



REGIONAL MUNICIPALITY OF WATERLOO PLANNING AND WORKS COMMITTEE MINUTES

Tuesday, January 31, 2012

2:03 p.m.

Council Chamber

2nd Floor, Regional Administration Building
150 Frederick Street, Kitchener, Ontario

Present were: Chair J. Wideman, L. Armstrong, J. Brewer, T. Cowan, *B. Halloran, *R. Kelterborn, G. Lorentz, C. Millar, J. Mitchell, *C. Zehr

Members absent: D. Craig, R. Deutschmann, T. Galloway, J. Haalboom, K. Seiling, S. Strickland

DECLARATIONS OF PECUNIARY INTEREST UNDER THE MUNICIPAL CONFLICT OF INTEREST ACT

None

RAPID TRANSIT PROCUREMENT BRIEFING

a) Consultant presentation by Remo Bucci, Deloitte

Chair Wideman provided opening remarks.

Mike Murray, Chief Administrative Officer, provided introductory comments. He advised that the Region engaged Deloitte to evaluate the full range of procurement and delivery options for this project and the conclusion of that evaluation will be presented. He indicated that the Rapid Transit Steering Committee heard this information and suggested that it be presented to Regional Council.

Remo Bucci, Deloitte, provided a power point presentation and distributed hard copies. A copy of the presentation is [appended to the original minutes](#).

He provided a brief overview of the various procurement options available for this project:

- Design-Bid- Build (DBB)
- Design-Build (DB)
- Design-Build-finance (DBf)
- Design-Build-Operate-Maintain (DBOM)
- Design-Build-Finance-Maintain (DBFM)
- Design-Build-Finance-Operate-Maintain (DBFOM)

R. Bucci explained the main advantages of the Design-Build-Finance-Operate-Maintain (DBFOM) option. He spoke about the pros and cons of including "Operate" in the procurement. He reviewed the issues surrounding the financing term of the project. He reviewed the aspects of bundling M with DB and O with M. He gave details regarding how cost escalation would be built into the project. R. Bucci explained the distinction between the model the Region of Waterloo is considering and the model of York Region explaining the issues York Region is facing. In the Region of Waterloo model, the contractors would have incentive to lessen the risk of delays due to default on the capital payments. He spoke about the aspects of negotiations

for Stage 2 Light Rail Transit (Kitchener to Cambridge). He highlighted the models that other municipalities have used for similar projects. R. Bucci explained the integration issues addressed in a DBFOM model through the public/private interface management.

C. Zehr inquired if there was an optimal period for the contract. R. Bucci responded yes; and explained that in Canada the typical project lifecycle is 25-30 years for hospitals, highways, schools, and transit projects.

C. Zehr inquired whether the choice of procurement method would be influenced and or affected by federal or provincial funding. R. Bucci responded not over the long term of the project; but yes with respect to project milestones because funding would be aligned with contract payouts. M. Murray added that the provincial and federal governments requested the Region to look at alternate finance and procurement models and the role of Infrastructure Ontario. The Region is in active discussion about the financial dimensions of all of the options and the impacts and is optimistic that this will be resolved.

C. Zehr questioned what the value of the asset would be at the end of the 30 year term. R. Bucci explained that there would be wording in the contracts that ensure the forecasted value is met by the contractor. He explained that there would be a Hand Back period at the end of the contract (usually the last 3-5 years). Prior to the Hand Back period a Hand Back inspection would occur. The Hand Back inspection is a full inspection completed by a third party documenting the useful life of the asset. If the asset is not meeting the standards in the contract and an investment needs to be made, the Region would have the right to request a Letter of Credit from the contractor for the difference.

C. Zehr questioned how a bidder would calculate their bid on an expansion around year seven (7) when the contract life is 30 years. R. Bucci advised that the first contractor would be held for 30 years. He explained how the contracts would be worded to limit the ability for passing blame between contractors.

