

Broadband Access Points & Programmable Logic Controllers Replacement - Phase 2

Duane Bryant, P.E.

Project Engineer

Fred Flores

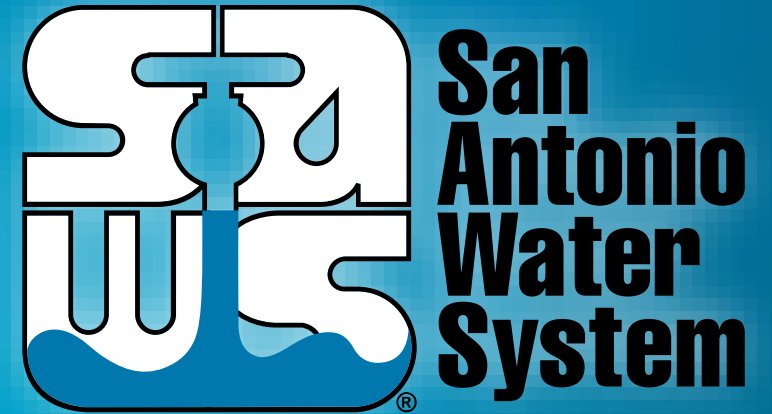
Contract Administrator

Marisa Palmer, P.E.

Manager – Engineering

Marisol Robles

SMWVB Program Manager



Non-Mandatory Pre-Bid Meeting
Monday August 5, 2019

MAKING SAN ANTONIO
WATERFUL



Oral Statements

- Oral statements or discussion during the pre-bid meeting today will not be binding, nor will it change or affect the terms or conditions within the Plans and Specifications of these Projects. Changes, if any, will be addressed in writing only via an Addendum.

Agenda

- General Information
- Small, Minority, Women and Veteran-Owned Business (SMWVVB Requirements)
- Contract Requirements
- Bid Packet Preparation
- Statement of Bidder's Experience
- Addendums
- Contract Solicitations Website – Recent Changes
- Vendor Registration
- Bid Opening Dates/Time
- Technical Information

General Information

- Non-Mandatory pre-bid meeting
- This presentation and the sign-in sheet will be posted on SAWS website
- The Construction estimate is \$4,500,000.00
- Construction services being procured through IFB
- Geotechnical Data Report available on the website

Aspirational SMWB Goal

| Industry | SMWB Goal |
|--------------|-----------|
| Construction | 20% |

The aspirational SMWB goal is 20% of your total bid price.

Accepted SMWVB Certification Agency

- **South Central Texas Regional Certification Agency**
(Includes the Texas Historically Underutilized Business “HUB” Program)

Minimum Qualifications for SMWVB recognition:

- SBE-Certified (even MBEs and WBEs)
- **Local office or local equipment yard**

Accepted SMWVB Certifications

- Minority Business Enterprise (MBE)
(Includes AABE, ABE, HABE, and NABE)
- Small Business Enterprise (SBE)
- Woman-owned Business Enterprise (WBE)
- Veteran-owned Business Enterprise (Tracked)

Good Faith Effort Plan (GFEP) FAQs

- **Q: Is the 20% SMWB goal mandatory?**

A: No, but we ask prime contractors to do their best with good faith outreach efforts. If the goal is not met, proof of outreach efforts is required with the submittal.

- **Q: What if I am having trouble finding SMWB subcontractors?**

A: Please email the SMWVB Program Manager with the scopes of work you are seeking. You will receive lists of local SMWVB-certified firms to contact.

- **Q: What if my business is SMWB-certified? Do I need to find SMWB subs?**

A: If your firm is SMWVB-certified, you will most likely meet the goal. However, the GFEP is a required document, and a good faith outreach effort is still necessary.

- **Q: Do I need to include all my subcontractors in the GFEP or just those that qualify towards the SMWB goal?**

A: All subcontractors need to be included in the GFEP, even those that may not count towards the SMWB goal.

- **Q: What if I have questions about the GFEP?**

A: Please contact the SMWVB Program Manager at 210-233-3420, or at Marisol.Robles@saws.org. GFEP questions can be asked at any time before the submittal is due.

