## **ADDENDUM No. 1**

## RFP No. 25-38

## **Screw Pump Replacement Project**

Due (revised): October 8, 2025 at 11:00 A.M. (local time)

The information contained herein shall take precedence over the original documents and all previous addenda (if any) and is appended thereto. **This Addendum includes fifteen (15) pages.** 

The Proposer is to acknowledge receipt of this Addendum No. 1 by signing and submitting Attachment B, including all attachments in its Proposal by so indicating in the proposal that the addendum has been received. Proposals submitted without acknowledgement of receipt of this addendum may be considered non-conforming.

The following forms provided within the RFP Document should be included in submitted proposal:

- Attachment B General Declarations
- Attachment D Prevailing Wage Declaration of Compliance
- Attachment E Living Wage Declaration of Compliance
- Attachment G Vendor Conflict of Interest Disclosure Form
- Attachment H Non-Discrimination Declaration of Compliance

<u>Proposals that fail to provide these completed forms listed above upon proposal opening</u> may be rejected as non-responsive and may not be considered for award.

#### I. CORRECTIONS/ADDITIONS/DELETIONS

Changes to the RFP documents which are outlined below are referenced to a page or Section in which they appear conspicuously. Offerors are to take note in its review of the documents and include these changes as they may affect work or details in other areas not specifically referenced here.

Section/Page(s) Change

**All mentions** As provided in RFP No. 25-38 Document:

Proposal Due Date: September 30, 2025 at 2:00 p.m.

As updated herein:

Proposal Due Date: October 8, 2025 at 11:00 a.m.

Comment: The Due Date and Time for responses to this RFP has been extended to **October 8**, **2025 at 11:00 a.m**. (local time). Note that all other dates are unchanged.

Pre-proposal Sign-in Sheet Attached Sign-in Sheet has been provided

Specification Section 01600 (Not Issued)

Page 01600 / 6 In Paragraph 2.3, Item A, replace "as shown on G-02." with "as

required."

Specification Section 01950 (Not Issued)

Page 01950 / 2 Remove the contingency from the mobilization partial payment

schedule and related footnote.

Page 01950 / 6 Remove Paragraph 3.3 entirely.

Specification Section 11310 (Not Issued)

Page 11310 / 6 Remove Item A.2 from Paragraph 1.6.

Page 11310 / 6 In Paragraph 1.6, Item B, replace "V-belts and sheaves" with "direct

drives."

Page 11310 / 6 Replace Paragraph 2.9 "V-BELT" with "DIRECT." Replace Item A

in this paragraph with the following: "Connect between the drive motor and the input shaft of the speed reducer with a direct drive."

Remove Item C from this paragraph.

Page 11310 / 6 In Paragraph 2.10, Item C.12, replace "Reliance" with "TECO-

Westinghouse" as a specified manufacturer.

Page 11310 / 6 In Paragraph 2.10, Item C.12, add "WEG" as a specified

manufacturer.

Page 11310 / 7 In Paragraph 2.14, Item C, remove "One set of matched V-belts"

from the spare parts list.

Specification Section 16482 (Issued)

Entire Specification issued with this Addendum No. 1.

**Drawing P-0** (Not Issued)

Replace Concrete Trough Note CT-3 with the following: "New trough grout shall be installed and screeded with the screw pump per the manufacturer's recommendations. Supply and utilize a temporary screeding motor or a temporary VFD to slow the drive motors while screeding in accordance with manufacturer's installation requirements. Grout and bonding agent is specified in Section 03310."

Replace Pump Guard Note PG-1 with the following: "Existing pump guards shall be removed and replaced for all existing screw pumps, excluding Pump Nos. 4 and 5. Contractor shall supply pump guards from manufacturer supplying new screw pumps for Pump Nos. 1, 2, 3, 6, 7, and 8."

Replace the first sentence in Pump Guard Note PG-2 with the following: "Detail C on this sheet is provided as a reference only for the guards already installed at Pump Nos. 4 and 5."

Delete Scope of Work Note SW-2.

On the Typ. Conc Trough Detail B, change the callout such that removing and replacing side profile guards is typical of six (6) pumps instead of eight (8) pumps.

<u>Drawing P-1 (Not Issued)</u>
Delete callout; "Contractor shall remove existing and install new screw nump quards at nump Nos. 4 and 5. See Details R and C on

screw pump guards at pump Nos. 4 and 5. See Details B and C on

P-0." (Owner has already installed these guards and this work item is therefore eliminated from the project.)

