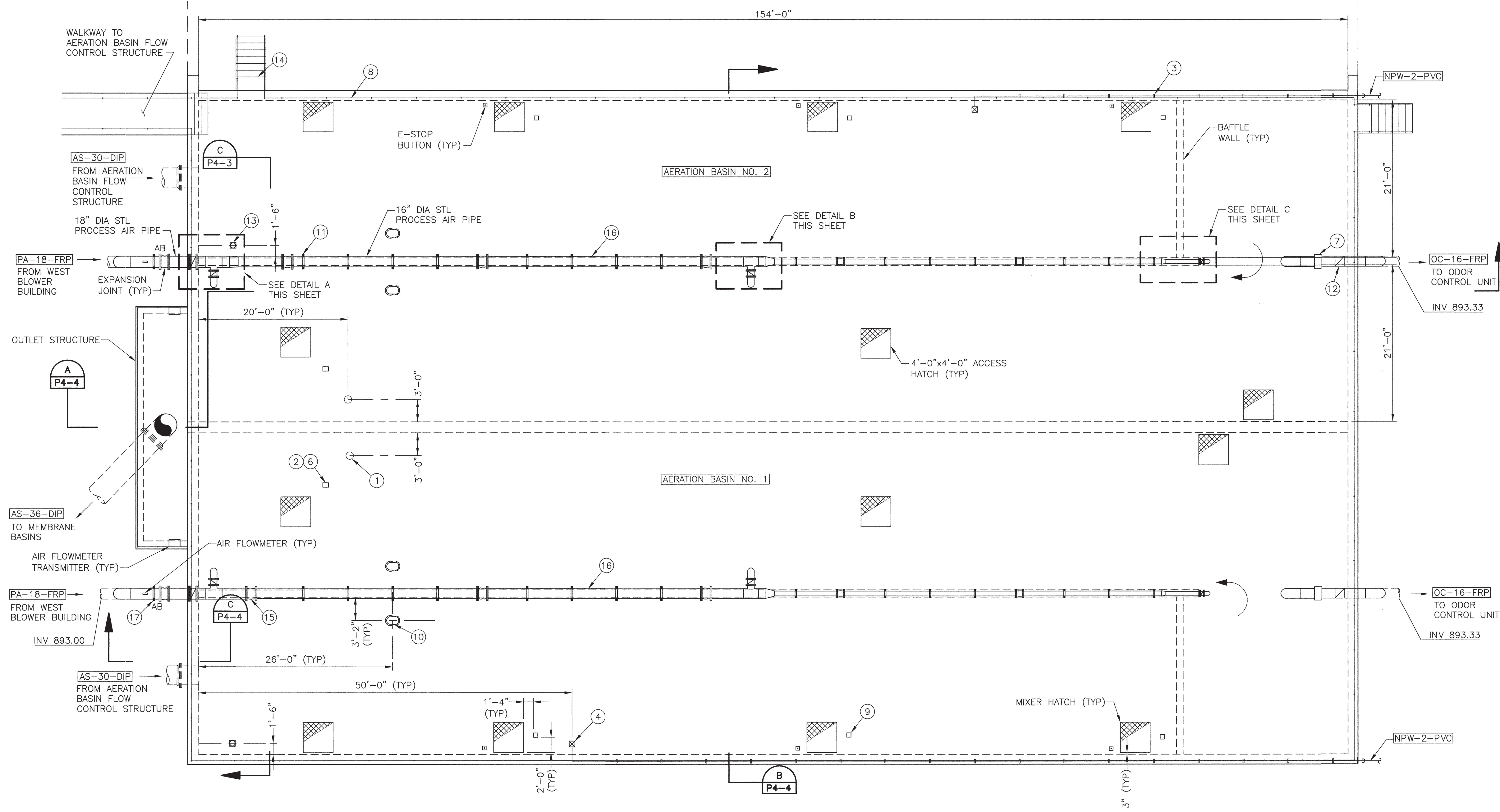
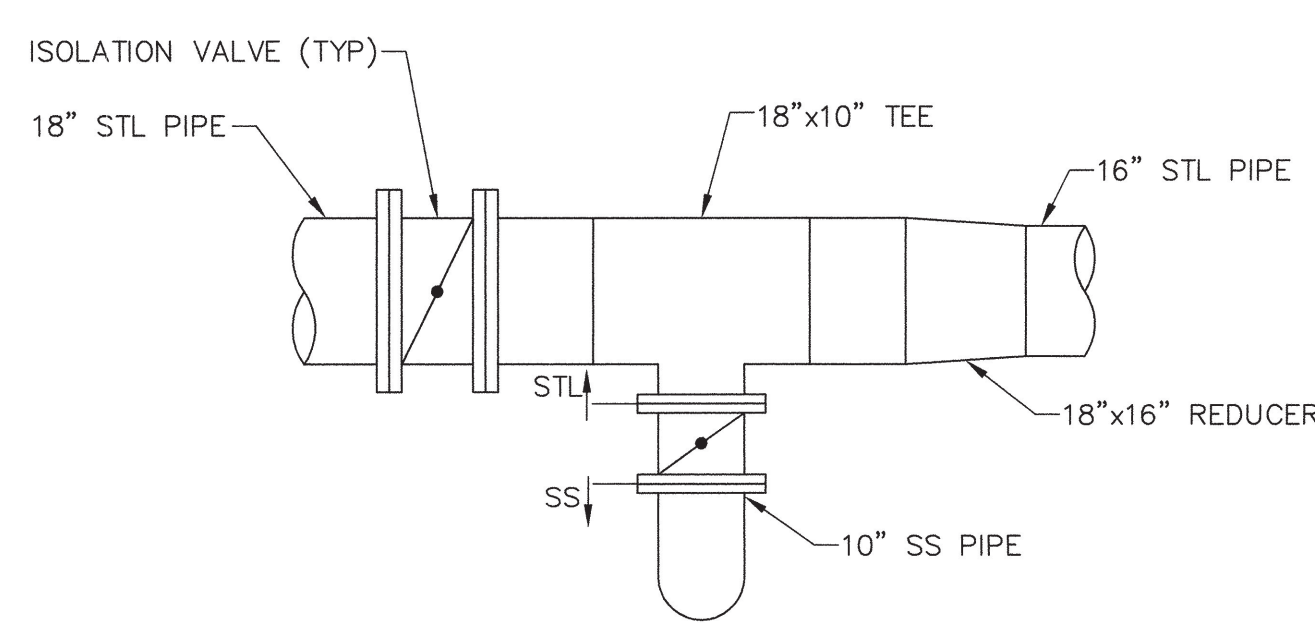


