



August 18, 2026

**CITY OF RICHMOND
WATER TREATMENT PLANT IMPROVEMENTS**

Addendum No. 1

Attention is called to the following modifications to the referenced Plans, Specification and Contract Documents for the above referenced project. The City of Richmond will receive sealed Bids for the Water Treatment Plant Improvements Project at Richmond City Hall, located at 600 Morton Street, Richmond, Texas 77469, until **2:00 p.m.**, local time on **Tuesday, August 25, 2026**, at which time the sealed Bids received will be publicly opened and read. We hereby modify as follows:

BID DOCUMENTS

1. **REPLACE** Bid Form in its entirety with the **ATTACHED** Bid Form.
2. **REPLACE** Specification 01010 – Summary of Work in its entirety with the **ATTACHED** Specification 01010 – Summary of Work.
3. **REPLACE** Specification 13122 – Fiber Reinforced Plastic Building in its entirety with the **ATTACHED** Specification 13122 – Fiber Reinforced Plastic Building.
4. **ADD** Specification 11261 – Chemical Feed Pumps to TECHNICAL SPECIFICATIONS.
5. **ADD** Richmond SWTP – EI2 Gas CI2 Scope to APPENDIX.

DRAWINGS

REPLACE Sheet 1 with **ATTACHED** Sheet 1.

REPLACE Sheet 11 with **ATTACHED** Sheet 11.

REPLACE Sheet 16 with **ATTACHED** Sheet 16.

REPLACE Sheet 17 with **ATTACHED** Sheet 17.

This addendum consists of thirty-seven (37) pages and becomes a part of the referenced plans, specifications and contract documents and shall be acknowledged by the proposer and attached to the sealed proposal submitted.

By: 
Michael J. Hansen, P.E. #159537
Project Manager



8/18/2026

III
BID

Bid of _____, of the County of _____, and State of _____, an individual proprietorship, a corporation or limited liability corporation organized and existing under the laws of the State of Texas, or a partnership or limited partnership consisting of _____.

To: City of Richmond
Attention: Mayor Rebecca K. Haas
c/o Mr. Howard Christian
Assistant City Manager
600 Morton Street
Richmond, Texas 77469

Undersigned Bidder represents and warrants as follows:

1. That bidder has carefully examined and understands the INSTRUCTIONS TO BIDDERS, this BID, the AGREEMENT, its GENERAL CONDITIONS, SPECIAL CONDITIONS, and SPECIAL PROVISIONS, the TECHNICAL SPECIFICATIONS, and the PLANS for the Work hereinabove described and referred to in the INVITATION TO BIDDERS, hereafter called "BIDDING DOCUMENTS," requesting BIDS on said Work, dated _____, 20____, and also that Bidder has followed the instructions on bidding with respect to any apparent conflicts in the BIDDING DOCUMENTS and agrees that the BIDDING DOCUMENTS are sufficient in design and in detail for the construction of the Work described therein; and that Bidder's BID is correct and constitutes an offer to perform each element of the Work under the terms and conditions of the BIDDING DOCUMENTS in consideration of the prices bid for each element of the Work, which BID upon acceptance by the OWNER will form a legally binding contract between the parties; and
2. That Bidder has carefully examined the location where the Work will be performed, and has carefully considered the availability of labor, equipment and materials, the laws and regulations which apply to the Work and the methods, manner and means whereby Bidder will carry out the Work, and has otherwise followed carefully the instructions on bidding furnished to the Bidder in connection with the solicitation of BIDS; that Bidder's authorized representative attended the pre-bid conference, if mandatory; and that Bidder has received and understood all addenda to the BIDDING DOCUMENTS prior to the submission of its BID; and
3. That Bidder is able to furnish, if awarded a contract, PERFORMANCE BOND, MAINTENANCE BOND, and PAYMENT BOND as required by the BIDDING DOCUMENTS and a Certificate of Insurance evidencing the coverages required in the BIDDING DOCUMENTS which names the OWNER and the ENGINEER as Additional Insureds where required; and
4. That Bidder is duly qualified to carry on its business in Texas; possesses or has the ability to possess all licenses, permits, and certificates of authority necessary to commence and to complete the Work in accordance with the BIDDING DOCUMENTS; is fully qualified and has experience in performing Work of the same type as the Work covered by the BIDDING DOCUMENTS; and will provide all necessary labor, superintendence, machinery, equipment, tools, materials, services, and other means of construction to complete all Work upon which it BIDS and complete the said Work within the time stated and for maintaining same as required for the following prices:

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CITY PROJECT NO. SW2503
FORT BEND COUNTY, TEXAS

Item No.	Item Description	Unit	Est. Quan.	Unit Price	Total Amount
I. BASE BID					
1	MOBILIZATION, BONDS AND INSURANCE (NOT TO EXCEED 5 PERCENT OF BID, FOR THE SUM OF _____ DOLLARS AND _____ CENTS PER LUMP SUM.	LS	1	\$ _____	\$ _____
2	PREPARE, OBTAIN APPLICABLE APPROVAL(S) FOR, AND IMPLEMENT TRENCH AND EXCAVATION SAFETY PLAN, AND ALL RELATED APPURTENANCES, AS SHOWN AND AS SPECIFIED COMPLETE AND IN PLACE, FOR _____ DOLLARS AND _____ CENTS PER LINEAR FOOT.	LF	50	\$ _____	\$ _____
3	REMOVAL OF EXISTING SODIUM HYDROXIDE BULK STORAGE TANK AND INSTALLATION OF NEW SODIUM HYDROXIDE BULK STORAGE TANK, INCLUDING ALL APPURTENANCES, COMPLETE AND IN PLACE, FOR _____ DOLLARS AND _____ CENTS PER LUMP SUM.	LS	1	\$ _____	\$ _____
4	RETROFIT OF EXISTING CHLORINE DIOXIDE GENERATOR AS SHOWN AND SPECIFIED, COMPLETE AND IN PLACE PER EI ² QUOTE, FOR <u>ONE HUNDRED THIRTY-NINE THOUSAND TWENTY DOLLARS AND NO CENTS PER LUMP SUM.</u>	LS	1	<u>\$139,020.00</u>	<u>\$139,200.00</u>
5	CONSTRUCT CONCRETE SLAB-ON-GRADE FOR CHLORINE BUILDING, INCLUDING SITE PREPARATION, EXCAVATION FOR AND INSTALLATION OF ELECTRICAL AND CHEMICAL PIPING AND OFF-LOADING, PLACEMENT AND SECURING OF FRP BUILDING AS SHOWN AND SPECIFIED COMPLETE AND IN PLACE, FOR _____ DOLLARS AND _____ CENTS PER LUMP SUM.	LS	1	\$ _____	\$ _____

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6	REPLACEMENT OF EXISTING BUTTERFLY VALVES INSIDE MICROFILTRATION BUILDING, COMPLETE AND IN PLACE, FOR _____ DOLLARS AND _____ CENTS PER LUMP SUM.	LS	1	\$	\$
7	ERECTION OF FRP PUMP BUILDING AND RELOCATION OF SODIUM PERMANGANTE DOSING PUMPS AS SHOWN AND SPECIFIED, COMPLETE AND IN PLACE, FOR _____ DOLLARS AND _____ CENTS PER LUMP SUM.	LS	1	\$	\$
8	REPLACEMENT OF LIFT STATION CONTROL PANEL AS SHOWN AND AS SPECIFIED, COMPLETE AND IN PLACE, FOR _____ DOLLARS AND _____ CENTS PER LUMP SUM.	LS	1	\$	\$
9	REPLACEMENT OF MF CLEAN-IN-PLACE DIAPHRAGM PUMPS WITH NEW PERISTALTIC PUMPS, AS SHOWN AND AS SPECIFIED, COMPLETE AND IN PLACE, FOR _____ DOLLARS AND _____ CENTS PER LUMP SUM.	LS	1	\$	\$
10	RACK PIPING UPGRADE ON TWO (2) MF FEED SKIDS AS SHOWN AND AS SPECIFIED, COMPLETE AND IN PLACE, FOR _____ DOLLARS AND _____ CENTS PER LUMP SUM.	LS	1	\$	\$
11	PRESSURE WASHING OF EXISTING 1 MG GROUND STORAGE TANK AS SHOWN AND SPECIFIED, COMPLETE AND IN PLACE, FOR _____ DOLLARS AND _____ CENTS PER LUMP SUM.	LS	1	\$	\$
12	INSTALLATION OF PLATE SETTLER COVERS AT PRETREATMENT BASIN, AS SHOWN AND AS SPECIFIED PER MRI QUOTE, FOR <u>TWELVE THOUSAND FIVE HUNDRED</u> DOLLARS AND <u>NO</u> CENTS PER LUMP SUM.	LS	1	\$12,500.00	\$12,500.00

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CITY OF RICHMOND WATER TREATMENT PLANT IMPROVEMENTS CITY PROJECT NO. SW2503 FORT BEND COUNTY, TEXAS					
Item No.	Item Description	Unit	Est. Quan.	Unit Price	Total Amount
13	HVAC IMPROVEMENTS AS SHOWN AND AS SPECIFIED, COMPLETE AND IN PLACE, FOR _____ DOLLARS AND _____ CENTS PER LUMP SUM.	LS	1	\$	\$
14	CONCRETE FLOORING REPAIR AND RE-COATING AS SHOWN AND AS SPECIFIED, COMPLETE AND IN PLACE, FOR _____ DOLLARS AND _____ CENTS PER LUMP SUM.	LS	1	\$	\$
15	REPLACEMENT OF ONE (1) AIR COMPRESSOR AS SPECIFIED PER ATLAS COPCO QUOTE FOR <u>THIRTY-EIGHT THOUSAND SEVEN HUNDRED FORTY-TWO</u> DOLLARS AND <u>NO</u> CENTS PER LUMP SUM.	LS	1	<u>\$38,742.00</u>	<u>\$38,742.00</u>
16	AIR FILTRA SCADA UPGRADE PER QUOTE AS SHOWN FOR <u>ONE HUNDRED FIFTY-SEVEN THOUSAND TWO HUNDRED THIRTY-NINE</u> DOLLARS AND <u>SEVEN</u> CENTS PER LUMP SUM.	LS	1	<u>\$157,239.07</u>	<u>\$157,239.07</u>
17	PRIME CONTROLS WORK ASSOCIATED WITH BID ITEM #15 PER QUOTE, AS SHOWN FOR <u>THIRTEEN THOUSAND TWO HUNDRED</u> DOLLARS AND <u>NO</u> CENTS PER LUMP SUM.	LS	1	<u>\$13,200.00</u>	<u>\$13,200.00</u>
18	OWNER'S ALLOWANCE FOR WORK DIRECTED IN WRITING BY THE CITY FOR LEGITIMATE PROJECT RELATED ISSUES AT THE DIRECT COST FOR SUCH WORK. (NOTE: CONTRACTOR'S COST FOR BONDS, INSURANCE, PROFITS, ETC. ASSOCIATED WITH THIS ALLOWANCE SHALL BE INCLUDED IN THE LUMP SUM FOR BID ITEM NO. 1 ABOVE), FOR <u>ONE HUNDRED THOUSAND DOLLARS</u> AND <u>No</u> CENTS PER LUMP SUM.	LS	1	<u>\$100,000.00</u>	<u>\$100,000.00</u>
TOTAL AMOUNT OF BASE BID =					\$
TOTAL NO. OF CALENDAR DAYS TO COMPLETE BASE BID =					
(CONTRACTOR TO SPECIFY)					

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The total amount bid equals the total of the following items, each of which shall be billed separately by CONTRACTOR to OWNER:

- a. \$_____ Incorporated Material
- b. \$_____ Non-Incorporated Material
- c. \$_____ All other costs and fees

The amounts set forth above are current estimates by CONTRACTOR of the amounts that will be determined during the progress of the Work. The separated Final Progress billing from CONTRACTOR to OWNER shall reflect the actual amounts expended for the items enumerated in (a), (b), and (c) above.

