MUNICIPALITY OF THE DISTRICT OF ST MARY'S

Request for Quotations

Sewer Grating Replacement

Project Number CP#22-01-2024

Issue Date	July 9, 2024.
Due Date to Advise of Errors or Omissions	August 19, 2024. Noon local time.
Deadline for Submissions	August 26, 2024. Noon local time.
Site Tour Date	August 14, 2024
Anticipated Award Date	Week of September 9, 2024.
Due Date for Completion of the Equipment Installation	November 1, 2024.

The timetable is tentative and may be amended at any time via addenda.

Part 1: Invitation

1.1 Invitation for Tender

The Municipality of the District of St Mary's is seeking bids to provide and install the following equipment. The successful bidder will supply and install fiberglass reinforced pultruded industrial grating covering the equalization tank and install Davit crane and base as per the attached engineered drawings and specifications. Removal and disposal of existing steel grating at the St Mary's Wastewater Treatment Facility will be included in quoted price.

Part 2: Introduction

2.1 About Us

The Municipality of St Mary's is located on the Atlantic East Shore of Nova Scotia, East of the Halifax Regional Municipality. The materials to be provided will be installed at the municipal wastewater treatment facility in the community of Sherbrooke.

Part 3: Bidder Introduction

3.1 Bidder Experience and Project Work Planning

Each Bidder will provide a written document as part of the bid providing a summary of the following information.

1. An overview of your business outlining the businesses' experience and capability applicable to this project including:

    A. Overview of your business e.g. size, skills, expertise, business history, what you do, where you are located, what geographic areas you serve?
    B. Are you the manufacturer of the equipment for this project or a distributor?
    C. What services and actions will you perform to complete this project?

2. Describe the team who will complete the product installation including, number of people, skills, and certifications.

3. Declare and describe (provide business names) for any sub-contractors who will participate and explain their roles.

4. Provide a timeline with all key steps and milestones for the provision of the equipment and completion of the installation. Timelines must meet the due date in this Tender form.

5. Warranty: A full description of warranty on work and equipment provided shall be stated. A minimum of one-year warranty on all work and equipment is required for this project.

Part 4: Equipment Specifications

5.1 Specifications

Must follow engineered design and follow specifications in appendix 1, 2 and 3.

A Site visit is suggested for measurement of grating required.

Part 5: Submission Instructions

5.1 Contact Information

Teddy Stevens, Director of Public Works: teddy.stevens@saint-marys.ca, 902-522-2667.

5.2 Submission Requirements and Conditions

1. Bids shall be submitted in digital form on or before the submission deadline via e-mail to teddy.stevens@saint-marys.ca
2. E-mail submissions must have the following subject line: **"Sewer Grating Replacement".**
3. E-mail submission must be below twenty megabytes to meet Municipal e-mail requirements. All bidders are responsible for ensuring that submissions meet the e-mail and data size requirements. Submissions that exceed twenty megabytes may not be received and, as a result, may not receive consideration.
4. The Bidder shall bear all costs associated with or incurred in preparing and presenting its Bid. The Municipality shall not be liable under any circumstances for all such direct, indirect, or consequential expenses.
5. Only on-time bids and bids delivered by the submission requirements stated here will be accepted.
6. Bidders are not to seek additional information from any Municipal Council, or Staff not listed in this document. Such contact could disqualify the Bidder.
7. Complete and include, with the bid, all forms and materials listed in Section 5.3 Submission checklist.
8.

5.3 Submission Check List

This section is designed to provide all bidders with a checklist of schedules and materials for inclusion to ensure complete bids.

Check List Item	Purpose
Bidder Introduction: Each bidder shall provide a written introduction to their business and details on how they will complete the project. See part 3: Bidder Introduction for details.	This information is required for the municipality to assess the qualifications and capability of each bidder. Failure to provide the requested information in all or in part could result in the disqualification of the bid.
A Price Form has been provided with this solicitation and is required to be completed for all bid price data.	Failure to provide a completed Price Form shall result in the disqualification of the Bid.
A Bidder Declaration Form has been provided with this solicitation. The Bidder Declaration Form collects acknowledgement of any addenda and the bidder authorized signature.	The Bidder Declaration Form is a Mandatory Requirement. Failure to complete and sign this section shall result in the disqualification of the Bid.
Workers' Compensation Board of Nova Scotia.	A certificate of good standing with the Workers' Compensation Board of Nova Scotia or equivalent must be provided by all bidders with their bid submission. Failure to provide the certificate will result in disqualification of the bid.
Time shall be of the essence in the completion of this project.	Work timelines must meet the August 26, 2024 due date for submission of the Project in order to be eligible for consideration. Proposals that don't meet the submission deadline shall be rejected.

5.4 Clarification and Addenda

1. Bidders must notify the Municipality by Noon local time on August 19, 2024, to advise of any omissions, errors or ambiguities in this document. If the Municipality considers a correction, explanation or interpretation necessary, a written addendum will be issued. Direct all Inquiries to: teddy.stevens@saint-marys.ca.
2. The Municipality will not maintain a distribution list. All Bidders are responsible for ensuring all addenda have been received. Addenda will be posted on the Municipality website at https://www.saint-marys.ca/business/tenders/ and the Nova Scotia Public Tenders website at https://procurement.novascotia.ca/ns-tenders. The Municipality will not bear any responsibility for the failure of potential bidders to obtain all documents before submitting a response.
3. The Municipality reserves the right to amend this Tender at any time before the closing date and will issue a written addendum in the event of a change.
4. Changes to this Tender shall be stated in writing by Addenda. Verbal statements made by Municipal staff or their representatives shall not be binding.

5.5 Amendment or Withdrawal of Proposal

Bids may be amended or withdrawn by e-mail. E-mail shall be sent to: teddy.stevens@saint-marys.ca.The amendment or notice of withdrawal must be received prior to the closing. Amendments or withdrawals must be clearly labelled with an e-mail subject line **"Sewer Grating Replacement"** And follow all submission guidelines outlined in Part 5.2 Submission Requirements and Conditions.

If a Bid is amended, the Bidder must supply a complete replacement of all complete documents and forms. The Municipality will not attempt to interpret edit instructions or perform updates to Bids.

5.6 Bid Opening

The Municipality will not hold a public, in-person bid opening. Bidders not awarded will receive advice by email.

5.7 Proposal Validity

All Bids shall remain irrevocable for sixty (60) days unless withdrawn prior to the closing date or changed in mutual Agreement with the Municipality.

Part 6: T erms and Conditions

6.1 Worker's Compensation

Bidders shall comply with the *Workers' Compensation* and *Occupational Health & Safety Act* safety regulations. A certificate of good standing with the Workers' Compensation Board of Nova Scotia or equivalent must be provided by all bidders with their bid submission.

