



**Waterwheel Booster Station
Solicitation Number: CO-00446
Job No.: 20-6008**

**ADDENDUM 1
September 22, 2021**

To Respondent 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. The contract mentions Key Subcontractor as subcontractors that are responsible for executing a significant portion of the work, and as such are deemed to be essential to the work being performed under this Contract. How is that quantified? Based on a percentage of the contract work or on the total contract value?**

Response: See SIR-3. The Key Subcontractors for this project are site civil, I&C integrator, and electrical.

- 2. Would SAWS provide clarification that all piping within the plant is steel pipe as called out on drawing C1.1 & C2.0. Also, if all piping is steel pipe please clarify the references to the mechanical joint connection called out on drawing C1.1, C2.0 & C3.0.**

Response: All water piping in the plant is to be steel pipe. References to MJ fittings have been changed to FL fittings. See attached revised Sheets C1.1. and C2.0

- 3. Would SAWS provide the following information for the Waterwheel Booster Station Project referenced in the subject line.**

AC Induction Motor:

- **Horsepower range?**
- **RPMs?**
- **Frame Sizes?**
- **Voltage and hertz?**

Response: The project has five vertical turbine pumps (one 25 hp, two fifty hp and two 100 hp). Requirements for those pumps are shown on the electrical plans, in the Specifications (Section 26 99 99 and in Sections 1110 00 and 11 14 00). Requirements for the motors for the HVAC system are shown in the Division 23 Specifications and the requirements for the motors for the air compressor are shown in the Division 33 Specifications.

4. Can SAWS arrange a site visit for inside the fence next week?

Response: A site visit will not be available prior to the due date of proposals. Respondents may drive by the site and view it from outside the fence.

5. Per spec section 40 70 10 Field Instrument List you say that there is an instrument list in Appendix A. I don't see an Appendix A instrument list in the specs. Can you please provide one?

Response: Appendix "A" is Section 40 61 93A

6. Were the plan documents updated at the same time as the specifications/front end documents? The front end documents reference penalties for failing to meet efficiencies (11 14 00 1.07.D.1 and 11 31 30 3.02) but do not specify the efficiencies required. Sheet 2.0 lists the overall (wire to water) efficiencies of each pump, is that still accurate?

- **Pumps 1-2: 80.99%**
- **Pumps 3-4: 81.30%**
- **Pump 5: 75.52%**

Response: Minimum Pump Efficiencies shall be 80% for Pumps 1-4 and 76% for Pump 5. See revised sheet C2.0 included with this Addendum.

7. Several notes have been added to the Rebid Plans; Such as on Sheet C1.1 – General Note 3: All Piping within Plant is Steel Piping. Note #4 states MJ Joints shall be restrained. In the Key Notes – there are also several fittings and valves that are listed as MJ Fittings.

Response: See response to Question #2.

8. Note that Steel Pipe is not used with MJ Fittings or MJ End Valves.

Response: See response to Question #2.

9. Please verify if all the buried piping/fittings are Steel Piping.

Response: All water line piping is steel pipe.

10. Please verify that buried Valves shall be Flange End Valves.

Response: All valves (above grade and buried) are flange end valves.

11. Please verify that buried fittings called out as MJ shall be a steel weld fitting (Not Mechanical Joint).

Response: See response to Question #2

12. Ref Plan Page C1.1 – Key Note A & J. Please provide a detail for the tie-in if we are to use steel pipe.

Response: No Plan of Record Drawings showing the fittings and pipe used on the original plant were available for review. It is anticipated that a section of the existing pipe will be cut out and a tee inserted using weld-on flanges and/or approved couplings with harness clips.

13. Please provide the specification for the Steel Pipe.

Response: Refer to SAWS Material and Construction Specifications available at: <https://www.saws.org/business-center/construction-material-specs/>. Steel pipe is specification 05-30.

14. Please provide the specification for the Gate Valves, Check Valves, Surge Valve.

Response: Refer to sections 21-10 and 30-35 of the SAWS Material and Construction Specifications available at: <https://www.saws.org/business-center/construction-material-specs/>. Refer to Section 22 05 23 for Miscellaneous Valves for the Surge Valve specifications.

15. What constitutes a Key Subcontractor? Is a Key Subcontractor one that is assigned a certain threshold of dollars or a certain percentage of participation on the contract, or does it have more to do with subcontractors that will perform specific services? (i.e., how is a key subcontractor defined?)

Response: See response to Question #1.

16. Specification 01 72 00 is missing per the Table of Contents for the Waterwheel Booster Station.

Response: Section 01 72 00 is attached to this Addendum. There is also a typographical error in the Table of Contents. The correct Section Number is for 01 72 20 is 01 75 20 and the section is included in the specifications.

17. On Sheet C2.0, Piping Note 1 states that all piping is steel pipe. Note 2 states that all mechanical joints shall have restrained joints. All key notes call out mechanical joint fittings. Mechanical joint fittings are typical of ductile iron pipe. Please advise if this pipe is to be steel or ductile iron, and what the coating/lining requirements are.