The undersigned agrees to begin Work within **10 calendar days** after written notice to proceed has been given by City. The undersigned also agrees to achieve SUBSTANTIAL COMPLETION of the Work within _____ **calendar days** after the date of the written notice to proceed.

Receipt and acknowledgement of the following Addenda to the BIDDING DOCUMENTS are hereby made:

Addendum No. _____ Dated _____
Addendum No. _____ Dated _____
Addendum No. _____ Dated _____

Enclosed with this BID is the required bid security in the form of a _____ in the amount of \$_____. The undersigned agrees that this amount is the measure of liquidated damages which OWNER will sustain by the failure of the undersigned to execute and deliver the above-named Contract and Bonds, and further agrees that this check shall be collected and retained by OWNER as liquidated damages in the event this BID is accepted by OWNER within **90 calendar days** after the date of the opening of BIDS and the undersigned fails to execute the Contract and the required Bonds with OWNER with the conditions hereof, within **10 calendar days** after the date CONTRACT DOCUMENTS are received by the undersigned, otherwise said check shall be returned to the undersigned in accordance with the provisions of the INVITATION TO BIDDERS.

_____ Name of Bidder	ATTEST: _____ (SEAL, if Bidder is a Corporation)
By: _____	Address: _____
Name: _____	City, State: _____
Title: _____	County: _____
Date: _____	Telephone: _____

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Insurance Carrier: _____

State of incorporation: _____

Local agent: _____

Agent's address: _____

Agent's telephone: _____

Surety Company: _____

State of incorporation: _____

Local agent: _____

Agent's address: _____

Agent's telephone: _____

SECTION 01010

SUMMARY OF WORK

PART 1 GENERAL

1.1 SECTION INCLUDES:

A. Contract Description:

1. Various improvements of the Richmond Water Treatment Plant (WTP) for the City of Richmond, Texas. The project consists of the following key components:

- a. Installation of new sodium hydroxide bulk storage tank:

- i. Removal and disposal of existing bulk storage tank as shown on the Drawings in preparation for new bulk tank installation.
- ii. Supply and install one (1) bulk sodium hydroxide storage tank furnished by a single tank manufacturer as shown on the Drawings and as specified.
- iii. Supply and install all necessary piping, appurtenances and supporting electrical, structural, and instrumentation and controls for the bulk storage tank, as shown on the Drawings and as specified.
- iv. Contractor to supply all necessary equipment and appurtenances required for removal of existing bulk storage tank and installation of new bulk storage tank, including temporary storage of stored chemical.

- b. Re-tooling of chlorine dioxide generator:

- i. Existing chlorine dioxide generator to be re-tooled from three-chemical to two-chemical system.
- ii. Supply new prefabricated FRP chlorine gas storage building as shown on the Drawings and as specified in supplied Scope of Supply.
- iii. Supply and install all necessary equipment and appurtenances for safe storage of chlorine gas cylinders and dosing of chlorine gas to chlorine dioxide generator as specified in supplied Scope of Supply.
- iv. Re-tooling to be subcontracted to and performed by Environmental Improvements, Inc. (EI2), per quote dated January 27, 2026, excepting Item 3 (Programmed Allen Bradley Micrologix 1400 PLC w/A.

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Direct HMI) and Item 4 (Optek "C4201/AF26" Optical Real-Time ClO₂ analyzer w sensor), which shall be struck, omitted and/or otherwise eliminated from the proposal and scope of work.

- c. Construct concrete slab on grade and sidewalk for chlorine gas storage building as shown on the Drawings and as specified, including any and all site preparation/grading and survey work. Contractor is to unload, place and anchor FRP building including installation of all necessary piping, appurtenances and supporting electrical work, as shown on the Drawings and as specified.
- d. Replacement of butterfly valves and actuators on valves within the Microfiltration Building:
 - i. Removal and disposal of existing butterfly valves and actuators as shown on the Drawings and as specified.
 - ii. Supply and install new butterfly valves and actuators as shown on the Drawings and as specified, including all necessary hardware and controls.
 - iii. Existing valve positioning sensors to be preserved and re-installed to current location and condition.
- e. Relocation of sodium permanganate dosing pumps:
 - i. Removal and relocation of existing sodium permanganate pumps and associated tubing and/or piping as shown on the Drawings and as specified.
 - ii. Supply and construct one (1) new prefabricated FRP pump shed with slab-on-grade foundation and associated pump shelving, and one (1) Ultra Tech Model 1161 IBC spill containment pallet and as shown on the Drawings and as specified, including all necessary piping, appurtenances and supporting electrical, structural, and instrumentation and controls for the sodium permanganate dosing pumps. Existing sodium permanganate pumps are to be relocated from current location in the WTP to the new sodium permanganate dosing area.
 - iii. Cut in and connect new piping to existing sodium permanganate piping as shown on the Drawings, including any required excavation, draining of existing piping and collection/containment of chemical contained within existing piping and backfilling.

- f. Replacement of lift station control box:
 - i. Removal of existing lift station control box
 - ii. Supply and install replacement lift station control box as shown on the Drawings and as specified, including all necessary appurtenances and supporting electrical, instrumentation and controls.
- g. MF Clean-in-Place (CIP) diaphragm pump to peristaltic pump conversion:
 - i. Removal and disposal of existing air-actuated diaphragm pumps as shown on the Drawings and as specified.
 - ii. Supply and install four (4) new peristaltic pumps, including all necessary piping, appurtenances, and supporting electrical, instrumentation and controls as shown on the Drawings and as specified.
- h. Rack piping upgrade on two (2) MF feed skids:
 - i. Removal and disposal of existing section(s) of PVC piping as shown on the Drawings and as specified.
 - ii. Fabrication and installation of 316 SS, Sch 40 replacement piping including all necessary appurtenances and 316 SS hardware, as shown on the Drawings and as specified.
- i. Pressure washing of existing ground storage tank:
 - i. Pressure wash exterior of existing 1 million-gallon (MG) ground storage tank
 - ii. Contractor or its subcontractor to provide all equipment necessary for access to wash ground storage tank, as well as all safety equipment and training, as required.
 - iii. Owner shall supply water for pressure washing equipment.
- j. Installation of new plate settler covers for raw water sedimentation and process water recovery basins:
 - i. Supply and install new plate settler covers per manufacturer's specification and as shown on the Drawings.
 - ii. Plate settler covers to be purchased from Meurer Research, Inc (MRI) per quote dated June 20, 2025.

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- k. Air ventilation improvements for filter area:
 - i. Remove and dispose of existing windows in filter building as shown on the Drawings and as specified.
 - ii. Install ventilation louvers per manufacturer's specifications.
- l. Concrete flooring repair in chemical dosing area of filter building:
 - i. Clean and prepare damaged concrete areas as shown on the Drawings and as specified.
 - ii. Patch damaged concrete as specified.
 - iii. Apply top coating to repaired area as specified.
- m. Replacement of one (1) air compressor
 - i. Remove and dispose of one (1) existing Atlas Copco air compressor, as directed by Owner
 - ii. Install one (1) Atlas Copco air compressor, per Quote# 6896867, dated April 14, 2026, including all necessary piping, appurtenances, and supporting electrical, instrumentation and controls as required.
- n. AriaFILTRA software upgrade
 - i. Coordinate with Owner and subcontractor(s) to facilitate upgrade of Pall filtration controls from SCADA to VTSCADA, per ariaFILTRA quote dated June 3, 2026 and PRIME Controls quote Q2654001-034 dated May 12, 2026.

1.2 CONTRACTOR USE OF SITE:

A. Access to Sites:

- 1. Coordinate with Owner for procedures to access construction sites.
- 2. Contractor and subcontractors shall follow Owner's designated security and safety procedures.
- 3. Limit use of existing water treatment plant site to allow:
 - a. Owner occupancy.
 - b. Uninterrupted production of potable water.

1.3 CLEAN-UP:

- A. Maintain Project Site in a neat and orderly manner.

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- B. Perform daily clean-up in and around construction zone of dirt, debris, scrap materials, and other disposable items.
- C. Leave streets, driveways, and sidewalks broom-clean or its equivalent at the end of each work day.
- D. Promptly remove barriers, signs, and components of other control systems that are no longer being utilized.
- E. Properly and legally dispose of waste and excess materials at appropriate facilities.

1.4 RESTORATION:

- A. Restore damaged permanent facilities to pre-construction conditions unless replacement or abandonment of facilities is indicated on the Drawings.
- B. Repair/Replace removed or damaged pavement to existing or better condition. Repair/Replace with like materials to match existing style, lines, grades, etc., unless otherwise directed by Engineer.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 13122**FIBERGLASS REINFORCED PLASTIC BUILDING****PART 1 GENERAL****1.1 SECTION INCLUDES:**

- A. Design and installation of a fiberglass-reinforced plastic (FRP) building that shall be built at the Manufacturer's factory (i.e. prefabricated) and shipped intact to the jobsite. The building will house sodium permanganate feed equipment and storage totes.
- B. Electrical wiring and devices, heating and ventilation equipment, and all necessary and desirable accessories, equipment and auxiliaries, whether specifically mentioned in this Section or not, are required for an installation incorporating the highest standards for FRP buildings.
- C. Manufacturer's supervisory services during installation.

1.2 REFERENCES:

- A. ASTM C 518 - Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
- B. ASTM D 256 - Standard Test Method for Determining the Pendulum Impact Resistance of Notched Specimens of Plastics.
- C. ASTM D 638 - Standard Test Methods for Tensile Properties of Plastics.
- D. ASTM D 732 - Standard Test Method for Shear Strength of Plastics by Punch Tool.
- E. ASTM D 790 - Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
- F. ASTM D 792 - Standard Test Method for Specific Gravity (Relative Density) and Density of Plastics by Displacement.
- G. ASTM D 1622 - Standard Test Method for Apparent Density of Rigid Cellular Plastics.
- H. ASTM D 2583 - Standard Test Method for Indentation Hardness of Rigid Plastics By means of a Barcol Impressor.
- I. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

1.3 SYSTEM DESCRIPTION:

- A. One (1) 5-foot wide by 5-foot long by 8-foot wall height prefabricated FRP building, housing two (2) chemical metering pumps:

1. 21.5% sodium permanganate.
 - a. The building shall be mounted on the top of a concrete pad next to the existing raw water electrical building, as shown on the Construction Drawings.