6.2 Indemnity Requirements

The successful Bidder shall be required to indemnify and hold the Municipality harmless against all liability and expenses, including solicitor's fees, howsoever arising or incurred, alleging damage to property, injury to, or death of, any person arising out of or attributable to the Bidder's performance of the contract awarded.

6.3 Liability

The Municipality shall not be liable nor responsible for any bodily or personal injury or property damage of any nature whatsoever suffered or sustained by the Bidder, their employees or agents in the performance of this Agreement.

6.4 Insurance

Two million ($2,000,000.00) in General Public Liability Insurance.

a. Dollar values are per Instance
b. The Municipality is named as an additional insured.
c. General liability policy to include "Completed Operations Coverage."
d. Policy to remain in effect for 1 year after project completion.

Note: The awarded Bidder shall provide their insurance letter upon signing of the agreement and before any work may begin.

6.5 Freedom of Information & Protection of Privacy

By submitting a Bid, the Bidder agrees to public disclosure of its contents subject to the provisions of Part XX of the Municipal Government Act relating to Freedom of Information and Protection of Privacy.

6.6 Pricing, Taxes, Currency

1. All prices quoted for this solicitation shall be in Canadian funds only.
2. HST totals in quote pricing are to be reported separately. (see Price Form for details).

6.7 Early Termination

1. If, for any reason, the Bidder fails to provide services satisfactory to the Municipality or comply with the conditions of the signed Agreement, the Agreement may be terminated by the Municipality upon providing written notice to the Bidder.

2. In the event of early termination, the Bidder shall only be entitled to compensation for Work completed and accepted by the Municipality to that point. No other compensation will be owed to the Bidder by the Municipality.

3. In the event of early termination, the Municipality has the right to choose whether to accept a bid from another bidder (following the terms of this tender) or to re-tender.

6.8 Payment(s)

The Municipality will accept invoices.

Part Seven: Award:

7.1 Reservation of Rights/Privilege

1. This Call for Bids neither expresses nor implies any obligation on the part of the Municipality to enter a contract with any party submitting a Bid.
2. The Municipality reserves the right to suspend or cancel this Tender at any time for any reason without penalty.
3. The Municipality reserves the right to reject any or all Bids.
4. The Municipality reserves the right to accept and award any Bid or portion of any Bid that may be in the Municipality's best interests.
5. By placing a bid, the bidder acknowledges that the Municipality has the full and unfettered right to determine whether any Bidder, in the opinion of the Municipality, has not demonstrated the capability to fully meet the Municipality's needs and that only bidders deemed by the Municipality as fully able to meet all needs will progress to a final award assessment per section 7.2.

7.2 Award Process

Bids deemed to be complete and fully meeting the needs of the Municipality shall progress to a final award selection based on lowest overall Bid price.

7.3 Award Notice

Upon completion of the evaluation process, the Municipality will issue a email of award to the successful Bidder.

7.4 Upon Award

The Bidder agrees to enter into a written agreement with the Municipality within five business days of being awarded the project unless an extension is agreed to in writing by both parties.

Bidder Declaration Form

The undersigned hereby acknowledges that they, as an officer of the Bidder business capable of binding the organization:

1.) **Has read and understands the specifications, requirements, set out in this request for quotations by the Municipality of St Mary's (the Municipality).**
2.) **Have identified and provided all requested documents, forms, and data to complete this submission.**
3.) **They further acknowledge that the seller's proposed product, equipment, materials, labour/people skills and services fully meet or exceed those specified in this solicitation.**
4.) **The bidder acknowledges receipt and consideration of the following addenda (if applicable) Insert addenda #'s reviewed e.g. 1,2,3 _____.**
5.) **They certify the accuracy and validity of all price quote information.**

Dated the _____Day of _____ 2024.

Business Name: _____

Full Address:

_____

Phone and Cell Numbers: _____

E-mail Address: _____

HST Number: _____

Contact Name and Title: _____

Authorized Signature: _____

Name and Title of Authorized Signature: _____

Price Form: Sewer Grating Replacement

Instructions:

1.) One flat rate price for the project is required.
2.) All Prices are to be stated in Canadian Dollars only.
3.) All expenses expected to be covered in payment for this project should be outlined, included, and disclosed in this form.
4.) All prices should be stated before/without HST.

Bidder Business Name: _____

Pricing: One total price for the project is required here:

Total Project Cost (before HST) $ _____

HST $ _____

Total with HST $ _____

Please provide a further breakdown or explanation/itemization of your pricing.

Please provide any itemized pricing details applicable to your Proposal here. E.g. Labour, Supplies, travel, Printing etc.

If your business has specific payment term particulars for this project, they should also be explained in this section.

Pricing Details:

Appendix #1

SPECIFICATION

PULTRUDED FIBERGLASS GRATING

SECTION 06610

FIBERGLASS REINFORCED PLASTICS (FRP) FABRICATIONS

PULTRUDED INDUSTRIAL GRATING

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. The CONTRACTOR shall furnish, fabricate (where necessary), and install all fiberglass reinforced plastic (FRP) items, with all appurtenances, accessories and incidentals necessary to produce a complete, operable and serviceable installation as shown on the Contract Drawings and as specified herein, and in accordance with the requirements of the Contract Documents.

1.2 REFERENCES

A. The publications listed below (latest revision applicable) form a part of this specification to the extent referenced herein. The publications are referred to within the text by the designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) Test Methods:

ASTM D 635 Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position

ASTM D 732 Shear Strength of Plastics by Punch Tool

ASTM E 84 Surface Burning Characteristics of Building Materials

1.3 CONTRACTOR SUBMITTALS

A. The CONTRACTOR shall furnish shop drawings of all fabricated gratings and accessories in accordance with the provisions of this Section.

B. The CONTRACTOR shall furnish manufacturer's shop drawings clearly showing material sizes, types, styles, part or catalog numbers, complete details for the fabrication of and erection of components including, but not limited to, location, lengths, type and sizes of fasteners, clip angles, member sizes, and connection details.

C. The CONTRACTOR shall submit the manufacturer’s published literature including structural design data, structural properties data, grating load/deflection tables, corrosion resistance tables, certificates of compliance, test reports as applicable, concrete anchor systems and their allowable load tables, and design calculations for systems not sized or designed in the contract documents.

D. The CONTRACTOR shall submit sample pieces of each item specified herein for acceptance by the ENGINEER as to quality and color. Sample pieces shall be manufactured by the method to be used in the WORK.

1.4 QUALITY ASSURANCE

A. All items to be provided under this Section shall be furnished only by manufacturers having a minimum of five (5) years experience in the design and manufacture of similar products and systems. Additionally, if requested, a record of at least three (3) previous, separate, similar successful installations in the last five (5) years shall be provided.

B. Manufacturer shall offer a 3 year limited warranty on all FRP products against defects in materials and workmanship.

C. Manufacturer shall be certified to the ISO 9001-2008 standard.

D. Manufacturer shall provide proof of certification from at least two other quality assurance programs for its facilities or products (DNV, ABS, USCG, AARR).

