

Section 703 Capital Modification Submittal / Solids Handling Improvements

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**** Please note this Agreement, and the obligations contained therein, shall not be binding nor take effect until the Parties have reached mutual agreement on the scope of work and all terms, Veolia has received requisite internal approvals under its governance procedures, and the Parties have executed the Agreement. ****

Exhibit (i)
Reason for the Capital Modification

The Wastewater Treatment Facility (“WWTF”) was originally constructed in 1950, with significant upgrades in 1978 and 2000. Much of the existing equipment is beyond its design life, and buildings are aging and inefficient. Solids handling operations consist of gravity thickening and dewatering using centrifuges, prior to disposal of the System Residuals. Primary sludge and WAS are pumped to one 50-foot diameter gravity thickener, which is covered for odor control. A second sludge thickener is available for use but it is not covered and the rake mechanism is in poor condition. Inadequate air handling is contributing to corrosion in the active thickener and headworks facility. Thickened sludge is then pumped through a sludge grinder to two 2,500 lb/hour centrifuges for dewatering. The pumps are located on the first floor of the solids handling building approximately 20 feet above the sludge draw-off point on the thickener.

The increase in design flow rate, organic loading and total suspended solids entering the WWTF will increase the amount of solids produced. Currently, primary sludge and Waste Activated Sludge (“WAS”) are pumped to Thickener No. 2. Thickener No. 1 is presently available for use in emergency situations but it is not covered and the collector mechanism is in poor condition. Thickened sludge is then pumped to two centrifuges for dewatering. Dewatered sludge is transported offsite for disposal.

Proposed Improvements are listed in Exhibit (ii)

Exhibit (ii)
Description of the Capital Modification

Solids handling equipment will be upgraded at the Wastewater Treatment Facility. The facility is located at 825 West Water Street, Taunton, MA. This scope of Work is based on the Preliminary Design Report dated September 2019, Engineering Documents entitled Wastewater Treatment Facility Improvements, Solids Handling dated August 25, 2020 prepared by Beta Group, Inc. for the City of Taunton.

- 1) Solids Handling Improvements Construction
 - a) New collector mechanisms for gravity thickener no. 1 & no. 2
 - b) Adding a cover to gravity thickener no. 1
 - c) Replace thickened sludge pumps
 - d) Replace gravity thickener piping and valves
 - e) Replace the existing centrifuges with larger units
 - f) Replace sludge piping within the solids handling building
 - g) Remove the existing non-functional odor control and replace it with a new odor control system
 - h) Integrate controls for the new centrifuges with the plant SCADA
- 2) Solids Handling Improvements Engineering
 - a) The City is responsible for preparation of the engineering plans and specifications. The City has hired Beta Group, Inc. as its design engineer. Veolia is responsible to the City for the preparation of procurement documents, bid solicitation, construction, and startup of the project, but shall have no responsibility of any kind whatsoever for the engineering plans and specifications, or for any errors, omissions or deficiencies thereof. City, or its design engineer, shall:
 - i) Complete all site surveying and geotechnical investigations needed.
 - ii) Evaluate permitting requirements.
 - iii) Prepare a basis of design.
 - iv) Prepare all design documents, including but not limited to:
 - (1) P&IDs
 - (2) General facility layout & site positioning
 - (3) General equipment layout configuration
 - (4) Process equipment design & specifications
 - (5) Electrical & process mechanical configuration
 - (6) SCADA platform
 - (7) Structural development
 - (8) Site development
 - (9) Architectural design development
 - v) Prepare engineer's cost estimates.
 - vi) Submittal Reviews
 - vii) Respond to Requests for Information (RFI)
 - viii) Solids Handling Improvements O&M Manuals
 - ix) Record Drawings
- 3) General