Response: Please reference the response to Question #2. For lining and coating requirements refer to SAWS Material Requirements for steel pipe. For above grade steel pipe refer to Section 09 99 00 for painting requirements.

18. Can you please confirm on the Financial Statements do we need to provide 3 years of our financial statements or could we submit a 3 year summary?

Response: Respondents shall provide SAWS with financial statements for the most recent three (3) complete fiscal years. A summary of the last three (3) years will not be suffice.

CHANGES TO THE SPECIFICATIONS

1. The Table of Contents has been revised to correct a typographical error.
2. Respondent Questionnaire, remove in its entirety and replace with the revised version attached to this Addendum. The form was revised to address additional questions required because of recent legislative changes to Texas Government Code 2274. Respondents shall use this version when submitting a proposal for this RFCSP.
3. Page IR-4, Instructions to Respondents, 9., b. is amended to read as follows:
 - (b) Contractor agrees that, unless it is a sole proprietorship or a company with fewer than 10 full-time employees and the value of this Contract is less than \$100,000, it:
 - a. does not boycott Israel and will not do so during the term of this Contract;
 - b. does not boycott energy companies and will not do so during the term of this Contract;

- c. does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and will not discriminate during the term of the Contract against a firearm entity or firearm trade association;
- This provision is in compliance with Chapters §2271 and 2274 of the Texas Government Code. SAWS agrees to comply with the United States and Texas Constitutions in consideration of whether to enforce this provision.

CHANGES TO THE PLANS

1. Remove sheets C1.1 and C2.0 and replace with the revised versions attached to this Addendum. References to MJ fittings have been changed to FL fittings.

END OF ADDENDUM

This Addendum is fourteen (14) pages in its entirety.

Attachments:

Table of Contents (1 page)

Technical Specification Section 01 72 00, Project Record Documents (4 pages)

Respondent Questionnaire rev. 9/14/21 (3 pages)

Revised Sheet C1.1

Revised Sheet C2.0



Alan D. Lindskog
9/22/21

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WATERWHEEL BOOSTER PUMP STATION**

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SECTION 01 72 00 PROJECT RECORD DOCUMENTS

PART 1 GENERAL

1.01 DESCRIPTION

A. Work Included:

1. Throughout progress of the Work, the Contractor shall maintain an accurate record of changes in the Contract Documents, as described in Article 3.1 below.
2. Upon completion of the Work, the Contractor shall transfer the recorded changes to a set of Record Documents, as described in Article 3.2 below.

B. Related Work:

1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Special Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
2. Other requirements affecting Project Record Documents may appear in pertinent other Sections of these Specifications.

1.02 QUALITY ASSURANCE

A. The Contractor shall delegate the responsibility for maintenance of Record Documents to one person on the Contractor's staff as approved by the Owner.

B. Accuracy of records:

1. The Contractor shall thoroughly coordinate changes within the Record Documents, making adequate and proper entries on each page of Specifications and each sheet of Drawings and other Documents where such entry is required to show the change properly.
2. Accuracy of records shall be such that future search for items shown in the Contract Documents may rely reasonably on information obtained from the approved Project Record Documents.

C. The Contractor shall make entries within 24 hours after receipt of information that the change has occurred.

1.03 SUBMITTALS

A. Comply with pertinent provisions of Section 01 30 00.

B. The Owner's approval of the current status of Project Record Documents may be a prerequisite to the Owner's approval of requests for progress payment and request for final payment under the Contract.

C. Prior to submitting each request for progress payment, secure the Owner's approval of the current status of the Project Record Documents.

- D. Prior to submitting request for final payment, submit the final Project Documents to the Owner and Consultant and secure approval.

1.04 PRODUCT HANDLING

- A. The Contractor shall maintain the job set of Record Documents completely protected from deterioration and from loss and damage through completion of the Work and transfer of all recorded data to the final Project Record Documents.
- B. In the event of loss of recorded data, the Contractor shall use ALL means necessary to again secure the data to the Owner's approval.
 - 1. Such means shall include, if necessary, in the opinion of the Owner, removal and replacement of concealing materials.
 - 2. In such case, provide replacements to the standards originally required by the Contract Documents.

PART 2 PRODUCTS

2.01 RECORD DOCUMENTS

- A. Job set: Promptly following receipt of the Owner's Notice to Proceed, the Contractor shall secure from the Consultant at no charge to the Contractor one complete set of all Documents comprising the Contract.

PART 3 EXECUTION

3.01 MAINTENANCE OF JOB SET

- A. Immediately upon receipt of the job set described in Paragraph 2.01-A above, identify each of the Documents with the title, "RECORD DOCUMENTS - JOB SET".
- B. Preservation:
 - 1. Considering the Contract completion time, the probable number of occasions upon which the job set must be taken out for new entries and for examination, and the conditions under which these activities will be performed, devise a suitable method for protecting the job set to the approval of the Owner.
 - 2. Do not use the job set for any purpose except entry of new data and for review by the Owner, until start of transfer of data to final Project Record Documents.
 - 3. Maintain the job set at the site of Work as that site is designated by the Owner.
- C. Making entries on Plans:
 - 1. Using an erasable colored pencil (not ink or indelible pencil), clearly describe the change by graphic line and note as required.
 - 2. Date all entries.
 - 3. Call attention to the entry by a "cloud" drawn around the area or areas affected.

