



**SAN ANTONIO WATER SYSTEM
DOS RIOS WATER RECYCLING CENTER (DRWRC)
DIGESTER MIXING AND SYSTEM ENHANCEMENTS PHASE I
PROJECT**

**SAWS Job No. 07-6500
Solicitation No. B-10-031-MF**

ADDENDUM NO. 5

August 3, 2010

To Bidder of Record:

This addendum, applicable to work referenced above, is an amendment to the bidding 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.

Bidding and Contract Requirements:

1. TOC, IGNORE watermark indicating “DRAFT” across the page, TOC is final.
2. Bid Proposal: REPLACE the Bid Proposal in its entirety with the attached Bid Proposal.
3. Special Conditions, ADD the following:
 22. Sample Disclaimer: Only those CONTRACTORS who attended the mandatory pre-bid meeting will be allowed to collect samples on the date and time shown in the sample disclaimer included in the Addendum No. 5. The sample disclaimer must be signed prior to sampling event by a person authorized to sign on behalf of the CONTRACTOR and a copy must be included in the bid package.

Specifications:

1. Section 01329, ADD the following Section to Specification Section 01329 after Section 1.05.
 - 1.06 GAS CONNECTIONS, SAFETY AND HEALTH PLAN**
 - A. CONTRACTOR shall prepare and submit a Gas Connection, Safety and Health Plan prior to performing the connection of the new gas line to the main digester gas line.
 - B. Plan must be reviewed and accepted by OWNER/ENGINEER prior to commencing any work activities related to the connection. The Plan shall describe in detail how the work will be done, and include all necessary precautions given the flammable nature of the digester gas.

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- C. Contractor shall coordinate the work with SAWS on the timing and duration of the connection activities. Contractor shall be responsible for providing all the means and methods needed to do the work. Contractor shall fix, repair or replace any equipment and appurtenances damaged during this work.

Drawings:

1. Drawing YP-C-01, REPLACE with attached drawing.
2. Drawing DM-M-03, MODIFY Detail 1 per attached Addendum Item No. D3.
3. Drawing DR-M-02, MODIFY Plan per attached Addendum Item No. D6.
4. Drawing DR-M-03, MODIFY Section E per attached Addendum Item No. D8.

Questions & Answers:

The following questions were received from several Contractors and Vendors. They are included in this Addendum as originally submitted. Each question is answered for clarification purposes.

QUESTION 1:	Section 15061, paragraph 2.02.A1 requires that Stainless Steel Pipe Supports be used where supporting stainless steel piping systems and where installed in submerged locations. However, pipe support detail notes for Stainless Steel Digester Gas Piping (P603, P626, P624, P620) and Submerged Digester Sludge Piping (P625, P602) require that pipe supports be Hot-Dip Galvanized Steel. Please confirm pipe support materials for Digester Gas Piping and submerged Digester Sludge Piping.
ANSWER 1:	Provide Stainless Steel supports and hardware as detailed in Specification Section 15061, paragraph 2.02.A1.
QUESTION 2:	It was stated at the pre bid meeting that the 5,200 sf. of liner repair was a minimum quantity. Is this true? Bid item No. 12 states (add/deduct).
ANSWER 2:	Bid Item No. 13 (in attached bid proposal) requires the CONTRACTOR to provide a cost to add or deduct per sq ft. 5,200 sq. ft. is a reasonable estimate of the amount of repair required.
QUESTION 3:	Can SAWS provide a sample of contents from each of the units to be modified? How can we get these samples?
ANSWER 3:	See attached Agreement concerning sludge sampling that must be executed before sampling is permitted.

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QUESTION 4:	Synagro would like to collect a sample of the liquid sludge from the digester so that we may run dewatering test. How will we schedule this?
ANSWER 4:	See attached Agreement concerning sludge sampling that must be executed before sampling is permitted.
QUESTION 5:	ELM construction understand that once we have dewatered the digested sludge the odor produced needs to be managed until the material is disposed of properly off site. Are you requiring the odors from inside the digesters be managed? If so, are you expecting the entire digester to be covered and trapped all odors, which will be treated? This could be very costly. Another method would be to install intake fan and exhaust fans ducted to an odor control unit, once again very costly. How much odor is too much? Before arriving to the pre bid meeting the odor from the plant was noticeable a short way down the access road. PLEASE give us minimum requirements if the odors from the inside the digesters will need to be managed.
ANSWER 5:	Specification Section 11382 3.07 details the requirement for Odor Control. Odor control procedures are up to the CONTRACTOR. Odors must be controlled from the digester cleaning, dewatering and onsite cake areas and operations so that they are not a nuisance for the operation of the Dos Rios WRC.
QUESTION 6:	Can the digester materials dewatering processed continue 24 hr. a day?
ANSWER 6:	Yes, CONTRACTOR must staff the site anytime units are being operated. CONTRACTOR to review the limitations on storing sludge onsite as outlined in the Contract Documents.
QUESTION 7:	Please indicate on the drawings where on sludge holding tank No. 1, can we connect to pump the sludge to the new digesters for seeding?
ANSWER 7:	Connection can be made at the transfer sludge pump station. CONTRACTOR to coordinate with SAWS operation on the location of the connection.
QUESTION 8:	We request the construction time be extended to 920 Calendar Days due to the SAWS scheduling restrictions and requirements.
ANSWER 8:	CONTRACTOR timeline and SAWS standard duration for Submittal Review and other activities were reviewed, and the request for time extension was considered; however, time extension will not be granted. Construction schedule is consistent with previous repair projects and other similar projects nationwide.