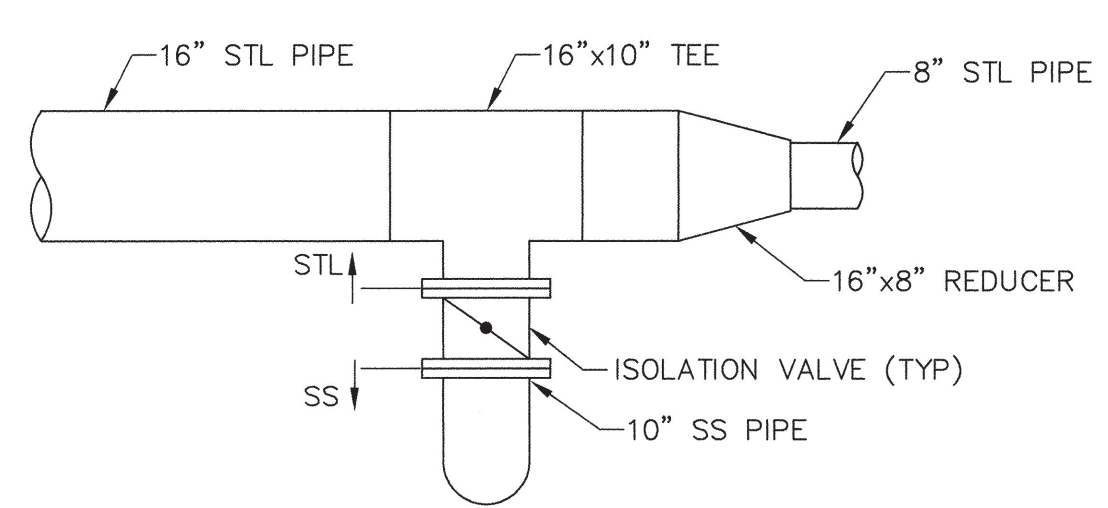
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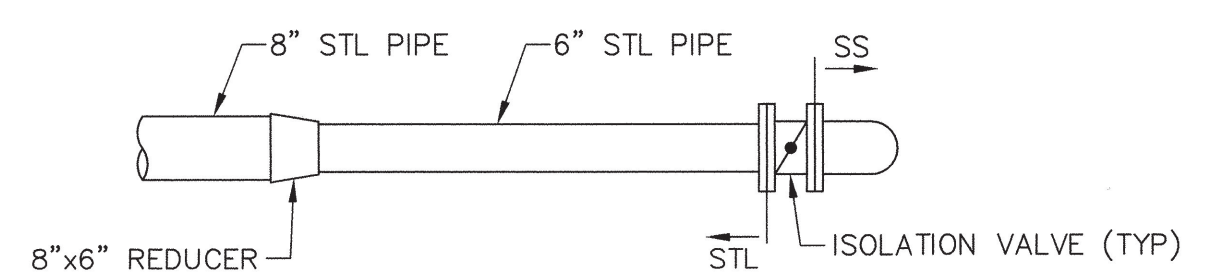
PLAN
SCALE: 1/8"=1'-0"



