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**TO:** GENERAL COMMITTEE

**SUBJECT:** MAPLEVIEW DRIVE IMPROVEMENTS  
AWARD OF CONTRACT 2011-027T

**PREPARED BY AND  
KEY CONTACT:** D. JAMES, P. ENG. *Rk*  
SENIOR PROJECT ENGINEER EXT. 4444

**SUBMITTED BY:** R. W. MCARTHUR, P. Eng. *R. W. McArthur*  
DIRECTOR OF ENGINEERING

**GENERAL MANAGER  
APPROVAL:** R. J. FORWARD, MBA, M.Sc., P. Eng. *R. J. Forward*  
GENERAL MANAGER OF INFRASTRUCTURE, DEVELOPMENT & CULTURE

**CHIEF ADMINISTRATIVE  
OFFICER APPROVAL:** JON M. BABULIC *J. M. Babulic*  
CHIEF ADMINISTRATIVE OFFICER

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**RECOMMENDED MOTION**

1. That Contract 2011-027T, for Mapleview Drive Improvements, Welham Road to Huronia Road, be awarded to Arnott Construction Limited, in accordance with their tender dated May 3, 2011, in the amount of \$9,157,007.50 excluding HST.

**PURPOSE & BACKGROUND**

2. A Class Environmental Assessment (EA) was completed in August, 2007 for Mapleview Drive East (from Bayview Drive to Yonge Street) as per Motion 07-G-365. The recommendation was to proceed with road widenings in phases. Road improvements under Phase 1, Bayview Drive to Welham Road, have been completed. Road improvements under Phase 2, Welham Road to Huronia Road, will be undertaken under Contract 2011-027T.
3. Council gave direction regarding the provision of water and sanitary servicing for Mapleview Drive from Welham Road to Huronia Road as per Motion 11-G-055 as follows:

"That a By-Law be prepared to authorize the recovery of capital costs for the installation of watermain and sanitary servicing on Mapleview Drive East, between and Huronia Road and Welham Road through the collection of a per metre frontage charge plus lateral costs for benefiting properties abutting the proposed new sections of watermain and sanitary sewer, as provided under Section 326 of the Municipal Act, with the option of payment of the watermain and sanitary sewer charges over a 10 year period with interest per applicable policies.

That the property owner's share of the project costs in the amount of \$57,900 be financed internally using the ten year Canada Savings Bond rate as at the time of billing as the interest rate.

4. This contract award Staff Report is being submitted to Council as the Council approved procedures related to Local Improvement and Section 326 (Municipal Act) projects require that owners of property affected by the project be given a 10 day period of time in which to advise Council of any objection prior to the awarding of the tender contract for the project.

5. Tenders for Contract 2011-027T closed on May 3, 2011 at 2:00 p.m. Eleven (11) tenders were opened on May 3, 2011 at 2:15 p.m. The Engineer's estimate for the construction portion of the project was \$9,600,000.00. The three lowest bids (excluding HST) are:
- a) Alexman Inc. \$ 8,021,600.39
  - b) Arnott Construction Limited \$ 9,157,007.50
  - c) Trisan Construction \$9,897,269.80
6. The total project cost, including non-recoverable HST and including construction, engineering, contract administration, site inspection, property, utility relocations and contingencies based on the Arnott Construction Limited tender is estimated at \$13,606,800.00 as detailed on the table below and shown on Appendix "A". The approved budget for this project is \$13,958,000 as shown on Appendix "A". The project savings are therefore \$352,000.

Total Tender Price (Excluding HST)	\$ 9,157,007.50
Non recoverable HST	\$ 161,163.33
Engineering Design	\$ 654,834.68
Utilities	\$ 500,000.00
Property	\$ 1,555,000.00
Contract Admin., Inspection & Material Testing	\$ 273,794.49
Rail Works	\$ 200,000.00
Construction and Project Contingencies	\$ 1,105,000.00
<b>TOTAL PROJECT WORK</b>	<b>\$13,606,800.00</b>

7. The criteria for determining if a tenderer is qualified to do the proposed work is stated in Part 1 "Instructions To Tenderers" of the tender document for the Mapleview Drive Improvements (Welham Road to Huronia Road) project, and is entitled "Acceptance Or Rejection Of Tenders", and is attached as Appendix "B". This criteria was developed as a result of past problems in awarding projects to contractors who did not demonstrate that they possessed the skills or past experience to successfully undertake and complete the works.

