



Report to: Development Services Committee

Report Date: December 11, 2012

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**SUBJECT:** Award of Tender 151-T-12 Birchmount Road Rouge River Crossing and Road Extension Update

**PREPARED BY:** Alberto S. Lim, Senior Capital Works Engineer Ext. 2860  
Alain Cachola, Manager, Infrastructure and Capital Works Ext. 2711

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**RECOMMENDATION:**

- 1) **THAT** the Staff report entitled, "Award of Tender 151-T-12 Birchmount Road Rouge River Crossing and Road Extension Update" be received;
- 2) **AND THAT** the contract for Tender # 151-T-12, Birchmount Road, Rouge River Crossing, be awarded to the lowest priced bidder, Dagmar Construction Ltd., in the amount of \$7,667,187.72, inclusive of HST;
- 3) **AND THAT** Staff be authorized to revise the scope of work for Contract # 151-T-12 to delete the servicing and roadwork bid items within the Remington Development properties and include the anticipated loss of profit, overhead and extra costs associated with deleting such work, for a net decrease of \$1,490,000.00 in the tender;
- 4) **AND THAT** Staff be authorized to adjust the Purchase Order to be issued to Dagmar Construction Ltd. to the amount of \$6,177,187.72, inclusive of HST;
- 5) **AND THAT** a contingency amount of \$926,578.16, inclusive of HST, (15% of \$6,177,187.72), be established to cover any additional construction and ancillary costs, and Staff be authorized to approve the expenditure of this contingency in accordance with the City of Markham's Expenditure Control Policy;
- 6) **AND THAT** Staff be authorized to issue a Purchase Order to AECOM Canada Ltd. in the amount of \$384,504.23, inclusive of HST, to provide construction inspection, contract administration services, environmental inspection and material testing for the project, which includes an increase of \$225,057.52, inclusive of HST, for the additional geotechnical testing, environmental inspections, MDE inspections as well as additional contract administration and inspection fees due to the extension of the contract (i.e. 8 months to 12 months), not included in the original RFP;
- 7) **AND THAT** a contingency amount of \$38,450.42, inclusive of HST, be established to cover any additional construction inspection, contract administration services, environmental inspection and material testing and that the Director of Engineering be authorized to approve the expenditure of this contingency amount up to the specified limit;
- 8) **AND THAT** the Engineering Department Project Management Fee in the amount of \$451,635.95, inclusive of HST, be funded from Capital Budget account # 083-5350-12055-005 -"Birchmount Road Crossing at Rouge River";

- 9) **AND THAT** the award be funded from the Birchmount Road, Crossing at Rouge River – (Construction) 2012 Capital Account #083-5350-12055-005;
- 10) **AND THAT** capital account 083-5350-12055-005 be revised to reflect the change in the scope of work and changes in the funding sources (i.e. Development Charges, Developer and MDE) for the project. And that the funding in the amount of \$3,496,400.00, inclusive of HST, be returned to the Development Charges (DC) Reserve;

<b>Funding Source</b>	<b>Original Budget</b>	<b>Proposed Funding Change</b>	<b>Revised Budget</b>
Development Charges	\$12,796,400.00	(\$3,496,400.00)	\$ 9,300,000.00
Developer Funding	\$ 900,000.00	(\$ 900,000.00)	\$ 0.00
MDE Funding	\$ 1,300,000.00	(\$ 600,000.00)	\$ 700,000.00
<b>Total Funding</b>	<b>\$14,996,000.00</b>	<b>(\$4,996,400.00)</b>	<b>\$10,000,000.00</b>

- 11) **AND THAT** the remaining funds in the account be maintained until the MNR and TRCA conditions related to the Birchmount Bridge construction are finalized;
- 12) **AND THAT** Staff be authorized and directed to do all things necessary to give effect to this resolution.

### **PURPOSE:**

The purpose of this report is to update Council on the status of the Birchmount Road Rouge River Crossing and Road Extension Project subsequent to the June 26, 2012 DSC Report on this project and award the tender for Contract #151-T-12 to the lowest priced bidder.

### **BACKGROUND:**

#### **A. Tender Award**

Council at its June 26, 2012 meeting authorized the CAO to approve the award of the construction contract for this project during the Council summer recess subject to receipt of approvals (MNR, TRCA, MOE, and Transport Canada), funding commitments or alternative arrangements. Following the approval of the DSC Report, Engineering and Purchasing staff issued Tender #151-T-12 and proceeded with the tendering process for this project.

