



**WEST AVE. ELEVATED STORAGE TANK
PAINTING AND REHABILITATION PROJECT
SAWS Job No. 18-0110
SAWS Solicitation No. B-20-008-SM**

**ADDENDUM 1
7/27/2020**

To Bidder of Record:

This addendum, applicable to work referenced above, is an amendment to the bid proposal, plans and specifications and as such will be a part of and included in the Contract Documents. Acknowledge receipt of this addendum by entering the Addendum number and issue date on the space provided in submitted copies of the bid proposal.

RESPONSES TO QUESTIONS

1. Can you please tell me if we need to be QP1 and QP2 certified in order to bid on the water tank project you have out for bid?
Response: QP1 and QP2 certification is not required for this job.

2. In reviewing the specification for the above referenced project, I came across page 13200-3 a listing of approved Water Storage Tank Coating Contractor's. We would wish to be on the list as well as a general contractor that self-performs much of the work that this project is requesting and has also done successfully for multiple SAW's projects in the past. Please see attached extensive project reference list with municipalities and contacts.
Response: Specification Section 13200 paragraph 1.04 listing approved Water Storage Tank Coating Contractors was deleted to allow all interested contractors to submit a proposal to the project.

3. On drawing E-122. You show (4) instruments. Will these instruments be provided by spec section #11440 Chlorine Gas Feed Equipment? Please advise. The chlorine dual scale and the chlorine leak detector are existing.
Response: The analyzer will be added to specification 17310 as detailed in the specification changes in this Addendum.

4. On drawing E-107. You show (2) Instruments (1) LIT & (1) PIT. I feel these are instruments I need to provide. Can you please provide an instrument list or a specification calling out the manufacturer? Specification Section #17310 Field Instruments does not call out any instruments or manufacturers. Please advise.
Response: The LIT and PIT will be added to specification 17310 as detailed in the specification changes in this Addendum.

CHANGES TO THE SPECIFICATIONS

1. Price Proposal. DELETE the Price Proposal in its entirety and REPLACE with the Price Proposal attached to this Addendum.

2. Proposal Certification. DELETE the Proposal Certification in its entirety and REPLACE with the Proposal Certification attached to this Addendum.

3. Special Conditions. DELETE the Special Conditions in its entirety and REPLACE with the Special Conditions attached to this Addendum.

4. Specification Section 01010 – Summary of Work. DELETE this section in its entirety and REPLACE with the document attached in this Addendum.

5. Specification Section 01300 Submittals:
 INSERT the following paragraph immediately after paragraph 1.03.B.1 and renumber the subsequent paragraphs accordingly:
 “2. CRITICAL SUBMITTALS: A list of critical submittals shall be provided to OWNER no later than 14 calendar days after Notice To Proceed and shall include proposed submittal dates.”

6. Specification Section 09900 - Painting:
 ADD the following paragraphs immediately after paragraph 1.2.A.31:
 “32. NAPF 500-03 – Surface Preparation Standard for Ductile Iron Pipe and Fittings in Exposed Locations Receiving Special External Coatings and/or Special Internal Linings.
 33. NAPF 500-03-01 Solvent Cleaning.
 34. NAPF 500-03-02 Hand Tool Cleaning.
 35. NAPF 500-03-03 Power Tool Cleaning.
 36. NAPF 500-03-04 Abrasive Blast Cleaning of Ductile Iron Pipe.
 37. NAPF 500-03-05 Abrasive Blast Cleaning of Cast Ductile Iron Fittings.”
 ADD the following to the end of the sentence in paragraph 2.2.A.1: “and 3.2.2.”
 ADD the following paragraphs immediately after paragraph 3.2.C.1.h:
 “2. Ductile iron:
 - a. Solvent clean to remove dirt, mill scale, rust, etc per NAPF 500-03-01.
 - b. Abrasive blast pipe to clean and achieve surface profile per NAPF 500-03-04.
 - c. Abrasive blast fittings to clean and achieve surface profile per NAPF 500-03-05.
 - d. Areas not accessible to abrasive blasting:
 - (i) Hand tool clean to achieve surface profile per NAPF 500-03-02.
 - (ii) Power tool clean to achieve surface profile per NAPF 500-03-03.”

7. Specification 09910 Tank Painting and Coating:
 DELETE Paragraph 1.02.D in its entirety.
 DELETE Paragraph 1.04.A in its entirety and REPLACE with:
 “A. Work Schedule: Refer to Section 01010 Summary of Work.”
 DELETE Paragraph 3.03.H in its entirety.

8. Specification 13200 – Steel Water Storage Tank Rehabilitation:
 DELETE Paragraph 1.04 in its entirety.

9. Specification Section 15067 – Thermoplastic Process Pipe
 - a. Paragraph 2.3; DELETE paragraph 2.3.A in its entirety and REPLACE with:
 2.3.A FLEXIBLE TUBING
 Unless otherwise shown or specified, flexible tubing shall be as follows:
 1. Manufacturers: Provide products of one of the following:
 - a. Kuriyama “Kuri-Tech Clearbraid K3130 Series BF Heavy Wall PVC Food and Beverage Hose”.
 - b. Ryan-Herco “Herco-Braid Heavy Duty Food Grade Clear PVC Tubing”.
 - c. Or equal.
 2. Material: Material shall be PVC with nylon braid reinforcement embedded in the wall of the tubing and conform to NSF 61. Unless otherwise shown or specified, PVC tubing shall be:
 - a. Food grade.
 - b. Color: Clear.
 - c. Temperature Rating: 150 degrees F.
 - d. Maximum Working Pressure Rating:
 - 1) 200 psi for 3/8 inch dia.
 - 2) 150 psi for 1 inch dia.
 - 3) 100 psi for 1-1/4 to 1-1/2 inch dia.
 - 4) 75 psi for 2 inch dia.

3. Fittings: Join tubing to pipe with single-barb male adapter fitting and a stainless-steel hose clamp. Join tubing sections by single or multi-barb thermoplastic couplings with titanium hose clamps.

10. Specification Section 17300 – Instrumentation - General Provisions

- a. Paragraph 1.05.C: DELETE subparagraphs 1.05.C.1 through 1.05.C.5 and REPLACE with the following:

- “1. Prime Controls
1725 Lakepointe Dr.
Lewisville, TX 75057
Phone: 972-221-4849
2. Control Panels USA
16310 Bratton Lane, Suite 100
Austin, Texas 78728
Phone: 512.863.3224
3. RLC Controls Inc.
8115 Hicks Hollow
McKinney, Texas 75071
Phone: 972.542.7375
4. Walker Industrial
408 W. Nakoma Dr.
San Antonio, Texas 78216
Phone: 210.824.9000
5. Tesco Controls, Inc.
1221 Abrams Rd., Suite 327
Richardson, TX 75081
Phone: 714.255.8590”

- b. Paragraph 1.06.D: DELETE subparagraphs 1.06.D.1 through 1.06.D.5 and REPLACE with the following:

- “1. Signature Automation
14679 Midway Road, Suite 205
Addison, Texas 75001
Phone: 469-619-1241
2. Prime Controls
1725 Lakepointe Dr.
Lewisville, TX 75057
Phone: 972-221-4849
3. Control Panels USA
16310 Bratton Lane, Suite 100
Austin, Texas 78728
Phone: 512.863.3224
4. Walker Industrial
408 W. Nakoma Dr.
San Antonio, Texas 78216
Phone: 210.824.9000
5. Tesco Controls, Inc.
1221 Abrams Rd., Suite 327
Richardson, TX 75081
Phone: 714.255.8590”

11. Specification Section 17310 – Field Instruments

- a. Add paragraphs below 2.01.D.1 as follows
 - “2.02 PRESSURE TRANSMITTER (TANK LEVEL):
 - A. Electronic Gage Pressure Transmitter:
 - 1. Local and remote indication.
 - 2. Provide with Ray self-cleaning pressure snubbers.
 - 3. Input isolated with silicone filled stainless steel diaphragms.
 - 4. Local indication LCD meter scaled in FEET and mounted integral to the transmitter. Transmitter operation ranges should operate at bottom 25% of full-scale range of transmitter.
 - 5. Outdoor application:
 - a. NEMA 4 housing
 - b. View port for local indication
 - c. Stainless steel flanges
 - d. 2” pipe mount
 - B. Ratings:
 - 1. Overpressure Limit without damage: 1500 psi
 - 2. Input Range: 150 psi
 - 3. Accuracy: +/- 0.075% of span
 - 4. Analog Output: 4 – 20 mA
 - 5. Power Supply: 24 Vdc
 - 6. Operating Temperature Limits: -4° to 175°F
 - C. Manufacturer: Rosemount, Model: 2088, Model Number 2088G2S22A1B4DWM4.
 - 2.04 ANALYZER (CHLORINE):
 - A. Analyzer General:
 - 1. The analyzer function incorporated into the instrument shall be designed for continuous measurement of two parameters simultaneously.
 - 2. The analyzer supports the following continuous measurements: pH/ORP, Resistivity/ Conductivity, % Concentration, Total Dissolved Solids, Total Chlorine, Free Chlorine, Monochloramine, Dissolved Oxygen, Dissolved Ozone, Turbidity, Pulse Flow, Temperature.
 - 3. The analyzer measurements chosen shall be displayed on the instrument’s display in numerical and graphical format.
 - 4. The analyzer shall be designed for continuous measurement of the sample stream without the need for reagent addition.
 - B. Dual Channel Analyzer:
 - 1. Manufacturer: Rosemount Analytical Model 56 with Rosemount sensors.
 - a. For Chlorine measurement use Rosemount Model FCL-56 system which includes sensor, connecting cable, 56 transmitter, and flow controller.