DETAIL A
NOT TO SCALE



DETAIL B
NOT TO SCALE



DETAIL C
NOT TO SCALE

KEYED NOTES

- ① DISSOLVED OXYGEN PROBE (TYP)
- ② DISSOLVED OXYGEN TRANSMITTER (TYP)
- ③ PIPE SUPPORT PER DETAIL 126 AT EVERY 6'-0" ON CENTER MAXIMUM (TYP)
- ④ FREE STANDING YARD HYDRANT PER DETAIL 120 (TYP)
- ⑤ NOT USED
- ⑥ MOUNT TRANSMITTER PER INSTRUMENTATION SHEET I-2 (TYP)
- ⑦ EPDM SLEEVE (TYP)
- ⑧ ALUMINUM HANDRAIL PER DETAIL 108
- ⑨ PEDESTAL BASE DAVIT CRANE MOUNT (TYP) CONTRACTOR TO VERIFY LOCATIONS OF DAVIT CRANE MOUNT WITH DAVIT CRANE MANUFACTURER, PRIOR TO INSTALLATION
- ⑩ 10" DIA GOOSENECK AIR INTAKE PER DETAIL 111 (TYP)
- ⑪ PIPE SUPPORT PER DETAIL 117 (TYP) AT A SPACING OF 6'-0" CENTER TO CENTER (TYP)
- ⑫ DAMPER (TYP)
- ⑬ MUD VALVE PER DETAIL 144 (TYP)
- ⑭ STAIRS, SEE SPECIFICATION (TYP)
- ⑮ EXPANSION JOINT, MAXIMUM SPACING OF 20'-0" ON CENTER MAXIMUM (TYP)
- ⑯ EXPOSED AIR PIPING SHALL BE INSULATED PER SPECIFICATION
- ⑰ PIPE SUPPORT PER DETAIL 117 (TYP) AB

"AS-BUILT" DRAWINGS

This drawing was modified to reflect construction revisions based on the records kept and provided by the Contractor.

Finished as-built measurements and elevations were not obtained by the Engineer. All information reported must be verified by site measurements.

