

SAN ANTONIO WATER SYSTEM LIFT STATIONS REHABILITATION DESIGN - PHASE 3

SAWS Job No. 08-2504 Solicitation No. B-12-015-MF

ADDENDUM NO. 4

June 6, 2012

This addendum, applicable to work referenced above, is an amendment to the proposal documents 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 in the space provided in submitted copies of the proposal(s).

Part I of the Plans and Specifications

A. Clarifications

Item 1:

Sealed proposals will be date and time stamped in the Customer Service Building at the Guard Station by the Contract Administration Division due to our offices being temporarily inaccessible Tuesday, June 12. Upon arriving at the Guard Station, potential respondents should request that Contract Administration staff be notified so that they may submit their proposal packets.

Item 2:

Potential respondents should allow sufficient time when submitting their proposal packet, with special consideration for the changes outlined within this Addendum, as indicated in the Instructions to Respondents, Section 1. (b)-(e).

B. Contract Documents Revisions

Item 1: SAWS Approved Product for Concrete Manhole Coatings

a) ADD the following SAWS approved product for Concrete Manhole Coatings to the Contract Documents: Carboline Protective Coatings Product/System "Plasite 4500", m/n. 125 mils thick which includes the base coat Carbogard 510G and top coat 4500S.

Reference the following Contract Document items related to manhole coatings and update accordingly to include the above listed Carboline product as an approved Epoxy coating along with the Raven and Spray Wall products:

- SAWS Standard Specification Item 850 Sanitary Sewer Structures
- Special Provisions to SAWS Standard Specification Item 850 SanItary Sewer Structures
- SAWS Standard Specification Item 852 Sanitary Sewer Manholes

Item 2: Invitation for Competitive Sealed Proposals

a) Replace the last paragraph with the following:

Sealed proposals will be received by the Contract Administration Division, 2800 U.S. Hwy 281 North, Customer Center Building, **Guard Station**, San Antonio, Texas 78212, until 10:00 AM (CT), June 12, 2012. Proposals will then be publicly opened and read aloud in the Customer Center Building, 2800 U.S. Hwy 281 North, **Conference Room 137**, San Antonio, Texas. This solicitation requires a Qualification Package, Good Faith Effort Plan, and Conflict of Interest Questionnaire. Each proposal must be accompanied by a cashier's check, certified check, or bid bond in an amount not less than five percent of the total price proposal.

Item 3: Instructions to Respondents

a) Remove and replace 1.(a) with the following:

Eight (8) sealed proposals, one (1) Original, clearly marked and signed in blue ink, and seven (7) copies will be received by the office of Contract Administration Division, San Antonio Water System, 2800 U.S. Hwy 281 North, Customer Center Building, **Guard Station**, San Antonio, Texas 78212, until the time specified in the Invitation for Competitive Sealed Proposals.

Item 4: Respondent Questionnaire

Remove in its entirety and replace with the attached version.

C. Drawing Revisions

Item 1: LS# 245: Electrical Plan

 a) DELETE Sheet E-245-2, Sheet 69 of 143 and REPLACE with attached revised sheet dated 05/18/2012.

Item 2: LS# 252: Electrical Plan

a) DELETE Sheet E-252-2, Sheet 75 of 143 and REPLACE with attached revised sheet dated 5/18/2012.

Item 3: LS# 253: Electrical Modifications Plan

a) DELETE Sheet E-253-1, Sheet 79 of 143 and REPLACE with attached revised sheet dated 5/18/2012.

Item 4: Self Priming Pump – Control Schematics I (E-20 / sheet 136 of 143)

a) Clarification: 120 VAC UPS power for Wetwell Level / Discharge Pressure Indicators and SCADA Enclosure Temperature Transmitter – Line 427 shall be replaced with Line 425.

Item 5: Self Priming Pump – SCADA Panel Schematic II (E-21 / sheet 137 of 143)

a) Clarification: Add a removable fuse to Line 426. Circuit will be utilizied for 120 VAC PLC Power Supply. Remove "PLC Power Supply" – Line 430, "24VDC Digital I/O" – Line 433, and "24VDC Analog I/O" – Line 434.

Item 6: Submersible Pump – SCADA Panel Schematics II (E-23 / sheet 139 of 143)

a) Clarification: Add a removable fuse to Line 426. Circuit will be utilized for 120 VAC PLC Power Supply. Remove "PLC Power Supply" – Line 430, "24VDC Digital I/O" – Line 433, and "24VDC Analog I/O" – Line 434.

C. Specification Revisions

Item 1: Section 16373 – Stand Alone Low Voltage Solid State Starters

a) DELETE 16373 2.08 A in its entirety and REPLACE with the following:

"A. The following relaying and monitoring device functions shall be provided:

- 1. Under voltage
- 2. Under current
- 3. Phase Reversal
- 4. Phase Sequence
- 5. I2T Thermal Motor Overload
- 6. Instantaneous overcurrent relay
- 7. Time Overcurrent
- 8. Power Factor
- 9. Overvoltage

- 10. Starts Per Hour
- 11. Frequency
- 12. Lockout/Start Inhibit"

D. Questions

Q1: Are the controls for the duplex packages for the Horizontal Self-Priming Centrifugal Pumps (Spec Section 11216) to be provided by the pump supplier. If so, what specs to follow for the panels.

Refer to Section 16902 Control Panels in the contract Documents/Specifications and electrical drawings Self Priming Pump Control Schematic.

Q2: Drawing C-163-2, Lift Station #163. Key note Q requires installation of two new 60 hp TEFC premium efficiency motors for the existing pumps. What is the model of the existing pump? Who is the manufacturer? What are the new conditions that will be required?

Refer to Demolition Plan on Sheet C-163-2 for existing pumps information. It is the respondent's responsibility to verify existing equipment, equipment replacement and modification for each lift station.

Q3: The drawings cover sheet lists lift station 285. There is no information for that lift station.

Cover sheet does not indicate Lift Station 285. It is the respondent's responsibility to verify.

Q4: The lift station 283 shows a three pump system. However, there is no schematic for a three pump system.

The project does not indicate Lift Station 283. It is the respondent's responsibility to verify.

Q5: The schematics for lift stations 176, 189, 205, 211 and 228 show future pumps. Are these systems going to be designed as a triplex to cover the future pumps.

Refer to <u>Keyed Notes</u>, on electrical sheets One- Line Diagram for the listed lift stations. It is the respondent's responsibility to verify.

Q6: I wanted to know if possible to discuss the materials being used for the rehab of the 21 lift stations. We have a product call ecocast that I'd like to discuss being used to rehab on the life stations as an alternate. If you are not the right person to discuss this with can you please direct me to the correct person. This is in reference number Solicitation NO: B-12-015-MF.

Only those products listed in the specifications are approved and should be referenced for proposal purposes.

- Q7: Drawing E-7 Manual Transfer Switch List of Materials. Can square D provided and equal to the following:
 - a) Square D equal to the ABB Molded Case switch S3H225DW
 - b) Square D equal to the ABB Mechanical Interlock K3MI-H

Equal part numbers by other manufacturers for item 1 and items 7 to 10 (as identified in the List of Materials on drawing E-7, sheet 123 of 143) inclusively will be evaluated during submittal review and will be approved, if found to be equal by the Engineer given they meet the intent of the Contract Documents.

- Q8: Drawing E-11 Pump Control Panel Material List. Can square D provided and equal to the following:
 - a) Square D equal to the IDEC RH2BUL-AC120
 - b) Square D equal to the IDEC SH2B-05

Only those products listed in the specifications are approved and should be referenced for proposal purposes.

Q9: Specification Section 16901 Article 2.13.C.2.f Items (vi), (vii) and (viii) call out for the Telefast Bases. The M340 PLC's can be wired point to point similar to the AB PLC without these extra components can these be removed?

Telefast Bases for the M340s can be removed as long as the instrumentation wiring between the interposing relays inside the SCADA panel and the M340 PLC are 20 or 22AWG. All other SCADA panel wiring sizes are to remain as currently specified in the Contract Documents.

Q10: Specification Section 16373 Article 2.01.A Calls for the manufacturer of the Solid state Starter to be Benshaw, can Square D provide an Equivalent to this Solid State Starter?

Only those products listed in the specifications are approved and should be referenced for proposal purposes.

