

**REPORT FOR ACTION****Contract Award for Tender Call 265-2017, Contract No. 17ECS-MI-03WA for the Rehabilitation of the Rosehill Reservoir and Amendment to Purchase Order No. 6045909 for Professional Engineering Services during Construction**

**Date:** November 16, 2017  
**To:** Public Works and Infrastructure Committee  
**From:** Chief Engineer and Executive Director, Engineering and Construction Services  
Director, Purchasing and Materials Management Division  
**Wards:** Ward 22 - St. Paul's; Ward 27 - Toronto Centre - Rosedale

**SUMMARY**

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The purpose of this report is to: (1) advise of the results of Tender Call 265-2017, Contract No. 17ECS-MI-03WA, for the Rehabilitation of the Rosehill Reservoir including restoration and enhancement of the park atop the reservoir, and request the authority to award a contract to Bennett Mechanical Installations (2001) Ltd. in the amount of \$34,607,700 net of all taxes (\$35,216,796 net of HST recoveries); and (2) request authority to amend Purchase Order No. 6045909 with Associated Engineering (Ont.) Ltd., for the provision of professional engineering services for contract administration by \$252,968 net of all taxes (\$257,420 net of HST recoveries), revising the current contract value from \$1,001,218 to \$1,254,186.00 net of all taxes (\$1,276,260 net of HST recoveries), due to the longer than originally anticipated construction schedule.

**RECOMMENDATIONS**

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The Chief Engineer and Executive Director, Engineering and Construction Services, and the Director, Purchasing and Materials Management Division, recommend that:

1. City Council, in accordance with Section 195-8.5D of Toronto Municipal Code Chapter 195 (Purchasing By-Law), grant authority to award Contract 17ECS-MI-03WA, Tender Call 265-2017, for the Rosehill Reservoir Rehabilitation to Bennett Mechanical Installations (2001) Ltd., in the amount of \$34,607,700 net of all taxes (\$35,216,796 net of HST recoveries) having submitted the lowest compliant bid and meeting the

specifications in conformance with the Tender requirements, and authorize the appropriate City staff to issue a:

a) Purchase Order in the amount of \$30,679,200 net of all taxes (\$31,219,154 net of HST recoveries) for Part A "Rosehill Reservoir Rehabilitation" (Toronto Water) with funding from the Toronto Water 2017-2026 Approved Capital Budget and Plan; and

b) Subject to approval of Recommendation 1 a) and subject to City Council approval of the Parks, Forestry and Recreation 2018 Capital Budget and 2019-2027 Capital Plan, related to Part B - "Park Enhancements" – forming part of the David A. Balfour Park, located on the Reservoir's green roof (Parks, Forestry and Recreation), issue a Purchase Order Amendment in the amount of \$3,928,500 net of all taxes (\$3,997,642 net of HST recoveries).

2. City Council, grant authority to amend Purchase Order No. 6045909 with Associated Engineering (Ont.) Ltd. for the provision of professional services for contract administration and site inspection services during construction of the Rosehill Reservoir Rehabilitation by an additional amount of \$252,968 net of all taxes (\$257,420 net of HST recoveries), revising the current contract value from \$1,001,218 to \$1,254,186 net of all taxes (\$1,276,260 of HST recoveries).

## **FINANCIAL IMPACT**

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### **Contract Award**

The total value of the contract award for Contract 17ECS-MI-03WA, Tender Call 265-2017, for the Rosehill Reservoir Rehabilitation (Infrastructure and Park Enhancements) is \$39,106,701 including HST which represents a total cost to the City of \$35,216,796 net of HST recoveries.

As described in Recommendation 1, the issuance of the Purchase Order for this award shall be made in two (2) distinct parts:

Part A - "Rosehill Reservoir Rehabilitation" (Toronto Water) at a value of \$30,679,200 net of all taxes (\$31,219,154 net of HST recoveries); and

Part B - "Park Enhancements" – Forming part of the David A. Balfour Park, located on the Reservoir's green roof (Parks, Forestry and Recreation) at a value of \$3,928,500 net of all taxes (\$3,997,642 net of HST recoveries).

