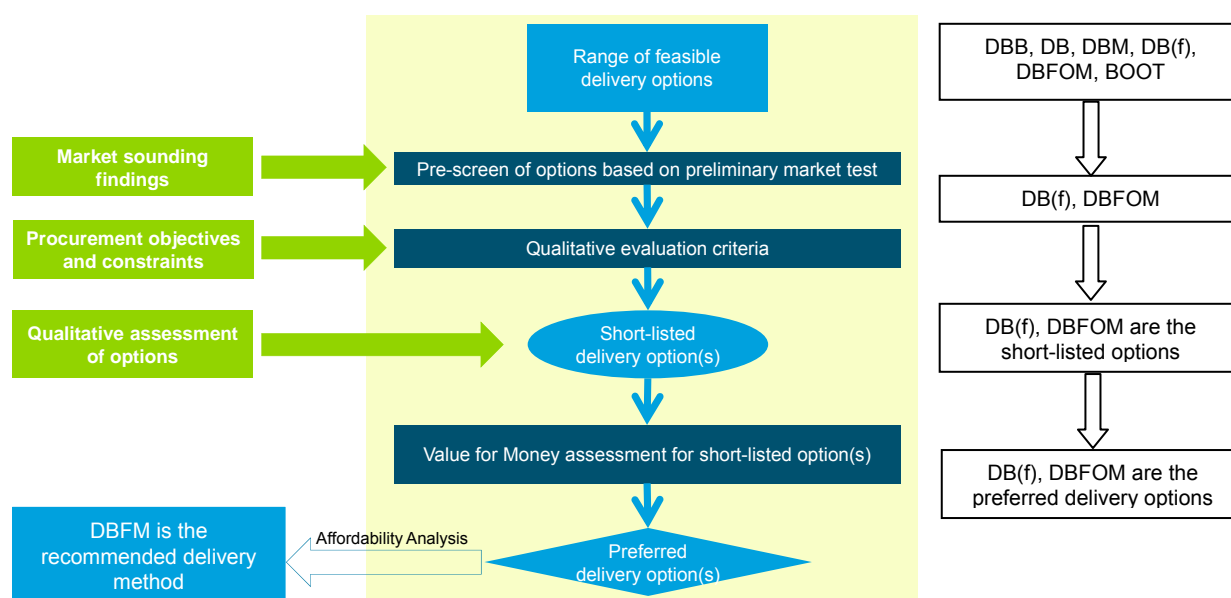
2. It reflects an increase from the base interest rate assumption of 4.53% (refer to Table 12 in Section 3.3.2) to 5.53%.

These results further demonstrated the suitability of the City's approved funding plan, which will allow the Bundled COC Project to sustain, to some extent, adverse market conditions. In addition, the disclosure of the City's affordability threshold within the RFP will reassure the project to be delivered well within the approved budget (refer to Section 6.2).

## 4.4 Recommended Delivery Option

### 4.4.1 Recommendation

**Figure 18 – Project Delivery Option Assessment**



As illustrated in the figure above, the Business Case has gone through intensive tests, from the qualitative market sounding, jurisdictional scan, procurement objective and constraints analysis, to the quantitative VFM assessment and affordability analysis. A wide range of potential delivery options have been tested and finally the Business Case confirms the conclusion that:

**DBFOM is the optimal delivery method for the Bundled COC Project.**

This is not only because the DBFOM delivery method is anticipated to generate the greatest VFM, but also because the Council has approved a robust funding plan to ensure that all the committed payments from the City to Project Co. will be sufficiently covered during operation. With the funding support from PPP Canada and through the DBFOM delivery method, the City is confident to realize significant amount of savings while achieving other social and economic benefits in a timely and efficient manner.

### 4.4.2 Consideration of COC Phase 2 during Development of Phase 1

The City anticipates starting the COC Phase 2 four years after the Phase 1 starts its operations. It is estimated to take two years to build the remaining components on the COC site, including the Public Works facilities, V&E, and biodiesel fuel storage and distribution facility. The City has indicated that Phase 2 can be separated on the COC site and thus could be developed / built without impacting Phase 1. During the procurement of Phase 1, the City should ensure that Phase 2 has been carefully considered to avoid any complications of future development.

# 5 Procurement Strategy

## 5.1 Recommended Procurement Process

Section 4.4 has identified the DBFOM delivery method as the recommended structure for the Bundled COC Project to take to market. The next step is to develop a procurement process for the City and its funders to move the Project from concept to construction.

### 5.1.1 Procurement Considerations

As a general rule, a procurement process will generate the most value for money if:

- It is designed such that it is competitive, fair and transparent; and
- It allows for a degree of innovation from the bid community.

The table below describes the rationales and the extent to which the procurement process envisaged will meet the considerations to drive value for money.