ENGINEER: *[Signature]*
DATE: 4/20/08

WILSON ENGINEERS, LLC
Phoenix, Arizona

In Association with
MALCOLM PIRNIE

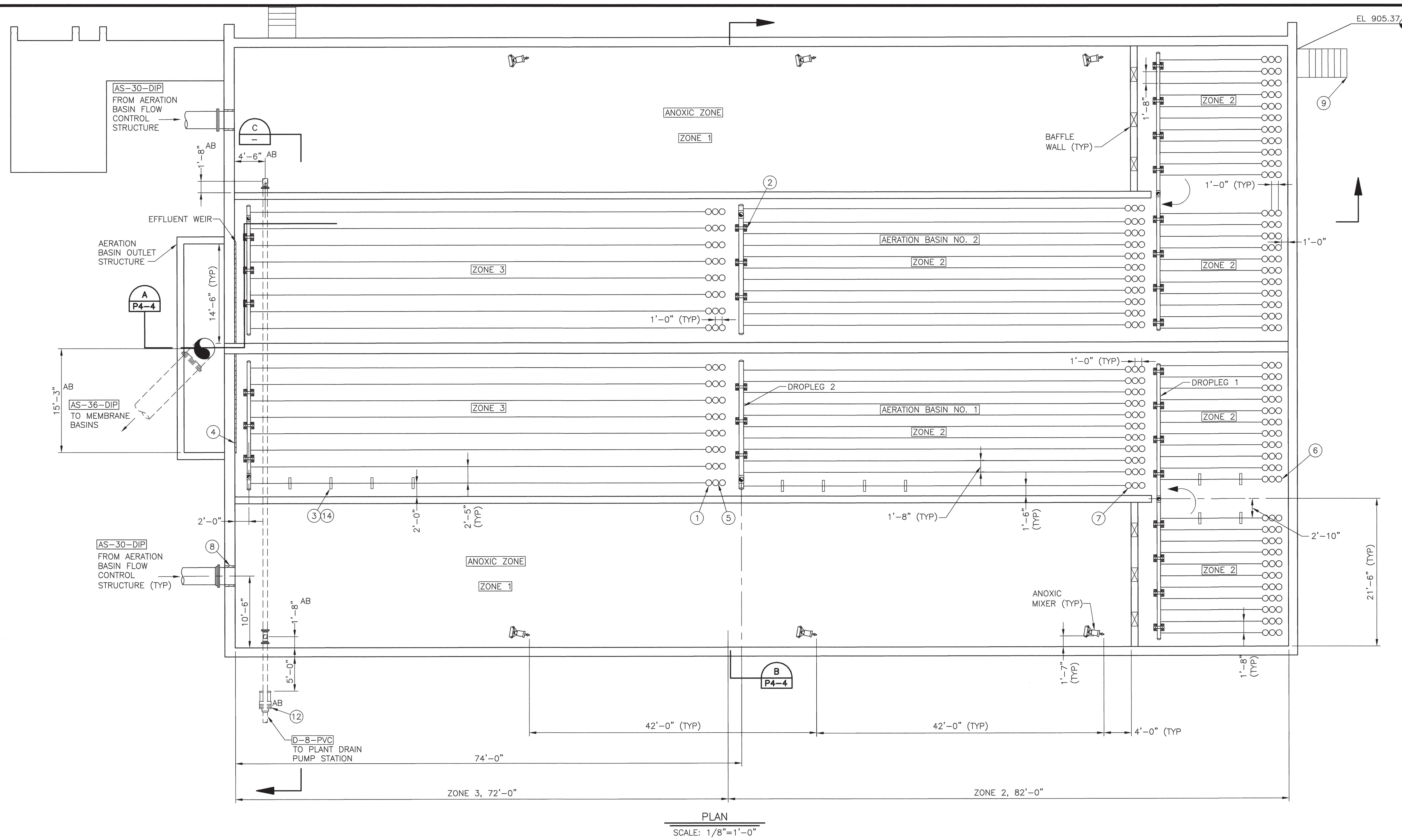
WILSON ENGINEERS
9633 South 48th Street, Suite 290
Phoenix, Arizona 85044-5658
Phone: (480) 893-8860

LAKE HAVASU CITY, ARIZONA
NORTH REGIONAL WASTEWATER TREATMENT PLANT
AERATION BASINS - UPPER PLAN
CITY PROJECT NO. SS1860
WCEA NO. X4001

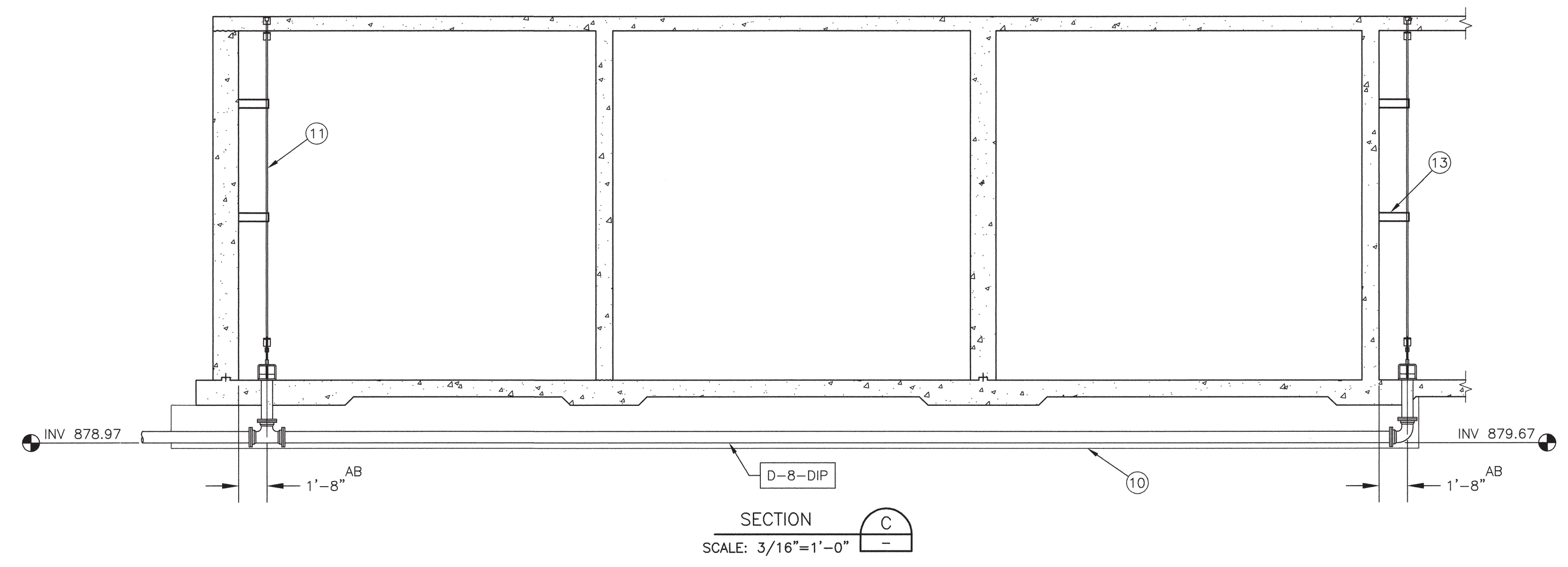
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Date:	7/05	WCEA Project No.:	X4001	Description:	AS-BUILT
Revision:	1-08	Date:	1-08	By:	MIA