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QUESTION 9:	Sheets 34 and 35 show two isolation valves on the suction lines at the mixing pumps (4 total; 2 per digester). However, sheets 110 and 146 don't show these valves. Please clarify.
ANSWER 9:	Electrical drawings do not show all mechanical appurtenances. CONTRACTOR to provide all items identified in the mechanical drawings.
QUESTION 10:	Sheet 146 shows one pressure / flame arrestor assy. However, sheet 26 shows two pressure / flame arrestor assys. Please clarify.
ANSWER 10:	Electrical drawings do not show all mechanical appurtenances. CONTRACTOR to provide all items identified in the mechanical drawings.
QUESTION 11:	Sheet 146 shows a plug valve at the pressure / flame arrestor assy, but Section B on sheet 26 shows this plug valve to be existing. Please clarify.
ANSWER 11:	Valve is existing.
QUESTION 12:	Sheet 19 at the top middle calls for a pressure seal device on the transfer suction line. However, sheet 111 only shows a normal pressure gauge assembly. Please clarify.
ANSWER 12:	Provide pressure seal in accordance with NP123 TYP as shown in the mechanical drawings.
QUESTION 13:	Section B on sheet 20 shows a plug valve at digester 10 on the recirc. Suction line. However, sheet 107 doesn't show this valve. Please clarify.
ANSWER 13:	Electrical drawings do not show all mechanical appurtenances. CONTRACTOR to provide all items identified in the mechanical drawings.
QUESTION 14:	Sheet 19 shows three plug valves on the recirc. Discharge lines in between the pumps and the heat exchanger. However, sheets 108 and 109 only show two plug valves. Please clarify.
ANSWER 14:	Electrical drawings do not show all mechanical appurtenances. CONTRACTOR to provide all items identified in the mechanical drawings.

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QUESTION 15:	Sheet 19 shows two pressure seal devices (key note 5) on the recirc. Discharge lines in between the pumps and the heat exchanger. However, sheets 108 and 109 only show one pressure seal device on the recirc. Discharge lines. Also, the one pressure seal device on the recirc. Discharge line that is shown on sheet 109 looks like it's supposed to be per detail np123 on sheet 44. However, sheet 19 calls it out as just a pressure gauge seal device (key note 5), that would make it be per detail np181 on sheet 44. Please clarify.
ANSWER 15:	See attached sheet D3.
QUESTION 16:	Please clarify the size of the hot water auto. Vent valves on the hws and hwr lines. This is key note 17 on sheet 19 and on sheet 20, Section J.
ANSWER 16:	1 ½ inch.
QUESTION 17:	Section No. 03925, paragraph 2.02.D.3 requires a total dry film thickness (DFT) of 250 mils of Elastomeric Polyurethane Coating for concrete surfaces within Digesters. However, specification Section 09960, paragraph 3.14.B.2.c requires a total dry film thickness (DFT) of 120 mils of Elastomeric Polyurethane Coating for concrete surfaces within Digesters. Please clarify which specification should be followed. Also, please clarify what other surfaces within the Digesters (i.e. existing piping, metals, etc), if any, will require coating.
ANSWER 17:	Liner Repair is limited to dome areas as detailed in drawings DL-D-01 and DL-M-01. All other surface repair should not be included in the Base Bid. Coating and Painting of existing facilities shall be as required to return them to the condition prior to the construction activities.
QUESTION 18:	Section No. 09960, 1.08E. Dehumidification and heating for coating of digesters interiors requires coating of the concrete surfaces with the high solids epoxy systems, correct? Are the surfaces presently coated? If so, what? Do the floors coat? Please provide scheduled of any existing piping that requires painting
ANSWER 18:	Installation requirements for the liner repair are detailed in specification Section 13219. Only items installed, modified or damaged by the construction activities will require to be painted in accordance with specification Section 09960. Painting the undisturbed digester walls, exterior or other undisturbed surfaces is not considered part of the project.

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QUESTION 19:	Can details be provided for pipe supports for 8-inch HWS and HWR lines from existing tie-ins to digester recirculation pump pad? Can both lines be installed on the same support?
ANSWER 19:	See attached sheet YP-C-01.
QUESTION 20:	Can details be provided for the connections of the 8-inch HWS and HWR lines to existing pipes?
ANSWER 20:	Detail shown on YP-C-01-4. Replace existing connection and extend piping.
QUESTION 21:	Sheets 110 and 146 show four pressure seal devices at the mixing pumps (8 total; 4 per digester - 2 on the suction lines & 2 on the discharge lines.) However, sheets 34 and 35 don't show these pressure seal devices. Please clarify.
ANSWER 21:	See attached sheet D3.
QUESTION 22:	Sheet 109 shows there are four plug valves around the sediment trap on the digester gas line. However, sheet 27 only shows three plug valves around the sediment trap. Please clarify.
ANSWER 22:	Only one plug valve on the bypass is necessary, as shown on sheet 27.
QUESTION 23:	Sheet 10, key note 20, calls for 12" bellows-type expansion joints. However, there's no key note 20 pointing to any point on the 12" digester gas pipeline. Section D on sheet 12 shows one expansion joint. Is that the only one? Please clarify.
ANSWER 23:	See attached sheet YP-C-01.
QUESTION 24:	Sheet 108 shows two pressure seal devices on the recirc. Suction lines. However, sheet 19 doesn't show pressure seal devices on the recirc. Suction lines. Please clarify.
ANSWER 24:	See attached sheet D6.
QUESTION 25:	Sheet 19 shows butterfly valves on the hws and hwr lines. However, sheet 109 shows ball valves on the hws and hwr lines. Please clarify.
ANSWER 25:	Provide butterfly valves.
QUESTION 26:	Section E on sheet 20 shows two motor-operated plug valves on the 10" csf line. However, sheet 107 has one valve as being motor-operated and the other is with a manual operator. Please clarify.
ANSWER 26:	See attached sheet D8.