Staff updated Council on October 9, 2012 on outstanding issues that needed to be resolved prior to the awarding of the contract. Staff anticipates that MNR & TRCA permits will be available in January 2013. Once MNR and TRCA permits are obtained and outstanding issues resolved (i.e. Consolidated Conservation Strategy Report and Net Benefit Analysis Study), construction works should commence in February 2013, in order to give the contractor sufficient time to complete the project by spring 2014. Commencing construction in February 2013 will also allow the completion

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of the Markham District Energy (MDE) services in time for the Times Development Phase 1 occupancy in December 2013.

Subsequent to the closing of the tender on July 26, 2012, Remington Developments requested that the City remove all servicing and roadwork bid items within their property from the City's contract. Remington advised that they will construct the section of the road within their lands, as noted in Attachment 'A', by Summer 2013. Upon completion of the underground servicing by Remington, MDE will construct their infrastructure within the Remington Development lands under their own contract. Consequently, City Staff requested the lowest priced bidder to clarify what implications the deletion of the servicing and roadwork bid items within the Remington Development lands would have on its bid response.

### **B. Permits**

City staff and its consultant have followed up with the Ministry of Natural Resources (MNR) and the Toronto Conservation Authority (TRCA) on its permit application. Revised reports that incorporated comments from both agencies have been submitted accordingly. All technical issues and concerns from MNR have now been addressed. It is anticipated that both MNR and TRCA permits will be received by January 2013. Ministry of Environment (MOE) and Transport Canada approvals have been received. It should be noted that MNR and TRCA conditions of approval may require environmental works in the valley and staff are recommending to maintain the remaining funds in the budget to implement such.

### **C. Markham District Energy (MDE)**

The heating and cooling system required for the Times Development Phase 1 occupancy will be provided by the MDE system. The occupancy date has been revised by Times Development from September 1, 2013 to December 1, 2013. The heating and cooling system requirements for Times Development triggered the scheduling time frame to construct the Rouge River crossing in order to provide road connectivity and a platform to build the MDE services. Construction of the MDE services needs to be completed by November 1, 2013 to allow for all testing of the services prior to the December 1, 2013 occupancy date of the Times residential development. It was noted in the June 26, 2012 DSC report that any delay in the completion of the bridge structure and the MDE system will negatively impact the occupancy or significantly increase the cost to MDE to set up temporary facilities to service the proposed development.

Staff met with MDE on October 11, 2012 to review the options and alternatives for the proposed MDE servicing for the Times Development lands. MDE advised that the option for providing a temporary heating and cooling facility to service the Times Development lands is not a viable option, as this will create a significant "throw-away" costs to MDE. As an alternative, MDE are reviewing the extension of their infrastructure from Clegg Road, along Riverside Drive, as a possible route to accommodate the MDE servicing. MDE advised that this option will have to be reviewed by their Board. Staff will provide a verbal update on the status of this option.

With Remington Development's decision to delete the servicing and roadwork bid items within their property, the MDE portion in the City Contract #151-T-12 has been reduced to works on the

bridge. Remington will proceed with the construction of all their underground facilities within their properties in order to allow for MDE to construct their infrastructures within their lands by Summer 2013 with completion by November 1, 2013.

Based on the above, the scope of work for MDE included in the City's budget has now been reduced from \$1,300,000.00 to \$700,000.00.

#### **D. Remington Developments**

The detailed design for the unconstructed section of Birchmount Road, as per Attachment 'A', was completed by the consultant for Remington Developments. All the designs were consolidated into a single construction contract to avoid multiple contractors working in the same area and to streamline coordination and administrative work.

As previously noted, Remington will construct their section of Birchmount Road by Summer 2013. Subsequently, MDE will proceed with the installation of their infrastructures. As such, the scope of work for Remington Developments included in the City's contract has now been eliminated.

Remington Developments will convey to the City the properties required for the Birchmount Road project upon signing of their Phase II Subdivision Agreement. Appropriate Development Charge credits for the lands will be issued to Remington Developments in their Phase II Subdivision Agreement (3<sup>rd</sup> and 4<sup>th</sup> lane construction and land).

Based on the above, the scope of work for Remington Developments included in the City's budget has now been reduced from \$900,000.00 to \$ 0.00.

#### **Prequalification Process**

Due to the scope of the project, a pre-qualification document was issued to solicit interest from qualified firms experienced in leading projects with similar scope and magnitude. Pre qualification # 018-P-12 was issued to the market place in accordance with the Purchasing By-law 2004-341.