4. In the event of overlapping changes, use different colors for the overlapping changes.
- D. Make entries in the pertinent other Documents as approved by the Owner.
- E. Conversion of schematic layouts:
1. In some cases, on the Plans, arrangements of conduits, circuits, piping, ducts, and similar items, is shown schematically and is not intended to portray precise physical layout.
 - a. Final physical arrangement is determined by the Contractor, subject to the Owner's approval.
 - b. However, design of future modifications of the facility may require accurate information as to the final physical layout of items which are shown only schematically on the Plans.
 2. Show on the job set of Record Drawings, by dimension accurate to within one inch, the centerline of each run of items such as are described in subparagraph 3.01-E-1 above.
 - a. Final physical arrangement is determined by the Contractor, subject to the Owner's approval.
 - b. Show, by symbol or note, the vertical location of the Item ("under slab", "in ceiling plenum", "exposed", and the like).
 - c. Make all identification sufficiently descriptive that it may be related reliably to the Specifications.
 3. The Owner may waive the requirements for conversion of schematic layouts where, in the Owner's judgment, conversion serves no useful purpose. However, do not rely upon waivers being issued except as specifically issued in writing by the Owner.

3.02 FINAL PROJECT RECORD DOCUMENTS

- A. The purpose of the final Project Record Documents is to provide factual information regarding all aspects of the Work, both concealed and visible, to enable future modification of the Work to proceed without lengthy and expensive site measurement, investigation, and examination.
- B. Approval of recorded data prior to transfer:
1. Following receipt of the documents described in Paragraph 2.01-A above, and prior to start of transfer of recorded data thereto, secure the Owner's approval of all recorded data.
 2. Make required revisions.
- C. Transfer of data by Contractor to Plans:
1. Carefully transfer change data shown on the job set of Record Drawings to the corresponding transparencies, coordinating the changes as required.
 2. Clearly indicate at each affected detail a full description of changes made during construction, and the actual location of items described in subparagraph 3.01-C above.
 3. Call attention to each entry by drawing a "cloud" around the area or areas affected.

4. Make changes neatly, consistently, and with the proper media to assure longevity and clear reproduction.

D. Transfer of data to other Documents:

1. If the Documents other than Plans have been kept clean during progress of the Work, and if entries thereon have been orderly to the approval of the Owner, the job set of those Documents other than Plans will be accepted as final Record Documents.
2. If any such Document is not so approved by the Owner, secure a new copy of that Document from the Consultant at the Consultant's usual charge for reproduction and handling, and carefully transfer the change data to the new copy to the approval of the Consultant.

E. Review and submittal:

1. Submit the completed set of Project Record Documents to the Consultant as described in Paragraph 1.03-C above.
2. Participate in review meetings as required.
3. Make required changes and promptly deliver the final Project Record Documents to the Owner.

3.03 CHANGES SUBSEQUENT TO ACCEPTANCE

- A. The Contractor has no responsibility for recording changes in the Work subsequent to Final Completion, except for changes resulting from work performed under Warranty.

END OF SECTION



RESPONDENT QUESTIONNAIRE

PROJECT NAME: Waterwheel Booster Station

Instructions: The Respondent Questionnaire is a required questionnaire. Complete the questionnaire by inserting the requested information. Do not modify or delete the questions.

GENERAL INFORMATION

1. **Respondent Information:** Provide the following information regarding the Respondent. (NOTE: Co-Respondents are two or more entities proposing as a team or joint venture with each signing the contract, if awarded. Sub-contractors are not Co-Respondents and should not be identified here. If this proposal includes Co-Respondents, provide the required information in this Item #1 for each Co-Respondent by copying and inserting an additional block(s) before Item #2.)

Respondent Name: _____
(NOTE: Give exact legal name as it will appear on the contract, if awarded.)

Principal Address: _____

City: _____ State: _____ Zip Code: _____

Telephone No. _____ Fax No: _____

Social Security Number or Federal Employer Identification Number: _

2. **Contact Information:** List the one person who SAWS may contact concerning your proposal or setting dates for meetings.

Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Telephone No. _____ Fax No: _____

Email: _____

3. Identify the principal contact person authorized to commit the Respondent to a contractual agreement.

4. Does Respondent anticipate any mergers, transfer of organization ownership, management reorganization, or departure of key personnel within the next twelve (12) months?

Yes No

5. Is Respondent authorized and/or licensed to do business in Texas?

Yes No If "Yes", list authorizations/licenses.

6. **Debarment/Suspension Information:** Has the Respondent or any of its principals been debarred or suspended from contracting with any public entity?