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QUESTION 27:	Drawing No's YP-C-01 & YP-C-02 indicate the general routing of the 8" HWS & 8" HWR piping, from connection to existing piping, to the Digester 10 Heat Exchanger and Recirculation Pumps Pad. Unlike the 10" Digester Gas Piping, there are no supports detailed for these 8" HWS/HWR Lines. The lines are shown as solid lines on the drawings, which would lead us to believe they are above-grade. Are these lines buried or above grade? If above grade, please provide details for supports, footings & spacing.
ANSWER 27:	See attached sheet YP-C-01.

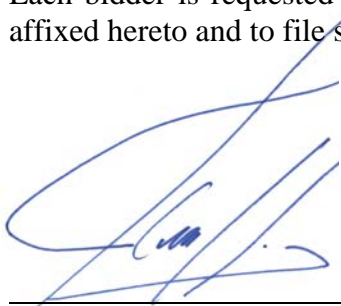
The remainder of the bid document remains unchanged.

This Addendum, including this page, is eighteen (18) pages with attachment in its entirety.

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ACKNOWLEDGEMENT BY BIDDER

Each bidder is requested to acknowledge receipt of this Addendum No. 5 by his/her signature affixed hereto and to file same as an attachment to his/her bid.



Rudy Kilian, P. E., PMP
Project Manager
Carollo Engineers, Inc.



08/03/2010

The undersigned acknowledges receipt of this Addendum No. 5 and the bid submitted herewith is in accordance with the information and stipulation set forth.

Date

Signature of Bidder

END OF ADDENDUM

Agreement Concerning Sludge Sampling

Sampling of the Dos Rios WRC sludge will be allowed by Contractors that attended the pre-bid meeting.

The San Antonio Water System is permitting _____
(Name of Company)

(the "Company") to take samples from Digester No. 4 / Sludge Holding Tank No. 2
(Circle one or both)

in connection with the Dos Rios WRC Digester Mixing and System Enhancements Phase I Project (the "Project"), subject to the following terms and conditions.

Sampling will be allowed only from Sludge Holding Tank No. 2 and Digester No. 4, as these are the subject units of this Project.

Company agrees to supply all equipment necessary to collect the sample(s) from the Sludge Holding Tank No. 2 and/or Digester No. 4, and preserve and transport it (them). A maximum sample volume of 5 gallons per unit will be allowed to be taken by the Company. SAWS will only escort the Company to the location. It will be Company's decision as to where to collect any sample and how.

Samples will be collected at 8:00 am on **Thursday, August 5, 2010**. Any interested Company must be signed in at the **Dos Rios WRC O&M Training Room by 7:45 am** to collect sample(s).

Due to ongoing construction, the Company representatives will be required to wear their own Personal Protective Equipment (PPE) to access the Project location. Any additional PPE required to collect samples will be Company's responsibility. Company shall be solely responsible for the safety of its own personnel prior, during and after the sampling event for as long as they remain at the Project site.

Company hereby acknowledges and agrees that:

1. Company shall assume complete responsibility for the sample(s).
2. Sample(s) will be handled by experienced personnel, and will be transported in accordance with all local, state and federal rules, laws and regulations.
3. Sample(s) will be disposed of in accordance with all local, state and federal rules, laws and regulations after the testing has concluded.
4. Sample(s) may not be representative of the actual dewatering properties of the entire content of the Sludge Holding Tank No. 2 and the Digester No. 4, and the sample results may not be representative of actual conditions encountered at the time of or during completion of the Project work.
5. Company assumes all responsibility and cost for any difference in the Project work required as a result of any difference between the actual contents encountered at the time the Project work is undertaken and the collected sample(s).

6. **THE COMPANY MAY NOT RELY UPON ANY SAMPLE TAKEN OR ANY CONDITION OBSERVED AS AN INDICATION OF THE CONDITIONS THAT MAY BE ENCOUNTERED AT THE TIME THAT PROJECT WORK IS PERFORMED. CONDITIONS AT THE TIME THAT PROJECT WORK IS PERFORMED MAY DIFFER FROM WHAT THE SAMPLES INDICATE OR FROM WHAT IS OBSERVED. THE COMPANY EXPRESSLY REPRESENTS AND AGREES THAT IT WILL NOT RELY UPON ANY SAMPLE TAKEN OR ANY CONDITION OBSERVED AS AN INDICATION OF THE CONDITIONS THAT MAY BE ENCOUNTERED AT THE TIME THAT PROJECT WORK IS PERFORMED.**

7. **THE SAN ANTONIO WATER SYSTEM MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, THAT ANY SAMPLE TAKEN OR ANY CONDITION OBSERVED IS REPRESENTATIVE OF ANY CONDITION THAT WILL BE ENCOUNTERED AT THE TIME THAT PROJECT WORK IS PERFORMED. IF THE COMPANY IS THE SUCCESSFUL BIDDER FOR THE PROJECT WORK, IT WILL BE RESPONSIBLE TO PERFORM THE PROJECT WORK UNDER THE CONDITIONS THAT EXIST AT THE TIME THAT WORK IS PERFORMED, REGARDLESS OF ANY CONDITION THAT MAY NOW BE OBSERVED AND REGARDLESS OF WHAT A SAMPLE TAKEN NOW MAY INDICATE.**

8. **SAWS and their officers, employees, agents and fiduciaries shall not be liable for any injury, loss or damage suffered by Company, its agents, employees, contractors or subcontractors on or upon the Project property, EVEN IF SUCH INJURY, LOSS OR DAMAGE IS CAUSED IN WHOLE OR IN PART BY THE NEGLIGENCE, GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF SAWS, ITS AGENTS, EMPLOYEES OR CONTRACTORS, OR ANY OTHER PERSON ON OR OPERATING AT THE PROPERTY. COMPANY ACKNOWLEDGES AND AGREES THAT IT ENTERS THE PROJECT PROPERTY AT ITS OWN RISK.**

Signature by the Company acknowledging and agreeing to these conditions is required before any site inspection, digester observation, or sampling occurs. SAWS will keep a copy of the disclaimers signed by the Company. Company is required to include a copy of the disclaimers in its bid package.

