



Report to: General Committee

Report Date: May 22, 2018

---

**SUBJECT:** Award of RFP 278-R-17 Consulting Engineering Services for Cast iron Watermain and Sanitary Sewer Upgrades Design

**PREPARED BY:** Prathapan Kumar, Senior Manager, Environmental Services, Ext. 2989  
Flora Chan, Senior Buyer, Ext. 3189

---

**RECOMMENDATIONS:**

- 1) THAT the report entitled “Award of RFP 278-R-17 Consulting Engineering Services for Cast Iron Watermain and Sanitary Sewer Upgrades Design” be received;
- 2) AND THAT the contract for RFP 278-R-17 Consulting Engineering Services for Cast Iron Watermain and Sanitary Sewer Upgrades Design be awarded to the highest ranked, third lowest priced Bidder, R.V. Anderson Associates Limited, in the amount of \$411,782.02, inclusive of HST;
- 3) AND THAT a 10% contingency in the amount of \$41,782.02 inclusive of HST, be established to cover any additional construction costs and that authorization to approve expenditures of this contingency amount up to the specified limit be in accordance with the Expenditure Control Policy;
- 4) AND THAT the Consulting Engineering Services award in the amount of \$452,960.22 (\$411,782.02 + \$41,782.20) as outlined under the financial considerations section of this report be funded from the capital project 053-6150-17226-005 “Watermain Construction - Design”;
- 5) AND THAT the remaining budget of \$9,699.78 in capital project 053-6150-17226-005 “Watermain Construction - Design” will be returned to the original funding source;
- 6) AND THAT Contract administration services be awarded to R.V. Anderson Associates Limited in the amount of \$347,366.51 inclusive of 10% contingency and HST be requested as part of the 2019 and/ or 2020 Capital budget process, subject to Council approval;
- 7) AND THAT the Purchase Order for contract administration services be updated to reflect the actual construction time required based on the final design in accordance with the Expenditure Control Policy; and
- 8) 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 obtain Council approval to award Consulting Engineering Services for Cast Iron Watermain and Sanitary Sewer Upgrades Design.

**BACKGROUND:**

Watermain Replacement:

Watermain break records and assessments indicate that the cast iron pipes structural condition is close to the end of its lifecycle and need replacement at Valloncliffe Road, Limcombe Drive, Huckleberry Lane, Lafayette Place, Seinecliffe Road, Old English Lane, Doncrest Drive, Hampshire Court, Carriage Hill

Court, McCowan Road (from HWY 7 to Bullock Dr), Heritage Road (from McCowan Road to Laidlaw Blvd) and re-servicing of 8 lots on Church St. and Sir Lancelot Dr.

A total of 4,683 metres of existing cast iron watermain have been identified for replacement. The replacement of cast iron watermain is consistent with the City's strategy to upgrade aged and deficient watermain to improve supply capacity and reliability. Replacement of these old cast iron watermain will also offer improved reliability (less risk of breaks) as well as improve water quality and flows for domestic and fire demand. Based on experience, cast iron watermain are susceptible to internal and external corrosion as they age and therefore lead to poor water quality and increased watermain breaks. The new watermain replacement material will be PVC pipe which has a service life of 90 years and it is chemical resistant and non-corrosive.

#### Sanitary Sewer Replacement:

As part of the City-wide Wastewater Master Servicing Plan study, sanitary sewer on Valoncliffe Road/ Old English Lane area have been identified as deficient and require upgrades (890 metres). Since Staff will be replacing the cast iron watermain, it is recommended to coordinate the sanitary sewer upgrade at the Valoncliffe Road/ Old English Lane area to take place at the same time (design in 2018 and construction in 2019 or 2020).

#### **OPTIONS/ DISCUSSION:**

##### **Bid Information:**

Advertised	ETN (Electronic Tendering Network)
Bids closed on	February 12, 2018
Number picking up the Bid document	11
Number responding to the Bid	6

##### **Proposal Evaluation:**

The Evaluation Team was comprised of staff from the Environmental Services department and facilitated by staff from the Purchasing department. Due to the complexity of the project, staff wanted to ensure that bidders had the necessary qualifications and experience to carry out the work and as such, the City released this RFP utilizing a two-stage system.

##### **Stage One (1) – Technical Evaluation:**

Under Stage 1 – Technical Evaluation, Bidders were assessed against pre-determined criteria as outlined in the RFP; Experience/Past Performance of the consulting firm 20%, qualifications and experience of the project manager and team member 30% and project delivery 20% totaling 70%. Upon completion of Stage 1 (technical evaluation), the Price Proposal (Bid Form) provided by those Bidders who qualified from Stage 1, (minimum score of 75%, or 52.5 points out of 70 required), proceeded to Stage 2 for price evaluation.