CHANGES TO THE PLANS

- 1. DELETE drawings CS-102, CS-103 and CS-104 and REPLACE with the sheets attached in this Addendum.

CLARIFICATIONS

- 1. The Contract Time has been changed to 365 days.

END OF ADDENDUM

This Addendum, including these five (5) pages, is twenty-one(22) pages with attachments in its entirety. Attachments.



Don Burger, P.E.
Tetra Tech

PRICE PROPOSAL

PROPOSAL OF _____, a corporation
a partnership consisting of _____
an individual doing business as _____

THE SAN ANTONIO WATER SYSTEM:

Pursuant to Instructions and Invitation for Competitive Sealed Proposals, the undersigned proposes to furnish all labor and materials as specified and perform the work required for the project as specified, in accordance with the Plans and Specifications for the following prices in the bid proposal to wit:

PLEASE SEE ATTACHED LIST OF PROPOSAL ITEMS.

RESPONDENT'S SIGNATURE & TITLE

FIRM'S NAME (TYPE OR PRINT)

FIRM'S ADDRESS

FIRM'S PHONE NO. /FAX NO.

FIRM'S EMAIL ADDRESS

The Contractor herein acknowledges receipt of the following:
Addendum Nos. _____

OWNER RESERVES THE RIGHT TO ACCEPT THE OVERALL MOST RESPONSIBLE PROPOSAL.

The Respondent offers to construct the Project in accordance with the Contract Documents for the contract price, and to complete the Project within **365 calendar days after the start date, including compliance with mandatory tank return-to-service on or before May 31, 2021**; as set forth in the Authorization to Proceed. **The Respondent understands and accepts the provisions of the contract Documents relating to liquidated damages of the project if not completed on time.**

Complete the additional requirements of the Proposal which are included on the following pages.

BASE UNIT PRICES FOR:

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	UNIT PRICE (Figures)	TOTAL (Figures)
1.	Tank Rehabilitation and Painting Improvements	LS	1	\$	\$
2.	Electrical, Chemical and Site Improvements	LS	1	\$	\$
3.	SCADA Programming	LS	1	\$	\$
4.	Trench Excavation and Safety Protection	LF	350	\$	\$
SUB-TOTAL PRICE AMOUNT (Items 1-4)		\$			
5.	CPS Allowance	Allowance		\$10,000.00	\$10,000.00
6.	Start-up / Commissioning Allowance	Allowance		<u>\$20,000.00</u>	<u>\$20,000.00</u>
7.	Mobilization and Demobilization	LS	1	\$	\$
8.	Intermediate De-mobilization and Re-mobilization	EA	1	\$	\$

SUPPLEMENTARY UNIT PRICES

ITEM NO	ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE (FIGURES)	TOTAL (FIGURES)
S-1	Furnish all materials, labor, equipment and appurtenances for “Interior Grinding”, complete in place.	MH	25	\$	\$
S-2	Furnish all materials, labor, equipment and appurtenances for “Pit Welding”, complete in place.	EA	25	\$	\$
S-3	Furnish all materials, labor, equipment and appurtenances for “Seam Welding”, complete in place.	LF	25	\$	\$
S-4	Furnish all materials, labor, equipment and appurtenances for “Pit Filling”, complete in place.	GAL	5	\$	\$
S-5	Furnish all materials, labor, equipment and appurtenances for “Additional Work”, complete in place.	MH	125	\$	\$
S-6	Furnish all materials, labor, equipment and appurtenances for “Additional Tank Ventilation/ Dehumidification”, complete in place.	WK	1	\$	\$
S-7	Furnish all materials, labor, equipment and appurtenances for “Sika-Flex 1A”, complete in place.	LS	1	\$	\$
SUB-TOTAL SUPPLEMENTARY ITEMS S-1 thru S-7		\$			

TOTAL PROPOSAL PRICE AMOUNT (TO INCLUDE ITEMS 1-8 AND SUPPLEMENTARY ITEMS S1-S7)	\$
---	----

Mobilization shall be limited to a maximum of 10% of the subtotal for items 1-4. In the event of a discrepancy between the written percentage and dollar amount shown for mobilization bid item, the written percentage will govern. **If the percentage exceeds the allowable maximum stated for mobilization, SAWS reserves the right to cap the amount at the percentages shown and adjust the extensions of the bid items accordingly.**

PROPOSAL CERTIFICATION

Accompanying this proposal is a Bid Bond or Certified or Cashier's Check payable to the Order of the San Antonio Water System for _____ dollars (\$_____), which amount represents five percent (5%) of the total bid price. Said bond or check is to be returned to the bidder unless the proposal is accepted and the bidder fails to execute and file a contract within **10** calendar days after the award of the Contract, in which case the check shall become the property of said San Antonio Water System, and shall be considered as payment for damages due to delay and other inconveniences suffered by said San Antonio Water System due to the failure of the bidder to execute the contract. The San Antonio Water System reserves the right to reject any and all bids.

It is anticipated that the Owner will act on this proposal within **60** calendar days after the bid opening. Upon acceptance and award of the contract to the undersigned by the Owner, the undersigned shall execute standard San Antonio Water System Contract Documents and make Performance and Payment Bonds for the full amount of the contract within **10** calendar days after the award of the Contract to secure proper compliance with the terms and provisions of the contract, to insure and guarantee the work until final completion and acceptance, and the guarantee period stipulated, and to guarantee payment of all lawful claims for labor performed and materials furnished in the fulfillment of the contract.

It is anticipated that the Owner will provide written Authorization to Proceed at the Pre-Construction Meeting.

The work called for in this Contract shall commence on the date indicated in the SAWS written Authorization to Proceed. Under no circumstances shall the work commence prior to the date provided for in the SAWS issued, written Authorization to Proceed. Work shall be completed in full within 365 consecutive calendar days.

The undersigned further acknowledges compliance with "Wage and Labor Standard Provisions" of this contract and the use of the Blue Book rental rates for establishment of equipment rental rates whether owned or leased during the course of this Contract.

In completing the work contained in this proposal the undersigned certifies that bidder's practices and policies do not discriminate on the grounds of race, color, religion, sex or national origin and that the bidder will affirmatively cooperate in the implementation of these policies and practices.

Signed: _____
Company Representative

Company Name

Address

Please return bidder's check to:

Company Name

Address

Special Conditions

- SC1. Construction Phasing and Sequencing: The CONTRACTOR may follow the proposed construction sequencing in the Contract documents. The CONTRACTOR shall submit an alternative sequence of construction (if different than proposed) in writing to the SAWS Construction Inspector for approval. It is the CONTRACTOR's responsibility to provide sufficient work force, materials, and equipment to complete the work in accordance with the Contract duration.
- SC2. Mandatory Tank Return to Service on or Before May 31, 2021: CONTRACTOR shall sequence work to make the tank available for regular service to OWNER on or before May 31, 2021.
- SC3. Construction Sequence: CONTRACTOR shall sequence work requiring the well and tank to be out of service so that the tank and associated piping can be completed by the date indicated in SC-2. All other work to be completed within the contract time.
- SC4. Connection of New Pipes to Existing System: CONTRACTOR shall verify the alignment and elevation of the existing 12" pipes at the point of connection with the new pipes B and C before start of demolition.
- SC5. Work in Proximity of Structures: CONTRACTOR is advised of the proximity of buildings to the point of connection of Pipes B and C to the existing water system in the eastern side of the site. CONTRACTOR shall protect buildings and other structures adjacent to active excavation sites from damage as required by the contract documents.
- SC6. Hazardous Materials in Tank Paint: CONTRACTOR is advised that tank paint was found to contain lead and cadmium. CONTRACTOR shall hire independent environmental services for permitting, sampling, analysis and disposal of waste compliant with TCEQ requirements, with no separate payment.
- SC7. Control of Tank Blasting and Painting By-Products: CONTRACTOR is advised the site is in immediate proximity of businesses, residences and busy streets. CONTRACTOR shall use an SSPC Guide 6 Class 1A containment system. CONTRACTOR shall employ all necessary means and methods to minimize the possibility of paint over-spray onto adjacent structures and other third-party property.
- SC8. Existing Subsurface Conditions and Above-ground Utilities: Existing subsurface conditions shall be confirmed by the CONTRACTOR. All existing underground utilities shown on the plans are approximate based on available information. It shall be the CONTRACTOR's responsibility to determine the exact location and elevation and, in some cases expose, of all existing utilities shown or not shown on plans prior to

construction and notify ENGINEER and OWNER of any conflicts with proposed work. The CONTRACTOR is responsible for maintaining, supporting, and protecting the integrity of underground utilities and power poles during construction. It shall be the CONTRACTOR'S responsibility to excavate over, under and around such utilities and, if necessary, provide temporary bridging during construction so as to maintain continuous service while constructing the proposed facilities. It will be the CONTRACTOR's responsibility to backfill around existing utilities and to complete construction in a manner such as to leave the existing utilities securely bedded in their original position. All this work will be at no additional cost to SAWS.