Acknowledged and Agreed:

 (Name of Company)

Printed Name: _____

Signature: _____

Date: _____

**SAN ANTONIO WATER SYSTEM
DOS RIOS WATER RECYCLING CENTER (DRWRC)
DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE 1**

SOLICITATION NO.: B-10-031-MF

SAWS JOB NO. 07-6500

DESCRIPTION: DOS RIOS WATER RECYCLING CENTER (DRWRC) DIGESTER MIXING AND SYSTEM ENHANCEMENTS – PHASE I

BID PROPOSAL

PROPOSAL OF _____, a corporation

a partnership consisting of _____

an individual doing business as _____

TO THE SAN ANTONIO WATER SYSTEM:

Pursuant to Instructions and Invitations to Bidders, the undersigned proposes to furnish all labor and materials as specified and perform the work required for the construction of Dos Rios Water Recycling Center (DRWRC) Digester Mixing and System Enhancements–Phase I Project, San Antonio Water System Job. No. 07-6500. This Project includes conversion of the Sludge Holding Tank (SHT) No. 2 into Digester No. 10; installation of a new pump mixing system for Digesters No. 4 and 10; digester dome liner repairs; digester cleaning; replacement of the gas system appurtenances; installation of Digester No. 10 recirculation and transfer pumps and heat exchanger; pavement replacement and bollard installation; dirt work, and site grading; miscellaneous structural supports, footings, and foundations; new 13.2 kV Electrical Distribution System, and all associated electrical, instrumentation and control improvements. The DRWRC Digester Mixing and System Enhancements – Phase I project shall be performed in accordance with the Plans and Specifications for the following prices to wit:

BID ITEMS:

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	UNIT PRICES IN FIGURES	TOTAL IN FIGURES
1.	Digester Cleaning for 2 Digesters- The total amount for furnishing all labor, materials, tools, equipment, dewatering, transportation, disposal and incidentals required for the digester cleaning of two digesters, in accordance with the contract documents, complete in place. _____ Dollars and _____ Cents	DRY TON	595	\$	\$
2.	Digester Dome Liner Repair for 2 Digesters - The total amount for furnishing all labor, materials, tools, equipment and incidentals required for the digester dome liner repairs, in accordance with the contract documents, complete in place. _____ Dollars and _____ Cents	SF	5,200	\$	\$

SOLICITATION NO.: B-10-031-MF
SAWS JOB NO. 07-6500
DESCRIPTION: DOS RIOS WATER RECYCLING CENTER (DRWRC) DIGESTER MIXING AND SYSTEM ENHANCEMENTS – PHASE I **BID PROPOSAL**

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	UNIT PRICES IN FIGURES	TOTAL IN FIGURES
3.	Mixing System for 2 Digesters- The total amount for furnishing all labor, materials, tools, equipment and incidentals required for the installation of pump mixing system, in accordance with the contract documents, complete in place. _____ Dollars and _____ Cents	LS	1	\$	\$
4.	Conversion of the SHT No. 2 to Digester No. 10 - The total amount for furnishing all labor, materials, tools, equipment and incidentals required for the conversion of the SHT No. 2 to Digester No. 10, in accordance with the contract documents, complete in place. _____ Dollars and _____ Cents	LS	1	\$	\$
5.	Dome Gas System Appurtenances - The total amount for furnishing all labor, materials, tools, equipment and incidentals required for the dome appurtenances replacement, in accordance with the contract documents, complete in place. _____ Dollars and _____ Cents	LS	1	\$	\$
6.	Electrical and DCS Upgrades - The total amount for furnishing all labor, materials, tools, equipment and incidentals required performed electrical and DCS upgrades, in accordance with the contract documents, complete in place except for items in 7. _____ Dollars and _____ Cents	LS	1	\$	\$
7.	13.2 kV Electrical Distribution - The total amount for furnishing all labor, materials, tools, equipment and incidentals required performed electrical and DCS upgrades, in accordance with the contract documents, complete in place. _____ Dollars and _____ Cents	LS	1	\$	\$
8.	Trench Excavation Safety Protection - The total amount for furnishing all labor, materials, tools, equipment and incidentals required performed the trench excavation safety protection, in accordance with the contract documents, complete in place. _____ Dollars and _____ Cents	LS	1	\$	\$

SOLICITATION NO.: B-10-031-MF
SAWS JOB NO. 07-6500
DESCRIPTION: DOS RIOS WATER RECYCLING CENTER (DRWRC) DIGESTER MIXING AND SYSTEM ENHANCEMENTS – PHASE I **BID PROPOSAL**

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	UNIT PRICES IN FIGURES	TOTAL IN FIGURES
9.	Subsurface Utility Investigation – This item includes all the labor, equipment, and materials required to complete the task of utility location and depth verification to identify all underground tie in-locations and underground utility conflicts with the proposed improvements. CONTRACTOR shall be required to vacuum extract, hand dig, or otherwise perform the excavation in a manner that does not harm the existing utilities. _____ Dollars and _____ Cents	LS	1	\$	\$
10.	Permitting Fees - Contractor to pay and be reimbursed actual amount by SAWS. <u>Eighty Thousand Dollars and no Cents</u>	NTE	1	\$ 80,000.00	\$ 80,000.00
A. SUBTOTAL BASE BID AMOUNT				\$ _____	
In Words:					
11.	Mobilization and Demobilization - This item includes project move-in and move-out of personnel and equipment, set-up of temporary facilities, and clean-up of site upon completion of Work, complete in place, per lump sum. _____ % Percent (Maximum of 5% of the line Item "A" Subtotal Base Bid Amount)	LS	1	\$	\$
12.	Add/Deduct Unit Cost Items: * Digester cleaning, per dry ton The total amount for furnishing all labor, materials, tools, equipment, dewatering, transportation, disposal and incidentals required in accordance with the contract documents	Per DRY TON			
13.	Add/Deduct Unit Cost Items: * Liner Repair (includes demolition) The total amount for furnishing all labor, materials, tools, equipment and incidentals required for the digester dome liner repairs, in accordance with the contract documents	Per SF			
B. TOTAL BID AMOUNT (Line Item A + Line Items 11,12 and 13)				\$ _____	
In Words:					