1.4 DESIGN REQUIREMENTS:

- A. The buildings shall be prefabricated to the dimensions shown on the Drawings and specified above.
- B. The building shall be compliant with all applicable regulations, codes, and standards, including but not limited to those listed herein.
- C. The buildings shall be constructed of molded fiberglass for outdoor installation. The buildings shall be prefabricated to make a bonded unit with no external seams or joint covers.
 1. The walls and roof shall be integral. There shall be a three-inch wide mounting flange around the entire lower perimeter.
 2. The floor shall be connected to the walls with a floor gasket to provide water-tight seal to prevent chemical leaking out of the building in the event of a minor spill and to prevent water intrusion.
- D. The walls, floor, roof and door shall be of sandwich construction consisting of fiber glass laminate and rigid polyisocyanurate foam core (R Value = 7.0 / inch).
 1. Wall and roof: 1/8 inch thick laminate and one inch thick core.
 2. Door: 1/4 inch thick laminate and one inch thick core.
- E. The fiberglass laminate shall consist of polyester resin reinforced with a minimum of 25% by weight E-Glass. Laminate properties:
 1. Tensile strength (ASTM D 638): 11,000 PSI.
 2. Flexural strength (ASTM D 790): 18,000 PSI.
 3. Shear strength (ASTM D 732): 12,000 PSI.
 4. Barcol hardness (ASTM D 2583): 40.
 5. Impact (ASTM D 256): 12 ft lbs/per inch.
 6. Density/specific gravity (ASTM D 792): 93.6 PCF/1.5.
 7. Surface burning characteristics (ASTM E 84):
 - a. Flame spread, less than 150; smoke density, less than 1000.
- F. Core:
 1. Rigid closed cell, self extinguishing, polyisocyanurate foam with a density of 2.0 pounds per cubic foot.
 2. Core Properties:
 - a. Thermal conductivity (ASTM C 518): 0.13 BTU Inch/ Hr. SF F.

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- b. Density/specific gravity (ASTM D 1622): 2.0 PCF/ .03.
 - c. Surface burning characteristics (ASTM E 84): Flame spread, 35 and smoke density, 240.
- G. The buildings shall be designed to withstand wind loads of 125 mph and a snow load of 40 psf.
- H. The buildings shall permit movement of components without buckling, failure of joint seals, undue stress on fasteners or other detrimental effectors, when subject to temperature range of 20-105 degrees F.
- I. Size and fabricate wall, floor and roof systems free of distortion or defects detrimental to appearance or performance.

1.5 SUBMITTALS FOR REVIEW:

- A. Refer to Section 01300: Submittals.
- B. Product Data: Provide data on profiles, component dimensions, and fasteners.
- C. Shop Drawings: Indicate assembly dimensions, locations of structural members, connections, attachments, and openings; wall and roof system dimensions, panel layout, general construction details, anchorages and method of anchorage, method of installation; framing anchor bolt settings, sizes, and locations from datum, and foundation loads; indicate welded connections with AWS A2.0 welding symbols; indicate net weld lengths; provide Texas Professional Engineer seal and signature.
- D. Samples: Submit two (2) sample FRP panels to the Owner for each color selected. Each sample panel shall measure 12" x 12" and shall illustrate the color and texture of finish.
- E. The manufacturer shall maintain a continuous quality control program and upon request shall furnish to the engineer certified test results of the physical properties of the FRP components.

PART 2 PRODUCTS

2.1 MANUFACTURERS-BUILDING SYSTEM:

- A. Building dimensions (nominal):
 - 1. 5'-0" width, 5'-0" length, 8'-0" wall height.
- B. Manufacturers:
 - 1. Warminster Fiberglass Company,
 - 2. Associated Fiberglass Enterprises,
 - 3. Shelter Works,
 - 4. Tracom,
 - 5. or Engineer approved equal.

2.2 MATERIALS - FRAMING:

- A. Anchor Bolts: Stainless Steel, epoxy set as designed by the building manufacturer.
- B. Bolts, Nuts, and Washers: Stainless Steel.
- C. Grout: In accordance with Division 03.

2.3 MATERIALS - WALL AND ROOF SYSTEM:

- A. Joint Seal Gaskets: Manufacturer's standard type.
- B. Fasteners: Manufacturer's standard type, finish to match adjacent surfaces when exterior exposed.

2.4 Base Mounting Flange Gasket: 1 inch thick by 4 inches wide closed cell neoprene sponge rubber to provide water-tight seal between the building wall and floor.

2.5 MATERIAL - DOOR AND FRAME:

- A. One-piece, resin transfer molded, industrial quality door.
- B. Single 36" wide door with S.S. Hinges; aluminum panic bar with lever locking handle; door gasket and chain stop.
- C. Door gasket: Neoprene sponge rubber bulb type gasket with flexible lock to retain permanent grip.

2.6 MATERIALS - ELECTRICAL:

- A. All interior conduits shall be Schedule 80 PVC. All liquid tight flexible conduit and fittings shall be non-metallic listed.
- B. All hardware shall be stainless steel. All supports shall be fiberglass or stainless steel.
- C. All outlet boxes shall be cast aluminum.
- D. All wiring shall be 600 volt, THWN copper.
- E. Light switches shall be 20 ampere specification grade. Provide Crouse-Hinds DS 185 cover.
- F. Receptacles shall be 20 ampere specification grade. Provide PVC weather proof cover.

2.7 FINISHES:

- A. Exterior and Interior Surfaces of Wall and Roof FRP shall be factory coated white gel to protect the building from UV lights and weather.
- B. The floor shall a gritted gelcoat surface to prevent slipping.

2.8 ACCESSORIES:

- A. Exhaust Fan, Damper, and Intake Louvre: Corrosion resistant 120 volt air exhaust fan, 100 cfm, thermostatically controlled. Provide NEMA 4 Thermostat. Provide aluminum, motorized damper and intake louver, with 120 volt spring return damper and insect screen. Seal louver and provide flange on discharge side. Open damper when fan operates, close when fan is off. Exhaust fan, damper and intake louver shall be manufactured by Greenheck Fan Corporation or approved equal.
- B. Electric Heater: 1500 watt, 120 volt, single phase stainless steel electric heater with heater thermometer. Heater shall be King Electric, Model PAW1215-SS or approved equal. Provide wall or ceiling mounting bracket. Provide NEMA 4 Thermostat.
- C. Lights: (2) vapor tight LED fixtures with and light switch near door, Lithonia DMW2 L24 4000LM PCL MD MVOLT GZ10 40K 80CRI, or approved equal.
- D. Outdoor Light: (1) LED weatherproof fixture above door, on outside of building, with photoelectric control. Lithonia OLW23, or equal.
- E. Electrical Panels: 120/240 volt distribution panel, single-phase, 3-wire, 125 amp, with 60amp, 2-pole main breaker, minimum 18 circuits. Provide NEMA 4X stainless steel or FRP enclosure. Provide circuit breakers for equipment provided. Locate panel as indicated on the drawings. Provide typed schedule with all loads. Provide the following minimum circuit breakers.
 - 1. 1 - 20 ampere, 1-pole circuit breaker for the interior receptacle circuit.
 - 2. 1-20 ampere, 1 pole circuit breaker for the exterior receptacle
 - 3. 1 - 20 ampere, 1-pole circuit breaker for the lighting circuit.
 - 4. 1 - 20 ampere, 1-pole circuit breaker for the exhaust fan.
 - 5. 1 - 20 ampere, 2-pole circuit breaker for the heater circuit.
 - 6. 1 - 20 ampere, 2-pole circuit breaker for metering pump No. 1.
 - 7. 1 - 20 ampere, 2-pole circuit breaker for metering pump No. 2.
- F. Two (2) 120 volt, 20 ampere specification grade ground fault interrupters (GFI). One on each wall, extra duplex outlets. Provide weather proof cover.
- G. One (1) 120 volt, 20 ampere specification grade ground fault interrupters (GFI). One duplex outlets one exterior. Provide weather proof cover.
- H. Louvers: Provide one (1), 6-inch diameter PVC wall louvers with manually adjustable damper and insect screen.
- I. Lifting Eye Bolts: 3/4 inch stainless steel eye bolts in roof.
- J. All accessories shall be prewired and connected such that only one power supply shall be required.
- K. Weatherproof covers shall be aluminum metallic cover that meets the requirements of NEC article 406.8(B).

ADDENDUM NO. 1

- L. Two (2) 20 ampere specification grade twist lock receptacles, one for each metering pump. Provide matching plugs and weatherproof covers.
- M. One (1) 37" wide wall-mount chemical metering pump skid, including all necessary piping, valves, switches gauges and electrical work necessary to dose sodium permanganate from the metering building to the injection point shown on the drawings and as specified. Metering pump skid manufacturer to be TUFFSkid, or approved equal.
- N. One (1) Ultra Tech Model 1161 IBC spill containment pallet, including all fittings and piping necessary to transfer chemical from stored tote to chemical metering pumps.

PART 3 EXECUTION

3.1 FABRICATION AND SHIPPING:

- A. The buildings shall be entirely prefabricated and shipped intact to the jobsite.
- B. All coatings shall be shop applied. Field coating shall not be allowed without the express written approval of the Engineer. Approval of the shop drawing submittal shall not count as approval for field coating, even if field coating was part of the submittal.
- C. The electrical system, as specified herein and indicated on the drawings, shall be prewired.

3.2 EXAMINATION:

- A. Verify existing conditions before starting work.
- B. The Manufacturer shall verify that the foundation, floor slab, mechanical and electrical utilities, and anchors are positioned correctly.
 - 1. Site preparation shall be performed by Contractor in accordance with Section 02225, Excavation, Backfilling and Compaction.
 - 2. Foundation/slab shall be performed by Contractor in accordance with Section 03100, Concrete Formwork and 03300, Cast-in-Place Concrete.
 - 3. All laboratory and field testing for site preparation and cast-in-place concrete for FRP buildings shall be the sole responsibility of the Contractor.
- C. The Contractor shall erect the completed FRP building under supervision of the Manufacturer. The FRP building shall not be erected unless the Manufacturer is present. The Contractor shall coordinate the construction schedule with that of the Manufacturer, thus ensuring that the Manufacturer's representative is on-site and able to supervise the building erection.

3.3 ERECTION:

- A. Provide for erection and wind loads. Provide temporary bracing to maintain structure plumb and in alignment until completion of erection.
- B. Set frame base with non-shrink grout to achieve full bearing.

3.4 TOLERANCES:

- A. 1/4 inch from level; 1/8 inch from plumb.

END OF SECTION

SECTION 11261

CHEMICAL FEED PUMPS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. The Section specifies chemical feed peristaltic feed pumps for the following chemicals:

1. Sodium Bisulfite (SBS).
2. Sodium hypochlorite (NaOCl).
3. Sodium hydroxide (NaOH).
4. Citric Acid (CA).

1.2 RELATED SECTIONS

A. Division 16, Electrical Specifications.

1.3 SYSTEM DESCRIPTION

A. For each chemical, assemble the complete system on a single wall-mounted fabricated skid or base including pumps, piping, valves, accessories, controls, and motor starters.

B. Each packaged chemical feed system shall include, but is not limited to, the following major components as depicted on the Drawings:

1. Graduated calibration cylinders with supports.
2. Peristaltic chemical feed pumps.
3. Pressure relief valves.
4. Miscellaneous accessories such as pressure gauges, flexible tubing, etc.

1.4 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Submit product data for approval. As a minimum include the following:

1. Materials of construction.
2. Rated capacity and performance ranges. Submit the pumps' characteristic performance curves showing flow rate as a function of rpm and pressure.

C. Submit operations and maintenance manuals in accordance with Section 01300, to include: procedures for routine maintenance; parts lists with illustrations; lubrication and recommendations.

1.5 WARRANTY

- A. The supplier/manufacturer shall provide a warranty on equipment against manufacturer's defects for twelve (12) months, commencing on the date of Owner-accepted substantial completion of the project. If the equipment should fail during the warranty period due to a defective part, it shall be replaced and the unit restored at no cost to the owner, including both service and parts.

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS:

- A. Subject to compliance with the Contract Documents, the following metering pump manufacturers are acceptable.
1. Watson-Marlow Qdos Universal+ series.
 2. Engineer pre-approved Equivalent.

2.2 PUMP SCHEDULES:

- A. SBS Feed Pumps:

Pump Design Parameter	Value
Number of Units (Quantity)	1
Fluid Temperature	60-90 degrees F
Fluid pH range	3.0 to 3.5
Design Flow Range (gph)	0.09 to 9.9
Discharge Pressure (psig)	40
Power Supply	115 VAC / 1 Phase / 60 Hz.

