34th Street Pump Station Improvements Project
SAWS Job No. 13-6004
Solicitation No. CO-00072-RA

ADDENDUM No. 2

October 14, 2016

This addendum, applicable to work designated above, is an amendment to the proposal and specification documents and as such shall be a part of and included in the Contract. Acknowledge receipt of this addendum by entering the addendum number and issue date on the space provided in submitted copies of the proposal.

1. Questions/Comments

1.1. The 34th Street project has a mandatory site visit, which will interfere with the Highland Estates project mandatory pre-bid. Can one of the pre-bids be moved?

Response: The mandatory site visit for the 34th Street project will not be rescheduled. The mandatory pre-bid for the Highland Estates project will be rescheduled.

1.2. Does the subject project include an aboveground storage tanks (welded steel)?

Response: No

1.3. Specification 16482 Article 2.01 MANUFACTURER'S- Square D by – Schneider Electric would like to be added to the acceptable list of manufacturer's.

Response: Square D is not approved as an acceptable manufacturer for the medium voltage equipment specified in this specification.

1.4. Is there an Asbestos Containing Materials and Lead Paint survey report?

Response: Yes, see Modifications to Specifications, 2.1 to obtain a copy of the Geotechnical Report, which includes the Asbestos and Lead Report.

1.5. Has the ACM and Lead Based Paint been abated?

Response: No, that is included in this contract

1.6. Is there an amount of Square Footage for the ACM and Lead Paint?

Response: The asbestos and lead survey results report can be accessed by providing a disclaimer form to SAWS. The contractor can tabulate quantities from the report. Specification 02503 Lead Paint Abatement and Specification 02504 Asbestos Containing Materials Removed also details the locations.

1.7. For the Insurance Requirements – Does the Excess/Umbrella Liability insurance only apply to the Prime Contractor or does that also apply to the subcontractors as well?

Response: Insurance requirements apply only to the Prime contractor.

1.8. Can you please provide the preferred enclosures for the motors required in pump section 11312. Referenced motor section 16151-2.08.A page 1269 states: Unless otherwise specified, motor enclosure shall be WPI, WPII, TEACC or TEWAC as specified herein and be in compliance with NEMA MG-1.

Response: Indoor HSP motors are to be WP I.

1.9. What type of field connections are required for steel pipe less than 30-inch? Specification section 15071, paragraph 2.01B states that buried piping to be connected together with mechanical or push joints (Sounds like a pvc or ductile iron system). The majority of the buried yard piping on this project is designated as steel with a lot of it being smaller than 30-inch. We can figure this project as being a shop fabricated system with flanged joints, this would eliminate all field joint lining repairs

Response: Use Rubber gasket bell and spigot joints for buried piping. See revisions to specification.

1.10. Corrpro Waterworks will be quoting as a subcontractor for the cathodic protection scope of work associated with the 5,000,000 Gallon "34th St." Reservoir. Attached you will find an excerpt from the cathodic protection specification (section 13110) for the upcoming bid on the SAWS – 34th St. Pump Station project. I have highlighted a discrepancy in the specification with regards to the basic type of cathodic protection system required. The language is mixed between both a horizontal and vertical type cathodic protection system. Please confirm which type is actually desired for this project.

VERTICAL TYPE CP SYSTEM: Corrpro Waterworks has recommended that SAWS continue to use the vertical type CP systems on existing tanks that have used the vertical system in the past and already have handholes installed within the tank roof.

• PROS: - the vertical type CP system can be installed, inspected and serviced with the tank full of water and in-service.

• CONS: - the vertical type CP system requires 5" handholes within the tank roof – the 5,000,000 Gallon "34th St". Reservoir has (33) handholes existing within the tank roof. (should you decide to go with a horizontal type CP system, these holes would either need to welded shut or have new covers installed over them)

HORIZONTAL TYPE CP SYSTEM: Corrpro Waterworks will recommends this type of system for new construction large tanks. The installation somewhat cleaner that the vertical type system because you don't have to cut all of the access handholes within the tank roof.

• PROS: - the horizontal type CP system eliminate the need for access handholes within the tank roof.

• CONS: - the horizontal type system cannot be installed or repaired without draining the tank. This is not really much of a drawback because Corrpro WW has such a good track record with regards to our design and workmanship skills that the horizontal type CP system will operate throughout its 20 year design life without the need for repair.

Both systems function equally as far as providing corrosion control to the interior of the tank. It is really a matter of preference, but it will make a difference to the general contractor for the project as there is a cost involved if it is decided that the handholes need to be welded closed and new anchor points need to be welded inside the tank to facilitate mounting a horizontal type system.

Please advise me as to what direction SAWS would like to take in this matter. (if you are not the correct person to handle this request, please forward to the correct engineer and cc me)

If possible, could I also get a list of the attendees at the mandatory pre-bid meeting that is being held today.

Response: Cathodic protection shall be the vertical type system. The pre-bid meeting sign in sheet is attached. The sign in sheet can also be found on the SAWS website under solicitation.

1.11. Can you clarify the spec for double containment pipe (15065) for the hydrofluosilicic acid. Are you wanting the ½" PFD tubing to be factory assembled inside the 2" PVC containment pipe? This will require pipe to be furnished in 20' sections with hundreds of field connections. Can we field install the containment pipe, then slide the carrier tubing inside and make connections at the containment pull boxes?

Response: The containment pipe should be installed first and the primary tubing pulled through using the containment pull boxes.

1.12. Will you clarify the spec for the double containment leak detection system. There is not enough information here for the manufacturers to determine what is required. Are there leak detectors on each of the pipelines as they enter each pull box, are detection cables required (2.03 B.2), or is there another system that monitors all pipelines entering or leaving the pull box (definitely need a spec for this if required)?

Response: Leak protection is provided by the level sensor in each pull box. There is no monitoring in the piping itself.

Drawing D-502, Detail 3: There is no PVC tubing. It is either PFA tubing or rubber hose.

Response: PVC tubing will be changed to tubing or hose. See revised drawing.

Drawing D-502. Detail 3: There is no pull box near the Chem Bldg for the HF acid. CCB-1 is 35' away.

Response: Transition to PFA tubing for Hydrofluosilicic acid will take place in the tank containment area.

1.13. Siemens is listed in several of the specification sections including the Medium Voltage spec but there are a few areas where Siemens is not listed as an approved manufacturer.

Can you please add Siemens to the list of Approved Manufacturers in the following spec sections:

I have not included product data for the items below to minimize size of this email but can if you would like to review.

Section 16461 Low Voltage Distribution Dry Type Transformers

Siemens "DTDT" series, with all required options. Units will be provided with all ratings, types, options and accessories as specified.

Section 16196 Low Voltage AC Surge Protective Devices

Siemens "TPS3" Series, with all of the required options. Units are UL1449 3rd Edition listed. Units will be integraly mounted type units oer the drawings and application. Units will be provided with all of the ratings, types, options,

and accessories as specified.

Section 16470 Panelboards

Siemens "P" Series with all ratings, types, applications, and accessories as specified. Product literature is not attached but can be sent in separate email if requested do to size.

Section 16480 Low Voltage Motor Control Center

Siemens "Tiastar" Series with all ratings, types, applications, and accessories as specified. Product literature is not attached but can be sent in separate email if requested do to size.

Section 16430 Pad Mount Transformers

Siemens "Padmount" Series with all ratings, types, applications, and accessories as specified. Product literature is not attached but can be sent in separate email if requested do to size.

Response: Siemens is allowed as a manufacturer of the equipment listed above.

1.14. Are you allowing approved equals for the listed Horizontal Split-Case Pumps if they meet the specifications and duty conditions??

Response: No. Only named manufacturers shall be allowed.

1.15. Could you assist me with this question that the factory is asking:

For the below point in the specification:

1. Provide one (1) horizontally mounted, axial split-case, single stage, side suction, double suction, centrifugal pumps (HSP-1).
2. Provide two (2) horizontally mounted, axial split-case, single stage, bottom suction, double suction, centrifugal pumps (HSP-4 and HSP-5).

It is mentioned for the second pump the suction needed to be from the bottom.

Is that correct? Can we supply our normal KP, I am not sure if there is a supplier can do split case in this specification.

Response: The specification is correct, HSP-4 and HSP-5 have to be bottom suction. Side suction pumps will not be allowed for HSP-4 and HSP-5.

1.16. Why was ChlorTec removed from the list of manufacturers of the on-site generator? ChlorTec has a proven install and performance within SAWS . The MicroChlor system does not have that record within SAWS. Macaulay Controls Company is requesting that ChlorTec be added and allowed to bid this project.

Response: Per Specification 11366, 1.02D, OSHG equipment shall meet or exceed the requirements of this specification.

1.17. Bid Proposal

Clarification - Bid Item 8 is an allowance item for HSP 2 and HSP 3 repairs for $5000.00.

Is this amount a repair or inspection price?

Response: The allowance is for repairs to the pump itself, not including items related to the motor.

HSP-2 & -3 are retrofitted with new motors under this contract which will likely require baseplate, coupling and guard modifications. Will the repairs to HSP 2 and HSP 3 be included under this contract to allow for single source responsibility of the complete repair and baseplate modification and motor supply?

Response: Yes, It is intended that the same supplier shall provide the repairs to the pump and modifications to the baseplate, coupling and guard modification.

