

## Appendix 1

### Purchase Order Change Requests to Existing Contracts

#### 1. Grimsby Watermain Replacement (Phases 1 and 2) 2016-RFP-43

Request: Consulting Engineering Services

Consultant: Associated Engineering

Purchase Order Number: 24165

**Increase original contract amount of \$371,484 (excl. HST) by \$172,840 for a new total of \$544,324.**

#### Rationale for Increase

Associated Engineering (AE) was awarded consulting engineering services competitively bid under 2016-RFP-43 Grimsby Watermain Replacement, which closed on September 8, 2016. The original scope of work was to replace the existing 500 mm watermain with a new 750 mm watermain along South Service Road / CNR from Murray Street to Baker Road as recommended under the Niagara Region's Water and Wastewater Master Servicing Plan. AE's assignment was later extended and approved by Change PO to include a further extension of watermain replacement along the South Service Road / CNR from Baker Road to Park Road due to linear infrastructure reliability and security of supply concerns from Operations and Maintenance staff. Based on the construction cost estimate at 90% detailed design, the project budget was insufficient. It was decided to split the Grimsby Watermain Replacement project along South Service Road / CNR into 2 phases: Phase 1 from Murray Street to Baker Road, and Phase 2 from Baker Road to Park Road.

Phase 1 construction was completed at year end 2020 and is now in maintenance warranty phase. Currently, Phase 2 is at 90% detailed design and tender for construction is expected in early 2022.

During Phase 1 construction a four (4) month contract extension was required to address watermain construction challenges and delays associated with a coordinated transportation project. The General Contractor was granted a contract extension to address constructability challenges, rectifying watermain leaks detected, and to confirm successful passing of watermain pressure testing, disinfection, microbiological testing, and commissioning of the watermain into service. The Region's Transportation simultaneously performed a portion of their road resurfacing project along with asphalt restoration within Phase 1 of the Grimsby Watermain Replacement project site. There were delays associated with unforeseen conditions encountered within the resurfacing

limits and coordination efforts required during Phase 1. Associated Engineering completed four (4) months of additional engineering services for Phase 1 Construction for contract administration and full time inspection beyond the contract completion date of August 31, 2020 to year end.

Additional engineering services were required from Associated Engineering during Phase 2 Detailed Design. Based on initial testing results, additional geotechnical work was necessary, including environmental and pesticide testing, additional CN borehole depths, material testing and EASR support. Coordination and communication with CN and MTO to obtain approvals resulted in efforts beyond Associated Engineering's original scope of work. These efforts include additional meetings in Toronto, reviewing watermain alignment options and property issues, additional drawings for MTO to indicate the proposed watermain location would not impact future QEW widening and additional design for watermain microtunneling under CNR (design details, work areas, shafts, size and layout). Splitting the watermain project into two construction phases requires Associated Engineering to prepare a second tender package for Phase 2 and provide support during the tendering period.

This Change PO is a single source assignment as this portion of work was not included in the original contemplated scope of work. It is in accordance with Niagara Region Purchasing By-law 02-2016, Section 18(a)(i) as AE is familiar with the existing conditions in the immediate area and this work is directly related to the current project.

### **Alternatives Reviewed**

(i) Do nothing:

- This alternative does not address the additional engineering services required to provide construction support for the construction contract extension period and is not recommended.
- Not providing the additional engineering efforts associated with obtaining approvals from MTO and CN would prevent Phase 2 construction from proceeding and would not address the needs of the project.

(ii) Proceed with competitive RFP process:

- As described above, the additional engineering services were required immediately to support active construction.
- A competitive process will take more time than is available as there is immediate need for these services;
- A different consultant will require additional cost, effort and time to become familiar with the project, requirements and approval agency coordination.

- Having another consultant complete this work would also cause inefficiency in design cohesion and difficulty with construction and commissioning coordination.

(ii) Proceed with Engineering Consultant Services:

- Associated Engineering was awarded the RFP through a competitive process and it is recommended that the Niagara Region approve additional consulting engineering services for the Grimsby Watermain Replacement Phase 1 Construction Contract Administration and Inspection, and Phase 2 design engineering services.