J. Mitchell inquired what does "skin in the game" mean. R. Bucci explained that if the contractor does not perform, they would feel financial pain, in the context of defaulting on capital payments or not meeting performance requirements.

J. Mitchell questioned if there were companies interested in this project. R. Bucci responded yes and explained that in Canada we have completed a large number of infrastructure projects with a great track record for performance which attracts good quality global companies.

J. Mitchell inquired if local workers would be considered for the project. R. Bucci explained that generally these companies would bring their management expertise and then hire from a local pool of labourers. These companies would form local partnerships to obtain the skills and trades required for the project.

J. Mitchell wondered if cost has been attributed to the risk assessments. R. Bucci advised that the risk assessment information was included in the December, 2011 report.

*C. Zehr, B. Halloran and R. Kelterborn left the meeting at 3:03 pm.

G. Lorentz sought clarification from R. Bucci in the event that the Region decided to go to phase 2 in year 7 of the 30 year term.

J. Mitchell requested a list of some of the projects that have faced issues for the next meeting on February 7, 2012.

J. Brewer inquired about the status of the agreements to be signed with the federal and provincial governments. M. Murray advised that the Region does not yet have an agreement negotiated with the provincial or federal governments. The Region is working toward obtaining approval in principle from the upper governments at this time. The approval in principle would allow the Region to begin incurring eligible costs so that when the agreements are finalized, the upper governments would begin reimbursement of eligible costs at certain milestones in the project. It is expected that approval in principle will be obtained in the next couple months, at which time staff will report to Council.

ADJOURN

MOVED by T. Cowan
SECONDED by J. Brewer

THAT the meeting adjourn at 3:09 p.m.

CARRIED

COMMITTEE CHAIR, *J. Wideman*

COMMITTEE CLERK, *J. Reid*



Waterloo Light Rail Transit Project

A Discussion on Questions And Answers Regarding the DBFOM Delivery Option

**Presentation to Planning and Works Committee
Region of Waterloo**

January 31, 2011

Background

- This presentation focuses on the DBFOM option, as recommended in Report E-12-011. A summary of incremental benefits of DBFOM, as compared to the other options considered in this report, is provided below for background.

Option	Incremental Benefits
DBB	N/A (Base Case)
DB	Design and Construction bundled under single contract
DBf	Same as DB + payment withheld to secure satisfactory completion
DBOM	Same as DB + bundled with Operations and Maintenance under single contract to minimize interface issues (finger pointing)
DBFM	Same as DBf + bundled with Maintenance under single contract with construction payment withheld and re-paid over maintenance term to secure satisfactory performance
DBFOM	Same as DBOM with construction payment withheld and re-paid over operating term to secure satisfactory performance

Questions that will be answered in today's presentation

1. Why DBFOM?
2. Why is O included? Pros & cons with O in/out
3. Why a 30-year term?
4. Why bundle M with DB? Why bundle O with M?
5. How do we build in cost escalation?
6. How do we avoid labour disruption like is happening in York Region?
7. How do we negotiate a contract for Stage 2 LRT (Kitchener to Cambridge) without being held to ransom?
8. What options have been used in other North America municipalities?
9. How are integration issues addressed in a DBFOM ?

These questions were developed from a list of issues that typically arise in the application of the DBFOM option

1. Why DBFOM?

- Main advantages:
 - Government (“Public Sector”) retains ownership and control
 - Design, construction and operations “contract bundle” provides a single contractor (“Contractor”) responsible for all elements
 - Based on output specifications which allows the Public Sector to define how the Facility should perform (and not how it should be built)
 - Lifecycle approach (25yrs to 30yrs operating term) incents Contractor to build the Facility with operational performance in mind (e.g. Lifecycle Maintenance)
 - assures constant level of performance
 - Withheld Construction costs (“F”) that are re-paid over the operating term becomes vested “private capital” at risk for poor performance
 - Long term investment horizon provides Contractor incentives to innovate (e.g. reduce costs)
 - Binds Public Sector to same output specifications (e.g. Maintenance)
 - Public and Private interests aligned to benefit from good performance