Post Award: Subcontractor Payment & Utilization Reporting (S.P.U.R.) System

1. Subcontractor & Supplier Payment Tracking
2. Subcontractor and Supplier Additions or Substitutions
3. LCP Tracker
4. Must be Current and Accurate before Retainage is released

<https://saws.smwvb.com>



Contract Requirements

Prevailing Wage Rate and Labor Standards – Section 2.10 of the General Conditions

- Certified payroll to be submitted on weekly basis
- Wage decisions are included within the specifications
- Contractors to utilize LCP Tracker
- Site visits are random and unannounced
- Interviews will be Conducted and will be private & confidential
- Payroll records are subject to review
- All apprenticeship programs will need to be approved by Department of Labor prior to starting
- Contractors are responsible for sub-contractor payroll
- Late payrolls delay contractor payments from SAWS

Contract Requirements

- Insurance requirements are found in Section 5.7 of the GCs
 - Maintain insurance coverage during the construction of this Project
- Selected contractor must be compliant with all other contracts in order for SAWWS to award the contract
- Compliant prior to executing the contract
- Will ask for insurance prior to Board award to expedite execution of the contract

Bid Packet Preparation

- Utilize the Bid Packet Checklist within the specifications
- Company information packet, statement regarding ability to complete the project, and W-9 also to be included by all Bidders
- Double check all mathematical calculations and verify all extensions
- Addendums are now acknowledged on the Bid Proposals
- Ensure MOB does not exceed the percentage

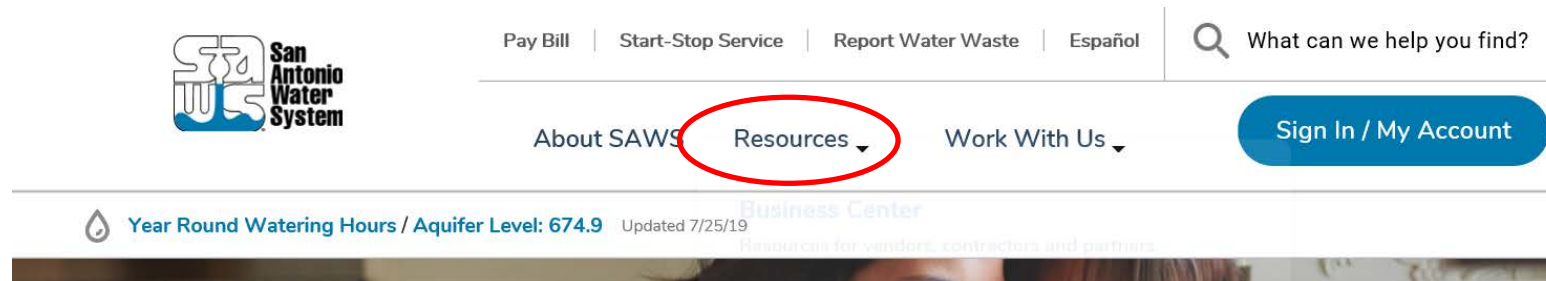
Addendum(s)

Revisions, Clarifications, Questions and Answers (Q&A's)

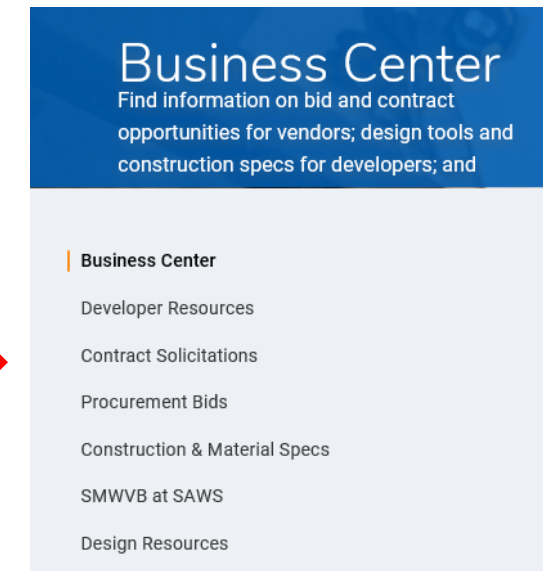
- Questions deadline is August 7, 2019 by 4 P.M.
- The Q&A addendum(s) will be provided to vendors on the plan holder's list on August 9, 2019 by 10:00 A.M.
- It is possible to have multiple addendums during the time frame in addition to the scheduled final addendum.

Contract Solicitations Website – Recent Changes

- To locate the Contract Solicitations website choose Resources



- At the drop down menu choose Contract Solicitations.



Contract Solicitations Website – Recent Changes

- Choose the specific project
- The following buttons are now located under the advertisement:
 - Notify Me
 - Plan Holder's List
 - Downloads
 - Plans
 - Specs
 - Addendums
 - Geotechnical Report



Sealed bids will be received by Counter Services in the Customer Service office across from the Guard Station, 2800 U.S. Hwy 281 North, Customer Center Building, San Antonio, Texas 78212, **until 1:00 PM (CT), August 27, 2019**. Bids will then be publicly opened and read aloud by Contract Administration in CR-C137, Customer Center Building, 2800 U.S. Hwy 281 North, San Antonio, Texas. Each bid must be accompanied by a cashier's check, certified check, or bid bond in an amount not less than five percent of the total bid price.