- B. NaOCl Feed Pumps:

Pump Design Parameter	Value
Number of Units (Quantity)	1
Fluid Temperature	60-90 degrees F
Fluid pH	12
Design Flow Range (gph)	0.09 to 9.9
Discharge Pressure (psig)	40
Power Supply	115 VAC / 1 Phase / 60 Hz.

- C. NaOH Feed Pumps:

Pump Design Parameter	Value
Number of Units (Quantity)	1
Fluid Temperature	60-90 degrees F
Fluid pH	14
Design Flow Range (gph)	0.09 to 9.9
Discharge Pressure (psig)	40
Power Supply	115 VAC / 1 Phase / 60 Hz.

D. CA Feed Pumps:

Pump Design Parameter	Value
Number of Units (Quantity)	1
Fluid Temperature	60-90 degrees F
Fluid pH range	1.5 to 2.0
Design Flow Range (gph)	0.09 to 9.9
Discharge Pressure (psig)	40
Power Supply	115 VAC / 1 Phase / 60 Hz.

2.3 CHEMICAL PUMPS

- A. The chemical metering pumps shall be positive displacement type, peristaltic pumps suitable for continuous operation.
- B. Pump shall have a self-contained variable speed drive.
- C. Pump shall be capable of self-priming when completely dry, and shall have a maximum suction lift capability of not less than 27 feet of water.
- D. Pump shall be capable of pumping both liquids and gases without vapor locking.
- E. Pump shall be capable of running dry without damaging itself or the tube.
- F. Process fluid shall be contained within pump tubing and shall not directly contact any rotary or metallic components during operation. Pump shall not require dynamic seals in contact with the pumped fluid.
- G. Pump head:
 - 1. Housing construction: corrosion resistant and high impact resistant glass filled PPS or Valox (PBT).
 - 2. Rotor: Pump head rotor shall be constructed of glass filled Nylon or Valox PBT with Nylon rollers, sealed within the track housing, and supported by its own bearings. Peristaltic occlusion level shall be factory set to ensure flow accuracy of +/- 1% and repeatability performance of +/- 0.5% and shall not require any field adjustment.
 - 3. No-valve design: Pump shall require no internal or external check or degassing valves. At all times the rotor shall provide compression of the peristaltic element.
 - 4. Contact Materials: All pump head components in the fluid path such as tubing must be NSF61 listed and shall be of materials specified by the manufacturer as compatible with the process fluid. Where tubing lubrication is necessary, the lubricant shall be food-grade silicon grease.

ADDENDUM NO. 1

5. Leak containment/detection: In the event of peristaltic element failure, the leak sensor shall shut the pump down immediately with all process fluid contained within the sealed pump head. Sealed pump head shall have a controlled drain-to-waste port (if pump design requires).
 - a. Alarm: Sensor shall shut down the pump, give a visual indication on the drive controller, and provide an output general alarm signal.

H. Drive

1. Enclosure: NEMA 4X constructed out of corrosion and impact resistant engineering plastic, 20% Glass filled PPE/PS.
2. Direct coupled pump head with fully protected drive:
 - a. Pump head shall be fully sealed to prevent any contamination of the controller or drive shaft by process fluid.
 - b. Pump head shall contain its own rotor bearings and not impart an overhung load on the pump shaft.
 - c. Drive shall stop shaft rotation and give visual alarm in the event the pump head is removed.
3. Drive motor: brushless DC motor with integral gearbox and closed loop tachometer feedback.
4. Circuitry complete with temperature and load compensation and protection.

I. Controls:

1. Pumps shall be suitable for both manual control and analog remote control for purposes of flow pacing.
2. Manual Control Interface
 - a. Flow units: Programmable in gallons per hour.
 - b. Auto Restart: feature to resume pump status in the event of power outage interruption.
3. Remote Control I/O
 - a. Speed Control Input: Analog 4-20mA speed input with 1,600:1 turndown with incremental steps of 10 micro amps or as required by application.

- b. Run/Stop Input: Either 5-24V industrial logic, dry contact or powered 110 VAC contacts as shown per the process and instrumentation drawings.
 - c. Run/Stop Output: Either 24VDC Open Collector, 24VDC Status relay, or 110VAC Status Relay.
 - d. General Alarm Output: Either 24VDC Open Collector, 24VDC Status relay, or 110VAC Status Relay.
 - e. Speed Analog Output: Analog 4-20mA.
4. HMI, analog connections, and mains power shall be accessible from the front or side of the enclosure or on a plug-in terminal block on the back of the pump.

2.4 ACCESSORIES

A. Calibration Chamber:

- 1. For each feed pump, provide a graduated cylinder, graduated in mL. Cylinder capacity shall be approximately equal to the pump's maximum output per minute.
- 2. Each calibration column shall be clear PVC with direct scale to give pump capacity for a one minute draw down test for use in calibrating the metering pumps. The scale shall give direct reading in GPH without need for calculations.
- 3. The top of the chamber shall have a threaded fitting to allow for piping to a common vent.

B. Pressure gauge: Provide pressure gauge with isolator and valve on discharge of each pump. Pressure gauges shall be 2½" diameter, with underload/overload stops. Tube and socket shall be Type 316 stainless steel. Materials of isolator and fill fluid shall be compatible with pumped fluid. Manufacturer shall be Ashcroft or Engineer-approved equivalent.

C. Pressure switch: Actuator shall be a sealed, welded stainless steel diaphragm. Setpoint shall be field adjustable up to 100 psi. Housing shall be Type 316 stainless steel. Manufacturer shall be Ashcroft or Engineer-approved equivalent.

D. Chemical flow meters: Endress Houser Promag 53 with PFA liner or Engineer-approved equivalent. Size (diameter) shall be 0.5" or as otherwise noted on Drawings.

E. Valves:

- 1. Ball valves shall be per Specification Section 15104 - Ball Valves.
- 2. For hypochlorite service, provide diaphragm valves as shown on Drawings.

F. Pressure Relief Valves:

1. Pressure relief valves shall be PVC with Teflon faced, reinforced EPDM diaphragms. Valves should have 1/2" FNPT ports and be fully adjustable via an integral spring.

G. Piping, Valves, Gaskets, Supports, Hardware, Wiring, Junction Boxes, and Accessories Necessary for a Fully Functional Skid:

1. Schedule 80 CPVC with Socket or flanged ends. True-union ball valves shall be utilized. Isolation valves shall be provided at all equipment connections. Seals shall be compatible with the chemical being pumped. Flexible tubing shall be PVC hose reinforced with nylon cross threads.
2. Solvent and cement for PVC and CPVC piping and fittings shall be compatible with pumped fluid.

H. Nameplates:

1. Minimum information provided on nameplate shall include: complete equipment model number, manufacturer's name and address, serial number, rated maximum flow capacity, and maximum discharge head.

2.5 SPARE PARTS

- A. Provide one (1) spare pump head or tube and roller assembly for each pump supplied.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install the equipment as indicated and in accordance with the manufacturer's written instructions.

3.2 MANUFACTURER'S SERVICES

- A. Provide manufacturer's services as follows:

1. Two (2) days labor to check the installation and advise during start-up, testing, and adjustments of the chemical feed systems.
2. One (1) day labor to instruct the Owner's personnel in the operation and maintenance of the chemical feed systems. The operation and maintenance procedures must be approved by Engineer before the training is scheduled.

3.3 CERTIFICATIONS

- A. Provide a Written certification from the equipment manufacturer that the equipment has been properly installed according to the plans, specifications and manufacturer's specifications, and that the equipment is operating normally. Make all necessary corrections and adjustments at no additional cost to the Owner.
- B. The written certification must be issued before the training for the owner personnel is scheduled.

END OF SECTION

SCOPE OF SUPPLY

TO: All Bidding Contractors
FROM: Blake Roye
RE: PROJECT: City of Richmond SWTP Improvements
BID DATE: 8/25/26
ENGINEER: EHT

Environmental Improvements, Inc. is pleased to be handling the following manufacturer's proposals for the above referenced project. Environmental Improvements, Inc. is furnishing equipment only and not acting as a sub-contractor. **Environmental Improvements, Inc. is only providing the equipment and accessories listed in the attached scope of supply/bill of material. Any items required for system completion that are not listed on the related manufacturers scope of supply will be considered as an exception to that piece of equipment.**

Unless otherwise stated in the manufacturer's proposals, the following will apply:

- ◆ Prices are FOB factory with full freight allowed.
- ◆ Prices will include start-up services as specified.
- ◆ Motors and gearboxes will have the manufacturer's standard paint.
- ◆ Electrical Control panels, motor starters or anchor bolts are not included.
- ◆ Prices are good for thirty (30) days from bid date.
- ◆ Only Electronic Copies of Submittals and O&M will be provided.
- ◆ Delivery Times are our best estimate at this time but are subject to change.
- ◆ PAYMENT TERMS ARE 10% SUBMITTALS, 80% NET 30 DAYS: 5% FOR O&M MANUALS AND 5% ON START-UP, OR BENEFICIAL USE, NOT TO EXCEED 90 DAYS FROM SHIPMENT.

Note: the term "Section and Description" below is used for reference only. All equipment and related appurtenances provided are per the attached scope of supply.

Section	Description	Factory	Net Cost
11000	Gas Chlorination Equip.	Xylem W&T	
13122	FRP Building – CLO2 Gas Chlorine Supply	Shelter Works	

TOTAL.....\$85,520.00

TERMS AND CONDITIONS: As per each manufacturer's proposal or, in the absence thereof, are as per attached terms and conditions.

Sincerely,

Blake Roye

environmental **EI²**
improvements, inc.

Scope of Supply:
City of Richmond Surface WTP Improvements

11000 Gas Chlorination Equipment		
Item	Qty.	Description
1	1	Set of Wallace and Tiernan Vacuum Regulators 210S - (2) 210 Vacuum regulators - 150# cylinder mount - 200 PPD max capacity ea.
2	1	Set of Force Flow Electronic Chlorine Cylinder Scales GR150-2 - (2) 150# electronic platforms - (1) Solo G2 Controller - 115 VAC
3	1	Wallace and Tiernan Acutec 35 Gas Chlorine Leak Detector - (1) Chlorine Sensor - 115 VAC
4	1	Installation of itemized equipment inside the gas chlorine FRP shelter. - Includes Sch.80 PVC pipe, ball valves, and fittings - Submittals and O&Ms - Start-up and operator training

13122 FRP Building – Gas Chlorine Supply		
Item	Qty.	Description
1	1	Shelter Works Gas Chlorine FRP Building - See attached scope of supply

Exclusions and clarifications:

1. FRP building offloading, lifting, and bolt down in-place by others.
2. Earthwork, yard piping, electrical conduit and wire, wall penetrations, piping not specifically itemized, tags & labels, trenching, painting, taps, pipe insulation, back flow preventer (RPZ), concrete / grout.