- a) Include participation of Disadvantaged Business Enterprise (DBE) subcontractors at the level required to meet SRF funding requirements in the engineering scope of services.
 - b) All Subcontractors shall be subject to the approval of the City
 - c) All subcontracts shall be based on Veolia Terms and Conditions.
- 4) Construction Management
- a) Contractor & materials procurement
 - i) Initiate key equipment purchasing, coordinated through Veolia purchasing group. Review and approve all purchase orders issued on the project.
 - ii) Develop the required bid packages and support the solicitation by invitation, discipline bids reflecting the following scopes or combinations there-of:
 - (1) Building / Mechanical
 - (2) Electrical
 - (3) Instrumentation.
 - (4) Sole-source selected equipment, if necessary. This will be other process equipment and may include electrical gear, pumps, mixers, etc.
 - iii) Veolia will act as the construction manager during construction and hire subcontractors, as required, to complete the construction. Solicit bids from three (3) or more qualified contractors for each construction discipline (final content of each bid package will be agreed to with the City and may include more than one construction discipline) indicated above and award a contract to the lowest bidder who is determined to be responsible and qualified and who has satisfactorily demonstrated an ability to perform the work as required. Veolia reserves the right to sole source work if it is in the best interest of the Solids Handling Improvements. Any sole source procurement will be approved by the City.
 - iv) Support the award of project discipline bids – Update and issue construction documents stamped by the discipline P.E. or Architect and stamped “Issued for Construction.” The issuance of these documents initializes the beginning of the construction phase for that discipline’s work.
 - v) Performance and Payment Bonds to be provided by Construction Subcontractors with Dual Obligatee Bonds listing Veolia and the City of Taunton as Obligatees.
 - b) Generation & maintenance of project schedules
 - i) Develop project Maintenance of Operation Plan (MOPO) (execution plan) to define how disruption to the wastewater pumping service will be minimized. Detailed MOPO sequencing of construction plan to be incorporated into discipline bid documents.
 - ii) Finalize Project Schedule – develop the final project schedule after receipt of all subcontract bids, to be updated on a monthly basis.
 - iii) Review project schedule/coordinate impact on wastewater systems operation – update project execution plan including MOPO.
 - iv) Develop and maintain construction schedule for duration of project w/monthly updates
 - v) Provide progress projections with cash flow analysis for City use, monthly cost requisition submittals.
 - c) Document control and submittal processing
 - i) Review and maintain complete shop drawing records, as-built construction records

- d) Preparation & maintenance of daily field reports
- e) Processing & dissemination of field clarification requests
 - i) Address/manage all Requests for Information (“RFI”) from discipline contractors
 - ii) Coordinate engineering support from the design engineers for RFI from contractors.
- f) Coordination of testing & inspections
 - i) Develop quality assurance / quality control (“QA/QC”) program for the project to include all materials testing, equipment start-up and testing – to be finalized when all equipment purchased.
- g) Monitoring field progress and reporting same
- h) Maintenance of project budget
 - i) Respond to any request for contract change orders, manage project claims to minimize project impact, notify City of change orders or claim notices received, their disposition, provide review of legitimacy, and confirm any associated costs.
- i) Supervise construction installation activities
 - i) Provide resident services during active construction to oversee the execution of the construction with coordination/management of the discipline contracts by Veolia.
 - ii) Coordinate and directly manage all contractor activity on-site.
 - iii) Attend weekly construction meetings during active construction
- j) Evaluation of scope & pricing on any Change Order requests
- k) Monitor contractor’s field safety program
 - i) Develop, manage, and supervise the on-site project Safety program, including any contractor/sub-contractor activities.
- l) Construction Review
 - i) Construction Review Intent
 - (1) The City, or its agent, will review, monitor, and, as it deems necessary, inspect the Solids Handling Improvements Construction to ensure conformance to the Design Requirements a. In addition, the City, or its agent, shall review the progress of construction to verify payment for services.
 - ii) City Access, Review Meetings
 - (1) The City shall have access to the Solids Handling Improvements at all times. Veolia shall report to the City monthly, hold monthly progress review meetings with the City, and otherwise solicit the City’s input to the process as required. Veolia shall record the minutes of all meetings and construction progress, and provide the City with copies of minutes and documentation of said meetings.
- m) Construction Submittals
 - i) Veolia shall identify the key submittals to be prepared by Veolia and the expected submittal dates. The City shall designate the number of copies of submittals and distribution.
 - ii) The following documents shall be provided to the City for review.
 - (1) Shop Drawings
 - (a) All major process shop drawings shall be available to the City for review and comment.
 - (2) Product Data
 - (a) Product data shall include, but not be limited to standard prepared data for manufactured products (sometimes referred to as catalog data), such as the

manufacturer's product specification and installation instructions, availability of colors and patterns, roughing-in diagrams and templates, catalog cuts, product photographs, standard wiring diagrams, printed performance curves and operational-range diagrams, production or quality control inspection and test reports and certifications, recommended spare parts listing, and printed product warranties, as applicable to the Solids Handling Improvements Construction.