Q11: The specification for the Allen Bradley PLC configuration requires a Prosoft module to talk Modbus Serial. Since the release of Phase1, SAWS and Allen Bradley engineered a program for the Compact Logix PLC that configures the PLC to talk Modbus thru the processors serial port without the need of the costly Prosoft module. SAWS asked that the program be installed and tested in one lift station for a number of months before omitting the Prosoft module from the speck for future lift stations. The program was installed in the Sewanee Lift station and has been running without any error for almost a year and a half. The program is simple to understand and easy to configure. SAWS can save \$31,500.00 by omitting the Prosoft module from the Phase 3 Lift Station Project. Omitting the Prosoft module does not guarantee that the Compact Logix PLC will be chosen over the Modicon M340 by the contractor who won the job, it merely allows both PLC manufactures the ability to compete at the same price levels.

My Question for the addendum is, can the Prosoft Module be omitted from the PLC specification for phase 3?

The Prosoft Module cannot be omitted from the Technical Specifications at this time due to ongoing testing by SAWS.

Q12: The proposal is broken down into four categories. Two of them are specific to evaluation of qualifications and two are similar to that of a hard bid proposal that have points assigned per the SIR iii Price and iv SMWB Participation. The format of the proposal is identified in SIR B and includes a bound "Qualifications" and a sealed pricing envelope. As a matter of clarity, is everything that is typically included in the "Pricing" proposal for a SAWS hard bid to be included in the sealed pricing envelope and therefore not included in the 50 pages? See below Breakdown

Using the CL-1 Submittal Checklist as a go by it appears that the following items are to be packaged with the price proposal:

- Submittal Checklist CL-1
- Price Proposal PP1-7
- Good Faith Effort Plan GFEP
- Financial Statement
- CIQ
- Bid Bond
- W-9
- Proof of Insurability
- Acknowledgement of Addendums

The following would be included as a part of the bound fifty page qualification package:

- Submittal Checklist
- Respondent Questionnaire
- Background, Experience and Qualifications

- Past Experience
- References
- Safety Program & Records
- Security Program
- Quality Plan

The good faith effort binder is usually due within five days and could exceed 50 pages itself. How is this "Proof of Good Faith" to be incorporated into either the qualifications package or pricing package?

This project is being procured through the Competitive Sealed Proposal alternative delivery method. Therefore, price, too is evaluated as outlined in the revised Supplementary Instructions to Respondents, of Addendum 3, pages SIR-4 and SIR-5.

As outlined in the Submittal Checklist, CL-1, the envelope labeled "Original" should also include all the original Submittal Checklist, Respondent Questionnaire, Background, Experience and Qualifications, Past Experience, References, Safety Program and Records, Security Program, Proposed Plan & Quality Program, Acknowledgement of Addendums and CD.

GFEP form itself <u>must</u> be included with the proposal packets by the submittal deadline. The GFEP is included in the original proposal packet only. It is allowable to submit a separate binder, which includes any written notices sent to subcontractors verifying the Responden'ts efforts towards meeting SAWS' SMWB goal.

Q13: I'd like to request to provide Eaton SPD as an equal under spec section 16289. A product bulletin is attached. I spoke with Annie Levesque at CP&Y and she requested I send this through you. I believe SAWS has Eaton SPDs already in service on other projects but wanted to make sure it was acceptable of this one. Please contact me if you need any additional information.

Only those products listed in the specifications are approved and should be referenced for proposal purposes.

Q14: Is Buildmore Construction the design build contractor?? Or is the job going out for open bids???

Buildmore Construction is not the design build contractor. The project is is not a low bid project, but rather a Request for Competitive Sealed Proposal as outlined in Chapter 2267.151-.2267.155, Subchapter D Competitive Sealed Proposal Method of the Texas Government Code.

Q15: I see that most of the lift stations get a disc lock on existing gate. There is one that specifically calls out to replace barbwire and one that has a note to replace or install new fence. There are a few that have the notes on the drawing specifying what type of fence but no key notes to replace or install fence. Can you tell me specifically which stations get new fence???

Respondent shall be responsible for reviewing Contractor Documents/Specifications and Drawings. Also, it is the respondent's responsibility to verify equipment replacement and modification for each lift station.

Q16: Specification Section 16373 Article 2.01.A Calls for the manufacturer of the Solid state Starter to be Benshaw, can Square D provide an Equivalent to this Solid State Starter?

Only those products listed in the specifications are approved and should be referenced for proposal purposes.

Q17. Specification Section 16373 Article 2.08.A requires that ANSI Relaying be provided, but drawings to not reflect the ANSI Relay nor the CT's and VT's inputs to the ANSI relay. See Drawing E-188-3 which references to use Sheets E-16 & E-17. ANSI relaying is typical for a MV RVSS not a LV 240V or 480V Starter and requires added components.

Please see above C. Specification Revisions, Item 1 of this addendum for a response to this question.

Q18. Please refer to the Supplementary Instruction to Respondents section 2.A.i Background, Experience, and Qualifications. Items a, d, and f request similar information regarding the contractor's past experience. Thus, in an effort to reduce the amount of pages, we would like to be able to combine items d and f. Please confirm.

Since the Respondent's qualifications will be evaluated, each item outlined in the Supplementary Instructions to Respondents, Section 2. A. i. a.-g. should be addressed separately in a narrative format and/or with other supporting documentation and should not be combined.

Q19. Please refer to the Supplementary Instruction to Respondents section 2.B Format of Proposal. Item i indicates that respondents must submit a CD with a pdf copy of the entire proposal. We request either to provide the CD within 24 hours after the proposal is due or exclude the price proposal and minority participation from the cd.

The CD serves as an electronic copy of the final hard copy of the original proposal packet. Therefore, the Respondent should make every effort to submit this as part of the proposal packet no later than the submittal deadline.

Q20. Please refer to the Supplementary Instruction to Respondents section 2.A.i Background, Experience, and Qualifications. Item h indicates that respondents must provide an example Safety Plan. Can the example be submitted as an appendix to the proposal? Safety Plans are lengthy documents that can take up to 50 pages in some cases.

The company's Safety Program and Records may be submitted as an appendix to the proposal packet. However, the Respondent should make every effort to respond to each item listed in Section 2.A i. h) in narrative format and/or with supporting documents as outlined in the Supplementary Instructions to Respondents.

Q21. Please refer to page IR-2 #5.(f), "The Respondent is required to submit as part of the proposal a letter from the insurance provider stating provider's commitment to insure the Contractor for the types of coverage's as specified in the General Conditions Section 5.7 – Contractor's Insurance Requirements, if awarded the contract." Also on page CL-1 Submittal Checklist, one of the items reads "Proof of Insurability (Letter from Insurer or Sample Certificate of Insurance)." Please indicate if submitting only the Certificate of Insurance is acceptable.

Yes, a Certificate of Insurance is acceptable.

Revised Plan Sheets for Lift Stations Rehabilitation Design - Phase 3:

Sheet E-245-2 (1 page)

Sheet E-252-2 (1 page)

Sheet E-253-1 (1 page)

Part II of the Plans and Specifications

A. Drawing Revisions

- **Sheet 2 of 21** Add to General Notes "25. Pencco Inc. to provide chemical tank, pumps and appurtenances that include vent pipe, filling line, drain valve, level indicator, overflow line and ¾" hose bib. Contractor to provide all the rest shown in plans and indicated in specs." See attached revised plan sheet.
- **Item 2** Sheet 8 of 21 Replace "North West Center Service" with 'North West Service Center." See attached revised plan sheet.

Item 3 Sheet 11 of 21 - Plan View: Delete the N arrow. See attached revised plan sheet.

Sheet 11 of 21 - Plan View: Replace "10'-0" Tank Location" with "12'-0" Tank Location." See attached revised plan sheet.

Sheet 11 of 21 - Plan View: Delete "(Installed by SAWS)" in "Poles and Electrical Panel Mounting Rack (Installed by SAWS)." See attached revised plan sheet.

Sheet 11 of 21 - Plan View: The arrow indicating the 12'-0" diameter inside the circle (representing the slab) should actually extend through the dashed inner circle (representing the tank). The distance between the dashed circle (the tank) and the solid circle (the slab) should be 2'-0". See attached revised plan sheet.

B. Questions

Q1: Is it possible to identify the revisions made to the contract documents provided in Addendum 3? It is difficult to identify what changes were made since the entire spec was replaced. Normally the engineer uses a triangle symbol to call attention to changes in plans and specs.

Engineer will indicate the changes with a triangle symbol in the conformed contract documents. Please refer to the Special Conditions for the language pertaining to the changes made.

Q2: There are no specs or details for Odor Control System pumps, tanks, or appurtenances and the drawings indicate the tank and equipment is either provided by others or to be relocated. Please confirm that the contractor is not required to provide or install the tank and appurtenances at the Northwest Service Center as indicated on Drawing 10 of 21. If any new pumps, tanks or appurtenances are to be provided and installed by the contractor please identify and provide specific size, material, make and model.

