



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Engineering Services Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	November 14, 2016
SUBJECT/REPORT NO:	Professional Services for Critical Watermain Pipe Condition Assessment for Pre-stressed Concrete Cylinder Pipe (PCCP) (PW16102) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Michael Zantingh (905) 546-2424, Extension 4127
SUBMITTED BY:	Gary Moore, P. Eng. Director, Engineering Services Public Works Department
SIGNATURE:	

RECOMMENDATION

That the requirements of the Procurement Policy 5.4 requirement to issue a competitive bid are waived and that the General Manager of Public Works be authorized to:

- (a) Negotiate directly a 3 year contract plus 2, 1 year options to renew with Pure Technologies Ltd. to carry-out Professional Services for Critical Watermain Pipe Condition Assessment of Pre-stressed Concrete Cylinder Pipe (PCCP);
- (b) That the General Manager of Public Works, or his designate, be authorized and directed to enter into and sign on behalf of the City of Hamilton, all negotiated agreements and all necessary associated documents with Pure Technologies Ltd. with content acceptable to the General Manager of Public Works, and in a form satisfactory to the City Solicitor;
- (c) That annual funding requirement be identified in the Rate Budget for Council's approval.

EXECUTIVE SUMMARY

This report seeks permission to enter into negotiations directly with Pure Technologies Ltd. in an attempt to achieve economical professional services for Critical Watermain Pipe Condition Assessment of Pre-stressed Concrete Cylinder Pipe (PCCP) and establish a 3 year contract plus 2, 1 year options to renew with the Asset Management Section, of the Engineering Services Division of the Public Works Department of the City of Hamilton.

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Pure Technologies Ltd. is currently the only company in the marketplace able to deliver the required services.

Other Canadian Municipalities / Utilities such as Region of Peel, City of Ottawa, Halifax Water, and City of Montreal have recently negotiated and sole sourced work to Pure Technologies Ltd. in order to achieve economical services.

Asset Management Section staff continually monitor the industry and marketplace related to the Pre-stressed Concrete Cylinder Pipe (PCCP) watermain condition assessment sector.

Alternatives for Consideration – See page 4

FINANCIAL - STAFFING - LEGAL IMPLICATIONS

Financial: Funding in the order \$340,000 for the work is proposed in the 2017 budget Project ID 5141757628 Mountain Feedermain to complete 3.4km of watermain inspection. In 2018 \$1,130,000 is proposed for inspecting 12km of watermain, project ID 5141857628 and 5141857627. In 2019 \$300,000 is proposed for the inspection of 5km of watermain, project ID 5141957626.

Staffing: None

Legal: None

HISTORICAL BACKGROUND

In 2010, the City of Hamilton procured Pure Technologies Ltd. via a Policy 11 Non-Competitive Procurements and entered into a sole source agreement to inspect one of the City's most critical watermain, the Woodward Greenhill Transmission Main, a 1200mm Pre-stressed Concrete Cylinder Pipe (PCCP).

In 2013 the City issued a RFP for Pre-stressed Concrete Cylinder Pipe (PCCP) watermain condition assessment with only Pure Technologies Ltd. responding and submitting a proposal.

Pure Technologies Ltd. is currently the only vendor in the marketplace able to deliver the required services. Other Canadian Municipalities / Utilities actively engaging in Pre-stressed Concrete Cylinder Pipe (PCCP) condition assessment also confirm the above statement. In 2015 The City of London issued a RFP and received only one proposal, that of Pure Technologies Ltd. The City of Ottawa, Region of Peel, Halifax Water, and City of Montreal have all taken the direction of sole sourcing these services to Pure Technologies Ltd.

Since 1993, Pure has been providing non-destructive testing and monitoring technologies to the municipal water industry to help individual clients better understand the condition of their civil infrastructure; with a strong focus on Pre-stressed Concrete Cylinder Pipe (PCCP). Pure has developed a widely accepted program for assessing and managing PCCP that includes in-line inspections, engineering analysis, monitoring,

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and professional recommendations for rehabilitation and long term management. Where previous condition assessment methods depended on visual inspection results, Pure developed a program that uses state of the art technologies to identify early signs of structural deterioration for PCCP. Pure Technologies' introduction of both free-swimming and manned electromagnetic technology platforms has enabled municipalities to obtain structural data from their PCCP assets in a non-destructive manner, even while the structural components of PCCP are hidden (due to being lined with, embedded in concrete, and coated with mortar).

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The requirements of the Procurement Policy 5.4 for a competitive process for Request for Proposals over \$10,000 will not be met.

RELEVANT CONSULTATION

The following public sector industry professionals have been consulted with:

Utility	Comments
Halifax Water	Halifax Water Sole Source their inspection work to Pure. They reviewed what technologies are available in the market place and found only one company to provide these services.
Region of Peel	The Region is currently working on an "Expression of Interest" for these services. There expecting only one response.
City Of Ottawa	The City of Ottawa currently has a Standard Pricing Agreement for the Professional Service – Pipe Condition Assessment with Pure Technologies.
City of London	City of London put out a RFP in 2015 and Pure is the only company to respond.
City of Montreal	The City of Montreal sole sourced the inspection work to Pure Technologies after a review of the industrial was completed.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

As described above, broken pre-stressed wires and leakage are two signs of PCCP deterioration. As such, the scope of work for a PCCP condition assessment project includes identifying broken wires and leakage. Pure Technologies uses electromagnetic (EM) inspection technology to identify, assess, and quantify current PCCP wire wrap break data. Inspections can be completed with manned, robotic or free swimming EM tools. Correlators are not applicable to the diameter range (mid to large) covered in this

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program. Pure has developed patented technologies that can inspect pipes for leaks and broken pre-stressed wire wraps (and bars in the case of bar-wrapped pipe) while they remain in service, and monitor pipes for active deterioration.

ALTERNATIVES FOR CONSIDERATION

Do nothing, allow the pipe to fail and complete an emergency repair as needed.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Economic Prosperity and Growth

Hamilton has a prosperous and diverse local economy where people have opportunities to grow and develop.

APPENDICES AND SCHEDULES ATTACHED

N/A