## **Drawing E-3** (Not Issued)

Remove "Lift Pump Running" wiring, indicator light, contact, and SCADA connection from "Screw Pump No. 1 Wiring Diagram."

Add Note 1 to this Drawing: "Greaser panels contain a secondary power feed for SCADA interconnection. Disconnect SCADA power connection to panel while routing new main power wiring from LP-RLS and reconnect SCADA power connection to panel after main power feed is connected."

Add Note 2 to this Drawing: "Work shown on this sheet includes the removal and replacement of existing drives and motors for Pump Nos. 1, 2, and 3. Should the Owner select to reuse the existing motors and drives for Pump Nos. 1, 2, and 3, per the bid form, the scope of work shall be reduced accordingly. See Drawing P-0, scope of work notes. See additional demo notes on Drawing P-0."

#### **II. QUESTIONS AND ANSWERS**

The following Questions have been received by the City. Responses are being provided in accordance with the terms of the RFP. Respondents are directed to review the following questions and City responses to determine any impact to the proposed work or details in other areas not specifically referenced here.

Question 1: See Drawing P-2 and P-6 and Specification 11310 Paragraph 2.9. The Specification calls for V-belt drives but it is apparent that the existing screw pumps are equipped with motors directly coupled to the gear reducers. Is the intent to replace all the direct drives with V-belts?

Answer 1: Direct drives are desired, see revised Specification 11310.

Question 2: See Specification 11310, Paragraph 1.6, Item A.1. If the intent is to evaluate reusing the existing drives for the Raw Sewage screws, please provide O&M drawings, make/model information, and photographs of the gear reducer nameplates for integration purposes.

Answer 2: See Addendum No. 1, Attachment A for available record information.

Question 3: What is the proposed method for grouting the Raw Sewage Lift Station screws if the existing direct drives are to be reused?

Answer 3: See revised Concrete Trough Note CT-3 on Drawing P-0.

Question 4: See Specification 11310, Paragraph 2.10, Item C.12. Confirm an equal manufacturer will be accepted.

Answer 4: Yes, see revised Specification Section 11310.

Question 5: Is the lower bearing plate new as drawn in Detail A on Drawing P-0?

Answer 5: Yes, refer to the Lower Bearing Notes on Drawing P-0.

Question 6: Note P-4 on Drawing P-0 indicates; "The screw pump shaft couplings and motor-gear reducer couplings shall be performed by millwrights." Will consideration be given to waive/remove this restriction and allow usage of ironworkers for this project?

Answer 6: No, work using millwrights shall be assumed for the price to be included in the proposal.

Question 7: Do the screw pump motors need to be Class 1 – Div 1 rated?

Answer 7: No.

Question 8: Is flow bypassing required?

Answer 8: Refer to Specification 01950. The Contractor shall plan for bypass pumping.

Question 9: What is the estimated Notice to Proceed date?

Answer 9: City Council approval is anticipated for November. Execution of the Contract

followed by issuance of the Notice to Proceed will occur after City Council

approval.

Question 10: Will the completion date be extended?

Answer 10: The specified completion date considers lead times provided by the listed screw

pump manufacturers. The City will consider requests for Contract extensions during construction if extenuating circumstances arise and are well documented

by the contractor.

Question 11: Will the City pay for materials and equipment which are delivered and stored on

site, or will payment only be upon installation?

Answer 11: Refer to Section 16 Progress Payments of the Contract's front ends.

Question 12: Can the painting scope of the project be clarified?

Answer 12: Painting is required if recoating existing slide gates are selected for this project.

Painting is also required for the touch up of existing damaged painted surfaces

during construction.

Question 13: What are the dimensions of the operating deck and the invert of the influent

chamber to the retention basin screw pumps?

Answer 13: See Drawing P-4 for deck dimensions and Drawing P-7 for invert elevations.

Question 14: What are invert elevations of gates?

Answer 14: For the Raw Sewage Lift Station gates, see Drawing P-2, Section 1. For Retention

Basin gates, see Drawing P-7, Section B and assume all five gates are similar for

bidding purposes.

Question 15: No electrical is shown anywhere in the drawing packet for the Influent Well Gates,

but your pictures seem to show an electric actuator. Please clarify the scope of

work.

Answer 15: Refer to the gate schedule on Drawing P-8. All new gates would receive a

handwheel or crank operator. Also refer to Specification 02050, Paragraph 3.3.A, Item 5. Demolishing slide gates would require demolition of incidental items such

as actuators and associated wiring.