**Table 21 – Key Procurement Considerations**

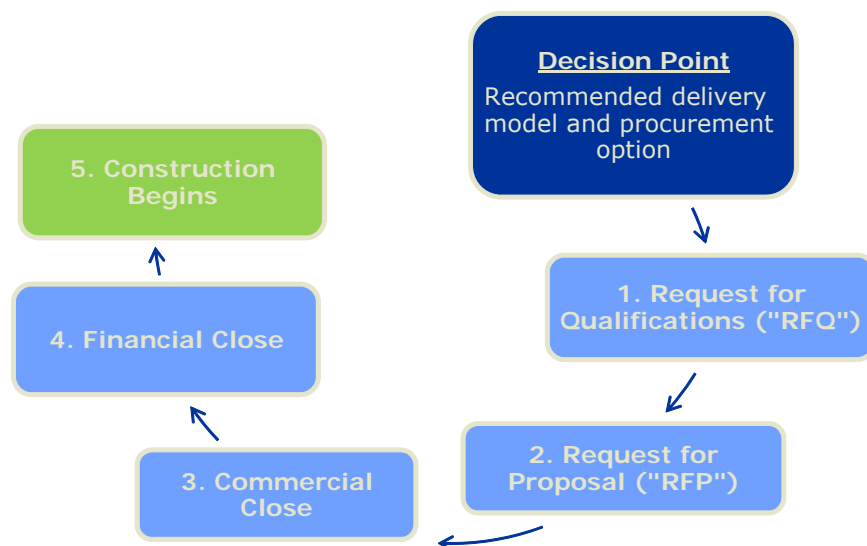
| Key Considerations to Generate VFM               | Bundled COC Project Procurement   |
|--|---|
| <b>Competitive, fair and transparent process</b> | <ul style="list-style-type: none"> <li>• Market sounding results indicate that there is sufficient market interest in the project to generate competition in a procurement process. Correspondingly City plans to widely publish the RFQ to solicit and retain sufficient competitive tension throughout the process. City also plans to engage interested bidders with Commercially Confidential Meetings (“CCM”), providing an opportunity for them to better understand the project and to influence the terms of agreement at the early stage of procurement.</li> <li>• A two-staged procurement process involving both a Request for Qualifications (“RFQ”) and Request for Proposals (“RFP”) stage will ensure that the process remains transparent, allowing only qualified bidders to proceed to the detailed proposal stage. All bidders will receive access to the same level and detail of information throughout the procurement process.</li> <li>• A comprehensive evaluation framework will be developed for each of the RFQ/RFP documents to ensure a rigorous process and, by documenting the evaluation, insulate the City from any claims of unfairness. The evaluation framework establishes a staged evaluation process and tasks teams to undertake each phase. It ensures that the evaluation process yields a result that is fair, defensible, and clearly identifies the preferred private sector partner to take on the project.</li> <li>• During the RFQ/RFP submission evaluation process, the City will set up a single point of contact to issue Request for Clarifications (“RFC”) to as well as answer questions from the bidders. All the questions and answers will be posted to the entire bid community, all the communications will be documented, and all the transaction documents including the final project agreement will be disclosed to the public</li> <li>• To ensure compliance with best practices, an independent fairness monitor, who is reporting directly to the project steering committee, will be utilized to provide an opinion as to whether the process was carried out in a manner that is consistent with the procurement documents issued to bidders and was carried out with openness, transparency, integrity and accountability.</li> </ul> |
| <b>Innovation</b>                                | <ul style="list-style-type: none"> <li>• By virtue of selecting a delivery model that incorporates the “Design” element of the project, the sponsor is allowing a certain degree of innovation from the private sector in how the facility is designed, working within the parameters of the design specifications.</li> </ul>  |

| Key Considerations to Generate VFM | Bundled COC Project Procurement   |
|------------------------------------|---|
|                                    | <ul style="list-style-type: none"> <li>Despite of all the challenges and concerns raised by the market sounding participants, including the Caswell Hill redevelopment into the RFP as either a mandatory submission or an optional submission can bring additional innovation and value to the project. The sponsor would request that the developer propose a price to demolish existing public transit facilities, decommission the land, and build the park and community center, with extra costs either added to the base bid or proposed separately. Developers are incentivized to lower their costs to win extra points from the evaluation.</li> <li>Since the Bundled COC Project does not require more qualifications than the COC Phase 1 project alone, i.e., no commercial/residential development involved, it is more likely that the private partner will mobilize and utilize its equipment and manpower that are already engaged in the COC Phase 1 project to decommission the land and build the park and community center at a competitive price, adding more value to the project.</li> </ul> |

### 5.1.2 Recommended Procurement Process

A typical procurement process is recommended and would consist of an RFQ followed by a RFP. The figure below shows the work flow of a typical process, starting with the issuance of a RFQ. A similar process is recommended and will be considered for the Bundled COC Project.

**Figure 19 – Work Flow of a Typical Procurement Process**



#### Request for Qualifications

An RFQ is issued by the public sector in the early stage of the procurement process to pre-qualify bidders based on their experience in design and construction of similar projects, as well as their financial strength and capacity to undertake the project and obtain financing required. The RFQ eases the RFP review process by preemptively short-listing bidders who meet the desired qualifications. A typical prequalification stage will normally take up to 4 to 5 months from the time RFQ is issued to the selection of pre-qualified bidders.

#### Request for Proposal

The RFP stage is a more detailed process requiring the short listed bidders to submit a proposal on how they will deliver the project to the specifications described in the procurement documents and with a proposed fixed price. The RFP stage generally will include the evaluation of the bidders' submission scored in accordance with the evaluation criteria set out by the project sponsor. The RFP process typically takes on average, 5 to 6 months to complete from RFP release to receipt of submissions. During

this RFP open period confidential meetings are held with bidders to allow open dialogue between the project sponsor and bidders to seek clarification on the design specifications or other aspects of the project agreement and RFP.

The RFP document itself is typically quite extensive and includes the following key elements:

- Main Body of the RFP
  - The main body of the RFP describes the key elements of the procurement process including:
    - Procurement schedule (i.e. submission date, anticipated financial close);
    - Proposal submission requirements (i.e. design, price, financial model);
    - Evaluation criteria<sup>19</sup> (i.e., on what basis the preferred bidder will be selected);
    - Sponsor contact information and process for asking questions during the process; and
    - Rights of the sponsor.
- Project Agreement
  - The PA is the governing document that describes the contractual relationship between the sponsor and the selected bidder for the duration of the contract term. It will include all of the terms and conditions required to reflect the deal structure being proposed. The PA will describe, among other things:
    - Design development process;
    - Construction responsibilities;
    - Timeline and consequences of not achieving the Substantial Completion Date;
    - Payment terms – including what triggers a payment, when can monies be withheld or what deductions are in place for failure to perform under the contract; and
    - Consequences of Force Majeure events.

