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User: svcBW

PlotScale: 2:1

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PROJECT NO. 10548A10

FILE NAME: 10548A10GM01.dgn

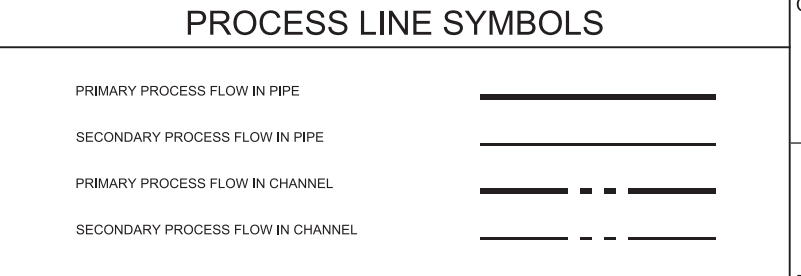
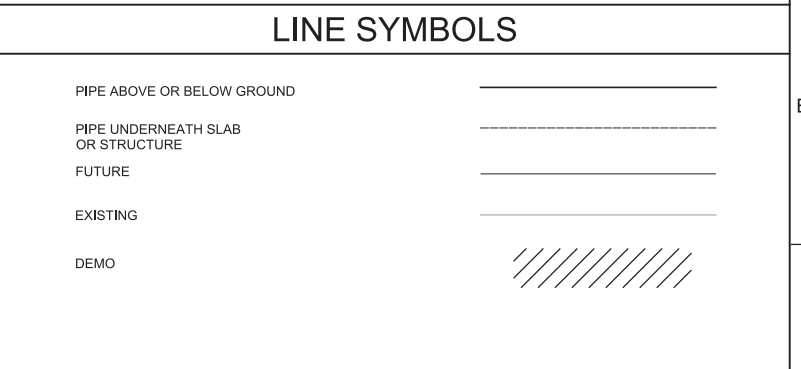
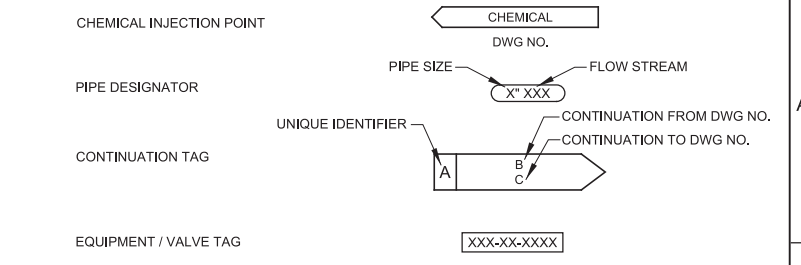
PIPING SYMBOLS

MECHANICAL SYMBOLS

IDENTIFICATION SYMBOLS

DOUBLE LINE	SINGLE LINE	DESCRIPTION	DOUBLE LINE	SINGLE LINE	DESCRIPTION
		WELDED JOINT			GATE VALVE
		GROOVED END JOINT			KNIFE GATE VALVE
		FLANGED JOINT			BUTTERFLY VALVE
		HUB & SPIGOT JOINT (RUBBER GASKET)			CHARACTERIZED BALL CONTROL VALVE
		PUSH-ON JOINT (RESTRAINED)			BALL VALVE
		ADAPTER SIDE GROOVED END ADAPTER FLANGE			GLOBE VALVE
		FLANGED COUPLING ADAPTER			3-WAY GLOBE TYPE MIXING VALVE
		FLANGED COUPLING ADAPTER WITH THRUST TIES			DIAPHRAGM VALVE
		FLEXIBLE COUPLING			PLUG VALVE
		FLEXIBLE COUPLING WITH THRUST TIES			LUBRICATED PLUG VALVE
		METAL BELLOWS EXP JOINT			ECCENTRIC PLUG VALVE
		ELASTOMER BELLOWS EXP JOINT			SWING CHECK VALVE
		FLEXIBLE COUPLING ADAPTER			WAFER CHECK VALVE
		DISMANTLING JOINT			PINCH VALVE
		EXPANSION COMPENSATOR			BALL CHECK VALVE
		ELBOW UP			DUAL CHECK VALVE
		ELBOW DOWN			SILENT CHECK VALVE
		TEE UP			MUD VALVE (PLAN VIEW)
		TEE DOWN			NEEDLE VALVE
		LATERAL UP			CHECK BACKFLOW PREVENTER
		LATERAL DOWN			PIPE MATERIAL CHANGE
		CONCENTRIC REDUCER			
		ECCENTRIC REDUCER (FOT, FOB)			
		UNION			
		CAP			
		ANCHOR			
		ELBOW, 90 DEGREE			
		CROSS			
		TEE			
		ELBOW, 45 DEGREE			
		ELBOW, 22.5 DEGREE			
		ELBOW, 11.25 DEGREE			
		LATERAL			

SINGLE LINE	DESCRIPTION	SINGLE LINE	DESCRIPTION	SINGLE LINE	DESCRIPTION
	AIR OR CHEMICAL DIFFUSER		PRIMARY LEVEL ELEMENT: RADAR		STRAINER: WYE TYPE WITH BLOWOFF
	QUICK DISCONNECT HIGH PRESSURE AIR OR FLUSHING		PRIMARY LEVEL ELEMENT: ULTRASONIC		THERMOMETER
	BATCHMETER		PRIMARY FLOW ELEMENT: FLUME		VALVE: ANGLE
	AIR VENT		PRIMARY FLOW ELEMENT: X = C - CORIOLOS		VALVE: AIR RELIEF
	BASKET STRAINER		PRIMARY FLOW ELEMENT: X = M - MAGNETIC		VALVE: BALL
	BLOWER		PRIMARY FLOW ELEMENT: X = P - PROPELLER		VALVE: BALL CHECK
	CALIBRATION COLUMN		PRIMARY FLOW ELEMENT: X = PT - PITOT TUBE		VALVE: BUTTERFLY
	COMPRESSOR/TURBINE		PRIMARY FLOW ELEMENT: X = R - ROTAMETER		VALVE: CONE
	COMPRESSOR: RECIPROCATING		PRIMARY FLOW ELEMENT: X = T - TURBINE		VALVE: DIAPHRAGM
	DIAPHRAGM SEAL		PRIMARY FLOW ELEMENT: X = TH - THERMAL		VALVE: FLAPPER CHECK
	DRAIN		PRIMARY FLOW ELEMENT: X = U - ULTRASONIC		VALVE: FOUR WAY
	EJECTOR OR EDUCTOR		PRIMARY FLOW ELEMENT: X = D - DENSITY		VALVE: GATE
	ELECTRIC MOTOR		PRIMARY FLOW ELEMENT: ORIFICE PLATE		VALVE: GLOBE
	EQUIPMENT DRAIN		PRIMARY FLOW ELEMENT: VENTURI TUBE		VALVE: HOSE
	EXPANSION JOINT, FLEXIBLE VIBRATION JOINT		PULSATION DAMPENER		VALVE: NEEDLE
	FAN: EXHAUST/SUPPLY		PUMP: CENTRIFUGAL		VALVE: PINCH
	FILTER		PUMP: DIAPHRAGM		VALVE: PLUG CONCENTRIC
	FIRE HYDRANT		PUMP: METERING		VALVE: PLUG ECCENTRIC
	FLAME ARRESTER		PUMP: PLUNGER		VALVE: PRESSURE RELIEF
	FLAME ARRESTER WITH THERMALLY OPERATED VALVE		PUMP: PERISTALTIC TUBE METERING		VALVE: PRESSURE-REDUCING REGULATOR
	FLOOR DRAIN		PUMP: PROGRESSIVE CAVITY		VALVE: SWING CHECK
	FLOW SWITCH		PUMP: RECIPROCATING		VALVE: TELESCOPING
	GAUGE: PRESSURE		PUMP: ROTARY		VALVE: THREE WAY AIR OPERATED
	GAUGE: DIFFERENTIAL PRESSURE		PUMP: SCREW		VALVE: THREE WAY MOTOR OPERATED
	WEIR		PUMP: SUBMERSIBLE		VALVE: THREE WAY SOLENOID OPERATED
	MIXER		PUMP: VERTICAL LIFT		VALVE: VACUUM
	OIL OR MOISTURE TRAP		PIPE REDUCER: CONCENTRIC		BACKPRESSURE REGULATOR SELF-CONTAINED
	PRIMARY LEVEL ELEMENT: BUBBLER		PIPE REDUCER: ECCENTRIC (FOT, FOB)		BACKPRESSURE REGULATOR W/ EXTERNAL PRESSURE TAP
	PRIMARY LEVEL ELEMENT: ELECTRODE		ROTARY CHEMICAL FEEDER		PRESSURE-REDUCING REGULATOR: SELF-CONTAINED
	PRIMARY LEVEL ELEMENT: FLOAT SWITCH		RUPTURE DISK		PRESSURE-REDUCING REGULATOR W/ EXTERNAL PRESSURE TAP
	PRIMARY LEVEL ELEMENT: INVERTED COLUMN		SAMPLE PORT		
			SIGHT GLASS		
			SLIDE GATE		
			SLUICE GATE		
			STRAINER: WYE TYPE		