Where overhead power lines are in close proximity to the proposed work the CONTRACTOR shall be in accordance with the requirements established by Chapter 752, Texas Health & Safety Code.

If damages occur to existing facilities due to the CONTRACTOR's actions, it will be the CONTRACTOR's full responsibility to repair, replace, or pay for the repair or replacement of any damaged items at no additional cost to SAWS.

- SC9. Start-up/Commissioning Allowance: The CONTRACTOR, OWNER, AND ENGINEER shall verify the completeness and operational and functional performance of all the systems and their sub-systems included in this project for compliance with the "design intent" as outlined in the contract documents beginning at the pre-startup and following through the start-up and commissioning phase of the systems and their sub-systems.

During the period covering the pre-startup through the commissioning of these systems and their components, THE OWNER may request changes (not included in the project scope) in the form of modifications and upgrades and/or the addition of other items including but not limited to safety, security, and Operation & Maintenance items to these systems and their sub-systems to provide a complete and operational and functional system.

The OWNER may request the CONTRACTOR to compete these unforeseen items not included in the project scope before the commissioning and/or PRIOR to FINAL ACCEPTANCE. These changes and additional items shall be at the sole discretion of SAWS, and shall be paid from the "Allowance" bid line item.

The cost and time impacts for these services shall be negotiated through Request for Proposal process. The terms of payment for the CONTRACTOR services shall be in accordance with the contract terms and conditions.

- SC10. Coordination with Others: The CONTRACTOR agrees to cooperate and coordinate its work so that this project can be completed in an orderly and coordinated manner, reasonably free of significant disruption to any party. Without limitation of the foregoing, the CONTRACTOR understands and agrees that access areas to the project

site may be utilized by the SAWS personnel and/or suppliers. The CONTRACTOR agrees that any delay or hindrance caused by or contributed to by failure to cooperate and/or coordinate among all parties will be governed by this Section and General Conditions of this contract.

- SC11. Daily Construction Activity Reports: Contractor shall prepare Daily Construction Activity Reports in the format provided by SAWS and provide the Daily Reports at the end of each week to the SAWS Inspector.
- SC12. Pre-Construction Conference: The CONTRACTOR shall bring the draft Schedule of Values and Construction Schedule to the Pre-Construction Conference and submit to the OWNER's Construction Inspector for review.
- SC13. Document Management: The CONTRACTOR shall use and store all construction related information and documents on the web-based document control system (Contract and Project Management System, CPMS) as designated by the OWNER throughout the duration of the construction.
- SC14. Communication Protocol: All communication from the OWNER's Construction Inspector to the CONTRACTOR shall be through the CONTRACTOR's Project Manager and/or Superintendent. Communication to/from the CONTRACTOR's subcontractors shall be routed to the OWNER's Construction Inspector through the CONTRACTOR. Contact information for the OWNER's Construction Inspector and the CONTRACTOR will be provided at the pre-construction conference.
- SC15. Permits: The CONTRACTOR is solely responsible for obtaining all necessary permits, notifications and inspections. The CONTRACTOR shall be solely responsible for applying and securing the permits, sending notifications to the relevant agencies/authorities and requesting inspections in a timely manner as to not cause any delays in the construction duration. The CONTRACTOR shall pay for all permits.
- SC16. Payment: Except where bid items are specifically provided in the Proposal, payment to the CONTRACTOR to accommodate the requirements specified herein shall be included in the unit or lump sum price costs for the items bid, and shall be considered to be subsidiary to the various items of work under this Contract if so specified in the Contract documents.
- SC17. Storm Water Management: CONTRACTOR shall be responsible to prepare and file all documents and forms associated with the Texas Commission on Environmental Quality's Storm Water Management Program. This includes, but is not limited to, obtaining a Texas Commission on Environmental Quality Storm Water Permit. CONTRACTOR shall be responsible to pay all associated fees.
- SC18. Endangered Species: If CONTRACTOR encounters any endangered species and/or nesting birds listed as threatened or endangered species, he shall notify the OWNER or SAWS inspector prior to taking any action.

SC-19. Prevention of Nesting: CONTRACTOR is responsible to take measures necessary to prevent establishment of any migratory, threatened or endangered birds nesting on the structure during his construction which would be negatively impacted by the construction activities.

SECTION 01010

SUMMARY OF WORK

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

A. The work of this Contract comprises the San Antonio Water System's construction work for facility upgrades for West Avenue Pump Stations as mentioned on the Project Plans. The CONTRACTOR shall provide and pay for all labor, materials, equipment, tools, construction equipment and other facilities and services necessary for proper execution, testing, and completion of the work required to construct in their entirety the improvements shown on the Drawings and as specified herein. The work includes, but is not limited to the following:

1. West Avenue 0.5 MG Elevated Storage Tank (EST): Rehabilitation of existing EST as detailed in the Contract Drawings and Specifications. Project improvements include but are not limited to:
 - a. Elevated Storage Tank: Complete SSPC-SP-10 cleaning and repainting of interior surfaces and support members. Provide a single coat of 100% solids polyurethane on all interior surfaces and support members. Complete SSPC-SP-6 cleaning and repainting of the exterior surfaces with full containment as outlined in SSPC Guide 6 Class 1A. Caulk all laps seams and chime area.
 - b. Sampling, testing, handling and disposal of removed paint in accordance with TCEQ regulations. Paint is known to contain lead and cadmium.
 - c. Additional elevated storage tank rehabilitation Work items:
 - i. Tank Foundation Repair
 - ii. Wet Riser and Roof Hatch Modifications
 - iii. Modifications to Overflow and Drain Piping
 - iv. Exterior/Interior Ladder Improvements
 - v. Overflow Weir Box Modifications
 - vi. Roof/Balcony Improvements
 - vii. Roof Vent Improvements
 - viii. Structural Improvements
 - ix. Replace entire Cathodic Protection System including the Rectifier
 - x. Replace Obstruction Light
 - xi. Replace and seal roof electrical handhole penetrations to provide a positive seal
 - xii. Tank related Electrical and Instrumentation Modifications; and
 - xiii. Replacement well discharge pipe inside the facility
 - xiv. Replacement of tank outlet pipe inside the facility, including a flow control station

2. Other Site Improvements
 - a. Construction of a drainpipe to route the tank overflow to the City storm sewer system
 - b. Removal and construction of new roadways.
 - c. Removal and construction of new fencing.
 - d. Miscellaneous demolition and construction items per project plans.
3. Electrical Improvements
 - a. 400 KW Auxiliary power generator.
 - b. New Motor Control Center
 - c. Existing electrical and instrumentation equipment shall be removed from the site per project plans.
 - d. Coordination with CPS Energy to upgrade service as necessary.
 - e. Provide Power System Study as indicated in Section 16411.
 - f. Provide Electrical Testing as indicated in Section 16950.
 - g. Construction of new electrical duct banks to serve pumps, lighting and other items.
 - h. Furnish and install emergency diesel generator
4. Replacement of chlorination equipment
 - a. Chlorine feed equipment
 - b. Pressure booster pumping system
 - c. Chlorine injection piping and appurtenances

B. Portions of this project may be subject to review and acceptance by various agencies. The CONTRACTOR will be required to coordinate with these agencies for such items as issuance of permits or work orders, inspections during construction, and final acceptance. The agencies for this project that may require coordination include but are not limited to the following:

1. Texas Commission for Environmental Quality
2. Bexar County
3. San Antonio Water System
4. City of San Antonio
5. CPS Energy
6. San Antonio River Authority
7. City of Castle Hills

1.02 LOCATION OF WORK

A. SAN ANTONIO WATER SYSTEM'S West Avenue Pump Station Facility located at 6912 West Avenue.

1.03 EXISTING CONDITIONS

A. A ring beam may exist in the periphery of the tank pedestal foundation. CONTRACTOR

shall locate and expose it in the areas of suspected conflicts with this project, taking care to avoid damages. CONTRACTOR shall not take any further action on the ring beam unless authorized by OWNER.

- B. Locate and protect all existing utilities impacted by this project. Those affected by this project may include, but are not limited to:
1. San Antonio Water System
 2. CPS Energy
 3. Valero Energy Company
 4. AT&T and other telecommunications companies
 6. Spectrum and other cable companies
 7. Grande Cable
 8. Others as indicated on the Contract Drawings.

1.04 WORK SEQUENCE AND SHUTDOWNS

- A. The elevated storage tank will be available for rehabilitation and painting from October 2020 to May 31, 2021 only. CONTRACTOR must complete the tank rehabilitation and painting work in all respects, including cleaning and disinfecting no later than May 31, 2021, at which time the tank must be back in service, fully operational. This date also applies to completion of the piping components associated with the tank: inlet/outlet pipe, altitude valve control station, yard piping and connection to the existing distribution system.
- B. The facility includes a production well, which may be shut down as the project requires it. Coordinate the construction schedule and operations with OWNER.
- C. System shutdowns related to installation or switchover or electrical and chemical equipment shall be coordinated with OWNER two weeks in advance.
- D. A Traffic Control Plan conforming to the requirements of the Texas Manual on Uniform Traffic Control Devices shall be provided by the CONTRACTOR to the governing R.O.W. agency and the OWNER when the proposed construction affects or is located within the limits of a local, state, or federal maintained R.O.W.
- G. Connections to Existing Facilities. Unless otherwise specified or indicated, CONTRACTOR shall make all necessary connections to existing facilities, including structures, drain lines, and utilities such as water, sewer, gas, telephone, and electric. In each case, CONTRACTOR shall receive permission from OWNER or the owning utility prior to undertaking connections. CONTRACTOR shall protect facilities against deleterious substances and damage. CONTRACTOR shall provide a minimum of 72 hours notice prior to making connections.