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sales@shelterworks.com
www.shelterworks.com

PREPARED FOR

Environmental Improvements, Inc.
1183 Brittmoore, Suite 100
Houston, TX 77043

QUOTE

E7326

EXPIRES 90 DAYS FROM

8/17/2026

PROJECT NAME

Richmond, TX

PREPARED BY

J. Rooney

TERMS

Net 30, 1.25% interest

QTY	DESCRIPTION
	>>> CONSTRUCTION <<<
1	8' x 8' x 8' (wall height) Shelter Works 'Freedom Series' fiberglass shelter with exclusive FiberBeam Technology.
1	INSULATION, 1.5 in. thick polyiso, estimated thermal value: R-12.
1	WOOD, 19/32" Oriented Strand Board (OSB) encapsulated within interior surface of wall portion for field mounting items weighing more than 10 lbs. (4' x 4')
	>>> EXTERIOR<<<
1	COLOR, exterior, to be decided White, Tan, Gray, or Green UV resistant gel coat, walls have simulated brick appearance.
4	U-BOLT, 3/8 18-8 stainless steel for shipping tie-down. Can be used for off-loading if no metal base frame.
3	SEALANT, 14.5 ft roll ConSeal-Bituman blend for weather-tight interface with concrete base. (ships loose)
	>>> INTERIOR<<<
1	COLOR, interior, white gel coat.
1	FLANGE, internal, 1/4" thick FRP fiberglass, at least 2" wide. For attachment to concrete slab (by others).
1	HOLES, pre-drilled in mounting flange, 12" on center, 7/16" diameter.
	>>> DOORS, ACCESS, PENETRATIONS <<<
1	DOOR, single, 3 ft.W x 6 ft.- 8 in.H, rain drip edge, exclusive FiberWrap for longevity, high-end industrial hydraulic closer. Raised step-over threshold.
1	PANIC touch bar single door hardware. Key-lockable.
1	THRESHOLD, 3 ft. door, aluminum, low profile, 1/2 in. high
1	WINDOW, nominal 15 in. x 15 in., Plexiglas Acrylic 1/2 in. thick, resists etching in corrosive environment, mounted in door/wall.
	>>> ELECTRICAL DISTRIBUTION <<<
1	LOAD CENTER, single-phase, NEMA 3R, 125-amp, 8 circuit, non-metallic, main lug. Includes (1) spare 20A breaker
1	RECEPTACLE, 125V, 20A, NEMA 5-20R GFCI duplex, weatherproof while not in use cover
7	CONDUIT, Schedule 40 PVC. Wiring per latest NEC.
	>>> ILLUMINATION <<<
1	SWITCH, single-pole, 20 amp, 0-277V, weatherproof
1	LIGHT, LED, SHARK4, 4' length, field-adjustable up to 7,323 lumens (at 50 W), 3500K/4000K/5000K color, polycarbonate housing.
	>>> HVAC <<<
1	FAN, supply, 12 in. corrosion-resistant fiberglass blades, up to 900 CFM, 120V, fiberglass frame, controlled by exterior switch.
1	RAIN HOOD, 24-in.W, FRP, weatherproof, matching shelter exterior color, removable insect screen. (may ship loose)
1	SWITCH, single-pole, 20 amp, 0-277V, weatherproof
1	VENT, 12in. gravity louver, aluminum blades, galvanized steel frame, insect screen.



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EXPIRES 90 DAYS FROM

8/17/2026

PROJECT NAME

Richmond, TX

PREPARED BY

J. Rooney

TERMS

Net 30, 1.25% interest

QTY	DESCRIPTION
1	RAIN HOOD, 16 in. wide, FRP, weatherproof, matching shelter exterior color (may ship loose).
1	HEATER, corrosion-resistant stainless steel, 240v, single-phase, 2250 watt, fan forced, internal thermostat, 20 gauge electro-galvanized steel housing, stainless steel grille, King Electric PAW2422-SS
	>>> DESIGN SPECIFICATIONS <<<
	WARRANTY, Industry leading 25-Year limited warranty.
	STANDARD: ASCE/SEI 7-22. Risk Category 3. Ground Level. Richmond, TX
	ROOF LOAD: 20 psf live load.
	WIND LOAD: 140 mph.
1	MANUAL, Operations and Maintenance (O&M), digital .pdf only, provided after shelter ships.
1	PE STAMP by a Professional Engineer licensed in Texas. Secure digital drawings. Structural analysis that shows compliance with wind, snow, and seismic loads. Additional charges may apply if seismic calculations control design.
	>>> NOTES <<<
	• LEAD-TIMES will vary based on project complexity and vendor lead-times. * SUBMITTAL PACKAGE: Avg. 3-4 weeks from receipt of purchase order AND mutual agreement to terms and conditions. * PRODUCTION: Avg. 8-9 weeks from submittal approval AND payment of progress invoice (if required).
	• PROGRESS INVOICE for custom submittal drawings and job specific purchases (\$_TBD_).
	• MOUNTING item on wall/roof that weighs more than 10 lbs is discouraged except where wood reinforcement is present.
	• PENETRATIONS through wall/roof larger than 2" diameter are discouraged except where an accommodation is present.
	• NOTICE: Some areas, including Texas, require that prefabricated structures not built on site (such as this shelter) possess a certification label (CL). This quote does NOT include a CL. Customer assumes all liability if local building inspector requires a CL before approving the project. Shelter Works may be capable of providing a CL for an additional cost.
	• Not Included: Compliance with 15 minute thermal (fire) barrier required by I.B.C. • Not Included: Compliance with International Energy Conservation Code (IECC) • Not Included: COMcheck energy compliance certification • Not Included: Electrical Diagram • Not Included: Compliance with state/local overlays to national codes • Not Included: Extended Component Warranty • Not Included: Anchor bolts • Not Included: Payment/Supply Bond • Not Included: Destination within military installation • Not Included: State Sales Tax - you'll need to self-assess or provide tax-exempt form • Not Included: On site off loading or installation support • Not Included: Retainage of any amount or percentage • Not Included: FOB destination

TOTAL (USD)



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FREEDOM SERIES™ SHELTER 25-YEAR LIMITED WARRANTY

1. Subject to the limitations below, **Shelter Works**® warrants to the original purchaser only that the shelter will be free from manufacturing defects in workmanship and will not appreciably deteriorate under conditions of normal use and regular service and maintenance when installed properly, for a period of twenty five (25) years from the original date of purchase.
2. What is covered: The entire surface of the fiberglass shelter is covered under this warranty, including fiberglass awnings and vent hoods.
3. Component parts, which are incorporated into the design of our shelter, are purchased from reputable manufacturers and may carry their own warranties which are independent of the **Shelter Works** warranty. Labor and shipping costs to replace defective parts will be the responsibility of the customer. Those items that are normally consumed in service, such as light bulbs, anchor bolts, gasket material, etc. are not covered by this warranty.
4. If your shelter fails to perform pursuant to product specifications, **Shelter Works**® will, at its sole option, perform repairs to or provide replacement parts for your shelter on site or at our plant facility. In those instances in which **Shelter Works**® determines that only a portion of the shelter manifests a defect, **Shelter Works**® reserves the right to limit any replacement to the portion of the shelter that manifests the defect. If repairs or replacements are determined to be performed at the plant, then the transit costs to and from the plant are the obligation of the customer.
5. The **Shelter Works**® warranty is not transferable, except that the warranty will pass through to the original purchaser from an authorized **Shelter Works** sales representative or dealer. There are certain conditions or applications over which **Shelter Works**® has no control and therefore the warranty does not cover defects or problems as a result of such conditions or applications. What is not covered:
A. Damage caused by: i. improper lifting or installation, use, applications or maintenance; ii. environmental conditions, natural disasters including, without limitation, earthquakes, floods, hail, or lightning, or use that exceeds design standards; iii. misuse, unreasonable use, negligence, accidents, Acts of God, flying or falling objects, collisions with animals or vehicles, abuse, vandalism or any other external forces; iv. mishandling in transit if within customer's control. **B.** Normal weathering, chalking, fading, atmospheric pollutants or mildew buildup, other conditions representative of normal wear and tear. **C.** Equipment supplied or installed by the customer or damage caused by, or arising from customer's installation of such other equipment. **D.** Installation or labor costs.
6. This 25-year Limited Warranty is deemed null and void under the following circumstances: **A.** If the shelter is discarded, destroyed or altered before **Shelter Works**® has performed final inspection and approved installation; **B.** If the shelter is purchased from anyone other than an authorized **Shelter Works**® sales representative or dealer; **C.** If the **Shelter Works**® serial number is not on the shelter.
7. **Shelter Works** shall have no obligation under this warranty unless the original purchaser establishes that the following conditions have been met. This 25-year limited warranty extends to the original purchaser and is subject to your full compliance with terms of our Installation Instructions, including, without limitation, proper transportation, lift, support and installation methods. A copy of the Installation and Maintenance Instructions are provided to you upon purchase. In addition to proper installation, you must ensure that electrical connections are performed by a qualified, licensed professional electrician familiar with the types of installed equipment and service provided. You must maintain your shelter on a regular basis (minimum of 2 year intervals) to ensure proper sealing. Failure to maintain your shelter in accordance with recommended guidelines may void your warranty.
8. THIS 25-YEAR LIMITED WARRANTY IS THE SOLE AND EXCLUSIVE WARRANTY PROVIDED BY **SHELTER WORKS**®, AND IS IN LIEU OF ALL OTHER WARRANTIES, WRITTEN OR ORAL, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW OR OTHERWISE, BY **SHELTER WORKS** OR ANY OTHER PARTY, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHETHER OR NOT THE PURPOSE HAS BEEN DISCLOSED AND WHETHER OR NOT THE SHELTER HAS BEEN SPECIFICALLY DESIGNED OR MANUFACTURED FOR YOUR USE OR PURPOSE. No person has been authorized to provide any other warranty or assume any other liability with respect to the shelter except by written statement from an authorized officer of **Shelter Works**®.
9. **Limitation of Liability:** UNDER NO CIRCUMSTANCES SHALL **SHELTER WORKS**® OR ANY OF ITS AUTHORIZED DEALERS OR REPRESENTATIVES BE LIABLE FOR LOSSES OR DAMAGES ARISING FROM DELAY IN PERFORMANCE, OR USE OR INABILITY TO USE THE SHELTER, REGARDLESS OF THE FORM OF THE CLAIM OR CAUSE OF ACTION (WHETHER BASED IN CONTRACT, INFRINGEMENT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE), OR FOR ANY CONSEQUENTIAL, SPECIAL, INCIDENTAL, OR PUNITIVE DAMAGES ARISING OUT OF THE PURCHASE OR USE OF THE SHELTER OR RESULTING FROM THE BREACH OF THIS LIMITED WARRANTY, OR ANY IMPLIED WARRANTY. IN NO EVENT SHALL THE CUMULATIVE LIABILITY OF **SHELTER WORKS**® AND ITS AUTHORIZED DEALERS OR REPRESENTATIVES EXCEED THE PURCHASE PRICE OF THE SHELTER. The term "consequential damages" shall include, but not be limited to, loss of use and loss or damage to property.
10. This 25-year limited warranty is governed by and construed in accordance with the laws of the State of Missouri, applicable and enforceable in the United States and Canada.

Any and all warranty claims must be submitted in writing through the **Shelter Works**® Service Department, and must be authorized and approved solely by the acting Service Manager. You must be able to provide proof of purchase and original owner information at the time that warranty service is requested, either through prior warranty registration or owner documentation.