FLOW STREAM IDENTIFIER

CODE	DESCRIPTION
A	= AIR
CD	= CONDENSATE DRAIN
CLS	= CHLORINE SOLUTION
D	= DRAIN
FA	= FOUL AIR
GR	= GRIT SLURRY
HPW	= HOT POTABLE WATER
MLR	= MIXED LIQUOR RETURN
NG	= NATURAL GAS
PD	= PROCESS DRAIN
PI	= PLANT INFLUENT
PW	= POTABLE WATER
RWL	= RAIN WATER LEADER
SD	= STORM DRAIN
SS	= SANITARY SEWER
SW	= SEAL WATER
UW	= UTILITY WATER
V	= VACUUM
VTR	= VENT THROUGH ROOF

REV	DATE	BY	DESCRIPTION

DESIGNED JD		
DRAWN DCS		
CHECKED GCS		
DATE MARCH 2019		



SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
MECHANICAL
LEGEND AND SYMBOLS

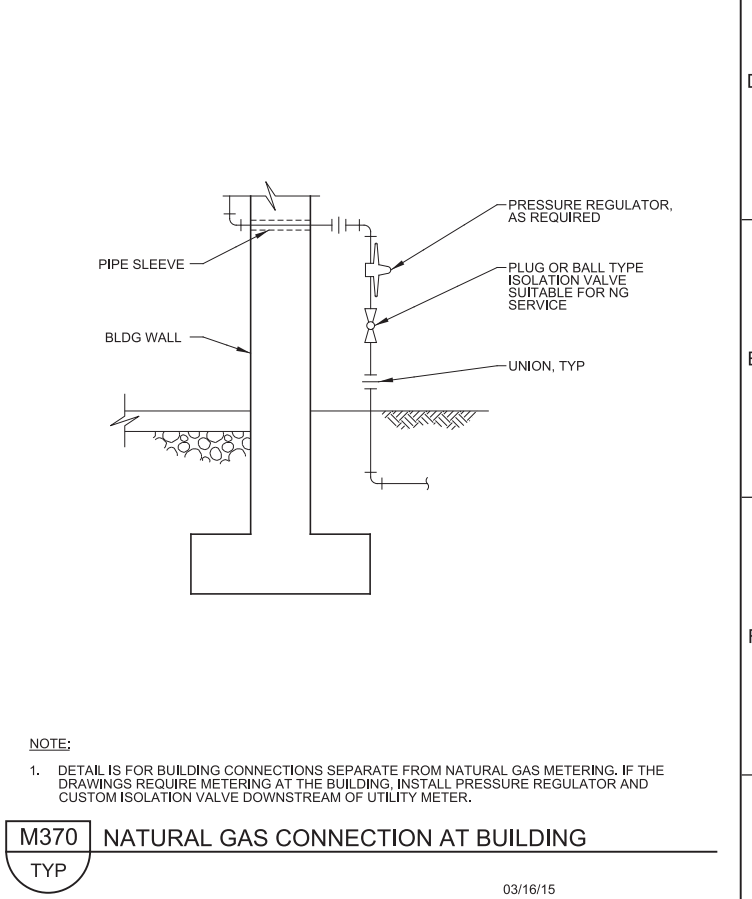
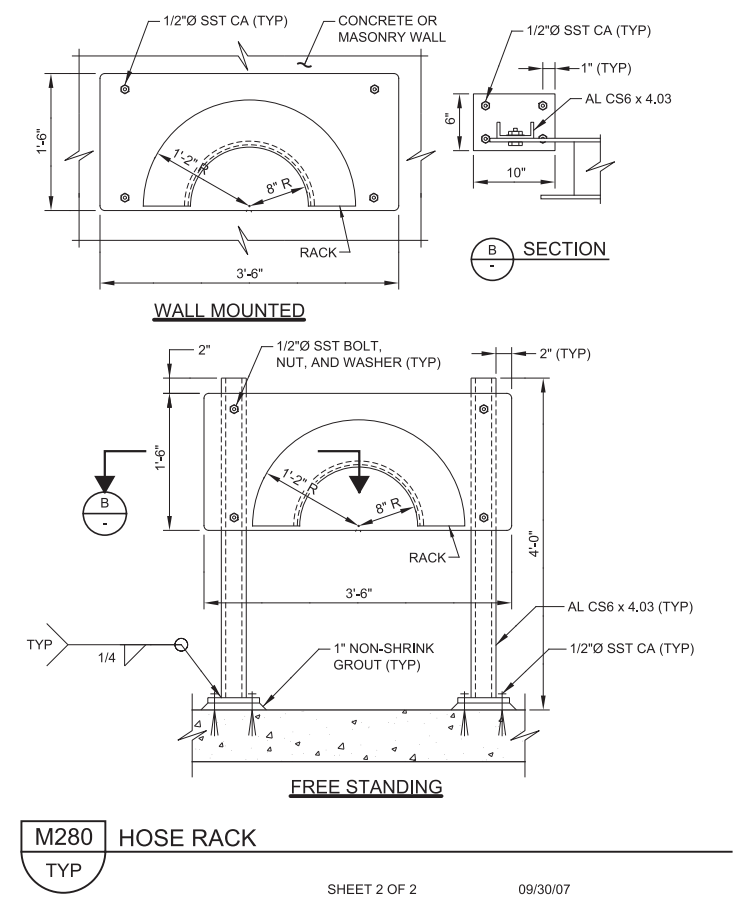
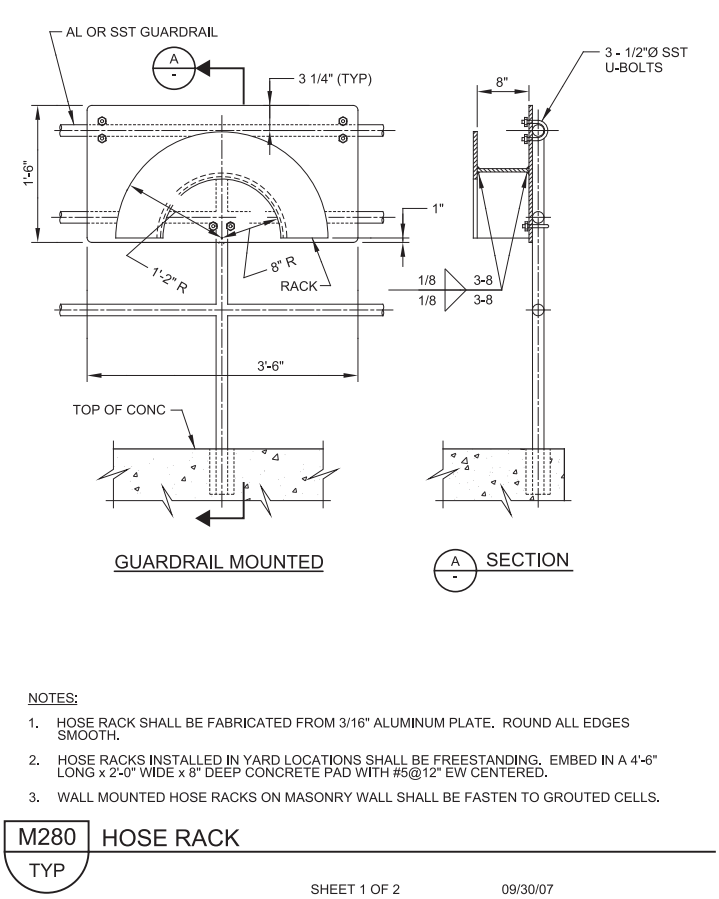
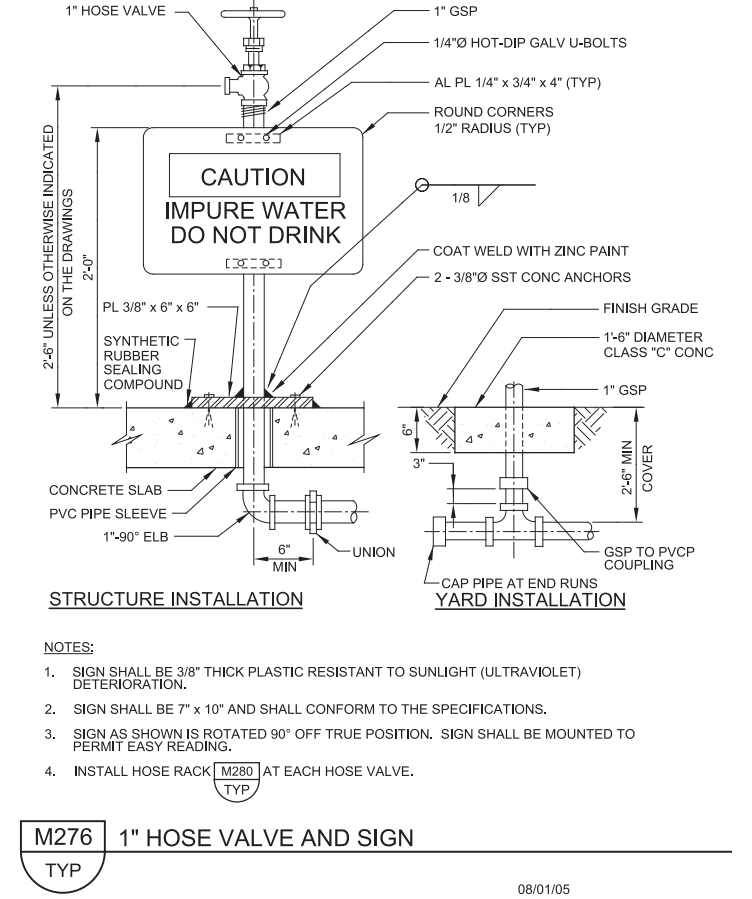
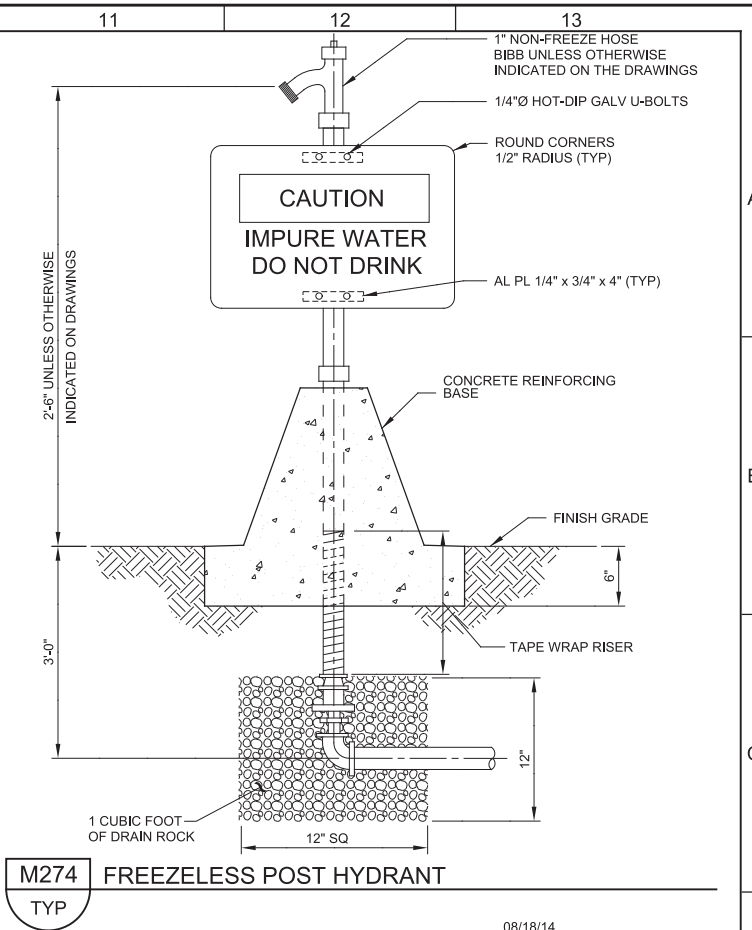
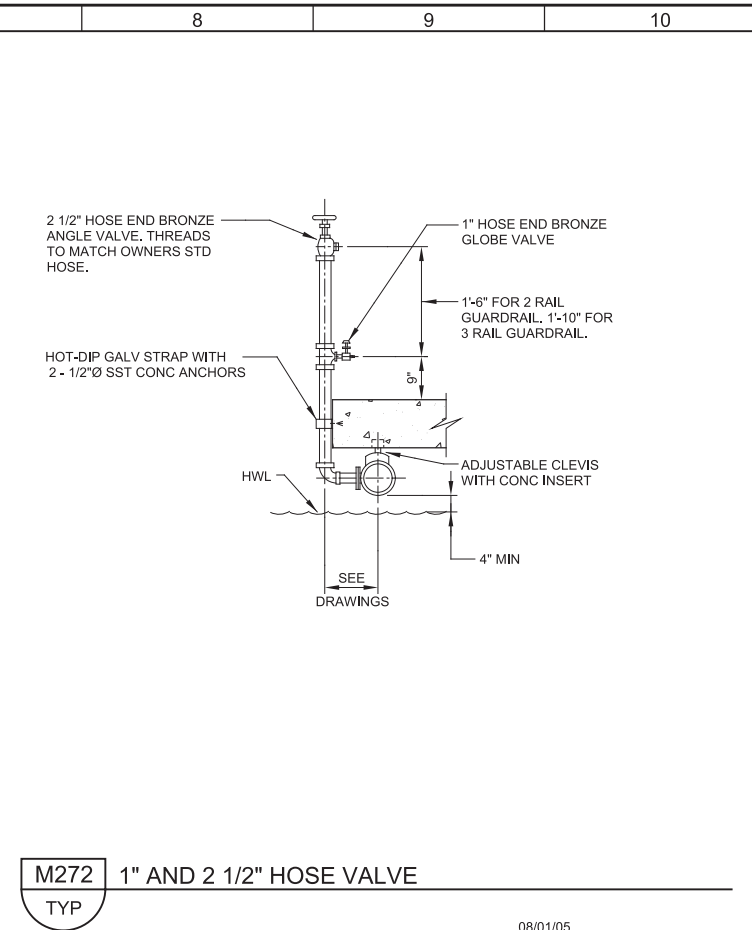
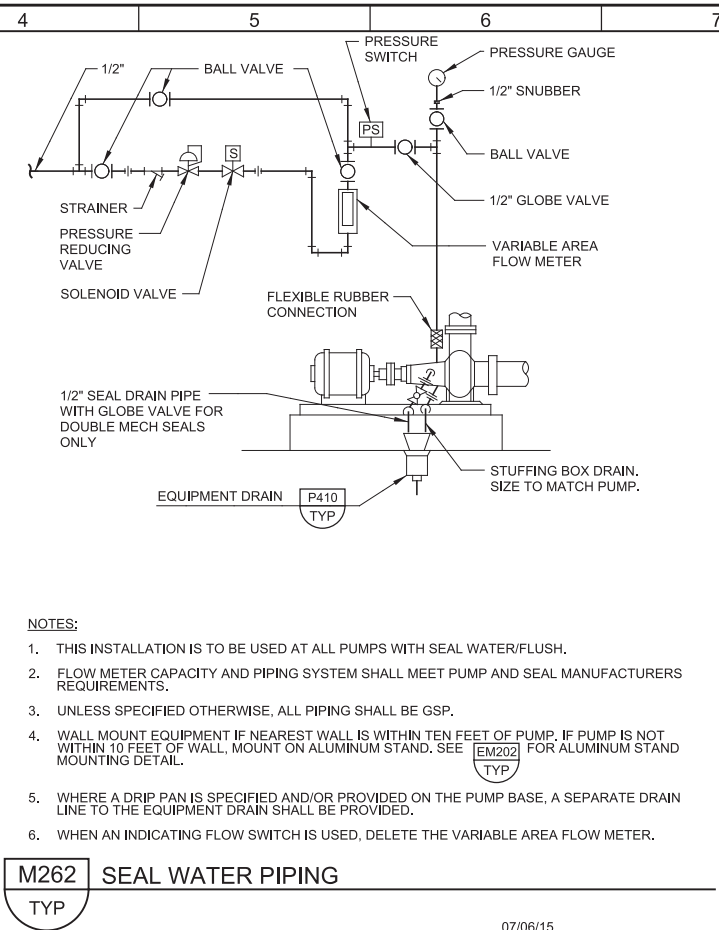
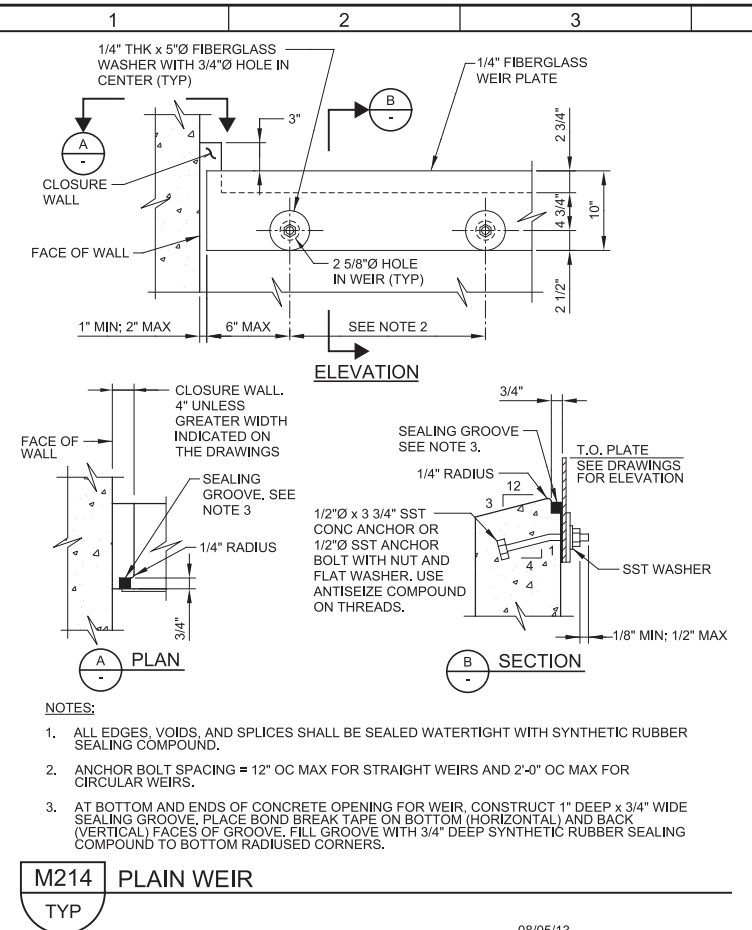
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	DRAWING NO. GM-01
	SHEET NO. 108 OF 159

