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## **RE: Supplement to Deloitte Project Delivery and Procurement Options Report**

### **1 Background**

Since early January 2010, Deloitte and Touche LLP ("Deloitte", "we", or "our"), have been working with the City of Ottawa ("City") to assess a range of contractual forms that could be applicable to the proposed Ottawa Light Rail Transit project ("OLRT"). More specifically, we were engaged to analyze a range of contractual options that transfer higher amounts of risk to a private partner ("Private Partner") through different forms of contract structures ("Project Delivery Options"). These options include traditional forms together with the use of Public Private Partnerships ("PPPs"). This work was documented in our report "Ottawa Light Rail Transit Project, Project Delivery and Procurement Options Report, Final Version: February 28, 2011" (the "Report").

#### **1.1 Deloitte Report on Project Delivery Options**

The Report contained a detailed evaluation framework which was used to analyze each of the Project Delivery Options against common evaluation criteria based on the City's objectives. The Report identified four Project Delivery Options ("Shortlisted Options") which featured bundled design, construction and maintenance contracts, and deferred payment for construction, as follows:

- Design-Build-Maintain – DBM(f);
- Design-Build-Operate-Maintain – DBOM(f);
- Design-Build-Finance-Maintain – DBFM; and
- Design-Build-Finance-Operate-Maintain – DBFOM.

Each of the Shortlisted Options were:

- Evaluated against the evaluation criteria and were deemed to have met the City's core objectives; and,
- Determined to be a suitable option for undertaking the OLRT.

## 1.2 Further Consideration of Shortlisted Options

The Report noted that, in determining the single Project Delivery Option that will be utilized, the City should consider how each of the Shortlisted Options fulfills the following objectives (the "Objectives"):

1. Financial and/or budgetary considerations;
2. The extent to which each Shortlisted Option maximizes the City's operational flexibility for long-term operations of the transit system, including system expansion; and
3. Maximizing value to the City based on an updated value for money ("VFM") assessment which quantifies the estimated risk-adjusted value for the City.

## 1.3 Purpose of This Letter

This letter provides a summary of the work completed by Deloitte and the City, to evaluate the Shortlisted Options against the Objectives.

## 2 Assessment of Shortlisted Options against the Objectives

### 2.1 Financial and / or Budgetary Considerations

The City's Corporate Finance team and their advisor, PriceWaterhouseCoopers, completed an assessment (collectively the "Affordability Assessment") of the following sources of funding available to the City to pay for the OLRT:

- \$1.2B of capital contributions from Canada and Ontario (\$600M each);
- Revenues from OLRT fares;
- Developments charges that can be attributed to transit;
- Gas tax revenues; and
- The portion of property taxes that can be attributed to transit.

The City intends to issue debentures to finance a portion of its share of the capital costs, provided that these debentures meet the City's debt covenant thresholds.

Each of the Shortlisted Options was assessed to ensure compliance with the Affordability Assessment.

### 2.2 Operational Flexibility

The City's Transit Master Plan contemplates future investments in higher-order transit (rail). As such, it is important for the City to ensure that the operational elements of the OLRT can be expanded to meet future rail projects, as well as integration with the bus system (i.e. as the role of the bus system is adjusted to align with the rail services). As such, it was determined that the City would be better served to manage the operational integration of the OLRT, as opposed to leaving the integration to the Private Partner. Having the City perform the integration will ensure a seamless operation with the existing bus system and any future rail projects.

As a result of this assessment, the DBOM(f) and DBFOM options were eliminated. The remaining options the DBM(f) and DBFM option, or collectively the design-build-maintenance bundle (the "Bundle"), were presented to City Council in May 2011. Council approved the Bundle in recognition of the alignment of the following responsibilities:

- Private Partner: Responsible for the design and construction of all components of the OLRT including the guideway structure, track, vehicles, signals and communication system, maintenance

facility and tunnel, and maintenance of each of the afore mentioned components during the maintenance phase.

- City: Responsible for system wide co-ordination and dispatch, fare setting and collection, security and integration of the OLRT into the broader transit system.