### Preferred Bidder

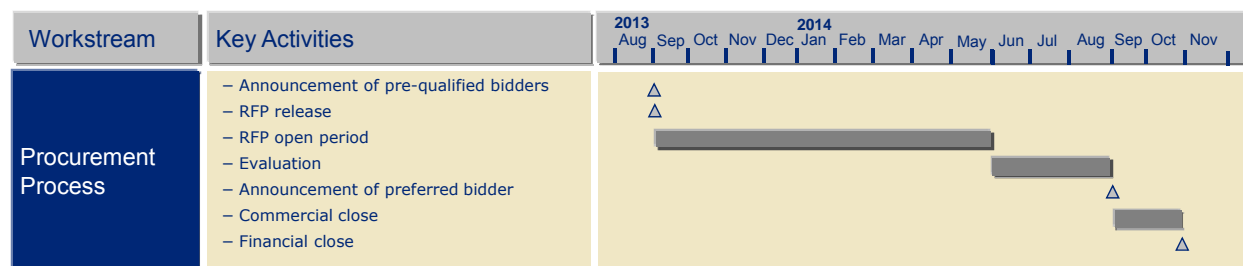
Preferred Bidder (“PB”) stage is the final stage between RFP submission and commercial and financial close. The preferred bidder will be the bidder that has submitted the most economically advantageous tender, on the basis of the criteria that were specified in the RFP. In the PB stage, the terms of the contract are finalized and signed and financing is secured as required.

### Commercial and Financial Close

Commercial Close refers to the point of time when the PB agrees to the terms and conditions as described in the PA. At this point, the PA is final and subject to the PB completing a rate setting protocol to lock in the required financing (called Financial Close). These typically occur within days of one another.

The figure below presents an illustrative procurement timeline for the Bundled COC Project, with a focus on the RFP stage.

**Figure 20 – Illustrative Timeline for Bundled COC Project Procurement**



<sup>19</sup> The score assigned to bidder's technical submission will not be lower than 50%. It is likely in the order of 50%, with the other 50% assigned to the financial submission to encourage price compression. The City will decide the final allocation as part of the RFP development process.



Deloitte believes that the above timeline has built in enough “time buffer” during the RFP open period to:

- Attract enough market attention;
- Allow bidders to fully understand the project and respond with competitive price;
- Align the anticipated financial close with the City’s fiscal cycle as well as with PPP Canada’s funding cycle; and
- Sustain potential delay risks described in Section 2.4.5

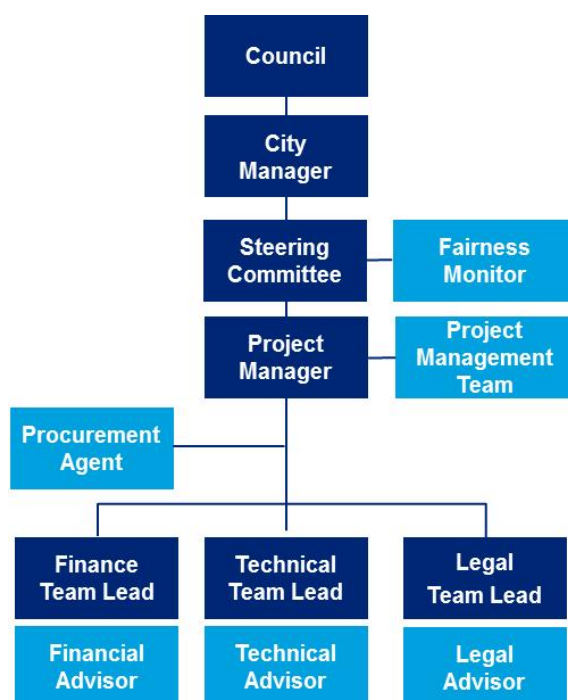
Meanwhile to improve the efficiency of procurement process, the City also plans to start developing the RFP and PA documents during the RFQ open period and issue the RFP once the pre-qualified bidders are selected (refer to Figure 23).

## 5.2 Policy and Procurement Framework

A project with the size and scope of the Bundled COC Project requires the dedication of appropriate human and financial resources and an accountability and communication structure that will facilitate the efficient and effective execution of both the procurement process and project delivery.

A Steering committee will be in place for the Bundled COC Project with all key partners and stakeholders engaged in the project’s development. A next step would be to assign a dedicated project manager and to retain key advisors for the assignment. There are four essential types of advisors required to support the delivery of the project – transaction and financial, legal, technical and communication – that can be sourced from internal capacity and third party firms. Each of these advisors plays an important role in supporting the development and execution of the procurement process (RFQ and RFP), supporting the City in negotiating the final project agreement with a selected bidder and advising the City on the performance of the preferred bidder from the period post-financial close to the commissioning of the infrastructure assets. The figure below illustrates the expected project management structure described above.

**Figure 21 – Illustrative Project Management Structure**



Expected roles and responsibilities for each party are listed below:

#### **Council**

- Oversight and governance to ensure that the City's strategic objectives are met;
- Delegate authority to the City Manager, as appropriate; and
- Approve pre-qualified bidders and preferred bidder.

#### **City Manager**

- Execute final PA at financial close;
- Due-diligence and oversight, as required (or delegate such authority); and
- Provide direction to the Project Manager on key strategic decisions, as required.

#### **Steering Committee**

- Delegates authority to the Project Manager and the financial, technical and legal teams;
- Proposes and approves any divergence from the evaluation framework;
- Approves all documents related to the evaluation process, including the evaluation framework;
- Receives reports from the conflict review team and the Fairness Monitor;
- Approves scoring criteria to be used by the evaluation teams;
- Rules on any non-compliance issue identified by the completeness review team and evaluation teams;
- Undertakes initial pre-screen of innovation submissions (if any) to determine which ones should be reviewed by the relevant evaluation team;
- Ultimately decides which innovation submissions are accepted for formal scoring by the relevant evaluation teams;
- May review the proponent submission and may review the work of the evaluation teams;
- Reviews findings from the completeness review team, technical evaluation team, and the financial evaluation team;
- Ranks Proponents based on the final proposal score and, in the event of a tie, gives the proponent with the higher financial score a higher ranking;
- Endorses the recommendation of the Preferred Proponent for approval by the Council;
- Oversee the budget and ensure that the City's affordability threshold is met;
- Advise on risk allocation and project agreement; and
- Provide guidance with respect to the output specifications, including hand-back conditions, to ensure that the City's objectives are met, i.e., delivery of a quality facility at a competitive price.