Non-Mandatory Pre-Bid Meeting

2:00 PM, Monday Aug. 5, 2019

San Antonio Water System Customer Service
Building, 2800 U.S. Hwy 281 N, San Antonio, Texas
78212; Conference Room CR-C145



Notify Me

Receive updates sent straight to your inbox.

Subscribe



Plan Holders List

View plan holders list.

None

Downloads

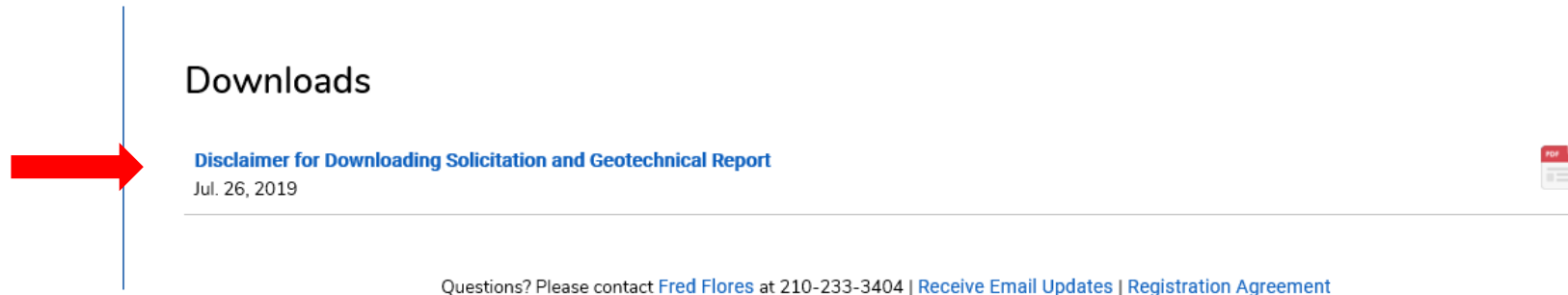
[Disclaimer for Downloading Solicitation and Geotechnical Report](#)
Jul. 26, 2019



Plans, Specifications & Geotechnical Report

Confidential Information

- Due to the confidentiality of the content, the plans, specifications and geotechnical report will be password protected and downloadable through SAWS secure site
- Request a password by downloading, completing and submitting the “Disclaimer For Downloading” and the “Conditions and Disclaimer for Use of Report” forms located on the project web page.



- Email completed forms to Fred.Flores@saws.org
- Once approved a link along with further instructions will be emailed to you

Vendor Registration & Notification (VRN)

- Please register through SAWS Vendor Registration Program on the SAWS website at www.saws.org to ensure access to the latest information.
- To receive updates on specific projects, registered vendors must 'Subscribe' to the project by selecting the project, and clicking 'Subscribe' under the Notify Me box.

https://apps.saws.org/Business_Center/Contractsol/



Notify Me

Receive updates sent straight to your inbox.



Subscribe

Bid Opening Dates/Times

August 27, 2019 at 1:00 PM

- Bids may not be late
 - Late bids will not be accepted and will be returned unopened
- Make arrangements if mailing and send directly to Contract Administration
- If delivering in person, bid packets will be turned in at Counter Services

Contact Information

| <u>Contact Name</u> | <u>Title</u> | <u>Telephone Number</u> | <u>Email address</u> |
|---------------------|------------------------|-------------------------|--|
| Fred Flores | Contract Administrator | 210-233-4293 | Fred.Flores@saws.org |
| Marisol Robles | SMWVB Program Manager | 210-233-3420 | Marisol.Robles@saws.org |

REMINDER

Please be advised that Bidders are prohibited from communicating with any other SAWS staff, the Consultant, the Developer, or City of San Antonio officials regarding this IFB up until the contract is awarded as outlined in the Instructions to Bidders