Key benefits of the Bundle are as follows:

- Single Point of Contact During Construction: Bundling of design-build and maintenance during the design process forces appropriate value trade-off decisions between capital and maintenance costs to maximize construction value.
- Continuity During Maintenance Term: The maintenance provider is retained during the maintenance term to remove "finger pointing" if the OLRT does not perform.
- Alignment with Core Business of City: The City's expertise is best suited to operate the OLRT (to ensure continuity and integration with broader transit system) rather than maintain OLRT vehicles for which it has no experience.
- Enables City to Follow Performance Monitoring Role: During the design-build phase, the City will monitor the Private Partner to ensure compliance with output specifications and quality control / assurance plans. At the completion of construction, the City will oversee an extensive testing and commissioning program to ensure compliance with acceptance requirements. During the maintenance phase, the City will continue to monitor for compliance to output specifications – payments will be made via a mechanism that will be structured to incent good performance. Prior to the completion of the term, the City will oversee a hand-back inspection process to ensure that the OLRT is returned to the City in a condition that meets performance requirements.

### **2.3 Maximize Value to the City:**

The DBM(f) and DBFM options were then assessed to determine which option results in the highest overall VFM to the City. To accomplish this, we worked with the City and its technical advisor, Capital Transit Planners to assess:

- Project level risks which included policy, planning and co-ordination issues that are faced internally at the City;
- Risk related to engineering, procurement, construction and maintenance, with a specific focus on the tunnel; and
- Each resulting risk under the DBM(f) and the DBFM option against a traditional form of delivery (Design-Bid-Build) to quantify the retained risks to the City.

The results indicated that the City's retained risk profile for a DBFM would be lower than the DBM(f) and the Traditional (Design-Bid-Build) for the following reasons:

- Performance Security during Maintenance Term: Under Design-Bid-Build or DBM(f) security would typically be in the form of a Parent Company Guarantee from the design-build contractor to cover the warranty period (1 to 2 yrs), and a letter of credit in an amount relative to the annual maintenance fee. The long term capital, or the amount of the construction costs which are deferred and re-paid during the maintenance term (i.e. the "F" component), enables the City to swap the security noted above, for the liquid capital payment (i.e. cash) that can be used to remedy sub-standard performance or latent defects.
- Asset Quality at Hand-back: The private capital "at risk" at the time of the hand-back inspection (5 years prior to the end of term) would be significant and can be leveraged to cover any additional costs needed to mitigate latent defects or non-performance to the end of the term.
- Value Engineering: Private capital at risk would also drive greater innovations and value engineering to optimize value by continuously searching for cost savings over the term of the contract.

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A preliminary VFM benchmark was developed to support the options analysis. It will be updated prior to the release of the request for proposal documents (including the project agreement) based on the finalized deal parameters and risk allocation. The final VFM will be completed at Financial Close using details of the winning bid. The results of the final VFM will be released to the public. The VFM process will serve as a series of checkpoints to ensure that the City is continuously seeking to maintain its VFM objectives as it proceeds with the procurement, and the ultimate execution of the contract.

### 3 Conclusion

The City's objective is to bundle design, build and maintenance components to ensure that a fully-coordinated OLRT system will be developed, while maintaining operational control to ensure seamless integration with the broader transit system. The principal benefits of the Bundle is the single point of contact for all design, construction and maintenance activities, and the opportunity to make and implement innovative changes in the construction and maintenance components to instill value decisions over the project's life. Bundling will also give the Private Partner full control and responsibility on all elements, with the exception of operations of the OLRT, thereby avoiding "finger-pointing" if the system does not perform as specified.

To ensure that these benefits are realized, the City is seeking additional security as compared to traditional construction contracts. This additional security will be derived from a portion of the construction payment that is withheld beyond completion and is re-paid over the maintenance term, necessitating long-term private financing (DBFM). By following this approach, the City can ensure that payment is only made once an ongoing certification process has verified that applicable performance standards are met over the term of the contract. Since penalties can be applied in the case of poor performance, this form of security is highly liquid and provides the City with a "hammer" to enforce compliance and therefore maximize VFM.

Yours very truly,

A handwritten signature in cursive script that reads "Deloitte & Touche LLP".

Deloitte & Touche LLP