

## PART 1 - GENERAL

### 1.1 CONTEXT

1. In the current context, of traffic becoming increasingly important at Quai Baie-Sainte-Catherine, the system of wastewater treatment currently in place does not have the necessary capacity support of organic pollution produced daily. It was therefore opted for its replacement.

Given that no manufacturer name or specific technologies may be prescribed in the tender, the replacement of the existing system will ask that a review of recognized standard level by the Ministry of “Développement durable, de l’Environnement, de la Faune et des Parcs (MDDEFP)” is carried out by the tenderer

### 1.2 DESCRIPTION

1. Each system shall be provided so as to meet environmental discharge objectives (OER) issued by the Ministry of “Développement durable, de l’Environnement, de la Faune et des Parcs (MDDEFP)”. These standards are:

- BOD5:  $\leq 25$  mg / L;
- SS:  $\leq 25$  mg / L;
- Fecal Coliforms: 200 CFU/100mL

2. The treatment system must meet the following requirements
  - Must be independent and have minimal maintenance;
  - Must be installed in the lagoon present in the dock;
  - The equipment processing system which will be installed in the existing pool of concrete must be resistant to corrosion;
  - Must be able to treat wastewater to meet the discharge requirements set out above, and preferably be able to meet the performance of rejection of 15 mg / L and less BOD5 and TSS;
  - Must have a data sheet standard recognized by the MDDEFP

## PART 2 – PRODUCTS

### 2.1 EQUIPMENT LIST AND SPECIFICATIONS

1. The Contractor shall ensure that all equipment, one or the other of the two technologies is provided so that treatment can help to meet the standard requirements of the respective data sheets. All missing equipment will be borne by the supplier of the technology;
2. A prefilter brand name Polylok PL-525 model, should be installed in the septic tank on the outlet pipe must be provided with advanced secondary treatment system;

3. A disinfection system preassembled ultraviolet rays, including three (3) units of lamps producing 40 mJ/cm<sup>2</sup> each, must be one of the processing equipment. A control panel shall be provided with the disinfection system;
4. A magnetic flow meter is to be installed immediately upstream of the disinfection system. The minimum distances connecting upstream and downstream of the device must be respected;
5. The Contractor shall provide the necessary pipes to connect equipment that are not part of the pipe supplier
6. An emissary of 100 mm diameter pipe must be installed between the building and the technical ballast wharf passing through the concrete wall.

### **PART 3 - EXECUTION**

#### **3.1 INSTALLATION**

1. For the implementation of the processing system, the Contractor shall refer to plans issued for construction, as well as how to install the supplier for the various details;
2. The Contractor shall agree with the supplier to the terms related to the provision of equipment and its installation. It must ensure that all equipment, piping, electrical and other wiring that will be an integral part of the components that the provider includes in its list of equipment;
3. The Contractor shall ensure, in coordination with the supplier or his representative, that all equipment is installed and connected properly;
4. The installation of disinfection system will be inside the technical building. The installation must be supervised by a representative of the supplier. Adjusting the flow of water entering the system will be carried out according to the supplier's.

#### **3.2 WATER COMMISSIONING AND FINAL VERIFICATION**

1. Once all the equipment has been set up and connected, the Contractor shall verify the operation of the entire treatment process. To do this, the tests must be carried out with clean water. A compliance report should be provided to the Departmental Representative and engineer.

2. The tests will help to ensure the following:
  - Operation of trap doors;
  - Connecting vents;
  - Sealing tanks;
  - Position of the various equipment;
  - Proper operation of all equipment installed treatment (aeration and various pumping equipment);
  - Sealing of different water and air pipes;
  - Runoff between the different points of transfer between the entrance to the septic tank and the outlet;
  - Position and function of the magnetic flowmeter;
  - Disinfection system.

### 3.1 COMMISSIONING

1. The Contractor shall schedule the commissioning of the new waste treatment and inform the owner, the Departmental Representative and the engineer as soon as possible;
2. An inspection of the entire treatment process will be carried out by the various stakeholders involved in the design of the treatment system;
3. Deficiencies will be noted and will be corrected by the Contractor as soon as possible.

**END OF SECTION**

# DRAWINGS TO BE SUBMITTED

## SECTIONS 02, 10 and 13

<b>CONTRACTOR :</b>	<b>PROJECT:</b> Quai Baie-Sainte-Catherine Replacement of the wastewater treatment system
	<b>PROJECT MANAGER :</b> Denis Paquin, ing.
<b>SPECIALTIES :</b> Civil	<b>PROJECT N° :</b> R.063880.001

DESCRIPTION	N° SECTION	REVISED		REVISED AND ANNOTATED		REVIEW AND SUBMIT		REFUSED	
		BY	DATE	BY	DATE	BY	DATE	BY	DATE
Treatment equipment	02 10 21								
UV system	02 10 21								
Technical building									
Prefilter	02 10 21								
Special access doors	10 27 40								
Submersible pumps	13 60 50								
Boitier de vidange des bateaux									

**Note :** All shop drawings must be received in a single shipment.

Prepared by : Claude Talbot, ing.  
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