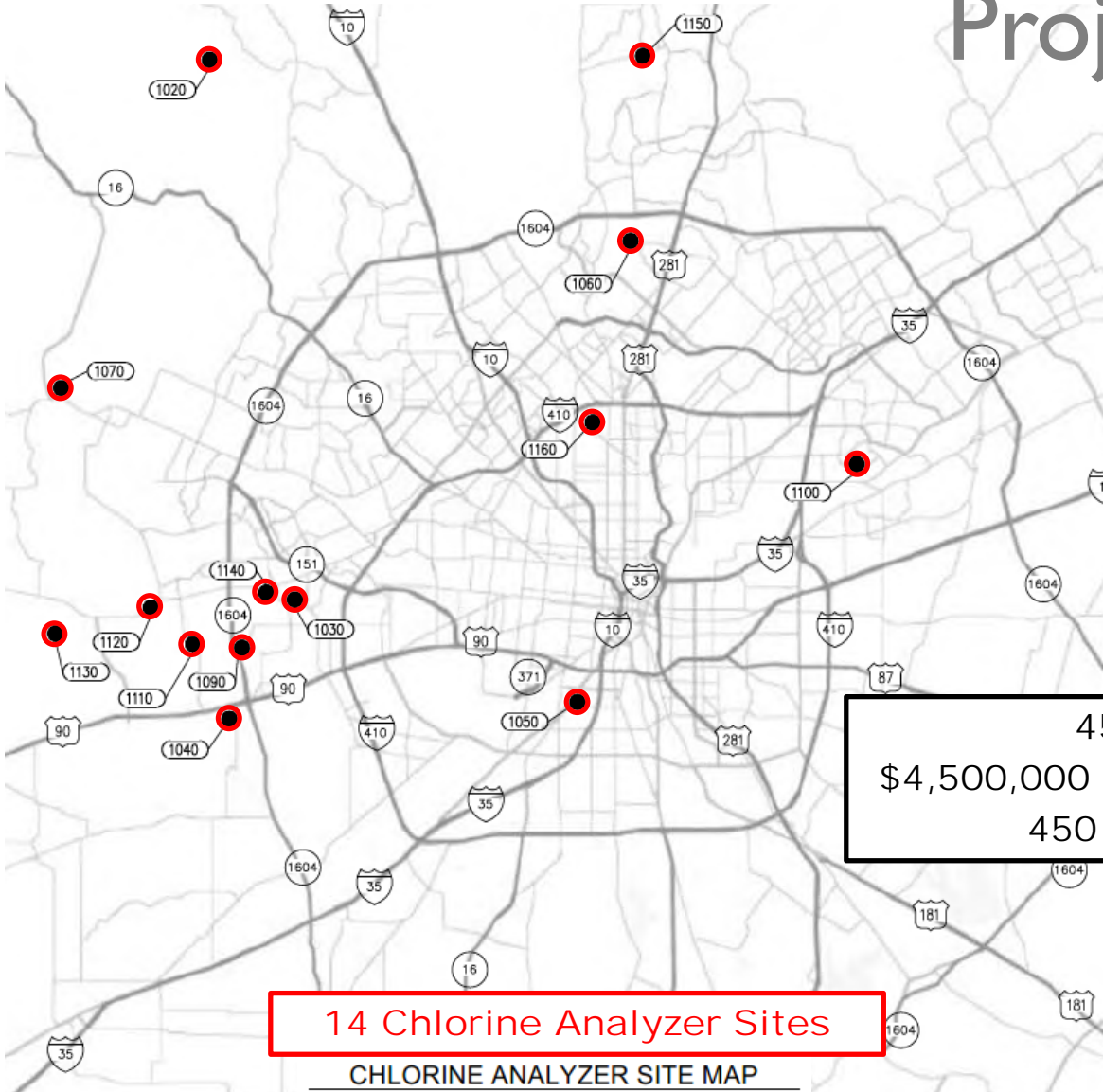
Statement of Bidder's Experience

- Statement of Bidder's Experience must be completed and included by all Bidders
- Complete questions C through F and provide additional information as needed on separate sheets
- Provide resumes for Project Manager and Superintendent
- General Experience – provide 3 similar project references
- Specific Experience – provide 3 project references and details of specific experience
 - Low voltage electrical construction for water/wastewater facilities
 - Allen Bradley CompactLogix PLC, Studio 5000, and PlantPAx programming of PLC and HMI systems
 - SCADA system control panel construction with Allen Bradley CompactLogix PLCs and installation
 - Installation and design of self supporting antenna masts up to 150 feet
 - Installation and path testing of narrowband and broadband radio systems
 - Installation of on-line chlorine analyzer systems
- Point of contact should be the Owner (not the design engineer)
- Work performed should be done by the contractor as the prime (not as a sub)
- Reference contact information should be verified prior to submitting

