



TOWN OF STRATFORD

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Bunbury Sewer Lift Station Upgrades

The Stratford Utility Corporation is now accepting proposals for the selection of an engineering consulting firm to provide engineering and design services for upgrades to the Bunbury sewer lift station in the Town of Stratford.

Three (3) copies of the proposal must be submitted in sealed envelopes clearly marked to identify the contents. Consultants are requested to submit proposals using a two-envelope system. One envelope contains the technical proposal of the engineering services exclusive of the engineering fees. The second sealed envelope outlines the engineering cost of the project (i.e., SECTION III PROPOSAL FORM). The evaluation of the consultant on the project will be completed prior to the second envelope with the engineering costs being opened.

All proposals are due at the Town of Stratford main office, 234 Shakespeare Drive, Stratford, PE C1B 2V8 **no later than 2:00 p.m. on Wednesday, December 14, 2022.**

Any questions may be directed to Carter Livingstone, Project Manager, via email at clivingstone@townofstratford.ca or phone at (902) 367-4448.

SECTION I INFORMATION & INSTRUCTIONS

1.0 Submission Requirements

The complete original proposal must be submitted in a sealed package and received in accordance with the instructions detailed in the cover letter. All proposals shall be clearly marked - "Engineering and Design Services for the Bunbury Sewer Lift Station Upgrades".

Consultants shall be responsible for the actual delivery of proposals during business hours to the address indicated in the cover letter. It shall not be sufficient to show that the proposal was mailed in time to be received before scheduled closing time.

No fax or email submission will be considered. All entries in the Proposal Form shall be made in ink or by typewriter. Entries and changes made in pencil shall, unless otherwise decided by the Stratford Utility Corporation, be invalid or informal.

1.1 Proposal Format

Proposals shall include the following information at a minimum:

- This request for proposal document signed by authorized representative;
- Consultant's qualifications, experience, similar projects completed;
- Proposed project team members;
- Fee proposal; and
- Time schedule.

It is the sole responsibility of the Consultant to assure that they have received the entire Request for Proposal (RFP). Any changes will be issued as an addendum and posted to the Town of Stratford website at www.townofstratford.ca and the Provincial Government Tenders and Procurement website at www.princeedwardisland.ca/en/tenders

No verbal or written information which is obtained other than through this RFP or its addenda shall be binding on the Stratford Utility Corporation.

1.2 Right of Rejection of Lowest Fee Estimate

The Stratford Utility Corporation is under no obligation to award this project to the Consultant having the lowest fee estimate, or to any Consultant. The Stratford Utility Corporation has the right to award in whole or in part and to waive minor immaterial defects in proposal submissions. Evaluation criteria included in this document shall be used in evaluating proposals. The Consultant acknowledges that it shall have no claim against, or entitlement to damages from the Stratford Utility Corporation by reason of the Utility's rejection of its proposal or of all proposals.

1.3 Request for Additional Information

Prior to the final selection, Consultants may be required to submit additional information which the Review Committee may deem necessary to further evaluate the Consultant's qualifications.

1.4 Denial of Reimbursement

The Stratford Utility Corporation will not reimburse Consultants for any costs associated with the preparation and submittal of any proposal, or for any travel and/or per diem costs that are incurred.

1.5 Right of Withdrawal

A proposal may be withdrawn at any time up to the official closing time by submitting a letter bearing the signature of the authorized representative who has signed the proposal.

1.6 Right of Negotiation

The Stratford Utility Corporation reserves the right to negotiate with the selected Consultant the exact terms and conditions of the contract.

1.7 Insurance Requirements

The Consultant shall secure and maintain a minimum of \$2,000,000 Commercial General Liability Insurance and add as an additional insured the Stratford Utility Corporation. The Consultant shall provide to the Stratford Utility Corporation 30 days' notice of any material change or policy cancellation. The Consultant shall also provide Proof of Professional Liability Insurance in the amount of not less than \$2,000,000. The Consultant shall provide the Stratford Utility Corporation with a Certificate of Insurance complying with this RFP upon award of the contract.