<b>Suppliers</b>	<b>Score (out of 70)</b>
R.V. Anderson Associates Limited	65.0
Parsons Inc.	52.5
Cole Engineering Group Ltd	54.5
The Municipal Infrastructure Group Ltd.	56.0
McIntosh Perry Consulting Engineers Ltd.	49.2*
Noveen Engineering Inc.	35.7*

\*Bidders that did not achieve a technical score of 52.5 points or higher were not considered for Stage 2 evaluation.

**Stage Two (2) – Price Evaluation:**

Based on the Stage 1 evaluation, Bidders who received a minimum of 75% or 52.5 points out of 70 proceeded to Stage 2 - Price Evaluation. The price proposal provided by the Bidders is evaluated out of 30 points, based on the criteria outlined in the RFP.

<b>Suppliers</b>	<b>Score (out of 30)</b>
R.V. Anderson Associates Limited	<b>26.9</b>
Parsons Inc.	30.0
Cole Engineering Group Ltd	26.8
The Municipal Infrastructure Group Ltd.	19.5

\*\*Financial score out of 30 includes both price for both Design and Contract Administration Services and Bid prices ranged from \$658,915.33 to 890,333.86, inclusive of HST Impact.

**Stage 1 & 2 – Combined Overall Scoring**

The scores from the Stage 1 and 2 evaluations were combined to formulate final overall scoring, as summarized below:

<b>Suppliers</b>	<b>Score (out of 100)</b>
R.V. Anderson Associates Limited	<b>91.9</b>
Parsons Inc.	82.5
Cole Engineering Group Ltd	81.3
The Municipal Infrastructure Group Ltd.	75.5

R.V. Anderson Associates Limited, the highest ranked bidder with the highest technical score and third lowest price, demonstrated a good understanding of the project, had an experienced and qualified project team and illustrated a comprehensive plan and methodology for the project.

Staff negotiated with R.V. Anderson Associates Limited and reduced the total cost of award by 4.7% or \$35,835.

**Project Schedule:**

Design award – June 2018

Design completion – Dec 2018

Construction Tender release – Feb 2019

**FINANCIAL CONSIDERATIONS AND TEMPLATE:**

The following table summarizes the financial considerations for **Design Service:**

Budget Available (A)	\$ 462,660.00	053-6150-17226-005 “Consulting Engineering Services for Watermain Replacement Program (2017) – Design”
Less: Design Award (B)	\$ 411,782.02	Award to R.V. Anderson Associates Ltd.
Less: Contingency (10%) (C)	\$ 41,178.20	
<b>Total Design Award (D) = (B) + (C)</b>	<b>\$ 452,960.22</b>	
Budget Remaining* (E) = (A) - (D)	\$ 9,699.78	

\*The remaining budget of \$9,699.78 will be returned to the original funding source.

**Contract Administration Service:**

Contract Administration	\$ 315,787.71	Based on an estimated construction period of 45 working weeks
Less: CA Contingency (10%)	\$ 31,578.77	
<b>Total Cost of CA</b>	<b>\$ 347,366.51</b>	CA Award is subject to Council approval of the 2019 or 2020 Capital budget

The Purchase Order will not be issued until the 2019 and / or 2020 Capital Budget is approved. Under this award, Staff is able to secure pricing for future contract administration services.

The Capital Budget for Contract Administration will be requested as part of the 2019 and / or 2020 Capital Budget process, subject to Council approval. The cost estimate for CA is based on an estimated construction period of 45 working weeks. The construction period may change subject to detailed design and therefore the purchase order for CA service may need to be adjusted.

**OPERATING BUDGET AND LIFE CYCLE RESERVE IMPACT**

The constructed sanitary sewer pipes and associated infrastructure is estimated to last 100 years and PVC watermain service life is estimated to be 90 years. As such, there is no incremental impact to the Waterworks Life Cycle Reserve Study over the next 25 years. There is no incremental operating budget impact.

**ALIGNMENT WITH STRATEGIC PRIORITIES:**

The proposed cast iron watermain and sanitary sewer upgrades program is in line with City's goal to provide better quality services to the public and is consistent with the Building Markham's Future Together strategic priority on the "Growth Management" and "Environment" as it considers sustainability on the built environment.

**BUSINESS UNITS CONSULTED AND AFFECTED:**

Finance department has been consulted and their comments have been incorporated.

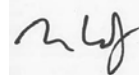
**RECOMMENDED BY:**

2018-04-24

2018-04-24

X 

Phoebe Fu  
Director of Environmental Services  
Signed by: cxa

X 

Morgan Jones  
Acting Commissioner, Community & Fire Services  
Signed by: cxa

**ATTACHMENTS:**

[Attachment "A" – Location map](#)