Yes No If "Yes", identify the public entity and the name and current phone number of a representative of the public entity familiar with the debarment or suspension, and state the reason for or circumstances surrounding the debarment or suspension, including but not limited to the period of time for such debarment or suspension.

7. **Bankruptcy Information:** Has the Respondent ever been declared bankrupt or filed for protection from creditors under state or federal proceedings?

Yes No If "Yes", state the date, court, jurisdiction, cause number, amount of liabilities and amount of assets.

8. Provide any other names under which Respondent has operated within the last 10 years.
-

9. **Litigation Disclosure:** Respond to each of the questions below by checking the appropriate box. Failure to fully and truthfully disclose the information required in the Litigation Disclosure questions may result in the disqualification of your proposal from consideration or termination of the contract, once awarded.

- a. Have you or any member of your Firm or Team to be assigned to this engagement ever been indicted or convicted of a felony or misdemeanor greater than a Class C in the last five (5) years?

Yes No

- b. Have you or any member of your Firm or Team to be assigned to this engagement been terminated (for cause or otherwise) from any work being performed for the San Antonio Water System or any other Federal, State or Local Government, or Private Entity?

Yes No

- c. Have you or any member of your Firm or Team to be assigned to this engagement been involved in any claim or litigation with the San Antonio Water System or any other Federal, State or Local Government, or Private Entity during the last ten (10) years?

Yes No

If you have answered "Yes" to any of the above questions, please indicate the name(s) of the person(s), the nature, and the status and/or outcome of the information, indictment, conviction, termination, claim or litigation, as applicable. Any such information should be provided on a separate page, attached to this form and submitted with your proposal.

10. Government Code Chapter 2274 verifications:

- a. Are you, Contractor, held or controlled by individuals who are citizens of China, Iran, North Korea, Russia or a country designated by the Governor of the State of Texas pursuant to Texas Government Code Chapter 2274?

Yes No

- b. Are you, Contractor, held or controlled by a company or other entity, including a governmental entity, that is owned or controlled by citizens of or directly controlled by the government of China, Iran, North Korea, Russia or a country designated by the Governor of the State of Texas pursuant to Texas Government Code Chapter 2274?

Yes No

- c. Are you, Contractor, headquartered in China, Iran, North Korea, Russia or a country designated by the Governor of the State of Texas pursuant to Texas Government Code Chapter 2274?

Yes No

11. Addendums: Respondent is required to acknowledge receipt of all addendums.

None Yes If "Yes", Identify.

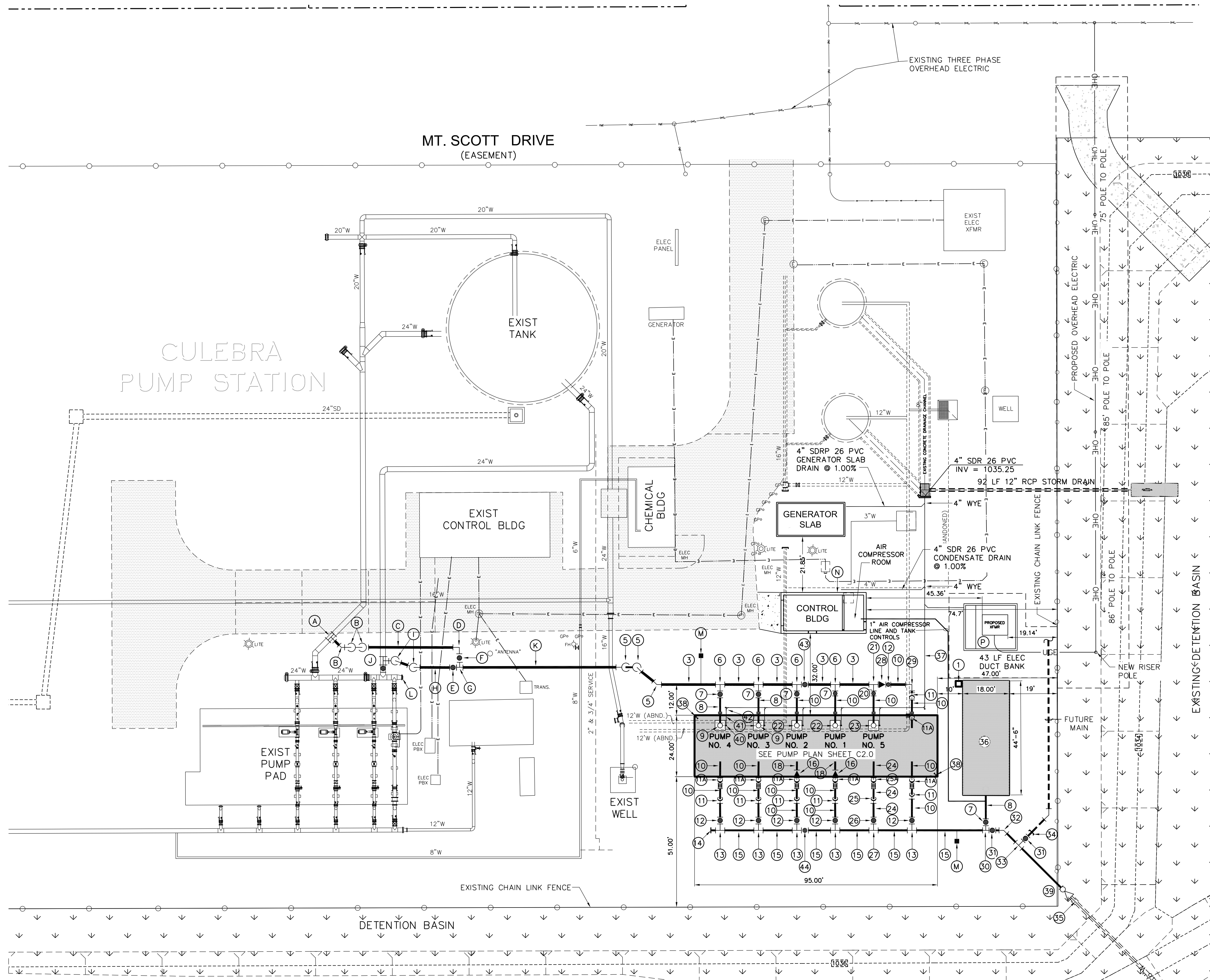
The information provided above is true and accurate to the best of my knowledge. Furthermore, we understand that failure to complete the Respondent Questionnaire may subject this firm to elimination from the selection process.