1.8 Rights to Submitted Material

All proposals, responses, inquiries, or correspondence relating to, or in reference to, this RFP, and all reports, charts, and other documentation submitted by Consultants shall become the property of the Stratford Utility Corporation upon final payment to the Consultant.

1.9 Basis of Award

A Review Committee will be formed to evaluate the proposals according to the matrix noted below. Following individual evaluations by each member, the committee as a whole will review and discuss the results prior to a final decision being made.

	Evaluation Criteria	Maximum Points
1.	Experience of Firm <ul style="list-style-type: none"> • Local knowledge and experience in environmental design using proven sustainability objectives • Proven experience and success in similar projects • Proven success on past projects with the Town of Stratford – on budget, on schedule, etc. 	25
2.	Team Experience <ul style="list-style-type: none"> • Qualified local staff with professional affiliation/membership • Experience of key professional staff assigned to this project 	25
3.	Methodology <ul style="list-style-type: none"> • The proposed approach/workplan • Perceived issues and mitigation methods • Economic and environmental design consideration 	25
4.	Project Schedule <ul style="list-style-type: none"> • Resources dedicated to the project • Will current workload affect time required for completion of project 	10
5.	Fees	15
Total Score		100

The Stratford Utility Corporation reserves the right to conduct interviews with any or all Consultants as it deems necessary.

The points for the fees will be calculated based on the lowest bid receiving the maximum of 15 points. All other bids will be prorated.

The successful proponent will be the submission with the highest score out of the possible 100 points, i.e. technical + financial.

1.10 Termination of Contract

The Stratford Utility Corporation may cancel the contract at any time for breach of contractual obligations by providing the successful Consultant with a written notice of such cancellation. Should the Stratford Utility Corporation exercise its right to cancel the contract for such reasons, the cancellation shall become effective on the date as specified in the notice of cancellation.

The Consultant may cancel the contract at any time for breach of contractual obligations by providing the Stratford Utility Corporation with a written notice of such cancellation and proper supporting documentation.

1.11 Assignment

The successful Consultant shall not sell, assign, transfer or convey any contract resulting from this RFP, in whole or in part, without the prior written consent of the Stratford Utility Corporation.

1.12 Conflict of Interest

The Consultant covenants that they presently have no interest and shall not acquire any interest, directly or indirectly, which would conflict in any manner or degree with the performance of the services hereunder. The Consultant further covenants that no person having any such known interest shall be employed or conveyed an interest, directly or indirectly, in the contract.

1.13 Contract

The contract between the Stratford Utility Corporation and the Consultant shall consist of (1) the Request for Proposal (RFP) and any amendments thereto, (2) the proposal submitted by the Consultant to the Stratford Utility Corporation in response to the RFP and (3) in the event of a conflict in language between the documents referenced above, the provisions and requirements set forth and/or referenced in the RFP shall govern. However, the Stratford Utility Corporation reserves the right to clarify any contractual relationship in writing with the concurrence of the Consultant, and such written clarification shall govern in case of conflict with the applicable requirements stated in the RFP or the Consultants proposal. In all other matters not affected by the written clarification, if any, the RFP shall govern.

SECTION II SCOPE OF SERVICES

2.0 Overview

The Stratford Utility Corporation is soliciting engineering services for preparation of construction plans and specifications, and contract administration required for upgrades to the Bunbury sewer lift station.

The Bunbury sewer lift station, located near the Bunbury Road and Hopeton Road intersection (as shown in Figure 1), was installed in 1997. It is equipped with two 10-hp pumps, a 9015 Surflin control, and radio SCADA communication.

Upgrades to the lift station will include new pumps to accommodate future growth in the sewershed, as well as a standby generator added for backup power supply.

2.1 System Details

The Bunbury lift station, installed in 1997, services a sewershed area of 775 acres and currently has a pumping capacity of 850 USGPM (see design brief attached). The station is equipped with duplex 10HP pumps within a 2400mm diameter concrete wet well. The wet well was sized to accommodate larger pumps for the ultimate full development buildout of the sewershed, projected to require a capacity of 1800 USGPM. The 200mm diameter discharge piping extends through the valve chamber then increases to a 300mm PVC forcemain. There is a 150mm forcemain to be used in conjunction with the 300mm as future flows reach that of ultimate buildout.