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User: svcpw

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo_Std_Pen_v0905.pen PlotScale: 2:1

LAST SAVED BY: jfevre



REV	DATE	BY	DESCRIPTION

DESIGNED: RWB/JD
DRAWN: JRL
CHECKED: GCS
DATE: MARCH 2019

REGISTERED PROFESSIONAL ENGINEER
No. 10171598-2202
RYAN W. BENCH
STATE OF UTAH

REGISTERED PROFESSIONAL ENGINEER
No. 4775621-2202
BRAD D. JEPSON
STATE OF UTAH

carollo

South Valley
WATER RECLAMATION FACILITY
7495 South 1300 West
West Jordan, Utah 84084

SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
TYPICAL DETAILS
MECHANICAL TYPICAL DETAILS

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

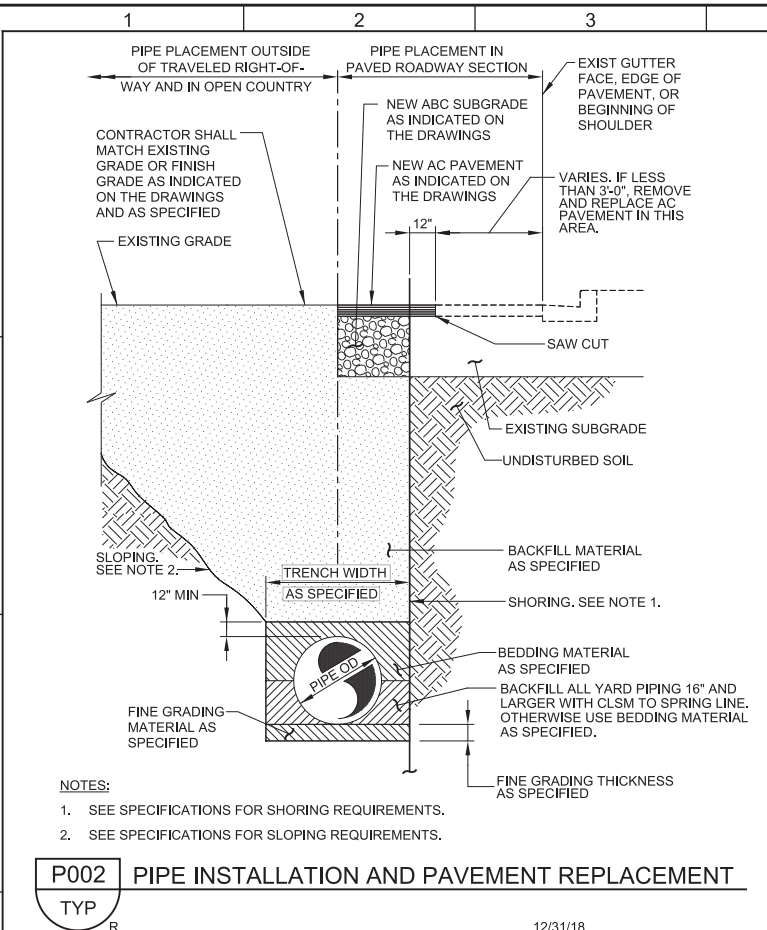
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SHEET NO. 109 OF 159