THE ORIGINAL DESIGN DRAWING FOR THIS WORK WAS SEALED ON 7/5/2005 BY USAY K. GANDHI, A REGISTERED PROFESSIONAL CIVIL ENGINEER IN THE STATE OF ARIZONA, REGISTRATION NO. 30185

XREF: TB-X4001, WWTP/SITE & WWTP/PIPE



PLAN
SCALE: 1/8"=1'-0"



SECTION C
SCALE: 3/16"=1'-0"

KEYED NOTES

- 1 FINE BUBBLE MEMBRANE DIFFUSER (TYP)
- 2 CONCRETE PIPE SUPPORT PER DETAIL 3 SHEET S19-2 AT A SPACING OF 6'-0" ON CENTER MAX (TYP)
- 3 PIPE SUPPORTS FOR DIFFUSER LATERAL SHALL BE PROVIDED BY FINE BUBBLE DIFFUSERS MANUFACTURER (TYP), ALL PIPE SUPPORTS FOR LATERALS NOT SHOWN FOR CLARITY
- 4 FRP WEIR PER DETAIL 115
- 5 ZONE 3 DIFFUSER LAYOUT PER BASIN NO. OF LATERALS = 8 DIFFUSERS PER LATERAL = 70 TOTAL NUMBER OF DIFFUSERS = 560
- 6 ZONE 2 (DROPLEG 1) DIFFUSER LAYOUT PER BASIN NO. OF LATERALS = 22 DIFFUSERS PER LATERAL = 17 TOTAL NUMBER OF DIFFUSERS = 374
- 7 ZONE 2 (DROPLEG 2) DIFFUSER LAYOUT PER BASIN NO. OF LATERALS = 11 DIFFUSERS PER LATERAL = 58 TOTAL NUMBER OF DIFFUSERS = 638
- 8 PE x MJ WALL PENETRATION PER DETAIL 101 (TYP)
- 9 STAIRS, SEE SPECIFICATION (TYP)
- 10 CONTRACTOR TO GROUT FILL DRAIN LINE TRENCH
- 11 MUD VALVE INSTALLATION PER DETAIL 144 (TYP)
- 12 DIP TO PVC ADAPTER
- 13 INTERMEDIATE GUIDE BRACKET MOUNTED TO CONCRETE WALL (TYP)
- 14 SEE SPECIFICATIONS FOR FURTHER INFORMATION ON SUPPORTS AND EXPANSION JOINTS FOR DIFFUSER PIPING

"AS-BUILT" DRAWINGS
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ENGINEER: *[Signature]*
DATE: 4/20/08
WILSON ENGINEERS, LLC
Phoenix, Arizona

In Association with
MALCOLM PIRNIE

WILSON ENGINEERS
9633 South 48th Street, Suite 290
Phoenix, Arizona 85044-5658
Phone: (480) 893-8860

LAKE HAVASU CITY, ARIZONA
NORTH REGIONAL WASTEWATER TREATMENT PLANT
AERATION BASINS - LOWER PLAN
CITY PROJECT NO. SS1860
WCEA NO. X4001

Design:	SY	Drawn:	FH	Checked:
Date:	7/05	WCEA	Project No.:	X4001
Revision:	1/08		Description:	AS-BUILT
			By:	MLA

THE ORIGINAL DESIGN DRAWING FOR THIS WORK WAS SEALED ON 7/5/2005 BY UDAY K. GANDHE, A REGISTERED PROFESSIONAL CIVIL ENGINEER IN THE STATE OF ARIZONA, REGISTRATION NO. 30185