Pencco, Inc. to provide chemical tank, pumps and appurtenances that include vent pipe, filling line, drain valve, level indicator, overflow line and ¾-in hose bib. Contractor to provide all the rest as shown in plans and indicated in specs.

Q3: Note 3 on Drawing 7 of 21 indicates the new proposed drain is 4" but the drawing calls for 2". Which pipe size is correct?

2-in PVC. See attached revised sheets for correct pipe size.

Q4: Note 6 on Drawing 7 of 21 indicates the water pipe to be tied inside water meter. What is the location of water meter?

See attached revised sheets for water meter location.

Q5: Drawings 5, 6, 7, 9 and 10 call for the containment wall stairs to be precast. Is it acceptable to provide cast in place stairs?

Cast in place stairs are acceptable as long as they are placed in a monolithic pour with the containment wall and as long as it does not interfere with the piping from the pump to drain sump.

Revised Plan Sheets for Part II Odor Control System Improvements, Phase II:

Sheet 2 of 21 (1 page)

Sheet 7 of 21 (1 page)

Sheet 8 of 21 (1 page)

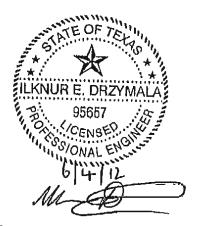
Sheet 11 of 21 (1 page)

This Addendum is 18 pages, with attachments, in its entirety.

Each respondent is requested to acknowledge receipt of this Addendum No. 4 by his/her signature affixed hereto and to file same with and attached to his/her proposal.

APPROVED BY ENGINEER
WESTON SOLUTIONS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-3123





lla E. Drzymala, Ph.D., P.E.

Project Engineer

Part II of the Plans and Specifications

Part I of the Plans and Specifications

The undersigned acknowledges receipt of this Addendum No. 4 and the Competitive Sealed Proposal submitted herewith is in accordance with the information and stipulations set forth.

Date Signature of Respondent

END OFADDENDUM



RESPONDENT QUESTIONNAIRE

PROJECT NAME:						
Instructions: The Respondent Questionnaire is a required questionnaire. Complete the questionnaire by inserting the requested information. Do not modify or delete the questions.						
<u>GE</u> 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 No					

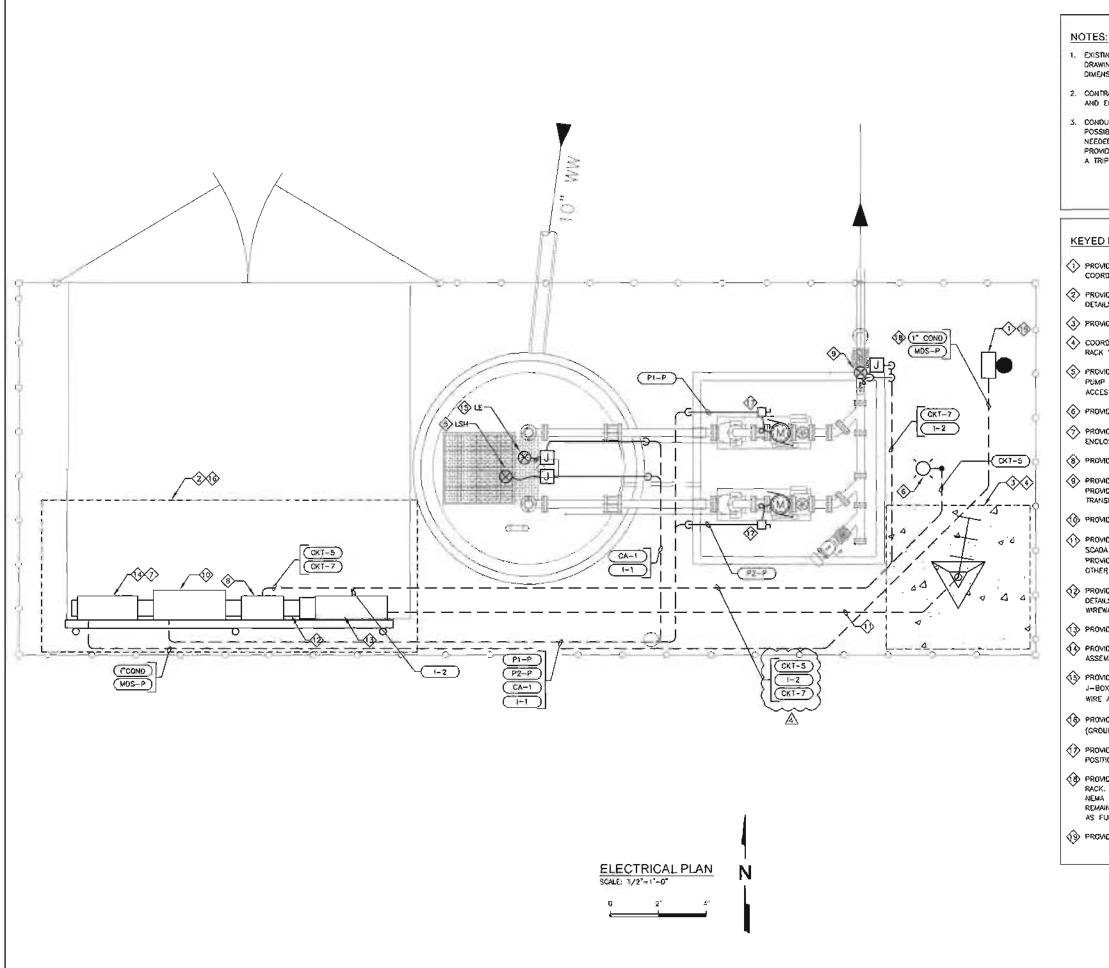
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5.	Is Respondent authorized and/or licensed to do business in Texas?				
	Yes 🗌	No 🗌	If "Yes", list authorizations/licenses.		
7.	Debarment/Suspension Information: Has the Respondent or any of its principals been debarred or suspended from contracting with any public entity?				
	suspen	number of a repression, and state the	If "Yes", identify the public entity and the name and current esentative of the public entity familiar with the debarment or e reason for or circumstances surrounding the debarment or it not limited to the period of time for such debarment or suspension.		
8.			n: Has the Respondent ever been declared bankrupt or filed for under state or federal proceedings?		
	Yes of liabil	No □ ities and amount c	If "Yes", state the date, court, jurisdiction, cause number, amount of assets.		
9.	Provide	Provide any other names under which Respondent has operated within the last 10 years.			
10.	box. Fa	ailure to fully and t	Respond to each of the questions below by checking the appropriate truthfully disclose the information required in the Litigation Disclosure he disqualification of your proposal from consideration or termination arded.		
	a.	•	member of your Firm or Team to be assigned to this engagement ed or convicted of a felony or misdemeanor greater than a Class C in ears?		
		Yes No No			
	b.	been terminated	member of your Firm or Team to be assigned to this engagement (for cause or otherwise) from any work being performed for the San ystem or any other Federal, State or Local Government, or Private		
		Yes No [

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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 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.							
14. Adden	14. Addendums: Each 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						

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- 1. EXISTING LIFT STATION SHOWN HERE IS BASED ON SAWS RECORD DRAWINGAS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFY DIMENSIONS AND IMPROVEMENTS SHOWN HERE.
- 2. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING DIMENSIONS AND EQUIPMENT SHOWN.
- 3. CONDUIT SHALL BE INSTALLED BELOW GRADE WHERE ALL POSSIBLE, SAW CUT AND REPAIR CONCRETE OR PAVEMENT AS NEEDED. WHERE CONDUITS CANNOT BE INSTALLED BELOW GRADE, PROVIDE A RAMP COVER IF CONDUITS ARE IN A PATHWAY OR ARE A TRIPPING HAZARD.