Signature

Date

Printed Name

Title

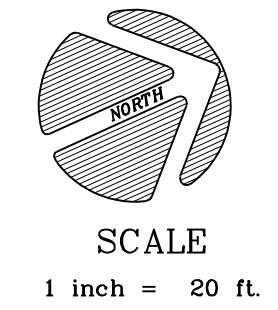


KEY NOTES:

- 1 1" BALL VALVE ON AIR COMPRESSOR LINE. INSTALL SAWS METER BOX
- 2 NOT USED
- 3 20" PIPE
- 4 NOT USED
- 5 20" 1/8 BEND, FL
- 6 20" X 12" TEE, FL
- 7 12" GATE VALVE AND BOX, FL
- 8 12" PIPE
- 9 PUMP NO. 3 AND 4
- 10 8" PIPE
- 11 8" 1/8 BEND, FL
- 12 8" 1/8 BEND, FL
- 13 8" GATE VALVE AND BOX, FL
- 14 16" X 8" TEE, FL
- 15 16" PIPE
- 16 8" X 6" REDUCER, FL
- 17 NOT USED
- 18 6" PIPE
- 19 NOT USED
- 20 6" GATE VALVE AND BOX, FL
- 21 20" X 6" TEE, FL
- 22 PUMP NO. 1 AND 2
- 23 PUMP NO. 5
- 24 4" PIPE
- 25 4" 1/8" BEND, FL
- 26 4" 1/8" BEND, FL
- 27 16" X 4" TEE, FL
- 28 20" X 8" REDUCER, FL
- 29 8" 1/4 BEND, FL
- 30 16" X 12" TEE, FL
- 31 16" GATE VALVE AND BOX
- 32 16" 1/8 BEND, FL
- 33 16" X 16" TEE, FL
- 34 16" CAP, FL
- 35 EXISTING 16" C900 PVC LINE. REMOVE BLOWOFFS AND CONNECT AFTER DISINFECTION AND TESTING OF SYSTEM.
- 36 30,000 GALLON PRESSURE TANK
- 37 4" SDR 26 PVC DRAIN @ 1.00%
- 38 LITE ~ SEE ELECTRICAL PLANS
- 39 2" TEMPORARY BLOWOFF
- 40 4" FLOOR DRAIN (TYP ALL 5 PUMPS)
- 41 SLEEVE 4" DRAIN AT BEAM (TYP ALL 5 PUMPS)
- 42 4" 1/4 BEND (TYP ALL 5 PUMPS)
- 43 20" GATE VALVE, FL
- 44 16" GATE VALVE, FL

KEY NOTES:

- A CUT-IN 24" X 20" TEE, FL
- B 20" 1/8 BEND, FL
- C 46 LF ~ 20" PIPE
- D 20" 1/8 BEND, FL
- E 20" GATE VALVE AND BOX
- F 8 LF ~ 20" PIPE
- G 20" X 20" TEE, FL
- H 18 LF ~ 20" PIPE
- I 2 ~ 20" 1/8 BENDS, FL WITH 8 LF ~ 20" PIPE
- J CUT-IN 24" X 20" TEE
- K 65 LF ~ 20" PIPE
- L 16" PLUG
- M 1" SERVICE FOR SUCTION AND DISCHARGE PRESSURE TRANSDUCERS. SERVICE TO INCLUDE METER BOX WITH 1" BRONZE BALL VALVE AFTER CURB STOP. REFER TO ELECTRICAL PLANS FOR TRANSDUCER INSTALLATION.
- N TERMINATE 4" CONDENSATE DRAIN WITH 3" RISER EXTENDING 6" ABOVE GRADE. RISER TO BE SET IN A CONCRETE BLOCK (16" X 16" X 4"). EXTEND HVAC CONDENSATE DRAINS AND AIR COMPRESSOR DRAIN INTO RISER.
- P CPS TRANSFORMER PAD. SEE SHEET C9.1 PAD AND DUCT BANK DETAILS. SEE ELECTRICAL PLANS FOR SECONDARY ELECTRIC DETAILS



