



SAN ANTONIO WATER SYSTEM
Dos Rios Water Recycling Center (DRWRC) Digester Mixing and System
Enhancements, Phase II
SAWS Job No. 11-6502
Solicitation No. B-12-053-MF

ADDENDUM NO. 4

To Bidder of Record:

This addendum, applicable to the project 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 in the space provided in the bid proposal.

Revisions to Contract/Technical Specifications:

1. Specification Section 13225 – Digester Gas Equipment
 - a. Article 3.2 A.1.a
 - i. Replace “Prior to placing reused existing digester gas flares for temporary installation in operation, the contractor shall arrange for original equipment manufacturer to inspect temporary installation and to test and adjust equipment and verify that reused equipment is in acceptable working condition.”

with

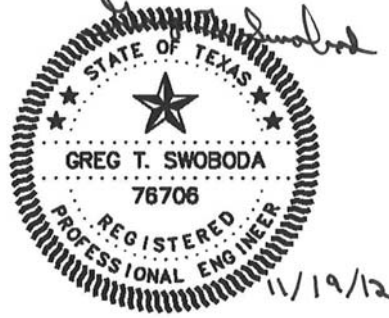
“Prior to placing reused existing digester gas flares for temporary installation in operation, the contractor shall arrange for the equipment manufacturer to inspect temporary installation and to test and adjust equipment and verify that reused equipment is in acceptable working condition.”

Revisions to Drawings:

1. Drawing No. 00I201
 - a. For modifications to this drawing, refer to attached Exhibit 00I201-A.
2. Drawing No. 01E101
 - a. For modifications to this drawing, refer to attached Exhibit 01E101-A.
3. Drawing No. 01E102
 - a. Add Section I to this drawing, refer to attached Exhibit 01E102-A.
4. Drawing No. 03E102
 - a. For modifications to this drawing, refer to attached Exhibit 03E102-A.
5. Drawing No. 03E103
 - a. For modifications to this drawing, refer to attached Exhibit 03E103-A.
6. Drawing No. 03E107

- a. For modifications to this drawing, refer to attached Exhibit 03E107-A.
7. Drawing No. 03E108
 - a. For modifications to this drawing, refer to attached Exhibit 03E108-A.
8. Drawing No. 03E109
 - a. For modifications to this drawing, refer to attached Exhibit 03E109-A.
9. Drawing No. 03E109
 - a. For modifications to this drawing, refer to attached Exhibit 03E109-B.
10. Drawing No. 03E111
 - a. For modifications to this drawing, refer to attached Exhibit 03E111-A.
11. Drawing No. 03E112
 - a. For modifications to this drawing, refer to attached Exhibit 03E112-A.
12. Drawing No. 03E112
 - a. For modifications to this drawing, refer to attached Exhibit 03E112-B.
13. Drawing No. 03E302
 - a. For modifications to this drawing, refer to attached Exhibit 03E302-A.
14. Drawing No. 03E304
 - a. For modifications to this drawing, refer to attached Exhibit 03E304-A.
15. Drawing No. 03E305
 - a. For modifications to this drawing, refer to attached Exhibit 03E305-A.
16. Drawing No. 03E306
 - a. For modifications to this drawing, refer to attached Exhibit 03E306-A.
17. Drawing No. 03E311
 - a. For modifications to this drawing, refer to attached Exhibit 03E311-A.
18. Drawing No. 03I306
 - a. For modifications to this drawing, refer to attached Exhibit 03I306-A.
19. Drawing No. 04I301
 - a. For modifications to this drawing, refer to attached Exhibit 04I301-A.
20. Drawing No. 03S103
 - a. For modifications to this drawing, refer to attached Exhibit 03S103-A.
21. Drawing No. 03M202
 - a. For modifications to this drawing, refer to attached Exhibit 03M202-A.
22. Drawing No. 03M202
 - a. For modifications to this drawing, refer to attached Exhibit 03M202-B.
23. Drawing No. 03M203
 - a. For modifications to this drawing, refer to attached Exhibit 03M203-A.
24. Drawing No. 03M203
 - a. For modifications to this drawing, refer to attached Exhibit 03M203-B.
25. Drawing No. 03M204
 - a. For modifications to this drawing, refer to attached Exhibit 03M204-A.
26. Drawing No. 04S101
 - a. Add photo to this drawing, refer to attached Exhibit 04S101-A.
27. Drawing No. 04M301
 - a. Add Section to this drawing, refer to attached Exhibit 04M301-A.

This addendum consists of three (3) pages and twenty eight (27) attached exhibits. The remainder of the bid documents remains unchanged.



Greg T. Swoboda

Greg T. Swoboda, P.E.
Project Manager
HDR Engineering, Inc.
Texas Firm Registration No. F-754

ACKNOWLEDGEMENT BY BIDDER

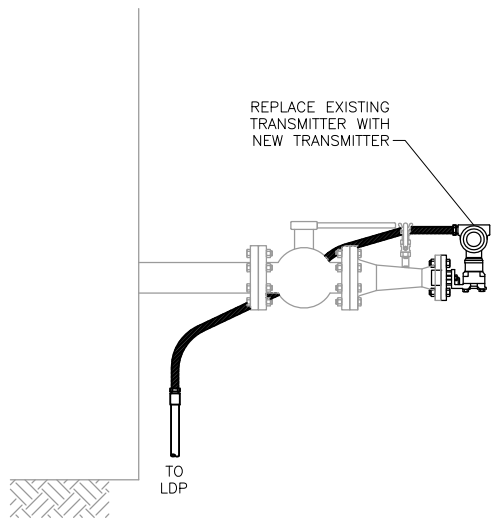
Each bidder is required to acknowledge receipt of this Addendum No. 4 on the Bid Proposal and by his/her signature affixed hereto and file same as an attachment to his/her bid.

The undersigned acknowledges receipt of this Addendum No. 4 and the bid submitted herewith is in accordance with the information and stipulation set forth.

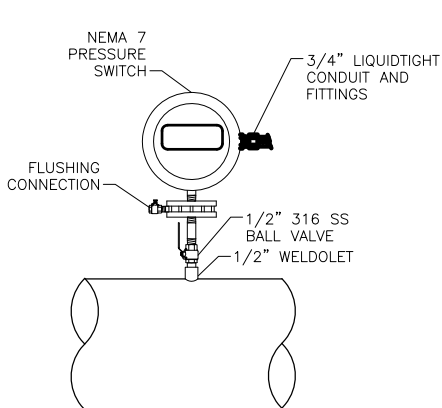
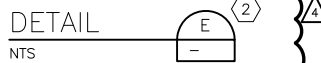
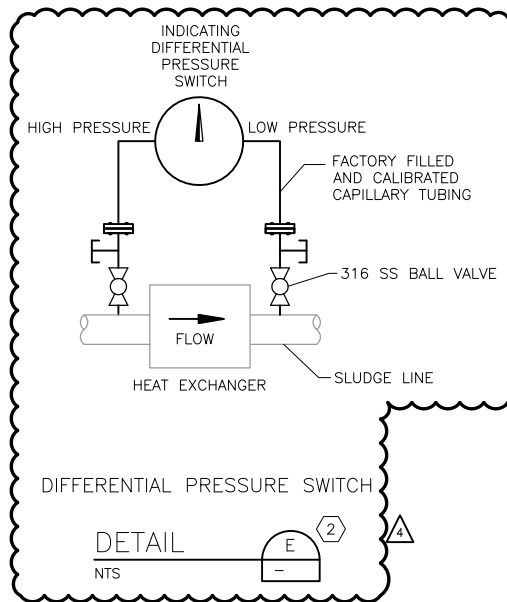
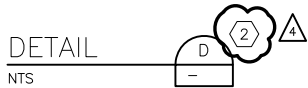
Signature of Bidder

Date

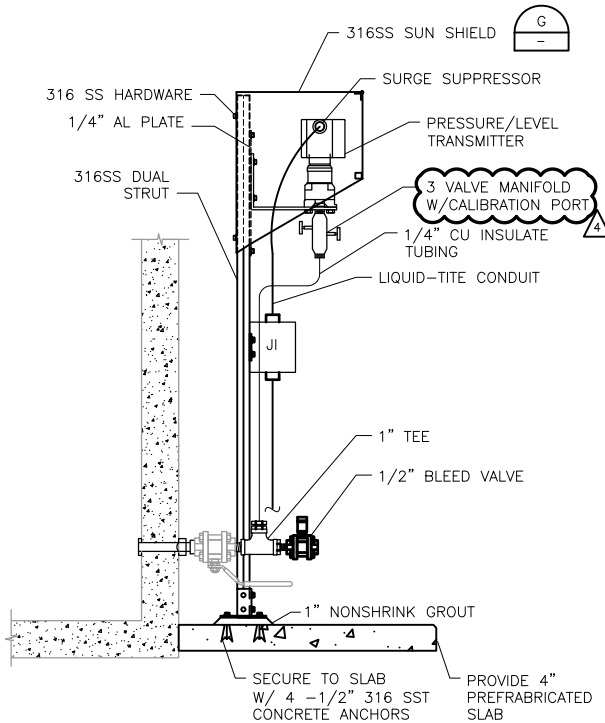
END OF ADDENDUM



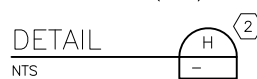
DIGESTER LEVEL METER



PRESSURE SWITCH WITH CHEMICAL SEAL



PRESSURE/LEVEL TRANSMITTER OUTDOOR (TYP)



GAI

Gupta & Associates, Inc.

consulting engineering

Registration No. F-2593

13626 Gamma Road

Dallas, Texas 75244

Tel: 972-490-7661

Fax: 972-490-7125

email: vkg@gaiconsulting.com

11/14/12



SAN ANTONIO WATER SYSTEM

HDR

HDR Engineering, Inc.

Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502

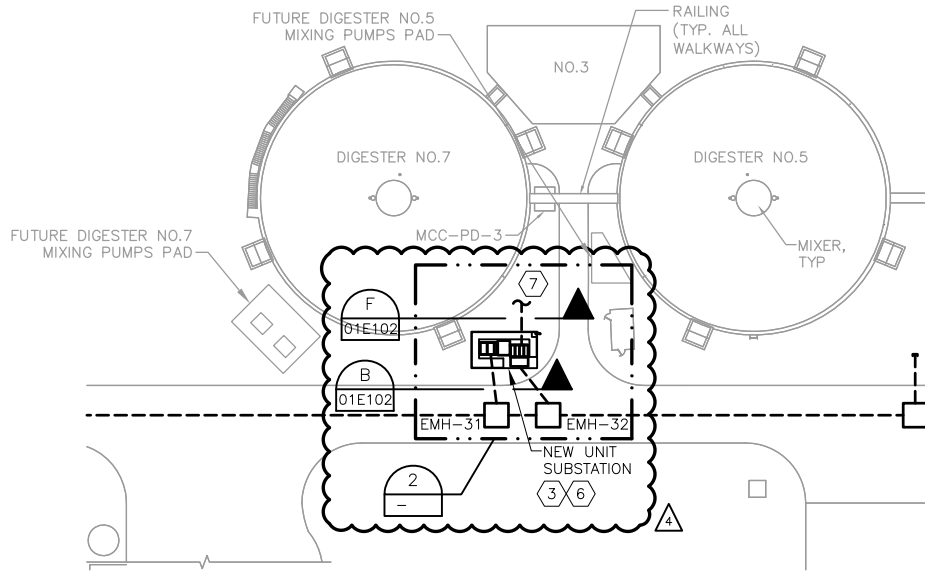
DRWRC-DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II

ADDENDUM NO. 4

DATE: 11-14-2012

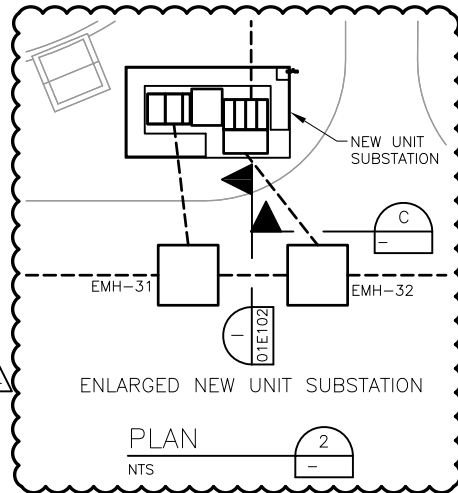
DWG. NO. 001201

EXHIBIT NO. 001201-A



OVERALL SITE

PLAN 9x10
1" = 40'



ENLARGED NEW UNIT SUBSTATION

PLAN
NTS

GAI

Gupta & Associates, Inc.

consulting engineering

Registration No. F-2593

13626 Gamma Road

Dallas, Texas 75244

Tel: 972-490-7661

Fax: 972-490-7125

email: vkg@gaiconsulting.com



11/14/12



SAN ANTONIO WATER SYSTEM

HDR

HDR Engineering, Inc.

Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502

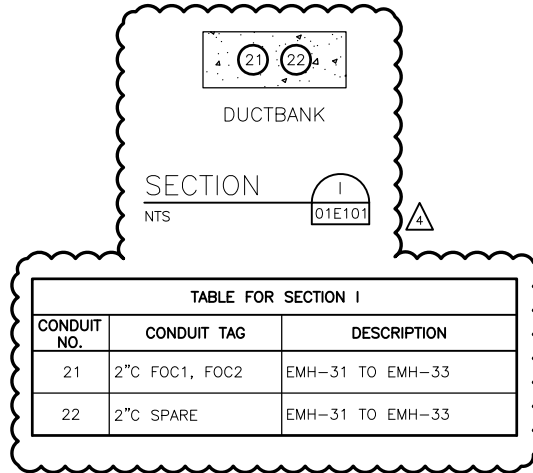
DRWRC-DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II

ADDENDUM NO. 4

DATE: 11-14-2012

DWG. NO. 01E101

EXHIBIT NO. 01E101-A



GAI

Gupta & Associates, Inc.

consulting engineering

Registration No. F-2593

13626 Gamma Road

Dallas, Texas 75244

Tel: 972-490-7661

Fax: 972-490-7125

email: vkg@gaiconsulting.com

11/14/12



SAN ANTONIO WATER SYSTEM

HDR

HDR Engineering, Inc.

Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502

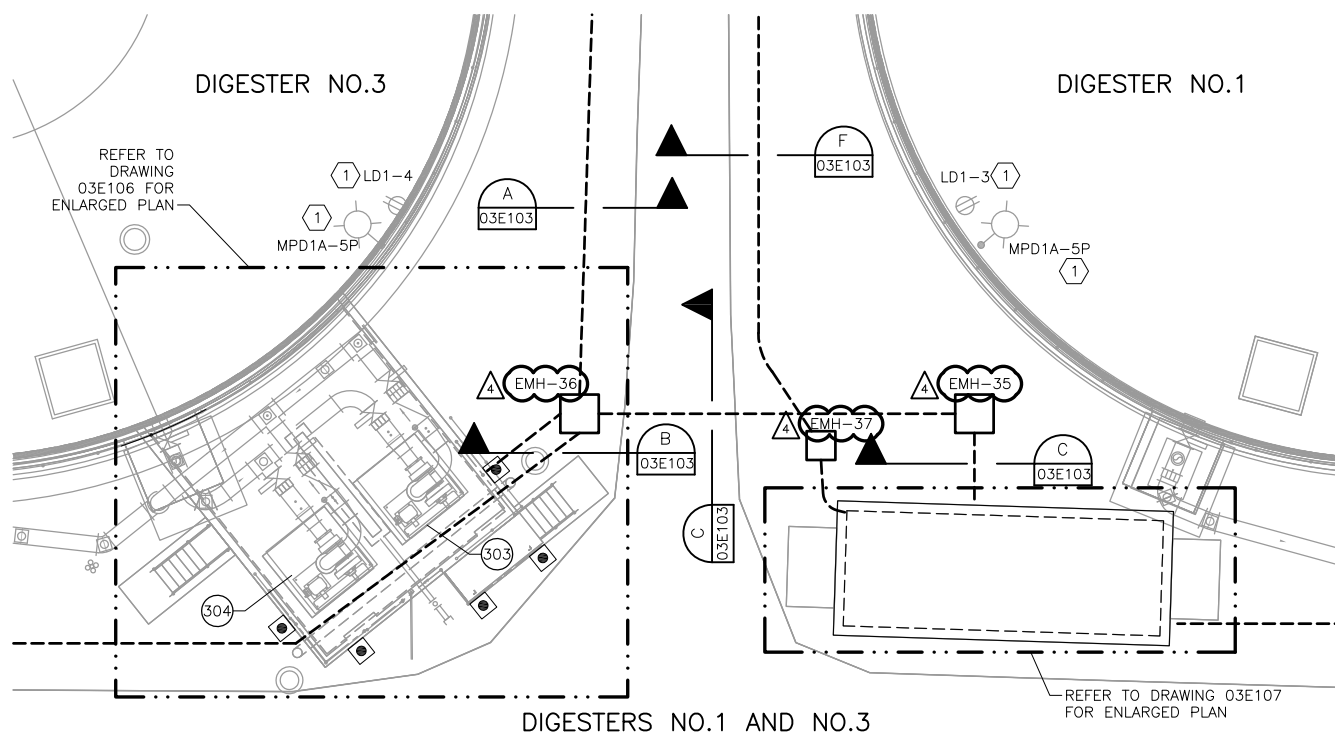
DRWRC-DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II

ADDENDUM NO. 4

DATE: 11-14-2012

DWG. NO. 01E102

EXHIBIT NO. 01E102-A



DIGESTERS NO.1 AND NO.3

PLAN
1" = 10' 4 5 6

GAI
Gupta & Associates, Inc.
consulting engineering
Registration No. F-2593
13626 Gamma Road
Dallas, Texas 75244
Tel: 972-490-7661
Fax: 972-490-7125
email: vkg@gaiconsulting.com

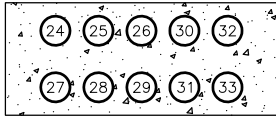
V.K. Gupta
STATE OF TEXAS
V. K. GUPTA
53097
PROFESSIONAL ENGINEER
11/14/12



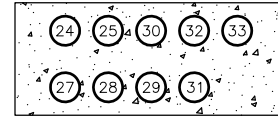
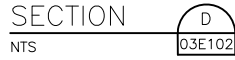
SAN ANTONIO WATER SYSTEM

HDR
HDR Engineering, Inc.
Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502	
DRWRC-DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II	
ADDENDUM NO. 4	
DATE: 11-14-2012	
DWG. NO. 03E102	EXHIBIT NO. 03E102-A



DUCTBANK



DUCTBANK



TABLE FOR SECTION D		
CONDUIT NO.	CONDUIT TAG	DESCRIPTION
24	MPD1-6P	MIXING PUMP TO MCC-PD-1
25	MPD1-7P	MIXING PUMP TO MCC-PD-1
26	MPD1-11P	RECEPTACLE TO MCC-PD-1
27	SPARE	2" C SPARE
28	MPD1-6C	MIXING PUMP TO MCC-PD-1
29	MPD1-7C	MIXING PUMP TO MCC-PD-1
30	PL-110	PLC TO FLOW METER
31	LD1-17	PANEL LD1 TO FLOW METER
32	SPARE	2" C SPARE
33	SPARE	2" C SPARE

TABLE FOR SECTION E		
CONDUIT NO.	CONDUIT TAG	DESCRIPTION
24	MPD1-6P	MIXING PUMP TO MCC-PD-1
25	MPD1-7P	MIXING PUMP TO MCC-PD-1
27	SPARE	2" C SPARE
28	MPD1-6C	MIXING PUMP TO MCC-PD-1
29	MPD1-7C	MIXING PUMP TO MCC-PD-1
30	PL-110	PLC TO FLOW METER
31	LD1-17	LD1 TO FLOW METER
32	SPARE	2" C SPARE
33	SPARE	2" C SPARE

GAI

Gupta & Associates, Inc.

consulting engineering

Registration No. F-2593

13626 Gamma Road

Dallas, Texas 75244

Tel: 972-490-7661

Fax: 972-490-7125

email: vkg@gaiconsulting.com



SAN ANTONIO WATER SYSTEM

HDR

HDR Engineering, Inc.

Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502

DRWRC-DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II

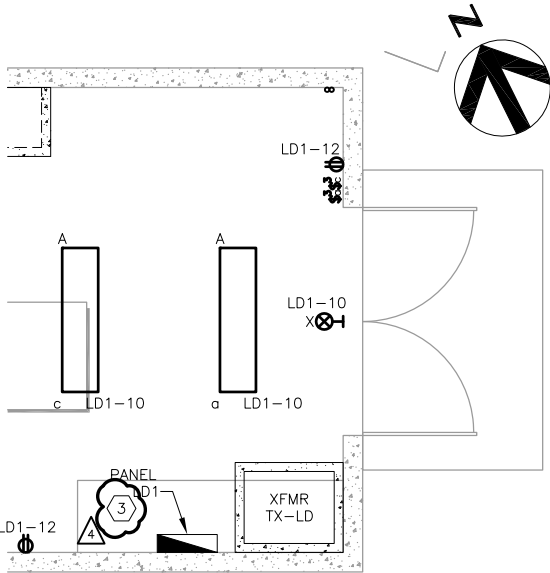
ADDENDUM NO. 4

DATE: 11-14-2012

DWG. NO. 03E103

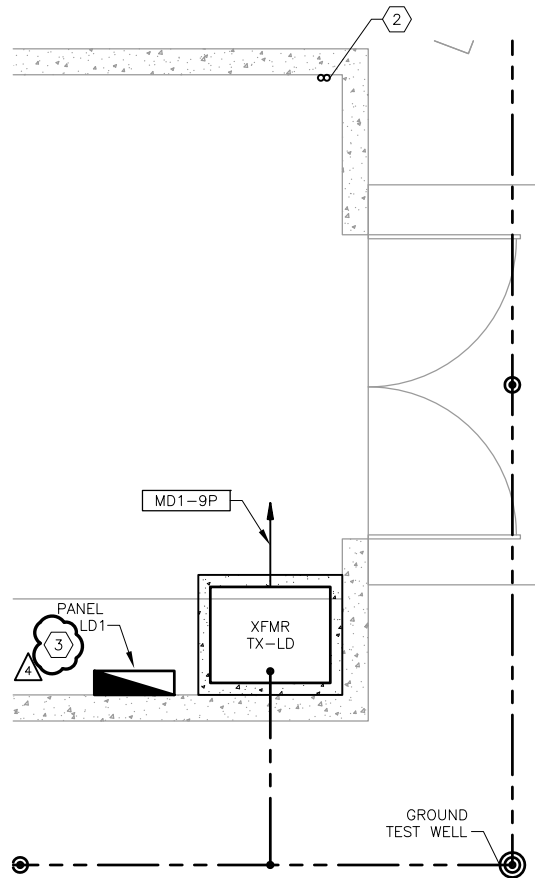
EXHIBIT NO. 03E103-A

PANELBOARD: LD1			BUS: TINNED COPPER		MAINS: 125A		
SERVICE: 120/208V, 3Ø, 4W			RATING: 200A		LOCATION: ELECTRICAL BUILDING DIGESTER 1&3.		
MOUNTING: SURFACE - NEMA 12			FEED: TOP				
CKT #	BRKR SIZE	WIRE SIZE	LOAD	LOAD	WIRE SIZE	BRKR SIZE	CKT #
1	20/1	10	DIGESTER NO.1 ROOF LIGHTS	DIGESTER NO.3 ROOF LIGHTS	10	20/1	2
3	20/1	10	DIGESTER NO.1 ROOF RECEPTACLES	DIGESTER NO.3 ROOF RECEPTACLES	10	20/1	4
5	20/1	12	DIGESTER NO.1&3 PUMP STATION RECP.	DIGESTER NO.1 RECIRCULATION FIT	12	20/1	6
7	20/1	12	DIGESTER NO.1&3 PUMP STATION LIGHTS	DIGESTER NO.3 RECIRCULATION FIT	12	20/1	8
9	20/1	12	DIGESTER NO.1&3 LOCAL DISPLAY PANEL	ELECTRICAL BUILDING LIGHTS	12	20/1	10
11	20/1	12	DIGESTER NO.1&3 LOCAL DISPLAY PANEL	ELECTRICAL BUILDING RECEPTACLES	12	20/1	12
13	20/1	12	DIGESTER NO.1&3 PUMP STATION RECP.T.	PLC-DIGESTER NO.1&3	12	20/1	14
15	10/1	10	DIGESTER NO.1 GAS FLOW TRANSMITTER	PLC-DIGESTER NO.1&3	12	20/1	16
17	20/1	12	DIGESTER NO.1 MIXING FLOW TRANSMITTER	A/C UNIT-2	6	40/2	18
19	20/1	12	DIGESTER NO.3 MIXING FLOW TRANSMITTER				20
21	30/2	10	A/C UNIT-1	SPARE	12	20/1	22
23				SPARE	12	20/1	24
25	20/1	12	SPARE	DIGESTER NO.3 GAS FLOW TRANSMITTER	12	20/1	26
27	20/1	12	SPARE	SPARE	12	20/1	28
29	20/1	12	SPARE	SPARE	12	20/1	30
31	20/1	12	SPARE	SPARE	12	20/1	32
33	20/1	12	SPARE	SPARE	12	20/1	34
35	20/1	12	SPARE	SPARE	12	20/1	36



ELECTRICAL BUILDING LIGHTING

PLAN
3/8" = 1'-0"



ELECTRICAL BUILDING ELECTRICAL

PLAN
1/2" = 1'-0"

GAI

Gupta & Associates, Inc.

consulting engineering

Registration No. F-2593

13626 Gamma Road

Dallas, Texas 75244

Tel: 972-490-7661

Fax: 972-490-7125

email: vkg@gaiconsulting.com

11/14/12



SAN ANTONIO WATER SYSTEM



HDR Engineering, Inc.

Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502

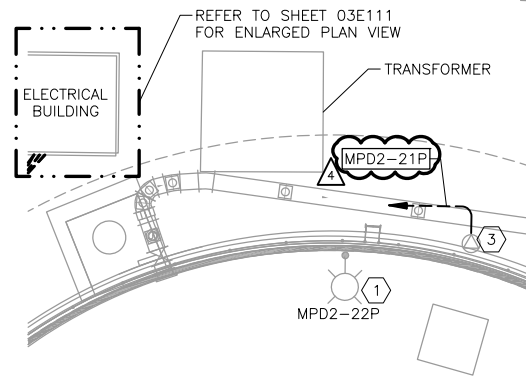
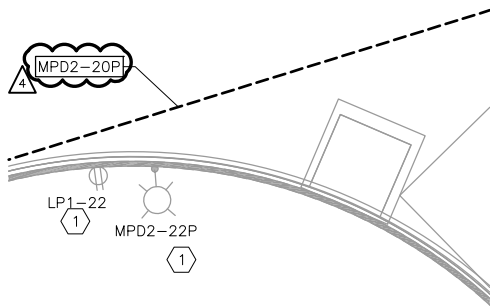
DRWRC-DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II

ADDENDUM NO. 4

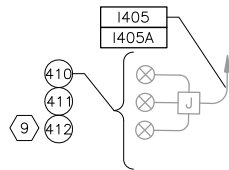
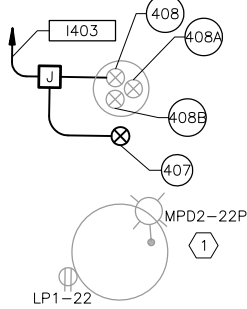
DATE: 11-14-2012

DWG. NO. 03E107

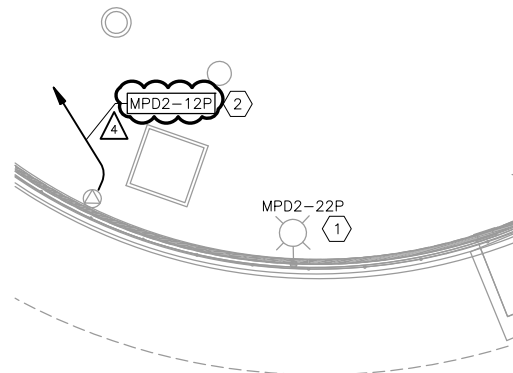
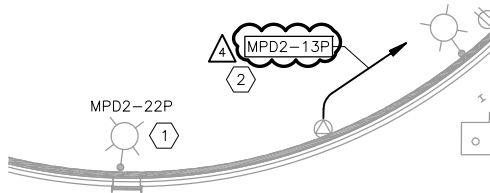
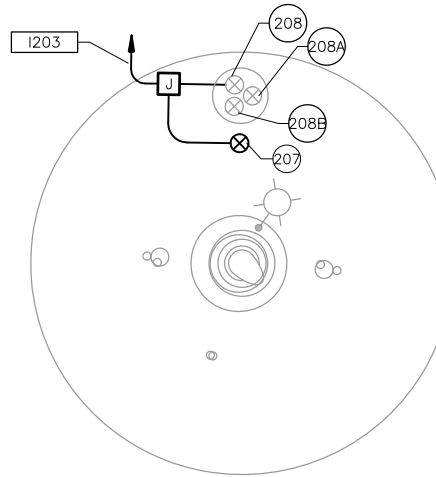
EXHIBIT NO. 03E107-A



DIGESTERS NO.4



DIGESTERS NO.2



GAI

Gupta & Associates, Inc.

consulting engineering

Registration No. F-2593

13626 Gamma Road

Dallas, Texas 75244

Tel: 972-490-7661

Fax: 972-490-7125

email: vkg@gaiconsulting.com

11/14/12



DIGESTER NO.2 & NO.4

PLAN
1" = 10' 4 5 6



SAN ANTONIO WATER SYSTEM



HDR Engineering, Inc.
Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502

DRWRC-DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II

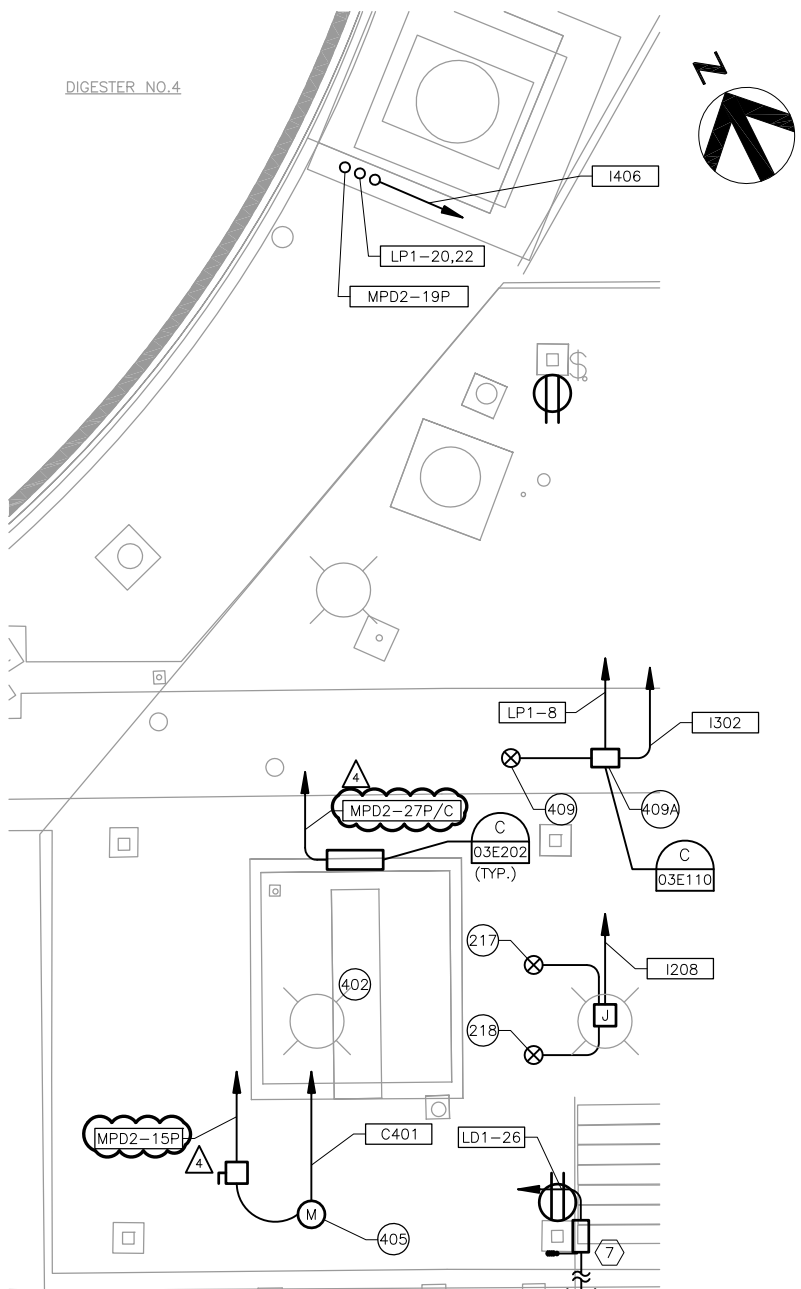
ADDENDUM NO. 4

DATE: 11-14-2012

DWG. NO. 03E108

EXHIBIT NO. 03E108-A

Z:\1925C_SAWS Dos Nos Digesters\Construction Phase\Addendum No.4\03E109.dwg, 11/16/2012 8:38:59 AM, Adobe PDF, JH



PUMP STATION NO.2

PLAN
1/4" = 1'-0" (3)

GAI
 Gupta & Associates, Inc.
 consulting engineering
 Registration No. F-2593
 13626 Gamma Road
 Dallas, Texas 75244
 Tel: 972-490-7661
 Fax: 972-490-7125
 email: vkg@gaiconsulting.com

V.K. Gupta
 STATE OF TEXAS
 V. K. GUPTA
 53097
 LICENSED ENGINEER
 11/14/12

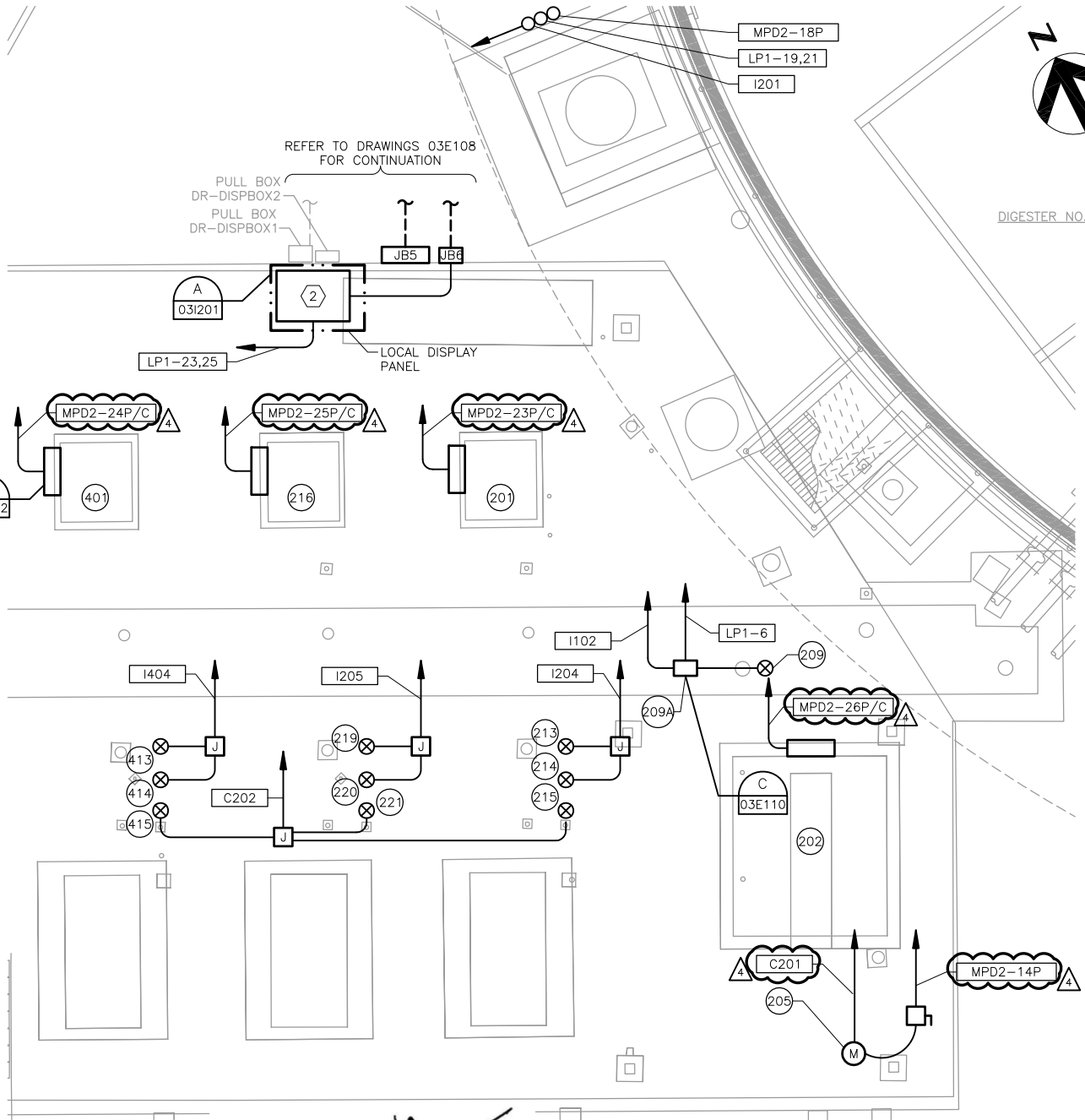


SAN ANTONIO WATER SYSTEM



HDR Engineering, Inc.
 Texas P.E. Firm
 Registration No. F-754

SAWS JOB NO. 11-6502	
DRWRC-DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II	
ADDENDUM NO. 4	
DATE: 11-14-2012	
DWG. NO. 03E109	EXHIBIT NO. 03E109-A