DBFOM is a form of contractual structure used by Infrastructure Ontario in their Alternative Finance and Procurement program (“AFP”)

2. Why is O included?

- The main reason O&M components are “bundled” together in the majority of transit AFPs /PPPs is to avoid interface issues with the Contractor’s fixed price maintenance commitments

PROS

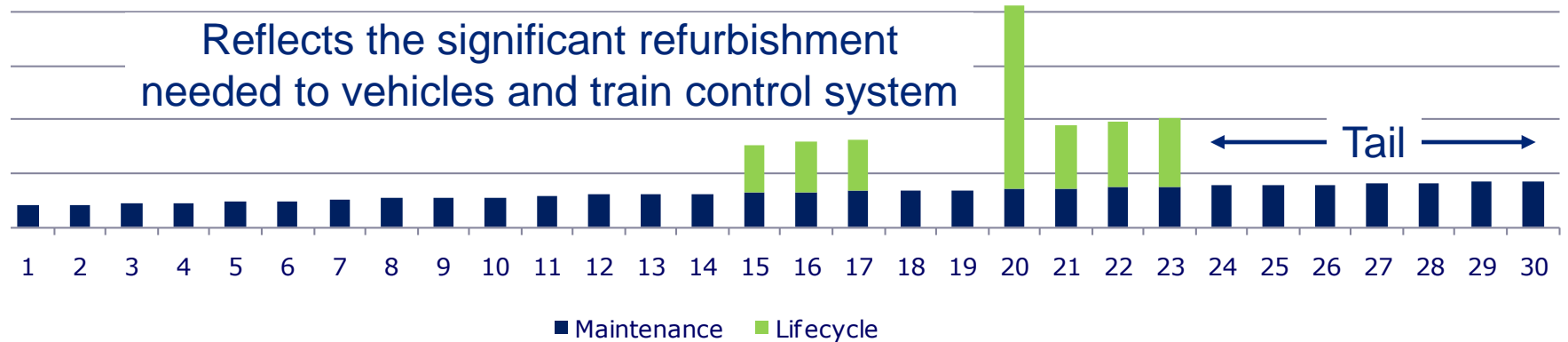
- Prevents finger-pointing and keeps single point of accountability - Contractor cannot claim that mode of operation has impacted maintenance, or vice versa
- Private operator has comparatively more experience/expertise (on operations)
- Avoids complications around commissioning/driver training process

CONS

- Perceived loss of “control”
 - Reality: In most DBFOM projects, Public Sector owns assets and controls policy (route, schedule, and fares)

3. Why a 30-year term?

- A typical cost profile of annual Maintenance and periodic Major Maintenance / Refurbishment (Lifecycle) demonstrates that the most significant financial risk is during the mid point:



- 30 yr term “wraps” around the Lifecycle refurbishment period to ensure that the Facility will perform consistently over longer period
- Contractor prefers a suitable “Tail” after final Lifecycle refurbishment to enable cost-recovery if costs are higher than expected (30 yr term is preferred over 25 yr)
- Traditional Maintenance contracts are typically in the 5yr-10yr range to avoid costs for initial Lifecycle (which are borne by Public Sector)

4. Why bundle M with DB? Why bundle O with M?

- Bundling the M with DB follows a Lifecycle approach (with 25yr-30yr term) that incentivizes Contractor to build the Facility with maintenance costs / performance in mind (e.g. Lifecycle maintenance) to ensure a constant level of performance
- Bundling of O&M:
 - Avoids claims from Contractor that Operation of the Facility has caused its fixed Maintenance costs to increase
 - Provides a single party responsible for all elements
 - Provides incentives to consider Operational characteristics when designing / constructing the Facility
- Higher degree of bundling and longer investment horizon provides Contractor with more opportunity to innovate (e.g. reduce costs)
- Aligns Public and Private interests to performance (e.g. both parties benefit)

