

Clause 3 in Report No. 5 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on March 26, 2015.

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Award of Consultant Services,  
Highway 404 Midblock Crossing North of Highway 7 and  
Northbound Ramp Extension at Highway 404 and Highway 7,  
City of Markham and the Town of Richmond Hill

Committee of the Whole recommends adoption of the following recommendations contained in the report dated February 18, 2015 from the Commissioner of Transportation Services:

1. Recommendations

1. Council authorize an agreement between the Region and AECOM under direct purchase provisions of the Purchasing Bylaw for:
  - a) Detailed design of the northbound ramp extension at the Highway 404 and Highway 7 interchange at a cost of \$829,898, excluding taxes.
  - b) The provision of contract administration and inspection services for construction of the northbound ramp extension at the Highway 404 and Highway 7 interchange, and midblock crossing of Highway 404, north of Highway 7 at a cost of \$1,507,480, excluding taxes.
2. Council authorize the Commissioner of Transportation Services to adjust the contract administration and site inspection fees using the unit price of up to \$21,000 per contract week, excluding taxes, and not exceeding the Capital Spending Authority for this project.
3. Council authorize the Commissioner of Transportation Services to execute an agreement with the City of Markham for construction of the northbound ramp extension at an estimated cost of \$10 million to be shared equally, subject to the inclusion of the northbound ramp extension in the 2017 York Region Development Charges Bylaw update.

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## 2. Purpose

This report seeks Council authorization to enter into a contract with AECOM for engineering services for the midblock crossing of Highway 404 north of Highway 7 and northbound ramp extension at Highway 404 and Highway 7. This enables advancement of two key pieces of infrastructure to provide additional capacity and improved access to existing and future development in the Highway 404/Highway 7 area. A location plan is appended to this report (Attachment 1).

In seeking authority to enter into an agreement with AECOM, this report also requests approval of a direct purchase pursuant to the provisions of Section 9 of the Purchasing Bylaw.

## 3. Background

The Region's Highway 404 Midblock Crossings Study confirmed that midblock crossings and ramp extensions are integral components of the area transportation network

As part of the Highway 404 Midblock Crossings Study completed in 2012, detailed traffic modelling was undertaken for the transportation network in the area bounded by Highway 7 and 19<sup>th</sup> Avenue, and Leslie Street and Woodbine Avenue, to assess the benefits of the:

- Highway 404 midblock crossings north of Highway 7, 16<sup>th</sup> Avenue, Major Mackenzie Drive and Elgin Mills Road
- Northbound ramp extensions at Highway 7, Major Mackenzie Drive and Elgin Mills Road
- Highway 404 and 19<sup>th</sup> Avenue interchange

The analysis illustrated an immediate benefit would be realized in the area south of 16<sup>th</sup> Avenue with implementation of the northbound ramp extension at Highway 7 and the midblock crossing of Highway 404 north of Highway 7.

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Medium to long-term benefits were identified for the infrastructure elements proposed to the north of 16<sup>th</sup> Avenue. The report recommended the proposed infrastructure be studied through the completion of Municipal Class Environmental Assessments (EAs), and subsequent implementation.

The Region is committed to delivering improvements in the Highway 404 corridor to benefit road users, area residents and businesses

Following the 2012 Midblock Crossings Study, the Region has taken on a greater role in protecting lands for future implementation of midblock crossings by undertaking EAs for midblock crossings north of 16<sup>th</sup> Avenue and north of Elgin Mills Road.

To address immediate needs, Regional staff have been assisting the City of Markham and Town of Richmond Hill to advance detailed design and approvals for the midblock crossing north of Highway 7.

The midblock crossing north of Highway 7 and the northbound ramp extension are the first of three proposed along the Highway 404 corridor

The Municipal Class Environmental Assessments for midblock crossings north of 16<sup>th</sup> Avenue and north of Elgin Mills Road are expected to be completed in 2015. The Environmental Assessment for the midblock crossing north of Major Mackenzie Drive is currently included within the 2015 10-Year Roads Capital Program.