#### **ANALYSIS**

8. This project involves several distinct construction components, including road excavation, sewer installation, electrical works, sidewalk and curb, asphalt paving, dewatering, piling work, and other works that relate to the bridge structure. The tender form included a "List Of Subcontractors" on which the bidders were to indicate if they were going to use specific subcontractors to undertake the various components of the work.
9. Alexman Inc.'s tender submission was reviewed for compliance with the tender requirements. This review included reference checks based on references provided by Alexman in their bid submission. The references provided by Alexman were contacted and questions were asked relating to the criteria for determining contractor qualifications in accordance with the "Acceptance Or Rejection Of Tenders" clause. The list of these reference questions is attached in Appendix "C". As a result of these reference checks City staff concluded that Alexman had not demonstrated that they, and their listed subcontractors, possess the skills or past experience necessary to undertake several major components of the Mapleview Drive Improvements project, being excavation, sewer installation, dewatering and piling.

10. City staff asked Alexman to submit additional references pertaining to their abilities, as well as their listed subcontractors regarding excavation, sewer installation, dewatering and piling.
11. Additional references were provided by Alexman. These references were contacted by City staff and questions were asked relating to the criteria for determining contractor qualifications in accordance with the "Acceptance Or Rejection Of Tenders" clause. The list of these supplemental reference questions is attached in Appendix "D". City staff concluded that Alexman had not demonstrated that they and their listed subcontractors possessed the skills or past experience necessary to undertake several major components of the Mapleview Drive Improvements project, being excavation, dewatering and piling.
12. At the request of city staff, the engineering design consultant for this project, AECOM, were asked to review the reference check information. AECOM concluded, as did City staff, that Alexman had not demonstrated that they and their listed subcontractors possessed the skills or past experience necessary to undertake several major components of the Mapleview Drive Improvements project, being excavation, dewatering and piling. AECOM has concluded, as per their correspondence in Appendix "E" that Alexman are not qualified.
13. The process of reference checks and reviews was undertaken with the concurrence and oversight of the Manager of Purchasing.
14. Excavation is considered to be a major component of the work, as it represents approximately 10.6% of the construction value based on the lowest five tender submissions. The excavation work involves the cutting and disposal of approximately 74,000 cubic metres of earth material to specific road grades.
15. Dewatering is considered to be a major component of the work. Dewatering requires specialized equipment and techniques to extract groundwater by means of vacuum well points and / or deep wells, and to discharge the water properly. Dewatering items are included in the tender items for the bridge and culvert structures and the requirement to dewater is contained within the various sewer items. The consequences of inadequate dewatering techniques can be severe. The City of Barrie has taken out a Permit To Take Water from the Ministry of Environment. This Permit requires that the City ensures that the dewatering, expected to be up to 10.5 million litres per day, is done in a manner that does not harm the adjacent creek, and that data is properly recorded. The City must rely on its General Contractor and its qualified subcontractors to undertake the dewatering work in strict accordance with the terms of the Permit. If there is a contravention of the Permit, significant harm to the cold water creek and fish habitat could result, which would result in charges laid against the City of Barrie.
16. Piling is required for the temporary protection system, and is considered to be a major component of the work, as it represents approximately 23.8% of the construction value based on the lowest five tender submissions. Piling requires specialized equipment and techniques. If not undertaken properly, there is a potential for structural failure leading to delays, economic impacts to railway operations, and potential for property damage and personal injury.
17. Alexman Inc.'s tender was rejected based on insufficient evidence of their ability to complete the Work.
18. Arnott Construction Limited is a contractor that has successfully completed several projects having components similar to the proposed Mapleview Drive Improvements. References provided by Arnott were contacted, and these references confirmed that Arnott and their listed subcontractors are capable of successfully undertaking the proposed works.

19. The Ministry of the Environment (MOE) Certificates of Approval for the sanitary sewer and storm sewer works are required. Applications have been submitted. Lake Simcoe Regional Conservation Authority approval for the culvert replacement is imminent. The MOE Permit to Take Water for construction dewatering has been issued.