Funding for Part A - "Rosehill Reservoir Rehabilitation" (Toronto Water) is included in Toronto Water's 2017-2026 Approved Capital Budget and Plan, under account CPW060-08 as summarized in the table below (all values are net of HST recoveries):

<b>Account No.</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
CPW060-08 Rosehill Reservoir (17ECS-MI- 03WA) Toronto Water Infrastructure	\$3,900,000	\$9,793,055	\$10,000,000	\$7,526,099	\$31,219,154

Funding for Part B "Park Enhancements" – Forming part of the David A. Balfour Park, located on the Reservoir's green roof (Parks, Forestry & Recreation) is contained within the Parks, Forestry and Recreation forthcoming 2018 Capital Budget and 2019-2027 Capital Plan Submission, which will be presented for approval at the City Council meeting currently scheduled for February 12 and 13, 2018. A Capital Account will be assigned following approval of the Parks, Forestry and Recreation 2018 Capital Budget and 2019-2027 Capital Plan and a Purchase Order Amendment will be issued to Bennett Mechanical Installations (2001) Ltd. at that time. The projected cash flow is summarized in the table below (net of HST recoveries):

<b>Account No.</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
P, F and R Acct to be determined (17ECS-MI- 03WA) Park Enhancements	\$0.00	\$1,997,642	\$2,000,000	\$0.00	\$3,997,642

### **Amendment to Purchase Order for Engineering Services During Construction**

An amendment of Purchase Order No. 6045909, to Associated Engineering (Ont.) Ltd., for an additional \$252,968 net of all taxes and charges (\$257,420 net of HST recoveries), revising the current Purchase Order value from \$1,001,218 to \$1,254,186 net of all taxes and charges, \$1,417,231 including HST and all applicable charges (\$1,276,260 of HST recoveries). It is required to extend for the provision of professional engineering services for contract administration during construction due to extra time needed to complete all the works. Funding is included in Toronto Water's 2017-2026 Approved Capital Budget and Plan under account CPW060-08 as summarized in the table below (all values are net of HST recoveries):

Account No.	2018	2019	2020	2021	Total
CPW060-08 Rosehill Reservoir (PO No. 6045909) Professional Engineering Services During Construction	\$17,502	\$78,489	\$78,489	\$82,941	\$257,420

The Acting Chief Financial Officer has reviewed this report and agrees with the financial impact information.

**DECISION HISTORY**

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At its meeting of September 25, 2015, Bid Committee granted authority to enter into agreements with Associated Engineering (Ont.) Ltd. for the provision of engineering services for the Rosehill Reservoir Rehabilitation, being the highest scoring Proponent meeting the requirements of Request for Proposal (RFP) 9117-15-7031, including: (1) pre-design and detailed design, in an amount not to exceed \$991,690 net of taxes; and (2) professional services during construction including construction contract administration and site supervision, in an amount not to exceed \$1,001,218 net of all taxes for a construction period of up to 104 weeks; and, (3) post-construction services, in an amount not to exceed \$33,419 net of all taxes. A copy of the Bid Committee Decision Document can be found at: [Toronto.ca/Agenda Item History 2015 BD49.3](http://Toronto.ca/Agenda Item History 2015 BD49.3)

**COMMENTS**

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**BACKGROUND**

The Rosehill Reservoir, located underground at the David A. Balfour Park (located at 75 Rosehill Avenue in the Deer Park neighbourhood of the City of Toronto), is a buried concrete structure comprised of two potable water retaining basins, a Valve House, Access House, yard piping and related mechanical, electrical and instrumentation systems. The Rosehill Reservoir facility dates back to the 1800's, when it was first put into operation, and is the City's oldest and largest potable water reservoir, with a current storage capacity of 270.3 mega litres and serving a population of approximately 600,000.