The station is equipped with a Surpline model 9015 controller which is interfaced with the Town's SCADA system. There is an existing flow meter that does not communicate with the control panel or SCADA.

2.2 Consultant Responsibilities

The Consultant is required to ensure the design meets Atlantic Canada Guidelines Manuals, the Stratford Utility Corporations Municipal Servicing Standards, as well as all other applicable acts, regulations and codes. The Consultant will be required to coordinate with all utility owners and must include relocation of utilities in the design, if required.

The Consultant will act as an independent agent and provide design services, preparation of permitting documents if applicable, preparation of tender documents, preparation of construction plans and specifications, construction administration, on-site inspection during the construction phase of the project to ensure the contractor completes the work in accordance to the plans and specifications, commissioning of all components and warranty period review. Survey data acquisition will be the sole responsibility of the consultant to ensure the necessary design information is collected.

The consultant will provide the necessary design and supervision services for a complete project including, but not limited to, the following:

- confirm sewershed area and determine present and theoretical future flows (25-year projection) and design upgrades accordingly based on accommodating today's flows and the projected future flows;
- provide for a power supply upgrade to a 600V 3-phase service;
- provide for upgrade of 9015 controller to Allen Bradley Micro Logic PLC with HMI display;
- provide for communication of the existing flow meter to SCADA;
- review benefits and costs of propane and diesel generators and make recommendation;
- prepare a design brief of the project for approval by the Stratford Utility Corporation and the Prince Edward Island Department of Environment, Energy and Climate Action;

- prepare detailed design and tender specifications for the project, including sequence of events for contractor to maintain operation of the station during construction;
- obtain all necessary approvals and permits for the work including, but not limited to, approvals and permits required from the Prince Edward Island Department of Environment, Energy and Climate Action and the Department of Transportation and Infrastructure;
- tender administration including, but not limited to, preparation of ten (10) paper sets of tender documents, advertising the tender in local newspaper, Provincial procurement website and Construction Association website, fielding contractor calls, preparation of addenda during tender call, review of tenders, tender award recommendation, and tender award;
- contract administration and inspection during construction including, but not limited to, preparation of contract documents within 10 days of award, review of shop drawings, site supervision (part time only, or as required to ensure specifications are met), scheduling and administering job meetings, preparing minutes of meetings, issuing of instructions, preparation of change orders, certification of payments, inspection at substantial completion, certification of substantial performance, and production of record drawings;
- warranty period services including follow-up with the contractor on any deficiencies that may arise throughout the warranty period. The Consultant will be responsible to monitor the project throughout the warranty period to ensure prompt attention to any deficient items that may arise and attend a warranty inspection 11 months after substantial completion of the work;
- the site inspector for the project shall be a qualified engineer, engineer-in-training or Certified Engineering Technician with a minimum of two (2) years' experience in similar projects or an individual with equivalent experience and technical abilities in similar projects; and
- the Consultant will be responsible for the submission of record drawings to the Stratford Utility Corporation, in the form of CAD and PDF files and one paper set printed to scale, no later than 2 months after substantial completion.

The design package is to be complete and ready for tendering by **February 24, 2023**.

SECTION III

PROPOSAL FORM

I have read and understand the requirements of this request for proposal (RFP) and agree to provide the required services in accordance with this proposal and all attachments, exhibits, etc. The proposed fee shall include all labor, material and equipment to provide the services as outlined including communications devices, computer hardware and software, any travel or per diem expenses and any other miscellaneous expense involved. The fixed lump sum fee for providing the required service as described herein is:

Design	\$ _____
Tender and Award	\$ _____
Contract Administration during Construction (including warranty period)	\$ _____
Record Drawings	\$ _____
HST (15%)	\$ _____
TOTAL	\$ _____

In addition to the above, please provide an hourly rate for on-site inspection services during construction. It is expected that part-time inspection will be sufficient. For the purpose of bidding, assume 5 hours per day for 20 days. The final construction schedule will be determined after the tender and award of the project.