Connections to existing facilities which are in service shall be thoroughly planned in advance, and all required equipment, materials, and labor shall be on hand at the time of undertaking the connections. Work shall proceed continuously (around the clock) when

necessary to complete connections in the minimum time. Operation of valves or other appurtenances on existing utilities, when required, shall be by or under the direct supervision of the owning utility.

1.05 MISCELLANEOUS

A. Unfavorable Construction Conditions. During unfavorable weather, wet ground, or other unsuitable construction conditions, CONTRACTOR shall confine its operations to work which will not be affected adversely by such conditions. No portion of the Work shall be constructed under conditions which would affect adversely the quality or efficiency thereof, unless special means or precautions are taken by CONTRACTOR to perform the Work in a proper and satisfactory manner.

B. Cleaning Up. CONTRACTOR shall keep the premises free at all times from accumulations of waste materials and rubbish. CONTRACTOR shall provide adequate trash receptacles about the site and shall promptly empty the containers when filled.

Construction materials, such as concrete forms and scaffolding, shall be neatly stacked by CONTRACTOR when not in use. CONTRACTOR shall promptly remove splattered concrete, asphalt, oil, paint, corrosive liquids, and cleaning solutions from surfaces to prevent marring or other damage.

Volatile wastes shall be properly stored in covered metal containers and removed daily.

Wastes shall not be buried or burned on the site or disposed of into storm drains, sanitary sewers, streams, or waterways. All wastes shall be removed from the site and disposed of in a manner complying with applicable local, state and federal regulations.

Cleanup will be a condition for recommendation of progress payment applications.

C. Applicable Codes. References in the Contract Documents to local codes indicate the following:

1. Currently adopted International Building Code with City of Castle Hills amendments.
2. Currently adopted International Fire Code with City of Castle Hills amendments.
3. Currently adopted International Energy Conservation Code with City of Castle Hills amendments.
4. Other standard codes which apply to the Work as designated in the Specifications and include, but not limited to, NFPA, OSHA, TCEQ, and EPA.

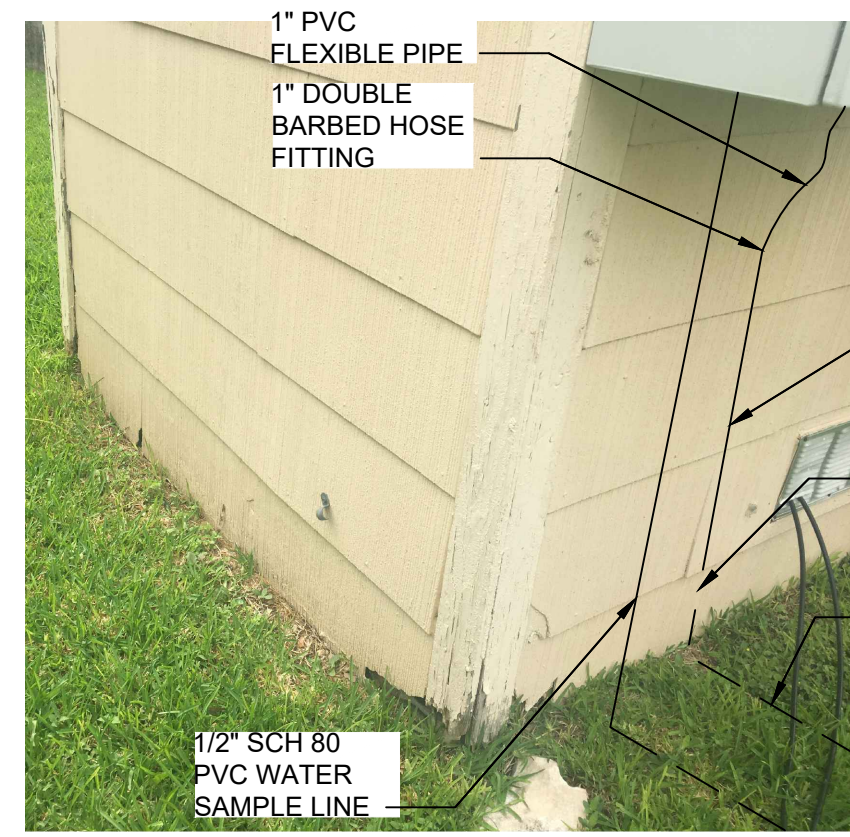
D. Reference Standards. Reference to standards, specifications, manuals, or codes of any

technical society, organization, or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, or laws or regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated. However, no provision of any referenced standard, specification, manual, or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of OWNER, CONTRACTOR, CONSULTANT, or ENGINEER, or any of their Consultants, agents, or employees from those set forth in the Contract Documents, nor shall it be effective to assign to ENGINEER, or any of ENGINEER's Consultants, agents, or employees, any duty or authority to supervise or direct the furnishing or performance of the Work.

- E. Site Administration. CONTRACTOR shall be responsible for all areas of the project site, including areas occupied by Subcontractors, in the performance of the Work. CONTRACTOR will exert full control over the actions of all employees and other persons with respect to the use and preservation of property and existing facilities, except such controls as may be specifically reserved to OWNER or others. CONTRACTOR has the right to exclude from the site all persons who have no purpose related to the Work or its inspection and may require all persons on the site (except OWNER's employees) to observe the same regulations as CONTRACTOR requires of its employees.
- F. CONTRACTOR must maintain security for the site at all times.
- G. Warranty (West Ave. Tank Rehab). CONTRACTOR shall warrant the tank coating system for a minimum of two (2) years in accordance with Section 09910 – Tank Painting and Coating. The remainder of the work shall comply with the SAWS standard two (2) year warranty, as described within the General Conditions of this Contract. CONTRACTOR is responsible for an anniversary inspection as outlined in Section 09910 – Tank Painting and Coating.
- H. Warranty (General). The work shall comply with the SAWS standard two (2) year warranty, as described within the General Conditions of this Contract.