**Built for
Life.**



Shelter Works
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TERMS AND CONDITIONS OF SALE

1. All specifications default to **Shelter Works®** Standards unless individually identified separately.
2. Where applicable, HVAC Units are sized per Customer request or recommendations and not on thermal load calculations. Customer takes full responsibility for accepting the heating and cooling loads proposed.
3. Fabrication will not begin without **written authorization to proceed** to manufacture the product based on submittal drawings approved by the Customer or Customer's designee and receipt of **any required deposit or progress payments**. Upon receipt of authorization to proceed, the Customer assumes all future responsibility and costs associated with design changes or adding additional equipment. Any changes to the accepted Quotation after the purchase order has been placed by Customer and accepted by a purchase order acknowledgement by **Shelter Works®** may impact the cost and delivery date. Once a PO is issued the submittal drawings must be approved and the product released for production within 90 days. If submittal drawings are approved after ninety days a change order may be required to amend the purchase order to adjust for price fluctuations that may have occurred.
4. Orders cancelled after purchase order has been received by Shelter Works but prior to submittal approval by Customer will incur a cancellation fee based on hours spent for project management and CAD time. Orders cancelled after they have gone through the signed approval phase but prior to being released for production will incur a **20% cancellation fee**, invoiced on the date of cancellation. Once production has begun the Customer is obligated to pay for the product in full even if Customer refuses to take delivery.
5. Customer is required to **take possession** of their order within two (2) weeks of completion. If Customer cannot accept or receive the completed order, the order shall be invoiced on the requested delivery date (excluding delivery if applicable), plus a storage fee of five hundred (\$500.00) dollars per month per order, billed monthly. Payment terms set forth in paragraph 8 below are applicable. Delivery if applicable, will be invoiced on the actual date of shipment.
6. Unless expressly itemized, Quotation does not include any State Sales or Use Taxes, or Import Fees. Terms begin with the signed Purchase Order Acknowledgement. Except as otherwise provided herein, invoices are issued on the date of shipment. Standard payment terms, subject to satisfactory credit review, are **Net 30 Days**, from the invoice date. A **Finance Charge** of one and one-quarter percent (1.25%) per month will be assessed on all amounts not paid within 30 days of the invoice date. Progress payments may be requested. No retainage is allowed. If payment is not timely made, Customer agrees to pay any costs, attorneys' fees, and expenses incurred by **Shelter Works®** in collection of payment.
7. State Certification costs (if required) are not included in this pricing unless otherwise listed.
8. **Shelter Works®** will produce Submittal Drawings for approval, **any delay** in the approval process may alter projected delivery dates. Contact sales department for revised data as lead time fluctuates from time to time.
9. **Shelter Works®** Freight Terms are **F.O.B. production facility**. Any quoted freight costs are estimates for budgeting purposes only. However, actual costs may vary within markets on a site-by-site basis due to exact mileage access to site, and additional charges may be assessed for unforeseen waiting time at the delivery point. **Shelter Works®** reserves the right to requote the shipping rate after 30 days.
10. Customer is responsible for freight, crane & other off-loading, set-up, and final assembly of any unattached items that are delivered separately, unless specifically stated in the Quotation. Additionally, Customer assumes responsibility for site access, preparation, and pad approach. Difficult access for trucks causing unreasonable down time at sites may result in additional costs.
11. Any Manufacturers Names, Trade Names, Brand Names, or Catalog Numbers used in the **Shelter Works®** Quotation are there for the purpose of establishing and describing style, general performance, and quality levels. Such references are not intended to be restrictive to any particular Brands or Products.
12. The **Shelter Works®** Quotation and its contents are Confidential and Proprietary to **Shelter Works®**. Its use is limited solely to the purpose for which it has been created and may not be used for any other purpose nor released outside of the Customer's organization without written consent of **Shelter Works®**.
13. **Shelter Works®** is the shelter manufacturer, not the contractor, limiting the responsibility of **Shelter Works®** to the shelter itself and any factory-installed components.
14. **Shelter Works®** assumes no responsibility for actual foundation design and construction. If building is to sit on concrete slab, concrete slab shall be true and level to a tolerance of not more than 1/4" where the building is to attach.
15. The terms and conditions, as well as all disputes arising under or relating to them or this sale, shall be governed by and construed in accordance with the laws of Missouri, without regard to conflict of law principles. Any dispute arising out of this sale shall be maintained in a federal court sitting in Missouri, and in the absence of federal jurisdiction, the courts of the State of Missouri.
16. Provided that such submittal and the work provided by **Shelter Works®** conforms to the specifications and/or contract documents, Customer will hold harmless and indemnify (including reasonable attorneys' fees and costs) **Shelter Works®** and its officers, representatives, and employees, from all claims, disputes, suits, etc. asserted by Customer and/or any third party related to the work provided by **Shelter Works®**.