KEYED NOTES

- ① FINE BUBBLE DIFFUSER HEADS
- ② SUPPORTS FOR AIR DISTRIBUTION LATERALS TO BE PROVIDED BY FINE BUBBLE DIFFUSER MANUFACTURER
- ③ PIPE PENETRATION PER DETAIL 105 (TYP)
- ④ MIXER INSTALLATION PER DETAIL 136 (TYP)
- ⑤ PIPE SUPPORTS PER DETAIL 126 AT A DISTANCE OF 6'-0" CENTER TO CENTER (TYP)
- ⑥ SS TO PVC TRANSITION COUPLING (TYP)
- ⑦ PE x MJ PIPE PENETRATION PER DETAIL 101 (TYP)
- ⑧ PIPE SUPPORT PER DETAIL 117^{AB}

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LAKE HAVASU CITY, ARIZONA
NORTH REGIONAL WASTEWATER TREATMENT PLANT
AERATION BASINS - SECTIONS
CITY PROJECT NO. SS1860
WCEA NO. X4001

Design:	SY	Drawn:	FH	Checked:	
Date:	7/05	WCEA Project No.:	X4001		
Revision		Description	AS-BUILT	By	MLA
	1/08				

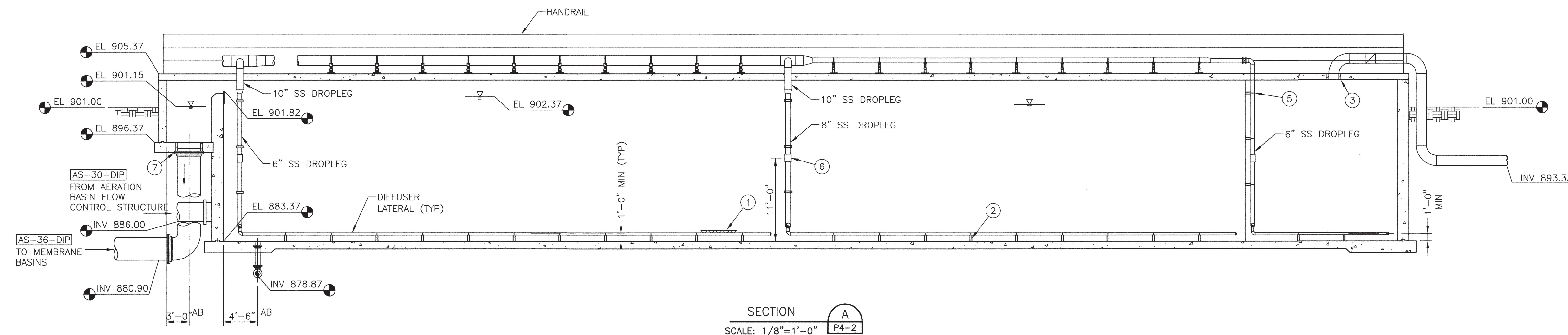
THE ORIGINAL DESIGN DRAWING FOR THIS WORK WAS SEALED ON 7/5/2005 BY UDAY K. GANDHE, A REGISTERED PROFESSIONAL CIVIL ENGINEER IN THE STATE OF ARIZONA, REGISTRATION NO. 30185