Fixed Hourly Rate for on-site inspection during construction, includes all expenses \$ _____

SUBMITTED BY:

CONSULTANT: _____

BY: _____
SIGNATURE

NAME (PRINT): _____

ADDRESS: _____ POSTAL CODE: _____

TELEPHONE: (____) _____

Figure 1



DESIGN CRITERIA

The Bunbury pumping station is located on the north side of the Bunbury Road approximately 40 metres east of the Hopeton/Bunbury Road intersection and is situated to collect sewage from a 314 hectare (775 acre) service area.

The service area is more or less triangle shaped, bounded by the Hillsborough River on the northwest, the TCH on the southwest and the Town limits on the northeast. The service area is not fully developed. When fully developed, the calculated peak domestic sewage flow expected is 1,800 USGPM, based on a criteria of 3,350 USG/acre/day. The calculated peak flow for the estimated present developed area of 240 acres is approximately 660 USGPM..

SYSTEM OVERVIEW

Pumps and Forcemain

Two pumps in a duplex arrangement have been installed in the pumping station wet well. Either of these units is capable of delivering the present day peak flow with surplus capacity with the second pump acting as a standby. Because the ultimate peak flow to the Bunbury station is estimated at 1,800 USGPM, the station's forcemain and wetwell have been sized to allow installation of a large pump coupled with the operation of both the 12" and 6" dia. forcemains to deliver the ultimate peak flow of 1,800 USGPM.

The pumps are Flygt, Model CP-3127 LT, equipped with impeller #411, each capable of delivering 850 USGPM (53.6 l/sec) peak flow against a TDH of 8.7 metres (28.5 feet). The static head for the station is 7.0 metres (23 feet).

The pumps are powered by 10 HP (5.5 kw) constant speed motors operating at a nominal speed of 1,735 RPM on a 208 V, three phase, 60 Hz power supply.

The pump volutes are sized to pass a 75 mm diameter spherical solid and the station discharge piping is 200 mm ductile iron which connects to a 150 mm dia. and 300 mm dia. PVC forcemain inside a separate flowmeter/valve chamber.

Pump System Operation

Normally, the lead pump selector switch is set to the AUTO position. In this mode of operation, the pumps alternate as the duty pump, thus providing uniformity of usage and wear. Should either pump be removed from service for any reason, the selector switch should be set to indicate operation of the remaining unit.

Proposed operation of the forcemains with the present model CP 3127 pumps is with the 150 mm plug valve in the valve/meter chamber normally closed and operation of the 300 mm dia. forcemain. Operation of the 150 mm and 300 mm dia forcemain concurrently with the CP 3127 pumps will not provide cleansing velocities in the forcemains. Future pump upgrades will require the operation of the 300 mm and 150 mm dia. forcemains.

Control Characteristics

Pump operation is controlled by Surfline Model 9015 duplex pump controller in response to an ultrasonic level sensor liquid regulation system. The operating levels are as indicated on the record drawings and were field-set to provide optimum system operation.

The micro processor based pump controller includes built in land line communication interface which allows remote monitoring of the station at the Utility's central location on Mason Road.

Ventilation

CAUTION: The pumping station wetwell is a confined space that could contain hazardous gases. Ensure ventilation is in operation, the space has been tested and personnel are properly trained and equipped before entering the wetwell.

Flow Meter

The station includes a 100 mm dia. Fischer & Porter magnetic flow meter installed in a meter chamber. The meter is complete with a remote signal converter mounted in an enclosure beneath the main control panel. Display of flow rate and total is provided by a local digital indicator in USGPM.

The meter itself is suitable for occasional submergence and has a Class 1 Division 2 Hazardous Locations Safety Classification.

Overflow

In the event of a power failure, the sewage pumps will not operate; there is no standby power. The sewage level will eventually rise to a level resulting in overflow through a 200 dia. PVC overflow from the station to the nearby pond behind the station. It is imperative that the overflow be maintained clear, otherwise a blocked overflow combined with a rising sewage level and pump failure will result in backflow to the residences.