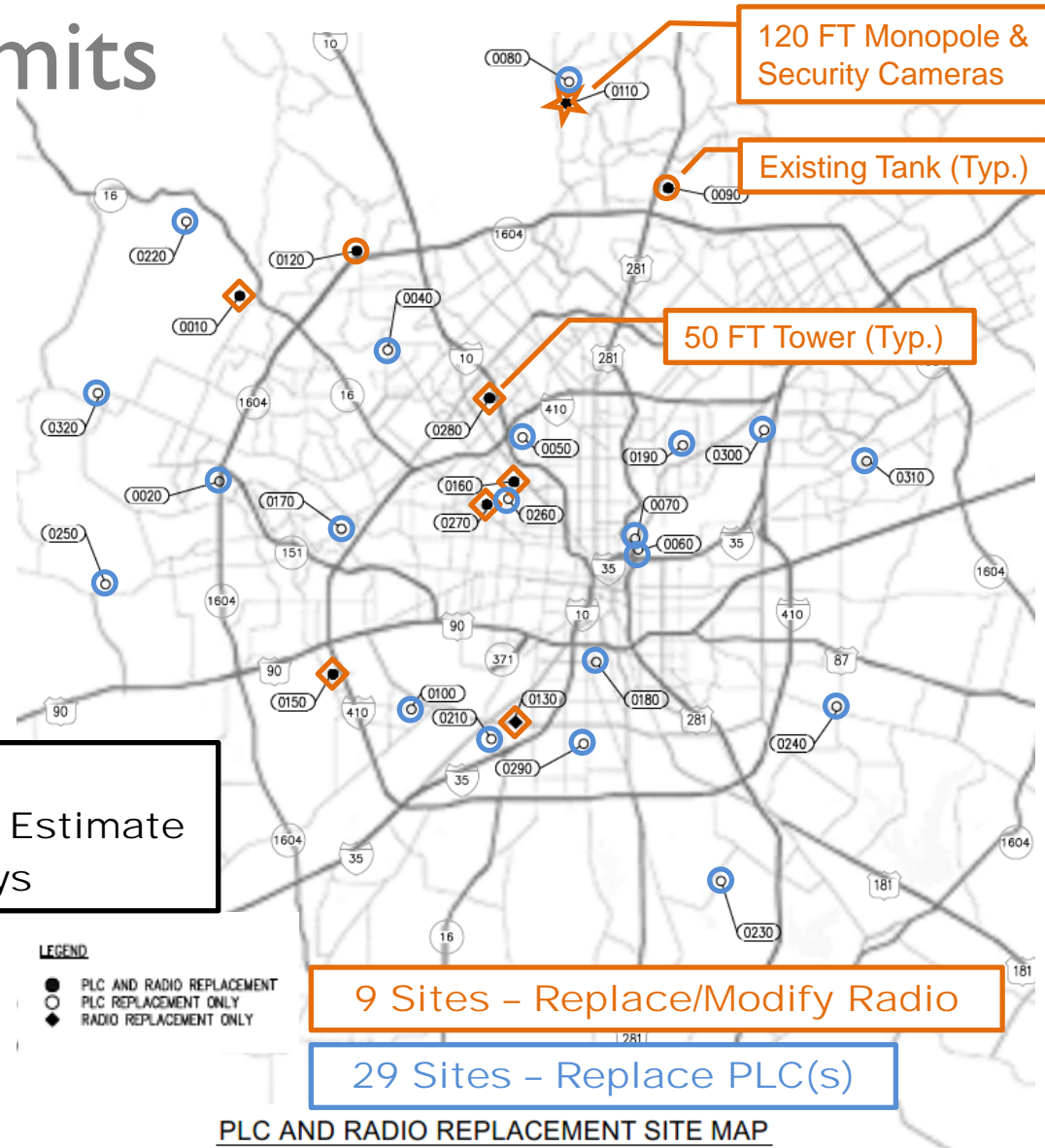
Project Overview

- The project includes the continued build-out and interface of a Broadband radio system with the SAWS communications network to provide secure and reliable communications and allow for the continued monitoring and controlling of equipment at various SAWS facilities, as outlined by the 2012 SCADA master plan.
- It also includes the replacement of programmable logic controllers (PLCs) and Narrowband radio systems, and the addition of chlorine analyzers and analyzer sample/drain lines at various production facilities.

Project Limits

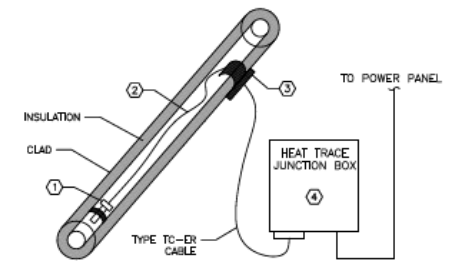
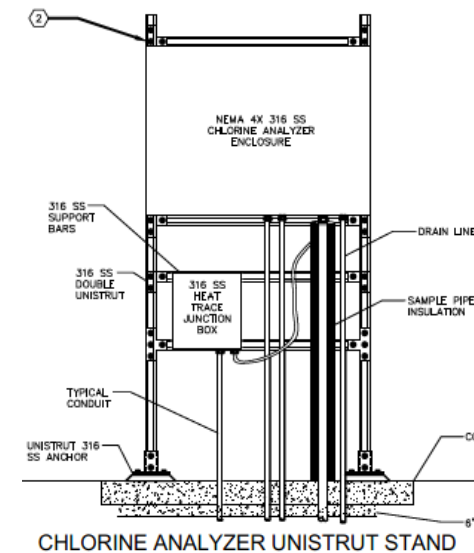