KEYED NOTES:

- PROVIDE NEW WEATHER HEAD, METER BASE, AND MOS. COORDINATE INSTALLATION WITH CPS ENERGY
- 2 PROVIDE ELECTRICAL RACK, CANOPY, AND CONCRETE PAD PER OETAILS, RE:E-5
- 3 PROVIDE 40FT. ROHN ANTENNA TOWER PER DETAILS. RE.T-3
- 4 COORDINATE INSTALLATION OF ANTENNA BASE AND EQUIPMENT RACK WITH EXISTING PIPING, ADJUST LOCATION AS REQUIRED.
- S PROVIDE HIGH LEVEL FLOAT SWITCH AND CONNECT TO THE PUMP CONTROL PANEL. LOCATE HANGER WITHIN 6" OF THE ACCESS HATCH.
- 6 PROVIDE AREA LIGHT PER DETAIL, RE:E-4.
- PROVIDE SURGE PROTECTION DEVICE (SPD) IN NEMA 4X 316 SS ENCLOSURE AT THE MTS.
- 8 PROMOE TOKVA MINI POWER CENTER.
- PROVIDE PRESSURE TRANSMITTER, RE:DETAIL C/E-2
 PROVIDE POWER CIRCUIT AND J-BOX FOR PRESSURE TRANSMITTER HEAT TRACE.
- PROVIDE NEW PUMP CONTROL PANEL FOR PUMPS.
- PROVIDE 2-2" CONDUITS FROM ANTENNA DIRECTLY TO THE SCADA PANEL, ROUTING THROUGH WIREWAY IS NOT PERMITTED. PROVIDE A COAX CABLE IN ONE OF THE 2" CONDUIT, THE OTHER SHALL BE A SPARE.
- PROVIDE B'X8" WIREWAY ON RACK SELOW EQUIPMENT PER DETAILS, RE:E-5. THE ROUTING OF ANALOG SIGNAL THROUGH WIREWAY IS NOT PERMITTED.
- PROVIDE SCADA PANEL PER DETAILS, RE' E-20 AND E-21
- PROVIDE MANUAL TRANSFER SWITCH WITH GENERATOR PLUG
- \$ PROVIDE SUBMERSIBLE PRESSURE LEVEL TRANSDUCER AND J-BOX. INSTALL 1'-0" ABOVE BOTTOM OF WETWELL ROUTE WIRE AND CONDUIT DIRECTLY TO PUMP CONTROL PANEL (PCP),
- PROVIDE GROUNDING AND GROUND RODS, RE:B/E-5. (CROHNOING NOT SHOWN FOR CLARITY)
- PROVIDE DISCONNECT SWITCH WITH AN AUXILIARY CONTACT WITH POSITION INDICATION TO THE PUMP CONTROL PANEL.
- PROVIDE TELEPHONE CABLE FROM RISER POLE TO EQUIPMENT RACK, RE-INSTALL AUTODIALER AND ALARM POINTS, PROVIDE A NEMA 4X 316 SS ENCLOSURE FOR AUTODIALER, AUTODIALER TO REMAIN IN SERVICE UNTIL SCADA SYSTEM HAS BEEN ACCEPTED AS FULLY OPERATIONAL.
- (\$) PROVIDE ARC FLASH STUDY FOR LIFT STATION





WESTON SOLUTIONS, INC 70 NE LOOP 410, SUITE 600 SAN ANTONIO, TEXAS 78216-5842 84 F-3123 IONS REHABILITATION DESIGN - PHASE 3
- HARRIS MIDDLE SCHOOL
ELECTRICAL PLAN 245 TS#

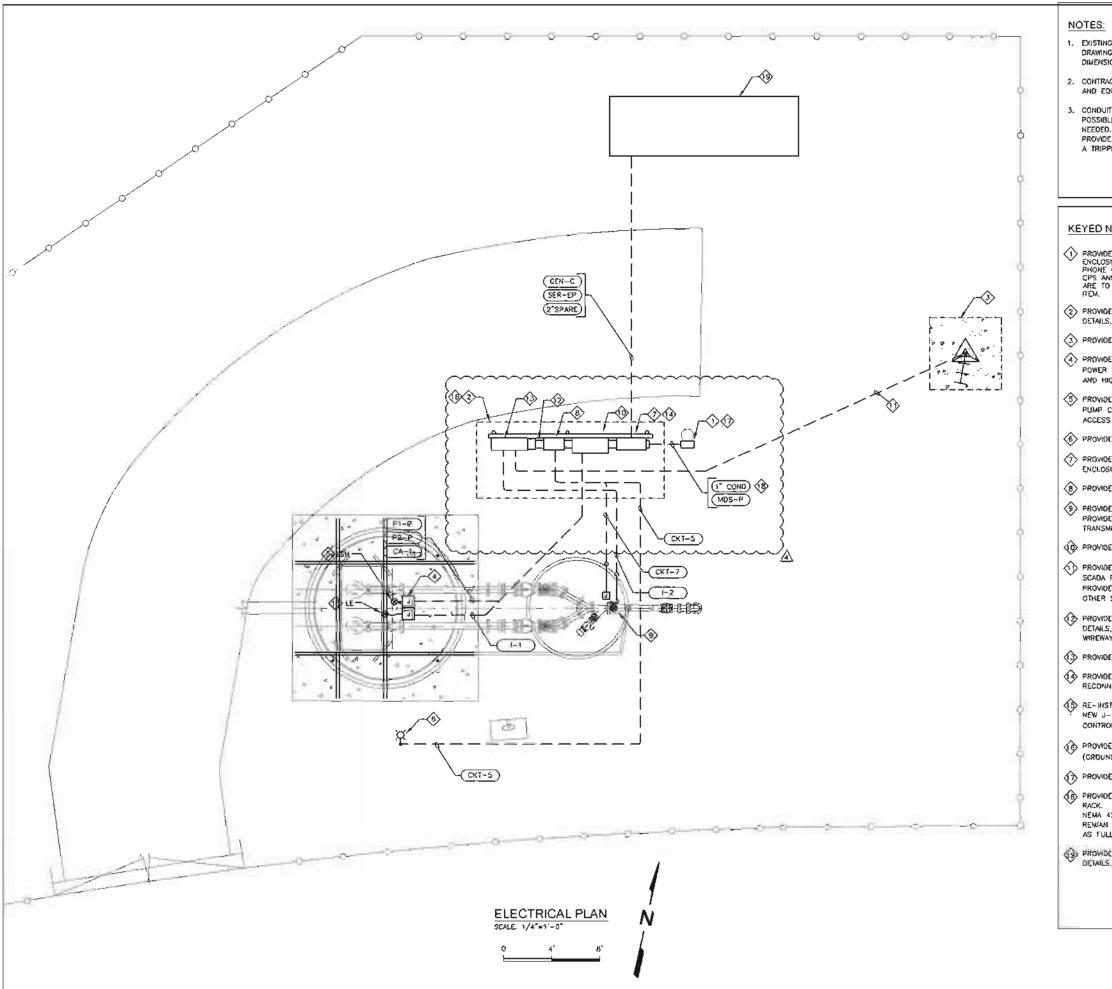
> Antonio System Water



NOTES INTOALS DATE DESIGNED BY CC 10/07/11 REVIEWED BY AL 10/07/11 SCALE: AS SHOWN

SHEET NO.

E-245-2 69 OF 143



- 1. EXISTING LIFT STATION SHOWN HERE IS BASED ON SAWS RECORD DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFY DIMENSIONS AND IMPROVEMENTS SHOWN HERE.
- 2. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING DIMENSIONS
- 3. CONDUIT SHALL BE INSTALLED BELOW GRADE WHERE ALL POSSIBLE, SAW CUT AND REPAIR CONCRETE OR PAVEMENT AS NEEDED. WHERE CONDUITS CANNOT BE INSTALLED BELOW GRADE, PROVIDE A RAMP COVER IF CONDUITS ARE IN A PATHWAY OR ARE A TRIPPING HAZARD.

KEYED NOTES:

- PROVIDE 200 AMP DISCONNECT SWITCH IN A NEMA 4X 318 SS ENCLOSURE, WEATHER HEAD AND METER BASE. REINSTALL PHONE LINE ON RISER POLE. COORDINATE INSTALLATION WITH CPS AND PHONE COMPANY. ALL UTILITY CHARGES INCURRED ARE TO BE INCLUDED IN THE ALLOWANCE FOR THIS STATION
- PROVIDE ELECTRICAL RACK, CANOPY, AND CONCRETE PAD PER DETAILS, RE:E-5.
- 3 PROVIDE 40FT. ROHN ANTENNA TOWER PER DETAILS, RE:T-3
- 4 PROVIDE J-BOX FOR CONNECTIONS TO SUBMERSIBLE PUMP POWER CABLE, MOISTURE SENSOR/OVERTEMP SWITCH ALARM AND HIGH LEVEL FLOAT CABLES.
- 5 PROVIDE HIGH LEVEL FLOAT SWITCH AND CONNECT TO THE PUMP CONTROL PANEL LOCATE HANGER WITHIN 6" OF THE ACCESS HATCH.
- 6 PROVIDE AREA LIGHT PER DETAIL, RE:E-4.
- PROVIDE SURGE PROTECTION DEVICE (SPD) IN NEMA 4X 315 SS ENCLOSURE AT THE MTS
- 8 PROVIDE TOKVA MINI POWER CENTER.
- PROVIDE PRESSURE TRANSMITTER. RE:DETAIL C/E-2 PROVIDE POWER CIRCUIT AND J-BOX FOR PRESSURE TRANSMITTER HEAT TRACE.
- PROVIDE NEW PUMP CONTROL PANEL FOR PUMPS.
- PROVIDE 2-2" CONDUITS FROM ANTENNA DIRECTLY TO THE SCADA PANEL, ROUTING THROUGH WIREWAY IS NOT PERMITTED. PROVIDE A COAX CABLE IN ONE OF THE 2" CONDUIT. THE OTHER SHALL BE A SPARE.
- PROVIDE B"X8" WIREWAY ON RACK BELOW EQUIPMENT PER DETAILS, RE:E-5. THE ROUTING OF ANALOG SIGNAL THROUGH WIREWAY IS NOT PERMITTED.
- (3) PROVIDE SCADA PANEL PER DETAILS, RE:E-22 AND E-23.
- PROVIDE AUTOMATIC TRANSFER SWITCH AND MAKE ALL REQUIRED RECONNECTIONS TO CENERATOR AND TRANSFER SWITCH.
- (\$) RE-INSTALL EXISTING ULTRASONIC LEVEL TRANSDUCER PROVIDE NEW J-BOX, ROUTE WIRE AND CONDUIT DIRECTLY TO PUMP CONTROL PANEL (PCP)
- PROVIDE CROUNDING AND CROUND RODS, REB/E-5. (GROUNDING NOT SHOWN FOR CLARITY)
- PROVIDE ARC FLASH STUDY FOR LIFT STATION.
- (8) PROVIDE TELEPHONE LINE FROM RISER POLE TO EQUIPMENT RACK. RE-INSTALL AUTODIALER AND ALARM POINTS. PROVIDE NEMA 4X 31655 ENCLOSURE FOR AUTODIALER AUTODIALER TO REMIAN IN SERVICE UNTIL SCADA SYSTEM HAS BEEN ACCEPTED AS FULLY OPERATIONAL
- PROVIDE A GOKY MATURAL GAS GENERATOR: REE-3 FOR





WESTON SOLUTIONS, INC.
70 NE LOOP 410, SUITE 600
B. SAN ANTONIO, TEXAS 78216-5842
FIRM F-3123 OAK

TIONS REHABILITATION DESIGN - PHASE 3
S. HEIGHTS OF STONE OAK
ELECTRICAL PLAN 252 TS#

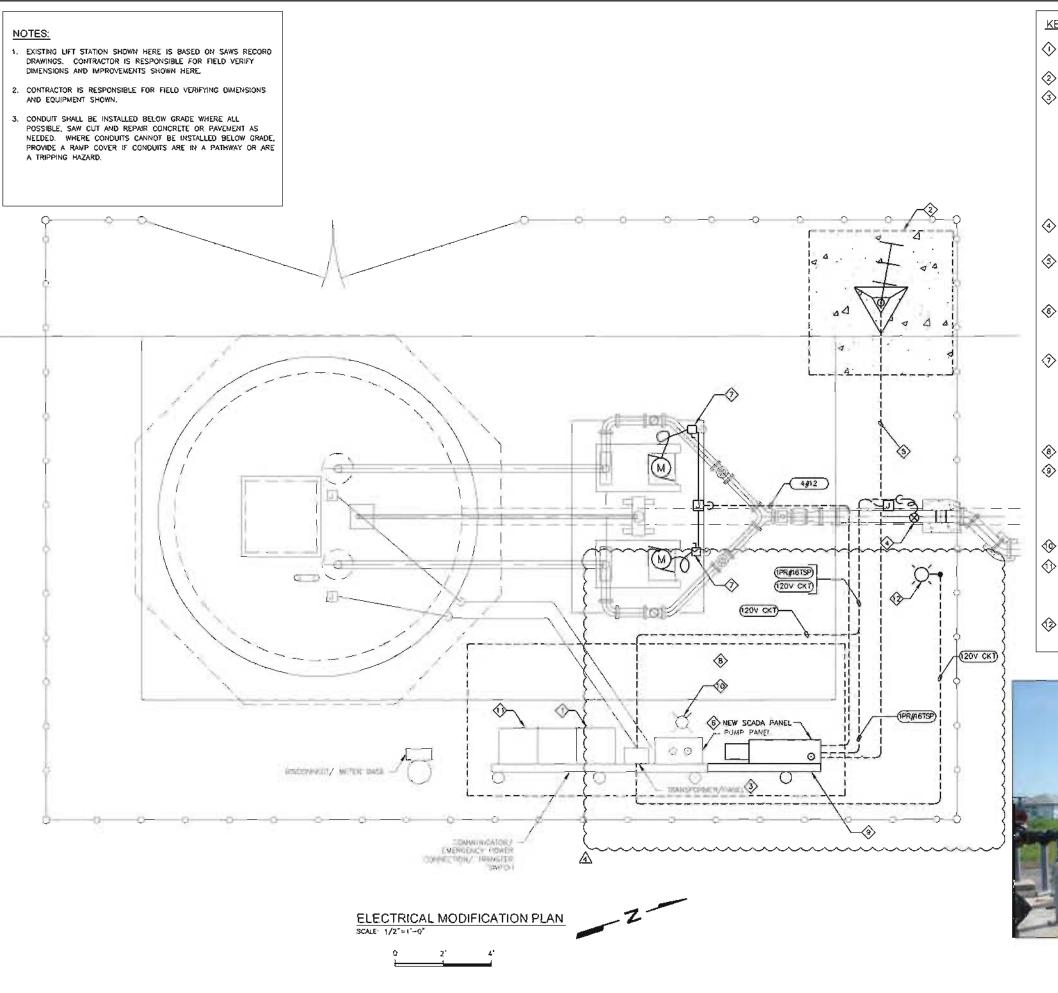
> Antonio Water



NOTES	IN∏ALS	DATE
DESIGNED BY	00	1/17/13
REVIEWED BY	AL	1/57/0

AS SHOWN SHEET

E-252-2 75 OF 143



KEYED NOTES

- REMOVE AUTODIALER, ASSOCIATED WIRE AND CONDUIT, AUTODIALER TO REMAIN IN SERVICE UNTIL SCADA SYSTEM IS FULLY OPERATIONAL.
- 2 PROVIDE 40FT, ROHN ANTENNA TOWER PER DETAILS, RE:T-3
- 3 REPLACE 120/240V 1PH PANEL BOARD WITH A NEW PANELBOARD IN A NEMA 4X SS ENCLOSURE WITH A 60 MAIN BREAKER AND A MINIMUM OF 12 BRANCH CIRCUITS, PROVIDE 12-20A BRANCH CIRCUIT BREAKERS, MARK UNUSED AS SPARE, RETERMINATE ALL EXISTING CIRCUITS THAT ARE TO REMIAN, PROVIDE THREE CIRCUITS TO POWER SCADA PANEL EQUIPMENT. PROVIDE ONE CIRCUIT TO POWER CANOPY LIGHTS, ONE CIRCUIT TO POWER AREA LIGHT, AND ONE CIRCUIT TO POWER TRANSMITTER HEAT TRACE, PROVIDE 2#12.1#12G, IN A 1"C FOR EACH CIRCUIT. COORDINATE PLACEMENT OF NEW PANEL, IF EXISTING AVAILABLE SPACE IS INSUFFICIENT, COORDINATE EXTENSION OF EQUIPMENT RACK AND REPLACEMENT OF ALL EXISTING CIRCUIT WIRES TO ACCOMMODATE NEW PANEL.
- PROVIDE PRESSURE TRANSMITTER PER DETAILS, RE:DETAIL C/E-2.
 ROUTE CONDUIT AND WIRE TO SCADA PANEL FOR MONITORING OF FORCE MAIN DISCHARGE PRESSURE.
- 5 PROVIDE 2-2" CONDUITS FROM ANTENNA DIRECTLY TO THE SCADA PANEL ROLLTING THROUGH WIREWAY IS NOT PERMITTED, PROVIDE A COAX CABLE IN ONE OF THE 2" CONDUIT, THE OTHER SHALL BE A
- \$ PROVIDE SCADA PANEL PER DETAILS, RE:E-20 AND E-21. PROVIDE ALL WIRE AND CONDUIT REQUIRED FOR ALL INTERCONNECTION OF 1/O POINTS BETWEEN THE CONTROL PANEL AND OTHER EQUIPMENT TO THE SCADA PANEL
- 7> PROVIDE DISCONNECT SWITCH WITH AN AUXILIARY CONTACT WITH POSITION INDICATION TO THE PUMP CONTROL PANEL PROVIDE 2#12 FROM EACH DISCONNECT IN A 1"CONDUIT TO THE PUMP CONTROL PANEL FOR INDICATION. MODIFY CONTROL PANEL TO INTERLOCK WITH THE PUMP CONTROLS PER SCHEMATICS RE:E-13. EXISTING POWER CASLE TO BE TIED INTO DISCONNECT AND PROVIDE NEW WIRE AND CONDUIT FROM THE DISCONNECT TO THE PUMP, 3#10,1#10G, IN A
- (8) PROVIDE ARC FLASH STUDY FOR LIFT STATION.
- (9) EXTEND ELECTRICAL RACK TO ACCOMODATE NEW SCADA PANEL. EXTEND ELECTRICAL RACK TO ACCUMODATE REW SCADA PANEL.