1.18. 11312

1.06.A – Clarification – This line calls for the Pump Unit Questionnaire to be completed with the bid proposal. The form itself calls for it to be completed after award of contract. Please clarify when the Pump Unit Questionnaire is to be completed.

Response: The Pump Unit Questionnaire shall be submitted with Bid Proposal. See Modifications to the Specifications 2.12 and 2.14

1.08.F.2 – Comment – Flowserve will state in scope that factory vibration testing is for reference only due to the temporary nature of the test stand with bottom suction split case pumps. The pumps will meet HI vibration limits under field testing.

Response: Acceptable

1.08.H.2.a – Exception – Flowserve will not provide 3-D checks of components as that is proprietary information. We will provide a QA report that indicates that castings conform dimensionally to our standards. We will meet the mil-certs, hydro, and MSS-SP-55 visual inspection requirements.

Response: 3-D checks are required as part of QA report. Proprietary details of checks do not need to be included. QA report indicating that castings meet standards are sufficient.

1.09.C 0 – Clarification – which voltage is to be required? 2300V or 4160V motors? Would the engineer allow low-voltage motors on the bid?

Response: Motor voltage is to be 4160 V.

2.05.B – Exception – Flowserve cannot provide a 316 SS at 350 BHN. We can offer a 316L SS if the corrosion resistance is required based on the potential for high chlorine content stated. Or we can provide a 410 SS if the hardness specified is required.

Response: Provide 410 SS to meet the specified hardness.

2.09.A – Comment – ANSI B3.15 is an outdated bearing specification. Current bearing spec should be ANSI/HI 1.3-2009

Response: They Language in the specification has been modified to read: "Pump bearings shall be antifriction, double row, deep-groove type ball bearings. They shall be designed and sized for at least 100,000 hours calculated minimum L10 rated bearing life at 25% BEP per ANSI/HI 1.3-2013."

2.09.C – Clarification – Flowserve pumps will be oil bath lubricated as opposed to oil ring lubricated method specified.

Response: Oil bath lubricated is acceptable.

2.10.A – Comment – Flowserve offering has a close fit, dowelling is not necessary on our pumps.

Response: That is acceptable.

2.13 – Clarification – Pump Impeller-only will be statically and dynamically balanced as specified. Rotating assembly balance is gone as soon as any change/disassembly/adjustment is applied. Suggest the engineer revise this to specifically impeller-only balance level.

Response: Balancing will be required as specified in 2.13.

1.19. Plan Sheet D-205

Clarification - HSP-2 & HSP-3 motors to be replaced with new motors. Replacement of the motors on existing pumps will require analysis and modification to the existing baseplates. Will specifications for baseplate modification be included by addendum?

Response: No. Baseplate modifications shall be coordinated with the motor supplier and designed by Contractor.

2. Modifications to the Specifications

2.1. Special Conditions

Remove SC1 and replace with:

Geotechnical Report - We've created a link on the SAWS website for solicitation that allows you to access the report(s). Go to the solicitation on the SAWs website, then select "Geotechnical or Preliminary Engineering Report". This will take you to the Disclaimer Form. Enter your first and last name at the bottom and check off the box, then select Submit.

2.2. Supplemental Conditions

Insert the following:

Insurance Requirements - Remove Section 5.7.1.1.8 in its entirety and replace with the following:

Installation Floater - Physical Damage Insurance which insures SAWS and the City for damages to all Property Purchased for, or Assigned to, the Project commencing on the start date through completion. Policy limits shall be in an amount equal to the total contract cost contracted herewith. The policy form shall be an All Risk form and shall include coverage for both during transit and while stored at the work site.

2.3. SMWB FAQ Sheet

Replace Marisol Robles's contact information with SAWS Program Specialist Susan Rodriguez, 210-233-2950 or at Susan.Rodriguez.org

2.4. Instructions to Bidders (IB-2,d) and Good Faith Effort Plan

Replace Marisol Robles's contact information with SAWS Program Specialist Susan Rodriguez, 210-233-2950

2.5. Section 13110

Paragraph 1.01.A that reads:

The cathodic protection design/install constructor shall provide all engineering services, materials, equipment, labor, and supervision for the installation of an automatically controlled impressed current cathodic protection system with horizontal anode system to provide corrosion control for the interior submerged surface of the specified tank (replace the existing tank cathodic protection system) and to provide corrosion control for the proposed new steel pipes (water wells discharge pipes). All work furnished shall be in accordance with A.W.W.A. Standard D104, ANSI/NSF 61 and features included in this specification. The cathodic protection constructor shall be Corrpro Waterworks, or Engineer approved equal.

Is amended to read:

The cathodic protection design/install constructor shall provide all engineering services, materials, equipment, labor, and supervision for the installation of an automatically controlled impressed current cathodic protection system with vertical anode system to provide corrosion control for the interior submerged surface of the specified tank (replace the existing tank cathodic protection system) and to provide corrosion control for the proposed new steel pipes (water wells discharge pipes). All work furnished shall be in accordance with A.W.W.A. Standard D104, ANSI/NSF 61 and features included in this specification. The cathodic protection constructor shall be Corrpro Waterworks, or Engineer approved equal.

Paragraph 3.02 Performance Section A.4 that reads:

Welding of steel coupling and anchors for horizontal anode suspension and rectifier mounting bracket shall be performed by the prime contractor prior to coating the tank. The cathodic protection constructor shall furnish drawings and materials to the prime contractor prior to coating.

Is amended to read

Welding of steel coupling and anchors for vertical anode suspension and rectifier mounting bracket shall be performed by the prime contractor prior to coating the tank. The cathodic protection constructor shall furnish drawings and materials to the prime contractor prior to coating.

2.6. Section 16196

Siemens has been added as an approved manufacturer in paragraph 2.01.A and 2.01.B.

2.7. Section 16430

Siemens has been added as an approved manufacturer in paragraph 2.A.

2.8. Section 16461

Siemens has been added as an approved manufacturer in paragraph 2.01.A.

2.9. Section 16470

Siemens has been added as an approved manufacturer in paragraph 2.01.A.

2.10. Section 16480

Siemens has been added as an approved manufacturer in paragraph 2.01.A.

2.11. Section 15071

Add the following to the end of paragraph 2.02.B:

"In buried locations, field weld joints on pipe 30 inches in diameter and larger in accordance with AWWA C206. For pipe smaller than 30 inches, provide bell and spigot joints with rubber gaskets per AWWA C200 when joint restraint is not required, or sleeve type couplings that are harnessed when joint restraint is required. Flanges shall only be used in buried piping for connections to valves and other appurtenances. Provide a harnessed flanged coupling adaptor to one side of all flanged valves and appurtenances."

Paragraph 3.02A that reads:

"Installation: All buried pipe shall be welded steel unless otherwise specifically shown in the drawings. Buried piping shall be installed according to the lines and grades shown in the plans. All trenching, bedding, and backfilling shall conform to the requirements specified in Section 02220 - Excavating, Backfilling, and Compaction. Other requirements include:"

Is amended to read:

"Installation: All buried pipe, 30 inches and larger shall be welded steel unless otherwise specifically shown in the drawings. Buried pipe less than 30 inches shall be steel with sleeve type couplings, harnessed when joint restraint is required, or bell and spigot joints with rubber gaskets. Buried piping shall be installed according to the lines and grades shown in the plans. All trenching, bedding, and backfilling shall conform to the requirements specified in Section 02220 - Excavating, Backfilling, and Compaction. Other requirements include:"

2.12. Section 11312

Paragraph 2.05B.1 that reads:

"316 Stainless Steel, 350 Brinell hardness."

Is amended to read:

"410 Stainless Steel, 350 Brinell hardness."

Paragraph 2.09A that reads:

"Pump bearings shall be antifriction, double row, deep-groove type ball bearings. They shall be designed and sized for at least 100,000 hours calculated minimum L10 rated bearing life at 25% BEP per ANSI B 3.15. Each bearing shall be capable of carrying both line and thrust type loads. All bearings shall be manufactured in the United States."

Is amended to read:

"Pump bearings shall be antifriction, double row, deep-groove type ball bearings. They shall be designed and sized for at least 100,000 hours calculated minimum L10 rated

bearing life at 25% BEP per ANSI/HI 1.3-2013. Each bearing shall be capable of carrying both line and thrust type loads. All bearings shall be manufactured in the United States."

Change the first sentence of 2.09C that reads:

"Pump bearings shall be ring oil lubricated."

To read:

"Pump bearings shall be ring oil lubricated or oil bath lubricated."

The third line of the title of Table 11312-1 Pumping Unit Questionnaire that reads:

"(To be submitted after award of Contract)"

Is amended to read:

"(To be submitted with Bid Proposal)"

2.13. Section 15065

Delete 2.03A.3 that reads:

"The leak detection system shall be a product of the containment piping manufacturer."

2.14. Remove the Bid Proposal Checklist in its entirety and replace with the attached, which is the version that should be used by bidders when submitting a bid.

2.15. Section 15077

Replace paragraph 3.02 D with the following:

Piping: Identify piping, concealed or exposed, with plastic pipe markers. Tags may be used on small diameter piping, flexible tubing and hoses. Identify service, flow direction, and pressure. Install in clear view and align with axis of piping. Locate identification not to exceed 20 feet on straight runs including risers and drops, adjacent to each valve and tee, at each side of penetration of structure or enclosure, and at each obstruction.

