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August 10, 2020

RVA 194663

Municipality of West Elgin
2413 Hoskins Line, Box 490
Rodney, ON N0L 2C0

Attention: Magda Badura, CAO/Treasurer

Dear Magda:

Re: Scope Change Proposal for Port Glasgow Trailer Park
Scope Change #1 – Design, Tendering, and Contract Administration

R.V. Anderson Associates Limited (RVA) is pleased to provide this proposal for additional Engineering Services for the Port Glasgow Trailer Park (PGTP) On-Site Sewage Disposal System Upgrades. Our fees for this work are **\$39,500.00** excluding HST.

BACKGROUND

The Municipality of West Elgin (Municipality) retained R.V. Anderson Associates Limited (RVA) to undertake a study to review the sanitary servicing systems at the Port Glasgow Trailer Park (PGTP). RVA visited the site and prepared the Port Glasgow Trailer Park On-Site Sewage System Review report dated February 07, 2020. The findings of the report were presented and discussed with the Municipality at a meeting on February 26, 2020. Key recommendations made by RVA include:

1. Service Area #4 Upgrades – The treatment system is not currently meeting code or treating sewage to a level that is protecting the natural environment. A new treatment system is required. The existing septic tank should be replaced with an appropriately sized, two-compartment septic tank equipped with an effluent filter. The existing leaching bed should be completely removed and replaced. Geotechnical information should be obtained for sizing and determination of what type of leaching bed would be ideal. A Class IV treatment unit would be required which would be designed to meet effluent TSS and CBOD5 of 10 mg/L.
2. Service Area #1 Upgrades – To resolve the immediate ponding issue, the full structure of the dispersal bed should be removed from the area where ponding is observed. The underlying native clay should be scarified to improve the percolation rate and the dispersal bed materials replaced. While the underlying soil is exposed, shallow boreholes / samples of the underlying native clay should be taken to confirm the percolation rate is in excess of 15 min/cm.

3. Flow monitoring and sampling – Flow monitoring and sampling will significantly improve the amount of available information and trouble-shooting capability for the sewage treatment systems for all service areas. It is recommended that this is completed prior to more intensive exploratory methods to determine any effect of infiltration within the sanitary collection system.
4. Improved Maintenance Schedule/Records – An Operation and Maintenance (O&M) manual should be available as required by the ECA including the required operating, inspection and maintenance procedures. A comprehensive document would provide operations staff the resources necessary to effectively operate and maintain the system.
5. Proper Usage and Knowledge – To allow proper functioning of the septic tanks, pumping stations, and Waterloo Biofilter treatment units, it is essential that unintended materials are not disposed to the wastewater collection system. It is essential that all residents of the trailer park are aware of proper etiquette for usage of the septic systems and exercise their due diligence.

The Municipality advised that there is currently \$180,000 budgeted for the immediately required upgrades based on the recommendations made in the RVA report. The Municipality requested that RVA prepare a proposal to complete the design and contract administrative services to implement these immediate recommendations.

SCOPE OF WORK

a) Design Stage

Our team would review all collected information and drawings provided by the Municipality and discuss historical operations with Mysson. All previous records for flow monitoring, testing, samplings and maintenance will be requested to be provided by Mysson.

RVA will coordinate with our geotechnical sub-consultant (EXP Services Inc.) to complete the investigations in Service Areas 1 and 4 to confirm the underlying soil percolation rate. This information is required to establish the design criteria for the dispersal beds. A monitoring well will also be installed to allow for monitoring of groundwater levels to confirm whether the sand layers in the dispersal beds are saturated.

RVA will confirm and/or implement historical flow monitoring at each pumping station consisting of pump-down tests on site and utilization of pump time recordings to establish historical flow rates. These methods will be continued into the future by operators to allow for flow monitoring and recording.

RVA will complete the detailed design drawings and specifications required for a new septic tank and type 'A' dispersal bed in Service Area 4, and for a perforated pipe in stone bed within Service Area 1 to assist with temporary alleviation of the ponding issue if the problem persists.

RVA will prepare and submit a building permit approval application and an ECA amendment application to the MECP which will be required for the proposed upgrades to Service Area 4.

b) Tendering

RVA will prepare a suitable tender package for public solicitation of tenders by Contractors and assist with preparation of any necessary addenda during the tender period. RVA will review the proponents' submissions and provide a recommendation letter to the Municipality.

c) Construction

RVA will review shop drawings and provide technical assistance to the Municipality's staff during the construction period. A kick-off meeting with the contractor and Municipality along with five site visits have been assumed for our scope.

RVA would provide a final inspection of the completed installation and issue a letter of substantial completion. A set of as-built drawings will be provided with any changes that were incorporated during construction.

d) Exclusions

The following items are not included in the proposed scope:

1. Meetings or pre-consultations with the MECP or LTVCA.
2. Design of Class IV treatment unit and pumping station for Service Area 4. Note that a Class IV treatment unit is required for a Type A dispersal bed and will be indicated in the contract drawings as a 'phase 2' implementation to be completed in the future as a separate phase. This will be required for obtaining ECA and building permit approvals.
3. Design for the replacement of the dispersal bed for Service Area 1. The geotechnical investigation will confirm the percolation rate of the underlying clay and determine if expansion of the dispersal bed is necessary in the future.
4. Hydrogeological investigation and preparation of EASR or PTTW application.
5. Completion of a topographical/legal survey.
6. Modifications to the existing sanitary sewers.

SCHEDULE

RVA is available to commence shortly after receiving approval from the Municipality. It is anticipated that the drawings and specifications would be ready for a tender in early 2020. The approval timelines for the MECP are likely to delay the tendering of the project to late Spring.

ENGINEERING FEES

Our project pricing for the specified scope, following the approach we have recommended is **\$39,500.00** including disbursements, excluding HST.

Element	Cost
Geotechnical Exploration and Report	\$8,500.00
Design Work, Approvals, Drawings and Specifications	\$19,500.00
Tender Package and Tendering	\$3,000.00
Construction CA and Inspection	\$8,500.00
TOTAL ENGINEERING FEES	\$39,500.00

If this proposal is acceptable to the Municipality, please sign and return a copy of this letter. The Terms and Conditions of the original agreement will cover this additional work.

R.V. Anderson Associates Limited appreciates the opportunity to submit our proposal and look forward to continue working with the Municipality on this important project.

Yours very truly,

R.V. ANDERSON ASSOCIATES LIMITED



David Evans, P.Eng.
Senior Principal, Regional Manager

I hereby accept this proposal and authorize R.V. Anderson Associates Limited to proceed with the services as outlined above.

Name of Company

Name and Title printed

Signature – I have authority to bind the organization

Date