NOTES:

- (FOR CONNECTION TO EXISTING SYSTEM)
1. ANY WORK REQUIRING SHUTDOWN OF ANY OF THE EXISTING HIGH SERVICE PUMPS SHALL BE COORDINATED WITH SAWS PRODUCTION DEPARTMENT.
 2. IF CUTTING IN NEW 24" X 20" TEE ON THE WEST SUCTION LINE REQUIRES REMOVAL OF CONCRETE PAVEMENT, THE PAVEMENT SHALL BE SAWCUT IN A STRAIGHT LINE PARALLEL TO ARE PERPENDICULAR TO THE EDGE OF PAVEMENT. THE TRENCH SHALL BE BACKFILLED WITH FLOWABLE FILL UNDER THE PAVEMENT AND THE NEW PAVEMENT SHALL BE DOWELED INTO EXISTING PAVEMENT WITH 1/2" X 18" DOWELS AT 12" O.C. ALONG ALL EDGES. PAVEMENT SHALL BE REINFORCED WITH #4 BARS AT 12" O.C.E.W.
 3. PRIOR TO START OF PIPE INSTALLATION THE CONTRACTOR SHALL LOCATE ALL POTENTIAL CONFLICTS AND NOTIFY THE ENGINEER OF ANY POTENTIAL CONFLICTS.
 4. NEW 20" WATER LINE SHALL PASS UNDER EXISTING 24" SUCTION LINED, 8" WATER, 24" WELL LINE AND ELECTRICAL CONDUITS WITH A MINIMUM OF TWO FOOT OF CLEARANCE. EXISTING LINES ARE ESTIMATED TO HAVE FIVE (5) OF COVER.
 5. CONTRACTOR SHALL SUPPORT LIGHT STANDARD AND ANTENNA AS REQUIRED DURING CONSTRUCTION.
 6. CONTRACTOR SHALL HAVE 20" LINES, FITTINGS AND VALVES (ITEMS B-I) INSTALLED AND TESTED PRIOR TO MAKING CONNECTIONS TO THE 24" SUCTION HEADERS.

GENERAL NOTES:

1. ALL PIPING TO HAVE MIN. FIVE FEET OF COVER UNLESS OTHERWISE SHOWN.
2. SHUTDOWN OF EXISTING SUCTION HEADERS FOR INSTALLATION OF NEW CONNECTIONS TO BE COORDINATED WITH SAWS. ONE HEADER FEED MUST REMAIN IN OPERATION AT ALL TIMES.
3. ALL PIPING WITHIN PLANT IS STEEL PIPING
4. ALL FL JOINTS SHALL BE RESTRAINED
5. JOINTS IN STEEL PIPE BETWEEN FITTINGS SHALL BE WELDED JOINTS.
6. BID PROPOSAL CONTAINS ITEM FOR REMOVABLE STEEL BOLLARDS. THE LOCATION AND NUMBER OF BOLLARDS, IF REQUIRED, WILL BE DETERMINED AFTER INSTALLATION OF BUILDING, GENERATOR, TRANSFORMER, PUMPS AND TANK.

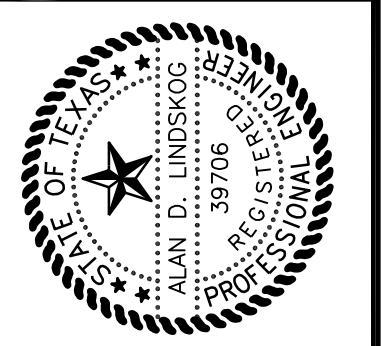
PRESSURE ZONE 11A

DEVELOPER'S NAME: SAN ANTONIO WATER SYSTEM (SAWS)			
ADDRESS: 2800 U.S. HIGHWAY 281 NORTH			
CITY: SAN ANTONIO		STATE: TEXAS	ZIP: 78212
PHONE: (210) 704-7297		FAX: -	
SAWS BLOCK MAP# 064614	TOTAL EDU'S: N/A	TOTAL ACREAGE: N/A	
TOTAL LINEAR FOOTAGE OF PIPE:		PLAT NUMBER:	
NUMBER OF LOTS:	SAWS JOB NO: 20-6008		