**Funding Source**

Original PO \$371,484

Change PO \$172,840 (no HST)

Total changed unit price \$544,324

Total Budget \$16,825,092

Expenditures including commitments \$12,038,475.88

Budget Remaining \$4,786,616.12

There is sufficient budget in the project budget to assign this change PO.

**2. Municipal Class Environmental Assessment for the Reconstruction of Regional Road 87 (Main Street, Lock Street, Lakeport Road) between Verdun Avenue and Michigan Avenue in the City of St. Catharines 2018-RFP-60**

Request: Additional fees resulting from increased consultation with the City of St. Catharines

Consultant: Associated Engineering

Purchase Order Number: 0000051808

**Increase original contract amount of \$234,762 (excl. HST) by \$61,640 for a new total of \$296,402.**

**Rationale for Increase**

The request is for an extension to an existing contract.

Associated Engineering (AE) was retained through a competitive bidding process under Request for Proposal 2018-RFP-60. The additional fees are a result of additional coordination with the City of St. Catharines to review proposed alternatives.

The City of St. Catharines is a major stakeholder and partner in the project, and as such has been included in the development of alternatives throughout the EA. As Port

Dalhousie is an important destination undergoing development and growth, in working with City staff, additional alternatives were agreed upon to be reviewed as a potential EA alternative to presented to the community.

One of the alternatives identified significant City of St. Catharines property, which may be a viable solution to meet the vision and operation of the area. The work associated with these meetings (i.e. preparation of presentation material, revisions to alternative solutions, development of new alternatives, and additional analysis) is considered beyond the scope of the original assignment.

Included in the additional fees are additional Archaeological / Heritage investigation required for one of the alternative solutions, and a provisional Public Information Centre should revision to the preferred solutions be necessary based on comments received from the public/stakeholders.

The accumulated change, including the current change (iii), to the original Purchase order is \$118,138 as summarized below. There is available budget for this increase request:

- i. Extension of study limits: \$51,878
- ii. Additional Traffic Analysis: \$4,620
- iii. Additional scope relating to St. Catharines underground utility works: \$61,640

### **Alternatives Reviewed**

- (i) Do nothing:
  - Exposure to significant risk and cost when trying to implement a preferred solution not supported by the local municipality.
- (ii) New procurement:
  - Increased risk exposure to the Region as a result of the lack of project specific knowledge and decisions.
  - Increase in timeline (three to four months) due to project delay.
  - Not considered a viable alternative since compatibility with existing service is a paramount consideration
- (iii) Extend current assignment to cover the additional services:
  - Compatibility with existing service is a paramount consideration since there is consistent professional and technical knowledge with the current professional services contract.
  - Keeps the integrity of the Environmental Assessment process being undertaken by ensuring consistent non-conflicting information is evaluated to determine the preferred solution.

### **Recommendation by Transportation Services**

Approval of additional fees to support the review of additional alternatives as part of the EA process in partnership with the City of St. Catharines.

#### **3. St. Paul West CNR Bridge Replacement – Environmental Assessment and Design 2018-RFP-41**

Request: Additional design supporting property acquisition, utility relocation, and heritage consultation with the City of St. Catharines

Consultant: Associated Engineering

Purchase Order Number: 0000052177

**Increase original contract amount of \$201,294 (excl. HST), plus prior approved increases (i-vi) by \$18,966 for a new total of \$318,466.**

### **Rationale for Increase**

The request is for an extension to an existing contract.

Associated Engineering (AE) was retained through a competitive bidding process under Request for Proposal 2018-RFP-41. The additional fees resulted from design reviews and changes associated with property acquisition, intersection design, additional meetings with utilities for relocation coordination, and heritage consultation with the City of St. Catharines.

The project requires the acquisition of property adjacent to Regional Road 81. In order to justify the need for the acquisition of property, AE prepared sketches identifying impacts to the properties as a result of steep road grade changes. In addition, AE prepared a design identifying a proposed solution for the access of one of the adjacent properties. The design and sketch was required to support Niagara Region's acquisition of potential adjacent property(ies).

At the request of Niagara Region, AE reviewed the proposed design for the intersection of Regional Road 81 and St. Paul Crescent. The revised design was required to mitigate the impact of potential adjacent property(ies), and to allow for suitable access related to the road curvature. The revision of the intersection also provided a better horizontal alignment intersection for better traffic control.