1.5 PRODUCT DELIVERY AND STORAGE

A. Delivery of Materials: Manufactured materials shall be delivered in original, unbroken pallets, packages, containers, or bundles bearing the label of the manufacturer. Adhesives, resins and their catalysts and hardeners shall be crated or boxed separately and noted as such to facilitate their movement to a dry indoor storage facility.

B. Storage of Products: All materials shall be carefully handled to prevent them from abrasion, cracking, chipping, twisting, other deformations, and other types of damage. Store items in an enclosed area and free from contact with soil and water. Store adhesives, resins and their catalysts and hardeners in dry indoor storage facilities between 70 and 85 degrees Fahrenheit (21 to 29 degrees Celsius) until they are required.

PART 2 - PRODUCTS

2.1 GENERAL

A. All FRP items furnished under this Section shall be composed of fiberglass reinforcement and resin in qualities, quantities, properties, arrangements and dimensions as necessary to meet the design requirements and dimensions as specified in the Contract Documents.

B. Fiberglass reinforcement shall be a combination of continuous roving, continuous strand mat, and surfacing veil in sufficient quantities as needed by the application and/or physical properties required.

C. Resins shall be VINYL ESTER or ISOPHTHALIC with chemical formulations as necessary to provide the corrosion resistance, strength and other physical properties as required.

D. All finished surfaces of FRP items and fabrications shall be smooth, resin-rich, free of voids and without dry spots, cracks, crazes or unreinforced areas. All glass fibers shall be well covered with resin to protect against their exposure due to wear or weathering.

E. All pultruded structural shapes shall be further protected from ultraviolet (UV) light with 1) integral UV inhibitors in the resin and 2) a synthetic surfacing veil to help produce a resin rich surface.

F. All FRP products shall have a tested flame spread rating of 25 or less per ASTM E-84

Tunnel Test. Gratings shall not burn past the 25 mm reference mark and will be classified HB per ASTM D635.

G. All grating clips shall be manufactured of Type 316SS (stainless steel).

2.2 PULTRUDED GRATING

A. Manufacture: Grating components shall be high strength and high stiffness pultruded elements having a maximum of 70% and a minimum of 60% glass content (by weight) of continuous roving and continuous strand mat fiberglass reinforcements. The finished surface of the product shall be provided with a surfacing veil to provide a resin rich surface which improves corrosion resistance and resistance to ultraviolet degradation. Bearing bars shall be interlocked and epoxied in place with a two-piece cross rod system to provide a mechanical and chemical lock. Cross rods should be below the walking surface of the grating. Gratings with cross rods that are flush with the walking surface are excluded.

B. Non-slip surfacing: Grating shall be provided with a quartz grit bonded and baked to the top surface of the finished grating product.

C. Fire rating: Grating shall be fire retardant with a tested flame spread rating of 25 or less when tested in accordance with ASTM E 84. Manufacturer may be required to provide certification of ASTM E84 test on grating panels from an independent testing laboratory. Test data shall be from full scale testing of actual production grating, of the same type and material supplied on the project. Test data performed only on the base resin shall not be acceptable.

D. Resin system: The resin system used in the manufacture of the grating shall be VEFR or ISOFR. Manufacturer may be required to submit corrosion data from tests performed on actual grating products in standard chemical environments. Corrosion resistance data of the base resin from the manufacturer is not a true indicator of grating corrosion resistance and shall not be accepted.

E. Color: Gray or Yellow.

F. Depth: 1" deep load bars with a tolerance of plus or minus 1/32".

G. Mesh Configuration: 1-1/2" load bar spacing, 6" tie bar spacing on centers.

H. Load/Deflection: Grating shall meet manufacturers published safe recommended loadings with deflection not to exceed the following:

Uniform distributed load over a 48" span: 50 pounds per square foot, with a maximum deflection of 0.14".

I. Substitutions: Other products of equal strength, stiffness, corrosion resistance and overall quality may be submitted with the proper supporting data to the engineer for approval.

2.4 GRATING FABRICATION

A. Measurements: Grating supplied shall meet the minimum dimensional requirements as shown or specified. The Contractor shall provide and/or verify measurements in field for work fabricated to fit field conditions as required by grating manufacturer to complete the work. Determine correct size and locations of required holes or cutouts from field dimensions before grating fabrication.

B. Layout: Each grating section shall be readily removable, except where indicated on drawings. Manufacturer to provide openings and holes where located on the contract drawings. Grating supports shall be provided at openings in the grating by contractor where necessary to meet load/deflection requirements specified herein. Grating openings which fit around protrusions (pipes, cables, machinery, etc.) shall be discontinuous at approximately the centerline of opening so each section of grating is readily removable.

C. Sealing: All shop fabricated grating cuts shall be coated with vinyl ester resin to provide maximum corrosion resistance. All field fabricated grating cuts shall be coated similarly by the contractor in accordance with the manufacturer's instructions.

D. Hardware: Type 316 stainless steel hold-down clips shall be provided and spaced at a maximum of four feet apart with a minimum of four per piece of grating, or as recommended by the manufacturer.

PART 3 - EXECUTION

3.1 INSPECTION

A. Shop inspection is authorized as required by the Owner and shall be at Owner's expense. The fabricator shall give ample notice to Contractor prior to the beginning of any fabrication work so that inspection may be provided. The grating shall be as free, as commercially possible, from visual defects such as foreign inclusions, delamination, blisters, resin burns, air bubbles and pits.

3.2 INSTALLATION

A. Contractor shall install gratings in accordance with manufacturer’s assembly drawings. Lock grating panels securely in place with hold-down fasteners as specified herein. Field cut and drill fiberglass reinforced plastic products with carbide or diamond tipped bits and blades. Seal cut or drilled surfaces in accordance with manufacturer's instructions. Follow manufacturer's instructions when cutting or drilling fiberglass products or using resin products; provide adequate ventilation.

Appendix #2

SPECIFICATION

DAVIT CRANE

SECTION 144600-1

DAVIT CRANE PUMP LIFT

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. The CONTRACTOR shall furnish, fabricate (where necessary), and install one (1) Davit Crane Pump Lift on a new concrete foundation, complete with all appurtenances, accessories and incidentals necessary to produce a complete, operable and serviceable installation as shown on the Contract Drawings and as specified herein, and in accordance with the requirements of the Contract Documents.

1.2 REFERENCES

A. The publications listed below (latest revision applicable) form a part of this specification to the extent referenced herein. The publications are referred to within the text by the designation only. The Davit crane shall conform to one of the following:

OSHA	Occupational Safety and Health Administration
ASME	American Society of Mechanical Engineers
ANSI	American National Standards Institute
CSA	Canadian Standard Association

1.3 CONTRACTOR SUBMITTALS

A. The CONTRACTOR shall furnish shop drawings of the fabricated or manufactured davit crane and accessories in accordance with the provisions of this Section.