5. How do we build in cost escalation?

- Monthly Service Payments are made through a Payment Mechanism defined in the contract:
 - Base Costs for Annual Maintenance and Operations, and periodic Lifecycle are fixed to bid submission
 - The Payment Mechanism enables each to be escalated based on pre-defined benchmarks (e.g. CPI) to account for cost inflation
- Approach represents a “risk sharing” where Contractor assumes Base Costs risk and Public Sector assumes inflation risk
 - Transferring inflation risk would cause Contractor to include significant premium for economic factors outside of its control (e.g. it controls the Base Costs)
- Some items such as insurance and energy prices are flow-through
 - Insurance costs are market based
 - Contractor is required to assume energy consumption risk (gas + electricity)
- Can also require Contractor to price in future service level increases based on anticipated ridership growth

6. How do we avoid labour disruption like is happening in York Region?

- Labour disruptions are typically based on wages and benefits which are budgetary issues:
 - If Public Sector agrees to assume wage/benefit risk and is willing to meet bargaining demands, disruptions can be minimized
 - If Public Sector prefers to transfer wage/benefit risk then the Private Sector will negotiate based on its fixed cost bid (e.g. its budget)
- Requirement to re-pay long term private finance (“F”) can provide an added incentive to avoid / limit labor disputes

7. How do we negotiate a contract for Stage 2 LRT (Kitchener to Cambridge) without being held to ransom?

- Options open to the Region :
 - Negotiate a scope change with Stage 1 Contractor following the Variation Procedure in the Infrastructure Ontario template agreement
 - Enables independent verification of costs
 - Request Stage 2 bids in Stage 1 RFP:
 - Any bid will have an expiry period (5 to 7 yrs)
 - Tender Stage 2 LRT as a separate contract package
 - Vehicle and Train Control systems can be made to comply with Stage 1
 - Will require an additional Maintenance Facility for Stage 2
- UK approach – Long-term DBFM + short-term O contract for Phase 1; tender new DBFM contract for Phase 2 and new system-wide O contract for Phase 1 and 2

(Consistent with Recommendation)

8. What options have been used in other jurisdictions?

- Hudson Bergen (New Jersey)
 - DBOM
- Canada Line (Vancouver)
 - DBFOM
- Denver Eagle
 - DBFOM
- Evergreen Line (Vancouver)
 - DB
- Air Rail Link (Toronto)
 - DBf
- Ottawa Light Rail
 - DBFM
- Australia Gold Coast
 - DBFOM (15 yrs)
- Metro North (Dublin – project on hold due to funding issues)
 - DBFOM
- Docklands Light Rail (UK)
 - DBFOM
- Nottingham Light Rail, Phase 1 and Phase 2 (UK)
 - DBFOM
- Manchester Metrolink (UK)
 - DBFOM
- Kuala Lumpur Light Rail System (Malaysia)
 - BOOT (60 yrs)

9. How are integration issues addressed in a DBFOM?

- How is the public/private interface managed?
 - Public Sector sets the performance specification (headways) to meet expected ridership (Contractor to determine how to design Facility to meet the specifications)
 - Maximum platform lengths are set by Public Sector
 - A key performance metric is Vehicle KMs, which is bid based on the performance specification (allows flexibility in scheduling and payment)
 - Payment Mechanism defines thresholds above which the Public Sector would have to compensate the Contractor if LRT service frequency is increased

9. How are integration issues addressed in a DBFOM? Cont'd

- How to negotiate changes in schedules, stop locations or fare media?
 - For schedules (headways) see Slide 10
 - Additional stops or changes to fare media (new technology) would trigger a Variation Procedure
- How to manage customer service issues?
 - Region will be the customer's source of contact to ensure a seamless transit system (Bus + LRT systems)
 - Payment Mechanism include KPIs for service quality (e.g. cleanliness of train) with deductions for poor performance

Deloitte.