



**CITY OF KINGSTON**  
**INFORMATION REPORT TO COUNCIL**

Report No.: 13-097

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**TO:** Mayor and Members of Council  
**FROM:** Jim Keech, President and CEO, Utilities Kingston  
**RESOURCE STAFF:** Mark Van Buren, Director of Engineering  
**DATE OF MEETING:** February 19, 2013  
**SUBJECT:** Third Crossing – Action Plan

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**EXECUTIVE SUMMARY:**

This information report is provided to Council in response to a motion approved by Council on January 8, 2013, directing staff to prepare a briefing that outlines the steps in an action plan that would move the Third Crossing project to be “construction-ready”. This information report provides an update on the Third Crossing Environmental Assessment process and also presents a four-phase action plan, including time and capital budget requirements, in order to position the Third Crossing to be ready for construction. The four-phase action plan includes:

- (1) updates to the Kingston Transportation Master Plan and Development Charges By-Law,
- (2) preliminary design and cost estimates,
- (3) preparation of a financial plan, and
- (4) detailed design and cost estimates.

Both the Kingston Transportation Master Plan (KTMP) update and the Development Charges (DC) By-Law update are scheduled to be completed in late 2014. Capital budget to complete the KTMP and DC work has already been approved by Council. The capital budget funding for the completion of the Third Crossing Environmental Assessment has been expended. Capital funds are not approved for the work described in Phases 2, 3 & 4.

**RECOMMENDATION:**

This report is for information purposes only.

**AUTHORIZING SIGNATURES:**

ORIGINAL SIGNED BY PRESIDENT & CEO, UTILITIES KINGSTON <u>Jim Keech, President &amp; CEO Utilities Kingston</u>
ORIGINAL SIGNED BY CHIEF ADMINISTRATIVE OFFICER <u>Gerard Hunt, Chief Administrative Officer</u>

**CONSULTATION WITH THE FOLLOWING COMMISSIONERS:**

Cynthia Beach, <i>Sustainability &amp; Growth</i>	✓
Lanie Hurdle, <i>Community Services</i>	N/R
Denis Leger, <i>Transportation, Properties &amp; Emergency Services</i>	N/R

***(N/R indicates consultation not required)***

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**Options/Discussion**

The following Council motion was approved on January 8, 2013 directing staff to prepare a briefing to Council on the Third Crossing project:

**WHEREAS**, *the environmental assessment for the Third Crossing Project of the Cataraqui River has been completed and accepted by council on May 1, 2012; and*

**WHEREAS**, *in the City of Kingston Strategic Plan of 2011-2014 the Third Crossing was identified as one of the top infrastructure projects; and*

**WHEREAS**, *the City of Kingston is unable to pursue Federal and Provincial infrastructure funding until the project is “shovel ready”;*

**THEREFORE BE IT RESOLVED THAT** *staff be directed to provide a briefing regarding the Third Crossing to Council prior to the Council Strategic Planning meeting.*

This information report is intended to provide Council with an update on the Environmental Assessment (EA) and an Action Plan that discusses work efforts, time, and capital budget considerations in order to position the Third Crossing project to be “construction-ready”.

***Environmental Assessment Update***

Kingston City Council received and approved the final Environmental Study Report for the Third Crossing of the Cataraqui River on May 1, 2012. Following Council approval, the Notice of Completion for the EA was filed with the Ontario Ministry of Environment (MOE) to allow for a mandatory public and agency review period as per the Ontario Environmental Assessment Act. Four Part II Orders, commonly referred to as “bump-up requests”, were received by the MOE which triggered a Provincial process as described in the July 10, 2012 information report to the Environment, Infrastructure & Transportation Policies (EITP) Committee. The Minister of Environment has not provided a final ruling on the EA. Staff will continue to monitor progress of this file with the Ministry and advise Council of the MOE decision on the EA accordingly.

As indicated in the report to Council (May 1, 2012), the proposal for the Third Crossing of the Cataraqui River required the completion of both a Provincial (Municipal Class) EA and a Federal (Screening Level) EA as per the Canadian Environmental Assessment Act. The City received correspondence from the Federal Government dated July 10, 2012 advising of the new Canadian Environmental Assessment Act that came into force on July 6, 2012, and thereby indicated that a Federal EA (under the former CEAA) was no longer required for this project.