B. The CONTRACTOR shall furnish manufacturer's shop drawings including rigging, equipment and elements and electrical requirements clearly showing material sizes, types, styles, part or catalog numbers, complete details for the fabrication of and erection of components including, but not limited to, location, lengths, type and sizes of fasteners, clip angles, member sizes, and connection details.

C. The CONTRACTOR shall submit the manufacturer’s published literature including structural design data, structural properties data, crane load/deflection tables, corrosion resistance tables, certificates of compliance, test reports as applicable, concrete anchor systems and their allowable load tables, and design calculations for systems not sized or designed in the contract documents.

D. The CONTRACTOR shall submit sample pieces of each item specified herein for acceptance by the ENGINEER as to quality and color. Sample pieces shall be manufactured by the method to be used in the WORK.

1.4 QUALITY ASSURANCE

A. All items to be provided under this Section shall be furnished only by manufacturers having a minimum of five (5) years experience in the design and manufacture of similar products and systems. Additionally, if requested, a record of at least three (3) previous, separate, similar successful installations in the last five (5) years shall be provided.

B. Manufacturer shall offer a 3-year limited warranty on all hoist / crane products against defects in materials and workmanship.

C. Manufacturer shall be certified to the ISO 9001-2008 standard or equivalent quality assurance program.

D. System elements, attachments and rigging connections shall be designed for and possess a minimum safety factor of 8 to 1.

1.5 PRODUCT DELIVERY AND STORAGE

A. Delivery of Materials: Manufactured materials shall be delivered in original, unbroken pallets, packages, containers, or bundles bearing the label of the manufacturer. Adhesives, resins and their catalysts and hardeners shall be crated or boxed separately and noted as such to facilitate their movement to a dry indoor storage facility.

B. Storage of Products: All materials shall be carefully handled to prevent them from abrasion, cracking, chipping, twisting, other deformations, and other types of damage. Store items in an enclosed area and free from contact with soil and water.

PART 2 - PRODUCTS

2.1 Davit Crane

A. Manufacturer: davit crane shall be of domestic (North American) manufacture.

B. Load Capacity: davit crane shall have a load capacity which varies based on boom position. Davit crane load capacity shall be 1200 lbs with the boom fully retracted and 650lbs with the boom fully extended.

C. Design Factor: davit crane shall be designed with an ultimate design factor exceeding 3:1 for all components, in all boom positions.

D. Proof Testing: davit crane shall be individually proof tested by manufacturer to 125% of rated load.

E. Hook Reach: davit crane boom shall be a non-fixed type that is infinitely adjustable to different lengths allowing hook reach from: 23” to 66”

F. Height Adjustments: davit crane boom shall be infinitely adjustable from horizontal to +45 degrees above horizontal by means of a ratcheting screw jack.

G. Boom Sheave: davit crane shall have a sheave at the end of the boom that the cable shall pass over.

H. Height Clearance: when used with the socket base, davit crane shall have a minimum

clearance of 26 inches between the mounting surface and underside of boom. When used with pedestal base, davit crane shall have a minimum clearance of 40 inches between the mounting surface and underside of boom.

I. Rotation: davit crane shall freely rotate 360 degrees in mounting base.

J. Pins: davit crane components shall be assembled using clevis style pins and shall be corrosion resistant zinc plated.

K. Portability: davit crane shall have the ability to be completely assembled and dis-assembled without tools.

L. Winch mounting: davit crane shall have a dedicated winch mounting surface located on the top of the boom to accept either a manual or electric winch.

M. ID Tag: davit crane shall be labeled with a metal identification plate permanently attached, marked in such a way as to be free of corrosion or marking degradation, and to include manufacturer's name, serial number, model number, load capacity, contact information, and other pertinent information.

2.2 Base

A. Base Style: davit crane shall utilize purpose-built pedestal, socket and wall bases, not those of universal design.

B. Usage: bases shall allow davit crane mast to be installed and removed easily, with no tools.

C. Bearing surfaces: base shall have a self-lubricating nylon bearing sleeve to support mast rotation while also having a pin at the bottom of the base to positively engage the base of the mast.

2.3 Finish

A. Materials: davit crane shall be domestically made from steel meeting ASTM standards. Bases and pins shall be domestically made from steel meeting ASTM standards.

B. Finish: davit crane shall be finished in a corrosion resistant zinc plating. Bases and pins shall be corrosion resistant zinc plated.

2.4 Winches

A. Manual Winch: winch shall be of the brake winch type, utilizing a Weston style load holding brake, a quick disconnect removable handle, bronze bearings, and available drill driven option.

B. Winch Capacity: load capacity of the winch to be appropriately sized to match that of the davit crane.

C. Finish: winch shall have all metal parts zinc plated.

D. Cable Attachment: winch shall facilitate cable attachment via either a standard cable anchor clamp, or a ball swaged cable end fitting

2.5 Drive Motor

A. Basis-of-Design: Acrobat with 120v, 60 Hz. single-phase capacitor-style motor with built-in thermal protection. Designed to lift a vertical weight divided between 1 winch assembly and at least 1 idler spool assembly.

B. Characteristics:

a. Weight Capacity: 1000 pounds.
b. Oil-filled, precision cast, high-strength metal alloy case that is fully sealed with precision ball bearings and premium gaskets to prevent leaks.
c. Load holding, hardened steel gears and motor combine to produce over 2500 inch-pounds (282.46 Nm) of torque at 8.125 RPM.
d. Integral limit switches to control upper and lower travel.
e. Instantly reversing motor is governed to stall at 14 amps to prevent overload.
f. Maximum vertical travel is 34 feet (10.3m) when used in conjunction with the electric cord reel.

2.6 Cable Spools

A. Steel helical grooved drum, with pressure roller, providing 50 feet (14.3m) of cable capacity, including 3 pre-wraps. 3/16” (57.15mm) diameter 7x19 Aircraft Cable. S-409 swaged bottom on one end and 3/16” (57.15mm) thimble and two G-249 3/16” (57.15mm) clips on the other.

B. Drive Pipe: 2-3/8" (60mm) OD X .095" (2.4mm) Wall Galvanized Steel Tube cut to length & drilled.

2.7 Hardware

A. Mounting Pans: 3/16" (4.8mm) thick steel, powder coated black. Winch Mounting Plate shall be 19-3/8" x 28 3/8" (49cm x 72cm). Idler Spool Mounting Plate shall be 17-1/8" x 27-5/8" (43.5cm x 70cm).

B. Beam Clamps: ¼" (6mm) thick Zinc plated Steel. Up to 5/8" (16mm) thick beam flange. Can be adjusted to beams running perpendicular or parallel to Acrobat. Can adjust to beam widths of 4-1/2 inches to 20-7/16 inches (11cm x 52cm) (perpendicular) or 2-1/2 inches to 10 inches (parallel) (6.35cm x 25 cm).