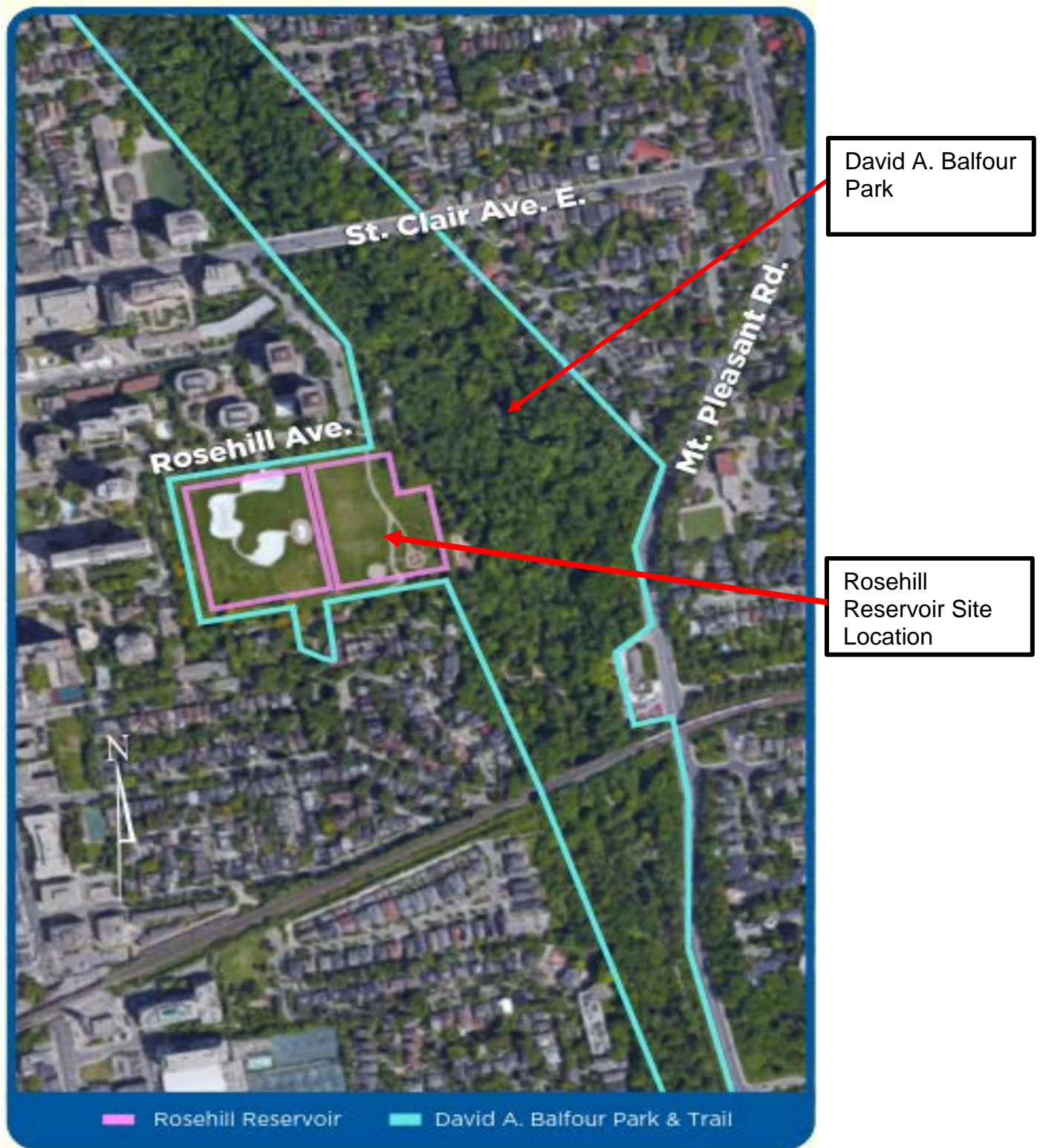


Figure 1. Aerial Photograph showing the location of the Rosehill Reservoir and the boundaries of the David A. Balfour Park.

In 2014, Toronto Water completed a detailed condition assessment of the Rosehill Reservoir which recommended upgrades to structural, mechanical, electrical, instrumentation and piping elements and buried waterproofing membrane replacement to bring the Reservoir to a state of good repair.

During detailed engineering design, options to undertake the rehabilitation of the reservoir's waterproof membrane, it was concluded that all park elements and soil and grass on the roof of the reservoir would have to be removed to provide access to and properly repair the subsurface areas of the reservoir.

At the detailed design stage, the City initiated consultation with the affected community and local Councillors to discuss the necessary repairs and the associated impacts to David A. Balfour Park. The project was originally planned as a conventional state-of-good repair reservoir rehabilitation project with basic restoration of existing park elements disturbed during construction. Following the completion of a Heritage Impact Assessment and through extensive public consultation with local residents and user groups, the importance of reinstating the space to meet the needs of the local community was recognized by City staff. Staff from Toronto Water and Parks, Forestry and Recreation worked closely with the Rosehill Vision Committee, a resident-led volunteer group supported by the local Councillors, to develop a plan to address existing concerns (e.g. ponding of water on the site and soil erosion) and provide enhancements to the park in the area of the reservoir. The final plan presented to the public in September 2017 included a series of improvements to existing multi-use pathways, enhanced accessibility to satisfy AODA requirements, improved site drainage and storm water management, tree preservation and additional plantings.

Various options to deliver the enhanced park plan were considered, and it was ultimately decided to integrate the park enhancement requirements within the Rehabilitation of the Rosehill Reservoir contract as a separate component. This integration of work under a single contract mitigates constructor risks to the City, under the Occupational Health & Safety Act, by precluding the need to separate work areas in time and space. In addition, the overall impact to the community (e.g., from truck traffic, noise and construction activity, and restrictions on overall park access and usage) is reduced by eliminating the requirement for contractor demobilization once the rehabilitation works for the Reservoir are completed, and then re-mobilization of a second contractor to undertake the park restoration and enhancements.

The contract was thus developed to include the following two distinct parts:

Part A - "Rosehill Reservoir Rehabilitation" valued at \$30,679,200 net of all taxes (\$31,219,154 net of HST recoveries), will be funded through Toronto Water's approved 2017 and 2018 to 2026 Capital Budget and Plan. This state of good repair work includes: replacing and upgrading the reservoir structural waterproofing membrane; process, mechanical, electrical and instrumentation systems; Valve House and Access House buildings heritage architectural and structural repair/rehabilitation; as well as basic restoration activities that include sodding and service roads on top of the reservoir facility.