END OF SECTION

7/20/2020 2:57:35 PM - I:\ACAD\PROJ\02196051-SAW\99-WEST AVE SITE\2-SHEETS\04-C-CIVIL\02196051-C-03-OPT2.DWG - RAY, JEFF



A SECTION

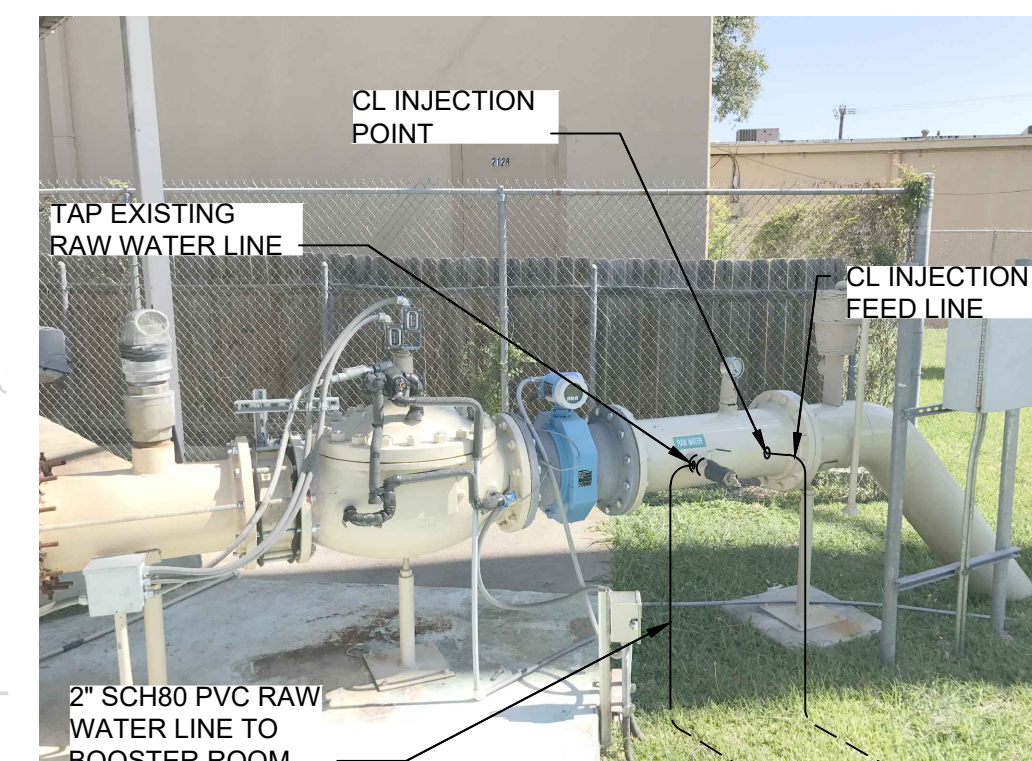
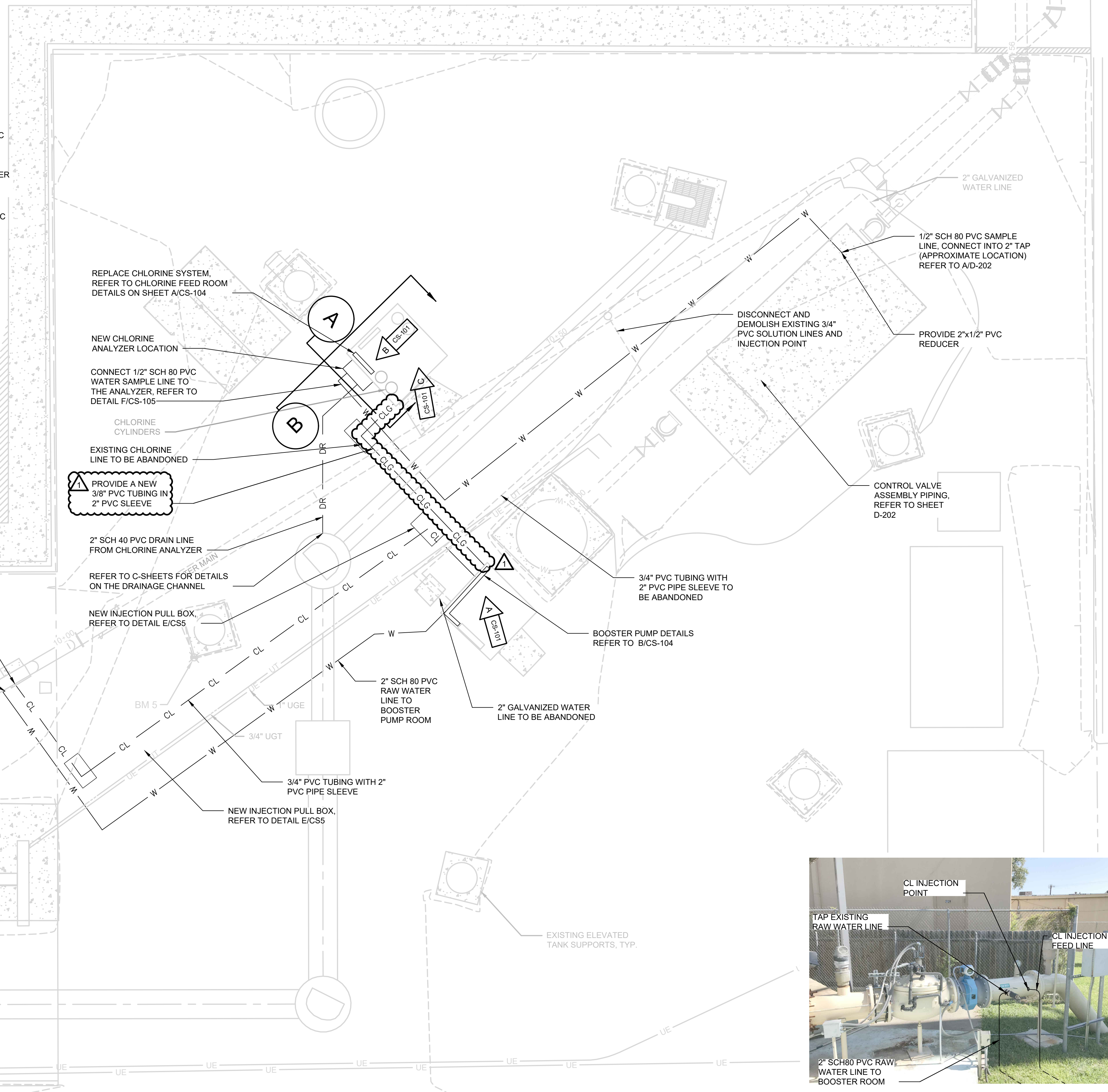
B SECTION

LEGEND:

- TO BE DEMOLISHED OR REMOVED
- DRAIN
- WATER
- CHLORINE
- CHLORINE GAS
- CARBON STEEL

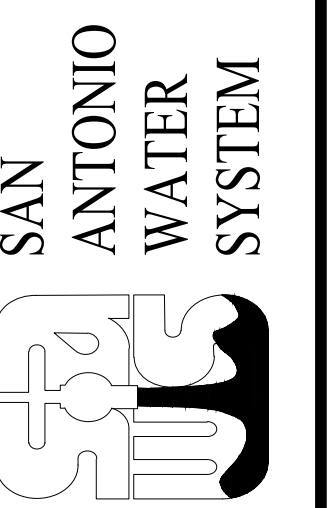
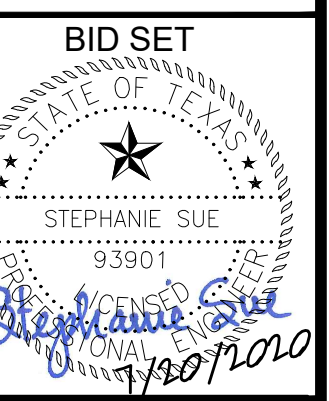
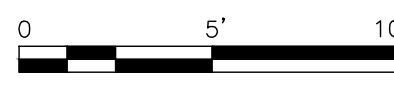
NOTE:

1. EXISTING PIPE MATERIAL AND SIZES SHOWN ARE BASED ON THE AVAILABLE DRAWINGS AND FIELD VISIT. UNDERGROUND UTILITIES MAY EXIST WITHIN THE WORK AREA. THE UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING EXISTING UTILITIES AND FOR DAMAGE TO THE UTILITIES CAUSED BY THE CONTRACTORS OPERATION.
2. CONTRACTOR AND/OR CONTRACTORS INDEPENDENTLY RETAINED EMPLOYEE OF STRUCTURAL DESIGNED GEOTECHNICAL SAFETY EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS. AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION STEP WITH IN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTORS TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES.
3. THE CONTRACTORS IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH, AT A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS.
4. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTORS INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.
5. MINIMUM BURY DEPTH FOR WATER LINES AND CHEMICAL LINES SHALL BE 2-FEET OR CONTRACTOR TO MATCH THE EXISTING DEPTH.
6. MINIMUM BURY DEPTH FOR DRAINS SHALL BE 2-FEET.
7. REFER TO C/CS-105 FOR BACKFILL AND BEDDING FOR PIPE TRENCHES.
8. PIPE SIZES ARE APPROXIMATE BASED ON SITE VISITS. CONTRACTOR TO MATCH THE EXISTING PIPE DIAMETER AND PIPE MATERIAL FOR NEW WATER TIE-INS AND FLUORIDE SLEEVES.
9. PROVIDE MINIMUM SLOPE OF 0.25% FOR THE 2-INCH DRAIN LINES.
10. ALL TUBING CONNECTIONS FOR INJECTION LINES SHALL BE MINIMIZED TO THE EXTENT POSSIBLE. WHERE CONNECTIONS ARE NECESSARY, THEY SHOULD BE MADE IN A PULL BOX.