#### **Project Manager (Doug Drever)**

- Responsible for day-to-day management and co-ordination of all activities;
- Ensure compliance with project schedule and budget;
- Direct advisors on the development of the RFQ and the RFP.
- Primary contact for all bidders during the procurement process;
- Appoint the contract management team (technical, financial, legal);
- Manage project risks and ensure that the PPP project continue to be affordable and provides value for money and appropriate risk transfer;
- Monitor the private sector service provider's performance. Ensure the requirements of output specifications as well as other contractual obligations are met; and
- Prevent and/or resolve disputes.

#### **Project Management Team (City staff)**

- Support the Project Manager, as required.

#### **Procurement Agent**

- Assist the Project Manager with the coordination of all advisors to complete RFQ, RFP and PA including the preparation of addenda and clarifications;
- Manage the project data room (FTP Site) including the posting of all bid documents, clarifications, addenda and other notices to bidders;
- Manage the development of the evaluation framework to guide the evaluation of the RFQ and RFP responses, including facilitation of evaluator training sessions;
- Manage all procurement functions including completeness and compliance with RFP and RFQ submission requirements;

- Develop confidentially processes and procedures to prevent conflicts of interest;
- Work with the Fairness Monitor to resolve fairness issues, as required;
- Co-ordinate RFQ and RFP evaluations and document results; and
- Assist in the selection of Legal and Technical Advisors, as required.

#### **Fairness Monitor**

- Independently monitor the procurement process to ensure compliance with best practices on fairness and transparency; and
- Provide opinion at financial close.

#### **Finance Team Lead (Linda Andral)**

- Direct Financial Advisor to ensure compliance with the City's financial policies and procedures;
- Lead the financial evaluation of the RFQ and RFP responses; and
- Support the Project Manager with internal approvals and briefings, as required.
- Responsible for day-to-day management (budget, process, project scope, project schedule, and stakeholder relationship) and coordination of the project team, including external advisors; and
- Direct reporting relationship to governance committee and decision-making authority within delegations set by governance committee or sponsor's governing body.

#### **Financial Advisor**

- Structure and draft bid documents (RFQ and RFP) based on the Alberta template, including a customized evaluation methodology and all financial submission requirements, to ensure good quality responses;
- Develop affordability threshold and, if necessary a scope ladder (should affordability be an issue);
- Work with the Technical Advisor to develop and calibrate the payment mechanism;
- Provide input to the Legal Advisor, as required, regarding PA financial matters;
- Attend Commercially Confidential Meetings ("CCMs"), as required;
- Prepare responses to bidder questions and addenda, as required;
- Assist the Finance Team Lead in evaluating responses to RFQ and RFP, as required;
- Develop evaluation worksheets required for the evaluation framework;
- Review financial models submitted as part of the RFP submission to ensure compliance with the RFP and the PA;
- Assist in developing the reference projects and VFM benchmarks;
- Lead the risk identification and quantification required for the VFM;
- Provide support on the development of the PPP Funding Agreement;
- Provide support during the Commercial and Financial Close periods, as required; and
- Assist in sounding out the market and raising the profile of the project (in conjunction with the Project Manager).

#### **Technical Team Lead (Doug Drever)**

- Provide direction to the Technical Advisor to ensure compliance with the City's transit and works policies and procedures;
- Lead the technical evaluation of the RFQ and RFP responses; and
- Support the Project Manager with internal approvals and briefings, as required.

#### **Technical Advisor**

- Develop all technical submission requirements for the RFQ and RFP including the development of evaluation worksheets required for the evaluation framework;
- Assist the Technical Team Lead during the evaluation of submissions, as required;
- Participate in risk workshops required for the VFM, as required;
- Review Technical RFP submissions to ensure compliance with the RFP and the PA;
- Attend CCMs, as required;
- Develop the Basis of Design for approval by the City;
- Building on the Basis of Design, develop the Indicative Concept Design to support the RFP technical submissions, including the development of all Design and Construction Specifications;
- Work with the Financial Advisor to develop Facilities Management Output specifications;
- Develop hand-back specifications;
- Provide input to the Legal Advisor, as required, regarding technical matters within the PA;
- Prepare responses to bidder questions and addenda, as required;

- Provide support on the development of the PPP Funding Agreement; and
- Provide support during the Commercial and Financial Close periods, as required.

#### Legal Team Lead (City's Solicitor Office)

- Provide direction to Legal Advisor to ensure compliance with the City's contractual and procurement policies, and procedures;
- Provide legal support during the RFQ and RFP process, as required;
- Lead development of PPP Funding Agreement; and
- Support the Project Manager with internal approvals and briefings, as required.