45 Total Sites
 \$4,500,000 Construction Estimate
 450 Calendar Days

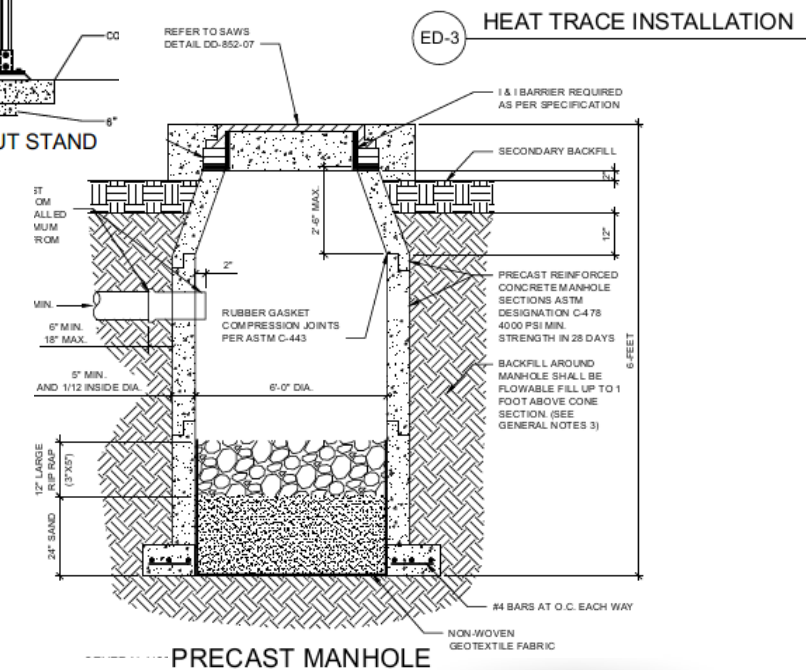


Project Overview – Chlorine Analyzer Sites

- All 14 sites - New sample and drain lines
 - 12 sites - New drain manhole system
 - 5 sites - Relocate and replace analyzer
 - 9 sites - Replace analyzer
 - 5 sites - New analyzer
 - 4 sites - Electrical ductbank
 - 10 sites - Heat trace
- Analyzer configuration
- PLC/HMI programming



- NOTES BY SYMBOL
1. LOW PROFILE END SEAL, SUCH AS RAYCHEM E-150 OR EQUAL
 2. SELF REGULATION HEAT TRACE CABLE, REFERENCE SPECIFICATION 40 41 00 "ELECTRICAL HEAT TRACING" FOR ADDITIONAL INFORMATION AND REQUIREMENTS
 3. INSULATION ENTRY KIT SUCH AS RAYCHEM EK-25-04.
 4. 316 STAINLESS STEEL NEMA 4X ENCLOSURE, HEAT TRACE JUNCTION BOX.