The City of Markham has completed a Municipal Class Environmental Assessment for the northbound ramp at Major Mackenzie Drive. Regional staff will work with the City of Markham to complete the Environmental Assessment for the ramp extension at Elgin Mills Drive.

Regional staff will continue to work with the City of Markham and Town of Richmond Hill to advance the detailed design and construction once the Environmental Assessments are approved.

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The Region is preparing the contract for construction of the midblock crossing north of Highway 7

In late 2013, the Region agreed to lead the delivery of the project during the construction phase. Regional staff have been working with City of Markham and Town of Richmond Hill to finalize the detailed design and are currently working on developing the tender package to meet Region and Ontario Ministry of Transportation standards.

The design, approvals and agreements are expected to be in place to enable tendering in late 2015.

The alignment and configuration of the northbound ramp extension has been established

The Municipal Class Environmental Assessment for the northbound ramp extension was completed in January 2008 by the City of Markham. The Environmental Assessment evaluated alternatives which resulted in a two-way, two-lane road which extends from Highway 7 opposite the northbound ramp northerly, and intersects the midblock collector (see Attachment 1).

The preliminary design completed as part of the Environmental Assessment will serve as the basis for detailed design.

The timing is right to advance the northbound ramp extension

During planning phases of the project the ramp extension was envisioned to be complementary to the midblock crossing. Regional staff confirmed the benefit of advancing the ramp extension design concurrently with the midblock crossing, given the upcoming collaboration with a number of key stakeholders including the Ontario Ministry of Transportation and adjacent property owner, Seneca College.

Combining delivery of the two projects will provide a more complete transportation solution

Combining the two projects will result in one larger contract with increased economies of scale, which will attract a range of reputable contractors. This also provides an opportunity to limit duplication of effort in procurement, consultation with stakeholders, agreements with the Ontario Ministry of Transportation, local municipalities and others.

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Consultation with external agencies for approvals, permits and agreements are ongoing. Efforts will be combined to address the ramp extension at the same time. In addition, during construction, road users, landowners and businesses would only incur disruption once. The overall result would have less impact than if the two projects were implemented separately.

The greater benefit will be for the users of the local road network, once both infrastructure elements are completed. The combination of the two projects will advance alternative routes and access options to those destined to the Valleywood, Beaver Creek and Commerce Valley Business Parks shown in Attachment 1. At the same time, alternative routes will assist in alleviating congestion along Highway 7 and support cycling and pedestrian trips across Highway 404, as well as the dedicated transit service.

#### 4. Analysis and Options

Consultant services are required to undertake the detailed design of the ramp extension and provide contract administration and inspection services for both projects during construction

While detailed design for the midblock crossing on Highway 404 north of Highway 7 is almost complete, the detailed design of the northbound ramp extension at Highway 404 and Highway 7 has yet to commence. In order to undertake the construction of the ramp extension concurrently with the midblock crossing, the design of the ramp extension needs to commence immediately. With a direct award, detailed design can commence in the second quarter of 2015.

There is also a need to procure contract administration and inspection services for both the construction of the midblock crossing north of Highway 7 and the northbound ramp extension at Highway 404 and Highway 7.

AECOM's technical familiarity with both the midblock crossing and ramp extension projects will benefit the Region and local municipalities

AECOM has been involved with both projects from the planning phase dating back more than a decade. Most recently, AECOM completed the detailed design drawings for the midblock crossing north of Highway 7.

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AECOM's project experience and familiarity of stakeholders, including local municipal staff, agencies and private stakeholders on both projects, will allow for improved coordination, which otherwise would require additional time and cost if different firms are retained to manage the projects separately.

AECOM will initiate the detailed design based on the preliminary design completed as part of the 2008 Environmental Assessment

Having completed the Environmental Assessments for both projects and being currently involved with the Highway 404 midblock crossing design, AECOM is well-versed in the history and technical background. Little time will be required to become familiar with what transpired through the Environmental Assessment phase.