As a result of the complexity of the project within the vicinity of the CNR, and the numerous jurisdictions required to provide input, additional utility coordination is required to assist with steep road grades and potential property requirements. AE undertook additional meetings with Bell and Alectra Utilities resulting from property changes and easement needs from CN and Transport Canada.

Also to note, the existing bridge was determined to have cultural and/or heritage significance. A Heritage Impact Assessment undertaken during the Environmental Assessment recommended mitigation measures to address the cultural heritage value of the existing structure. To ensure that the most appropriate mitigation measure is implemented there is a requirement to prepare and present a commemoration plan to the City of St. Catharines.

The accumulated change, including the current change (vii), to the original Purchase Order is \$117,172 as summarized below. There are sufficient funds within the budget:

i. Monitoring Well decommissioning and Heritage Impact Assessment.....	\$11,760
ii. Additional Public Information Centre .....	\$7,640
iii. Additional scope relating to St. Catharines underground works .....	\$41,406
iv. Additional survey for property impacts.....	\$5,973
v. Additional Geotechnical review for consolidation testing .....	\$19,880
vi. Street lighting design .....	\$11,547
vii. design associated with property acquisition, intersection design, additional utility relocation coordination, and heritage consultation.....	\$18,966

### **Alternatives Reviewed**

(i) Do nothing:

- Unknown cost exposures likely to occur during construction since these issues would need to be addressed during construction.

(ii) New procurement:

- Increased cost due to additional surveying for access designs and procurement delays, and with coordination between assignments.
- Increased risk exposure to the Region as a result of the lack of project specific knowledge and decisions.
- Increase in timeline (three to four months) due to project delay
- Not considered a viable alternative since compatibility with existing service is a paramount consideration

(iii) Extend current assignment to cover the additional services:

- Compatibility with existing service is a paramount consideration since there is consistent professional and technical knowledge with the current professional services contract.
- Mitigates the risk/cost exposure resulting from conflicting information.

### **Recommendation by Transportation Services**

Approval of additional fees to support property acquisition, utility relocations, and heritage commemoration.

#### **4. Bridgeport Sewage Pump Station (SPS) Upgrades 2018-RFP-50**

Request: Additional design supporting MECP approval

Consultant: CIMA+

Purchase Order Number: 49672

**Increase original pre-tax amount of \$106,273.00 by a further \$79,000.00 for a new total of \$655,650.00**

Originally contemplated fees (2018-RFP-50)	\$106,273.00
Total approved scope changes to date (single source)	\$470,377.00
Current request (single source)	\$ 79,000.00
Total fees for CIMA	\$655,650.00

#### **Rationale for Increase**

The request is to increase the current purchase order in order to account for additional work for revisions to the design and MECP approvals.

Revisions to the design for the Bridgeport SPS Upgrades. During the current design process, the orientation and overall layout of the new pumping station changed dramatically. Through stakeholder consultation during design, the local residents expressed significant concerns regarding the expansion of the existing pumping station within the right-of-way (ROW). The Region has been working with the local landowners and CIMA to develop a feasible design to address the stakeholders' concerns and to expedite the design and tendering process to allow the new development in the Town of Lincoln to proceed. Moving the SPS expansion footprint onto Region owned property adjacent to the pumping station, out of the ROW, was determined to be beneficial for all parties.

Concurrently with completing the Municipal Class Environmental Assessment and conducting required Archaeological Assessments on the property parcel, Region staff have been working with Cima to develop a SPS design. A revised orientation of the proposed wetwell and valve chamber are required to ensure that the SPS meets our design standards, to reduce risk during construction, and address stakeholder concerns. The new orientation of the proposed wetwell and valve chamber including incorporation of detailed internal review comments will result in a significantly better solution for both the overall design of the pumping station and satisfying the neighboring property owners.

In addition to revisions to the design, additional coordination is required with MECP to obtain approvals for an Environmental Compliance Approval amendment based on the

revised design within the new property parcel. CIMA will be leading the MECP coordination and managing approvals on behalf of the Region.