#### **ENVIRONMENTAL MATTERS**

20. The following environmental matters have been considered in the development of the recommendation:
- a) Provision of sanitary sewer will allow existing septic systems to be decommissioned thereby eliminating potential pollution sources for ground water and surface water.
  - b) Sedimentation and erosion control measures will be in place during construction of the project.
  - c) Lake Simcoe Region Conservation Authority requirements and timing restrictions for in water works will be followed.
  - d) Ministry of Environment requirements with regard to the Permit To Take Water will be followed.

#### **ALTERNATIVES**

21. The following Alternative is available for consideration by General Committee:

**Alternative #1**

General Committee may recommend award of the contract to the low bidder, Alexman Inc. Staff does not recommend this alternative as Alexman Inc. had not demonstrated that they and their listed subcontractors possess the skills or past experience necessary to undertake several major components of the Maplevue Drive Improvements project, being excavation, dewatering and piling.

#### **FINANCIAL**

22. The Capital Budget for this project is shown in Appendix 'A' along with the proposed funding, based on total project cost including tendered prices, design, contract administration, inspection, utility relocations, property acquisition and contingencies.
23. The Section 326 rates previously circulated to the benefiting property owners were \$350.00 per metre for sanitary sewer frontage and \$1,400.00 per sanitary lateral and \$200.00 per metre for water frontage and \$1,400.00 per water lateral. The revised costs based on Arnott Construction Limited's tender are \$280.02 per metre for sanitary frontage and \$4,626.69 per sanitary lateral and \$173.38 for water frontage and \$3,626.73 per water lateral. Letters were mailed on May 20, 2001 advising property owners of the revised rates and the Council schedule for the award Staff Report. The initial estimate costs, and costs based on the Arnott tender, are summarized below.

	Initial Estimate		Arnett Tender	
	Unit Rate	Total Cost	Unit Rate	Total Cost
<b>SANITARY</b>				
Frontage Cost (per m.)	\$ 350.00	\$ 10,500.00	\$ 280.02	\$ 8,400.60
Lateral Cost (each)	\$ 1,400.00	\$ 1,400.00	\$ 4,626.69	\$ 4,626.69
Total Cost		\$ 11,900.00		\$ 13,027.29
<b>WATER</b>				
Frontage Cost (per m.)	\$ 200.00	\$ 6,000.00	\$ 173.38	\$ 5,201.40
Lateral Cost (each)	\$ 1,400.00	\$ 1,400.00	\$ 3,626.73	\$ 3,626.73
Total Cost		\$ 7,400.00		\$ 8,828.13

The costs based on tender for frontage are lower than the initial estimate. The costs based on tender for service laterals are higher than the initial estimate, as the costs to install the services while maintaining traffic flow was more involved than initially envisioned.

24. Motion 11-G-055 authorized the City Treasurer to internally finance the property owner's share of the works using the ten year Canada Savings Bond rate as at the time of billing as the interest rate to be applied should owners elect to spread the payments over 10 years.
25. In accordance with the delegated authority provided under the Capital Project Financial Control Policy, excess funding as identified in Appendix "A" Funding Adjustment will be transferred into the appropriate holding account/reserve fund.

**LINKAGE TO 2010 – 2014 COUNCIL STRATEGIC PLAN**

26. The recommendation included in this Staff Report is not specifically related to the goals identified in the 2010-2014 City Council Strategic Plan.

APPENDIX "A"  
PROJECT FUNDING

BUDGET FUNDING

Component	Traffic Signals 14-16-2361-0615	Streetlights 14-16-2363-0615	Roads 14-16-2510-0615	Bridge 14-16-2511-0615	Sanitary 14-16-2515-0615	Storm 14-16-2520-0615	Culvert 14-16-2521-0615	Sidewalk 14-16-2525-0615	Watermain 14-16-2535-0615	TOTALS
Tax Capital Reserve	\$64,088	\$57,270	\$1,788,119	\$1,390,821		\$139,658	\$38,180	\$45,407		\$3,523,543
Developer Agreements					\$20,150				\$12,472	\$32,622
DCA	\$170,912	\$152,730	\$5,161,881	\$3,709,179	\$84,015	\$360,342	\$101,820	\$121,093	\$62,356	\$9,924,328
Sewer Rate					\$135,835					\$135,835
Water Rate									\$342,472	\$342,472
<b>TOTAL</b>	<b>\$235,000</b>	<b>\$210,000</b>	<b>\$6,950,000</b>	<b>\$5,100,000</b>	<b>\$240,000</b>	<b>\$500,000</b>	<b>\$140,000</b>	<b>\$166,500</b>	<b>\$417,300</b>	<b>\$13,958,800</b>