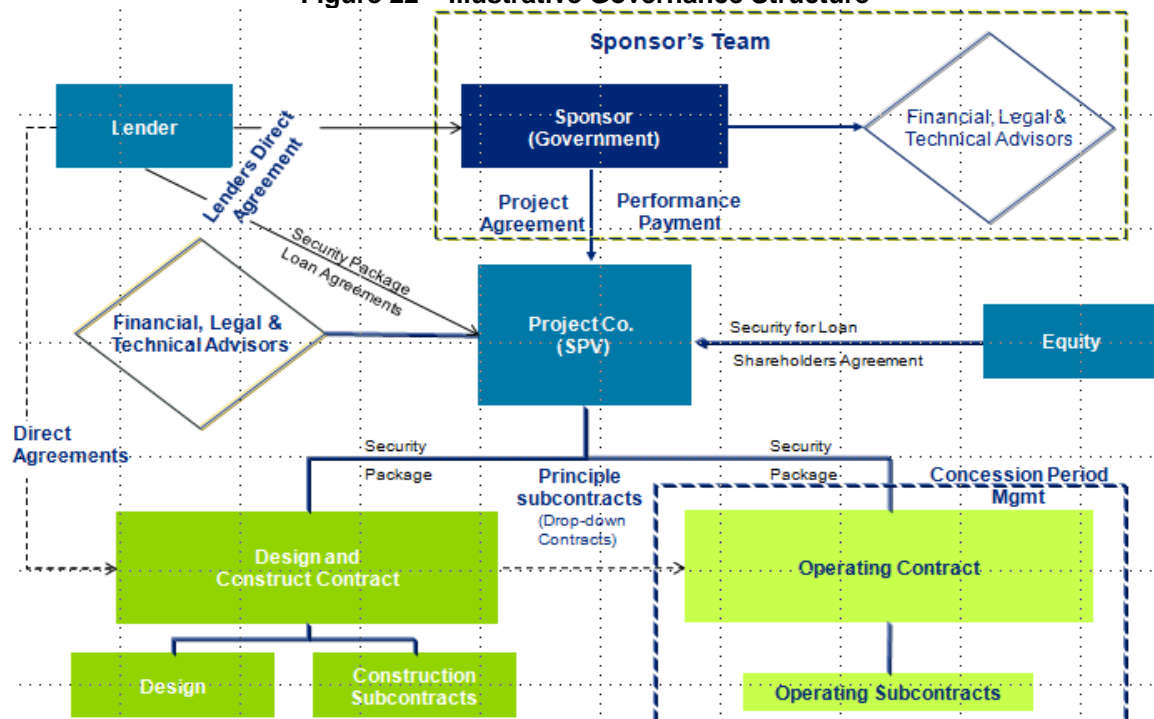
#### Legal Advisor

- Review RFP submissions to ensure compliance with the RFP and the PA;
- Attend CCMs, as required;
- Lead the development of the PA and obtain input from the Financial Advisor and Technical Advisors, as required;
- Prepare responses to bidder questions and addenda, as required;
- Provide support on the development of the PPP Funding Agreement; and
- Provide support during the Commercial and Financial Close periods, as required.

### 5.3 Project Governance Structure

The procurement is expected to be structured following a project finance structure. Project Co., a Special Purpose Vehicle ("SPV") formed by the private sector to deliver the Bundled COC Project will enter into a direct lending agreement with lenders and a shareholder agreement with equity providers to secure the financing required for the project development costs. The SPV will also contract with design and construction as well as operation (if applicable) and maintenance contractors and subcontractors, who are often required to provide further performance security packages, such as the letter of credit. The SPV will then bound itself with the PA that is to be officially signed on the Financial Close date. During operation as long as the SPV delivered services to the standards articulated in Output Specifications, the City will make performance payments to the SPV on a monthly basis until the end of concession. Both the City and the SPV will be supported by their respective financial, legal and technical advisors through different phases of the transaction. The figure below illustrates the expected project governance structure described above.

Figure 22 – Illustrative Governance Structure



## 5.4 Project Team

### 5.4.1 City Project Team

The City's procurement team consists of the City staff that has years of experience in P3 and/or complex infrastructure procurement. To the extent that advices are required over and above what exist in-house, the City will retain external advisors, including an Owner's Engineer, to direct the RFQ/RFP processes.

Key members of the City's procurement team include:

#### **Doug Drever**

Doug Drever, P.Eng. FEC, is the Project Director for the City of Saskatoon Circle Drive South project as well as the proposed Civic Operations Centre. Doug is a graduate of the University of Saskatchewan in Civil Engineering. He has worked for the City in a variety of capacities since 1979, such as a Project Engineer, Land Development Engineer, Interim Department Business Administrator, Operations Engineer, Roadways Manager, Public Works Manager and Strategic Services Manager. Prior to that Doug was a Civil Design Engineer with the Sask. Power Corporation. He is presently the Region 9 Director for the American Public Works Association, on the Board of Directors for a local Credit Union, and is the Civil Councilor for the Association of Professional Engineers and Geoscientists of Saskatchewan (AEGS).

Roles: Project Manager and Technical Team Lead. Doug will be made available to the Project as required. It is anticipated that on average he will commit approximately seventy-five percent of his time<sup>20</sup>.

#### **Linda Andal**

Linda joined the City in 1985. She is a Certified Management Accountant and has held several progressive accounting management positions within the corporation. Linda led the business case development and VFM analysis for Saskatoon's Police Headquarters project. Linda recently attained her Certification as a Public Private Partnership Specialist.

Roles: Finance Team Lead. Linda will be made available to the Project as required. It is anticipated that on average Linda will commit approximately thirty percent of her time to this project.

### 5.4.2 Financial and Transaction Advisor

In early 2013, the City will look to retain external Financial and Transaction Advisor through a competitive tender process. Deloitte has assembled a team to assist the City for the preparation of this Business Case. Their team is comprised of experienced professionals who have a proven track record for producing results and a reputation for client satisfaction, coast-to-coast and internationally. These key team members include:

#### **Remo Bucci, Lead Advisor**

Remo is a Vice President and Director in Deloitte's IA&PF practice. Remo brings diverse and unique skills that encompass infrastructure design and project management with public policy proficiency. Remo is an expert in business case development and risk identification and analysis in the transportation, healthcare and energy sectors where he also combines technical knowledge, financial expertise, and a keen understanding of the public policy environment as well as relevant procurement policies and processes to advise public and private sector clients. Remo has been a key contributor to the development and evolution of IO's VFM methodology and has led risk identification and assessment workshops for the Regional Municipality of Waterloo, the City of Winnipeg, the Region of Durham, the City of Ottawa and Infrastructure Ontario, among others. For more than a dozen of important infrastructure projects in Canada, Remo was responsible for all aspects of the project delivery including: the development of procurement documents and processes; development of the evaluation framework and the evaluation co-ordination; development of contract documents; management of engineering, legal and financial sub-contractors; stakeholder consultations; and overall contract administration and budget / schedule control.