 PROVIDE 1-1/2" MIN. STANLESS STEEL STRUT W/U-BOLTS AND

 GALVANIZED STELL PIPE AS NEEDED TO EXTEND EXISTING RACK,

 PROVIDE CANOPY AND CONCRETE PAD PER DETAILS, RE:E-6. PROVIDE

 2 LIGHT FIXTURES UNDER CANOPY, PROVIDE LIGHTING CIRCUIT FROM

 LIGHTING PANEL, PROVIDE A 20A BREAKER FOR LIGHTING CIRCUIT AND PROVIDE A LIGHT SWITCH MOUNTED ON RACK. PROVIDE LITHONIA LIGHTING FIXTURE MODEL#DMW-232-MVOLT-GEB10IS.
- REMOVE LIGHT FIXTURE AND POLE FROM EQUIPMENT RACK.
- PROVIDE 3 PFR RELAYS IN TRANSFER SWITCH ENCLOSURE, CONNECT ONE TO THE INCOMING NORMAL POWER, ONE TO THE INCOMING EMERGENCY POWER AND ONE TO THE LOAD SIDE OF THE SWITCH. ROUTE WIRING TO THE SCADA PANEL IN A 1"CONDUIT, RETER TO SCADA PANEL SCHEMATICS DIAGRAMS FOR DETAILS.
- PROVIDE AREA LIGHT PER DETAIL, RE:E-4, PROVIDE LIGHT SWITCH AT THE EQUIPMENT RACK TO CONTROL THE LIGHT FIXTURE.



ELECTRICAL EQUIPMENT RACK SCALE : NTS



WESTON SOLUTIONS, INC.
TO NE LOOP 410, SUITE 600
TO NE LOOP 410, SUITE 600
TO NE LOOP 410, SUITE 600
TO NEW FULLY SAN ANTONIO, TEXAS 78216-5842
LIFT STATIONS REHABILITATION DESIGN - PHASE 3
LS# 253 - PALO ALTO
ELECTRICAL MODIFICATIONS PLAN

Antonio System Wate

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NOTES INITIALS DATE DESIGNED BY CC 10/07/11 REVIEWED BY AL 10/07/11 SCALE: AS SHOWN

SHEET ÑO.

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GENERAL NOTES:

THE LOCATION AND DEPTHS OF EXISTING UTILITIES, INCLUDING SERVICE LATERALS. SHOWN ON THE PLANS ARE APPROXIMATE ONLY, ACTUAL LOCATIONS AND DEPTHS MUST BE FIELD VERIFIED BY THE CONTRACTOR 48 HOURS PRIOR TO CONSTRUCTION, AND IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES REQUIRED FOR CONSTRUCTION AND TO PROTECT THEM DURING CONSTRUCTION.

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- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION FROM DAMAGES DONE TO EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAPING AND STRUCTURES.
- 3. THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN VICINITY OF TREES SHALL PROCEED WITH CAUTION, THE CONTRACTOR SHALL CONTACT THE CITY ARBORIST AT 207-8053 FOR GUIDELINES. SAWS CONSTRUCTION INSPECTOR SHOULD ALSO BE NOTIFIED.
- THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIALS IN THE 100 YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN PERMIT.
- 5. NO EXTRA-PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS AND SPECS, BUT NOT INCLUDED ON THE BID SCHEDULE. THIS INCIDENTAL WORK WILL BE REQUIRED, AND SHALL BE INCLUDED UNDER THE PAY ITEM TO WHICH
- 6. CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATION, SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S 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 EXCAVATIONS.
- WORK COMPLETED BY THE CONTRACTOR WHICH HAS NOT RECEIVED A WORK ORDER OR THE NOTICE TO PROCEED FROM THE SAWS CONSTRUCTION INSPECTION DIVISION WILL BE SUBJECT TO REMOVAL AND REPLACEMENT BY, AND AT THE EXPENSE OF THE CONTRACTOR.
- 8. THE CONTRACTOR WILL KEEP THE AREA ON TOP OF AND AROUND THE WATER METER BOX FREE OF ALL OBJECTS AND DEBRIS.
- 9. ALL TRENCHING AND BACKFILLING SHOULD BE DONE IN ACCORDANCE WITH SAWS SPECIFICATION NO. 804 "EXCAVATION, TRENCHING AND BACKFILLING," AND PAVED STREETS SHOULD BE COVERED WITH A TEMPORARY ALL WEATHER SURFACE AT THE
- 10. NORMAL OPERATIONS OF ODOR CONTROL SITES CANNOT BE INTERRUPTED DURING
- 11. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE OWNING AUTHORITY. ALL CONSTRUCTION STORM RUNOFF SHALL COMPLY WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS.
- 12. IF EXISTING FIBER OPTIC CONDUIT SYSTEMS ARE LOCATED DURING EXCAVATION, A FIRER OPTIC COMPANY REPRESENTATIVE IS REQUIRED TO BE ON SITE. THE CONTRACTOR MUST PROMPE SUITABLE SUPPORT AND OR PROTECTION FOR THE CONDUIT AT ALL TIMES, DURING BACKFILLING, THE FIBER OPTIC REPRESENTATIVE MAY PLACE UNDERGROUND MARKING DEVICES AS REQUIRED, REPAIR OF ANY DAMAGES TO THE CONDUIT SYSTEM AND ASSOCIATED FACILITIES SHALL BE MADE BY THE FIBER OPTIC COMPANY PERSONNEL AND THE CONTRACTOR SHALL REIMBURSE THEM FOR ALL COSTS OF SUCH REPAIRS, IF REQUIRED. THE CONTRACTOR SHALL CONTACT THE FIBER OPTIC COMPANY 48 HOURS PRIOR TO THE START OF EXCAVATION. LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND NOT GUARANTEED TO BE ACCURATE.

- 13. CONTRACTOR SHALL ASSURE THAT ALL CONSTRUCTION PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF WORK. REQUIRED PERMITS TH CAN BE ISSUED TO CONTRACTOR WILL BE OBTAINED BY SAWS. NO SEPARATE PAY ITEM.
- 14. CONTRACTOR SHALL PROVIDE ELECTRICAL POWER FOR PROPOSED WORK. SAWS ON-SITE POWER SHALL NOT BE USED BY THE CONTRACTOR.
- 15. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING PUBLIC OR PRIVATE UTILITY LINES TO REMAIN, INCLUDING BUT NOT LIMITED TO WATER LINES, WASTEWATER COLLECTION SYSTEMS AND STORM SEWERS. DURING CONSTRUCTION, ALL DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE OWNING AUTHORITIES' STANDARDS. NO SEPARATE PAY ITEM. ALTERNATE ALIGNMENTS CAN BE PROPOSED TO THE SAWS ENGINEER.
- 16. TEXAS LAW SECTION 752, HEALTH & SAFETY CODE, FORBIDS ALL ACTIVITIES IN WHICH PERSONS OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES. FEDERAL REGULATION, TITLE 29 PART 1910.190 (1) AND PART 1926.440 (A) (15) REQUIRE A MINIMUM CLEARANCE OF 10 FEET FROM THESE FACILITIES. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THESE LAWS. THESE LAWS CARRY BOTH CRIMINAL AND CIVIL LIABILITY, TO ARRANGE FOR LINES TO BE DE-ENERGIZED OR MOVED, CALL (713) 223~4567. NO
- 17. CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING STREETS ADJACENT TO THE PROJECT FREE OF MUD AND DEBRIS FROM CONSTRUCTION AT ALL TIMES.
- 18. ALL MATERIAL AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE APPROVED BY SAWS AND COMPLY WITH THE FOLLOWING, AS APPLICABLE:
 - A, CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY DESIGN CRITERIA FOR PUBLIC DRINKING WATER (30 TAC, CHAPTER 290.44 & 30 TAC 290.46).
 B. CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY DESIGN CRITERIA QUALITY DESIGN CRITERIA FOR SEWERAGE SYSTEMS (31 TAC 217.1, 31 TAC 217.2, 31 TAC 217.3 AND 31 TAC 217.13 AND 213).
 - C. CURRENT TXDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS STREETS, AND DRAINAGE,"
 - D. CURRENT SAWS "STANDARD SPECIFICATIONS FOR CONSTRUCTION."
 - E. CURRENT COSA "STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION." F. THE LAWS OF THE STATE OF TEXAS, AND OSHA STANDARDS.
- 19. CONTRACTOR TO CONTACT 48 HOURS PRIOR TO STARTING CONSTRUCTION, SAWS CONSTRUCTION INSPECTOR FOR THE PROJECT.
- 20. CONTRACTOR TO CONTACT 48 HOURS PRIOR TO STARTING CONSTUCTION, PRODUCTION MAINTENANCE DIMISION, DAVID DAVILA, (210) 233-3358.
- 21. LOCATIONS OF PROPOSED EYEWASH STATIONS AT EACH SITE ARE FOR ILLUSTRATION ONLY. THE ACTUAL LOCATIONS TO BE DETERMINED AFTER INSTALLATION OF THE CHEMICAL TANK PIPING PUMP STAND AND PUMPS. CONTRACTOR WILL COORDINATE WITH PENCCO, INC. ON SITE AND MAKE NECESSARY CHANGES IN COORDINATION WITH THE SAWS CONSTRUCTION INSPECTOR.
- 22. CONTRACTOR TO PROVIDE A GUARD FROM U.S. SECURITY ASSOCIATION TO BE ON-SITE WHILE HE IS WORKING AT NORTH WEST SERVICE CENTER SITE.
- 23. CONTRACTOR TO INCLUDE NORTH WEST SERVICE CENTER OODR CONTROL SITE IN THE FIRST LIFT STATION GROUP, MISSION TRAILS ODOR CONTROL SITE SHALL BE INCLUDED IN THE
- 24. PART II PLANS AND SPECIFICATIONS WILL APPLY TO ODOR CONTROL STATION SITES ONLY.
- 25. PENCCO, INC. TO PROVIDE CHEMICAL TANK, PUMPS AND APPURTENANCES THAT INCLUDE VENT PIPE, FILLING LINE, DRAIN VALVE, LEVEL INDICATOR, OVERFLOW LINE AND 3/4" HOSE BIB. CONTRACTOR TO PROVIDE ALL THE REST SHOWN IN PLANS AND INDICATED IN SPECS.