REFER TO DRAWINGS 03E108 FOR CONTINUATION

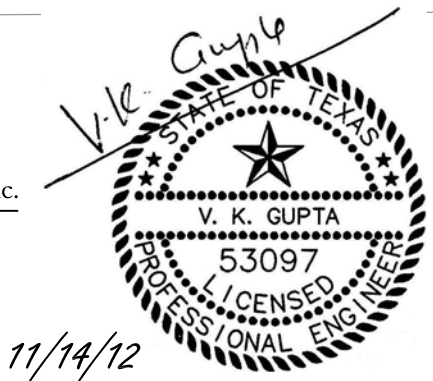
PULL BOX DR-DISPBOX2
PULL BOX DR-DISPBOX1

DIGESTER NO.2

PUMP STATION NO.2

PLAN
1/4" = 1'-0" ③

GAI
Gupta & Associates, Inc.
consulting engineering
Registration No. F-2593
13626 Gamma Road
Dallas, Texas 75244
Tel: 972-490-7661
Fax: 972-490-7125
email: vkg@gaiconsulting.com



Z:\1925C_SAWS Dos Nos Digesters\Construction Phase\Addenda\Addendum No.4\03E109.dwg, 11/16/2012 8:37:06 AM, Adobe PDF, JH



SAN ANTONIO WATER SYSTEM



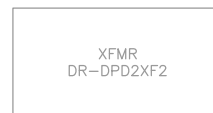
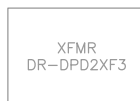
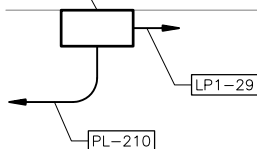
HDR Engineering, Inc.
Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502	
DRWRC-DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II	
ADDENDUM NO. 4	
DATE: 11-14-2012	
DWG. NO. 03E109	EXHIBIT NO. 03E109-B



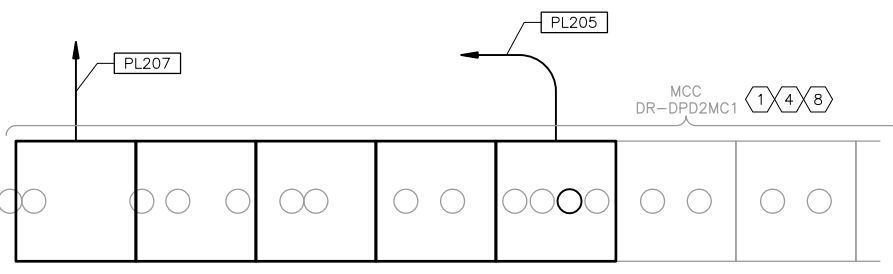
210 DIGESTER NO.2
GAS FLOW
TRANSMITTER

CONTROL POWER
PANEL DR-DPD2LP2



(TYP.) 5

AIR
PURIFICATION
UNIT
DR-DPD2AP1



EXISTING ELECTRICAL BUILDING

PLAN
3/4" = 1'-0" 7/4

NOTES:

- ① REFER TO SHEET 03E304 FOR MODIFIED ONE-LINE DIAGRAM.
- ② EXISTING PLC CABINET TO BE MODIFIED. REFER TO I&C DRAWINGS.
- ③ EXISTING PANEL TO BE MODIFIED FOR NEW CIRCUIT.
- ④ SPACING OF MCC SECTIONS AND SPARE CONDUITS IS TO BE VERIFIED IN THE FIELD.
- ⑤ EXISTING SPARE CONDUITS TO BE UTILIZED AS NEEDED.
- ⑥ UPDATE EXISTING PANEL DIRECTORY.
- ⑦ THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING CONDUITS IN THE FIELD.
- ⑧ REFER TO SHEET 03E201 FOR MODIFIED MCC ELEVATION.

GAI

Gupta & Associates, Inc.

consulting engineering

Registration No. F-2593

13626 Gamma Road

Dallas, Texas 75244

Tel: 972-490-7661

Fax: 972-490-7125

email: vkg@gaiconsulting.com

11/14/12



SAN
ANTONIO
WATER
SYSTEM

HDR

HDR Engineering, Inc.

Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502

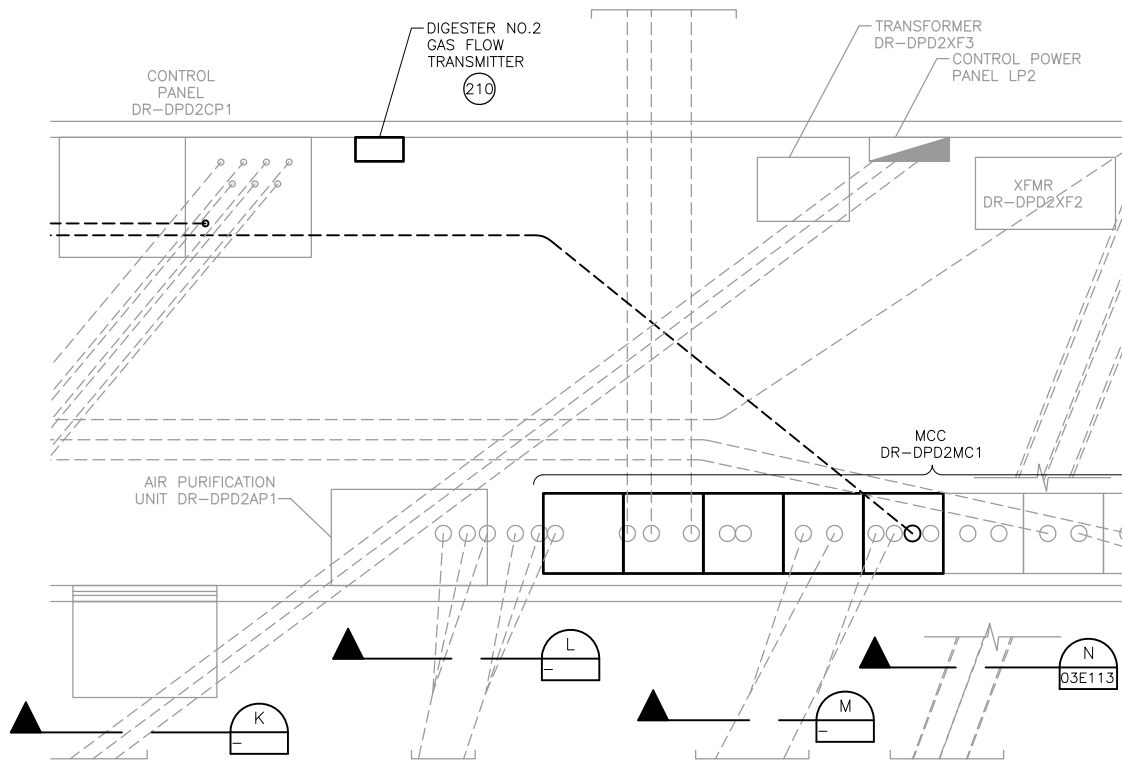
DRWRC-DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II

ADDENDUM NO. 4

DATE: 11-14-2012

DWG. NO. 03E111

EXHIBIT NO. 03E111-A



DIGESTER NO.2 & NO.4 ELECTRICAL BUILDING
EXISTING DUCTBANK

PLAN 1/2
1/2" = 1'-0"

NOTES:

- ① THIS DRAWING INDICATES THE EXISTING DUCTBANK SECTIONS WHICH WERE INSTALLED IN PHASE-I.
- ② SPARE & EXISTING CONDUITS IN THE DUCTBANKS SHALL BE REUSED.

GAI

Gupta & Associates, Inc.

consulting engineering

Registration No. F-2593

13626 Gamma Road

Dallas, Texas 75244

Tel: 972-490-7661

Fax: 972-490-7125

email: vkg@gaiconsulting.com

11/14/12



SAN ANTONIO WATER SYSTEM

HDR

HDR Engineering, Inc.

Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502

DRWRC-DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II

ADDENDUM NO. 4

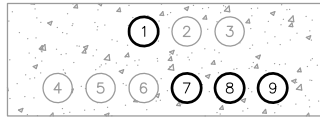
DATE: 11-14-2012

DWG. NO. 03E112

EXHIBIT NO. 03E112-A



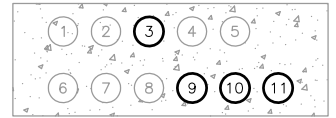
DUCTBANK



DUCTBANK



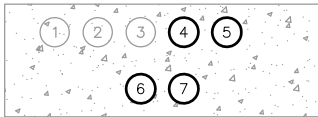
DUCTBANK



DUCTBANK

SECTION C
NTS

TABLE FOR SECTION C	
CONDUIT NO.	CONDUIT TAG
1	SPARE
2	SPARE



DUCTBANK

SECTION G
NTS

TABLE FOR SECTION G	
CONDUIT NO.	CONDUIT TAG
1	SPARE
2	SPARE
3	SPARE
4	PL201
5	PL202
6	PL203
7	PL204

SECTION D
NTS

TABLE FOR SECTION D	
CONDUIT NO.	CONDUIT TAG
1	PL201
2	SPARE
3	SPARE
4	FY2415C-I
5	PIT/TIT2415-I
6	SPARE
7	PL202
8	PL203
9	PL204



DUCTBANK

SECTION H
NTS

TABLE FOR SECTION H	
CONDUIT NO.	CONDUIT TAG
1	SPARE
2	SPARE I401

SECTION E
NTS

TABLE FOR SECTION E	
CONDUIT NO.	CONDUIT TAG
1	SPARE
2	SPARE



DUCTBANK

SECTION J
NTS

TABLE FOR SECTION J	
CONDUIT NO.	CONDUIT TAG
1	SPARE I201
2	SPARE



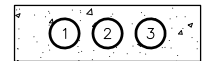
DUCTBANK

SECTION P
NTS

TABLE FOR SECTION P	
CONDUIT NO.	CONDUIT TAG
1	SPARE
2	SPARE

SECTION F
NTS

TABLE FOR SECTION F	
CONDUIT NO.	CONDUIT TAG
1	SPARE
2	SPARE
3	PL201
4	SPARE
5	SPARE
6	FY2415C-I
7	PIT/TIT2415-I
8	SPARE
9	PL202
10	PL203
11	PL204



DUCTBANK

SECTION S
NTS

TABLE FOR SECTION S	
CONDUIT NO.	CONDUIT TAG
1	PL208
2	MPD2-20P
3	SPARE



GAI
Gupta & Associates, Inc.
consulting engineering
Registration No. F-2593
13626 Gamma Road
Dallas, Texas 75244
Tel: 972-490-7661
Fax: 972-490-7125
email: vkg@gaiconsulting.com



SAN ANTONIO WATER SYSTEM



HDR Engineering, Inc.
Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502
DRWRC-DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II
ADDENDUM NO. 4
DATE: 11-14-2012
DWG. NO. 03E112
EXHIBIT NO. 03E112-B

TAG NO.	DIGESTER NO.1 EQUIPMENT	EQUIPMENT TAG
101	RECIRCULATION PUMP NO.1	DR-8-RE-PMP-11
102	DIGESTER NO.1 TRANSFER PUMP	DR-8-XF-PMP-11
103	DIGESTER NO.1 MIXING PUMP NO.1	DR-8-MX-PMP-11
104	DIGESTER NO.1 MIXING PUMP NO.2	DR-8-MX-PMP-12
105	DIGESTER NO.1 INFLUENT VALVE	DR-8-IN-VLV-11
106	DIGESTER NO.1 LEVEL INSTRUMENT	LIT-W010
107	DIGESTER NO.1 PRESSURE INSTRUMENT	PIT-W010A
108	DIGESTER NO.1 UPPER - TEMPERATURE INSTRUMENT	TE/TIT-W010A
108A	DIGESTER NO.1 MIDDLE - TEMPERATURE INSTRUMENT	TE/TIT-W010B
108B	DIGESTER NO.1 LOWER - TEMPERATURE INSTRUMENT	TE/TIT-W010
109	DIGESTER NO.1 RECIRCULATED SLUDGE FLOW TRANSMITTER	FE/FIT-W036
110	DIGESTER NO.1 GAS FLOW INSTRUMENT	FE/FIT-W401
111	DIGESTER NO.1 GAS TEMPERATURE INSTRUMENT	TE/TIT-W401
112	DIGESTER NO.1 GAS PRESSURE INSTRUMENT	PIT-W401
113	HEAT EXCHANGER NO.1 - INLET TEMPERATURE INSTRUMENT	TE/TIT-W030
114	HEAT EXCHANGER NO.1 - OUTLET TEMPERATURE INSTRUMENT	TE/TIT-W031
115	HEAT EXCHANGER NO.1 - DIFFERENTIAL PRESSURE SWITCH	PDS-W029
116	SLUDGE RECIRCULATION PUMP NO.9	DR-8-SL-PMP-1
117	DIGESTER 1 AND 3 COMMON HEADER GAS PRESSURE INSTRUMENT	PIT-W440
118	DIGESTER 1 AND 3 COMMON HEADER GAS TEMPERATURE INSTRUMENT	TE/TIT-W440
119	HEAT EXCHANGER NO.9 INLET TEMPERATURE INSTRUMENT	TE/TIT-W050
120	HEAT EXCHANGER NO.9 OUTLET TEMPERATURE INSTRUMENT	TE/TIT-W051
121	HEAT EXCHANGER NO.9 DIFFERENTIAL PRESSURE SWITCH	PDS-W049
123	DIGESTER NO.1 MIXING PUMP FLOW INSTRUMENT	FE/FIT-110

1

4

GAI

Gupta & Associates, Inc.

consulting engineering

Registration No. F-2593

13626 Gamma Road

Dallas, Texas 75244

Tel: 972-490-7661

Fax: 972-490-7125

email: vkg@gaiconsulting.com

11/14/12



SAN ANTONIO WATER SYSTEM

HDR

HDR Engineering, Inc.

Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502

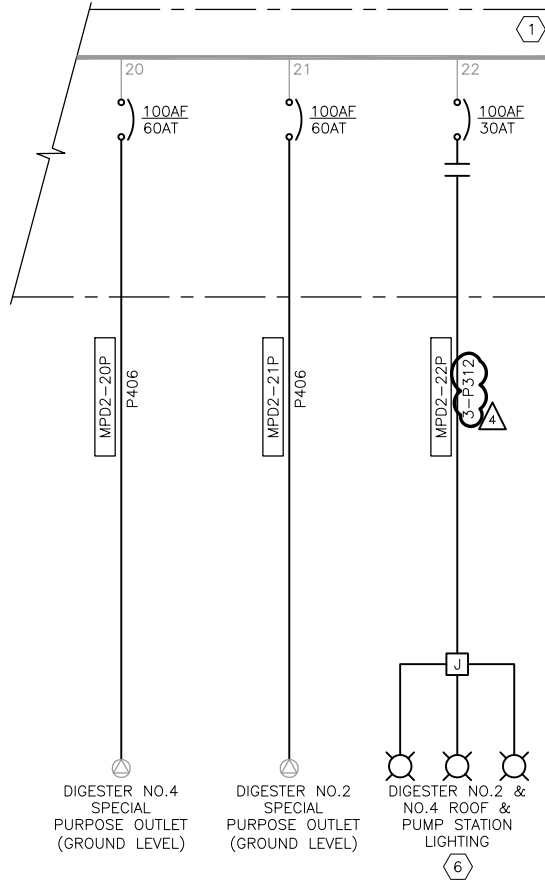
DRWRC-DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II

ADDENDUM NO. 4

DATE: 11-14-2012

DWG. NO. 03E302

EXHIBIT NO. 03E302-A



DIGESTERS NO.2 & NO.4
MCC-PD-2 ONE-LINE



GAI

Gupta & Associates, Inc.

consulting engineering

Registration No. F-2593

13626 Gamma Road

Dallas, Texas 75244

Tel: 972-490-7661

Fax: 972-490-7125

email: vkg@gaiconsulting.com

11/14/12



SAN ANTONIO WATER SYSTEM

HDR

HDR Engineering, Inc.

Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502

DRWRC-DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II

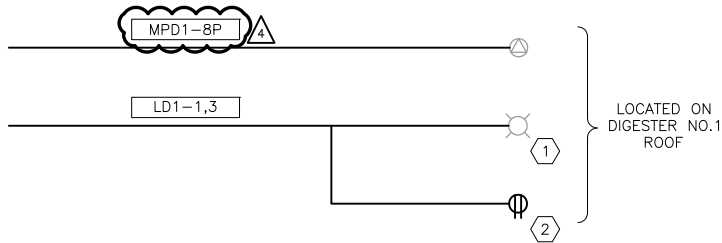
ADDENDUM NO. 4

DATE: 11-14-2012

DWG. NO. 03E304

EXHIBIT NO. 03E304-A

CONDUIT NO.	DESCRIPTION	SIZE
P-101	MPD1-3P/C, MPD1-4P/C, MPD1-5P/C	3" C
P-102	MPD1-10P, MPD1-8P	3" C
P-103	MPD1A-3P, MPD1A-4P/C, MPD1A-8P	3" C
P-104	SPARE	2" C
P-105	LD1-1,3,5, LD1-2,4,6,8, LD1-7,9,11	2" C
P-106	SPARE	2" C



GAI

Gupta & Associates, Inc.

consulting engineering

Registration No. F-2593

13626 Gamma Road

Dallas, Texas 75244

Tel: 972-490-7661

Fax: 972-490-7125

email: vkg@gaiconsulting.com

11/14/12



SAN ANTONIO WATER SYSTEM

HDR

HDR Engineering, Inc.

Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502

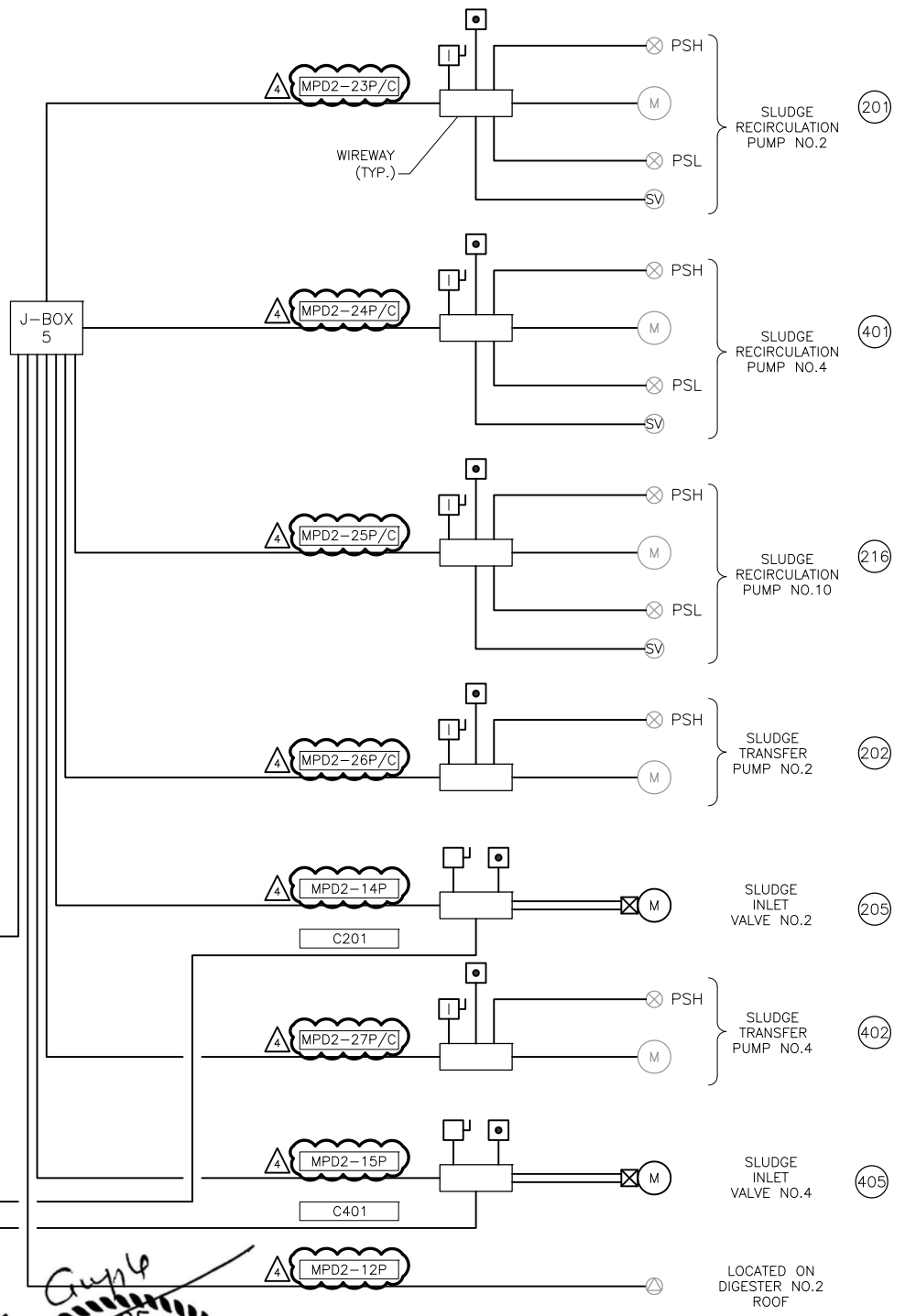
DRWRC-DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II

ADDENDUM NO. 4

DATE: 11-14-2012

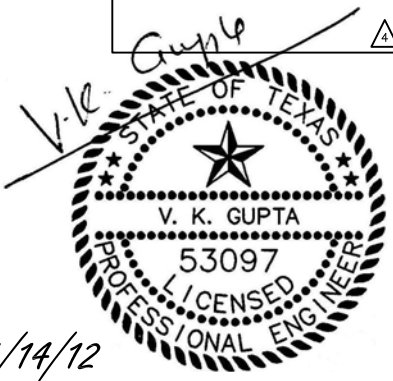
DWG. NO. 03E305

EXHIBIT NO. 03E305-A



LOCATED ON DIGESTER NO.4 ROOF

GAI
 Gupta & Associates, Inc.
 consulting engineering
 Registration No. F-2593
 13626 Gamma Road
 Dallas, Texas 75244
 Tel: 972-490-7661
 Fax: 972-490-7125
 email: vkg@gaiconsulting.com



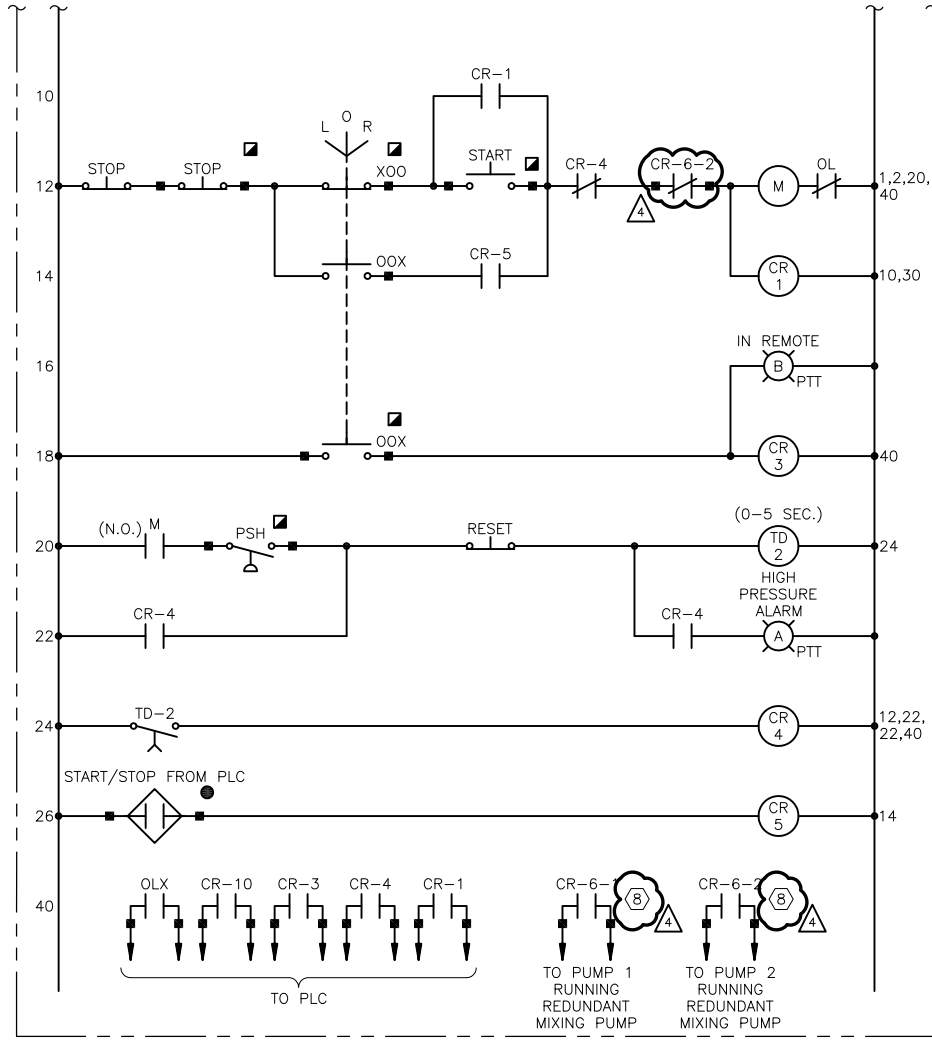
CONDUIT NO.	DESCRIPTION	SIZE
P-201	MPD2-23P/C, MPD2-24P/C, MPD2-24P/C	3" C
P-202	MPD2-26P/C, MPD2-27P/C, MPD2-12P	3" C
P-203	MPD2-13P, MPD2-14P, MPD2-15P	3" C