PROPOSED FUNDING

Component	Traffic Signals 14-16-2361-0615	Streetlights 14-16-2363-0615	Roads 14-16-2510-0615	Bridge 14-16-2511-0615	Sanitary 14-16-2515-0615	Storm 14-16-2520-0615	Culvert 14-16-2521-0615	Sidewalk 14-16-2525-0615	Watermain 14-16-2535-0615	TOTALS
Tax Capital Reserve	\$56,561	\$56,997	\$1,395,505	\$1,670,076		\$137,898	\$124,221	\$40,389		\$3,481,648
Developer Agreements					\$20,150				\$12,472	\$32,622
DCA	\$150,839	\$152,003	\$4,028,495	\$4,453,924	\$65,863	\$355,802	\$331,279	\$107,711	\$52,390	\$9,698,305
Sewer Rate					\$106,487					\$106,487
Water Rate									\$287,738	\$287,738
Water Rate Holding Account										\$0
<b>TOTAL</b>	<b>\$207,400</b>	<b>\$209,000</b>	<b>\$5,424,000</b>	<b>\$6,124,000</b>	<b>\$192,500</b>	<b>\$493,700</b>	<b>\$455,500</b>	<b>\$148,100</b>	<b>\$352,600</b>	<b>\$13,606,800</b>

FUNDING ADJUSTMENT

Component	Traffic Signals 14-16-2361-0615	Streetlights 14-16-2363-0615	Roads 14-16-2510-0615	Bridge 14-16-2511-0615	Sanitary 14-16-2515-0615	Storm 14-16-2520-0615	Culvert 14-16-2521-0615	Sidewalk 14-16-2525-0615	Watermain 14-16-2535-0615	TOTALS
Tax Capital Reserve	-\$7,527	-\$273	-\$392,614	\$279,255		-\$1,760	\$86,041	-\$5,018		-\$41,895
Developer Agreements										\$0
DCA	-\$20,073	-\$727	-\$1,133,386	\$744,745	-\$18,152	-\$4,540	\$229,459	-\$13,382	-\$9,966	-\$226,023
Sewer Rate					-\$15,765					-\$15,765
Water Rate									-\$20,487	-\$20,487
Sewer Rate Holding Account					-\$13,584				-\$34,247	-\$47,831
Water Rate Holding Account										\$0
<b>TOTAL</b>	<b>-\$27,600</b>	<b>-\$1,000</b>	<b>-\$1,526,000</b>	<b>\$1,024,000</b>	<b>-\$47,500</b>	<b>-\$6,300</b>	<b>\$315,500</b>	<b>-\$18,400</b>	<b>-\$64,700</b>	<b>-\$352,000</b>

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**APPENDIX "B"**

**1.10 ACCEPTANCE OR REJECTION OF TENDERS**

The Owner reserves the right to reject any or all tenders and to waive formalities as the interests of the Owner may require without stating reasons therefore. The lowest or any tender will not necessarily be accepted. The acceptance of a tender will be contingent upon the tenderer being qualified.

To determine whether a tenderer is qualified to do the work, the following criteria will be used:

- a) The Tenderer's ability and agreement to complete the work within the Construction Schedule;
- b) The Tenderer's ability to work with the owners, consultants and representatives;
- c) The Tenderer's ability to effectively manage and do the work using the named superintendent and submitted contractors and subcontractors;
- d) The Tenderer's history with respect to quality of work, scheduling, changes in the work, and force account work.

Subject to the General Conditions and except as provided hereunder, no employee of the Owner has authority to make or accept an offer or to enter into a contract on behalf of the Owner or to create any rights against or to impose any obligations on the Owner. The recommendation of a tender to the Owner for acceptance does not constitute acceptance of the tender by the Owner.

Tenders not accompanied by a certified cheque in the required amount may be rejected.