#### **PRE QUALIFICATION INFORMATION (018-P-12)**

Advertised date	January 31, 2012
Pre qualification closed on	February 24, 2012
Number picking up bid documents	37
Number responding to bid	11
Number of bidders Pre qualified	10

#### **Request for Tender (RFT)**

A comprehensive RFT document was released to the pre-qualified firms on May 18, 2012, in accordance with the Purchasing By-Law 2004-341. A mandatory meeting was held on May 25th, 2012 to provide clarifications to the bidders.

**BID INFORMATION**

Advertised	By Invitation (Pre qualified Bidders)
Bids closed on	July 26 <sup>th</sup> , 2012
Number picking up bid documents	10
Number responding to bid	8

Engineering and Purchasing Staff and the City's Consultant have reviewed the bid documents and are satisfied that all items, conditions, bid prices and specifications comply with the City's requirements. The tender results are summarized in the following table:

<b>Contractor</b>	<b>Bid Price (inclusive of HST)</b>
Dagmar Construction Ltd.	\$ 7,667,187.72
KAPP Contracting Inc.	\$ 7,961,897.63
Graham Bros. Construction	\$ 8,780,080.63
Brennan Paving & Construction	\$ 8,981,224.68
AECON Construction and Materials	\$ 9,182,850.89
Elirpa Construction	\$ 9,239,146.56
BOT Engineering and Construction	\$ 9,738,417.75
Dufferin Construction Co.	\$ 9,807,855.22

The bids were verified for accuracy and compliance with the tender terms and conditions. City Staff have reviewed the tender submitted by Dagmar Construction and are satisfied that all terms, conditions, bid prices and specifications comply with the City's requirements. Dagmar Construction provided evidence of the company's past experience in this type of projects and references were checked as part of the prequalification process.

Bids submitted in response to Tender # 152-T-12 were valid for acceptance by the City for a period of 90 business days from the closing date. The validity period expired on December 5, 2012. Prior to the expiry of the validity period, the City exercised its right under Tender #152-T-12 to negotiate an extension to the validity period with the lowest priced, compliant bidder (Dagmar Construction). Dagmar Construction has agreed to extend the validity period within which its bid is valid for acceptance by the City to February 28, 2013. The remaining bidders were advised in writing that, effective December 5, 2012, the 90 day period during which their bids were valid for acceptance by the City has expired and bid bonds will be returned.

**Change in Scope of Works of the Contract:**

Upon receipt of the tender bids from the contractors, Remington Developments reviewed the bid items related to the roadworks and servicing on their property. Remington Developments carried out an analysis of the prices received and decided that it was within their best interest to request the deletion of the servicing and road works bid items pertaining to their property from the City's contract. In addition, the MDE servicing will also be removed from the City's contract.

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Consequently, the City requested that the lowest priced compliant bidder, Dagmar Construction Inc., clarify what cost implications the deletion of the servicing, roadworks and MDE bid items pertaining to Remington Development's property would have on its bid response.

Dagmar Construction Inc. provided three (3) different options. One of the options is the removal of all the underground servicing, MDE works and road works in the Remington lands which will result in a reduction of \$1,750,000.00 in the City contract. In addition, the contractor has requested a cost adjustment of \$260,000.00 to cover the loss of profit, overhead and extra costs to be incurred by the contractor to their sub-contractors associated with deleting and reducing the scope of work on the tender.

Following discussions of these options with Remington Developments and MDE, staff recommends that the City proceed with the option described above. The City will have control of the construction of the MDE pipes within the bridge structure. The construction of the MDE pipes in the Remington Development lands will be a separate arrangement with MDE and Remington Developments. In the same regards, this option respects Remington Development's request to delete the servicing and roadwork bid items from the City's contract. Staff is also seeking approval from Council to delete the servicing and roadwork bid items within the Remington Development properties from Contract #151-T-12 in the order of \$1,750,000.00 and to include the cost adjustment in the order of \$260,000.00 in the Purchase Order to Dagmar Construction, for a net adjustment in the order of \$1,490,000.00.

Upon award of the contract to the lowest priced bidder, staff will negotiate with the contractor to formalize the change in the scope of work.

The City's consultant has reviewed the lowest priced tender and advised that the current tender rates are very competitive compared to the original cost estimate provided by the consultant. In addition, six (6) of the eight (8) bidders submitted a tender bid that is more than 15% compared to the lowest priced bidder.