DESIGNED BY: A.D.L.
 DRAWN BY: E.R.G.
 DATE: JAN, 2020
 JOB NO.: E0684608

CIVIL ENGINEERING CONSULTANTS
 4133 DON DURDEN, INC.
 11650 IH 10 WEST, SUITE 395
 SAN ANTONIO, TEXAS 78230-1037
 TEL: (210) 641-9899
 FAX: (210) 641-6440
 REGISTRATION #F-2214 / F10041000

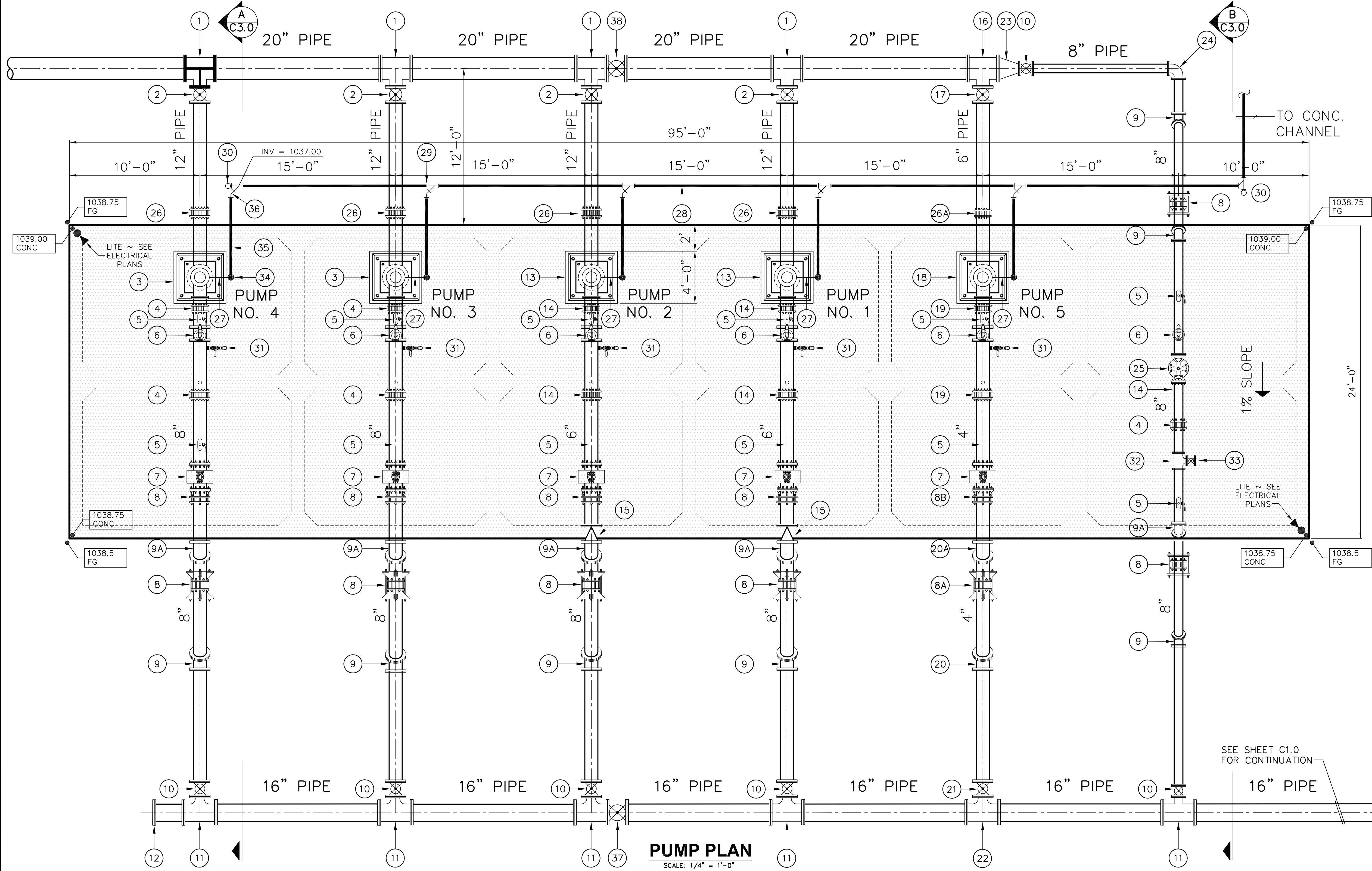
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY ALAN D. LINDSKOG, P.E., #39706 ON: MAY 14, 2021



REV	DATE	DESCRIPTION
1	9/22	CHANGED MJ FITTINGS TO FLANGED

SITE PLAN
 WATERWHEEL SUBD.
 WATER BOOSTER SYSTEM
 SHEET NO. C1.1

THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT HAS STORED, TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARD COPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL.