Mobilization lump sum shall be limited to a maximum 5% of the Line Item "A" Subtotal Base Bid amount. The Line Item "A" Subtotal Base Bid is defined as all bid items EXCLUDING Items 11, Mobilization and Demobilization, and 12 and 13, Add/Deduct Unit Cost Items. In the event of a discrepancy between the written percentage and dollar amount shown for Mobilization the bid item's written percentage will govern. If the percentage written exceeds the allowable maximum stated for mobilization, SAWS reserves the right to cap the amount at the percentages shown and adjust the extensions of the bid item accordingly.

SOLICITATION NO.: B-10-031-MF
SAWS JOB NO. 07-6500
DESCRIPTION: DOS RIOS WATER RECYCLING CENTER (DRWRC) DIGESTER MIXING AND
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BIDDER'S SIGNATURE & TITLE

FIRM'S NAME (TYPE OR PRINT)

FIRM'S ADDRESS

FIRM'S PHONE NO. / FAX NO.

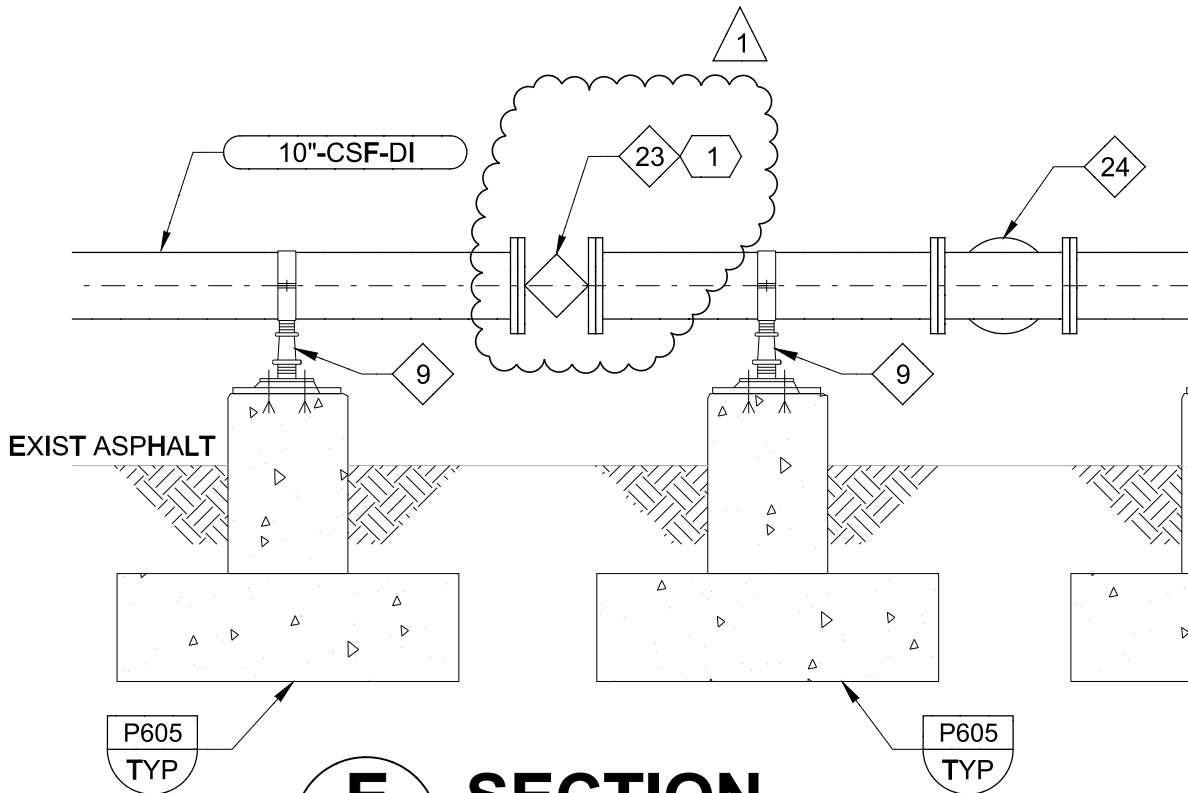
DATE

The Contractor herein acknowledges Addendum's No's. _____

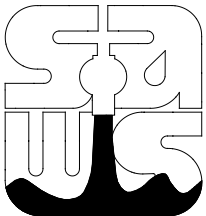
OWNER RESERVES THE RIGHT TO ACCEPT THE OVERALL MOST RESPONSIBLE BID.

The bidder offers to construct the Project in accordance with the Contract Documents for the contract price, and to complete the Project within 480 calendar days after the start date, as set forth in the Authorization to Proceed. The Bidder understands and accepts the provisions of the contract Documents relating to liquidated damages of the Project if not completed on time.