3. Modifications to the Drawings

3.1. D-304

Fluoride piping revised to transition from hard piping to tubing inside tank containment area. Secondary containment pipe revised to extend over wall back into containment area.

3.2. D-308

Sodium hypochlorite piping revised to extend back over tank containment area wall. (Drawing still being updated.)

3.3. D-502

Revised to show leak detector in the chemical containment box (previously included but not shown).

3.4. I-305

Changed to reference Division 15 instead of Division 11.

3.5. S-302

Revised grating support layout detail to include FRP supports instead of Aluminum.

3.6. S-503

Revised FRP Grating support beam detail to include FRP supports instead of Aluminum.

ACKNOWLEDGEMENT BY BIDDER

Each respondent is requested to acknowledge receipt of this Addendum No. 2 by his/her signature affixed hereto and to file same and attach with his/her proposal.

The undersigned acknowledges receipt of this Addendum No. 1 and the proposal submitted herewith is in accordance with the information and stipulations set forth.

Date	Signature

Tetra Tech, Inc.

Texas Registered Engineering Firm F-3924

700 N. Saint Mary's Street, Ste. 300

San Antonio, TX 78205

END OF ADDENDUM

34TH STREET PUMP STATION IMPROVEMENTS PRE-BID MEETING

SIGN-IN SHEET

Project:	34th Street Pump Station Improvements	**Meeting Date:**	September 30, 2016
Facilitator:	Ismael Rosales	**Place/Room:**	SAWS & 34th Street Pump Station

Name	Travis Baur	**Phone**	(512) 288-6437
Company	Keystone Construction Inc.	**E-Mail**	estimating@keystoneconstruct.com
Meeting Signature		**Site Visit Signature**	

Name	Bob Benson	**Phone**	817-821-3509
Company	Shermco	**E-Mail**	bbenson@shermco.com
Meeting Signature		**Site Visit Signature**	

Name	Marisol V. Robles	**Phone**	210.233.3420
Company	SAWS	**E-Mail**	Marisol.robles@saws.org
Meeting Signature		**Site Visit Signature**	

Name	Susan Rodriquez	**Phone**	210 233-2950
Company	SAWS	**E-Mail**	Susan.Rodriquez@SAWS.ORG
Meeting Signature		**Site Visit Signature**	

34TH STREET PUMP STATION IMPROVEMENTS PRE-BID MEETING

SIGN-IN SHEET

Project:	34th Street Pump Station Improvements	**Meeting Date:**	September 30, 2016
Facilitator:	Ismael Rosales	**Place/Room:**	SAWS & 34th Street Pump Station

Name	Abel Abraham	**Phone**	623-581-9700
Company	Quest Civil Constructors	**E-Mail**	estimating@QVSW.com
Meeting Signature		**Site Visit Signature**	

Name	Cliff Tubbs	**Phone**	832-675-0499
Company	CYMI Industrial	**E-Mail**	ctubbs@cymi-industrial.com
Meeting Signature		**Site Visit Signature**	

Name	Vicente J Garza	**Phone**	210-233-3596
Company	SAWS	**E-Mail**	vgarza@saws.org
Meeting Signature		**Site Visit Signature**	

Name	Angel L Morales-Vazquez	**Phone**	210.428-5982
Company	SAWS	**E-Mail**	amorales-vazquez@saws.org
Meeting Signature		**Site Visit Signature**	

34TH STREET PUMP STATION IMPROVEMENTS PRE-BID MEETING

SIGN-IN SHEET

Project:	34th Street Pump Station Improvements	**Meeting Date:**	September 30, 2016
Facilitator:	Ismael Rosales	**Place/Room:**	SAWS & 34th Street Pump Station

Name	MICHAEL THOMPSON	**Phone**	
Company	SMITH PUMP COMPANY	**E-Mail**	
Meeting Signature		**Site Visit Signature**	

Name	ADAM HAYS	**Phone**	(210) 214-0812
Company	SUPERIOR OPTIMIZATION	**E-Mail**	adamhays@supopt.com
Meeting Signature		**Site Visit Signature**	

Name	CONTACT: ROD LUNKWITZ / AUSTIN ADKINS	**Phone**	817-401-6278
Company	ARCHER WESTERN CONSTRUCTION	**E-Mail**	RLUNKWITZ@WALSHGROUP.COM
Meeting Signature		**Site Visit Signature**	

Name	TOM SINK / JANIE RODRIGUEZ	**Phone**	817-491-2703
Company	OSCAR RENDA CONT.	**E-Mail**	janie@oscarrenda.com
Meeting Signature		**Site Visit Signature**	

San Antonio Water System

34TH STREET PUMP STATION IMPROVEMENTS PRE-BID MEETING

SIGN-IN SHEET

Project:	34th Street Pump Station Improvements	**Meeting Date:**	September 30, 2016
Facilitator:	Ismael Rosales	**Place/Room:**	SAWS & 34th Street Pump Station

Name	Rex Green	**Phone**	210-846-3584
Company	The Scruggs Company	**E-Mail**	Rgreen@Scruggsco.com
Meeting Signature	Rex Green	**Site Visit Signature**	

Name	Will Eatmon	**Phone**	919-946-8510
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Meeting Signature	Will	**Site Visit Signature**	Will

Name	Tiffanie Pollard	**Phone**	(830)387-4623
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Meeting Signature	TPollard	**Site Visit Signature**	TPollard

Name	JAKE BLOUNT	**Phone**	(210)496-6888
Company	ALTERMAN	**E-Mail**	jblount@goalterman.com
Meeting Signature		**Site Visit Signature**	

San Antonio Water System

34TH STREET PUMP STATION IMPROVEMENTS PRE-BID MEETING

SIGN-IN SHEET

Project:	34th Street Pump Station Improvements	**Meeting Date:**	September 30, 2016
Facilitator:	Ismael Rosales	**Place/Room:**	SAWS & 34th Street Pump Station

Name	Don Burger	**Phone**	210-299-7909
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Meeting Signature		**Site Visit Signature**	

Name	Brian Engle	**Phone**	210-299-7904
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Meeting Signature		**Site Visit Signature**	

Name	Sally Medellin	**Phone**	
Company	Tetra Tech	**E-Mail**	
Meeting Signature		**Site Visit Signature**	

Name	Jaime Kyparos	**Phone**	210-226-7916
Company	Tetra Tech	**E-Mail**	jaime.kyparos@tetratech.com
Meeting Signature		**Site Visit Signature**	

34TH STREET PUMP STATION IMPROVEMENTS PRE-BID MEETING

SIGN-IN SHEET

Project:	34th Street Pump Station Improvements	**Meeting Date:**	September 30, 2016
Facilitator:	Ismael Rosales	**Place/Room:**	SAWS & 34th Street Pump Station

Name	Patrick Feeney	**Phone**	210 233 3879
Company	SAWS	**E-Mail**	Patrick.Feeney@saws.org
Meeting Signature		**Site Visit Signature**	

Name	Rosalee Arcos	**Phone**	
Company	SAWS	**E-Mail**	Rosalee.Arcos@saws.org
Meeting Signature		**Site Visit Signature**	

Name		**Phone**	
Company		**E-Mail**	
Meeting Signature		**Site Visit Signature**	

Name		**Phone**	
Company		**E-Mail**	
Meeting Signature		**Site Visit Signature**	

CONTRACTOR'S BID PACKET CHECKLIST:
34th Street Pump Station Improvements Project
SAWS Job No. _13-6004_
SAWS Solicitation No. _CO-00072_

Items to be included for Submittal with Bid:

- O Bid proposal and Acknowledgement of All Addendums
- O Proposal Certification; page PC-1
- O Bid Bond/Cashier's Check
- O Statement on President's Executive Orders – Page IB 6 or 7
- O Good Faith Effort Plan
- O Conflict of Interest Questionnaire - Form CIQ *(Rev. 11/30/2015)*
- O Proof of Insurability (Letter from Insurer or Sample Certificate of Insurance)
- O W-9
- O TWDB Form WRD 255
- O TWDB Form TWDB-0459
- O TWDB Form SRF-404
- O TWDB Form TWDB-0216 (include copy of current SMWB certification)
- O TWDB Form TWDB-0217
- O TWDB Form TWDB-0373
- ○ Pumping Unit Questionnaire

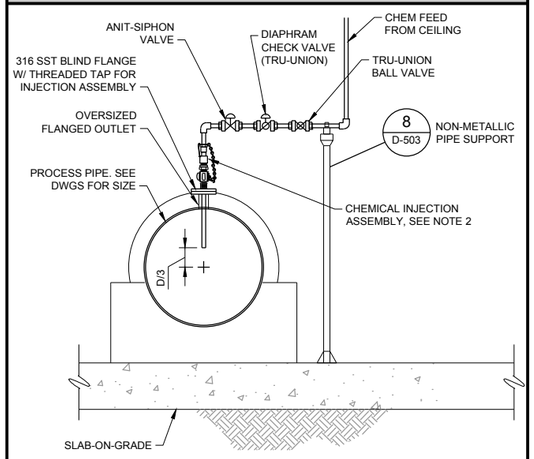
Items to be submitted by Apparent Low Bidder (see Instructions to Bidders, Page IB-7, #24):

- O Financial Statement
- O Company Information Packet
- O Statement regarding ability to complete the project
- O Record of Performance/Similar Projects

If TWDB - Items to be submitted with Awarded Contract:

- O TWDB Form ED 103
- O TWDB Form ED 104

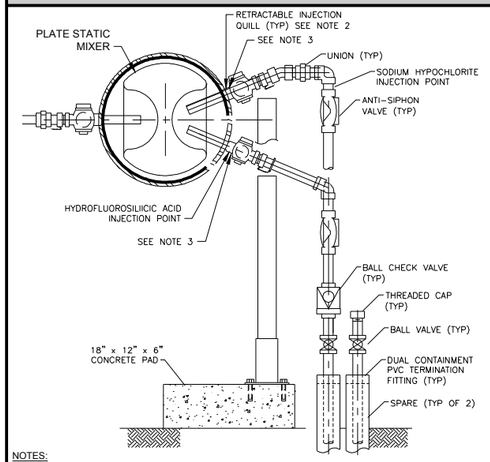
CHEMICAL INJECTION ASSEMBLY



NOTES:
1. DETAIL DEPICTS GENERAL LAYOUT. SEE PLANS FOR PIPE SIZES AND INJECTION ORIENTATION.
2. SOLUTION DIFFUSER ASSEMBLY SHALL INCLUDE THE SOLUTION TUBE, NPT BRASS CORP STOP SIZED FOR PASSAGE OF THE SHOWN SOLUTION TUBE ADAPTER, PACKING NUT, SST SAFETY CHAIN AND RESTRAIN HOOK AND BALL CHECK VALVE. SOLUTION DIFFUSER SHALL BE RATED FOR 150 PSI AND MANUFACTURED BY SAF-T-FLO OR ENGINEERED APPROVED EQUAL. ALL COMPONENTS IN CONTACT W/ CHEMICAL SHALL BE SCHEDULE 80 PVC.

1 **DETAIL**
SCALE: NTS

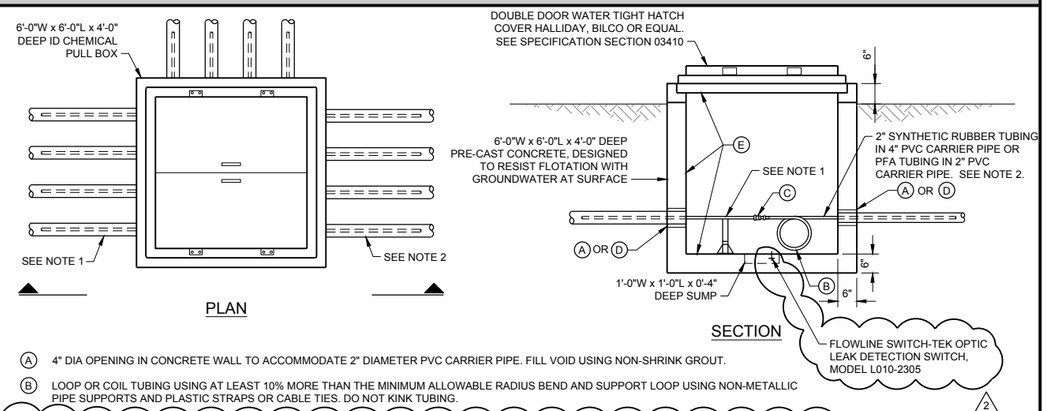
PLATE STATIC MIXER CHEMICAL INJECTION ASSEMBLY



NOTES:
1. PIPE SUPPORT SHALL BE CONSTRUCTED USING UNISTRUT P1001 TYPE 316 SST. FITTINGS AND HARDWARE SHALL BE 316 SST.
2. INJECTION QUILL FOR FLUORIDE SHALL BE A RETRACTABLE 1" MAIN x 1/2" SOLUTION TUBE QUILL AS MANUFACTURED BY SAF-T-FLO, MODEL EB-132S WITH SST BALL VALVE AND COMPRESSION GLAND. INJECTION QUILL FOR SODIUM HYPOCHLORITE SHALL BE A RETRACTABLE 1 1/2" MAIN x 1" SOLUTION TUBE QUILL, SAF-T-FLO MODEL EB-159S, SST BALL VALVE AND COMPRESSION GLAND.
3. CONTRACTOR SHALL INSTALL ONE 1" 316 SST THREADED AND ONE 1-1/2" THREADED HALF COUPLING FOR INSTALLATION OF THE CHEMICAL INJECTION QUILLS.
4. SEE CHEMICAL YARD PIPING PLAN FOR REQUIRED CHEMICAL PIPING SIZES.
5. ALL ABOVE GROUND SODIUM HYPOCHLORITE PIPING AND APPURTENANCES MUST BE INSULATED AND HEAT TRACED.
6. INJECTION QUILL INSTALLATION AND LOCATION SHALL BE PER MIXER MANUFACTURER RECOMANDATION.

2 **DETAIL**
SCALE: NTS

CHEMICAL CONTAINMENT PULL BOX



(A) 4" DIA OPENING IN CONCRETE WALL TO ACCOMMODATE 2" DIAMETER PVC CARRIER PIPE. FILL VOID USING NON-SHRINK GROUT.

(B) LOOP OR COIL TUBING USING AT LEAST 10% MORE THAN THE MINIMUM ALLOWABLE RADIUS BEND AND SUPPORT LOOP USING NON-METALLIC PIPE SUPPORTS AND PLASTIC STRAPS OR CABLE TIES. DO NOT KINK TUBING.

(C) WHEN TRANSITIONING FROM TUBING OR HOSE TO SCHEDULE 80 PVC RIGID PIPE USE SINGLE BARB x SCK TRANSITION FITTING W/ SST TUBING CLAMP. 2

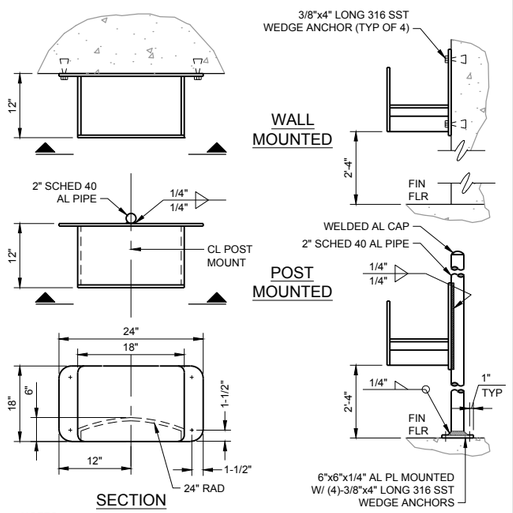
(D) 6" DIA OPENING IN CONCRETE WALL TO ACCOMMODATE 4" DIAMETER PVC CONTAINMENT PIPE. FILL VOID USING NON-SHRINK GROUT.

(E) COAT INTERIOR CONCRETE SURFACES OF CHEMICAL PULL BOX WITH CHEMICAL RESISTANT COATING PER SECTION 09850.

NOTES:
1. FOR PULL BOXES NEAR NEW CHEMICAL BUILDING TRANSITION FROM PVC PIPING TO TUBING INSIDE THE PULL BOXES, PVC PIPING SHALL ENTER THE PULL BOX INSIDE A 4" OR 2" DUAL CONTAINMENT PIPE AND EXIT AS SYNTHETIC RUBBER TUBING IN A CARRIER PIPE FOR SODIUM HYPOCHLORITE OR PFA TUBING FOR HYDROFLUOSILICIC ACID. FOR ALL OTHER PULL BOXES TUBING OR HOSE WILL ENTER AND EXIT THE PULL BOX IN A PVC CARRIER PIPE. FOR HYDROFLUOSILICIC ACID, THE TRANSITION FROM HARD PIPE TO TUBING WILL OCCUR IN THE TANK CONTAINMENT AREA. 2
2. SEE YARD PIPING PLANS FOR LAYOUT OF PIPING IN AND OUT OF THE BOX AS WELL AS SIZES FOR EACH PIPE.
3. INSTALL SWITCH PER MANUFACTURERS RECOMMENDATION. 2

3 **DETAIL**
SCALE: NTS

HOSE RACK



NOTES:
1. FABRICATE UNIT FROM 1/4" 6061-T6 AL ALLOY PLATE.
2. MOUNT 10"x14"x1/8" FRP WARNING SIGN (BRADY MODEL BY OR EQUAL) TO POST OR WALL WITH 316 SST FASTENING HARDWARE READING:

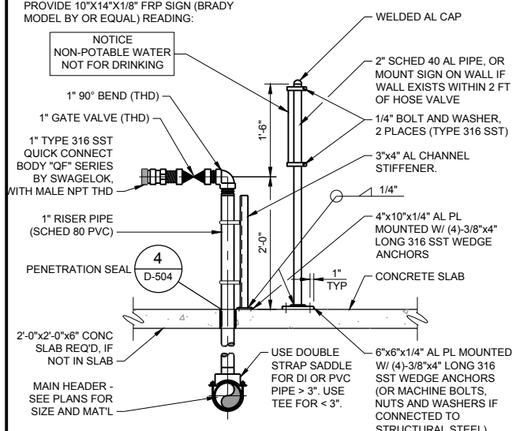
NOTICE
NON-POTABLE WATER
NOT FOR DRINKING

5 **DETAIL**
SCALE: NTS

HOSE VALVE - POST MOUNTED

IF LOCATION OF HOSE CONNECTION IS AFTER BACKFLOW PREVENTER, PROVIDE 10"X14"X1/8" FRP SIGN (BRADY MODEL BY OR EQUAL) READING:

NOTICE
NON-POTABLE WATER
NOT FOR DRINKING



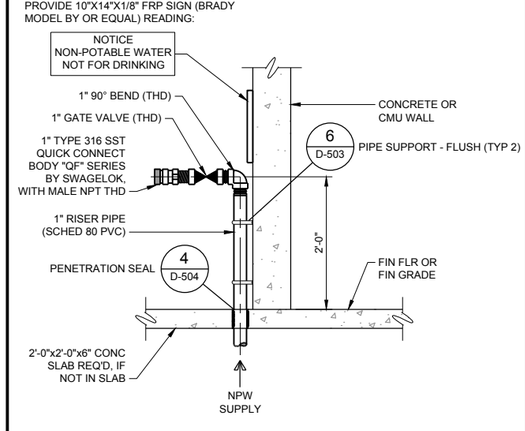
PROVIDE 50' LONG, 1" DIA (0.47 LB/LF) ABRASION AND WEATHER RESISTANT EPDM RED COVER RAYON BRAIDED HOSE, AS MANUFACTURED BY AMAZON HOSE & RUBBER CO., OR EQUAL, WITH THE FOLLOWING 1" FITTINGS:
NOZZLE END: BRASS MALE HOSE BARB (NPSH THD), METAL HOSE SHUT-OFF VALVE, AND BRASS PLAIN HOSE NOZZLE (ALL FITTINGS AS MANUFACTURED BY AMAZON HOSE & RUBBER CO., OR EQUAL).
SUPPLY END: 1" 316 SST TUBE CONNECTION STEM, SERIES "QF" AS MANUFACTURED BY SWAGELOK, OR EQUAL.

6 **DETAIL**
SCALE: NTS

HOSE VALVE - WALL MOUNTED

IF LOCATION OF HOSE CONNECTION IS AFTER BACKFLOW PREVENTER, PROVIDE 10"X14"X1/8" FRP SIGN (BRADY MODEL BY OR EQUAL) READING:

NOTICE
NON-POTABLE WATER
NOT FOR DRINKING



PROVIDE 50' LONG, 1" DIA (0.47 LB/LF) ABRASION AND WEATHER RESISTANT EPDM RED COVER RAYON BRAIDED HOSE, AS MANUFACTURED BY AMAZON HOSE & RUBBER CO., OR EQUAL, WITH THE FOLLOWING 1" FITTINGS:
NOZZLE END: BRASS MALE HOSE BARB (NPSH THD), METAL HOSE SHUT-OFF VALVE, AND BRASS PLAIN HOSE NOZZLE (ALL FITTINGS AS MANUFACTURED BY AMAZON HOSE & RUBBER CO., OR EQUAL).
SUPPLY END: 1" 316 SST TUBE CONNECTION STEM, SERIES "QF" AS MANUFACTURED BY SWAGELOK, OR EQUAL.

7 **DETAIL**
SCALE: NTS

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BID SET

STATE OF TEXAS
JAIME R. KYPUROS JR.
93790
LICENSED PROFESSIONAL ENGINEER
10/10/2016

SAN ANTONIO WATER SYSTEM

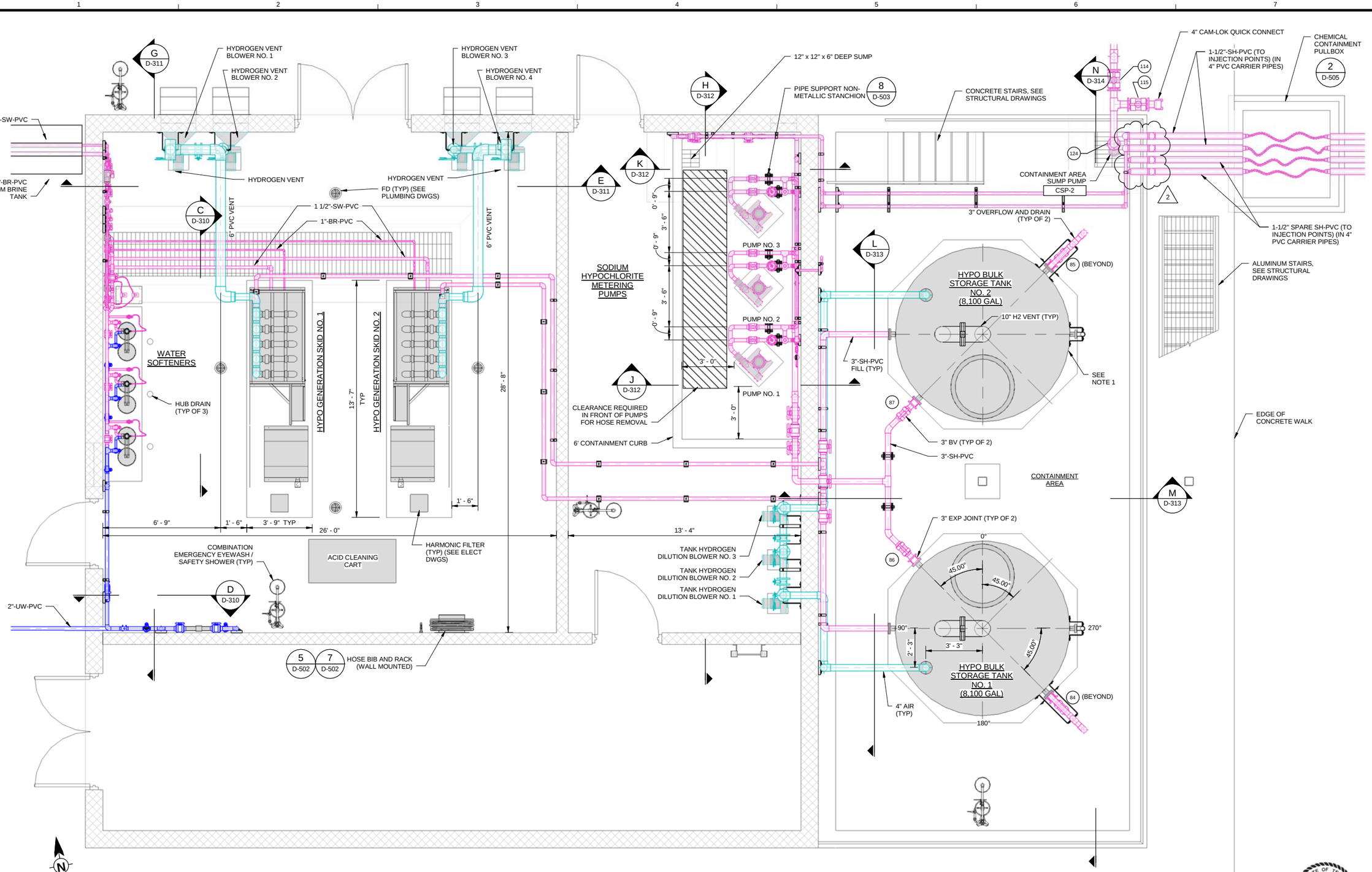
MARK	DATE	DESCRIPTION	BY
2	10/14/16	ADDENDUM NO.2	

SAN ANTONIO WATER SYSTEM
34TH STREET PUMP STATION IMPROVEMENTS PROJECT
PROCESS STANDARD DETAILS II

SAWS Job No.:	13-6004
Designed By:	LEH
Drawn By:	JTE
Checked By:	

D-502

Bar Measures 1 inch



OSHG SYSTEM ENLARGED PLAN

SCALE: 3/8" = 1'-0"

NOTES:

1. HYPO BULK TANK NO. 2 MIRRORS HYPO BULK TANK NO. 1 FOR NOZZLE AND ACCESSORIES LOCATIONS.
2. HEAT TRACE AND INSULATE ALL EXPOSED WATER, BRINE, SOFT WATER AND SODIUM HYPOCHLORITE PIPING.
3. CONCRETE PEDESTALS FOR METERING PUMPS SHALL BE COATED PER SPECIFICATION 09850.
4. COAT PUMP CONTAINMENT FLOOR, CURB AND ADJACENT WALLS WITH CHEMICAL RESISTANT PROTECTIVE COATING PER SPECIFICATION 09850.