This project is DC recoverable. The Region, in consultation with the Town of Lincoln and local developers, has agreed to progress the project on an expedited schedule. With the revised design, CIMA has assured the Region they will be able to maintain an expedited schedule. This revised scope of work is directly related to CIMA's current assignment. CIMA has issued a change PO request for the required hours for the completion of the revised design and MECP approvals for the Bridgeport SPS Upgrade.

### **Alternatives Reviewed**

(i) Do Nothing:

- This alternative does not address needs of the project as it does not address the need for development and growth that requires an increase of the pumping station capacity.
- This alternative would prevent the Region from expanding the pumping station within the purchased property parcel which will not address the needs and concerns of the local residents, Town of Lincoln and Niagara Region WWW Operations and Maintenance staff.

(ii) Proceed with competitive RFP process:

- The engineering services are required immediately to move on with the design and tendering for construction. A competitive process will take more time than is available.
- Cima's current scope of work includes completion of the Environmental Assessment and Archaeological Assessment (Stage 4). Retaining a consultant through competitive RFP process would result in two consultants concurrently working on one project. This would increase risk and cost to the project.



## **Sole Source Purchase Requests for Approval**

### **5. Request: Fare Payment Technology Harmonization (i.e. mobile ticketing, contactless payment, etc.)**

Supplier: Masabi

**Sole source purchase of 35 Masabi Fare Validators required for Mobile Ticketing and Fare Payment Technology Harmonization at a total cost of \$121,450 USD (exclusive of HST).**

### **Rationale for Purchase**

This purchase is part of the long-standing, multi-year Niagara-wide effort to bring mobile ticketing and contactless payment to transit. The Region, in coordination with the IMT Working Group (whose 2020 and 2021 workplans, under the direction of the LNTC, has been to implement mobile ticketing and contactless payment fare technology), have begun procuring the hardware and software necessary to enable this technology. The St. Catharines Transit Commission was the first transit property to pilot the technology, and recently received their new validator hardware. They have been piloting mobile ticketing in one form or another since May 2019 and their selection of Masabi as the service provider is the conclusion of months of research into available providers. With Standard Bus fleet specifications for local and regional fleet already in place at the IMTWG level, all other properties would follow suit in the procurement after the successful pilot.

Niagara Falls Transit has also placed its order with Masabi which will cover its own fleet, and the fleet that it maintains for Niagara Region operating NRT. Niagara Region staff have confirmed that similar orders will take place in St. Catharines and Welland with Masabi to cover all existing NRT fleet operated by our municipal partners. However, Niagara Region is still required to acquire the technology for use on both NST and NRT OnDemand which are under contract with different service providers to ensure alignment, parity and consistency across the NRT system. This request reflects the needs of that acquisition and includes hardware and software setup costs.

Section 18(a)(i) of the Procurement Bylaw justifies this Sole Source as each transit property is required to utilize the same hardware under the common bus specification standards established by the IMTWG as part of the harmonization work required for consolidation of transit.

### **Alternatives Reviewed**

(i) Do nothing:

The option remains for Niagara Region to not continue with the mobile ticketing project; however, Niagara Falls Transit has already begun procuring assets as this project was previously approved as part of the IMT Working Group's work plan regardless of the transit governance outcome. This is not advisable as it will create significant challenges for riders in that different forms of payment will be required depending where they start or end their trip. It also creates significant technology challenges as future bus purchases will not be equipped with the necessary infrastructure needed to install fare technology at a later date, thus incurring significant additional cost for adaptive post-production installation.

(ii) Procurement strategy is under review:

No additional review of the procurement strategy is currently being undertaken as the IMT Working Group, representing transit operations in all 13 municipalities, jointly agreed that the work done by St. Catharines Transit in preparation for its Mobile Ticketing Pilot was sufficient in finding a quality, proven product that integrates with existing technology (i.e. Transit App) and is priced below other competitors.

### **Funding Source**

Niagara Region has already been approved for funding for this project through ICIP (formerly PTIF Phase 2). Niagara Falls Transit and St. Catharines Transit also were approved for the fare technology project under the ICIP program. Niagara Region's portion was approved as part of the 2020 Capital Budget plan as this project was delayed to 2021 due to COVID-19.