AECOM's proposal has identified \$829,898 to complete detailed design and \$1,507,480 to provide contract administration and site inspection services

The proposal includes a dedicated team, including sub-consultants, to complete the detailed design for the ramp extension, including integration with the Highway 404 midblock crossing. The proposal illustrates commitment to work with the Region to accelerate the design effort and complete the work within an eight-month timeline. Regional staff reviewed the proposal and acknowledge the aggressive approach necessary to advance the work. This includes AECOM staff involvement for a period of 18 months and accounts for winter shut down periods. Regional staff reviewed the proposal and find it to be fair, reasonable and in line with other projects.

The fees equate to 5.2 per cent of the current estimate of \$45M, which is well within expected range for an assignment of this type and scope.

Link to key Council-approved plans

The northbound ramp extension and the midblock crossing of Highway 404 north of Highway 7 align with the 2011 to 2015 Strategic Plan to "continue to deliver and sustain critical infrastructure". The project will provide alternative access options for those travelling in the Highway 7 corridor in the vicinity of Highway 404, and more specifically, those travelling to and from area business parks.

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## 5. Financial Implications

The addition of Highway 404 northbound ramp extension will require \$829,898 in consultant fees for the design and \$1,507,480 for contract administration and site inspection for both the ramp extension and the Highway 404 midblock crossing, north of Highway 7.

Fees submitted for the proposed work include contract administration and site inspection for an estimated duration of 18 months. This equates to a weekly rate of \$21,000 for these services. However, contract administration and site inspection services will be paid based on actual hours spent by the consultant during construction. The weekly rate will be used to calculate either the increase or decrease in fee, as the case may be, to account for actual duration of construction.

Should the actual duration of the contract go beyond the time specified in the tender documents, it is recommended that the Commissioner of Transportation Services be authorized to adjust accordingly, by an amount up to \$21,000 per week, excluding taxes, within Capital Spending Authority for this project.

There are sufficient funds in the 2015 Roads Capital Budget to cover this work. All expenditures for this project will be funded at 10 per cent from tax levy and 90 per cent from development charges.

Council previously approved cost-sharing with local municipalities for midblock crossings at one-third of the total project cost for the midblock crossing of Highway 404. The balance will be equally shared by the City of Markham and Town of Richmond Hill.

The City of Markham is collecting development charges for the northbound ramp extension in the amount of approximately \$10M. Recognizing that the ramp extension also provides significant benefit to the Region's arterial road network, Regional staff recommend cost-sharing equally with the City of Markham. The Region's share of the cost for the northbound ramp extension will be included into the 2016 Capital Budget for Council approval. It will also be included in the 2017 Development Charges Bylaw update. In the event the project is not included into York Region's Development Charges Bylaw, the City of Markham will continue to collect based on the total project value and reimburse York Region's 50 per cent share.

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## 6. Local Municipal Impact

Regional staff consulted with the City of Markham and Town of Richmond Hill regarding the delivery of these two infrastructure projects and both local municipalities are in agreement with the Region moving them forward.

Both projects provide improved access opportunities and will provide benefit to road users, area residents and businesses, and potential future development areas along the corridor in both Markham and Richmond Hill.

## 7. Conclusion

With the midblock crossing design completed, tender preparation is underway and agreements and regulatory permits are being pursued. Regional staff recommends a direct award for the detailed design of the Highway 404 northbound ramp extension at Highway 7 to AECOM for \$829,898, and the contract administration and site inspection for both the Highway 404 ramp extension and the Highway 404 midblock crossing north of Highway 7 for \$1,507,480.

Further, the Commissioner of Transportation Services be authorized to adjust the contract administration and site inspection fees using the unit price of up to \$21,000 per contract week, excluding taxes, and not exceeding the Capital Spending Authority for this project.

The authorization of this direct award will allow the advancement of both infrastructure projects to be delivered under the one contract to maximize staff resources, save time, and minimize disruption and inconvenience to road users and adjacent landowners and businesses.