C. Pipe Clamps: "U" Bolt ½-13 X 4" IW X 5 ½" IL Grade 5 Zinc. Accepts 4" (102mm) Steel Pipe.

2.8 ACCESSORY EQUIPMENT

A. Power Cable Reel: 16 / 4 Retracting Power Cord with 35' (10.67m) of travel distance for power to screen or other equipment being lifted.

B. Automatic Locking Safety Device: (2) Automatic locking safety strap devises required-1 mounted to winch/spool frame assembly, 1 mounted to idler spool frame assembly. Both safety straps must be attached to suspended product. Designed to engage instantly whenever a cable or supporting structure fails. The automatic lock is actuated by speed or inertia in order to stop a load from falling due to a sudden failure such as a cable breakage, cable clamp failure or any increase in speed due to failure or back drive of a winch or supporting structure. The automatic lock is rated for a 1,000 lb load. The automatic lock

incorporates a 34' (10.36m) long, 2" (51mm) wide polyester belt with a breaking strength rating of 6,000 pounds (2,721 Kg) and will withstand a 1,750 lb (794 Kg) free falling load without any failure of components or the belt. The housing and drum shall be manufactured from high tensile heat-treated aluminum alloy that naturally resists corrosion without paint. The drum which houses the mechanism shall be a singular machined piece to retain its structural integrity in the case of a load capture. The locking mechanism always remains in the ready position regardless of whether the belt is retracting or extending. The locking mechanism does not cycle constantly. Unit is self-aligning with the use of two integral guide wheels, so the force of a fall positions the unit in the ideal plane to prevent damage to unit and the supporting structure. The locking mechanism will fully engage within 3" (76mm) of belt travel in the event of failure. The locking mechanism utilizes multiple high strength steel pawls that deploy and evenly load the drum and housing when engaged and do not rely on a singular locking mechanism.

2.9 CONTROLS

A. Single-gang key switch to operate Acrobat motor up and down.

B. Wireless Remote Control

a. Low Voltage Control: Commercial-type 110-120V or 220-240V AC receiver. Each motor must be equipped with a Low Power Voltage Control. Control shall be factory wired and installed in an enclosure with a power cord with a four-prong NEMA style twist lock grounded plug. Control to include a three-position terminal block mounted on the enclosure for an optional low voltage key switch for motor control or momentary or contact closure for third party control systems. Each control shall be supplied with a matching flange type receptacle, cover for box and male plug to be attached to whip of motor being operated. All wiring and electrical components are to be in accordance with local codes and as per manufacturers' installation instructions. All conduits, wiring and electrical components not specified herein, shall be supplied by the electrical contractor.

b. Handheld Remote-Control Transmitter: Capable of operating up to 99 individual electric receivers. Power supply for handheld shall be a standard 9-volt battery. Operating range for handheld transmitter approximately 100' (30.5m).

PART 3 - EXECUTION

3.1 INSPECTION

A. Shop inspection is authorized as required by the Owner and shall be at Owner's expense. The fabricator shall give ample notice to Contractor prior to the beginning of any fabrication work so that inspection may be provided.
B. Final inspection will be made by the Engineer and Supplier representative following receipt in writing from the Installer that the installation is complete.
C. If inspection reveals any deficiency in construction, fabrication or installation not in accordance with the contract requirements or manufacturer's recommendations, approval will be withheld and the Installer shall be given thirty (30) days to replace the rejected items with those conforming to specification requirements.
D. In addition to the final inspection of various equipment components, the Engineer and / or Owner reserves the right of inspection during the course of the installation and will be allowed access to materials at the site for possible incorporation into the installation.
E. Preliminary inspection will not be construed as eliminating the possible rejection of various

components during the final inspection detailed above.

3.2 INSTALLATION

A. Contractor shall install the crane in accordance with manufacturer's assembly drawings and recommendations. Install components plumb, straight, square and level in locations indicated on the drawings and as shown on approved shop drawings.
B. Field verify all measurements.
C. Test motor prior to installation. The davit crane shall be as free, as commercially possible, from visual defects such as foreign inclusions, delamination, blisters, resin burns, air bubbles and pits.

3.3 CLEANING

A. Clean exposed surfaces of hoists and paint all related mounting surfaces. Comply with manufacturer's instructions for cleaning and touch-up of minor finish damage.

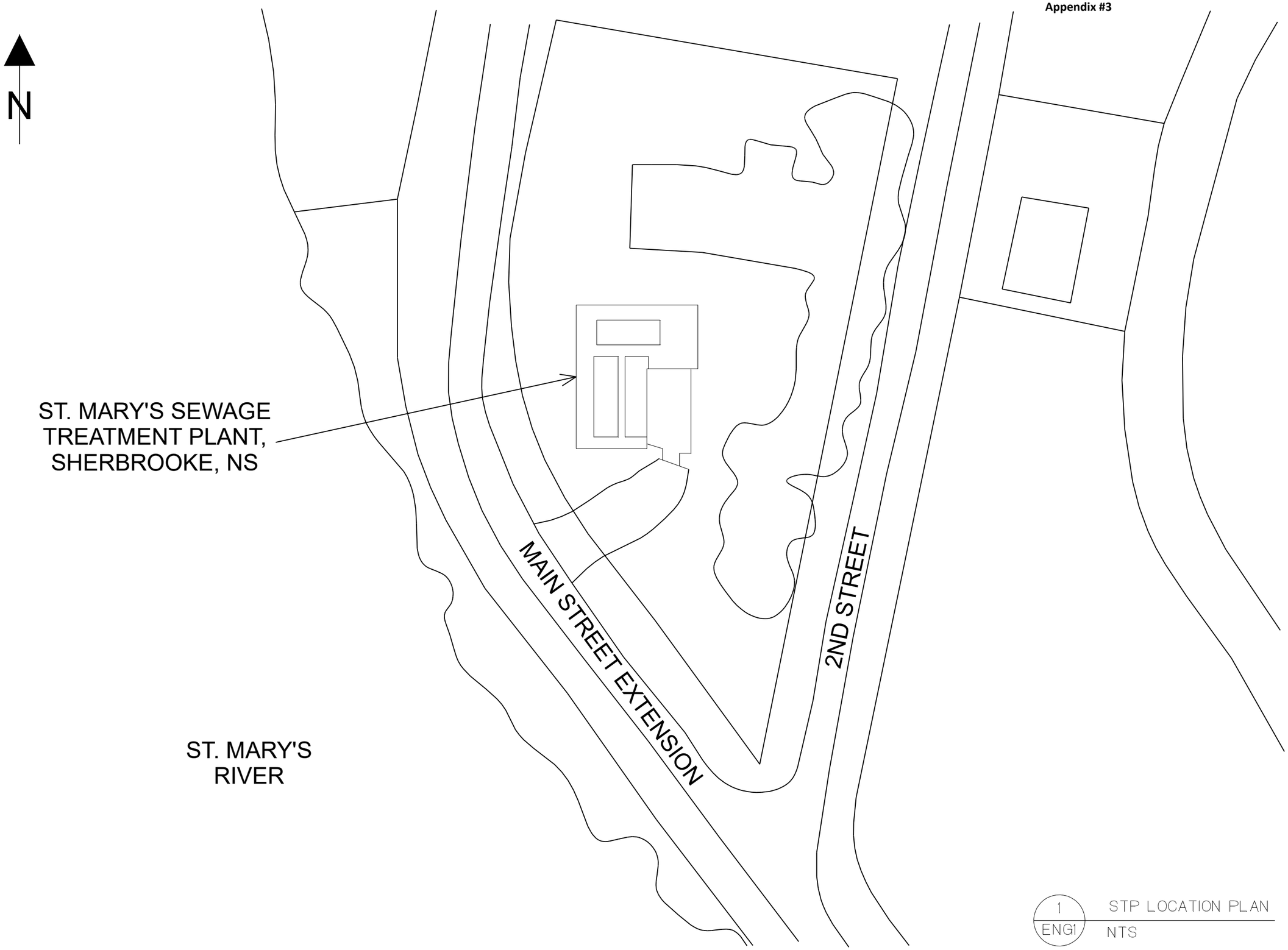
B. Repair minor damage to hoist system to eliminate evidence of damage. Items that cannot be repaired to the satisfaction of the Engineer and Owner shall be replaced at no cost to the Owner.