(3) Samples

- (a) Samples shall include, but not be limited to, physical examples of the work such as sections of manufactured or fabricated work, small cuts, or containers of materials, complete units of repetitively-used products, and color/texture/pattern swatches, as applicable to the Solids Handling Improvements Construction.

(4) Review Procedures and Time Periods

- (a) The City will complete its review of each construction submission within five (5) Business Days of receipt, or such longer period as the parties may agree, and will either take no exceptions with said construction submission, or will notify Veolia of any concerns, problems, non-approval on noncompliance of such submission within that time. If the City does not respond within that time, the submission shall be deemed approved by the City. If any such submission is not approved by the City, Veolia will resubmit with modification as identified by the City, and the City's review and comment period upon each such resubmission shall be five (5) Business Days. If Solids Handling Improvements Construction is delayed by virtue of the City's failure to identify reasons for rejection of a submittal, an equitable cost and/or schedule adjustment to reflect the direct consequences of the resulting delay shall be executed as a Change Order; provided that Veolia shall have provided to the City written notice reminding the City of this provision and of the City's failure to respond to a particular submittal at the expiration of the applicable period.

n) Format for Construction Submittals

i) Submittals shall contain:

- (1) The date of submission, noting whether it is an original submission or a resubmission.
- (2) The Project title and number.
- (3) The names of:
 - (a) Contractor
 - (b) Supplier
 - (c) Manufacturer
- (4) Identification of any deviations from design requirements.
- (5) Massachusetts P.E., if necessary

5) Project close-out

- i) Develop project punch list and manage completion of all work.
- ii) Provide contractors releases from all sub-contractors.
- iii) Make revisions to construction drawings (red lines) and submit to City's Engineer

- iv) Complete all punch-list items
 - v) Turn-over of all pertinent project records, shop drawings, etc.
- 6) Solids Handling Improvements Construction - Specifications & Drawings
 - a) Engineering Documents entitled Wastewater Treatment Facility Improvements, Solids Handling dated August 25, 2020 prepared by Beta Group, Inc. for the City of Taunton.
 - b) Application for Financial Assistance, Clean Water State Revolving Fund, Construction Stage, February 2019
 - i) App D, Model Sub-Agreement Provisions [include in all subcontracts as well]
 - ii) App F, D/MBE and D/WBE Forms [include in all subcontracts as well]
 - iii) App G, Statement of Tax Compliance [include in all subcontracts as well]
 - iv) App J, American Iron and Steel Requirements [include in all subcontracts as well]