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BID SET

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY
2	10/14/16	ADDENDUM NO. 2	

SAN ANTONIO WATER SYSTEM
34th STREET PUMP STATION IMPROVEMENTS PROJECT
OSHG SYSTEM ENLARGED PLAN

SAWS Job No.:	13-6004
Designed By:	LEH
Drawn By:	JTE
Checked By:	JPT

D-308

STATE OF TEXAS JAIME R. KYPUROS JR. 93790 LICENSED PROFESSIONAL ENGINEER
10/10/2016

Bar Measures 1 inch

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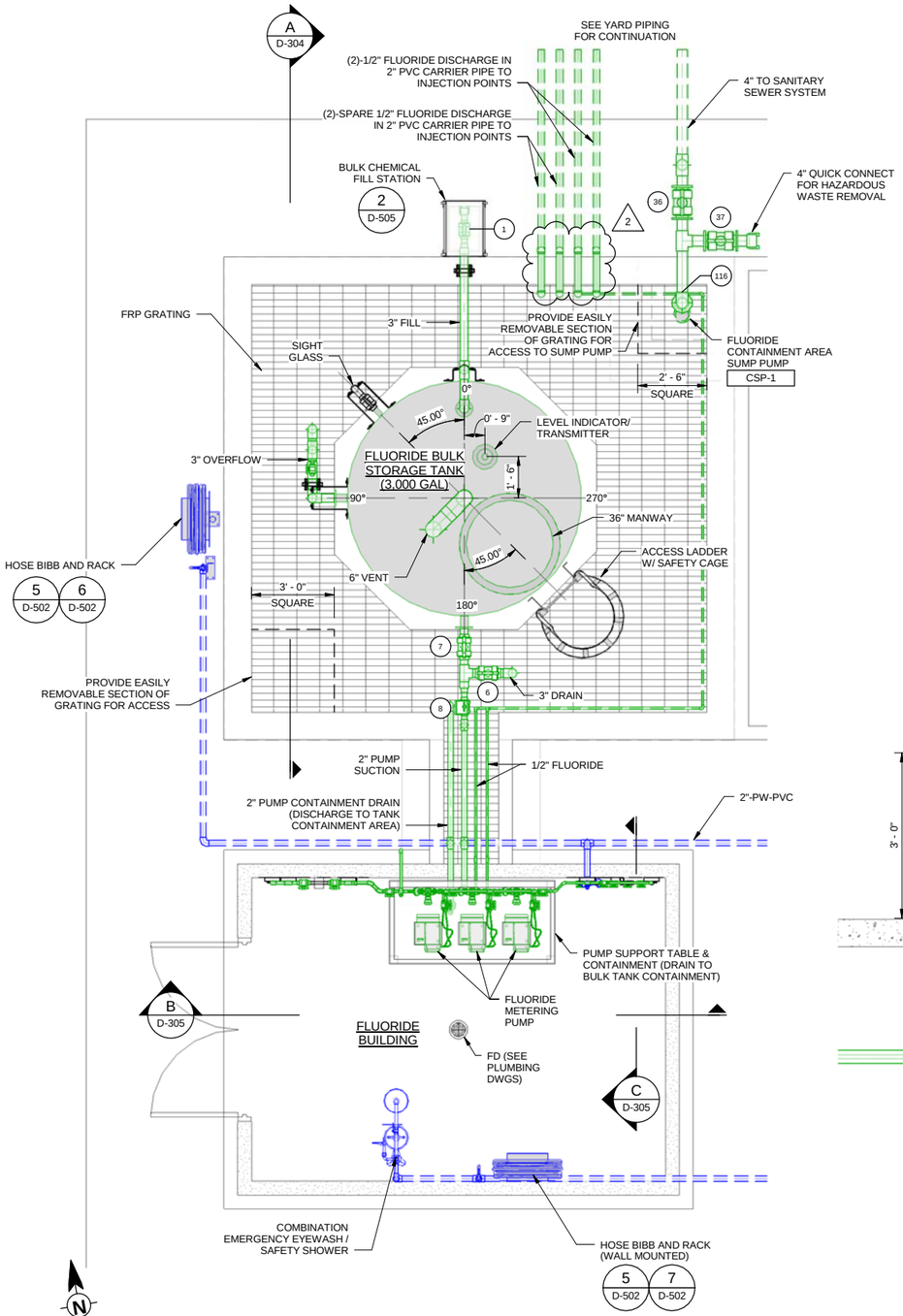
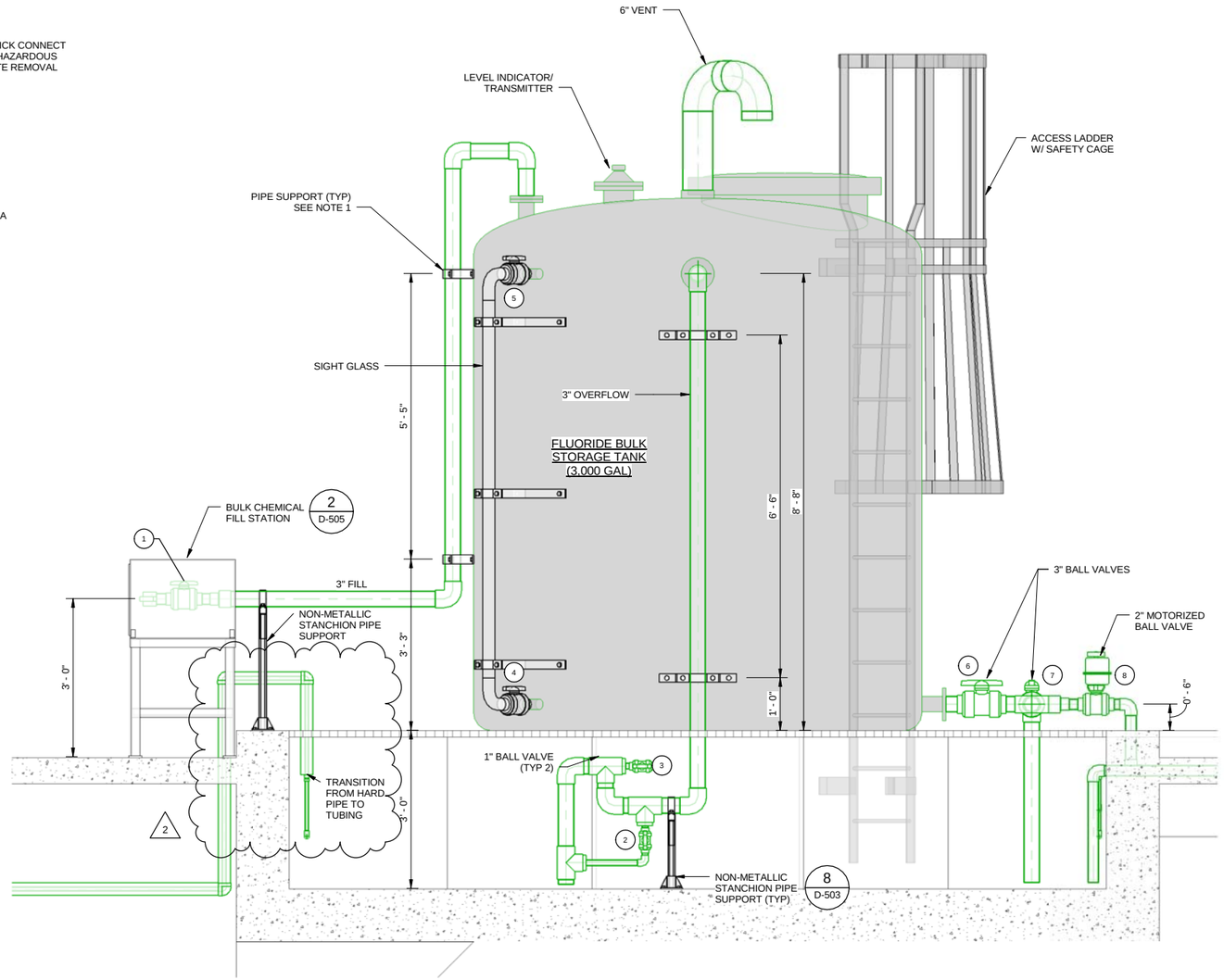


FLUORIDE SYSTEM ENLARGED PLAN

SCALE: 3/8" = 1'-0"



A SECTION

A D-304 SCALE: 3/4" = 1'-0"

NOTES:
1. TANK MANUFACTURER SHALL INSTALL PRE-FORMED PIPE SUPPORTS FOR EXTERNAL PIPING

0 8" 1'-4" 2'-8"
SCALE: 3/4" = 1'-0"

STATE OF TEXAS
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JAIME R. KYPUROS JR.
LICENSED
PROFESSIONAL ENGINEER
10/10/2016