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



E SECTION
 DR-M-01 SCALE: 3/8"=1'
 DR-07-650-DR-050-301



SAN ANTONIO WATER SYSTEM



SAWS JOB NO. 07-6500

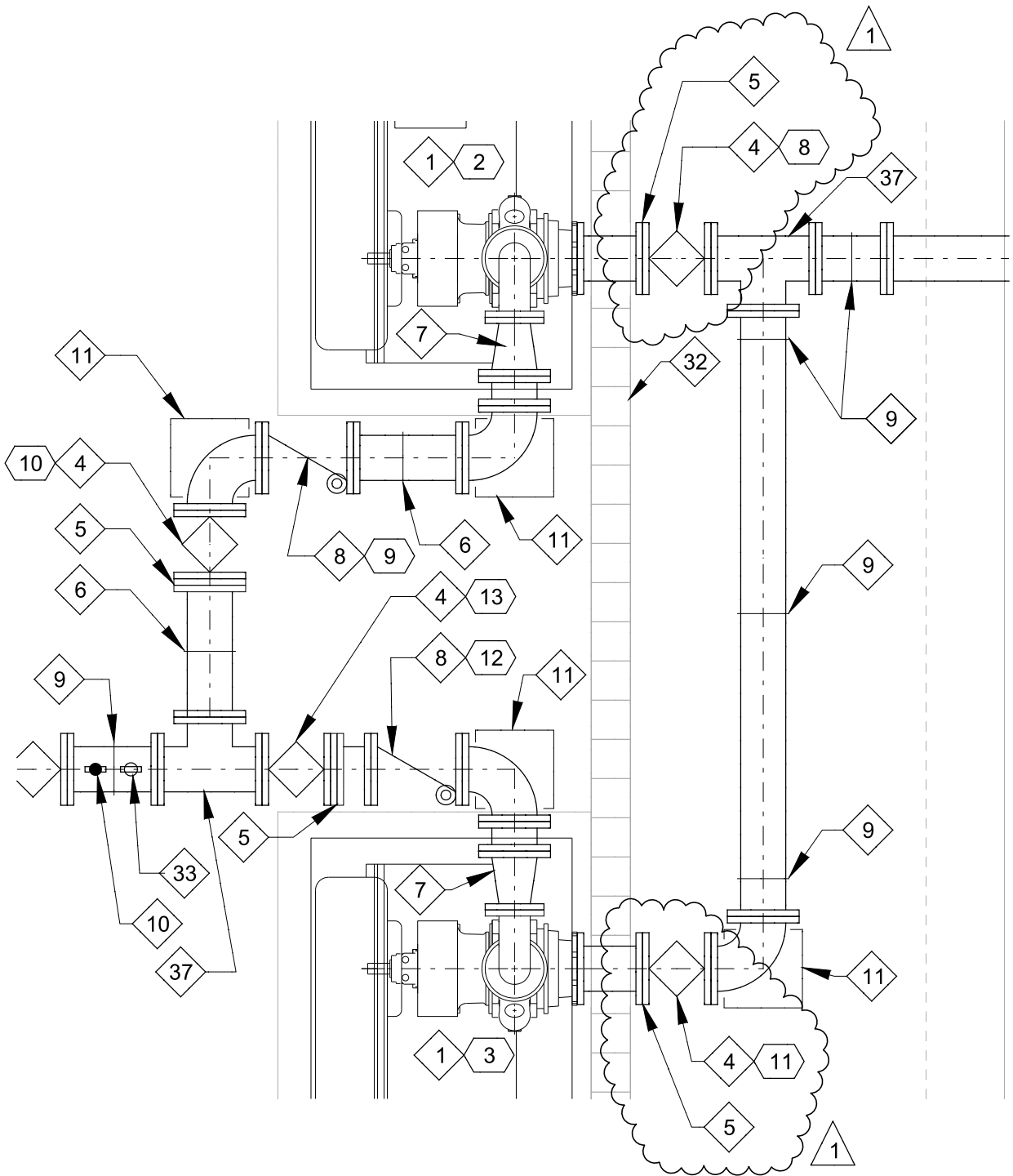
DRWRC Digester Mixing and System Enhancements - Phase 1

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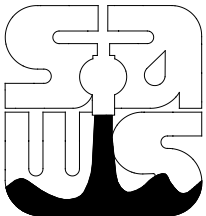
ADDENDUM ITEM NO. D8