*Action Plan – Phase 1 (Plan Updates)*

Pending completion of the Provincial (Municipal Class) EA and final ruling from the Ontario Minister of Environment, staff propose a four-phase action plan be undertaken to move the project to “construction-ready” status. The first phase of the action plan would entail:

1. Kingston Transportation Master Plan (KTMP) Update

The Third Crossing EA and the associated staff report presented to Council on May 1, 2012 suggested on-going efforts to monitor the travel demand across the Cataraqui River in order to continue to re-validate the needs/justification for the Third Crossing. It was noted that the City’s goals focussed on sustainability and efforts to implement transportation demand management measures, coupled with the magnitude of project capital cost, were valid reasons to continue monitoring and re-validating the need for additional transportation capacity across the Cataraqui River. Staff will conduct three traffic counts on the LaSalle Causeway corridor throughout 2013. This information will supplement historical traffic counts to track growth rate for traffic volume on the LaSalle Causeway corridor. Staff will also be undertaking the regular 5-year update to the KTMP including the supporting transportation model. The KTMP undertaking is scheduled to commence in 2013 (Q3) with a targeted completion in 2014 (Q3). This work, including a review of the target level of service for the transportation network, will offer an opportunity to assess both current and forecasted travel demand across the Cataraqui River, re-confirm that additional crossing capacity is justified, and in turn, inform the decision making for a 2 or 4 lane bridge deck configuration for the Third Crossing.

2. Development Charges (DC) By-Law Update

The next update to the City of Kingston DC By-Law 2009-136 is scheduled to be completed in 2014 (Q3). Development charges are one of the sources of funding for design and construction of the Third Crossing in addition to capital reserve funds and possible grants and/or user fees. The Development Charges By-Law apportions 50% of the Third Crossing project costs to benefitting existing development (tax base) and 50% of the project costs to benefitting new development (DC). In consideration of the significant costs to be paid by development charges for road network needs (including the Third Crossing) that are identified in the KTMP, the DC By-Law update will be an important component that enables the development of a macro-level financial strategy for the Third Crossing implementation. Please note that the costs for the Third Crossing have previously been included in the DC background study as a component of the total roads needs attributable to future development. The municipality continues to collect DC in relation to the Third Crossing by way of the inclusion of this project in the list of eligible costs.

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*Action Plan – Phase 2 (Preliminary Design and Cost Estimates)*

Upon conclusion of the KTMP and DC By-Law updates and with the assumption that the KTMP update re-validates the needs/justification for the Third Crossing, Council would have a sufficient level of information to base a decision to direct staff to prepare preliminary designs, specifications, and construction cost estimates for the Third Crossing project. Staff would develop a terms of reference to procure professional engineering services to prepare preliminary engineering designs and specifications for the Third Crossing project. The scope of work would also include:

- completion of various detailed field investigations (e.g. additional geotechnical assessments);
- shoreland road and intersection improvement design;
- confirmation of property acquisition requirements;
- confirmation of various environmental permits required;
- update opinion of probable cost (Class B construction cost estimates);
- preparation of preliminary Cultural/Natural Environment Protection Plan and Risk Management Plan; and
- undertake stakeholder consultations (including public, Parks Canada, and First Nations).

Staff would also begin preliminary negotiations between the City of Kingston and Parks Canada to develop a Third Crossing construction, operation and maintenance agreement.

Staff anticipate Phase 2 would require 15 months to complete with a preliminary budget estimate of \$2.4 million for a 2-lane bridge or \$2.8 million for a 4-lane bridge.

At the conclusion of Phase 2, staff will summarize the work associated with Phase 2 of the Action Plan in an information report to Council that will provide a preliminary project design summary, an update on stakeholder consultations, an update on the opinion of probable costs for construction, and land acquisition requirements for road and bridge infrastructure including construction staging areas.

*Action Plan – Phase 3 (Financial Plan)*

The development of a financial plan for the Third Crossing will be a critical component of the action plan to move the project to “construction-ready” status. This phase of the action plan could commence approximately 12 months after initiation of Phase 2 and once opinion of probable costs for construction and land acquisition requirements are completed. Staff would develop a terms of reference to procure professional services to determine all available sources of project funding (e.g. tax, development charges, grants, user fee), undertake public consultation, and evaluate and recommend a preferred financial plan. A key consideration that

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will need to be addressed at this stage is the evaluation and selection of a project delivery model.

The Environmental Study Report for the Third Crossing identified and provided a brief discussion including the advantages, disadvantages, and risk sharing considerations of four different project delivery models including

- i. Design-Bid-Build,
- ii. Design-Build,
- iii. Public-Private Partnership (P3), and
- iv. an Alliance Model.

Staff anticipates this work would require 9-12 months to complete with a preliminary budget estimate of \$150,000.

The work associated with Phase 3 of the Action Plan would conclude with a report to Council that would recommend a preferred financial plan for construction, operation and maintenance of the Third Crossing project and the preferred project delivery model to be utilized. The report to Council would also enable Council to have a decision-point and possible direction to staff to proceed with the final phase of the Action Plan as described below.