If the award of the project is deferred and the project is retendered, there may be a risk that the rates will not be as competitive as the current tenders. In addition, the MDE servicing will not be provided to the Times residential development in time for their occupancy.

#### **Construction Inspection, Contract Administration, Environmental Inspection and Material Testing**

AECOM Canada Ltd. was retained by the City in August 2011 to provide the detailed design, contract administration and inspection services for the Birchmount Road Bridge Crossing over Rouge River. Staff is satisfied with AECOM's performance on the project and is recommending the retention of AECOM to provide the construction inspection, contract administration, environmental inspection and materials testing for the Birchmount Road Rouge River Crossing and Road Extension Project.

AECOM initially provided a cost proposal in their August 2011 quotation, for the contract administration and inspection services for the bridge construction. This quotation was based on a compressed schedule (i.e. 8 months) designed to meet the original MDE servicing date (Spring

2013) and did not include a geotechnical testing and environmental inspections. Staff negotiated a revised fee of \$384,504.23, inclusive of HST, which includes additional requirements for geotechnical testing, environmental inspections, MDE inspections as well as additional contract administration and inspection fees required for winter work and extended construction period (i.e. 12 months). In addition, \$384,504.23, inclusive of HST, represents approximately 6% of the construction cost and is within industry standards.

Given AECOM's experience, qualifications, price competitiveness and favourable previous performance, staff is recommending that AECOM be retained to provide construction inspection, contract administration, environmental inspection and materials testing for this project.

### FINANCIAL CONSIDERATIONS:

The latest project costs based on the lowest priced bid are summarized in the following table:

Item	Cost (Incl. of HST)	Total
Capital Account Available Funding (083-5350-12055-005)		\$ 14,747,660.61
Bid Price	\$ 7,667,187.72	
Less: Deleted Items in Contract #151-T-12	(\$ 1,750,000.00)	
Add: Cost to contractor for Deleting Bid Items	\$ 260,000.00	
Sub-Total	\$ 6,177,187.72	
Construction Contingency (15%)	\$ 926,578.16	
Contract Administration	\$ 384,504.23	
Contract Administration Contingency (10%)	\$ 38,450.42	
Total Construction Cost	\$ 7,526,720.53	
Engineering Department Capital Administration Fees @ 6.0% in accordance to the amended fee By-law 2002-276	\$ 451,603.23	
Project Cost	\$ 7,978,323.76	\$ 7,978,323.76
<b>Total Remaining</b>		\$ 6,769,336.85
<b>Requested Budget Reduction:</b>		
Development Charges		(\$3,496,400.00)
Developer Funding		(\$ 900,000.00)
MDE		(\$ 600,000.00)
<b>Total Remaining (after budget adjustment)</b>		\$ 1,772,936.85

Staff recommends that the funding in the amount of \$3,496,400.00, inclusive of HST, be returned to the Development Charges (DC) Reserve.

Due to the on-going uncertainties and delay by MNR and TRCA in issuing the permit approvals, a 15% contingency is requested in the event that the MNR approval is delayed beyond January 2013 and the contractor has to work a condensed schedule to meet the November 1, 2013 MDE servicing deadline. In addition, the permits anticipated to be received from MNR / TRCA may require additional works to be completed as a part of the project and is not currently included in the original scope of work. A 20% contingency was originally approved on the June 26, 2012 Council report.

A portion of the remaining funds (\$1,772,936.85) in Capital Account 083-5350-12055-005 are to be used for the future improvements within the Rouge River as requested by the Environmental Agencies. A separate report for the details of this work will be provided by staff in 2013 and surplus funds returned to the original funding source.

**ALIGNMENT WITH STRATEGIC PRIORITIES:**

The extension of Birchmount Road and the construction of the Rouge River crossing will complete the linkage of Birchmount Road from Highway 7 to 14<sup>th</sup> Avenue. The project provides an important north-south connection to relieve traffic congestions on Warden Avenue and Kennedy Road and provides access for the developments in Remington and Times properties.

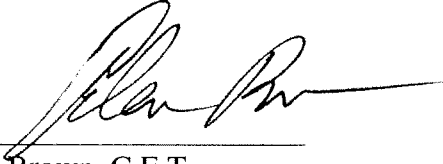
This project is in line with the City of Markham's strategic focus relating to Growth Management, Transportation/Transit and Municipal Services.