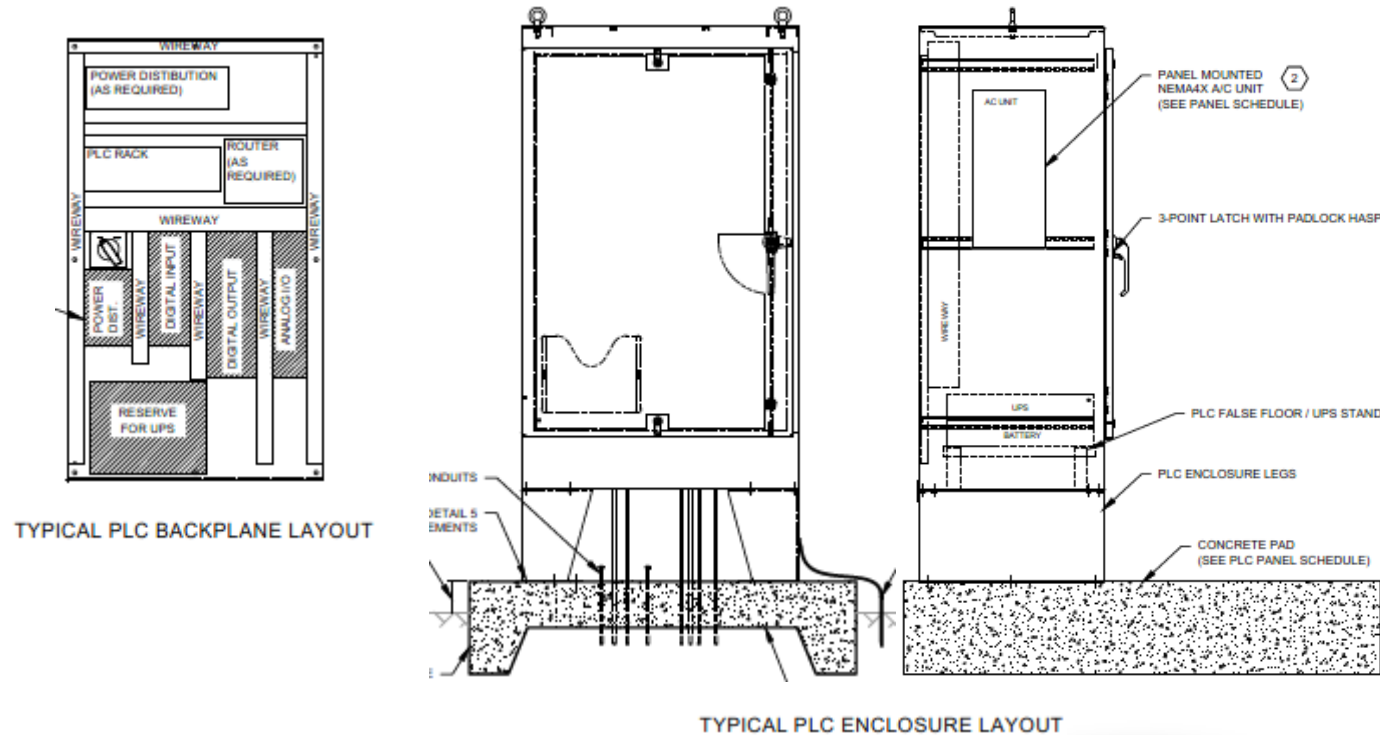
Project Overview – Radio Sites

- Radio work at 9 sites
 - 3 sites – Replace with broadband radio (Cambium PMP 450i)
 - 5 sites – Replace with narrowband radio (Schneider Trio J900)
 - 6 sites – New 50 foot lattice tower
 - 2 sites – Antenna on existing ground storage tank
 - 1 site – New 120 foot monopole
- Tower bases to be designed by Contractor (Texas PE)
- Contractor to finalize FAA coordination and pay permitting fees



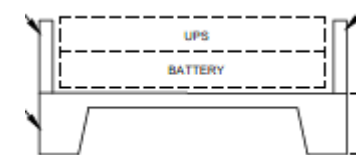
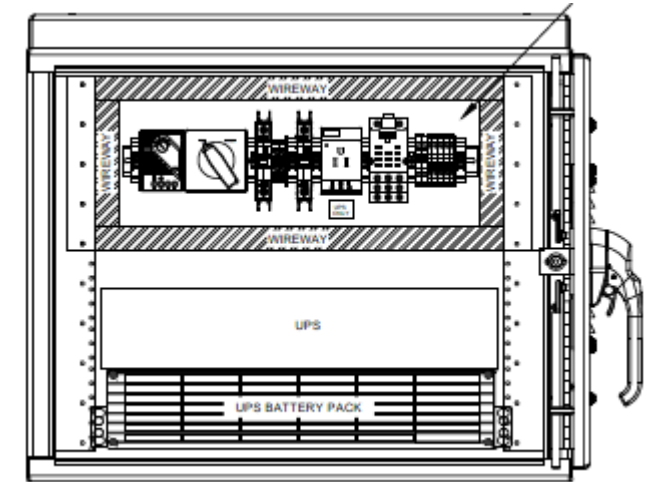
Project Overview – PLC Replacement Sites

- PLC Replacement at 29 sites
 - 4 sites – Primary Pump Station
 - 12 sites – Secondary Pump Station
 - 5 sites – Booster Pump Station
 - 7 sites – Storage Tank
 - 1 site – Chlorine Storage
- Allen Bradley CompactLogix PLC
- PlantPax programming standards
- PLC, OIT and HMI Programming



Project Overview – PLC Replacement Sites

- OIT replacement at 3 sites
- Serial gateways at 17 sites
- UPS replacement at 29 sites
 - 34 new UPS units
 - 10 new UPS panels
 - 17 new UPS Stands
 - Tripp Lite SmartOnline and battery packs
 - Maintenance bypass switch circuits
 - 2 hour runtime requirement



TYPICAL PLC UPS AND BATTERY STAND DETAIL

Project Overview – Testing

- **Factory Testing**
 - Unwitnessed Factory Test – each PLC
 - Witnessed Factory Test – each PLC, within two (2) one-week sessions
- **Pre-Functional Testing**
 - Prior to installation of the process control system components at each PLC replacement site and prior to startup, the system shall be tested (inspect and document terminations, calibrations, loop functionality, field equipment functionality, and controls functionality) by the PCSI/ASP as installed to document conditions prior to construction activities.
- **Field Testing**
 - Operational Readiness Test (ORT) – each site fully tested prior to Owner review
 - Performance Acceptance [Functional] Test (PAT) – each site, within three (3) one-week sessions
 - Final Completion Walkthroughs – each site, within three (3) one-week sessions
 - 30-day Site Acceptance Test (SAT) – each site

