

RVA 215817

July 2, 2024

Municipality of West Elgin,
22413 Hoskins Line,
Rodney, ON N0L 2C0

Attention: Magda Badura, CAO, Project Manager

Re: Rodney Wastewater Treatment Plant Upgrades
Request for Change No. 02: Additional Engineering Design for Classified Areas

Further to our prior discussions, we respectfully submit this additional fee request letter for engineering services for **Additional Design for Classified Areas**.

Background

RVA was retained by the Municipality of West Elgin (Municipality) for the Rodney Water Pollution Control Plant (WPCP) Upgrades. The general project design scope included replacement of the mechanical screen and headworks enclosure, replacement of the mechanical aerators with a diffuser grid system, replacement of the secondary clarifier mechanism, and improvements to the alum storage system. The lagoon decant system upgrades were added to the assignment under Request for Change No. 1.

The project also included dredging of the lagoon. The lagoon dredging was completed in October 2023. Approximately 800 dry tonnes of material was removed from the lagoon.

During the design, it was identified that the existing electrical and instrumentation & controls (I&C) equipment in the RAS / WAS pump room and within 0.46 m (18 inches) of the aeration tanks were not in compliance with the National Fire Protection Association (NFPA) 820 requirements. The specific areas are classified as Class 1, Division 2 and therefore require electrical component / system upgrades to meet Division 2 explosion proof rating.

Additional engineering work for the above scope of work was not included in the original approved budget and is described in further detail below.

Additional Design for Classified Areas

The additional engineering scope to upgrade the areas to meet NFPA 820 requirements includes works in the RAS/WAS pump room and within 0.46 m (18 inches) of the aeration tanks. Specific additional engineering tasks for each of these areas to meet NFPA 820 include:

- Conduct one (1) site visit to obtain additional site-specific information and data
- Process, mechanical, electrical, and I&C engineers review of existing equipment ratings against classification requirements for the concerned areas
- Replace existing equipment in the RAS/WAS pump room with appropriately rated equipment for the area; specifically, replacement of the following equipment:
 - Lighting fixtures (Pump Room and Blower Room) and emergency light remote heads
 - Receptacles
 - PVC conduit and boxes
 - Disconnects and control station for RAS / WAS pumps
 - RAS / WAS pump motors
 - Junction boxes for the heat tracing of four (4) chemical dosing lines
 - Motorized actuator
- Replace existing equipment surrounding the exterior aeration tanks (Zone 2) and replace with appropriately rated equipment for the area, specifically:
 - Conduits, cables, junction boxes, and switch for heat tracing
 - Conduits, cables, and junction boxes for light standards
 - Conduits, cables, and junction boxes for influent sampler

We have also included the following engineering services to complete this work cost-effectively:

- Project management
- 100% detailed design including two (2) removal drawings for RAS/WAS pump room and exterior areas
- Update the construction cost estimate
- Update the Design Report
- Prepare Tender-ready contract documents
- Provide tender period support

For this additional engineering work, we are requesting a total fee of **\$41,520.60** (excl. HST) (see Attachment 1 -Time Task Matrix). Please note that to expedite the project and avoid delay to the issuance of tender, RVA has completed the design of the components noted above. As per discussions with the Municipality, RVA will submit a separate change request for services during construction and post-construction, and therefore, not included herein.

We kindly ask that the Municipality approve the additional scope/engineering fees and issue a Purchase Order at your earliest convenience. Please do not hesitate to contact the undersigned if you have any questions.

Yours very truly,

R.V. ANDERSON ASSOCIATES LIMITED

Dania Chehab, P.Eng.,
Project Manager

Rina Kurian, P.Eng., PMP,
Project Director

Encls:
Attachment 1 – Time Task Matrix (1 page)



Task Description	Project Team Member	R. Kurian	D. Chehab		A. Nguyen	T. Young	F. Haider	I. Malik	T. Woodcock	M. Bagherian		N. Roshani		RVA Hours / Task	RVA Sub-Total	Other Direct Costs and Disbursements	Total
	Role in Project	Project Director	Project Manager	QA - Various	Lead Process Mech. Engineer	Process Mech. Engineer	Lead Electrical Engineer	Electrical Support	Lead I&C Engineer	I&C Engineer	I&C Support	Lead Building Mechanical Engineer	Building Mechanical Support				
	Company	RVA	RVA	RVA	RVA	RVA	RVA	RVA	RVA	RVA	RVA	RVA	RVA				
	Hourly Rate	\$245	\$215	\$255	\$230	\$140	\$225	\$140	\$215	\$180	\$160	\$190	\$125				
Additional Design for Classified Areas																	
1	Project Management & Coordination, incl. one (1) full-day site visit	2	16			12	4							34	\$6,510.00	\$495.30	\$7,005.30
2	Detailed Design																
2.1	Process Mechanical			1	4	4								9	\$1,735.00	\$52.05	\$1,787.05
2.2	Electrical			2			16	20						38	\$6,910.00	\$207.30	\$7,117.30
2.3	Instrumentation & Controls			2					2	16				40	\$7,020.00	\$210.60	\$7,230.60
2.4	Building Mechanical			2								16	24	42	\$6,550.00	\$196.50	\$6,746.50
3	Process Control Narrative Updates			1	1	2	1	2	1	2				10	\$1,845.00	\$55.35	\$1,900.35
4	Design Report Updates	1	1	1	1	1	1	4	1	2				17	\$3,085.00	\$92.55	\$3,177.55
5	Construction Cost Estimate Updates		1	1	1	4	1	4		4				18	\$3,085.00	\$92.55	\$3,177.55
6	Tender Package Preparation	1	2		1	4								8	\$1,465.00	\$43.95	\$1,508.95
7	Tender Period Support	1	1		1	2	2		1	1				9	\$1,815.00	\$54.45	\$1,869.45
Subtotal - Hours:		5	21	10	9	29	25	30	5	25	26	16	24	225			
Subtotal:		\$1,225	\$4,515	\$2,550	\$2,070	\$4,060	\$5,625	\$4,200	\$1,075	\$4,500	\$4,160	\$3,040	\$3,000		\$40,020.00	\$1,500.60	\$41,520.60
TOTAL HOURS		5	21	10	9	29	25	30	5	25	26	16	24	225			
TOTAL FEE (EXCLUDING HST)		\$1,225	\$4,515	\$2,550	\$2,070	\$4,060	\$5,625	\$4,200	\$1,075	\$4,500	\$4,160	\$3,040	\$3,000		\$40,020.00	\$1,500.60	\$41,520.60