SAN ANTONIO WATER SYSTEM

HDR
 HDR Engineering, Inc.
 Texas P.E. Firm
 Registration No. F-754

SAWS JOB NO. 11-6502
 DRWRC-DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II
 ADDENDUM NO. 4
 DATE: 11-14-2012
 DWG. NO. 03E306 EXHIBIT NO. 03E306-A



SLUDGE MIXING PUMP

SCHEMATIC
NTS

Z:\1925C_SAWs Dos Nos Digesters\Construction Phase\Addendum No.2\03E311.dwg, 11/15/2012 5:10:13 PM, Adobe PDF, JH

GAI
Gupta & Associates, Inc.
consulting engineering
Registration No. F-2593
13626 Gamma Road
Dallas, Texas 75244
Tel: 972-490-7661
Fax: 972-490-7125
email: vkg@gaiconsulting.com

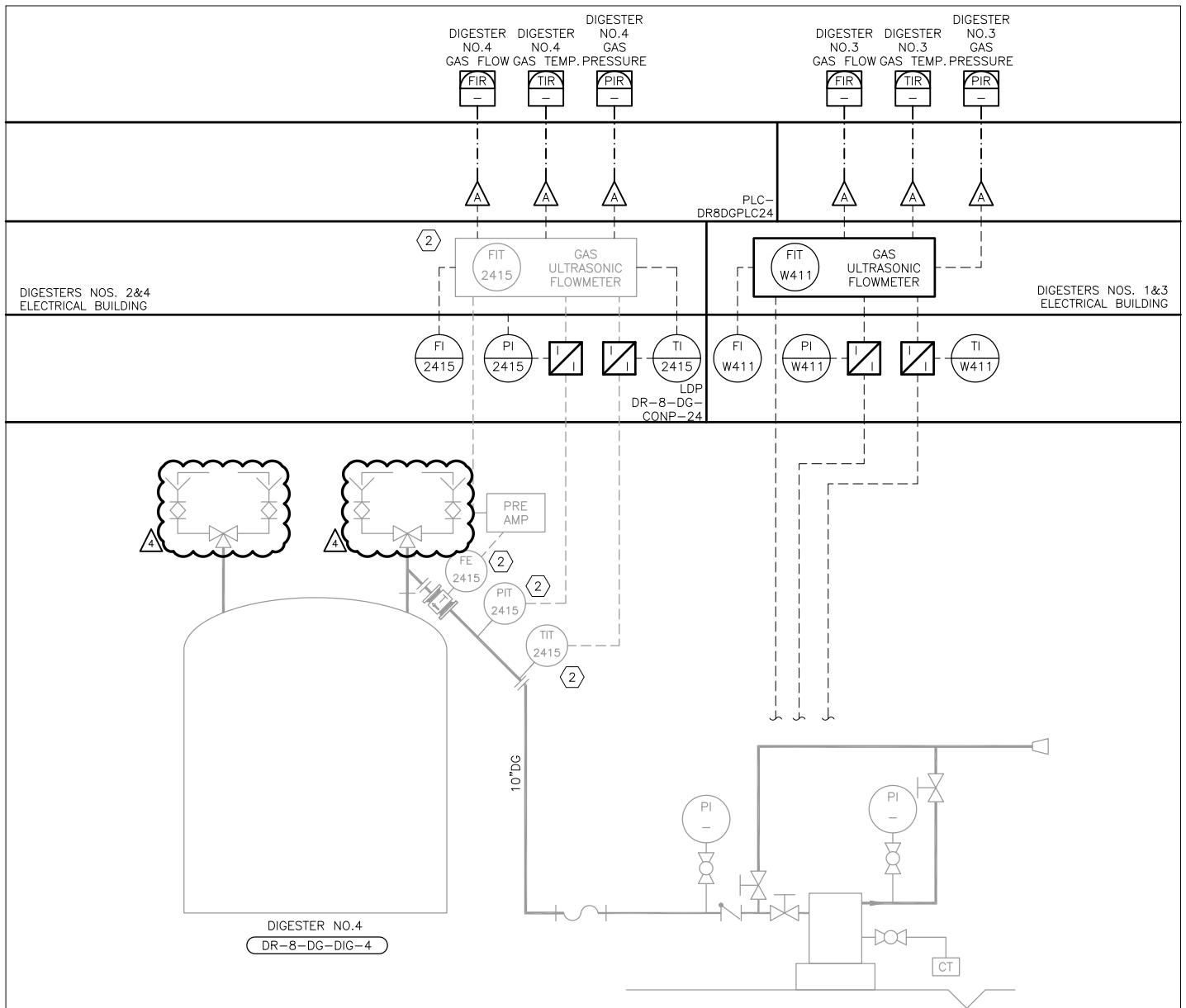
V.K. Gupta
STATE OF TEXAS
V. K. GUPTA
53097
PROFESSIONAL ENGINEER
11/14/12



SAN ANTONIO WATER SYSTEM



SAWS JOB NO. 11-6502	
DRWRC-DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II	
ADDENDUM NO. 4	
DATE: 11-14-2012	
DWG. NO. 03E311	EXHIBIT NO. 03E311-A



GAI

Gupta & Associates, Inc.

consulting engineering

Registration No. F-2593

13626 Gamma Road

Dallas, Texas 75244

Tel: 972-490-7661

Fax: 972-490-7125

email: vkg@gaiconsulting.com

11/14/12



SAN ANTONIO WATER SYSTEM

HDR

HDR Engineering, Inc.

Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502

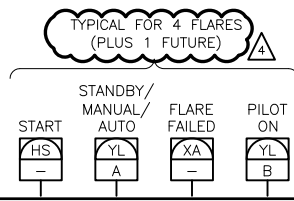
DRWRC-DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II

ADDENDUM NO. 4

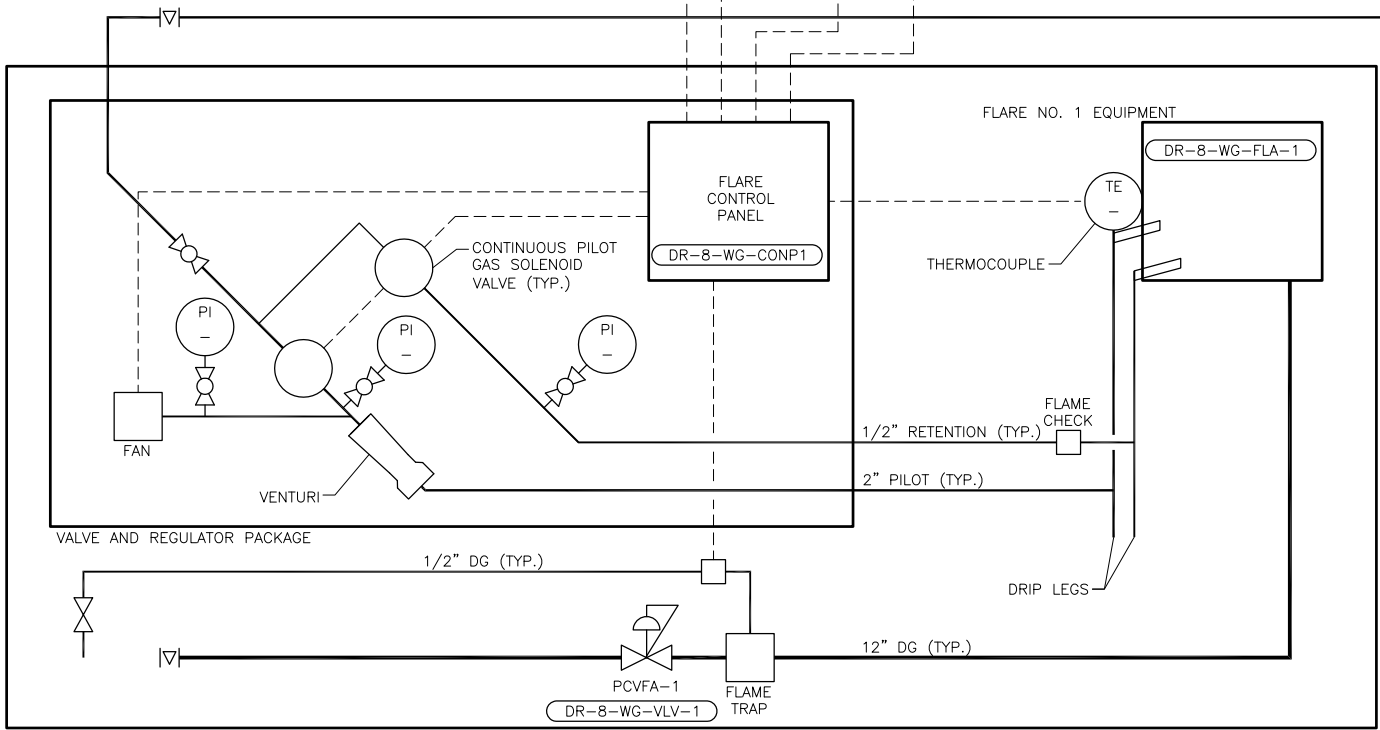
DATE: 11-14-2012

DWG. NO. 031306

EXHIBIT NO. 031306-A



DISTRIBUTED CONTROL SYSTEM HMI



GAI
Gupta & Associates, Inc.
consulting engineering
Registration No. F-2593
13626 Gamma Road
Dallas, Texas 75244
Tel: 972-490-7661
Fax: 972-490-7125
email: vkg@gaiconsulting.com



NOTES:

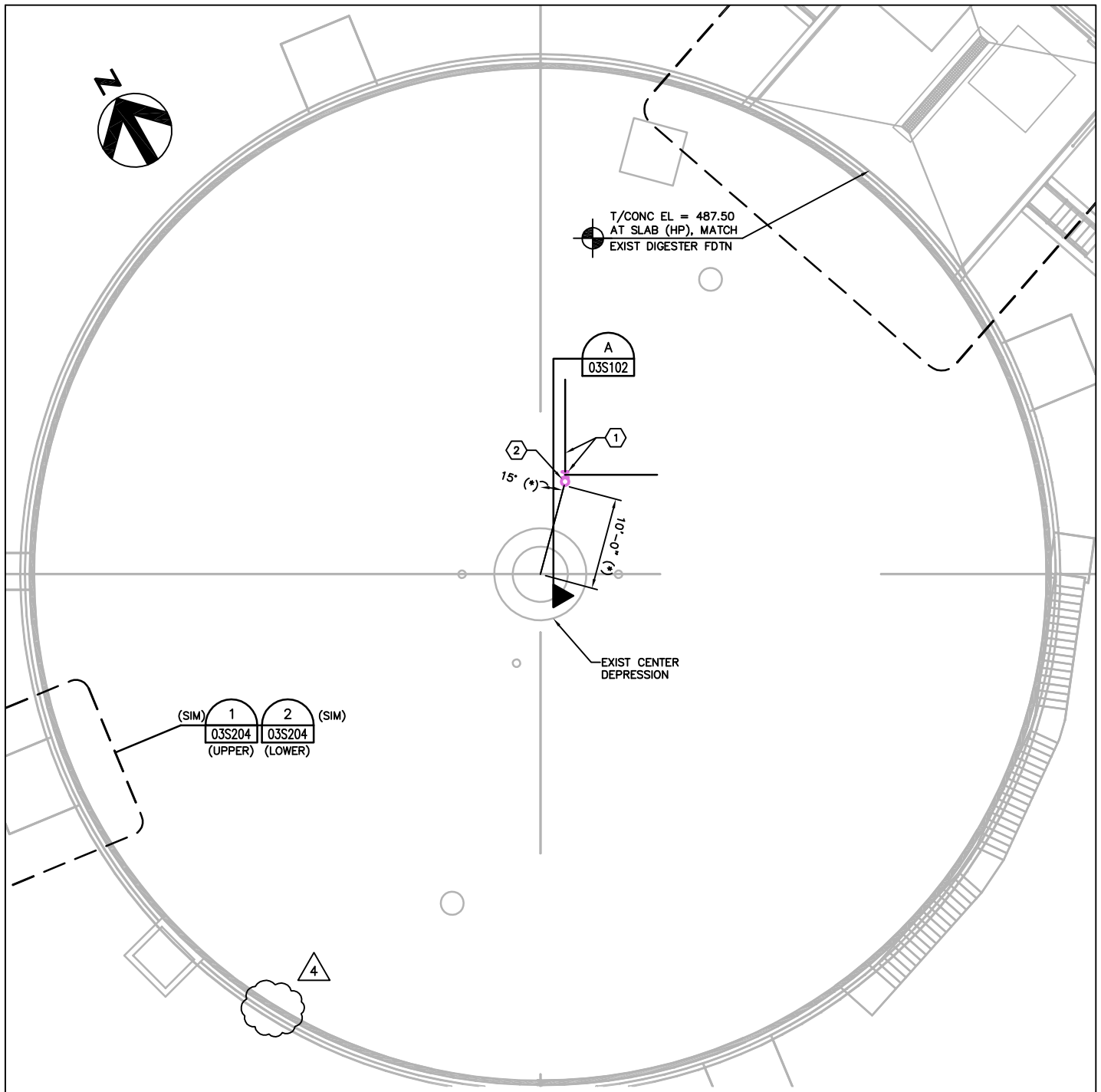
- ① PRESSURE SWITCHES SHALL BE WIRED TO CORRESPONDING FLARE CONTROL PANELS.
- ② CONTRACTOR SHALL FURNISH ALL PANEL COMPONENTS REQUIRED TO ACHIEVE DEPICTED FUNCTIONALLY. REFER TO SPECIFICATION SECTION 13327, PANEL MOUNTED EQUIPMENT.
- ③ IF REQUIRED TO PROVIDE ALL ANALOG SIGNALS SHOWN, CONTRACTOR SHALL CONFIGURE NECESSARY OUTPUTS ON EXISTING FLOW METER.
- ④ PLC SHALL BE CONFIGURED TO ACCOMMODATE I/O FOR ALL FIVE FLARES.