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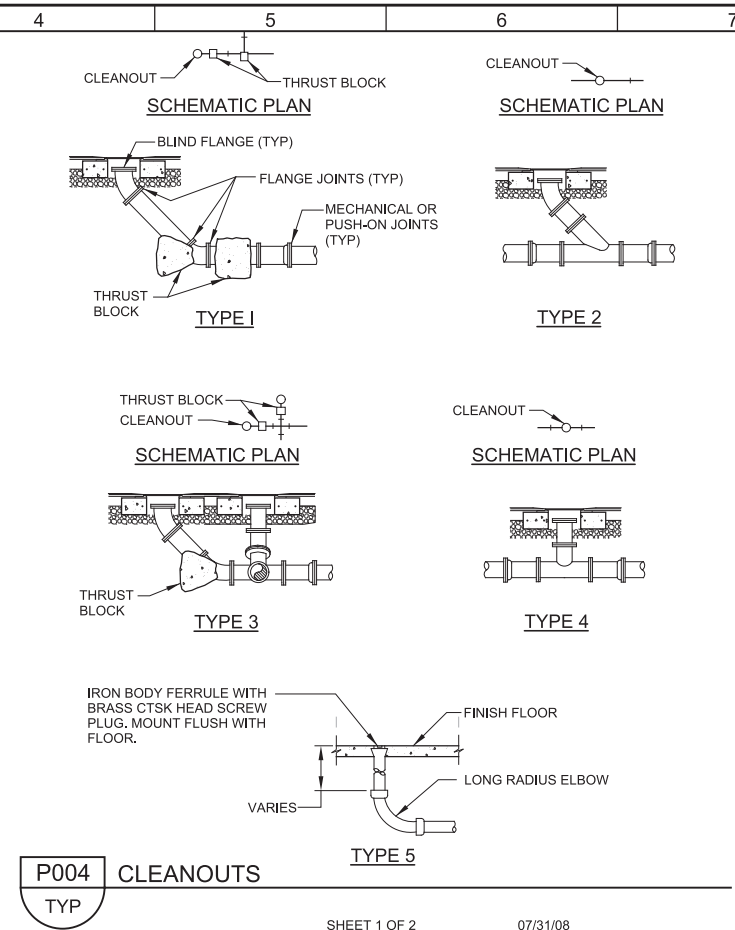
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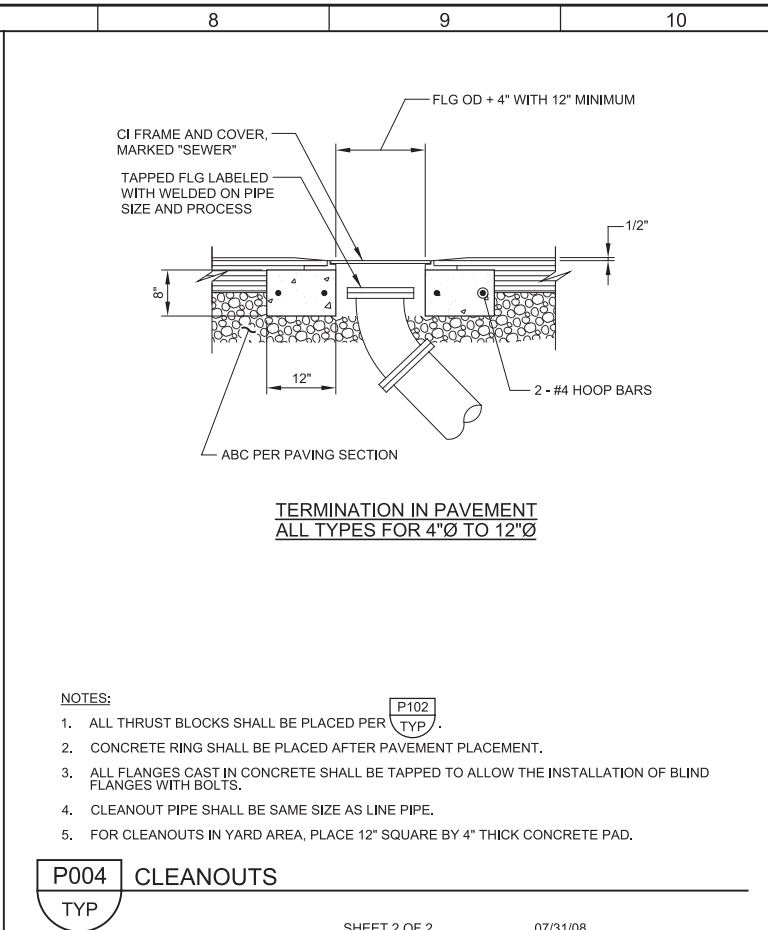
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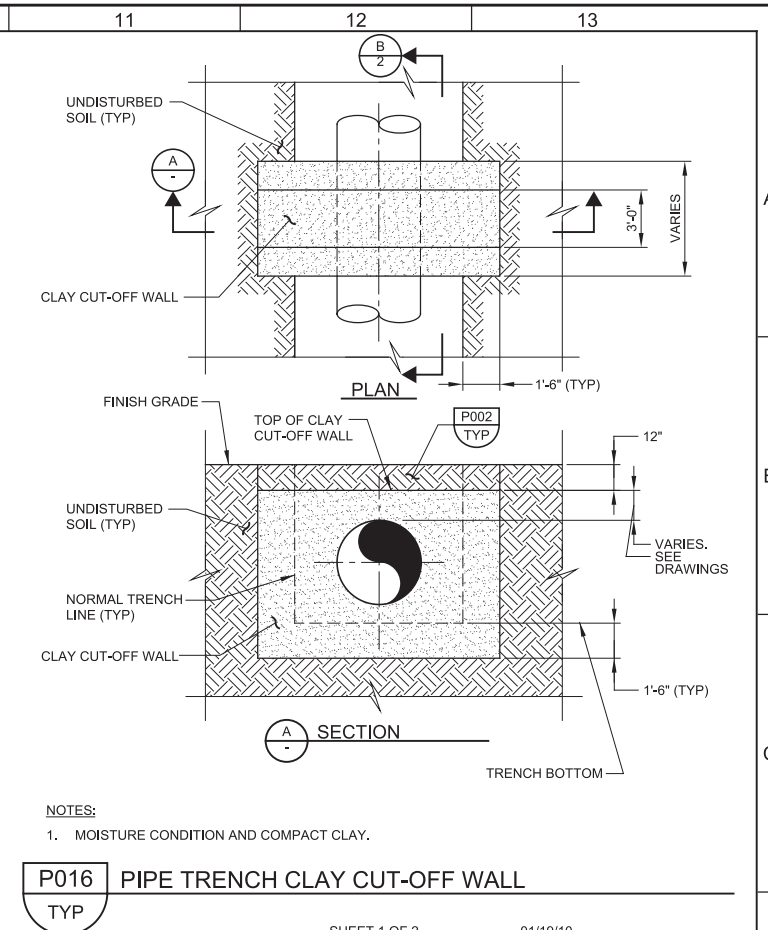
P002 PIPE INSTALLATION AND PAVEMENT REPLACEMENT
TYP
12/31/18