---

<sup>20</sup> As with any project management, the amount of time required will vary by project stage and experience of the Project Manager. There will be time where Doug is 100% on the Project (e.g., up to RFP release) and times when he is less demanded (RFP open period). Doug's significant level of project experience and his demonstrated ability to deliver projects have been taken into account by this Business Case to determine the appropriate level of resource required to deliver the Bundled COC Project successfully.

Over the past 3 years Remo has been the lead advisor on three closed municipal P3s – Winnipeg’s Disraeli Bridges and Chief Peguis Trail, and the Region of Durham’s Energy from Waste Facility. Prior to joining Deloitte, Remo was a Senior Engineer at the Ontario Ministry of Transportation.

#### **Kevin Li, Advisor**

Kevin is a Manager in the IA&PF practice. Kevin is a CFA charter holder with a MBA in finance from University of Toronto and honours Bachelor of Arts in Economics. For the City of Winnipeg P3 projects (Disraeli Bridge and Chief Peguis Trail), Kevin developed a comprehensive project financing model to analyze the VFM and potential impact of increased government funding on annual service payments to the private partner. Kevin has advised on a number of P3 procurements and served a diverse range of clients including Infrastructure Ontario, the Regional Municipality of Durham, the Region of Waterloo, and the City of Winnipeg, among others. He was actively involved in the VFM analysis at all stages of procurement, preparation of evaluation framework, financial submission review, financial analysis support during negotiation with preferred bidder, as well as base rate reset at financial close.

Detailed roles and responsibilities of the Financial Advisor are described in Section 5.2.

### **5.4.3 Legal Advisor**

In early 2013 the City will look to retain external legal counsel with project finance and/or P3 experience. After assessing in-house expertise, particular areas where external legal advice may be appropriate (without duplicating the Financial Advisor and the City’s Solicitor Office) include:

- Draft PA;
- Advice on contractual issues with the tender documentations; and
- Provide other legal advice (e.g., taxation, intellectual property; corporate finance, banking, etc.).

Detailed roles and responsibilities of the Legal Advisor are described in Section 5.2.

### **5.4.4 Technical Advisor**

In early 2013 the City will look to retain architects, engineers, contract managers and other technical professionals for technical advices required over and above the skills that may exist in-house or from their Financial Advisors. Specific technical advice may be of particular use, for example, in the following areas:

- Assist in defining output specifications;
- Draft technical aspects of the tender documents;
- Technical evaluation of proposals and bids, including capability of contractors;
- Quality assurance during the construction phase together with arrangements for sampling contractor compliance;
- Estimating the value of assets; and
- Advise on technical aspects of facilities and their lifecycle management.

Detailed roles and responsibilities of the Technical Advisor are described in Section 5.2.

## **5.5 Project Resourcing and Budget**

City Council has also approved the funding support that is required to cover the planning and procurement costs in relation to the Bundled COC Project. Specifically, the approved amount and timing of such funding support is as following:

- Year 2011: \$350,000
- Year 2012: \$500,000
- Year 2013: \$7,500,000
- Year 2014: \$1,000,000

In addition, this Business Case sought P3 Canada Fund contribution that is related to eligible procurement costs. It is estimated to be in the order of \$875,000 and paid in lump sum at financial close to offset 25% of the City’s procurement costs in hiring all the financial, legal and technical advisors (refer to Section 3.3.3).

The City Administration will continuously work with the Council and other stakeholders to secure any further resources that may be required to move the project through the planning, procurement and post-procurement phases in terms of time, the training and the budget.

## 5.6 Key Documents

The City intends to use standard transaction documents in procuring the Bundled COC Project, including the RFQ, RFP and PA. Among the potential candidate templates that are generally used in Ontario, Alberta, or British Columbia, this Business Case recommends the Alberta template, due to its simplicity of use and the familiarity cultivated through precedent projects (e.g., the Saskatoon Circle Drive South project. Winnipeg also used these documents for Disraeli Bridges and Chief Peguis Trail).

The following adjustments will be made to Alberta documents to suit the Bundled COC Project:

- Allowance for a substantial completion payment to be funded by PPP Canada;
- Evaluation criteria likely in the order of 50% Technical and 50% Financial;
- Inclusion of a mandatory affordability threshold to ensure that the Bundled COC Project complies with the budget approved by the City Council / PPP Canada; and
- PA output specifications and payment mechanism to be developed to suit the Transit Headquarters and the Snow Salt-laden Run-off Decontamination Facility.



# 6 Implementation Plan

## 6.1 Project Status and Next Steps

One of the key purposes of this Business Case was to recommend an optimal deal structure and process that provides the greatest value for money to the City and at the same time meets the project goals, objectives and constraints. While this Business Case has achieved its objective, it also enables the City to clearly identify the next steps and key decisions that must be made to move this project forward. These include:

- **Development of communication strategy.** In order to minimize the risks in connection with the stakeholder consultations, the City has engaged Creative Fire, a Saskatoon communication firm, to develop an effective communication strategy and protocol as well as a detailed stakeholder management plan. The Communication Strategy and related materials have been delivered to the City in October 2011 and are included in Appendix 1 to this Business Case.
- **Completion of stakeholder consultation.** Based on the communication strategy, the City will consult with the public and local business communities through a series of consultation meetings within 3-5 months of P3 Canada Fund approval. Key objectives include:
  - To identify any negativities towards the project or P3; and
  - To educate stakeholders of the social benefits of Bundled COC Project as well as the benefits of delivering the project as a P3.

The theme and messages gathered from the above meetings will be considered during the COC design process and relevant detailed Environmental Assessment ("EA") studies.

- **Acceptance of the Recommended Delivery Method:** This Business Case has assessed the DBFOM as the recommended way in which to contract with the private sector in a P3 arrangement for the project. The City, as an initial step, will need to accept this recommendation before proceeding to a transaction process to select a private partner.
- **Detailed EA approvals:** The City has conducted Phase II ESA, detailed Individual EA studies still need to be completed and approved to ensure that if an environmental risk occurs, the risk can be identified and quantified as to the responsibility of the contaminator. However, it is noted that the EA requirements should be minimal, likely a screening assessment instead of a full EA. No issues are anticipated since the project is not controversial, and there will be sufficient time (1.5-2 years) for the City to obtain all required EA approvals prior to the financial close.