DWG NO. DR-M-03

SECT NO. E



1 PUMPS PLAN
 SCALE: 1/2"=1'-0"
 FILE: DR-07-650-DR-050-101



SAN ANTONIO WATER SYSTEM



SAWS JOB NO. 07-6500

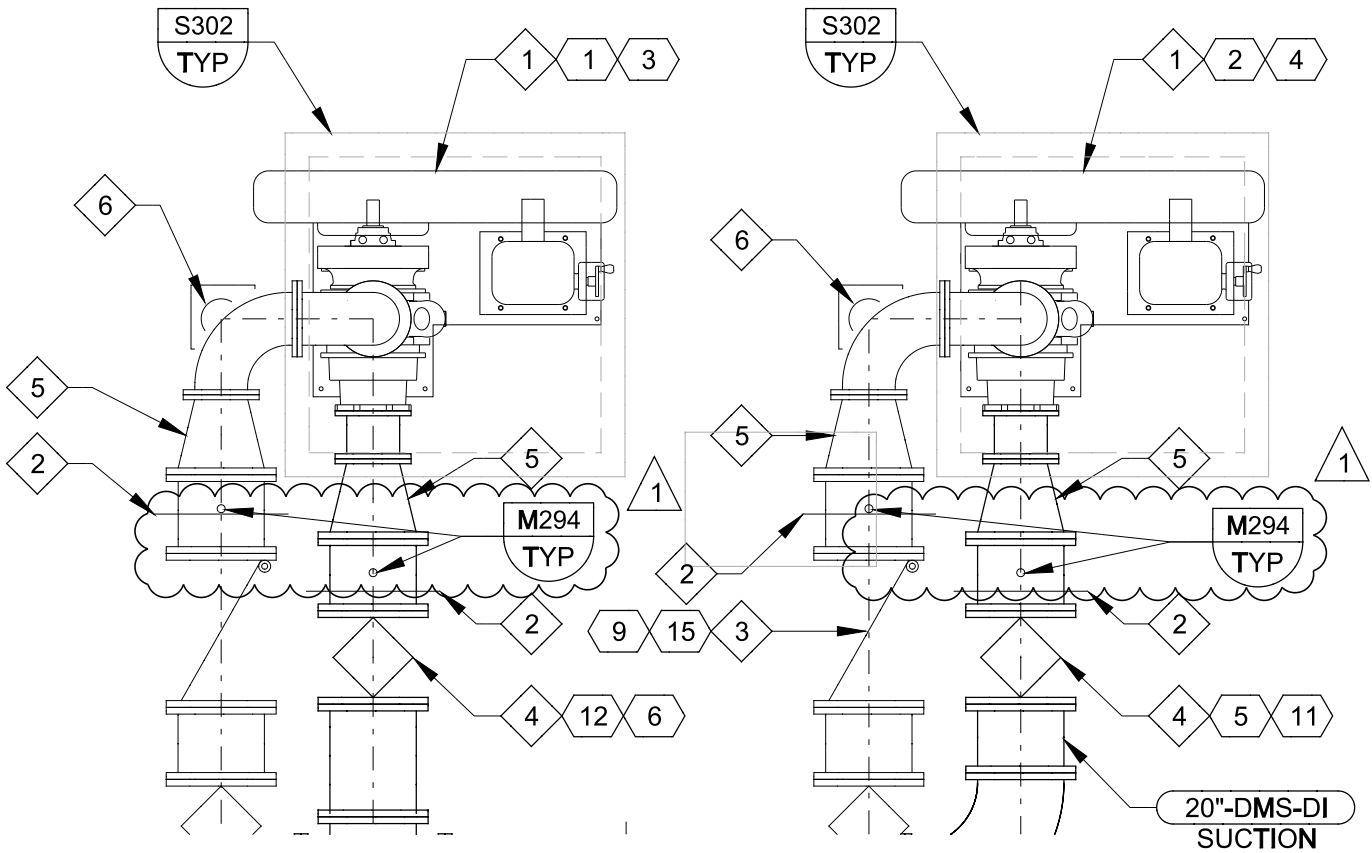
DRWRC Digester Mixing and System Enhancements - Phase 1

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ADDENDUM ITEM NO. D6

DWG NO. DR-M-02

SECT NO. 1

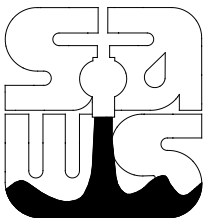


DIGESTER MIXING PUMPS DETAIL

1

DM-M-01

SCALE: 1/4" = 1'-0"
FILE: DR-07-650-DM-050-100



SAN ANTONIO WATER SYSTEM



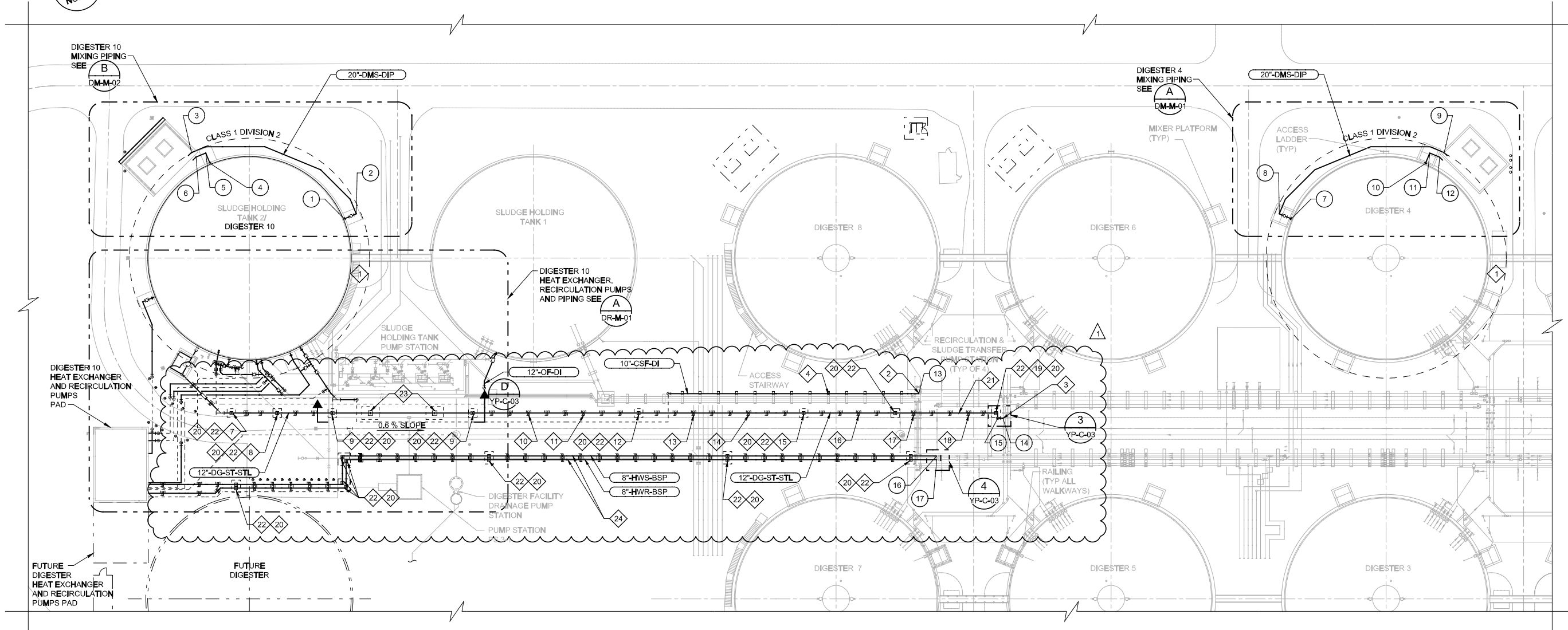
SAWS JOB NO. 07-6500

DRWRC Digester Mixing and System Enhancements - Phase 1

ADDENDUM NO. 5

ADDENDUM ITEM NO. D3

DWG NO. DM-M-03 SECT NO. 1



A YARD PIPING
SCALE: 1" = 30'-0"
FILE: DR-07-650-00-010-101

COORDINATE DATA (CONT. ON YP-C-02)