The Owner shall not be responsible for any liabilities, costs, expenses, loss or damage incurred, sustained or suffered by any Tenderer prior or subsequent to or by reason of the acceptance or the non-acceptance by the Owner of any tender or by reason of any delay in the acceptance of a tender except as provided in the tender.

The tender offer shall be irrevocable for a period of 90 days following the date of Tender Closing.

**APPENDIX "C"**

**CITY OF BARRIE  
MAPLEVIEW DRIVE IMPROVEMENTS  
(Welham Road to Huronia Road)  
CONTRACT 2011-027  
Reference Checks**

**Reference information:**

**Project Owner:**

**Project Manager:**

**Project Manager's role on project:**

- **Employed by :**
- **Employer's role on project, e.g. Owner, General Contractor, Sub-contractor, or Other**

**Reference contacted by Dave James on (date and time):**

**General Questions:**

Was Alexman the General Contractor for this project?

Was Alexman a Subcontractor for this project?

If Alexman was a subcontractor on this project, what was the scope of his subcontract?

Was Alexman cooperative in their dealings with the project owner, consultant, and if applicable, the General Contractor?

Did Alexman effectively manage and do the work using a qualified superintendent and subcontractors?

What was the overall quality of the work?

Did Alexman adhere to the overall project schedule?

Did Alexman respond to, and expedite changes in the work?

Did Alexman properly document and present force account work?



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**Detailed Questions:**

**ROADWORKS**

i) Excavation

Did this project include excavation works?

If yes, were these excavation works a major component of the project?

Did Alexman undertake the excavation work on this project?

If "yes" did they undertake the excavation work with their own forces?

Did they perform up to expectations with respect to quality, and meeting schedule?

ii) Sewer Installation

Did this project include sewer works?

If yes, were these sewer works a major component of the project?

Did Four Brothers Construction undertake the sewer works?

If yes, did they perform up to expectations with respect to quality, and meeting schedule?

iii) electrical Works

Did this project include electrical works, and if so, what were the details (streetlighting, traffic signalization, or other work)?

If yes, were these electrical works a major component of the project?

Did Guild Electric undertake the electrical works?

If yes, did they perform up to expectations with respect to quality, and meeting schedule?

iv) Sidewalk and Curb

Did this project include sidewalk and curb works?

If yes, were these sidewalk and curb works a major component of the project?

Did Curbside undertake the sidewalk and curb works?

If yes, did they perform up to expectations with respect to quality, and meeting schedule?

v) Asphalt

Did this project include asphalt paving?

If yes, was this asphalt paving a major component of the project?

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Did Lisbon Paving undertake the asphalt paving?

If yes, did they perform up to expectations with respect to quality, and meeting schedule?

**BRIDGE WORKS**

i) Dewatering

Did this project include dewatering?

If yes, was this dewatering a major component of the project?

Did Alexman undertake the dewatering work?

If "yes" did they undertake the dewatering work with their own forces?

If yes, did they perform up to expectations with respect to quality, and meeting schedule?

ii) TPG Structures

Did this project include a structure with Through Plate Girder spans?

If yes, were these TPG structures a major component of the project?

Did Central Welding undertake the TPG Structure work?

If yes, did they perform up to expectations with respect to quality, and meeting schedule?

iii) Concrete work

Did this project include concrete work at a bridge structure?

If yes, was this concrete work a major component of the project?

What was the scope of the concrete work (e.g. type of structure, new construction or rehabilitation, etc.)?

Did Alexman undertake the concrete work?

If "yes" did they undertake the concrete work with their own forces?

If yes, did they perform up to expectations with respect to quality, and meeting schedule?

iv) Piling work

Did this project include piling work?

If yes, was this piling work a major component of the project?

Did Alexman undertake the piling work?

If "yes" did they undertake the piling work with their own forces?

If yes, did they perform up to expectations with respect to quality, and meeting schedule?

v) Rail work

Did this project include rail work?

If yes, was this rail work a major component of the project?

What was the scope of the rail work?

Did Alexman undertake the rail work?

If "yes" did they undertake the rail work with their own forces?

If yes, did they perform up to expectations with respect to quality, and meeting schedule?