For the ancillary land development in south Caswell Hill, rezoning may be required but more importantly a detailed environmental condition study will also need to be completed to assess the contamination issues on the existing Public Transit site.

- **Confirmation of funding sources:** The City plans to issue long term debenture, but only to the extent that the expected SCP exceeds P3 Canada Fund contribution. So as the first step, the City will require confirmation of the P3 Canada Fund and engage in on-going discussions with P3 Canada to clarify both the size and form of the funding. Questions/topics include:
  - Are there any constraints by PPP Canada in terms of how the City should use the contribution? For example, would it be acceptable to put aside part of the contribution and use it to cover the interim ASP or O&M costs?
- **Formation of project management structure.** Proceeding with a procurement process requires a significant amount of effort in preparing the documents, overseeing the execution of the process, negotiating and closing the deal. It will require advice and input from various parties including external advisors, internal municipal staff and key stakeholders. Based on the illustrative structure explained in Section 5.2 of this Business Case, City will need to decide and set up a strong project management structure and a project team identified with clear roles and responsibilities.
- **Purchase of procurement document templates.** The City will need to purchase a template for the project RFQ, RFP, and PA. This Business Case recommends the Alberta template for the familiarity and simplicity of use. Such documents are no longer free to public and therefore the City should be prepared to purchase them at a fee.

- **Other approvals.** Council approvals will be required to retain advisors in early 2013.

The figure below demonstrates the timeline the City plans to use to bring the project to “market ready”:

**Figure 23 – Illustrative timeline to “market ready”**



Figure 23 demonstrates that the earliest time to release the RFQ would be March 2013, and the time to release RFP would be August 2013.

## 6.2 Implementation Considerations

A key question all market sounding participants asked was how the payments will be made to the bidder and who is backing up and guaranteeing such payments. Some saw the P3 Canada Fund contribution as a good indicator leading to successful transaction.

To secure the funding, City must understand the conditions/constraints by PPP Canada, who will be looking for certain elements to exist in the planning and procurement of a P3 project before the funding is provided. Engaging in ongoing discussion and working closely with P3 Canada Fund will enable the City to identify these elements and work out a robust funding structure that elicits bids.

Where approvals from municipal council have been achieved, it is important to scrutinize the language of the approval to clearly understand what has been authorized or delegated. A lack of clarity in the approval language could impact project development and a project team's ability to transact the project, or may cause P3 bidders to see additional risk in pursuing the project which could impact competitive tension and/or price.

To provide bidders with the comfort that the project is within the pre-approved funding commitment, the City should consider disclosing its affordability threshold in the RFP, in order to alleviate the perceived “political risks” as noted by the market sounding participants. In particular, the affordability threshold is based on the City's “top-down” internal budget which will be established and confirmed prior to the RFP release. Within the RFP, this threshold will be disclosed as a mandatory (pass / fail) requirement and associated with specific output specifications.

During the RFP open period, bidders will comment on the disclosed threshold to address any compliance issues. The City will then revisit and incorporate the feedback to the output specifications to maximize the compliance. This approach can provide assurance to PPP Canada and the City that the project will be delivered on budget.

To help the City better understand implementation risks and mitigation measures, Deloitte touched on the following lessons learned during the risk workshop, and further presented to the City's senior management with more details on May 19, 2011.

- PPP processes are complex and require significant investment by staff (in addition to “day-jobs”)
  - dedicated resources required to financial close;
- Need to proceed for the proper reasons – risk transfer and lifecycle asset performance

- Develop understanding of the difference between risk adjusted VFM “savings” and cash / nominal costs (the budget / impact to tax base)
- Clear understanding of “affordability” for bid purposes (budget) and public communication
- Costs or budget should be inclusive of construction (capital re-payment) + operation + maintenance + lifecycle presented in both nominal and PV terms
- Need for a political champion – council support
- Need for internal champion – senior management support
- Proactive communications strategy to manage public expectations
- Engage bargaining units early to address concerns about “privatization”
- Selection of legal advisor with detailed understanding of PA template
- Delegation of decision making authority to provide confidence to bidders that decisions will be made in timely manner (to reach financial close) – avoid political risk

### 6.3 Stakeholder Engagement and Communications

Creative Fire has prepared a communication plan along with a timeline and draft brochures (Appendix 1), all finalized by the end of October 2011. Overall, the communications plan identifies the challenges, goals, strategy, target audiences, key messages, tools, and tactics for successfully rolling out the COC and P3 funding model to residents, stakeholders, and the media.

The plan can be implemented in phases, depending on the climate and response to the COC and P3s. Part of the plan involves meeting with key stakeholders prior to a public announcement that the project is proceeding. Target audiences include:

- Civic employees, particularly those who will be relocated to the proposed COC site;
- Saskatoon citizens and opinion leaders, including business organizations at the municipal and provincial level, and SUMA;
- Community associations representing Montgomery Place and Caswell area residents;
- Local media including editorial writers for the Star-Phoenix and Planet S Magazine; television program hosts for Shaw Civic Matters, CTV News at Noon, and Shaw TV News; 650 NewsTalk radio host John Gormley; and, relevant civic bloggers;
- Representatives of CUPE and other civic unions representing in-scope City of Saskatoon employees;
- Saskatoon City Councilors; and
- Provincial political leaders, in particular the Minister of Government Services, Minister of Municipal Affairs, and the Premier of Saskatchewan.

The goal is to establish certainty in the feasibility of the COC by highlighting its benefits to citizens and building public confidence in P3s as the right approach for this particular project. To achieve this goal, a series of supporting tactics is proposed to reach key audiences using a variety of media (i.e. print, social, web). Another component of the plan involves enlisting and leveraging third party endorsements of the P3 approach and COC concept to validate and strengthen the case for both.