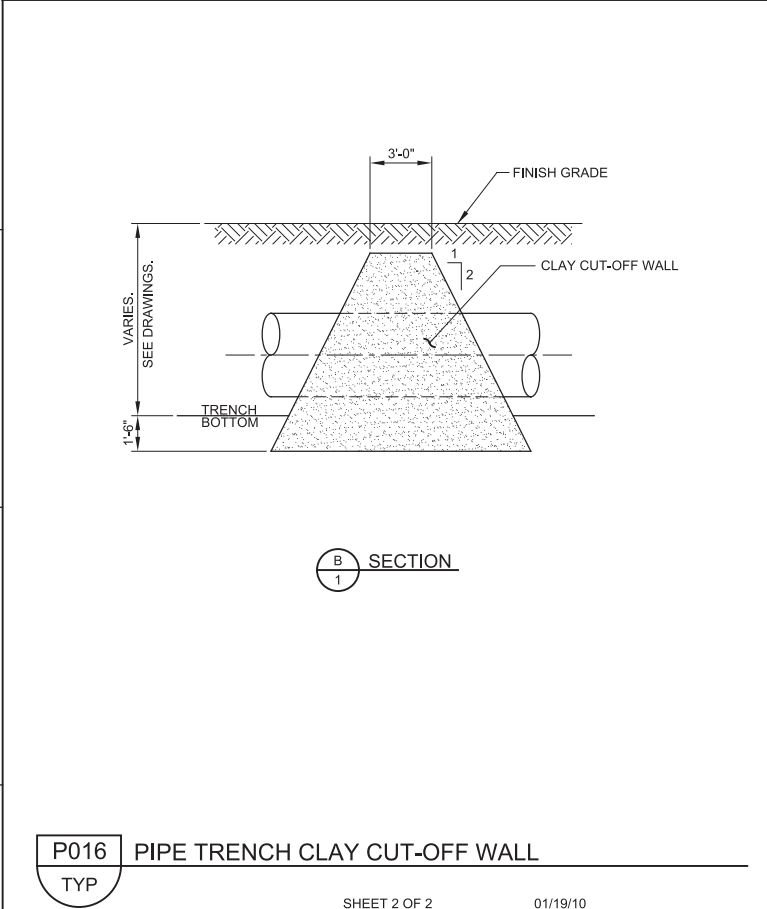
P004 CLEANOUTS
TYP
SHEET 1 OF 2 07/31/08



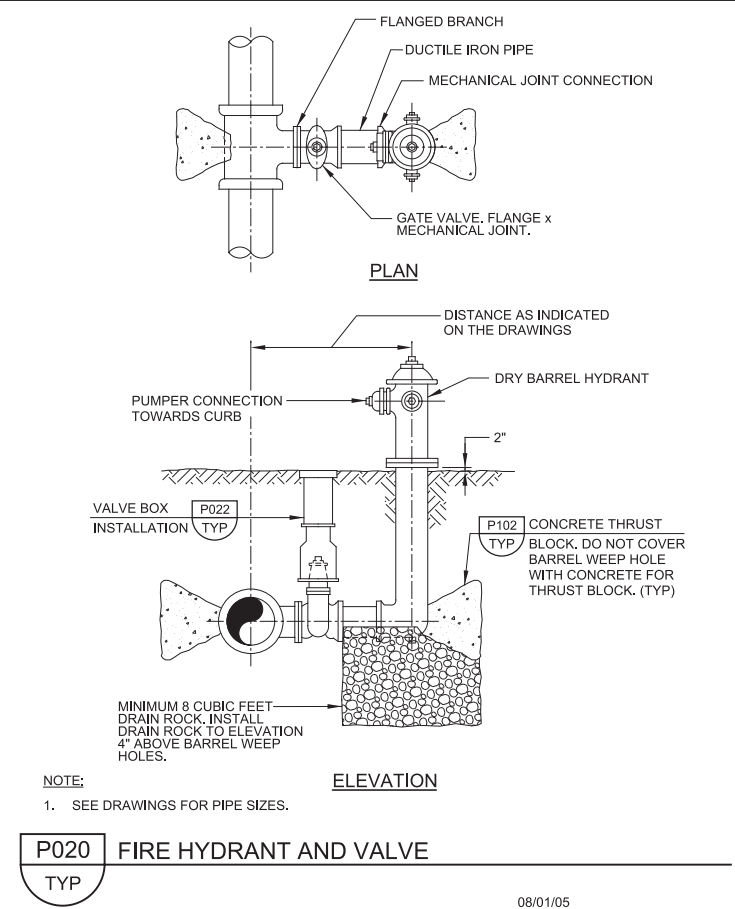
P004 CLEANOUTS
TYP
SHEET 2 OF 2 07/31/08



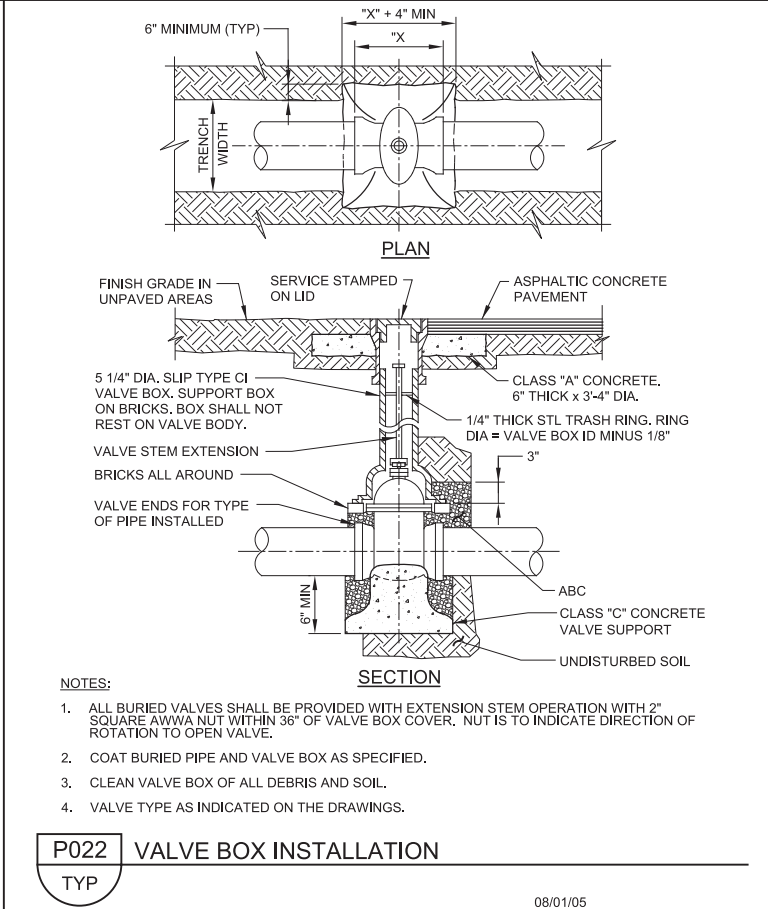
P016 PIPE TRENCH CLAY CUT-OFF WALL
TYP
SHEET 1 OF 2 01/19/10



P016 PIPE TRENCH CLAY CUT-OFF WALL
TYP
SHEET 2 OF 2 01/19/10

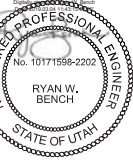


P020 FIRE HYDRANT AND VALVE
TYP
08/01/05



P022 VALVE BOX INSTALLATION
TYP
08/01/05

DESIGNED	RWB/JD
DRAWN	JRL
CHECKED	GCS
DATE	MARCH 2019



SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
TYPICAL DETAILS
PIPING TYPICAL DETAILS 1