3.4 TRAINING

A. The Installer must perform start-up services, including setting of limits and making performance adjustments.

B. Demonstration on proper operation of line set, including care and maintenance procedures shall be provided to Owner's Representative.

C. Schedule the demonstration at a time convenient for all parties.



1 ENG1 STP LOCATION PLAN
NTS

REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF NOVA SCOTIA
DATE 04/07/24
R.A. LeBlanc
8029

SILVERBROOK RESIDENTIAL DESIGN SOLUTIONS
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SAMSON'S COVE, NS B0E 3C0

SHERBROOKE SEWER TREATMENT PLANT
35 WHARF ROAD, SHERBROOKE, ST. MARY'S CO., NS
EQ TANK GRATE AND PUMP LIFT REPLACEMENT

Sheet Title: LOCATION PLAN

Revisions:

No.	Date:	Description:
1	03-07-24	PERMIT

Graphic Scale	NTS
Project Number	12B015
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Date Issued	03-07-24
Sheet Number	ENG1

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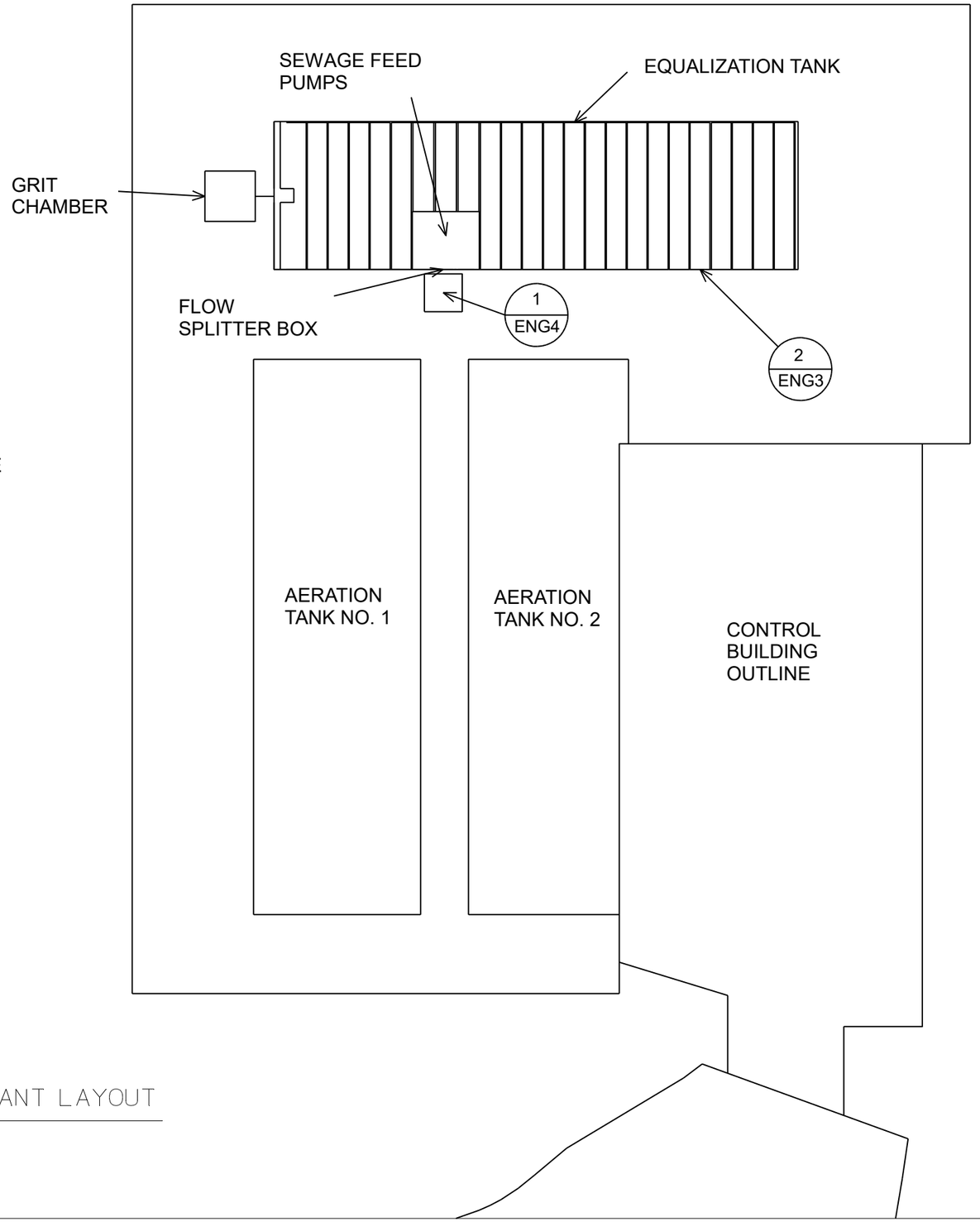
SCOPE OF WORK:

1. NEW DAVIT CRANE PUMP LIFT WITH 3' x 3' CONCRETE BASE (ENG4)

2. EQUALIZATION TANK GRATING REPLACEMENT (ENG3)



1 / ENG2 ST. MARY'S SEWAGE TREATMENT PLANT LAYOUT

NTS

REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF NOVA SCOTIA
DATE 04/07/24
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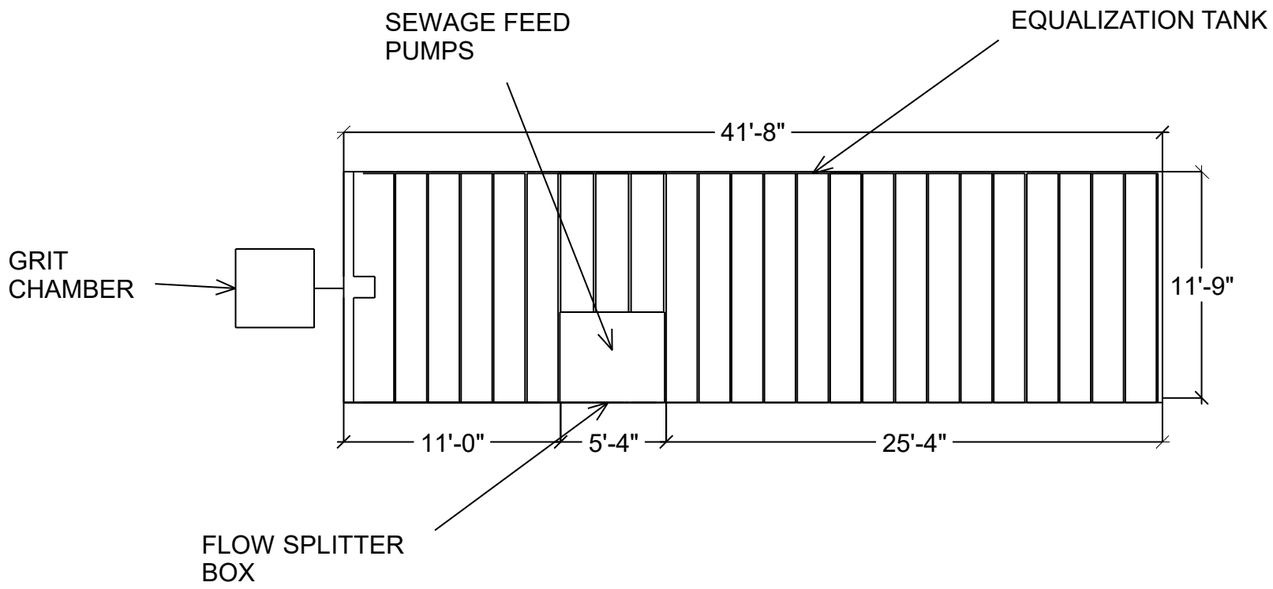
Sheet Title:
ST. MARY'S STP WORKS GENERAL LAYOUT

Revisions:

No.	Date:	Description:
1	03-07-24	PERMIT

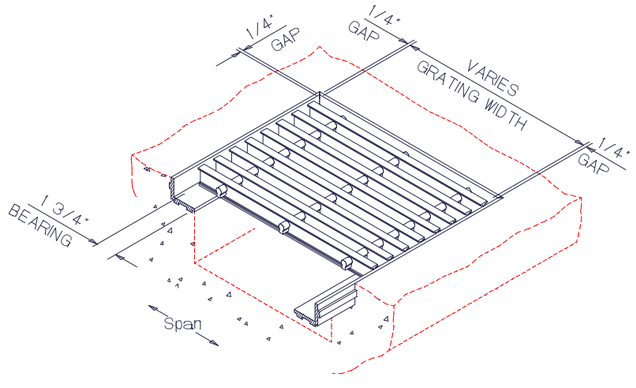
Graphic Scale	NTS
Project Number	12B015
Set Type	
Date Issued	03-07-24
Sheet Number	ENG2



1 ENG3 EQUALIZATION TANK PLAN VIEW
NTS

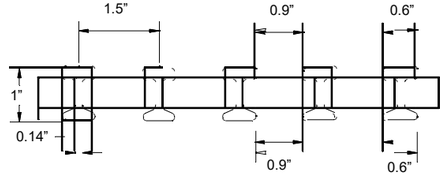
GENERAL NOTES:

1. CONTRACTOR TO PROVIDE GRATING TO COVER EQUALIZATION TANK SPAN. THERE ARE CURRENTLY 24 PANELS.
2. DIMENSIONS GIVEN ARE TO BE CONFIRMED IN THE FIELD PRIOR TO FABRICATION AND INSTALLATION.
3. GRATING MATERIAL TO BE PULTRUDED FIBERGLASS.
4. GRATING TO BE RATED TO SUPPORT A MINIMUM WEIGHT OF 1,000 LBS.'
5. PROPOSED GRATE SECTION WIDTH CAN VARY ACCORDING TO PROPOSED PRODUCT.



2 ENG3 GRATE SECTION PLAN VIEW (TYP)
NTS

3 ENG3 GRATE SECTION END VIEW (TYP)
NTS



4 ENG3 GRATE SECTION SIDE VIEW (TYP)
NTS

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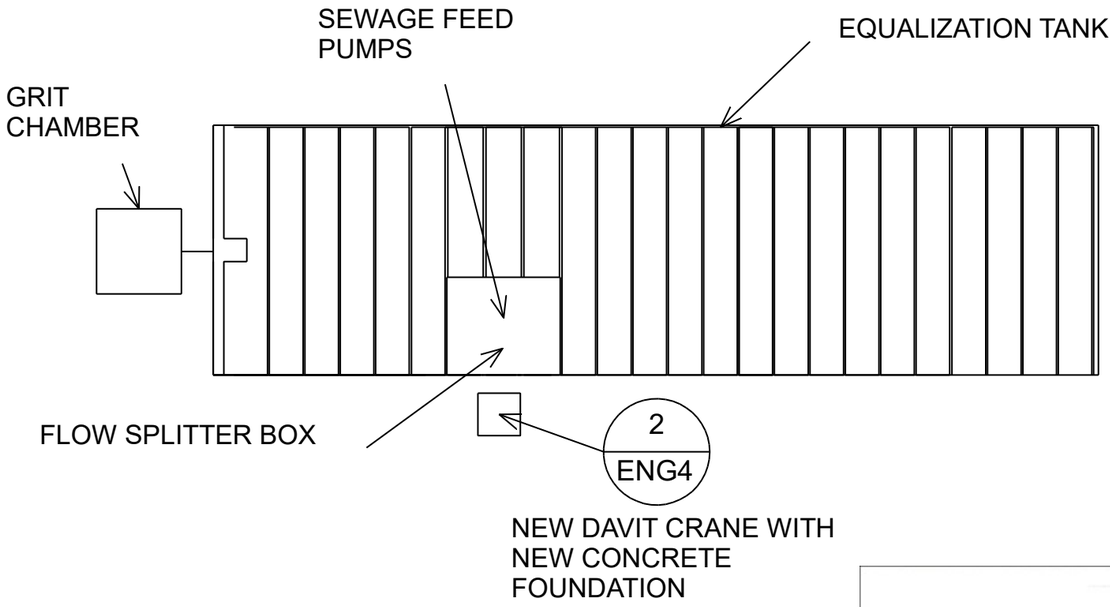
EQ TANK GRATE AND PUMP LIFT REPLACEMENT