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

KEY NOTES:

- ① 20" X 12" TEE, FL
- ② 12" GATE VALVE AND BOX, FL
- ③ PUMP NO. 3 AND 4
- ④ 8" WAFER CHECK VALVE
- ⑤ PRESSURE GAUGE - SEE SPEC SECTION 407000
- ⑥ COMBINATION AIR VALVE
- ⑦ ELECTROMATIC FLOW METER SEE SPEC SECTION 407113
- ⑧ 8" COUPLING WITH FOUR HARNESS CLIPS
- ⑧A 4" COUPLING WITH FOUR HARNESS CLIPS
- ⑨ 8" 1/8 BEND, FL
- ⑨A 8" 1/8 BEND, FL
- ⑩ 8" GATE VALVE AND BOX, FL
- ⑪ 16" X 8" TEE, FL
- ⑫ 16" BLIND FLANGE, FL
- ⑬ PUMP NO. 1 AND 2
- ⑭ 6" WAFER CHECK VALVE
- ⑮ 8" X 6" REDUCER, FL
- ⑯ 20" X 6" TEE, FL
- ⑰ 6" GATE VALVE AND BOX, FL
- ⑱ PUMP NO. 5
- ⑲ 8" WAFER CHECK VALVE
- ⑳ 4" 1/8 BEND, FL
- ⑳A 4" 1/8 BEND, FL
- ㉑ 4" GATE VALVE AND BOX, FL
- ㉒ 16" X 4" TEE, FL
- ㉓ 20" X 8" REDUCER, FL
- ㉔ 8" 1/4 BEND, FL
- ㉕ 8" SURGE VALVE
- ㉖ 12" FLEX COUPLING
- ㉖A 6" FLEX COUPLING
- ㉗ 1" PVC DRAIN PIPING
- ㉘ 4" SDR 26 PVC DRAIN @ 1.00%
- ㉙ 4" WYE
- ㉚ 4" CLEAN OUT
- ㉛ 3/4" TAP WITH BALL VALVE FOR SAMPLE TAP
- ㉜ 8" X 6" TEE, FL
- ㉝ 6" GATE VALVE WITH HANDWHEEL, FL
6" BLIND FLANGE
- ㉞ 4" FLOOR DRAIN
- ㉞ SLEEVE 4" DRAIN AT BEAM
- ㉟ 4" 1/4 BEND
- ㊱ 16" GATE VALVE, FL
- ㊲ 20" GATE VALVE, FL

GENERAL NOTES:

1. REFER TO ELECTRICAL PLANS FOR CONDUIT AND CONTROL LOCATIONS.
2. ALL VALVE BOXES AND CLEANOUTS TO BE SET IN AN 18" X 18" X 6" THICK CONCRETE BLOCK.
3. SEE SHEET C1.0 FOR LOCATION OF SUCTION AND DISCHARGE PRESSURE TRANSDUCER TAPS
4. SEE SHEET C3.0 FOR PUMP AND SURGE VALVE ELEVATIONS.
5. SEE SHEET C9.0 FOR SYSTEM CONNECTION REQUIREMENTS.

PIPING NOTES:

1. ALL PIPING IS STEEL PIPE.
2. ALL FL JOINTS SHALL HAVE RESTRAINED JOINTS.
3. DEPTH OF BURY SHALL BE FIVE FEET

PRESSURE ZONE 11A

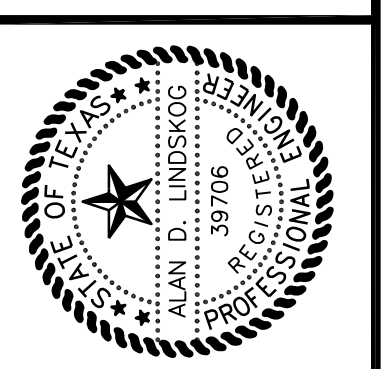
DEVELOPER'S NAME: SAN ANTONIO WATER SYSTEM (SAWS)			
ADDRESS: 2800 U.S. HIGHWAY 281 NORTH			
CITY: SAN ANTONIO	STATE: TEXAS	ZIP: 78212	
PHONE: (210) 704-7297	FAX: -		
SAWS BLOCK MAP# 064614	TOTAL EDU'S: N/A	TOTAL ACREAGE: N/A	
TOTAL LINEAR FOOTAGE OF PIPE:		PLAT NUMBER:	
NUMBER OF LOTS:	SAWS JOB NO: 20-6008		

SCALE
1/4 inch = 1 foot

DESIGNED BY: A.D.L.
DRAWN BY: E.R.G.
DATE: JAN, 2020
JOB NO.: E0684608

CIVIL ENGINEERING CONSULTANTS
D.B.A. DON DURDEN, INC.
11550 IH 10 WEST, SUITE 395
SAN ANTONIO, TEXAS 78230-1037
TEL: (210) 641-9899
FAX: (210) 641-6440
REGISTRATION #F-2214 / #10041000

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY ALAN D. LINDSKOG, P.E., #39706 ON: MAY 14, 2021
FEBRUARY 26, 2021



REV	DATE	DESCRIPTION
1	9/22	CHANGED MJ FITTINGS TO FLANGED

PIPING PLAN
WATERWHEEL SUBD.
WATER BOOSTER SYSTEM

SHEET NO.
C2.0

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