Construction Sequencing

- Chlorine Analyzer Sites
 - Begin with chlorine analyzer site work
 - Prioritize all chlorine analyzer related submittals and submit as soon as possible.
 - Complete chlorine analyzer construction, startup and testing first.
 - Performance Acceptance Testing and Substantial Completion Walkthrough inspections of chlorine analyzer sites shall be conducted at one time after all chlorine analyzer sites are started up and tested. Partial inspections and performance testing of individual sites will not be acceptable.

Construction Sequencing

- PLC and Radio Replacement Sites
 - Begin construction following completion of chlorine analyzer sites
 - Adhere to construction constraints from Section 01 35 00
 - Follow testing and walkthrough grouping and requirements
 - Factory Testing
 - Pre-Functional Testing
 - Field Testing

Construction Sequencing

- PLC and Radio Replacement Sites

| PLC AND RADIO REPLACEMENT SITES | |
|--|-------------------------|
| <u>PRESSURE ZONE</u> | <u>QTY SITES</u> |
| 790 | 4 |
| 828 | 2 |
| 830 | 1 |
| 930 | 11 |
| 994 | 4 |
| 1111 | 3 |
| 1170 | 6 |
| 1258 | 2 |
| 1400 | 2 |
| 1520 | 3 |
| 1610 | 1 |

Special Conditions

- Construction Phasing and Sequencing - Constraints
 - Pressure Zone
 - Not more than one station per pressure zone under construction at any given time
 - Pressure zone 930 that can have up to two stations under construction at one time.
 - Sites
 - Not more than eight sites shall be allowed to be under construction at any given time.
 - Chlorine analyzer sites have no limitation for quantity of sites under construction.
 - The Contractor may have up to two teams implementing site cutover at the same time.
 - Commissioning shall be limited to no more than two sites at the same time and shall be grouped by pressure zone where possible.

Special Conditions

- Construction Phasing and Sequencing – Constraints
 - Outages
 - Contractor startup and cutover activities requiring outages, disruptions, or direct Owner participation shall be limited to occur between Tuesdays and Thursdays on any given week.
 - Approval for such activities outside of this timeframe shall be requested at least 14 days in advance, and will be evaluated on a case-by-case basis
 - Parent Radio Sites
 - Any site currently functioning as a parent site as part of this project may require multiple DCU modifications spanning multiple site visits per associated child site depending upon the original programming standard followed for the child site.

Supplemental Conditions

- Liquidated damages will be assessed at \$750.00 per day
- Bidder shall provide a baseline schedule with bid. Bidder shall incorporate the required project phasing/sequencing detailed in the Special Conditions section.

QUESTIONS?

Reminder: Oral statements or discussion during the pre-bid meeting today will not be binding, nor will it change or affect the terms or conditions within the Plans and Specifications of these Projects. Changes, if any, will be addressed in writing only via an Addendum.

Broadband Access Points & Programmable Logic Controllers Replacement - Phase 2

Duane Bryant, P.E.

Project Engineer

Fred Flores

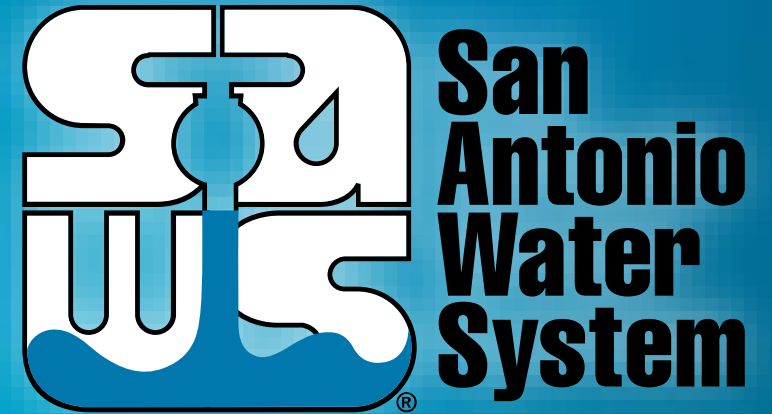
Contract Administrator

Marisa Palmer, P.E.

Manager – Engineering

Marisol Robles

SMWVB Program Manager



Non-Mandatory Pre-Bid Meeting
Monday August 5, 2019

MAKING SAN ANTONIO
WATERFUL