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BID SET

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY
2	10/14/16	ADDENDUM NO. 2	

SAN ANTONIO WATER SYSTEM

34th STREET PUMP STATION
IMPROVEMENTS PROJECT

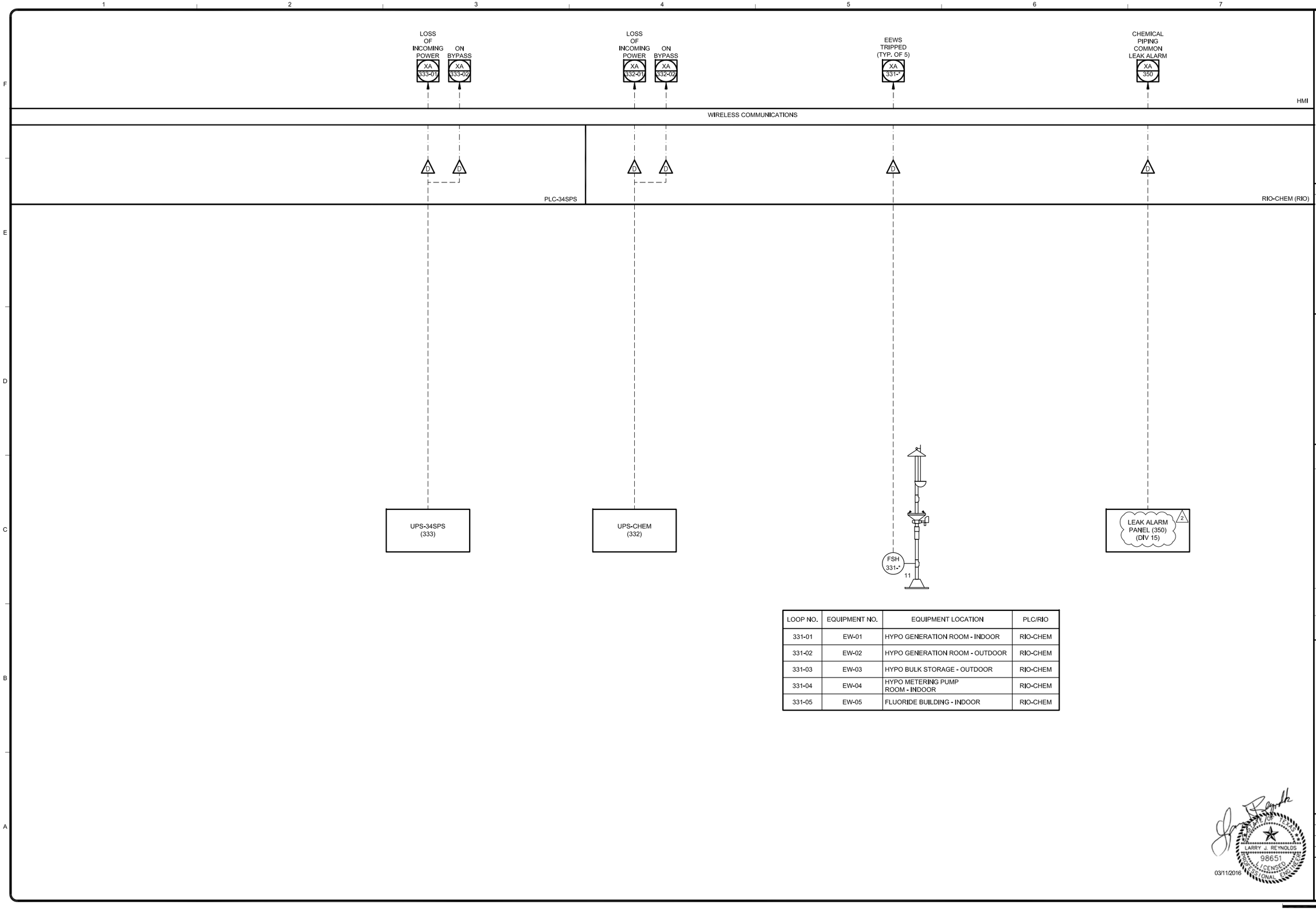
FLUORIDE SYSTEM
ENLARGED PLAN &
SECTION

SAWS Job No.:	13-6004
Designed By:	LEH
Drawn By:	JTE
Checked By:	JPT

D-304

Bar Measures 1 inch

10/10/2016 3:52:52 PM P:\09308\200-09308-14002\CAD\SheetFiles\BIM\09308-D-CHEM_BLDG.rvt



LOOP NO.	EQUIPMENT NO.	EQUIPMENT LOCATION	PLC/RIO
331-01	EW-01	HYPO GENERATION ROOM - INDOOR	RIO-CHEM
331-02	EW-02	HYPO GENERATION ROOM - OUTDOOR	RIO-CHEM
331-03	EW-03	HYPO BULK STORAGE - OUTDOOR	RIO-CHEM
331-04	EW-04	HYPO METERING PUMP ROOM - INDOOR	RIO-CHEM
331-05	EW-05	FLUORIDE BUILDING - INDOOR	RIO-CHEM

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GAI
Gupta & Associates, Inc.
CONSULTING ENGINEERING
Registration No. F-2850
13737 Noel Road
Dallas, Texas 75244
Tel: 972-490-7064
Fax: 972-490-2125
email: rfg@gaiconsulting.com

BID SET

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY
2	10/11/16	ADDENDUM NO.2	LJR

SAN ANTONIO WATER SYSTEM

34TH STREET PUMP STATION IMPROVEMENTS PROJECT

INSTRUMENTATION MISCELLANEOUS

SAWS Job No.:	13-6004
Designed By:	LJR
Drawn By:	RV
Checked By:	GBL

I-305

STATE OF TEXAS
LARRY J. REYNOLDS
98651
LICENSED
PROFESSIONAL ENGINEER
03/11/2016

Bar Measures 1 inch

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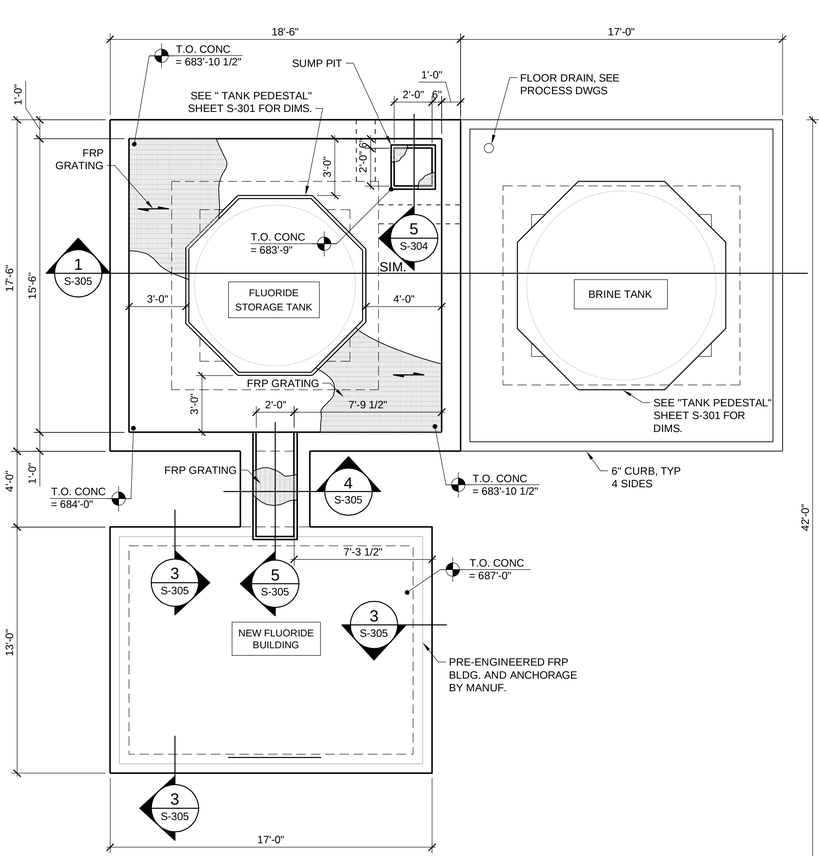
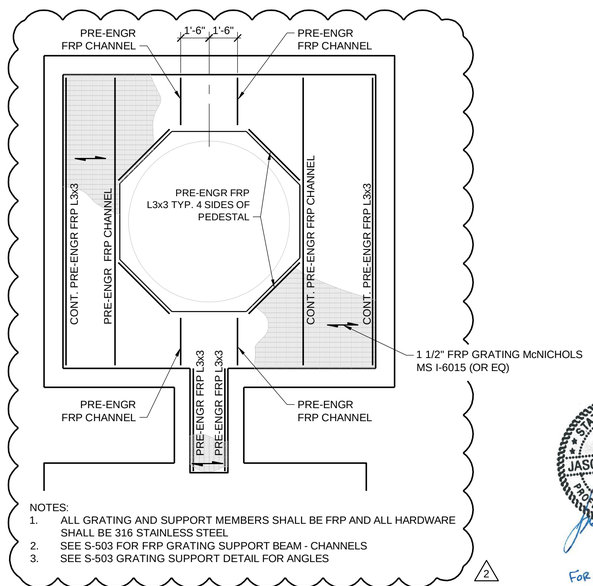
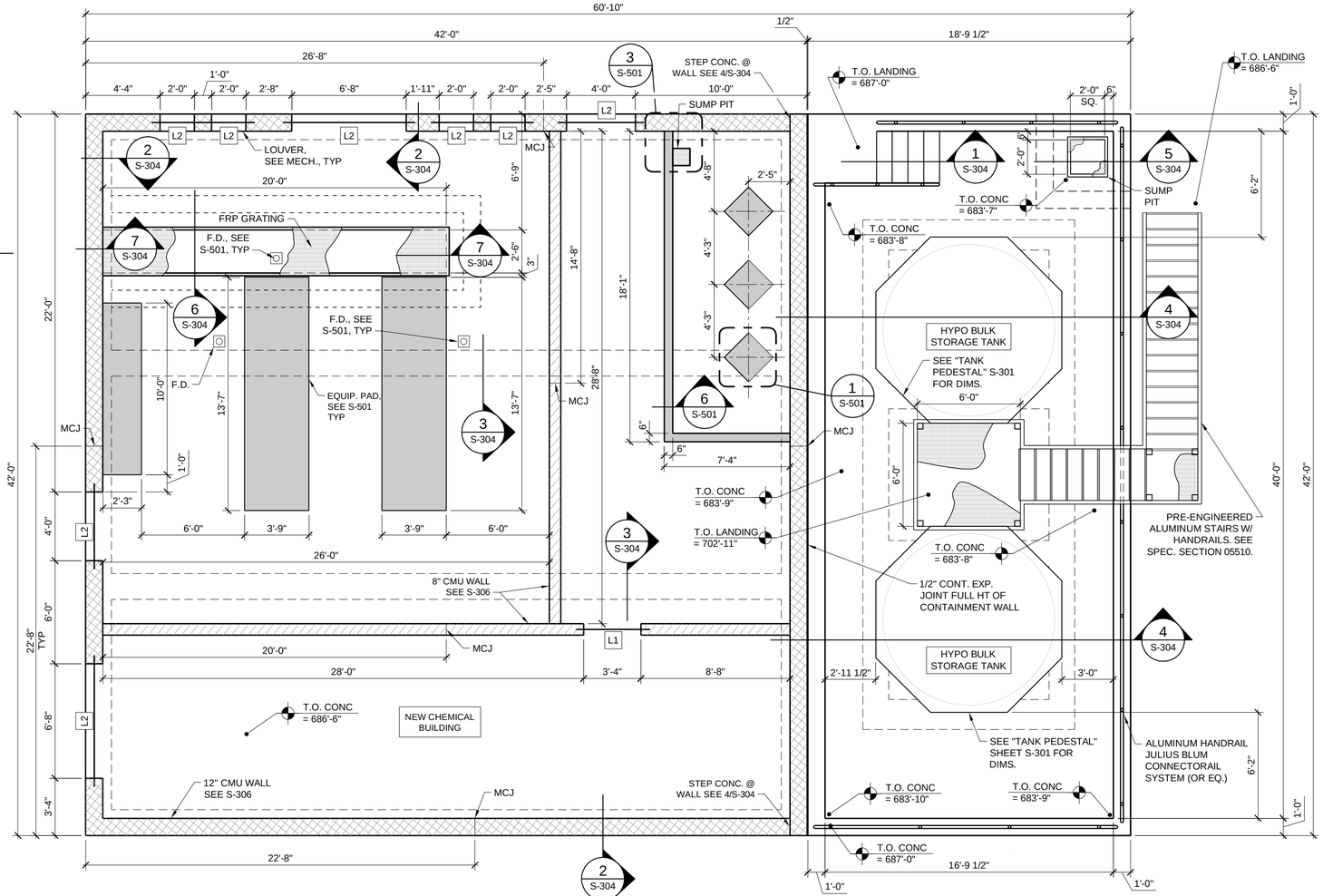