C DETAIL

WEST AVENUE PUMP STATION SITE PLAN



MARK	DATE	DESCRIPTION	BY
1	07/17/20	PER ADDENDUM #1	MK

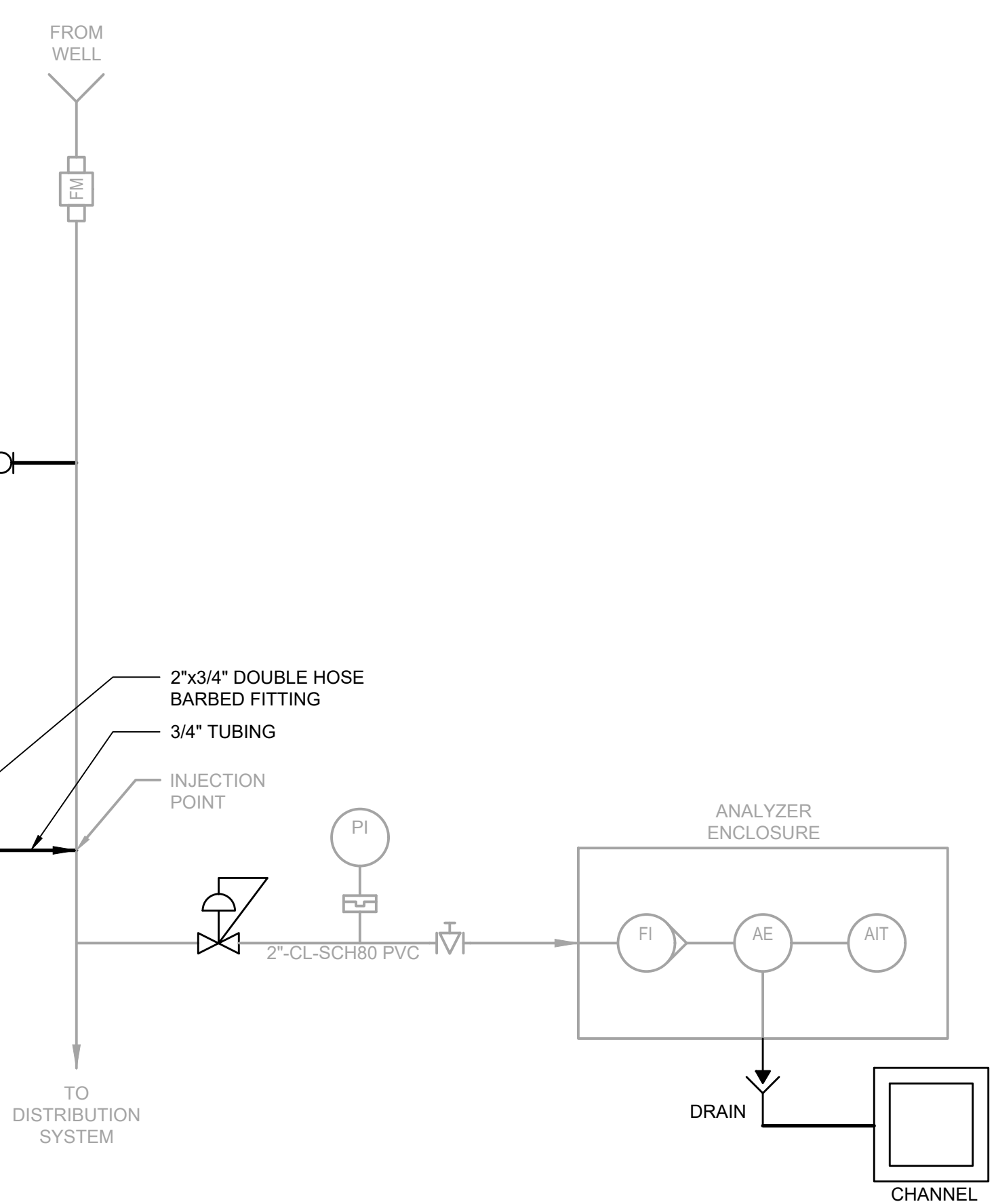
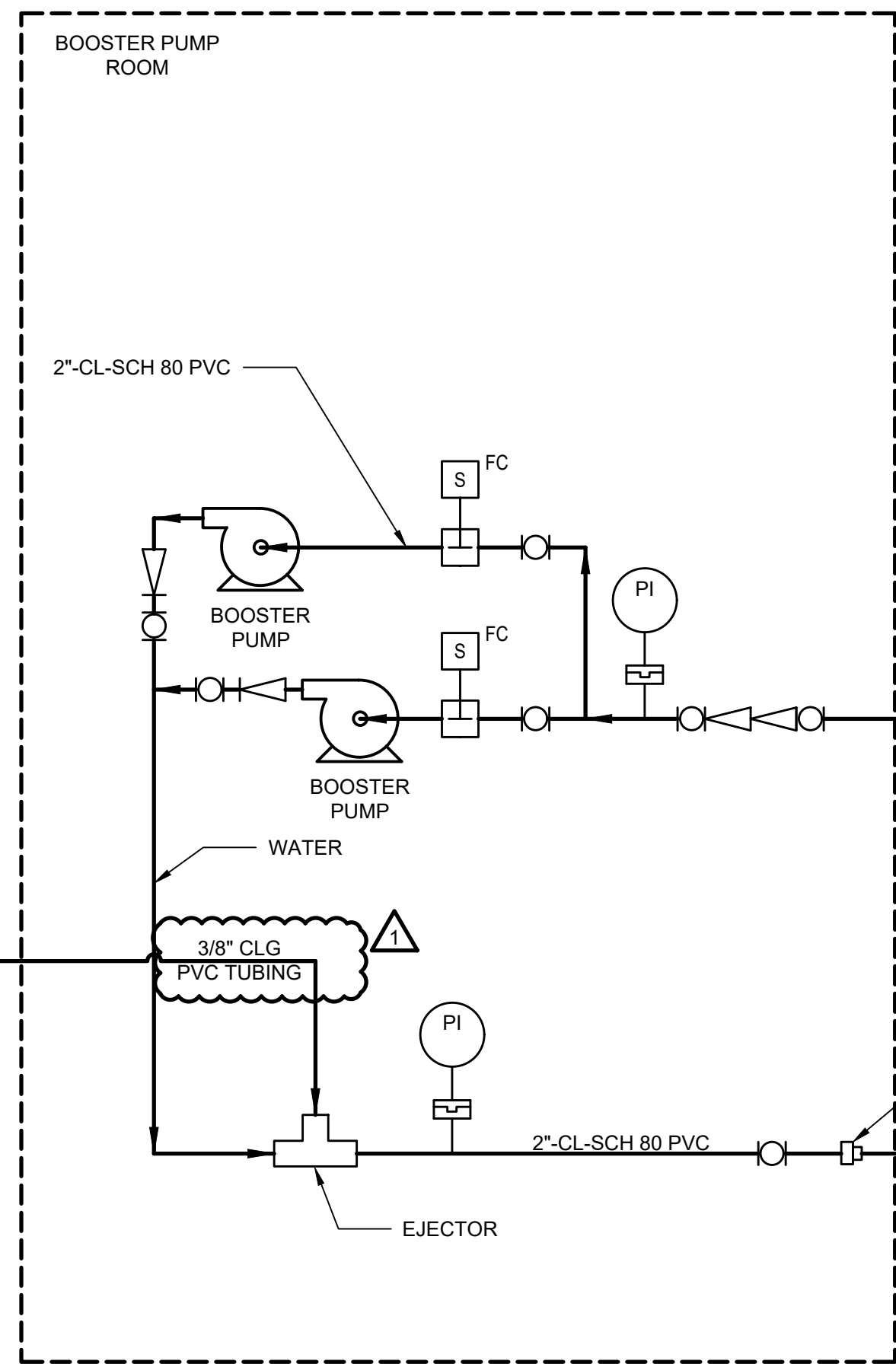
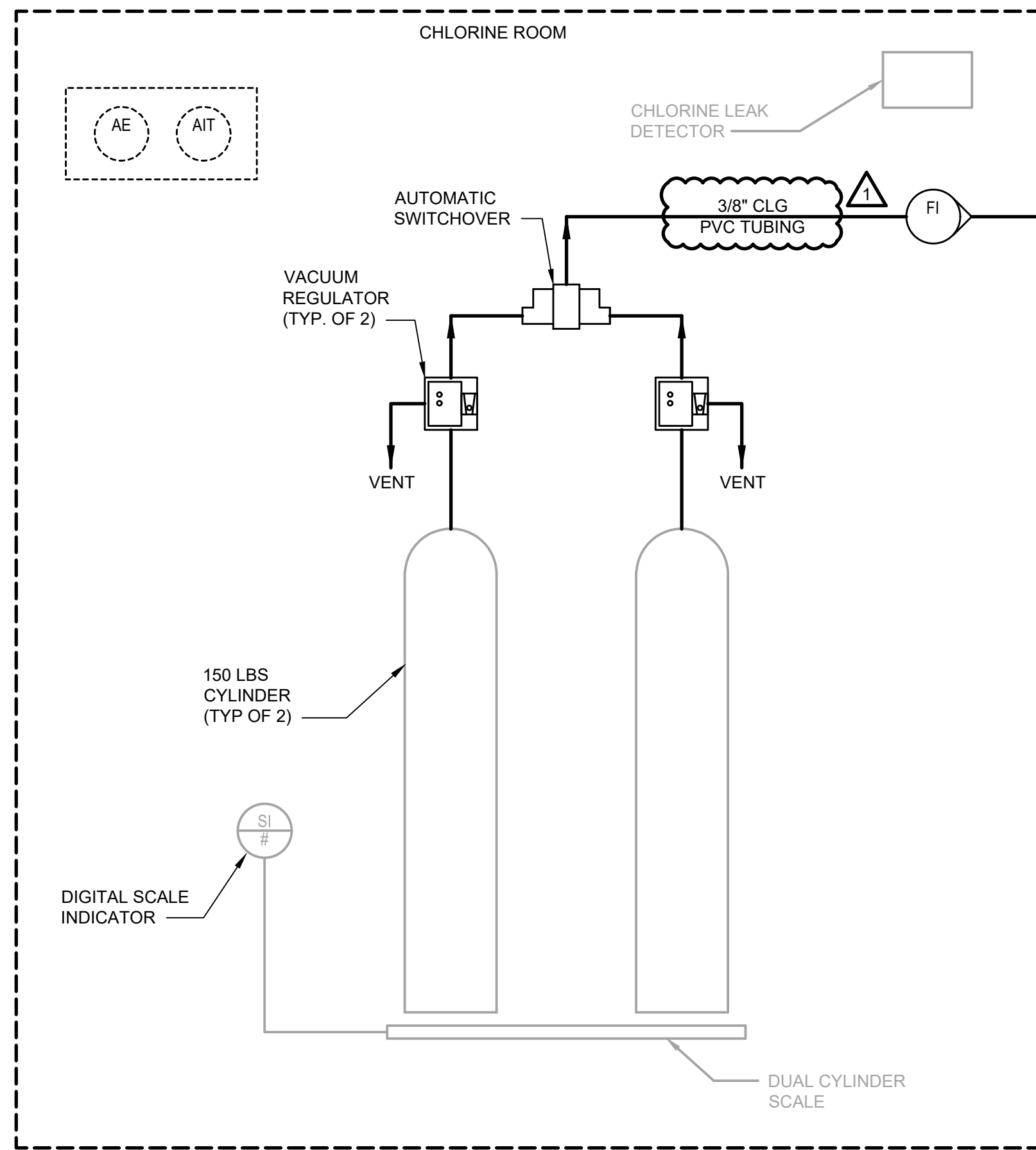
SAN ANTONIO WATER SYSTEM
WEST AVENUE ELEVATED STORAGE TANK
REHABILITATION PAINTING PROJECT
SITE PLAN