**Built for
Life.**

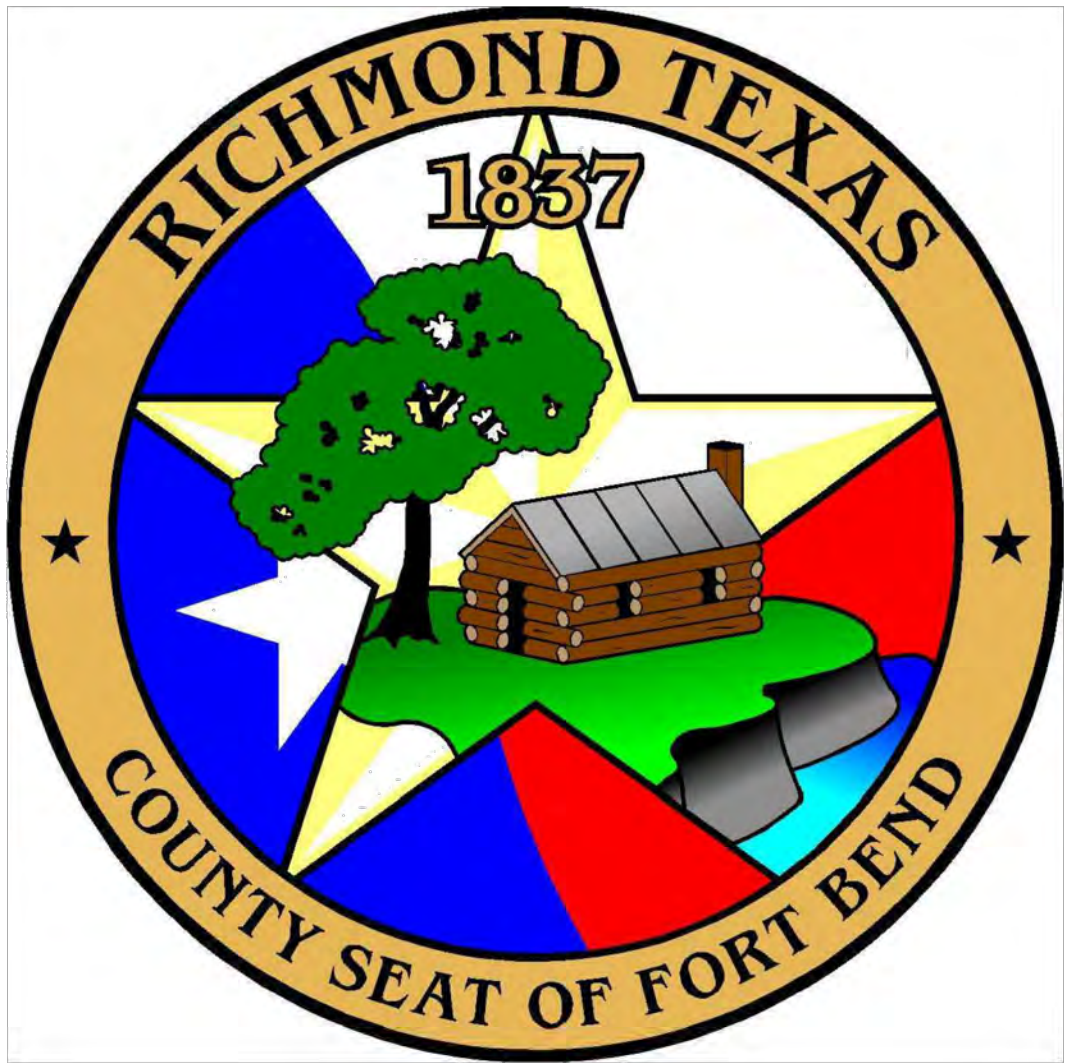
CITY OF RICHMOND

DEPARTMENT OF PUBLIC WORKS

SURFACE WTP IMPROVEMENTS

CIP NO. SW2503

PROJECT NO. SW2503



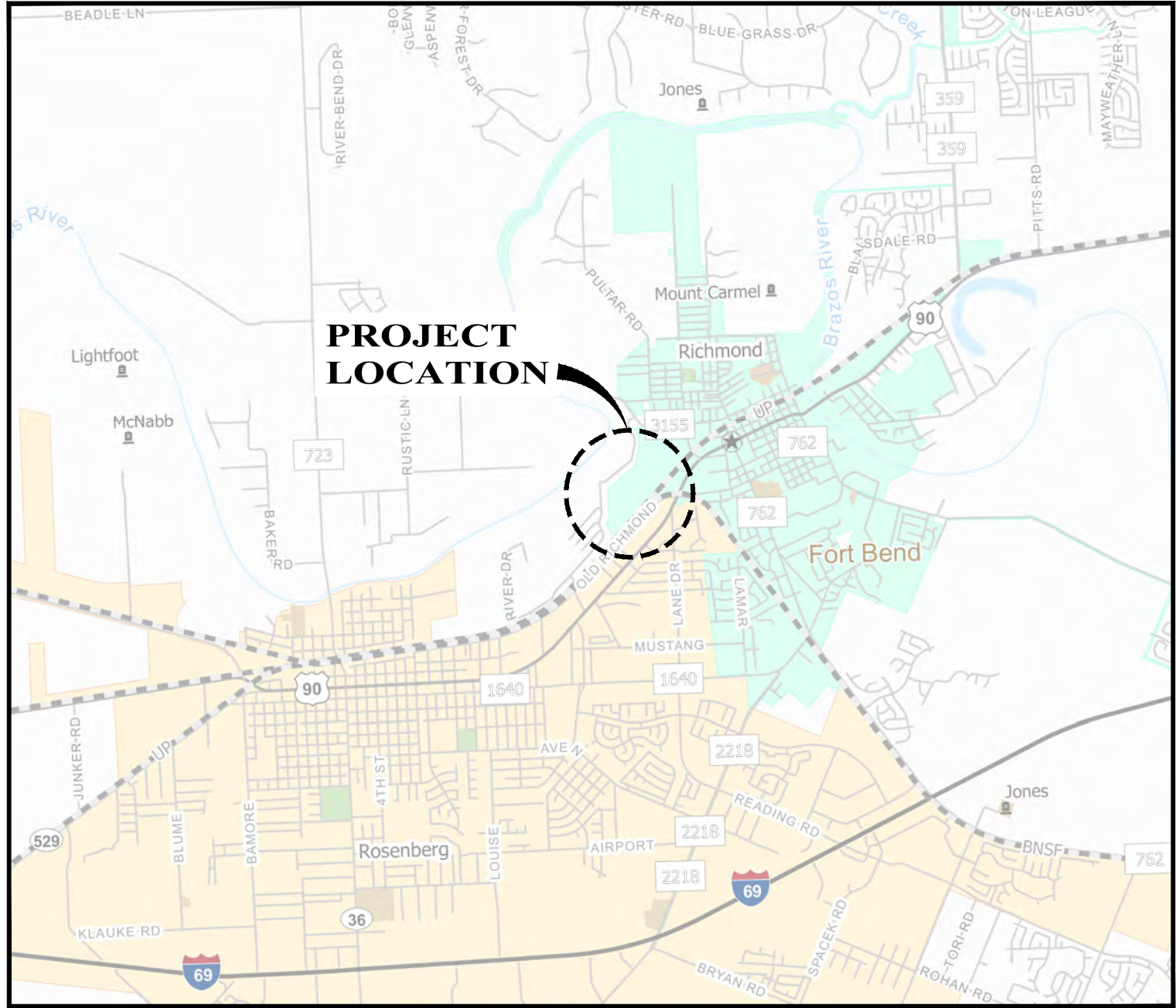
MAYOR
REBECCA HAAS

COMMISSIONERS
TERRY G. GAUL
BARRY C. BEARD
CARL DROZD
ALEX BEMENT

CITY MANAGER
TERRI VELA

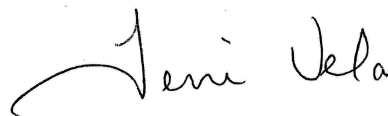


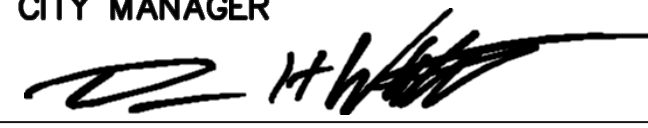
SHEET INDEX	
Sheet Number	Sheet Title
1	COVER SHEET
2	SHEET INDEX & GENERAL PROJECT NOTES
3	ABBREVIATIONS LIST
4	GENERAL LEGENDS
5	OVERALL SITE PLAN
6	ENLARGED SITE PLAN
7	MEMBRANE BLDG - CHEM AREA DEMO PLAN
8	MEMBRANE BLDG - TANK AREA DEMO PLAN
9	MISC. CONCRETE- COATING REPAIRS
10	RAW WATER PUMP SATION
11	PREFABRICATED FRP BLDG
12	PRETREATMENT AREA
13	MISCELLANEOUS CONCRETE REPAIRS
14	MEMBRANE BUILDING ELEVATION
15	MICRO FILTRATION SKID PIPING REPLACEMENT
16	CHLORINE GAS STORAGE SHED
17	PREFABRICATED FRP BLDG
18	DETAILS - I
19 (01E-01)	GENERAL ELECTRICAL NOTES
20 (01E-02)	OVERALL SITE ELECTRICAL PLAN
21 (01E-03)	RAW WATER PUMP STATION ELECTRICAL SITE PLAN
22 (01E-04)	MEMBRANE BUILDING ENLARGED ELECTRICAL PLAN
23 (01E-05)	MCC-1 ONE-LINE DIAGRAM (CONT.) MCC-1 FRONT ELEVATION
24 (01E-06)	ELECTRICAL DETAILS

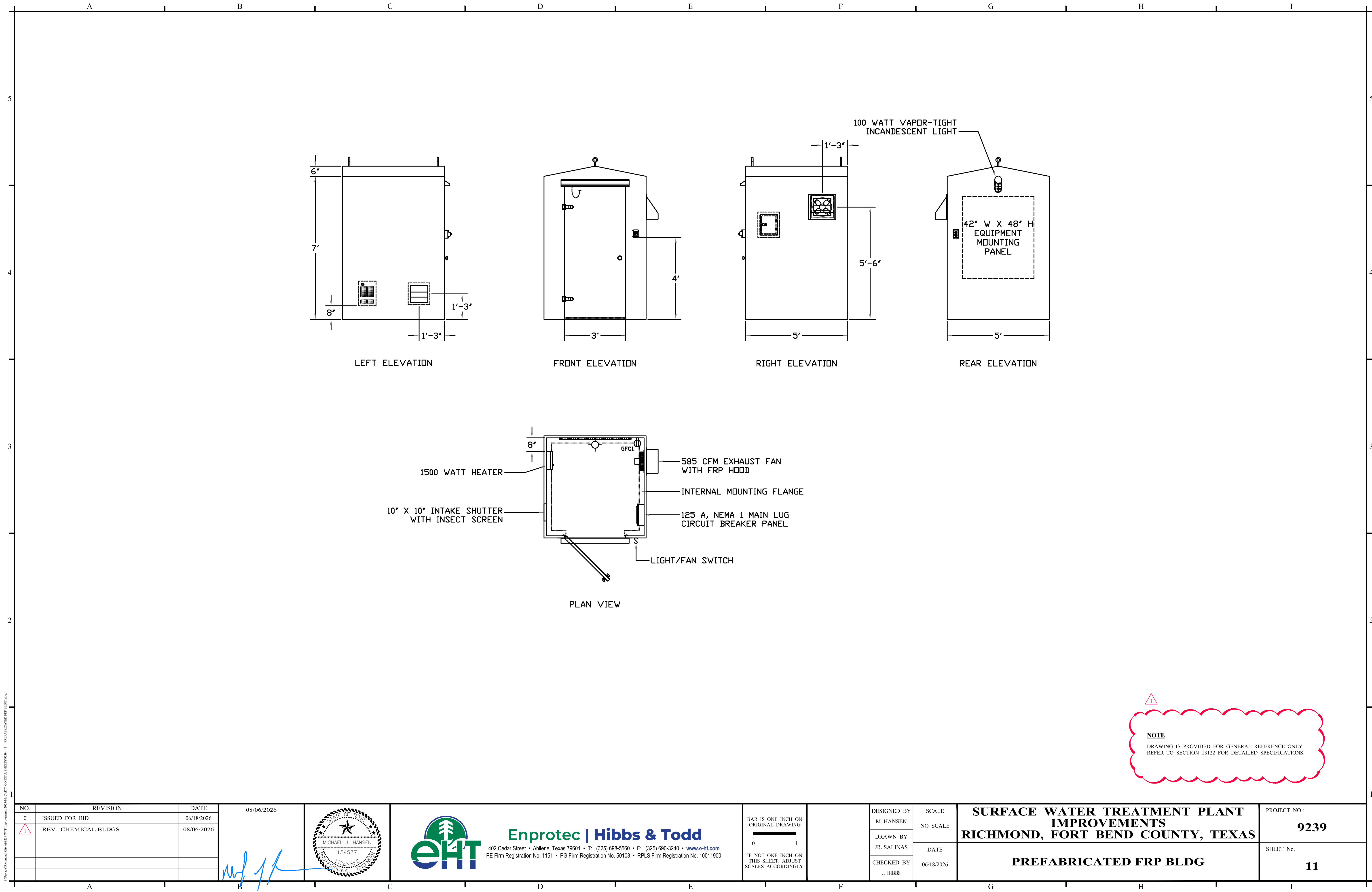


 **LOCATION MAP**
SCALE: 1" = 5000'



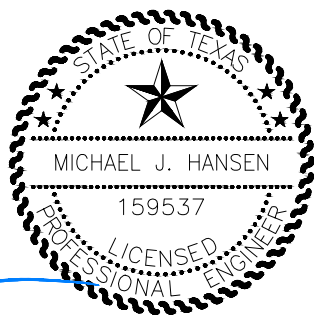

TERRI VELA
CITY MANAGER
DATE 8/4/26


DUANE H. WHITEHEAD, P.E.
CITY ENGINEER
DATE 8/4/26



NO.	REVISION	DATE
0	ISSUED FOR BID	06/18/2026
1	REV. CHEMICAL BLDGS	08/06/2026

08/06/2026



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 PE Firm Registration No. 1151 • PG Firm Registration No. 50103 • RPLS Firm Registration No. 10011900

BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DESIGNED BY M. HANSEN	SCALE NO SCALE
DRAWN BY JR. SALINAS	DATE 06/18/2026
CHECKED BY J. HIBBS	