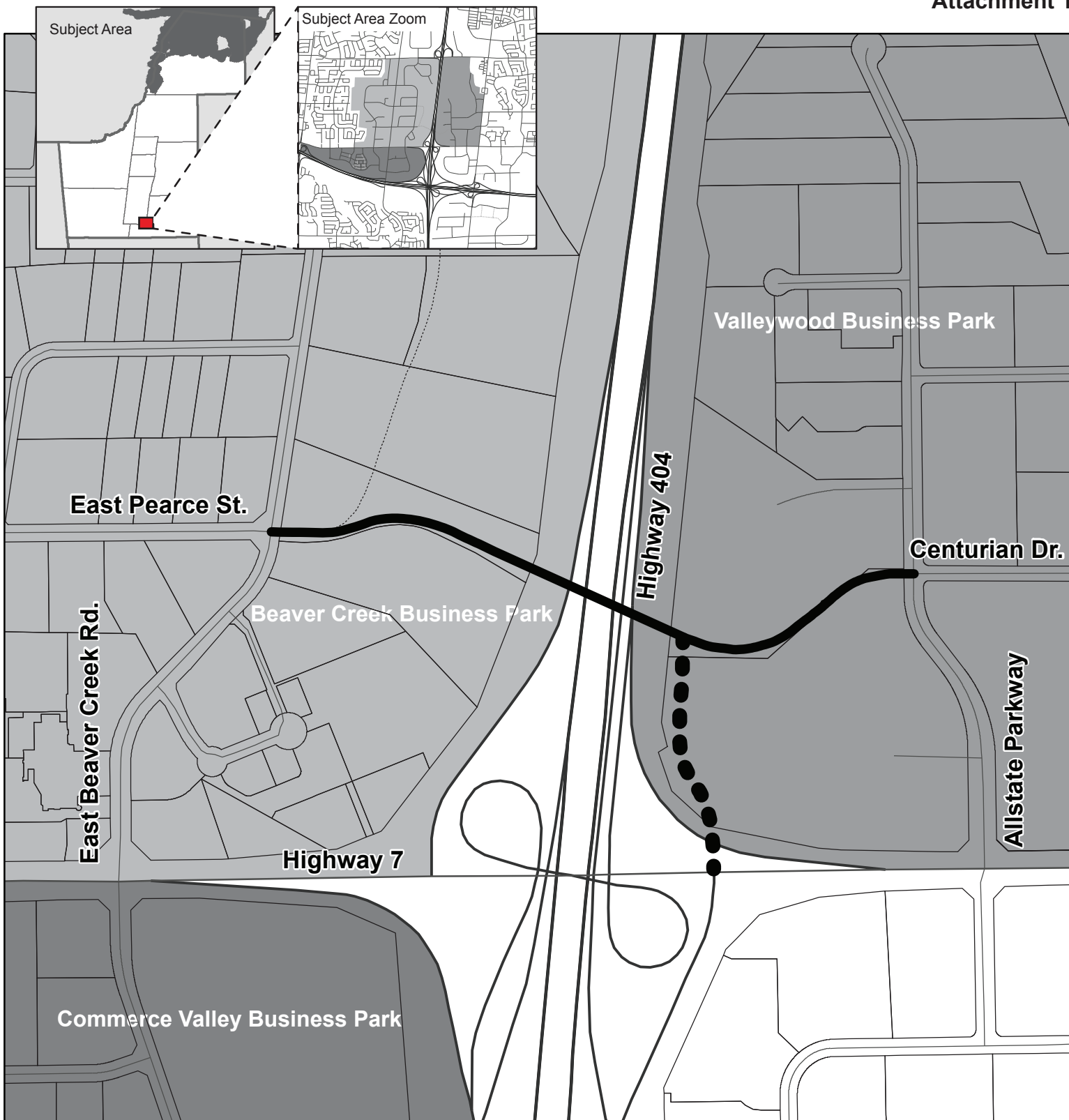
For more information on this report, please contact Salim Alibhai, Director, Capital Planning and Delivery at ext. 75229.

The Senior Management Group has reviewed this report.

Attachment (1)

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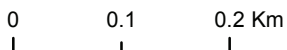
### Midblock Crossing and Northbound Ramp Extension

Highway 404 at Highway 7 Interchange, City of Markham

Thursday, March 5, 2015



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 Transportation Services Department  
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#### Legend

-  Midblock Crossing
-  Northbound Ramp Extension
-  Beaver Creek Business Park
-  Commerce Valley Business Park
-  Valleywood Business Park