Sheet No. **P4-4**

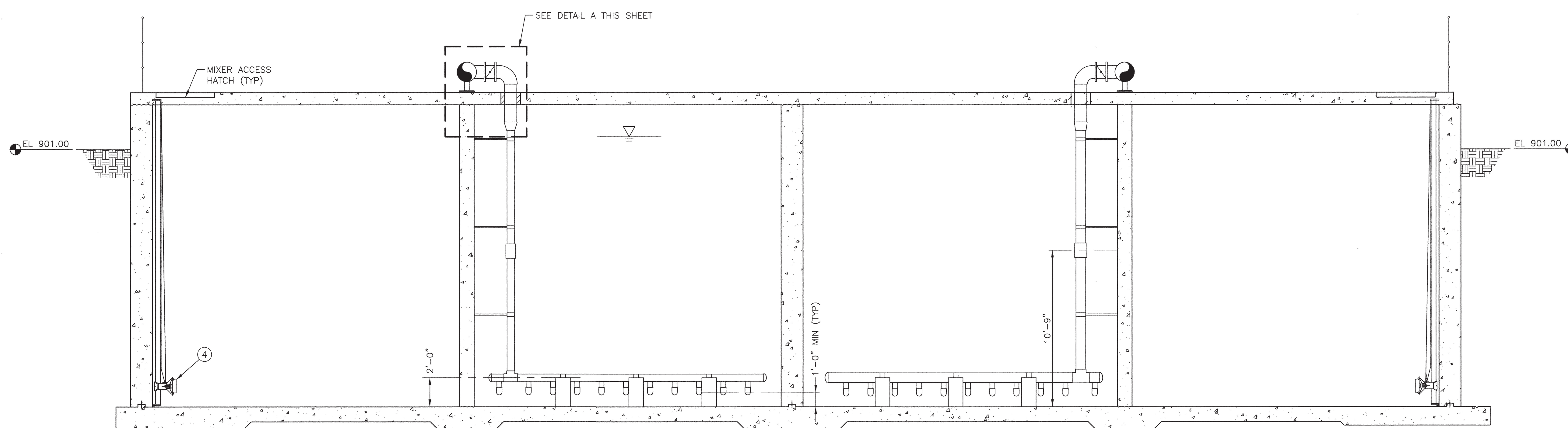
"AS-BUILT" DRAWINGS
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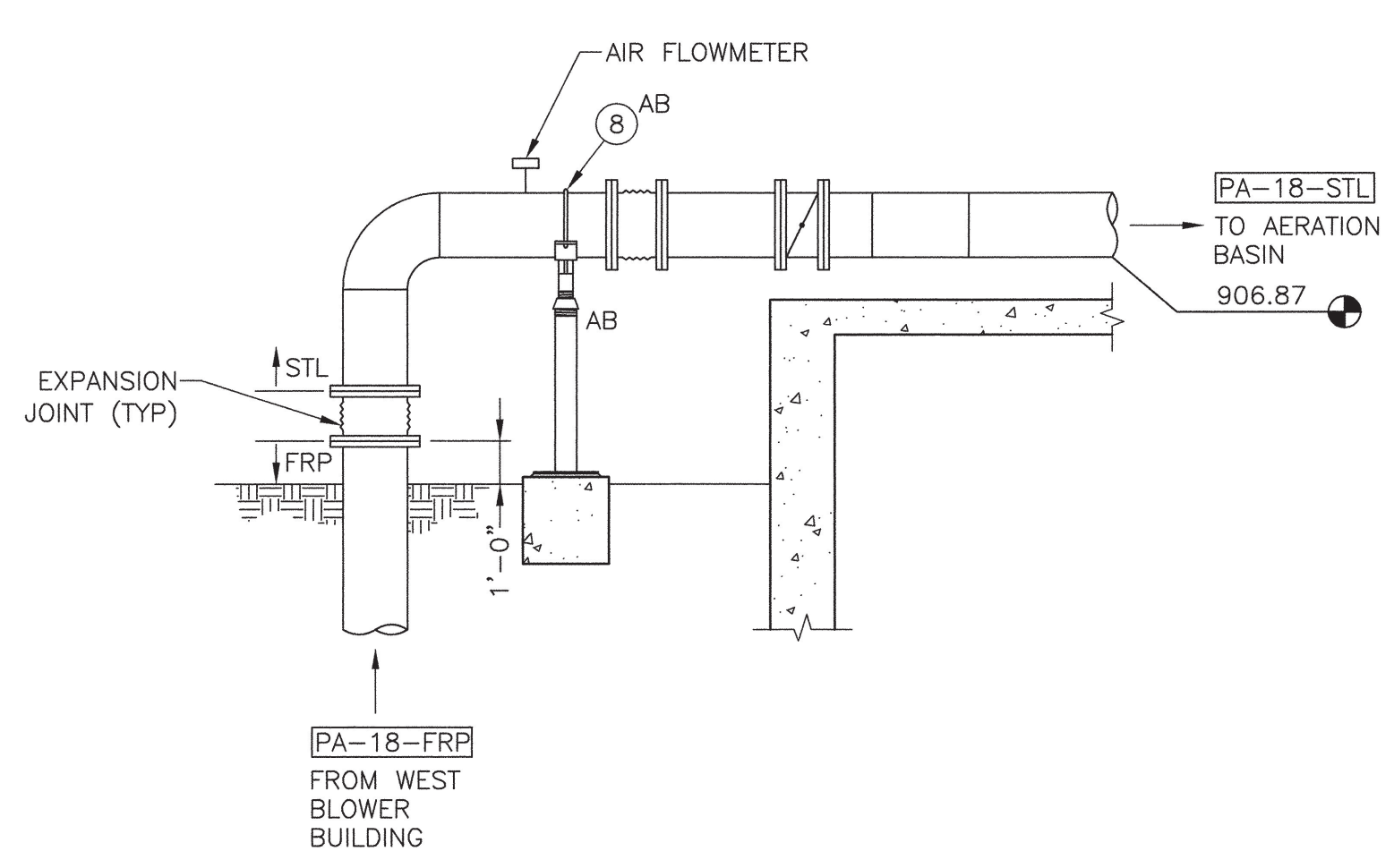
ENGINEER: *[Signature]*
DATE: 4/20/08
WILSON ENGINEERS, LLC
Phoenix, Arizona