**BUSINESS UNITS CONSULTED AND AFFECTED:**


The Finance and Legal Departments has been consulted and their comments have been incorporated.



**RECOMMENDED BY:**

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Alan Brown, C.E.T.  
Director of Engineering

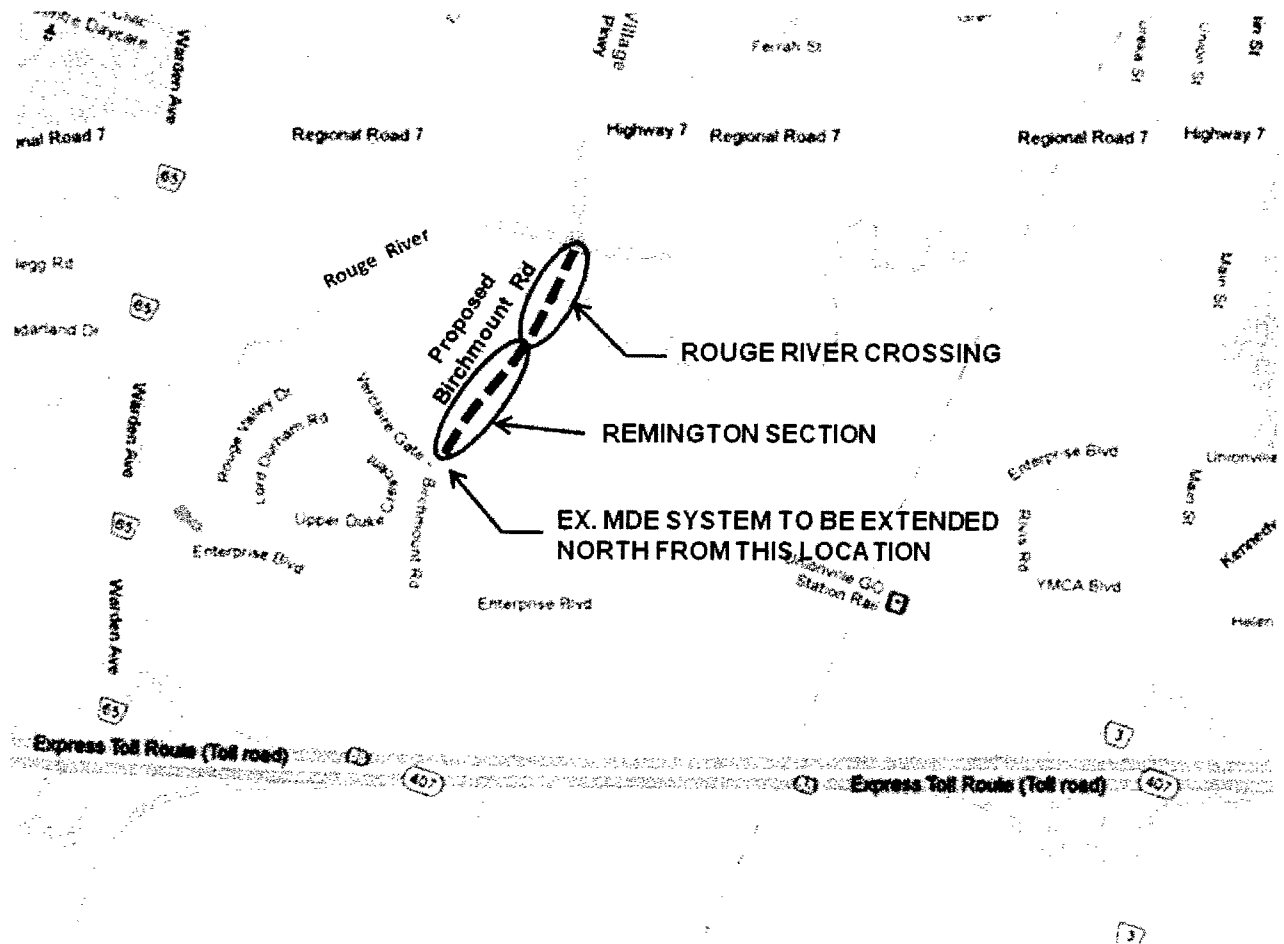
A handwritten signature in black ink, appearing to read 'Jim Baird', written over a horizontal line.

Jim Baird, M.C.I.P., R.P.P.  
Commissioner, Development Services

Attachment:  
Attachment "A" – Key Map

**ATTACHMENTS:**

**Attachment "A" – Key Map**



Key Map

Attachment 'A'