Question 16: No detail is shown for the MCC associated with Screw Pumps-1, 2, and 3. There

is also no callout in the Specs. Our Vendors will need the make & model of the

existing MCC to quote this.

Answer 16: Refer to issued Specification Section 16482 issued with this Addendum No. 1. It is

the Contractor's responsibility to coordinate the replacement soft starter with the

existing MCC.

Question 17: Please verify the Nameplate / Power Requirements for the Screw Pump Motors-1,

2, and 3. Again, the vendors will need this to quote the replacement of the Soft

Starters and size them correctly.

Answer 17: See Addendum No. 1, Attachment A for available record information

Question 18: Some of the Screw Pumps call out for the complete removal of the Grease Pumps,

associated conduits, and circuits. Do the new Screw Pumps not require any

Grease Pumps for the bearings?

Answer 18: That is correct; the new pumps do not require grease pumps.

Offerors are responsible for any conclusions that they may draw from the information contained in the Addendum.

## **CITY OF ANN ARBOR WRRF**

# September 4, 2025

# **Screw Pump Replacement Project**

# RFP# 25-38

NAME	COMPANY	PHONE	EMAIL
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Adam Forth	RAM Coust. Sucs.	(734) 956-8657	ackorth & Rom Services. com
ERIC SCHIEBOLD	RAM Const. Sucs. ENVIRONIMENTAL SALES, INC. EFIC INTERNATIONAL	12481 761-7195	ESCHIEBULD Q AOL, COM
TOM THEISEN	MONROE PLUMBING + HEETING		TOMT @ MOINROF PLUMBING, CON
BEYCE EUERTON	TC & Wichisau	(817 ) 740 - 9887	BYO QUE OF MICHIGAN. COM
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## **CITY OF ANN ARBOR WRRF**

# September 4, 2025

# **Screw Pump Replacement Project**

## RFP# 25-38

NAME	COMPANY	PHONE	EMAIL
Jonathan Vogel	Titus Welding	(248) 476 9366	Jonathan @ titus welding on Contr
GLEG O'NEAL	HEANEY G.C. (CONTRACTUL)	(313) 574-1478	GREG & HEINEY GENERAL CONTRACTING, COM
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#### **SECTION 16482**

#### MOTOR CONTROL CENTERS

#### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

A. Modifications to existing motor control centers.

#### 1.2 RELATED SECTIONS

- A. Section 16010 General Electrical, Instrument, and Control Requirements.
- B. Section 16050 Basic Electrical Materials and Methods.
- C. Section 16195 Electrical Identification: Engraved nameplates.
- D. Section 16960 Electrical Testing and Equipment.
- E. Section 16970 Calibration and Start-up of Systems.
- F. Section 16980 Demonstration and Training.

### 1.3 REFERENCES

- A. NFPA 70 National Electrical Code.
- B. UL 198C High-Interrupting Capacity Fuses; Current Limiting Type.
- C. UL 198E Class R Fuses.
- D. NECA 402-2014 Motor Control Centers (ANSI).
- E. NEMA AB 1 Molded Case Circuit Breakers.
- F. NEMA ICS 2 Industrial Control Devices, Controllers, and Assemblies.
- G. NEMA ICS 2.3 Instructions for the Handling, Installation, Operation, and Maintenance of Motor Control Centers.

### 1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Shop Drawings: Include front and side views of enclosures with overall dimensions shown; conduit entrance locations and requirements; nameplate legends; electrical characteristics including voltage, frame size and trip ratings, withstand ratings, and time/current curves of all equipment and components.

- C. Wiring diagrams shall be provided as specified under Section 16010.
- D. Test Reports: Indicate field test and inspection procedures and test results.
- E. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by Product testing agency specified under Regulatory Requirements. Include instructions for storage, handling, protection, examination, preparation, installation, and starting of Product.

### 1.5 OPERATION AND MAINTENANCE DATA

A. Submit under provisions of Section 01700.

## 1.6 QUALITY ASSURANCE

A. Perform Work in accordance with NEMA ICS 2.3.

## 1.7 REGULATORY REQUIREMENTS

- A. Conform to requirements of NFPA 70.
- B. Furnish products listed and classified by Underwriters Laboratories, Inc. or other testing firm acceptable to authority having jurisdiction, as suitable for purpose specified and shown.