Sheet Title: EQUALIZATION TANK GRATING REPLACEMENT

Revisions:

No.	Date:	Description:
1	03-07-24	PERMIT

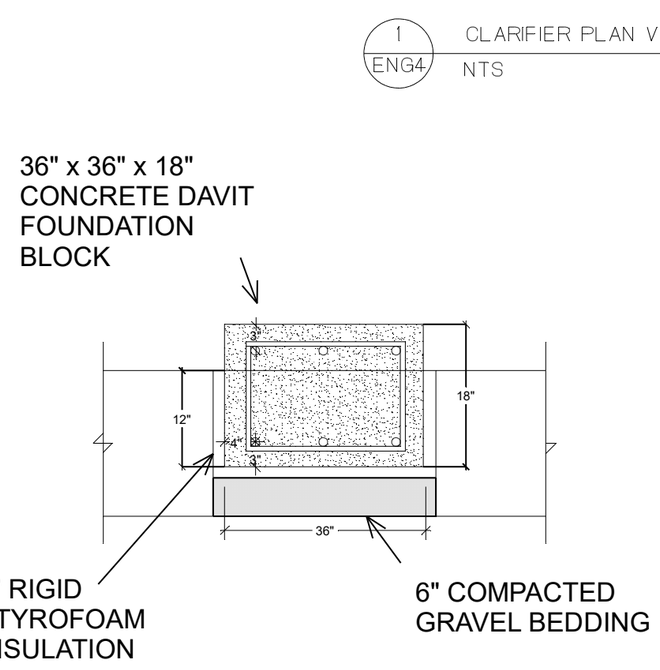
Graphic Scale	NTS
Project Number	12B015
Set Type	
Date Issued	03-07-24
Sheet Number	ENG3



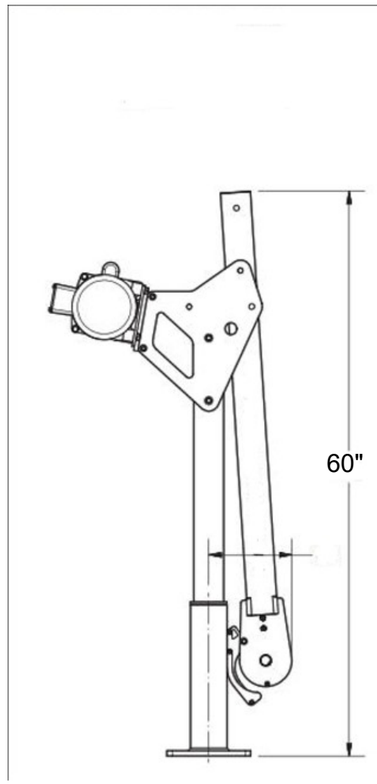
1 ENG4 CLARIFIER PLAN VIEW
NTS

DAVIT CRANE PUMP LIFT GENERAL REQUIREMENTS (SEE SPECIFICATION FOR MORE DETAILS):

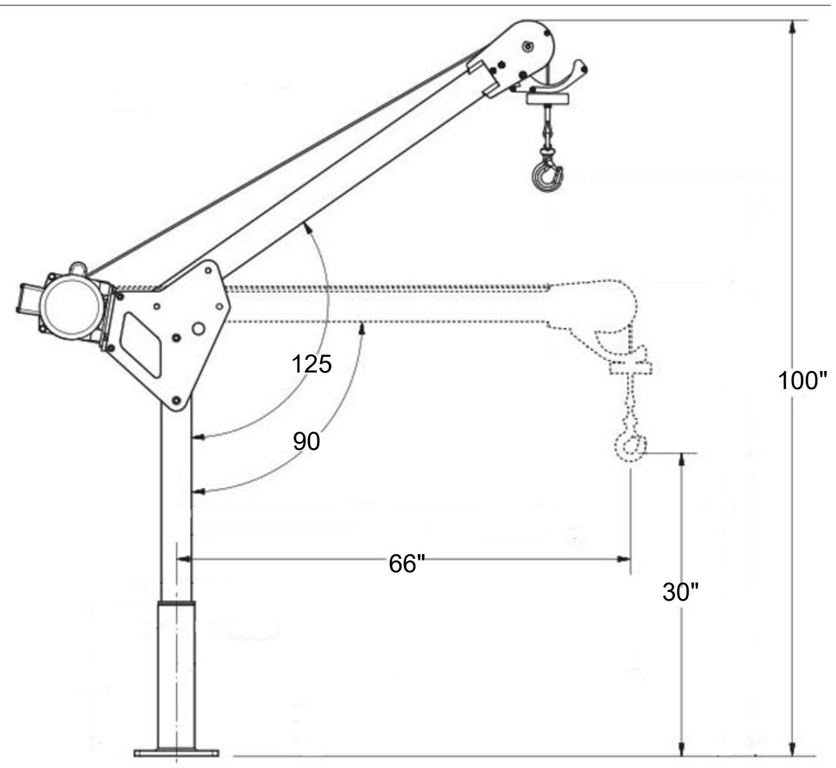
1. FIXED DAVIT CRANE
2. MINIMUM CAPACITY OF 650 LBS WHEN BOOM FULLY EXTENDED
3. HOOK REACH: UP TO 66”
4. DESIGNED TO LIFT, LOWER, AND ROTATE LOADS 360 DEGREES
5. MANUAL AND OPTIONAL POWER OPERATION
6. TELESCOPIC BOOM WITH ADJUSTABLE ANGLES
7. ROTATION LOCK
8. MAINTAINS LOAD POSITION FOR EASIER UNLOADING
9. HEAVY-DUTY, WELDED STRUCTURAL STEEL PIPE AND TUBING LIMIT DEFLECTION AND 10. MEET/EXCEED ASTM STANDARDS
11. CORROSION-RESISTANT, POWDER-COATED FRAME, MAST CAP, AND STAINLESS-STEEL 12. FASTENERS RESIST THE ELEMENTS FOR LONG SERVICE LIFE
13. GALVANIZED, EPOXY, AND 304 OR 316 STAINLESS STEEL FNISHES ARE AVAILABLE FOR 14. CORROSIVE ENVIRONMENTS



2 ENG4 DAVIT CRANE FOUNDATION SECTION VIEW
NTS



3 ENG4 DAVIT CRANE SIDE VIEW - RETRACTED
NTS



4 ENG4 DAVIT CRANE SIDE VIEW - EXTENDED
NTS

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CLARIFIER GRATE AND PUMP LIFT REPLACEMENT

Sheet Title: DAVIT CRANE PUMP LIFT

Revisions:

No.	Date:	Description:
1	03-07-24	PERMIT

Graphic Scale	NTS
Project Number	12B015
Set Type	
Date Issued	03-07-24
Sheet Number	ENG4