### 6.4 Post-procurement Contract Administration

Unlike traditional projects, P3 projects involve long-term contractual relationships that require a project sponsor to invest in resources to manage these long term arrangements. International best practice is to ensure that individual/team that will be ultimately responsible for managing the contract with Project Co. should be involved as early as possible, preferably at the pre-procurement stage, in the development of the project to ensure a number of risks do not occur. These risks include:

- Late appointment of the contract management team, leading to the team having to balance the need to “get up to speed” on the contract documents while actively managing the contract itself;
- Relationship conflicts related to the contract management team lacking knowledge and understanding of the Project Co.’s service solutions and relevant contract provisions;
- Inappropriate or inconsistent application of deductions for poor performance because of the contract management team’s lack of knowledge of the payment mechanism and monitoring system; and

- Inappropriate scope or poor services implementation resulting from not involving the contract management team in the mobilization of the project.

Recognizing the importance of lifecycle management and oversight to secure value from a P3 delivery mode, the City is committed to integrate the functions of contract management and operation representatives into the project team to ensure a proper transitioning of the project from design/construction to the operation phase.

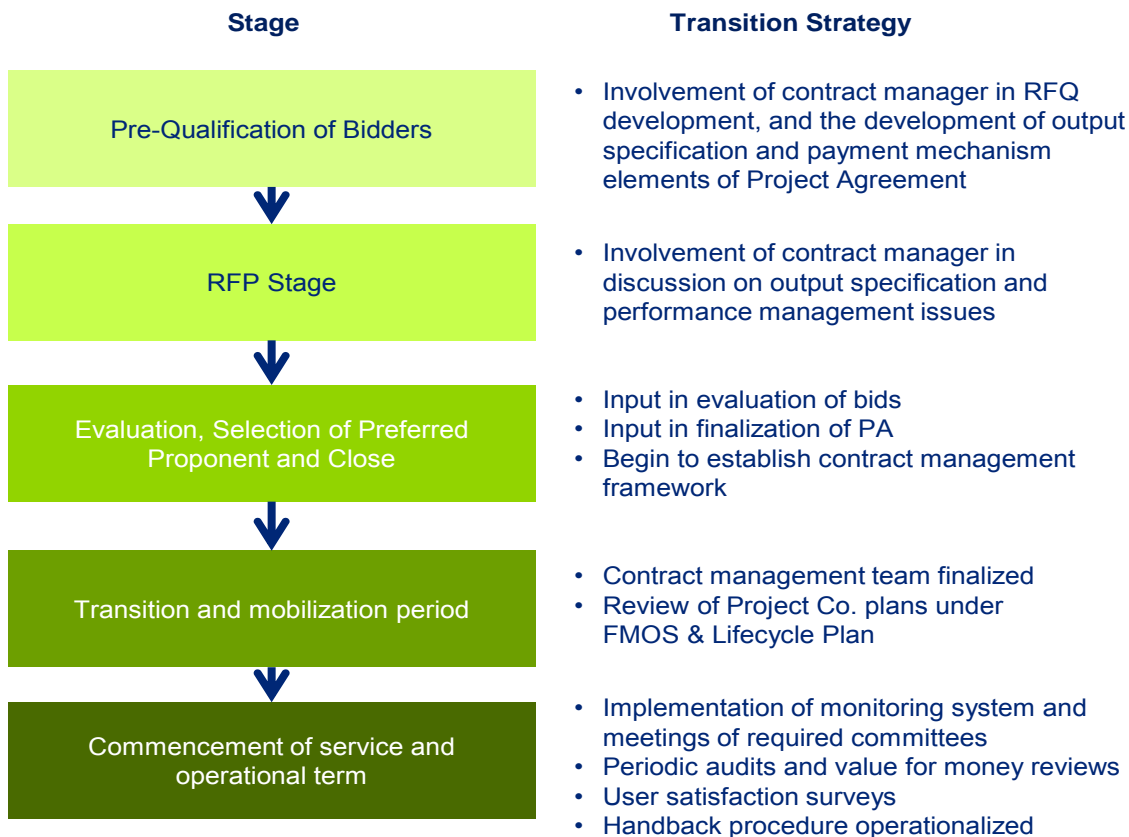
To manage the project following the commencement of operation, the City plans to take the following actions to ensure the achievement of risk transfer and value for money:

- Establish reporting procedures and frequency requirement as part of the development of PA Output Specifications (under Facilities Management);
- Develop protocols to manage monthly payments through the payment mechanism; and
- Incorporate the above noted reports ("Reports") into the City's internal reporting process.

Under the direction of Transit Manager and supported by designated staff in Legal and other areas, the City's Transit Accounting Coordinator will be responsible for managing the operational component of the contract with Project Co., reviewing the Reports and taking any actions required.

The figure below illustrated, at a high level, City's transition/succession management strategy at different stages of delivering the Bundled COC Project:

**Figure 24 – Illustrative Transition Management Strategy**



## Appendix 1 – Communication Strategy and Related Materials



Common Questions &  
Answers



COC P3 Brochure



COC P3 - Web  
Content

### **[www.deloitte.ca](http://www.deloitte.ca)**

Deloitte, one of Canada's leading professional services firms, provides audit, tax, consulting, and financial advisory services through more than 7,700 people in 58 offices. Deloitte operates in Québec as Samson Bélair/Deloitte & Touche s.e.n.c.r.l. Deloitte & Touche LLP, an Ontario Limited Liability Partnership is the Canadian member firm of Deloitte Touche Tohmatsu.

Deloitte refers to one or more of Deloitte Touche Tohmatsu, a Swiss Verein, and its network of member firms, each of which is a legally separate and independent entity. Please see [www.deloitte.com/about](http://www.deloitte.com/about) for a detailed description of the legal structure of Deloitte Touche Tohmatsu and its member firms.

© Deloitte & Touche LLP and affiliated entities.