### 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect, and handle products to site under provisions of Section 01600.
- B. Deliver in shipping splits, individually wrapped for protection, and mounted on shipping skids.
- C. Store in a clean, dry space. Maintain factory wrapping or provide an additional heavy canvas or heavy plastic cover to protect units from dirt, water, construction debris, and traffic.
- D. Handle in accordance with NEMA ICS 2.3. Lift only with lugs provided for the purpose. Handle carefully to avoid damage to motor control center components, enclosure, and finish.

## 1.9 ENVIRONMENTAL REQUIREMENTS

A. Conform to NEMA ICS 2 service conditions during and after installation of motor control centers.

#### 1.10 FIELD MEASUREMENTS

A. Verify that field measurements are as indicated on the Drawings.

#### **PART 2 PRODUCTS**

### 2.1 MODIFICATIONS TO EXISTING MOTOR CONTROL CENTERS

- A. The existing motor control centers shall be modified by the addition of new devices and by wiring revisions as shown on the Drawings. Coordination of the existing MCC and new components is the Contractor's responsibility.
- B. Solid-State Reduced-Voltage Motor Starter Units:
  - 1. Combination disconnect/soft starter, MCC-style unit. Unit shall be Square D by Schneider Electric, to coordinate with the existing MCC.
  - 2. Branch Circuit Protection: Circuit breaker with external operator, sized in accordance with NFPA 70.
  - 3. Construction: Modular; units of same size interchangeable without modifications to MCC structure.
  - 4. Isolate conducting parts on line side of unit disconnect to prevent accidental contact.
  - 5. Bus Connections: As required per existing MCC.
  - 6. Provide disconnect operator.
  - 7. Provide door-mounted digital keypad for adjusting soft start parameters and viewing motor, soft start, and fault status without opening enclosure door.
  - 8. Provide shorting contactor in each unit to reduce temperature rise, rated to carry motor full-load current during steady state after full voltage has been applied to reduce current-carrying duty of SCRs.
  - 9. Electrical Ratings:
    - a. Input Voltage: Between plus/minus 10 percent of nominal voltage rating.
    - b. Input Voltage Frequency Range: Plus/minus 5 percent.
    - c. Capable of supplying 350 percent of rated full-load current for 20 seconds at maximum ambient temperature.
    - d. Power and Control Devices: Standard duty, capable of three evenly spaced starts per hour at 300 percent of full-rated current for 20 seconds per start without tripping
    - e. Silicon-Controlled Rectifiers (SCRs): Minimum peak inverse voltage (PIV) rating of 1,800 VAC; lower rated SCRs protected by metal oxide varistors (MOVs) are not acceptable.

### 10. Protection:

- a. Provide line and motor phase loss, phase reversal, underload, stall, and jam protection.
- b. Integral protective features to remain active when shorting contactor is used to bypass SCRs during steady state operation.
- c. Pass UL 845 short circuit testing criteria at minimum of 100 kA short circuit current.
- d. Display diagnostic faults and soft start status on door-mounted keypad after fault condition.
- e. Provide automatic motor protection from solid state component failure by one of the following:
  - 1) Trip disconnect via shunt trip coil in event of soft-start fault condition including, but not limited to, shorted SCR.
  - 2) Open isolation contactor when motor is stopped or when controller detects fault condition including, but not limited to, shorted SCR.
- 11. Adjustments and Configurations:

- a. Programming/configuration devices, display units, and field control wiring terminals to be accessible from front of control module. Exposure to control circuit boards or electrical power devices during routine adjustments is not acceptable.
- b. Provide digital indication of:
  - 1) Soft Starter Status: Ready, starting/stopping, and run.
  - 2) Motor Status: Current, torque, thermal state, power factor, operating time, and power in kW.
  - 3) Fault Status: Motor thermal overload, soft starter thermal fault, loss of line or motor phase, line frequency fault, low line voltage fault, locked rotor fault, motor underload, maximum start time exceeded, external fault, serial communication fault, line phase reversal fault, and motor overcurrent fault.
- c. Factory Presets:
  - 1) Linear/torque-controlled acceleration ramp of 10 seconds.
  - 2) Current limitation to 350 percent of motor full-load current rating.
  - 3) Class 10 overload protection.
  - 4) Motor currents for standard horsepower motors in accordance with NFPA 70.
- d. Operating Parameters Configured via Digital Keypad:
  - 1) Motor Full-Load Amperes: Adjustable from 40 to 100 percent of controller rating.
  - 2) Current Limitation on Starting: Adjustable from 200 to 700 percent of motor current rating, not to exceed 350 percent of soft start rating.
  - 3) Voltage Ramp: Adjustable from 1 to 60 seconds.
  - 4) Initial Voltage: Adjustable from 10 to 50 percent of nominal motor torque.
  - 5) Maximum Start Time: Adjustable from 1 to 250 seconds.
  - 6) Voltage Boost Duration: Adjustable from 0.1 to 1 second.
  - 7) Motor Stop: Selectable freewheel or soft stop.
  - 8) Linear/Torque-Controlled Deceleration Ramp Time: Adjustable from 1 to 60 seconds.
  - 9) Threshold to Change to Freewheel Following Soft Stop: Adjustable from 0 to 10 percent of nominal motor torque.
  - 10) Motor Thermal Overload Protection: Selectable Class 10, Class 20, or Class 30.
- e. Controller Parameters Configured via Digital Keypad:
  - 1) Assignment of soft start inputs and outputs.
  - 2) Activation of phase reversal protection.
  - 3) Reset of motor thermal state.
  - 4) Return to factory parameter settings.
  - 5) Activation of self-test mode.
  - 6) Indication of elapsed time in hours of starting, running, and stopping.
- f. Relays and I/O Functions:
  - 1) Refer to the Drawings for details.
- 12. Controls:
  - a. Operate peripheral control circuitry from control power transformer provided with unit.
  - b. Door-Mounted Operator Devices:
    - 1) As shown on the Drawings.

- C. Devices on the front of unit shall be mounted as part of the removable unit.
- D. Nameplates shall be installed on the door of each unit and shall be attached by means of corrosion resistant screws. The plates shall be 1-1/4" high by 3-1/2" wide (minimum), white laminated plastic with engraved black letters. Letters shall be 1/8" high (minimum), block type.
- E. All equipment devices mounted within the units shall be identified as to function and schematic identification abbreviation. Identification plates shall be 1" by 3" engraved white lamicoid with black letters, attached with corrosion resistant screws.
- F. The number and size of starters, contactors, and branch feeder circuit breakers added to each motor control center shall be as indicated on the Drawings and shall fit into the space shown.
- G. Each added or modified starter, contactor, and/or circuit breaker shall have a reduced size, approved, "as-built," schematic wiring diagram, in ladder diagram format, inside each unit, indicating all internal components and wiring terminal strip connections, all 480 volt power wiring, all 120 volt control and power wiring, all instrument wiring, and all external components and wiring (shown dotted). Wiring diagrams shall have a plasticized coating to protect them from dirt, heat, and normal wear and tear.
- H. Terminal blocks shall be installed, where required, to provide terminal block connections for all wiring to devices external to the motor control centers. All power feeder terminals or lugs shall be 75°C rated for copper conductors. Terminal blocks for control and alarm connections shall match the existing terminal blocks or shall be Allen-Bradley Types CA-1, CA-3, or CD-8; Square D Co.; or equal.
- I. Wire for control and alarm wiring revisions within the motor control centers shall be No. 14 AWG minimum, Type MTW, 60°C. All wiring installed within a motor control center, which is powered from sources external to the MCC, shall be color coded yellow.
- J. All door mounted control devices shall be furnished with anti-rotation keyways or other device to prevent slewing after mounting.
- K. Existing motor control centers are Square D by Schneider Electric Model 6.

## **PART 3 EXECUTION**

## 3.1 EXAMINATION

- A. Verify conditions under the provisions of Section 01039.
- B. Verify that area is suitable for motor control center installation.

### 3.2 INSTALLATION

A. Install motor control centers components in accordance with manufacturer's instructions and per NECA 402-2014 Standards.

- B. Tighten accessible bus connections and mechanical fasteners after placing motor control center.
- C. Select and install heater elements or set solid state overload relays in motor starters to match installed motor characteristics. The Contractor shall assume full responsibility for the selection and installation of the proper rating of thermal heater elements or the settings on solid state overload relays in all motor starters to which the Contractor makes the feeder connections and/or completely wires.
- D. Provide labels and engraved plastic nameplates under the provisions of Section 16195.
- E. Motor Data: Provide neatly typed label inside each motor starter door identifying motor served, nameplate horsepower, full load amperes, code letter, service factor, and voltage/phase rating.

## 3.3 FIELD QUALITY CONTROL

- A. Field inspection and testing shall be performed under provisions of Sections 01400 and 16960.
- B. Inspect and test motor control center and each added or modified controller to NEMA ICS 2.

**END OF SECTION** 