Part B - "Park Enhancements" – forming part of the David A. Balfour Park, located on the Reservoir's green roof at a value of \$3,928,500 net of all taxes (\$3,997,642 net of HST recoveries) will be funded through the forthcoming Parks, Forestry and Recreation 2018 and 2019 to 2027 Capital Budget and Plan, subject to approval by Council in early 2018. This work involves improvements to existing multi-use pathways; enhanced accessibility to satisfy AODA requirements; improved site drainage and stormwater management to address ponding of water on the site and reduce soil erosion potential; and, tree preservation and additional plantings.

### **Tender Call 265-2017 Rosehill Reservoir Rehabilitation**

Tender Call 265-2017 for the Rehabilitation of the Rosehill Reservoir including restoration and enhancements to the David A. Balfour Park, was issued by the Purchasing and Materials Management Division and was advertised on the City's Internet Website on September 5, 2017.

The Purchasing and Materials Management Division, at its Public Opening held on October 31, 2017, opened the following two (2) Tender submissions:

<b>Bidders</b>	<b>Bid Price including HST</b>
Bennett Mechanical Installations (2001) Ltd.	\$39,106,701.00
Kenaidan Contracting Limited	\$41,365,910.00

The Tender documents submitted by the recommended Bidder for Tender Call 265-2017, Contract No. 17ECS-MI-03WA, Rosehill Reservoir Rehabilitation were reviewed and evaluated by staff from Purchasing and Materials Management Division and Engineering and Construction Services, and were found to be in conformance with the Tender requirements.

Engineering and Construction Services staff compared the bids to the estimated cost and found the price of the recommended Bidder of \$39,106,701.00 including all taxes and charges, to be lower than the pre-tender engineering estimate of \$45,563,860.00 including all taxes and charges.

The Fair Wage Office has reported that the recommended Bidder has indicated it has reviewed and understands the Fair Wage Policy and Labour Trades requirements and has agreed to comply fully.

The Tender submission from Bennett Mechanical Installations (2001) Ltd. for Tender Call 265-2017, Contract No. 17ECS-MI-03WA includes their agreement to complete the works within a time frame of 125 weeks from the date of the written Order to Commence. The planned completion date is June 5, 2020.

A single Purchase Order will be issued for Contract No. 17ECS-MI-03WA as follows:

- A Purchase Order in the amount of \$30,679,200.00 net of all taxes shall be issued immediately with funding from the Toronto Water 2017 Approved Capital Budget and 2018-2024 Approved Capital Plan for the part of the contract related to Rehabilitation of Rosehill Reservoir; and,
- Subject to City Council approval of the Parks, Forestry and Recreation 2018 Capital Budget and 2019-2027 Capital Plan, an additional amount of \$3,928,500.00 will be added to the Purchase Order for the part of the contract related to Park Restoration and Enhancements.

### **Amendment to Associated Engineering (Ont.) Ltd. Purchase Order No. 6045909 for Professional Engineering Services During Construction**

The additional scope resulting from bundling the restoration and enhancement of the David A. Balfour Park with the Rehabilitation of the Rosehill Reservoir has resulted in an extended construction schedule and the need for additional professional engineering services during construction.

Purchase Order No. 6045909, issued to Associated Engineering (Ont.) Ltd. for professional services during construction, including construction contract administration and site supervision, originally assumed a single construction project of 104 weeks in duration. However, based on the bid submitted by the contractor, the overall construction schedule has increased by 21 weeks to 125 weeks, with a planned completion date for all construction of June 5, 2020.

The Purchase Order Amendment is for the following scope over and above the original scope of the RFP:

- Site services and engineering office support for the additional 21 weeks of construction; and,
- A 10% contingency allowance is proposed to provide for additional contract administration support in the event that the completion of construction is delayed, and to provide technical support, which may be required, for public meetings during the period of construction.

An amendment to Purchase Order No. 6045909 in the amount of \$252,968 net of all taxes and charges (\$257,420 net of HST recoveries) is therefore required, revising the current Purchase Order value from \$1,001,218 to \$1,254,186 net of all taxes and charges, \$1,417,231 including HST and all applicable charges \$1,276,260 net of HST recoveries).

The additional funds represent an upset limit for the professional engineering services during construction and are required to provide contract administration support for the delivery of the project.



It is the opinion of City staff that the incremental costs for the additional work are fair, reasonable and consistent with the terms and conditions of RFP 9117-15-7031.

## **CONTACT**

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## **SIGNATURE**

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