*Action Plan – Phase 4 (Final Design and Cost Estimates)*

The final phase of the Action Plan would entail the preparation of final elements of the project immediately prior to the planned commencement of construction. Under a traditional Design-Bid-Build project delivery model, staff would develop terms of reference to procure professional engineering services to prepare/finalize:

- final design drawings and specifications for construction;
- contract documents;
- detailed construction phasing and scheduling;
- all permits and approvals required for construction;
- the Cultural/Natural Environment Protection Plan and Risk Management Plan;
- construction cost estimates (Class A cost estimate);
- land lease and construction Agreements with Parks Canada;
- land acquisitions required for the project; and
- stakeholder consultations.

The aforementioned activities would be required if the decision to proceed with a traditional Design-Bid-Build project delivery model was selected prior to Phase 4. If an alternative project delivery model (e.g. Design-Build or P3) was the preferred means of implementation for the Third Crossing, the preparation of detailed design drawings, specifications, and contract documents would be completed at a level appropriate for the form of project delivery selected.

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The alternative forms of project delivery would typically require the definition of performance specifications for the Third Crossing as opposed to the preparation of detailed engineering drawings and specifications. Under this alternative project delivery model scenario, staff would develop appropriate terms of reference to procure professional services that have expertise and experience in alternative delivery models for large municipal infrastructure projects.

Staff anticipates that the work for this phase of the Action Plan, following a traditional Design-Bid-Build project delivery model, would require 18 months to complete with a preliminary budget estimate of \$4.0 million for a 2-lane bridge or \$4.9 million for a 4-lane bridge. Under an alternative delivery model, staff estimates (for planning purposes only) that the work could be completed within 15 months with a rough cost estimate of \$1.4 million (calculated as approximately 30% of the cost for traditional delivery model). Capital budget would also be required for land acquisitions that would be formally defined as part of the review and appraisal of property requirements in Phase 2.

The work associated with Phase 4 of the Action Plan would conclude with an information report to Council that would provide a final project design summary, an update on stakeholder consultations, and final project cost estimates. At this juncture, the Third Crossing project would be deemed "construction-ready".

**Conclusion:**

The timeline and costs associated with the four phase action plan is summarized in Table A below. Excluding the work associated with Phase 1 of the Action Plan which has already been scheduled with an approved budget, staff anticipates an overall duration of approximately 42 months to complete Phases 2, 3 and 4 of the Action Plan. Utilizing a traditional model of project delivery, the total cost to prepare the Third Crossing Project to a construction-ready stage would be approximately \$6.6 million for a 2-lane bridge to \$7.9 million for a 4-lane bridge crossing, with a timeline of approximately 3 ½ years. The approximate costs utilizing an alternative form of project delivery would range from \$4.0 million for a 2-lane bridge to \$4.4 million for a 4-lane bridge crossing, with a similar timeline. There may be potential to reduce the timelines by up to 12 months by enabling these phases to run concurrently. However, specific budget funding would be required to commence any of the work contemplated in Phases 2, 3 and 4.

**Table A – Third Crossing Action Plan**

Phase	Description	Length of Time required for completion (Phases 2-4 pending Council's direction)	Cost Estimate
1	KTMP Update DC Bylaw Update	<ul style="list-style-type: none"> <li>• 12 months</li> <li>• Commencing in 2013 (Q3) and scheduled for completion in 2014 (Q3).</li> <li>• Report to Council 2014 (Q3)</li> </ul>	Budget approved
2	Preliminary Design and Cost Estimate	<ul style="list-style-type: none"> <li>• 12-15 months</li> <li>• Report to Council at completion</li> </ul>	\$2.4-2.8M
3	Financial Plan	<ul style="list-style-type: none"> <li>• 9-12 months</li> <li>• May begin as soon as 6 months after commencement of Phase 2</li> <li>• Report to Council at completion</li> </ul>	\$150K
4	Final Design and Cost Estimate	<ul style="list-style-type: none"> <li>• Traditional: 15-18 months</li> <li>• Alternative: 15 months</li> <li>• Report to Council at completion</li> </ul>	\$4.0-4.9M \$1.4M

**EXISTING POLICY/BY LAW:**

Not applicable.

**NOTICE PROVISIONS:**

Not applicable.

**ACCESSIBILITY CONSIDERATIONS:**

Not applicable.

**FINANCIAL CONSIDERATIONS:**

This report is provided for information purposes only. Financial considerations are embedded within the Options/Discussion section of the report and summarized in Table A above. Please note that the capital budget established for Program 98300 (Third Crossing – EA study) has been expended and no additional capital budget is available to undertake Phases 2, 3, or 4 identified in this report. Separate and approved capital budget is available for both the KTMP update and the DC By-Law described in Phase 1. Depending on the final cost estimates for the project and the approach to financing (including grants), the magnitude of the expenditure will

need to be carefully integrated with overall capital and financing capacity for the City. Current financial plans reflect the need for grant funding to enable construction.

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**EXHIBITS ATTACHED:**

Not applicable.