SURFACE WATER TREATMENT PLANT IMPROVEMENTS RICHMOND, FORT BEND COUNTY, TEXAS
PREFABRICATED FRP BLDG

PROJECT NO.: 9239
SHEET No. 11

A B C D E F G H I

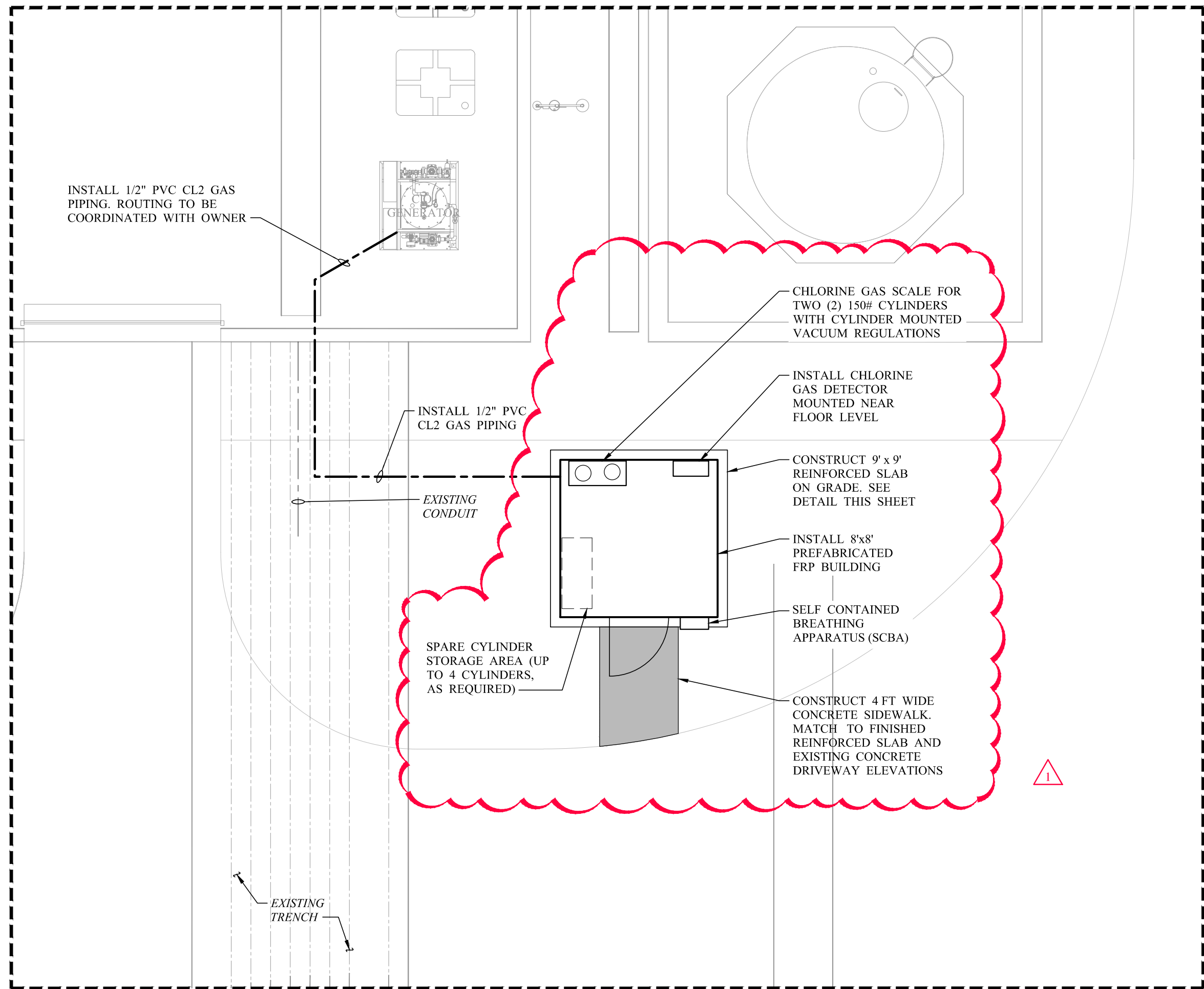
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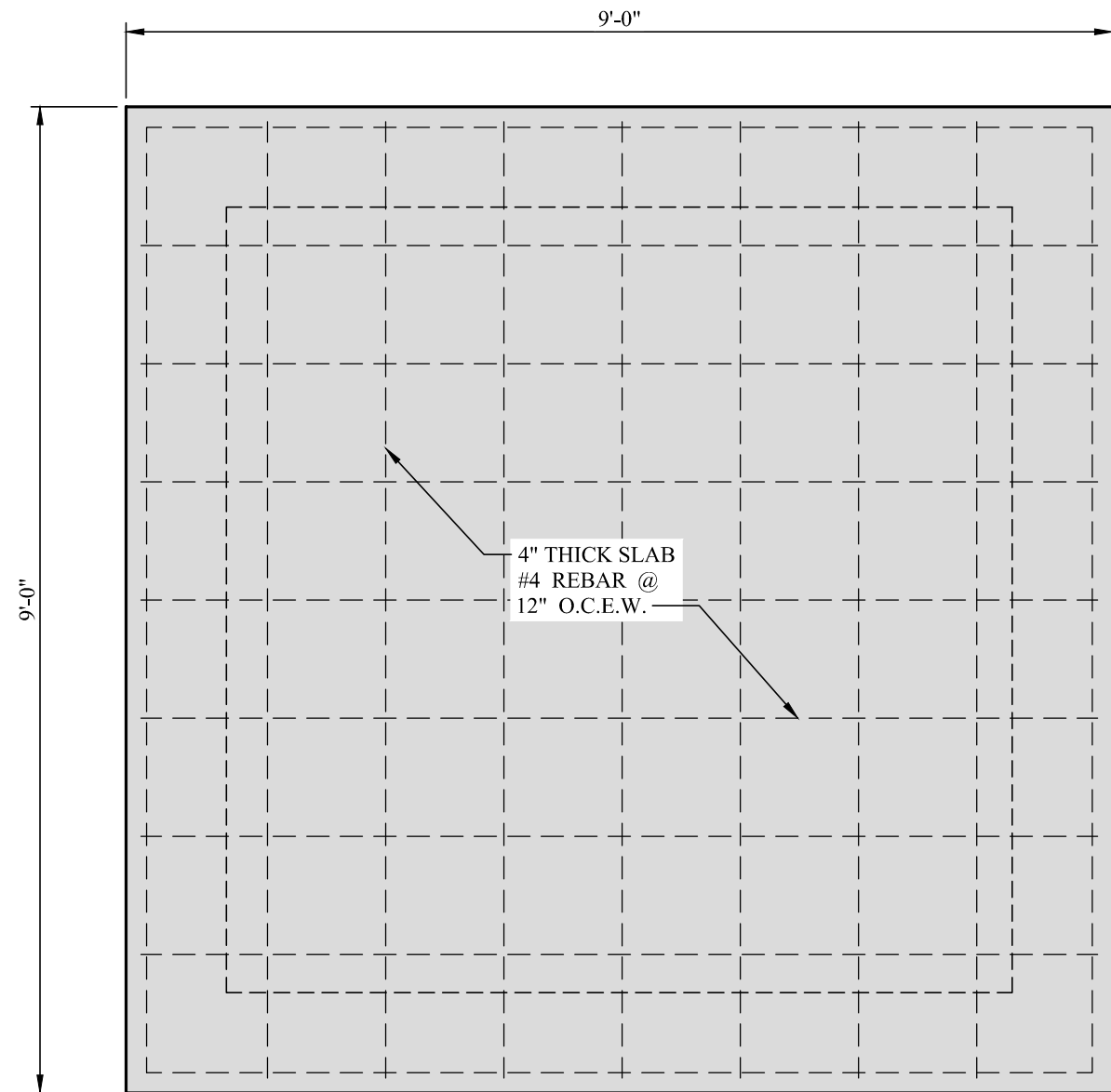
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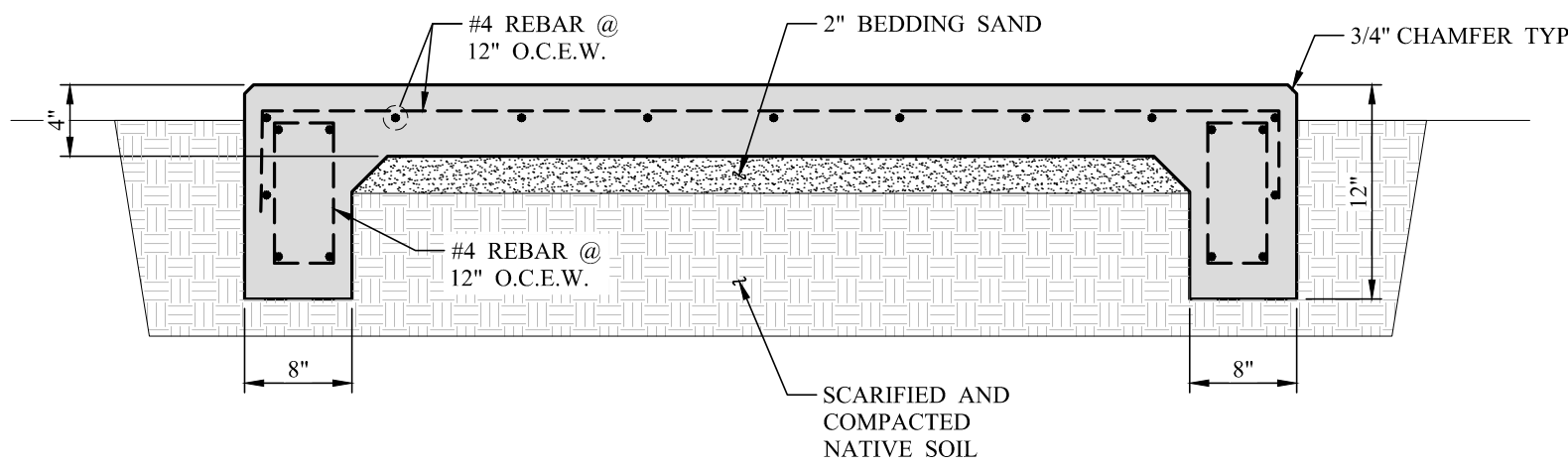
CHEMICAL STORAGE BUILDING

SCALE: 1"=5'



PLAN VIEW

NO SCALE



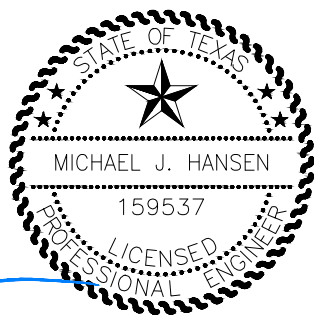
BUILDING SLAB

NO SCALE

NOTE
SEE SHEET 01E-02 FOR ADDITIONAL ELECTRICAL DETAILS.

NO.	REVISION	DATE
0	ISSUED FOR BID	06/18/2026
1	REV. CHEMICAL BLDGS	08/06/2026

08/06/2026



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DESIGNED BY
M. HANSEN

DRAWN BY
JR. SALINAS

CHECKED BY
J. HIBBS

SCALE
AS NOTED

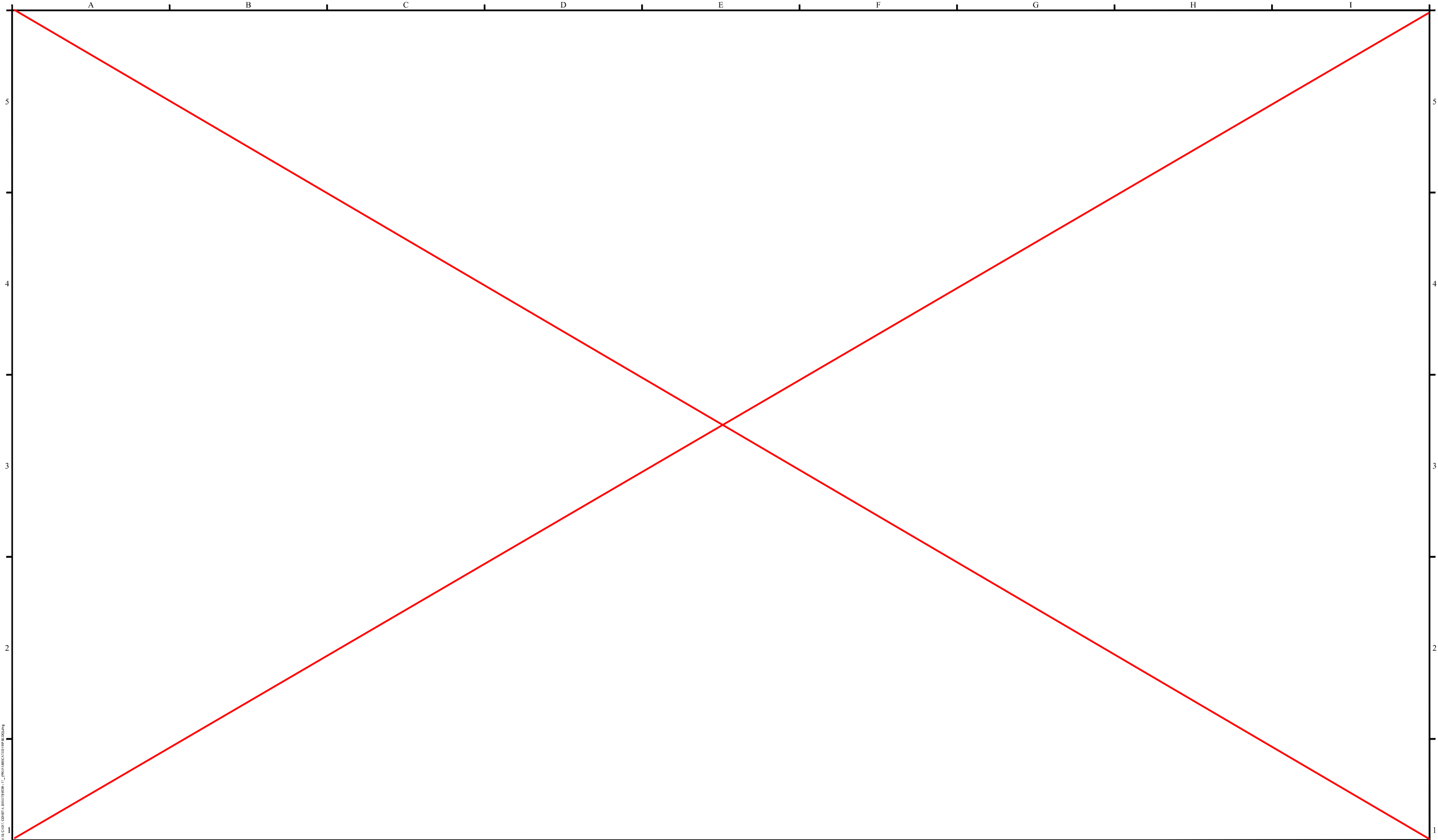
DATE
06/18/2026

**SURFACE WATER TREATMENT PLANT
IMPROVEMENTS
RICHMOND, FORT BEND COUNTY, TEXAS**

CHLORINE GAS STORAGE SHED

PROJECT NO.:
9239

SHEET No.
16

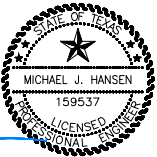


C:\projects\Richmond_Tx\9239-WTP Improvements\Bldg 1A.dwg, COUNTY: FORT BEND, COUNTY: FORT BEND, SHEET: 9239-17, PROJECT: 9239-WTP Improvements

NO.	REVISION	DATE
0	ISSUED FOR BID	06/18/2026

06/18/2026

Handwritten signature in blue ink



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DESIGNED BY	M. HANSEN
DRAWN BY	JR. SALINAS
CHECKED BY	J. HIBBS

SCALE	NO SCALE
DATE	06/18/2026

SURFACE WATER TREATMENT PLANT IMPROVEMENTS RICHMOND, FORT BEND COUNTY, TEXAS	PROJECT NO.: 9239
	SHEET No. 17
PREFABRICATED FRP BLDG	