**APPENDIX "D"**

**CITY OF BARRIE  
MAPLEVIEW DRIVE IMPROVEMENTS  
(Welham Road to Huronia Road)  
CONTRACT 2011-027  
Supplemental Reference Questions**

**Reference information:**

**Project Owner:**

**Project Manager:**

**Project Manager's role on project:**

- **Employed by :**
- **Employer's role on project, e.g. Owner, General Contractor, Sub-contractor, or Other**

**Reference contacted by \_\_\_\_\_ on (date and time):**

**Excavation**

Did this project include roadway excavation works?

If yes, were these roadway excavation works a major component of the project?

Did Alexman undertake the roadway excavation work on this project?

If "yes" did they undertake the roadway excavation work with their own forces?

Did they perform up to expectations with respect to quality, and meeting schedule?

**Sewer Installation**

Did this project include sewer works?

If yes, were these sewer works a major component of the project?

Did Four Brothers Construction undertake the sewer works?

If yes, did they perform up to expectations with respect to quality, and meeting schedule?

**Dewatering**

Did this project include positive dewatering utilizing well points or deep wells?

If yes, was this positive dewatering a major component of the project?

Did Alexman undertake the positive dewatering work?

If "yes" did they undertake the positive dewatering work with their own forces?

If yes, did they perform up to expectations with respect to quality, and meeting schedule?

**Piling**

Did this project include piling work?

If yes, was this piling work a major component of the project?

Did Alexman undertake the piling work?

If "yes" did they undertake the piling work with their own forces?

If yes, did they perform up to expectations with respect to quality, and meeting schedule?

**Rail Work**

Did this project include rail work?

If yes, was this rail work a major component of the project?

What was the scope of the rail work?

Did Alexman undertake the rail work?

If "yes" did they undertake the rail work with their own forces?

If yes, did they perform up to expectations with respect to quality, and meeting schedule?

**APPENDIX "E"**



AECOM  
10 Checkley Street  
Barrie, ON, Canada L4N 1W1  
www.aecom.com

705 721 9222 tel  
705 734 0764 fax

May 27, 2011

Mr. Bob Kahle  
Manager of Design & Construction  
City of Barrie - Engineering  
P.O. Box 400  
70 Collier Street, 4<sup>th</sup> Floor  
Barrie, ON L4M 4T5

Dear Mr. Kahle:

**Project No: 60114288**

**Regarding: Reference Evaluation  
Mapleview Drive Improvements  
(Welham Road to Huronia Road)  
City of Barrie Contract No. 2011-027**

Further to your request, this letter serves as an evaluation of the references provided by Alexman Inc. to the City of Barrie in response to the requirements of the City's Tender Call document for the above project. To conduct our review, AECOM was provided with the Reference Check sheets and Reference Check Results Summary, and the Supplemental Reference Check Sheets and Supplemental Reference Check Results Summary prepared by the City of Barrie. Included with the Supplemental Reference Check materials was a letter dated May 11, 2011, to Mr. Bob Kahle with further reference and proposed subcontractor information, as well as the List of Subcontractors that was submitted with the tender.

As the design engineers of this project, AECOM is very familiar with the complexities and magnitude of this project. In this regard, we note that Alexman has stated in their tender submission that the following activities, namely: Excavation for Roadworks, Dewatering, Concrete Work, Piling Work and Rail Work will all be undertaken by "own forces".

Based on the information provided to AECOM that was collected during reference checks that the City of Barrie's staff conducted, it appears that Alexman has not demonstrated sound and satisfactory experience with construction activities such as full road reconstruction and excavation, with pile installation or with rail bridge construction, all necessary and significant to this project. Accordingly, the City of Barrie must consider that Alexman has not undertaken a project of this magnitude and that this lack of demonstrated experience may impact the successful completion of this project.



Further, in the May 11, 2011, cover letter from Alexman to Bob Kahle, Alexman advised of a change to the proposed list of subcontractors, specifically that "Four Brothers Construction will be doing the required dewatering for the sewer and watermain installation". There is no available information to conclude that Four Brothers Construction has experience in this line of work and are capable of doing so.

We trust this is satisfactory and invite you to call if you have any questions.

Sincerely,  
AECOM Canada Ltd.

A handwritten signature in black ink that reads "Michael A. Tataryn". The signature is written in a cursive style with a large, looped "T" at the end.

Mike Tataryn, P. Eng.  
Senior Project Manager  
MAT/d