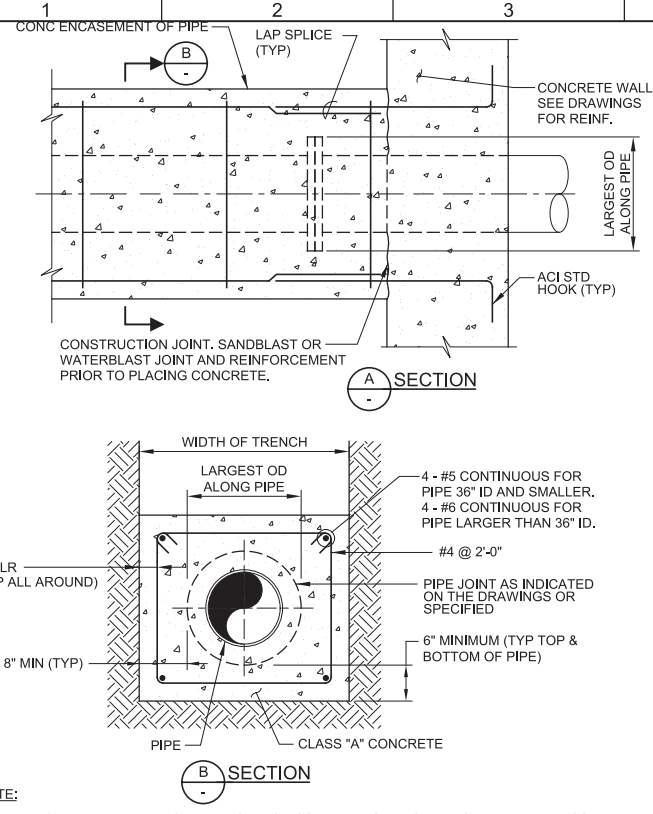
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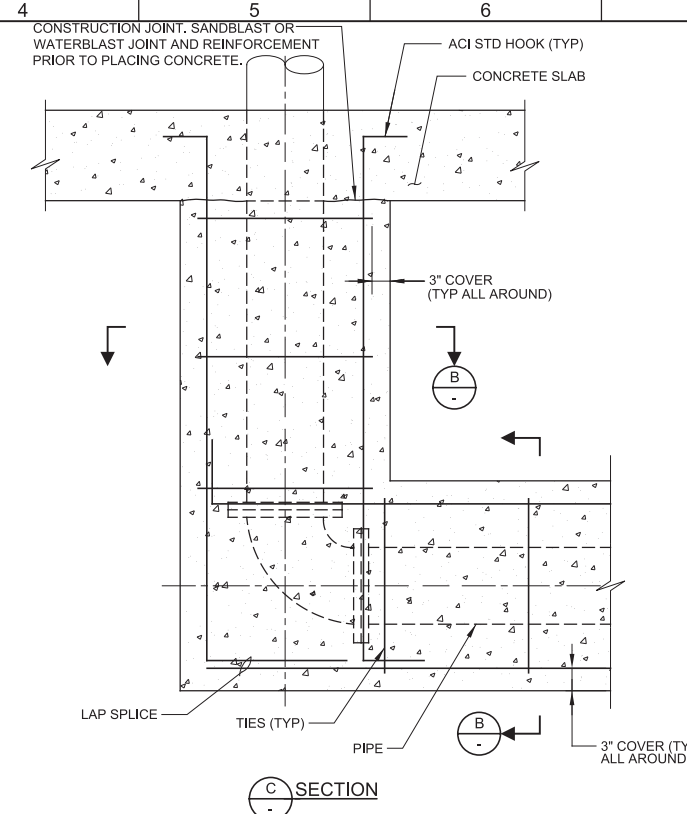
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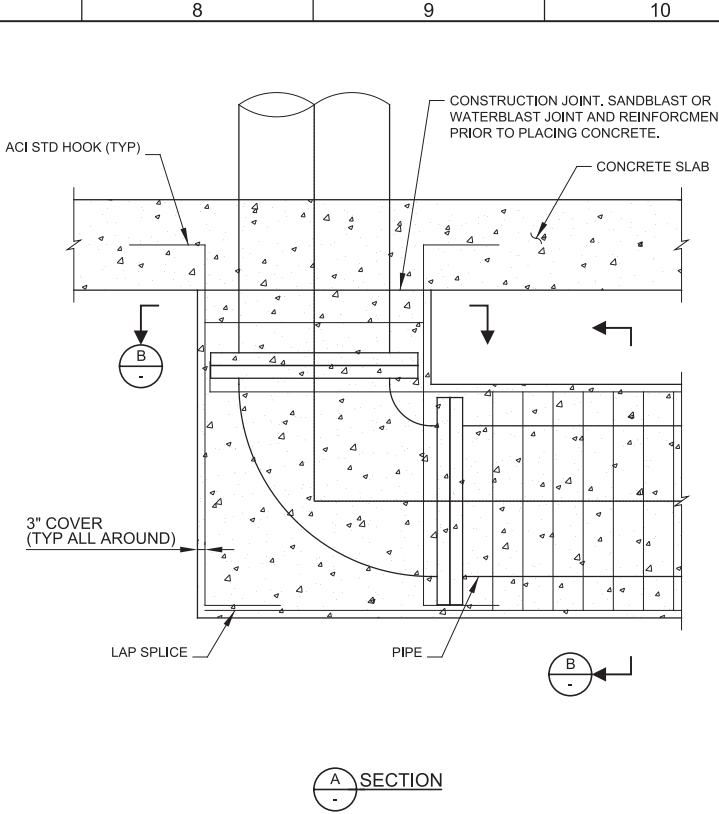
LAST SAVED BY: jfevre