Exhibit (iii)
Startup and Testing Program

- 1) Start-up and testing of process equipment
 - a) Support the installation of all process equipment, with the review of appropriate testing to confirm correct installation.
 - b) Testing of equipment and systems will occur in two phases: Start-Up Test(s) and the Acceptance Test. The formal Acceptance Test and procedures plan will be submitted to the City after the engineering documents and O&M manuals are completed.
 - c) Start-Up Test
 - i) In the initial phase, Start-Up Testing of equipment and subsystems will be completed to demonstrate that each is installed correctly, functions as intended, and meets the applicable conditions specified. Start-Up Testing will occur once the equipment or subsystems have been installed and are mechanically and electrically complete. A description of the Start-Up Tests will be outlined in a detailed Start-Up Plan prepared by Veolia specifically for this Amendment. The Start-Up Test will include, as applicable:
 - (1) Run tests to check motor vibration, temperature, and noise.
 - (2) Functional test of controls and instruments, including the interface with the SCADA system.
 - (3) For pumps and blowers – measurement of flow vs. head at three points on the pump curve.
 - (4) Additional equipment-specific tests in accordance with good and accepted practice.
 - ii) The process equipment and subsystems will be subjected to performance tests to demonstrate that when the Solids Handling Improvements are completed, they can perform in accordance with the specifications.
 - iii) To the extent practicable, all equipment and sub-systems shall be demonstrated to operate properly over all specified hydraulic and treatment process conditions.
 - iv) The process equipment supplier shall be required to conduct a performance test on their equipment after installation. Veolia shall direct and oversee the Performance Test as mutually agreed to and appropriate for the system being tested.
 - d) Acceptance Test
 - i) Upon successful completion of the Start-Up Test, the second phase, the Acceptance Test will occur. The Acceptance Test will be conducted in accordance with the Acceptance Test plan, to be prepared by Veolia specifically for the Upgrade. The Acceptance Test is to demonstrate that the completed work functions as intended and meets the design requirements. The Acceptance Test is to be conducted over the full design range of the Solids Handling Improvements to the extent practicable.
 - ii) The Acceptance Test will include various sub-tests all conducted within a 30-day period prior to the plant Acceptance Test which will have a duration of 48 hours.
 - iii) The Acceptance Test will include:
 - (1) Name of equipment/system and reference to the specific equipment/system information provided in the Start-Up Plan.

- (2) Testing Schedule and duration with proposed dates and times for testing each item of equipment/system.
- (3) Summary of power, lighting, chemicals, water, sludge, test equipment, etc. needs required to conduct the testing.
- (4) Outline of specific responsibilities of Veolia operators, manufacturer representatives, or factory personnel during the test period.
- (5) Detailed description of the step-by-step testing requirements, with appropriate references to standardized testing and process control procedures and laboratory analyses.
- (6) Samples of forms to be used to collect and record test data, and to present tabulated test results.
- (7) Summary of how the acceptance test data collected will be interpreted and protocol for determining that the specific performance criteria of discharge permit will be met.
- (8) Description of equipment/system limits that identify conditions that the equipment/system will only be allowed to be operated within and that are in accordance with the design criteria.
- (9) Simulated Power Outage
 - (a) A simulated power outage test will be conducted to demonstrate proper switch over to standby power and full restart and all Solids Handling Improvements components to pre-power loss conditions.
- (10) SCADA System Functional Test
 - (a) A 30-day continuous demonstration test will be conducted to demonstrate proper operation of the SCADA System. All controls and functions will be demonstrated during the test.

Exhibit (iv)
Contract Price

1. The City shall pay Veolia for completion of the Solids Handling Improvements a sum equal to the Total Contract Price of the Solids Handling Improvements. Total Contract Price of the Solids Handling Improvements includes, but is not limited to:
 - a. Payroll costs for the employees in the direct employ of Veolia.
 - b. Cost of all materials incorporated into the Work.
 - c. Payments made by Veolia to subcontractors.
 - d. Costs of special consultants employed for services related to the Work.
 - e. Cost of transportation, travel, and subsistence costs for Veolia employees.
 - f. Cost of consumables.
 - g. Cost of rentals of equipment.
 - h. Cost of sales, consumer, use, or similar taxes.
 - i. Cost of utilities, fuel, and sanitary facilities.
 - j. Cost of telephone service, express delivery.
 - k. Cost of bonds and insurance.
 - l. Capital Program Management Fee.
 - m. Project contingency
2. Total Contract Price
 - a. After Completion of the Subcontractor and Materials Procurement, Total Contract Price will include:
 - i. Construction Cost for Equipment & Subcontractors. A 10.0% Fee and a 5.0% Contingency will be added to the Equipment and Subcontractor Costs.
 - ii. Fixed Fee for Capital Program Management Services.
 - iii. Project Contingency Use
 - a. Use of the shared project contingency will be mutually agreed upon by the City and Veolia. Veolia and the City will share in a 50/50% split of the unused contingency upon final completion of the project.
 - b. The City's portion of the unused project contingency can be used, as directed and approved by the City, for City requested Modifications, existing planned project phases not yet completed, or to build new project phases associated with the Upgrade.
 - iv. The aggregate amounts of Items i – iii will be the Total Contract Price.
 - v. The Schedule of Values will be updated to reflect the Total Contract Price.