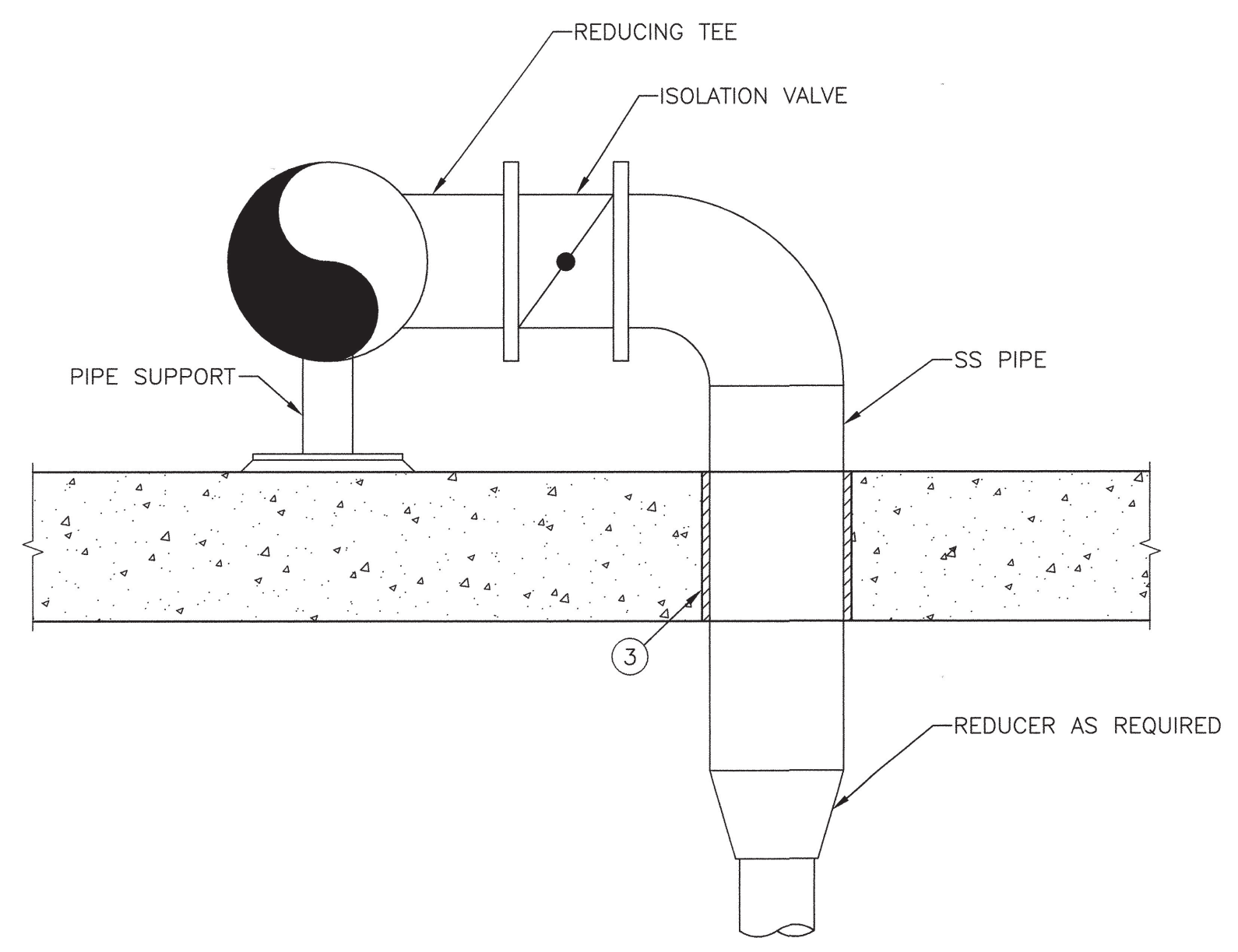
SECTION **A**
SCALE: 1/8"=1'-0"
P4-2



SECTION **B**
SCALE: 1/4"=1'-0"
P4-2



SECTION **C**
SCALE: 1/4"=1'-0"
P4-2



DETAIL **A**
NOT TO SCALE

XREF: TB-X4001, 4001D010, 4001D011, 4001D043 & 4001D178