STREET OVERLAY NOTES

- 1. PRIOR TO THE APPLICATION OF OVERLAY ALL MANHOLES SHALL BE ADJUSTED. SO THAT THE RING AND COVERS ARE FLUSH WITH THE FINISHED GRADE OF THE NEW PAVEMENT, DUE TO OCCASIONAL VARYING DEPTHS OF NEW PAVEMENT PLACEMENT, REPEATED ADJUSTMENTS MAY BECOME NECESSARY TO MATCH THE FINISHED GRADE, N. S. P. I.
- 2. WHERE THE STREET IS CURBED, CONTRACTOR SHALL RESURFACE ENTIRE REACH IN LENGTH, FOR THE FULL WIDTH OF ROADWAY, FROM CURB TO CURB, WITH HOT MIX HOT LAID, ASPHALTIC CONCRETE, TYPE "D", WEDGE MILL GUTTER LANES ONLY, 1 1/2" TO D"; STANDARD WIDTH OF A COLD PLANE MILLING MACHINE MINIMUM, 7 WIDE, APPLY A MINIMUM OF 1 1/2" THICKNESS OF HOT MIX HOT LAID ASPHALTIC CONCRETE, BY MEANS OF HEATED SCREED PAVER ONLY, DRAG BOX OR NON-HEATED SCREED PAVER(S) SHALL NOT BE USED AND OF HEATED SCREED PAVER ONLY, DRAG BOX OR NON-HEATED SCREED PAVER(S) SHALL NOT BE USED.
- 3. WHERE CURBS ARE NOT PRESENT, CONTRACTOR SHALL RESURFACE ENTIRE REACH IN LENGTH, ENTIRE WIDTH OF ROAD WAY, FROM EDGE OF PAVEMENT TO EDGE OF PAYEMENT, WITH HOT MIX HOT LAID, ALAID ASPHALTIC CONCRETE, BY MEANS OF HEATED SCREED PAVER ONLY, DRAG BOX OR NON-HEATED SCREED PAVER(S) SHALL NOT BE USED.
- 4. RING RISERS SHALL NOT BE USED FOR VALVE BOX ADJUSTMENT.
- 5. ADJUST EXISTING VALVE BOXES TO NEW PAYING GRADE, REPLACE MISSING OR DAMAGED VALVE BOXES AND COVERS, N. S. P. I.
- 6. EXISTING APPROACHES AND GRATE INLETS WILL BE MILLED.
- 7. MEET EXISTING CURB AND GUTTER FOR GRADE AND ALIGNMENT.
- 8. CONTRACTOR IS RESPONSIBLE TO POT HOLE ALL EXISTING UTILITIES PRIOR TO ANY EXCAVATION TO AVOID CONFLICTS AND DELAYS DURING CONSTRUCTION, N. S. P. I
- 9. FOR UTILITY ADJUSTMENTS WHICH ARE TO BE PERFORMED BY OTHERS. MINIMUM OF 7 DAYS NOTICE SHALL BE GIVEN BY THE CONTRAGTOR TO THE CONCERNED UTILITIES PRIOR TO ASPHALT OVERLAY FOR NECESSARY ADJUSTMENTS TO BE MADE.
- 10. IT IS THE INTENT THAT HOT ASPHALTIC PAVEMENT, TYPE "D" SHALL BE APPLIED AT A RATE OF 220 LBS./SY FOR OVERLAYING PURPOSES.
- 11. OVERLAYING OF STREET SURFACES MAY COMMENCE THE FOLLOWING DAY AFTER WHICH AN ACCEPTABLE APPLICATION OF SEAL COAT HAS BEEN APPLIED AS DETERMINED BY THE ENGINEER AND APPROVED BY PUBLIC WORKS INSPECTOR.

INDEX OF DRAWINGS

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- MISSION TRAILS PROPOSED SITE PLAN
- MISSION TRAILS PROPOSED ELECTRICAL SITE PLAN NORTHWEST SERVICE CENTER PROPOSED SITE PLAN
- WATER MAIN CONNECTION DETAIL
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- TANK, STAIR AND EYE WASH DETAILS 10.
- 11. TYPICAL TANK SLAB DETAILS
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- SCADA DETAILS

17.