NOTES:
1. ALL GRATING AND SUPPORT MEMBERS SHALL BE FRP AND ALL HARDWARE SHALL BE 316 STAINLESS STEEL
2. SEE S-503 FOR FRP GRATING SUPPORT BEAM - CHANNELS
3. SEE S-503 GRATING SUPPORT DETAIL FOR ANGLES

GRATING SUPPORT LAYOUT

SCALE: 1/4"=1'-0"



OVERALL LAYOUT

SCALE: 1/4"=1'-0"

PLAN NOTES:

1. FRP GRATING SHALL BE 1 1/2" McNICHOLS MS I-6015 (OR EQ.)
2. GRATING SPAN DIRECTION
3. L1 DENOTES LINTEL TYPE, SEE SHEET S-502
4. 8" CMU WALL
5. 12" CMU WALL
6. MCJ - MASONRY CONTROL JOINT. SEE TYPICAL CMU REINF. DETAIL S-502

STATE OF TEXAS
JASON L. BURKETT
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10-13-16
FOR ADDENDUM #2 STRUCTURAL ASPECTS ONLY

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11-MAR-16

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BID SET

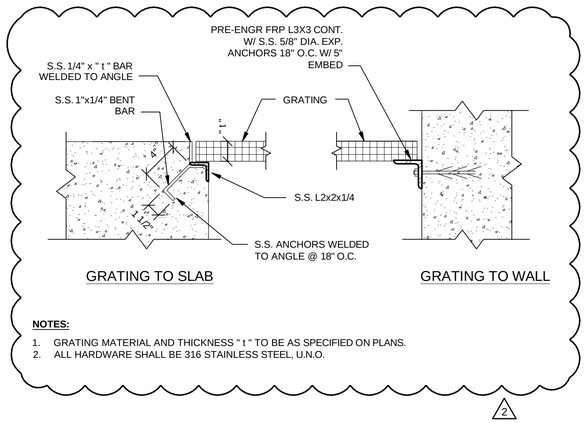
SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY
2	10/14/16	ADDENDUM NO.2	NRG

SAN ANTONIO WATER SYSTEM
34TH STREET PUMP STATION IMPROVEMENTS PROJECT
NEW CHEMICAL BUILDING OVERALL PLAN

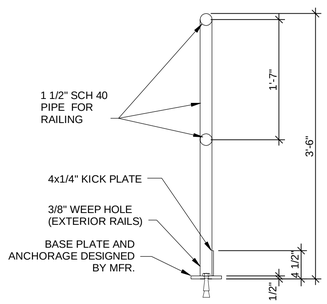
SAWS Job No.:	13-6004
Designed By:	JMR
Drawn By:	DAC
Checked By:	JMR

S-302
Sheet



GRATING DETAIL

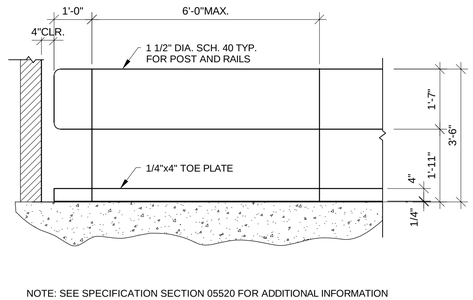
SCALE: 1 1/2" = 1'-0"



NOTE: SEE SPECIFICATION SECTION 05520 FOR ADDITIONAL INFORMATION

STANDARD GUARDRAIL

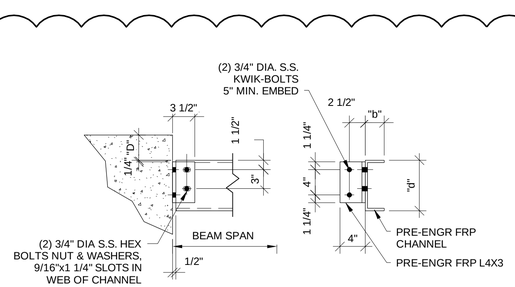
SCALE: 1"=1'-0"



NOTE: SEE SPECIFICATION SECTION 05520 FOR ADDITIONAL INFORMATION

TYPICAL GUARDRAIL DETAIL

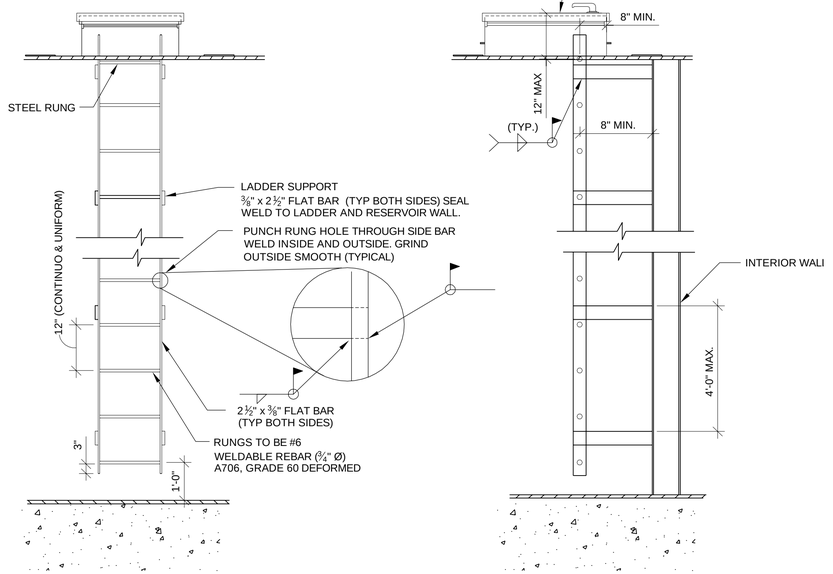
SCALE: 1/2"=1'-0"



FRP GRATING SUPPORT BEAMS

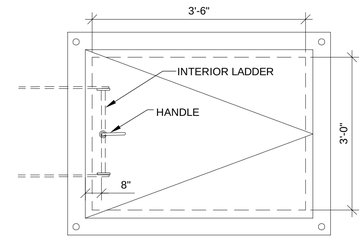
SCALE: 1" = 1'-0"

2

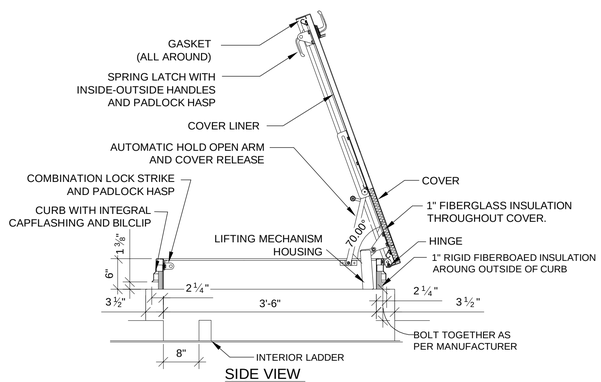


TYPICAL FIXED LADDER DETAILS

SCALE: NTS



TOP VIEW



SIDE VIEW

ROOF HATCH DETAIL

SCALE: NTS

STATE OF TEXAS
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BID SET

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY
2	10/14/16	ADDENDUM NO.2	NRG

SAN ANTONIO WATER SYSTEM
34TH STREET PUMP STATION
IMPROVEMENTS PROJECT

STRUCTURAL
DETAILS III

SAWS Job No.:	13-6004
Designed By:	JMR
Drawn By:	JMR
Checked By:	JMR

S-503