Project No.: 200-09308-17001-05
 Designed By: MK
 Drawn By: JR
 Checked By: SS

CS-102

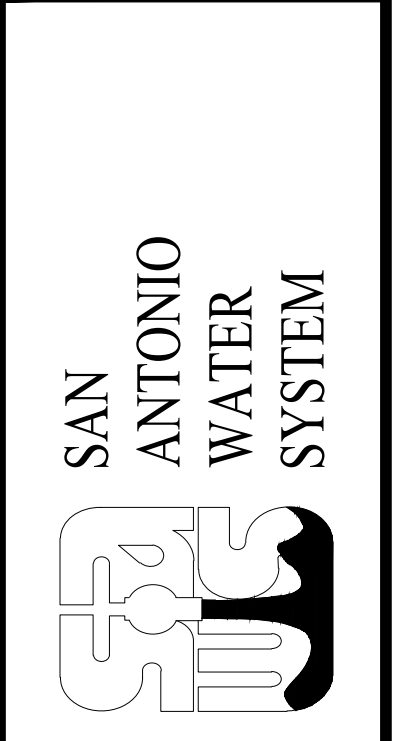
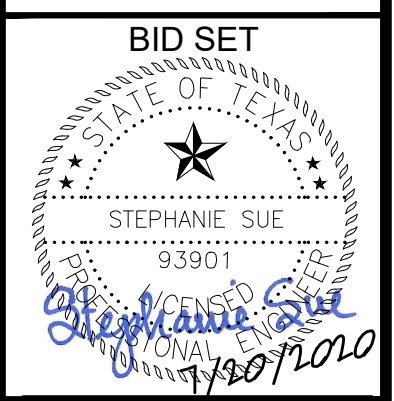
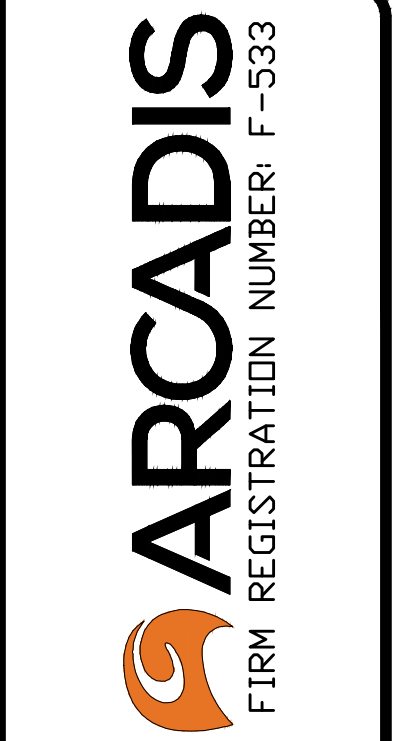
Copyright: Tetra Tech
Bar Measures 1 inch

7/20/2020 2:59:09 PM - I:\ACAD\PROJ\02196051-SAWS\9-WEST AVE SITE\2-SHEETS\10-P-PROCESS\02196051_P-05.DWG -RAY, JEFF



LEGEND

—	EXISTING
⊘	BALL VALVE (NORMALLY OPEN)
∇	CHECK VALVE
⊙ AE	ANALYZER ELEMENT
⊠ FC	SOLENOID VALVE
⊙ PI	PRESSURE INDICATOR
∇	NEEDLE VALVE
⊙ AIT	ANALYZER INDICATING TRANSMITTER
⊙ FI	ROTAMETER
⊘	BACKFLOW PREVENTER
∇	PRESSURE REDUCING VALVE



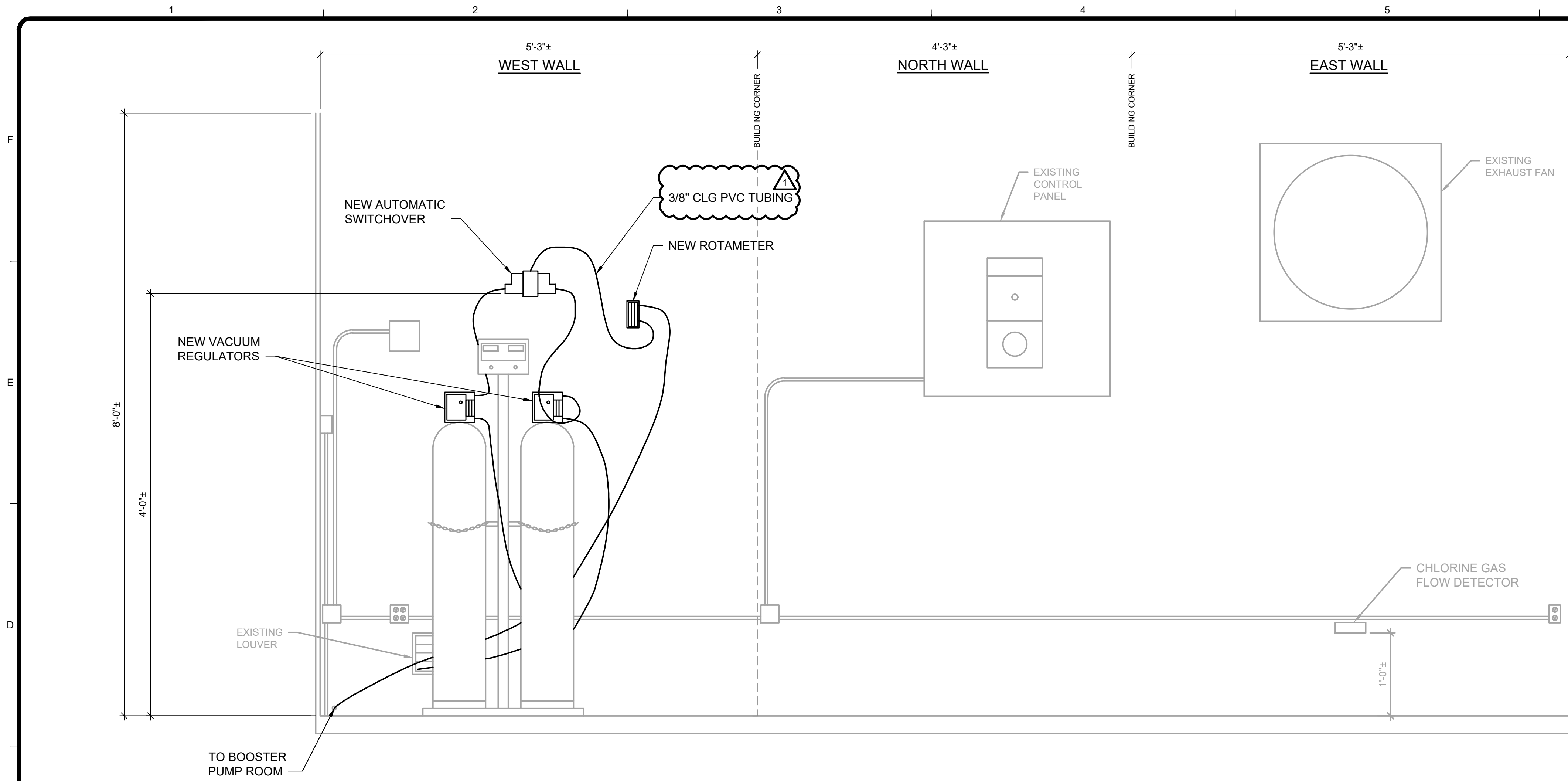
MARK	DATE	DESCRIPTION	BY
1	07/17/20	PER ADDENDUM #1	MK

SAN ANTONIO WATER SYSTEM
 WEST AVENUE ELEVATED STORAGE TANK
 REHABILITATION PAINTING PROJECT
 WEST AVENUE PUMP STATION
 PROCESS & INSTRUMENTATION
 CHLORINE SYSTEM