ID	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	13637814.90	2151769.05	480.00	CONNECT TO EXIST W/ 36"/20" FL CONN
2	13637815.66	2151777.97	480.00	90° HORIZ LR EL
3	13637874.48	2151700.34	480.00	22.5° HORIZ EL
4	13637866.83	2151708.13	480.00	CONNECT TO EXIST W/ 36"/20" FL CONN
5	13637871.87	2151707.69	483.68	90° VERT EL UP
6	13637871.37	2151701.95	483.68	22.5° HORIZ EL
7	13637659.91	2152259.97	492.00	CONNECT TO EXIST W/ 36"/20" FL CONN
8	13637665.00	2152253.92	492.00	90° HORIZ LR EL
9	13637668.11	2152351.66	492.00	22.5° HORIZ EL
10	13637665.68	2152340.33	492.00	CONNECT TO EXIST W/ 36"/20" FL CONN
11	13637670.21	2152344.15	495.68	90° VERT EL UP
12	13637666.50	2152348.56	495.68	22.5° HORIZ EL
13	13637629.22	2152038.73	489.92	CONNECT TO EXIST 10" CSF
14	13637602.54	2152078.43	502.67	CONNECT TO EXIST 12" DG PV
15	13637603.40	2152075.71	502.67	90° VERT EL DOWN
16	13637593.94	2152037.50	489.75	CONNECT TO EXIST HWS
17	13637592.03	2152036.90	489.75	CONNECT TO EXIST HWR

KEY NOTES:

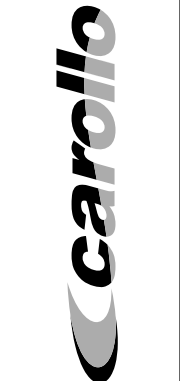
- 1 HAZARDOUS AREAS, ALL INSTALLATION SHALL MEET NEC500.
- CLASS 1, DIV 1 - TANK INTERIOR AREAS ABOVE AND AROUND THE DIGESTER COVER ENVELOP 10 FT ABOVE THE HIGHEST POINT OF THE COVER AND 5 FT FROM ANY WALL.
- CLASS 1, DIV 2 - ENVELOP 15 FT ABOVE THE DIV 1 AREA OVER THE COVER AND 5 FT BEYOND THE DIV 1 AREA AROUND THE TANK WALL.
- 2 REMOVE EXISTING 10" BLIND FLANGE AND CONNECT TO NEW 10"-CSF-DI.
- 3 CONNECT NEW 12"-DG-ST-STL TO EXISTING PLUG VALVE, ELEVATION 502.17.
- 4 EXTEND EXISTING CONCRETE PIPE SUPPORTS PER DETAIL 1 FOR NEW 10"-CSF-DI PIPING.
- 5 CONNECT TO EXISTING 8" HWS.
- 6 CONNECT TO EXISTING 8" HWR.
- 7 DG EL 479.63
- 8 DG EL 480.15
- 9 DG EL 480.77
- 10 DG EL 481.40

- 11 DG EL 482.02
- 12 DG EL 482.65
- 13 DG EL 484.53
- 14 DG EL 486.41
- 15 DG EL 488.29
- 16 DG EL 488.92
- 17 DG EL 489.55
- 18 DG EL 490.17
- 19 DG EL 490.48
- 20 STAINLESS STEEL BELLOWS
- 21 SUPPORT 10"-DG-ST-STL PER P603 UNLESS NOTED OTHERWISE. TYP
- 22 PIPE SUPPORT PER P626 P605 TYP TYP
- 23 PIPE SUPPORT PER 1 YP-S-03
- 24 SUPPORT 8"-HWR-BSP AND 8"-HWS-BSP PER P603 UNLESS NOTED OTHERWISE. TYP

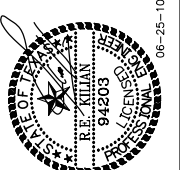
GENERAL NOTES:

- 1. NOTES IN DRAWINGS 00-G-03 AND 00-G-04 APPLY TO ALL DRAWINGS.
- 2. EXISTING UTILITIES ARE SHOWN FOR CONVENIENCE OF THE CONTRACTOR ONLY. THE CONTRACTOR SHALL CONFIRM LOCATIONS OF UTILITIES PRIOR TO CONNECTING TO EXISTING PIPING OR TRENCHING. ANY DAMAGE RESULTING FROM CONTRACTOR'S OPERATION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 3. ALL EXISTING DIMENSIONS AND ELEVATIONS ARE APPROXIMATE BASED ON AVAILABLE INFORMATION. CONTRACTOR TO VERIFY ELEVATIONS BEFORE STARTING WORK.
- 4. CONTRACTOR TO PERFORM SUBSURFACE INVESTIGATIONS AS REQUIRED TO LOCATE EXISTING UTILITIES PER THE BID PROPOSAL.

No.	DATE	REVISIONS	APP.
1	07-29-10	APPENDUM NO. 5	



SAN ANTONIO WATER SYSTEM



SAWS JOB No. 07-6500
DRWRC Digester Mixing and System Enhancements - Phase I
YARD PIPING PLAN

Designed by: LAK
Drawn by: KHB
Checked by: REK

Drawing YP-C-01