c. Preliminary Budget, Total Contract Price:

City of Taunton, Massachusetts	
Solids Handling Improvements	
PRELIMINARY BUDGET, TOTAL CONTRACT PRICE	
ITEM 1 - CONSTRUCTION	
<u>Equipment and Subcontractor Costs</u>	
Rehab Gravity Thickener	\$1,048,500
Thickened Sludge Pumps	\$795,000
Sludge Dewatering	\$1,786,800
Sludge Handling Building (non-process)	\$524,300
Odor Control	\$399,625
Equipment and Subcontractor Subtotal	\$4,554,225
Veolia OH&P (10%)	\$455,423
Shared Contingency (5%)	\$227,711
Veolia General Liability Insurance	\$84,000
ITEM 1 - CONSTRUCTION TOTAL	\$5,321,359
ITEM 2 - CAPITAL PROGRAM MANAGEMENT	
Veolia CPM Fee - 8 months	\$395,852
TOTAL CONTRACT PRICE - ITEM 1 + ITEM 2	\$5,717,210

d. Qualifications:

- i. The City will pay all permit costs.
- ii. Police Details - City shall provide police details for all local public ways, if needed.
- iii. Sales and use taxes are the City's responsibility and are not included in the Total Contract Price.
- iv. Testing, storage, removal, and disposal of hazardous or contaminated materials is not included.
- v. The City will pay all Engineering Fees. Beta Group Inc. will have sole responsibility for the Engineering Documents, including any errors, omissions and deficiencies thereof. Veolia makes no warranty with respect to the Engineering Documents.
- vi. The City will pay all Utility Fees.
- vii. To the fullest extent permitted by law and notwithstanding any other provision of the Service Contract, Veolia's liability for performance or nonperformance of any obligation arising under the Service Contract

(whether arising under breach of contract, tort, strict liability, or any other theory of law or equity) in connection with the Capital Modification herein described, including, but not limited to its indemnity and warranty obligations, shall not exceed the Total Contract Price cumulatively; provided that the foregoing limitation shall not apply to any insurance proceeds or from losses resulting from the gross negligence or willful misconduct of Veolia or Veolia's subcontractors, employees or agents. IN NO EVENT SHALL VEOLIA OR ANY OF ITS REPRESENTATIVES OR AFFILIATES BE LIABLE FOR CONSEQUENTIAL, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, PUNITIVE OR ENHANCED DAMAGES ARISING UNDER THE SERVICE AGREEMENT IN CONNECTION WITH THE CAPITAL MODIFICATION HEREIN DESCRIBED.

3. Payment Procedures

- a. Veolia shall submit and the City will process Applications for Payment.
- b. The Schedule of Values will serve as the basis for payment and will be incorporated into a form of Application of Payment acceptable to the City. Changes to the Schedule of Values shall have revised values approved by the City.
- c. Work completed to date measured as a percentage of the total work shall be submitted by Veolia and substantiated as required by the City.

Exhibit (v)
Construction Schedule

Illustrative Schedule

PROJECT CONSTRUCTION SCHEDULE: The Solids Handling Improvements project work shall commence on a date coordinated with the City. A detailed construction schedule will be distributed within ten days of the issuance of the notice to proceed.

1. Project Timeline date 6/19/2020

Exhibit (vi)
Draw-down Schedule

Estimated Drawdown Schedule:

	Month	Running Total
Month 1	500,000	500,000
Month 2	200,000	700,000
Month 3	300,000	1,000,000
Month 4	400,000	1,400,000
Month 5	600,000	2,000,000
Month 6	700,000	2,700,000
Month 7	800,000	3,500,000
Month 8	900,000	4,400,000
Month 9	700,000	5,100,000
Month 10	400,000	5,500,000
Month 11	200,000	5,700,000
Month 12	17,210	5,717,210

The Drawdown Schedule will be updated to reflect the Total Estimated Project Cost.

ATTACHMENT 1
Form of Performance and Payment Bonds

[Veolia is not including a separate Veolia Bond in the pricing. Veolia anticipates that the City of Taunton will accept dual obligee bonds from the Veolia subcontractor(s)]