Project No.: 200-09308-17001-05
 Designed By: MK
 Drawn By: JR
 Checked By: SS

CS-103

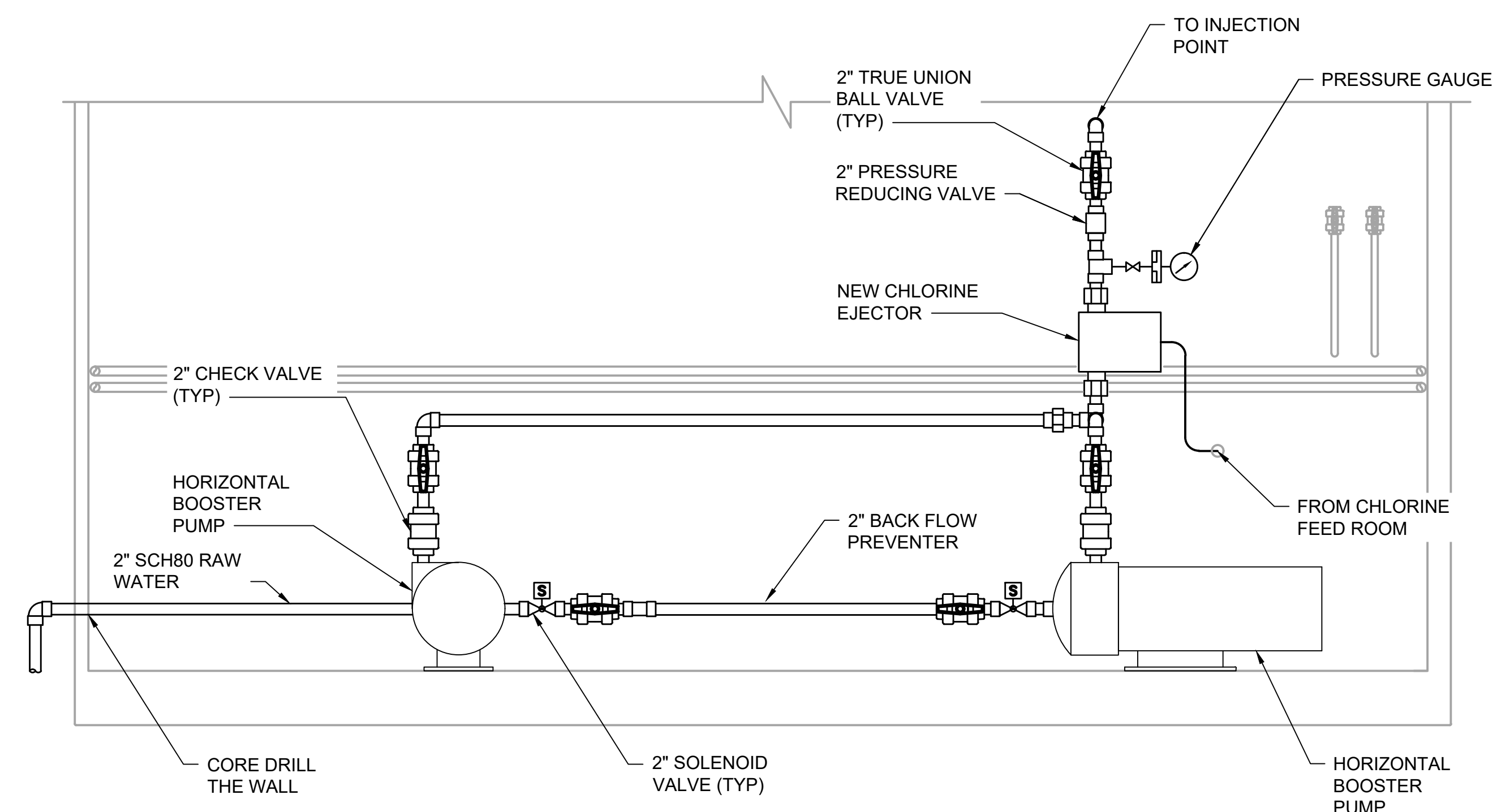
NOTE:
 1. PROPOSED CHLORINE SYSTEM FLOW DIAGRAM IS BASED ON FIELD INVESTIGATION. THE FINAL PROPOSED CHLORINE SYSTEM MAY VARY FROM PROCESS SHOWN ON THIS DIAGRAM.



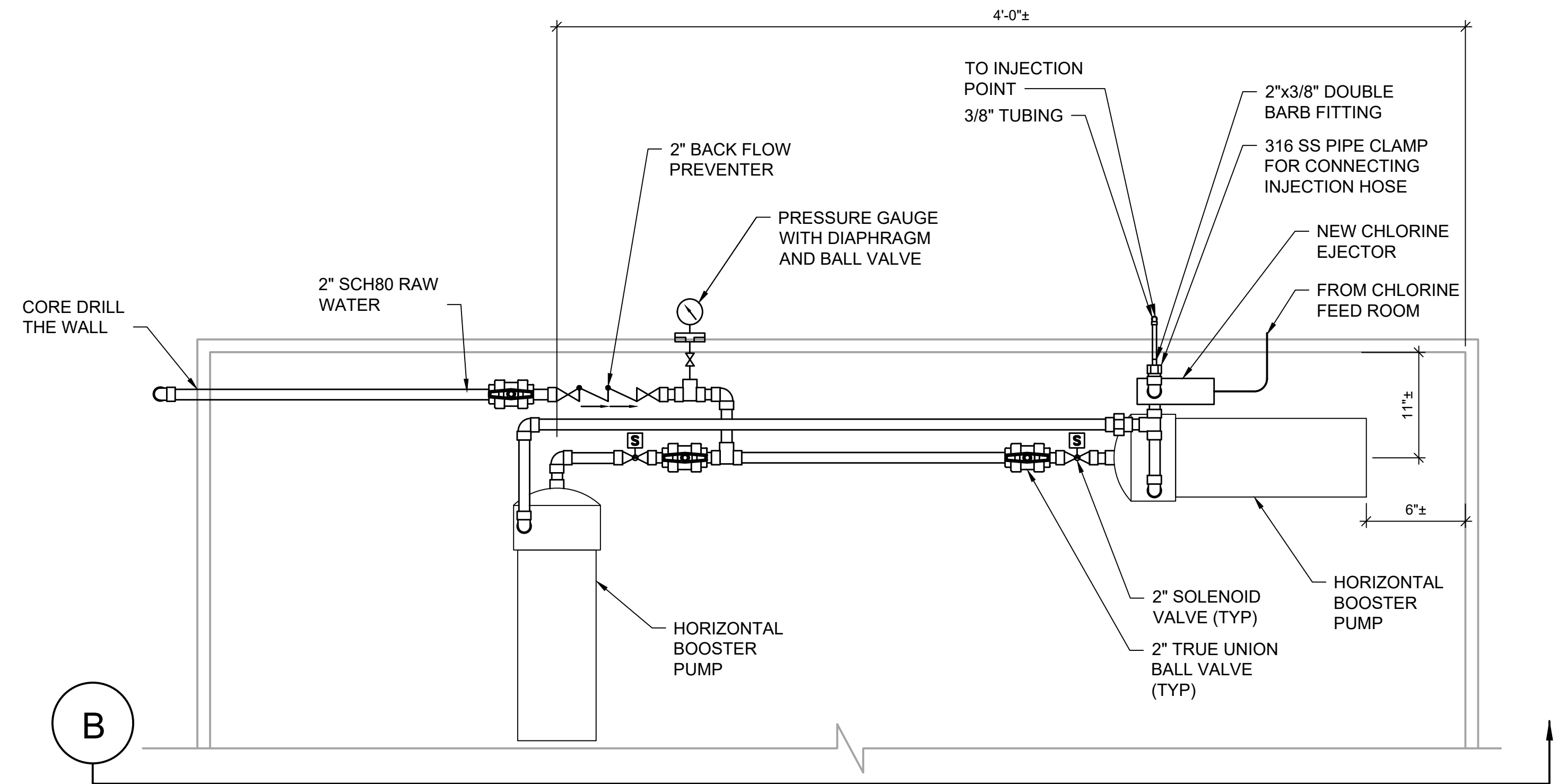
NOTES:

1. COMPRESSION FITTINGS TO BE USED ON ALL 3/8" GAS TUBING.
2. ALL PVC FITTINGS AND PIPE SHALL BE SCHEDULE 80 AND PAINTED PER TCEQ REQUIREMENTS.
3. SAWS TO REMOVE THE SPARE WELL PUMP IN THE BOOSTER ROOM PRIOR TO BEGINNING OF CONSTRUCTION.

A CHLORINE FEED ROOM ELEVATION DETAIL

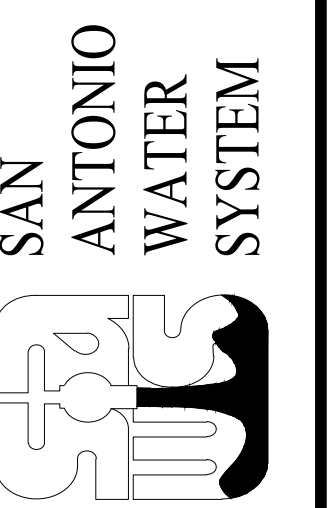
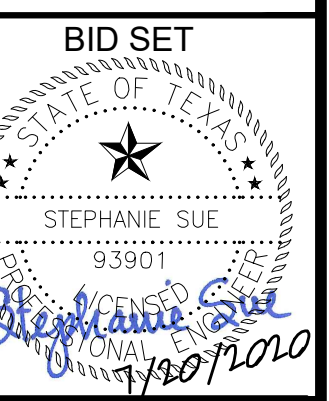


B BOOSTER PUMP ROOM ELEVATION DETAIL



C BOOSTER PUMP ROOM PARTIAL PLAN

7/20/2020 2:58:35 PM - I:\ACAD\PROJ\02196051-SAWS\9-WEST AVE SITE\2-SHEETS\08-MECHANICAL\PROCESS\02196051-M-11.DWG - RAY, JEFF



MARK	DATE	DESCRIPTION	BY
1	07/17/20	PER ADDENDUM #1	MK

SAN ANTONIO WATER SYSTEM
 WEST AVENUE ELEVATED STORAGE TANK
 REHABILITATION PAINTING PROJECT
CHLORINE AND BOOSTER PUMP DETAILS

Project No.: 200-09308-17001-05
 Designed By: MK
 Drawn By: JR
 Checked By: SS

CS-104

Copyright: Tetra Tech
 Bar Measures 1 inch