- SCADA AND TRANSDUCER MOUNTING DETAILS 20.
- 21. RADIO COMMUNICATIONS AND MAST DETAILS

ILKNUR E. DRZYMALA 95657

PHA DESIGN REHABILITATION

08-2504

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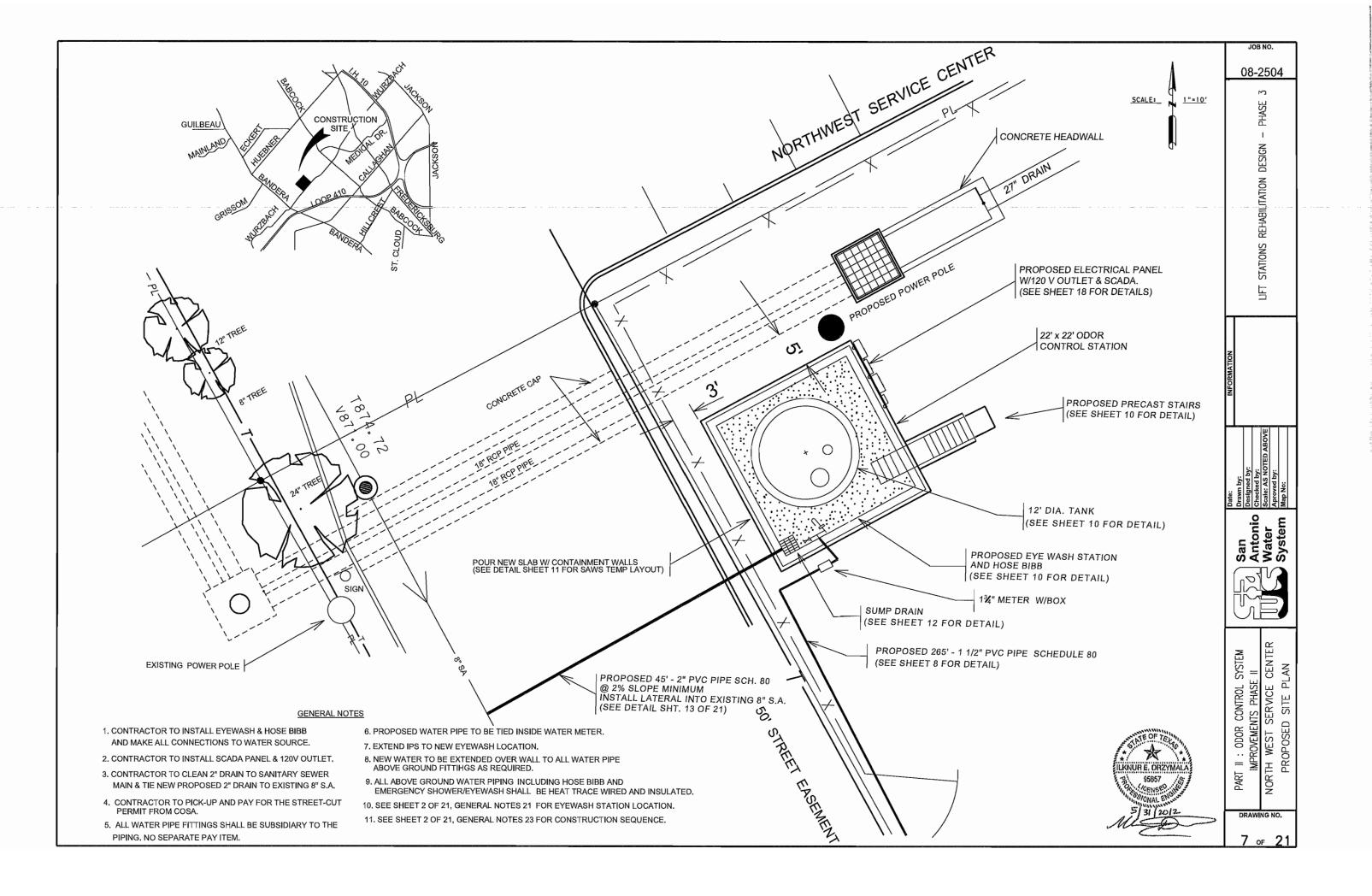
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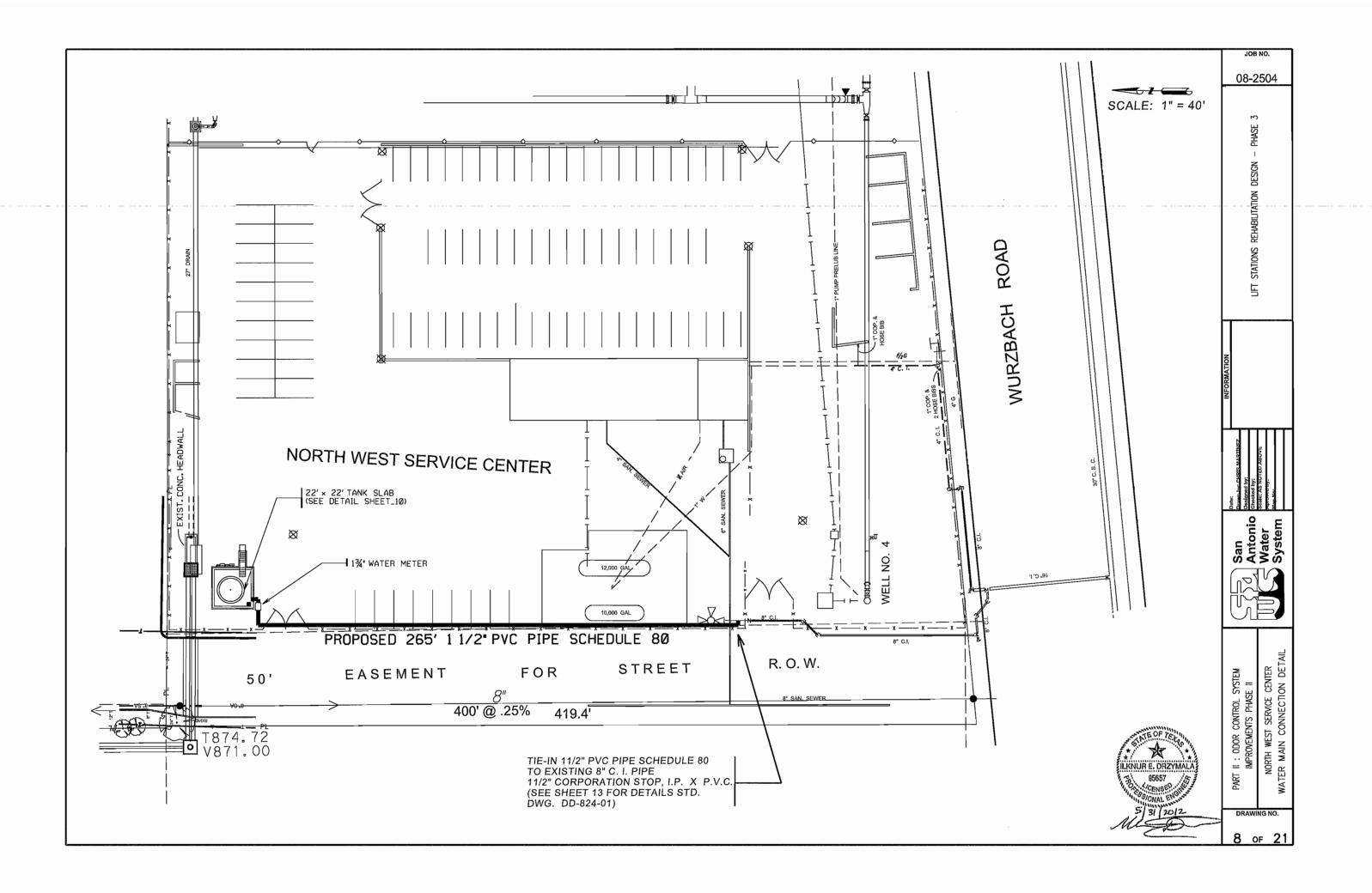
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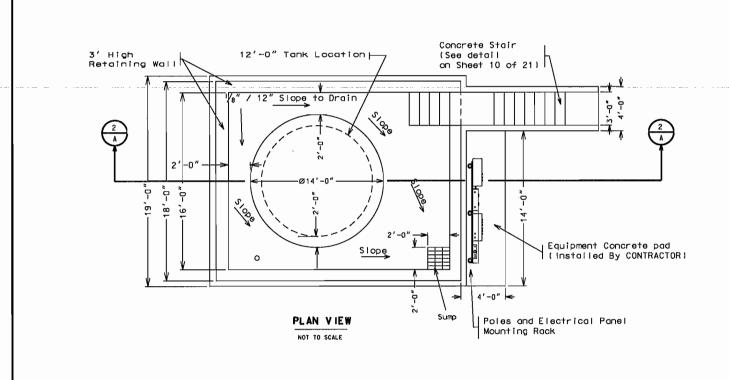
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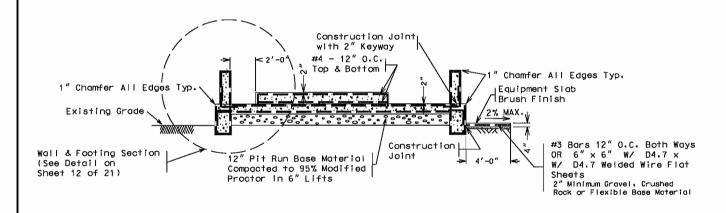
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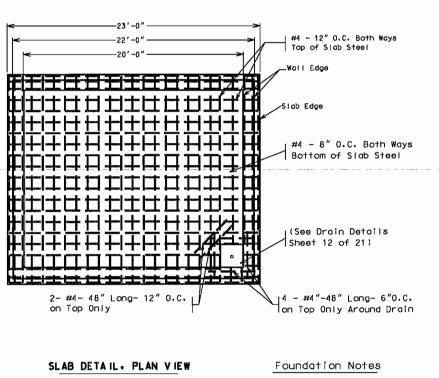












Not to Scale

#4- Bars 24" O.C. Dowels imbedded 4"

Into Bottom Slab

- A. All steel to be 60,000 psi
- B. Steel to be lapped 30"
- C. All concrete to be 4.000 psi

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D. Aggregate 1" + or well graded. Air Intrainment 5%

#4- 8" O.C. (See Wall & Footing Detail, Sheet 12 of 21) 2" Edge of Concrete to Steel Rebar

TANK SLAB DETAIL
PLAN VIEW

MOX.

#4 - 12" O.C.

Top & Bottom

Ø2'-0"

2" Concrete Cover

San Antonio Water System

JOB NO. 08-2504

DESIGN

REHABILITATION

STATIONS

SYSTEM II DETAILS CONTROL TS PHASE SLAB ODOR (ΙΙ

DRAWING NO.

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