SAN ANTONIO WATER SYSTEM



SAWS JOB NO. 11-6502
DRWRC-DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II
ADDENDUM NO. 4
DATE: 11-14-2012
DWG. NO. 041301
EXHIBIT NO. 041301-A

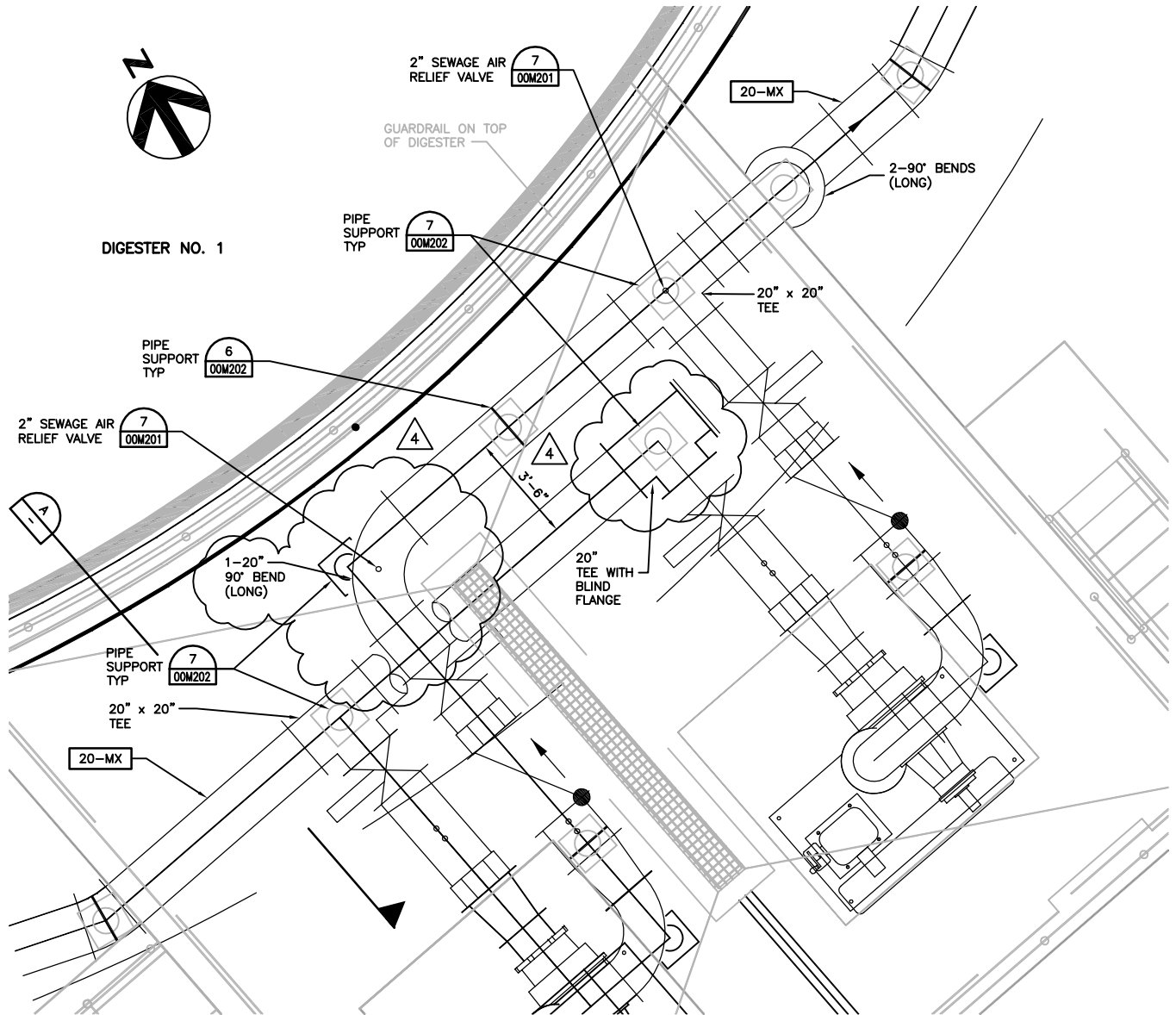


DIGESTER NO. 2 LOWER PLAN
 SCALE 1/8" = 1'-0"

 <p>SAN ANTONIO WATER SYSTEM</p>	 HDR Engineering, Inc. <small>Texas P.E. Firm Registration No. F-754</small>	SAWS JOB NO. 11-6502	
		DRWRC - DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II	
		ADDENDUM NO. 4	
		DATE NOVEMBER 19, 2012	
		DWG. NO. 03S103	EXHIBIT NO. 03S103-A



DIGESTER NO. 1



DIGESTER NO. 1 MIXING PUMP PLAN

SCALE 3/8" = 1'-0"



SAN ANTONIO WATER SYSTEM



HDR Engineering, Inc.

Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502

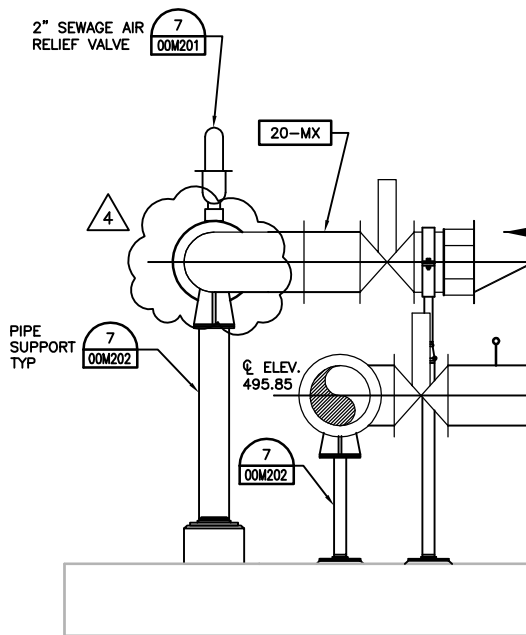
DRWRC - DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II

ADDENDUM NO. 4

DATE NOVEMBER 19, 2012

DWG. NO. 03M202

EXHIBIT NO. 03M202-A



DIGESTER NO. 1 MIXING PUMP PARTIAL SECTION
 SCALE 3/8" = 1'-0"



SAN ANTONIO WATER SYSTEM



HDR Engineering, Inc.

Texas P.E. Firm
 Registration No. F-754

SAWS JOB NO. 11-6502

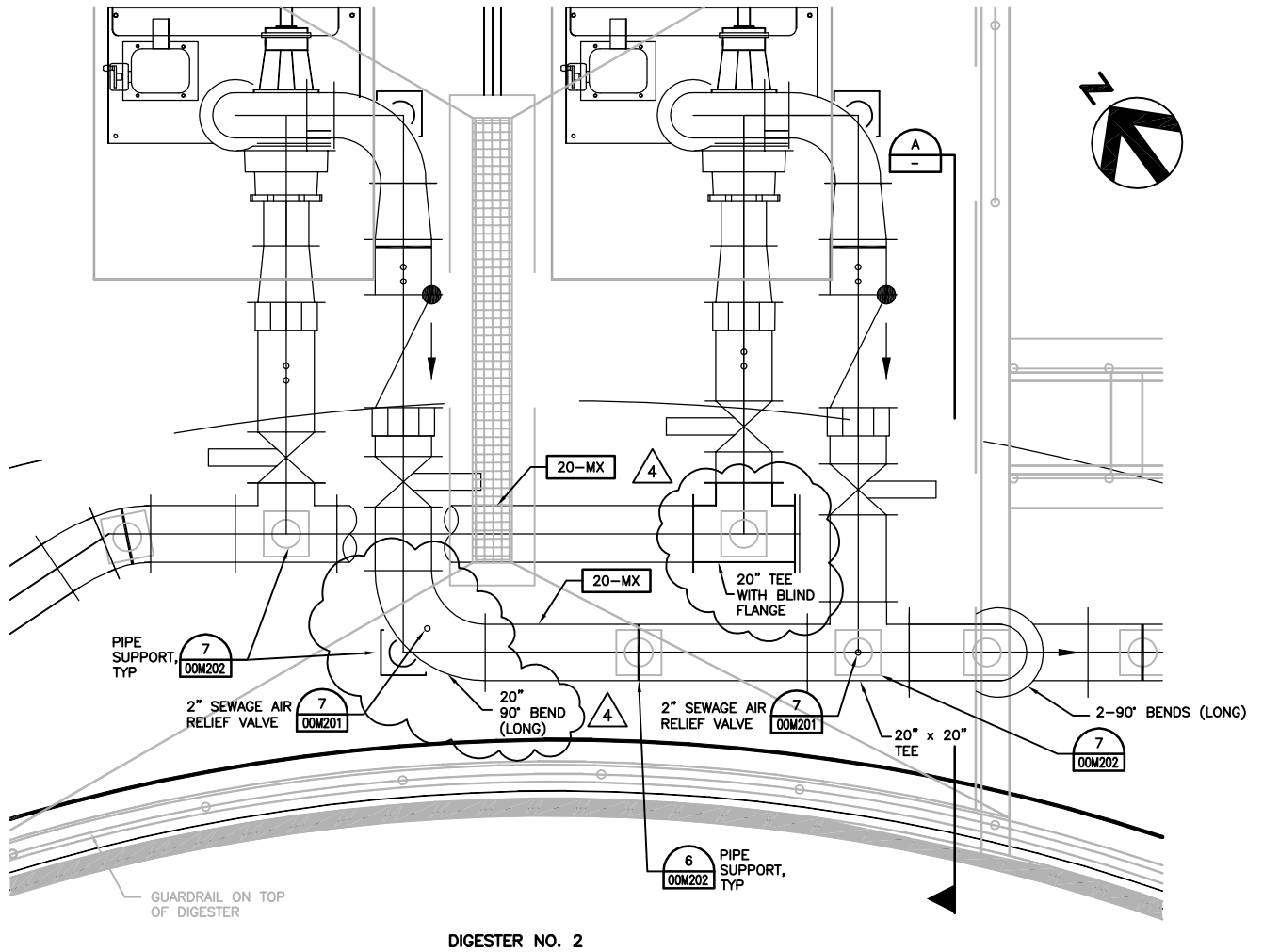
DRWRC - DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II

ADDENDUM NO. 4

DATE NOVEMBER 19, 2012

DWG. NO. 03M202

EXHIBIT NO. 03M202-B



DIGESTER NO. 2

DIGESTER NO. 2 MIXING PUMP PLAN

SCALE 3/8" = 1'-0"



SAN ANTONIO WATER SYSTEM



HDR Engineering, Inc.

Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502

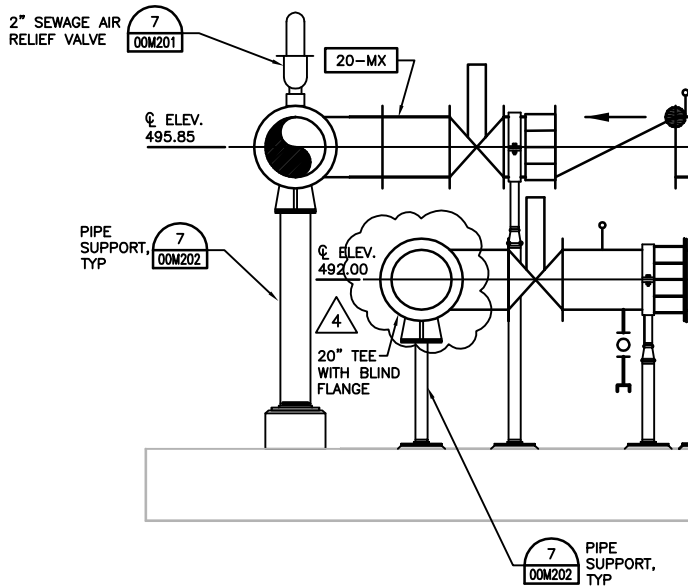
DRWRC - DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II

ADDENDUM NO. 4

DATE NOVEMBER 19, 2012

DWG. NO. 03M203

EXHIBIT NO. 03M203-A



A DIGESTER NO. 2 MIXING PUMP PARTIAL SECTION
 SCALE 3/8" = 1'-0"



SAN ANTONIO WATER SYSTEM



HDR Engineering, Inc.

Texas P.E. Firm
 Registration No. F-754

SAWS JOB NO. 11-6502

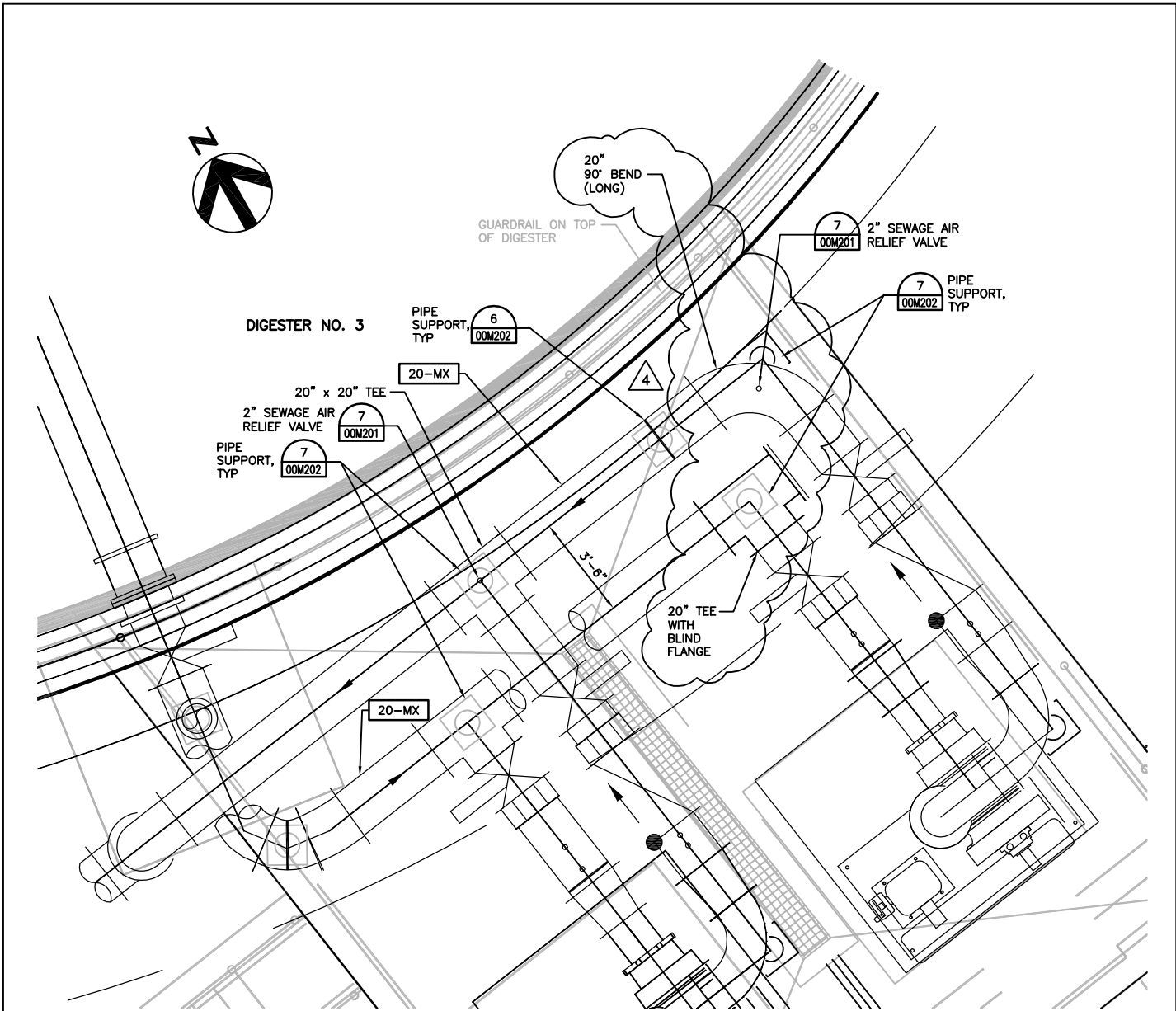
DRWRC - DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II

ADDENDUM NO. 4

DATE NOVEMBER 19, 2012

DWG. NO. 03M203

EXHIBIT NO. 03M203-B



DIGESTER NO. 3 MIXING PUMP PLAN

SCALE 3/8" = 1'-0"



SAN ANTONIO WATER SYSTEM



HDR Engineering, Inc.

Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502

DRWRC - DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II

ADDENDUM NO. 4

DATE NOVEMBER 19, 2012

DWG. NO. 03M204

EXHIBIT NO. 03M204-A

KEY NOTE:

- 1. REMOVE ALL ITEMS SCHEDULED FOR DEMOLITION PRIOR TO SURFACE PREPARATION AND PAINTING.
- TEMPORARILY REMOVE ALL ANCILLARY ITEMS NOT SCHEDULED FOR PAINTING OR DEMOLITION AND RE-ATTACH AFTER PAINTING IS COMPLETED, INCLUDING BUT NOT LIMITED TO LIGHTS, ATTACHED CONDUIT, AND ELECTRIC PANELS. AT CONTRACTOR'S OPTION, ANCILLARY ITEMS MAY BE DISCONNECTED FROM THE STRUCTURE, LEFT NOMINALLY IN PLACE, AND PROTECTED DURING SURFACE PREPARATION AND COATING ACTIVITIES.
- REMOVE ALL ALUMINUM SHADE PANELS PRIOR TO SURFACE PREPARATION AND RE-ATTACH AFTER CANOPY STRUCTURE IS RECOATED.
- PROVIDE SURFACE PREPARATION AND RECOATING FOR ALL CARBON STEEL ELEMENTS OF THE CANOPY STRUCTURE IN ACCORDANCE WITH SPECIFICATION 09905. ATTACHED ITEMS NOT PROTECTED FROM OVERSPRAY SHALL BE INCLUDED IN THE SCOPE OF REPAINTING (EXAMPLE: UNDERSIDE OF METAL ROOF DECK).



FLARE CONTROL PANEL BUILDING
NTS



SAN ANTONIO WATER SYSTEM



HDR Engineering, Inc.

Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502

DRWRC - DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II

ADDENDUM NO. 4

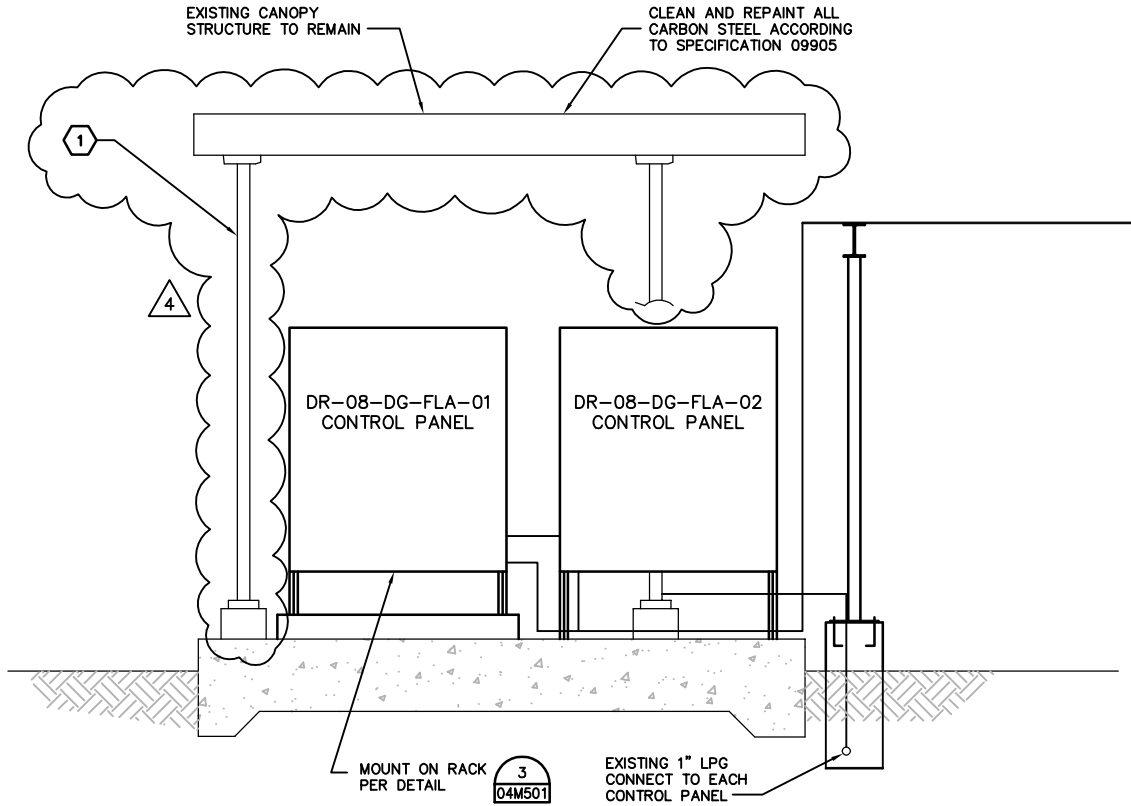
DATE NOVEMBER 19, 2012

DWG. NO. 04S101

EXHIBIT NO. 04S101-A

KEY NOTE:

- 1. REMOVE ALL ITEMS SCHEDULED FOR DEMOLITION PRIOR TO SURFACE PREPARATION AND PAINTING.
- TEMPORARILY REMOVE ALL ANCILLARY ITEMS NOT SCHEDULED FOR PAINTING OR DEMOLITION AND RE-ATTACH AFTER PAINTING IS COMPLETED, INCLUDING BUT NOT LIMITED TO LIGHTS, ATTACHED CONDUIT, AND ELECTRIC PANELS. AT CONTRACTOR'S OPTION, ANCILLARY ITEMS MAY BE DISCONNECTED FROM THE STRUCTURE, LEFT NOMINALLY IN PLACE, AND PROTECTED DURING SURFACE PREPARATION AND COATING ACTIVITIES.
- REMOVE ALL ALUMINUM SHADE PANELS PRIOR TO SURFACE PREPARATION AND RE-ATTACH AFTER CANOPY STRUCTURE IS RECOATED.
- PROVIDE SURFACE PREPARATION AND RECOATING FOR ALL CARBON STEEL ELEMENTS OF THE CANOPY STRUCTURE IN ACCORDANCE WITH SPECIFICATION 09905. ATTACHED ITEMS NOT PROTECTED FROM OVERSPRAY SHALL BE INCLUDED IN THE SCOPE OF REPAINTING (EXAMPLE: UNDERSIDE OF METAL ROOF DECK).



FLARE CONTROL PANEL BUILDING PARTIAL SECTION

NTS



SAN ANTONIO WATER SYSTEM



HDR Engineering, Inc.

Texas P.E. Firm
Registration No. F-754

SAWS JOB NO. 11-6502

DRWRC - DIGESTER MIXING AND SYSTEM ENHANCEMENTS - PHASE II

ADDENDUM NO. 4

DATE NOVEMBER 19, 2012

DWG. NO. 04M301

EXHIBIT NO. 04M301-A