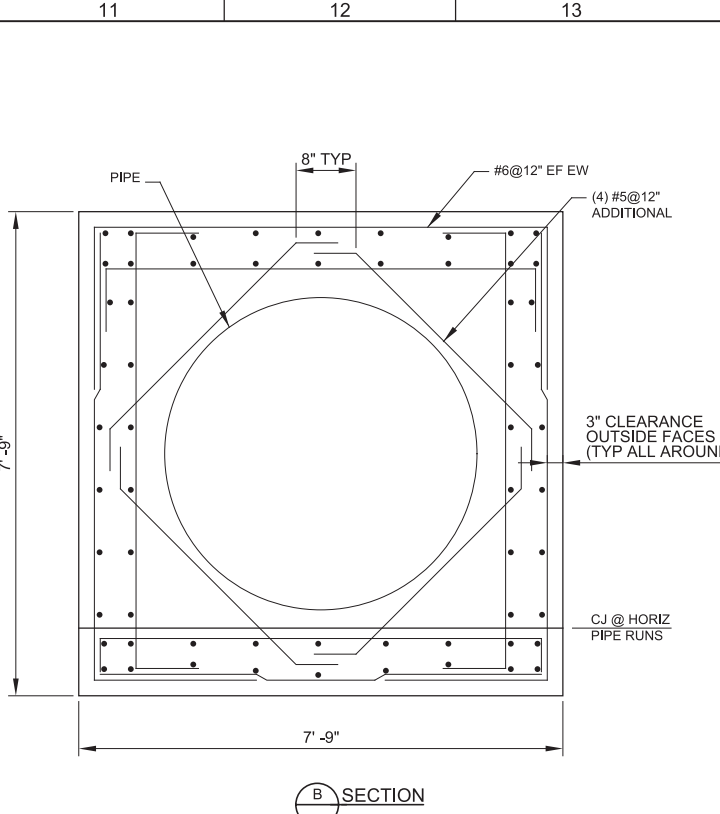
P040 CONCRETE ENCASEMENT OF PIPE
TYP



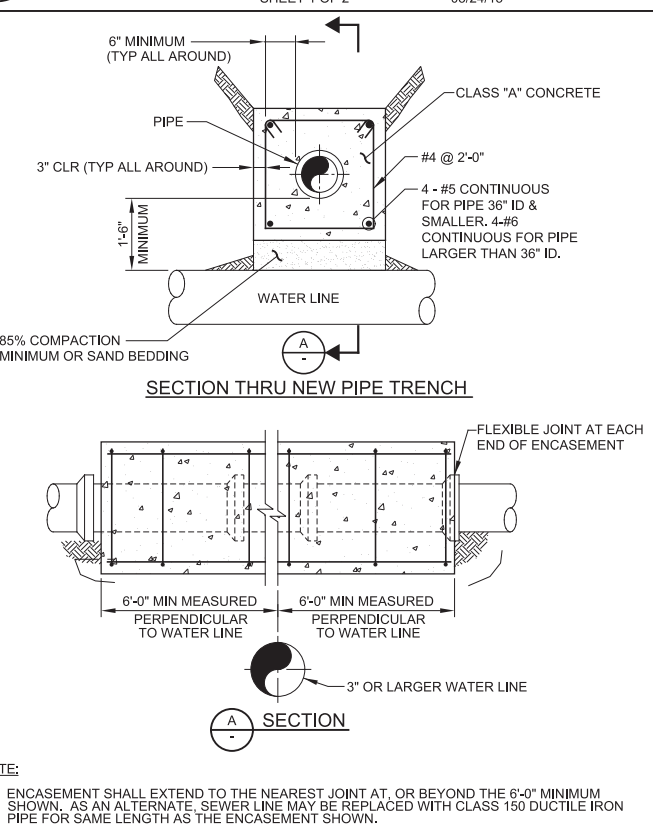
P040 CONCRETE ENCASEMENT OF PIPE
TYP



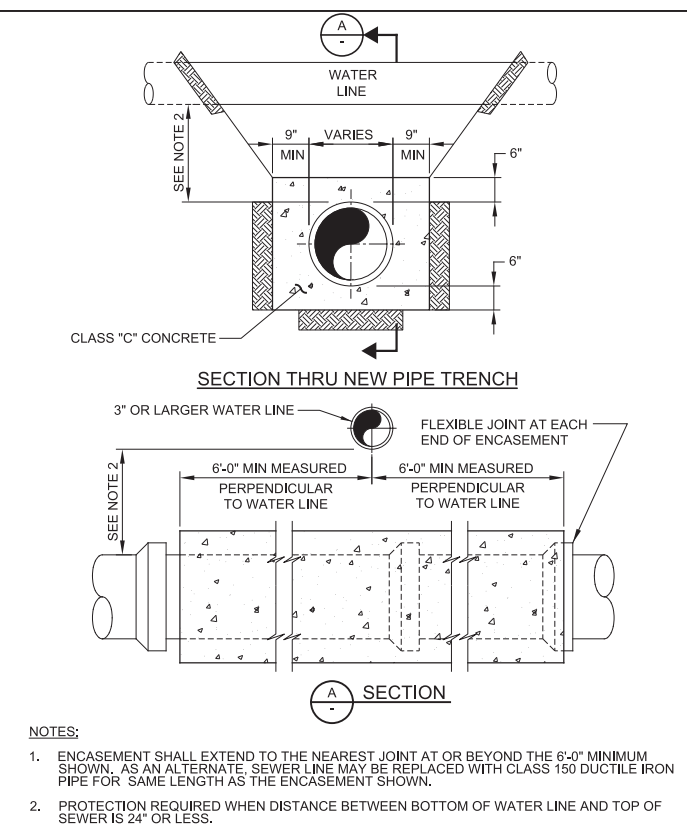
P043 CONCRETE ENCASEMENT OF PIPE
TYP



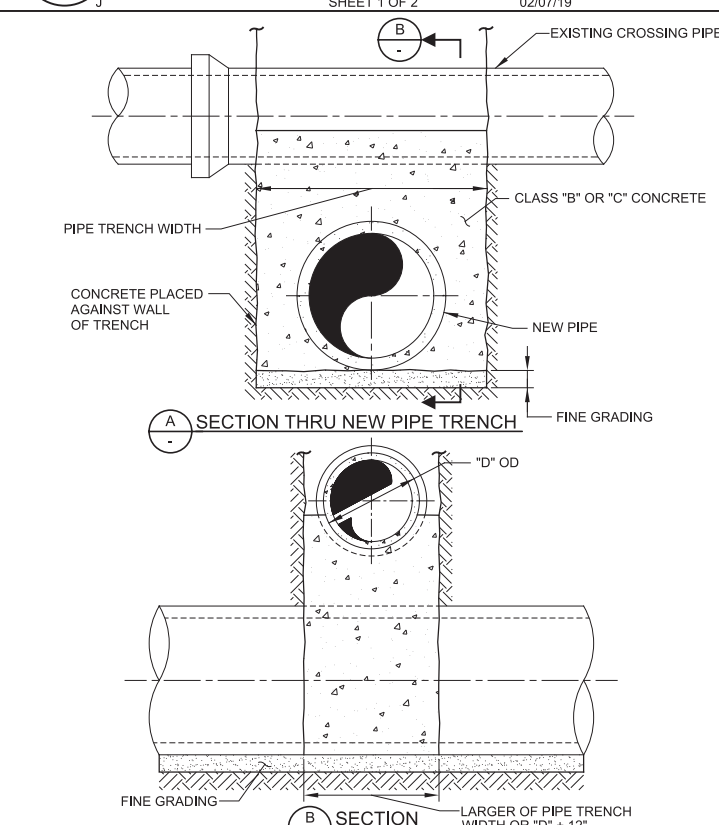
P043 CONCRETE ENCASEMENT OF PIPE
TYP



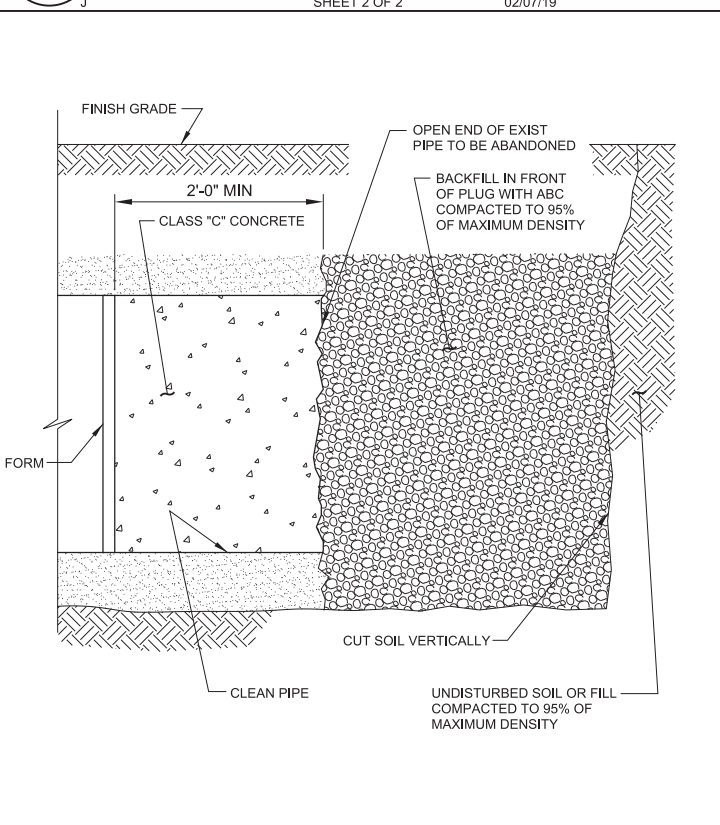
P044 SANITARY SEWER ENCASEMENT ABOVE WATER LINES
TYP



P046 SANITARY SEWER ENCASEMENT UNDER WATER LINES
TYP



P048 PIPE SUPPORT ACROSS TRENCH
TYP



P059 PIPE PLUG
TYP

DESIGNED RWB/JD
DRAWN JRL
CHECKED GCS
DATE MARCH 2019

REGISTERED PROFESSIONAL ENGINEER
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STATE OF UTAH

REGISTERED PROFESSIONAL ENGINEER
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BRAD D. JEPSON
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carollo

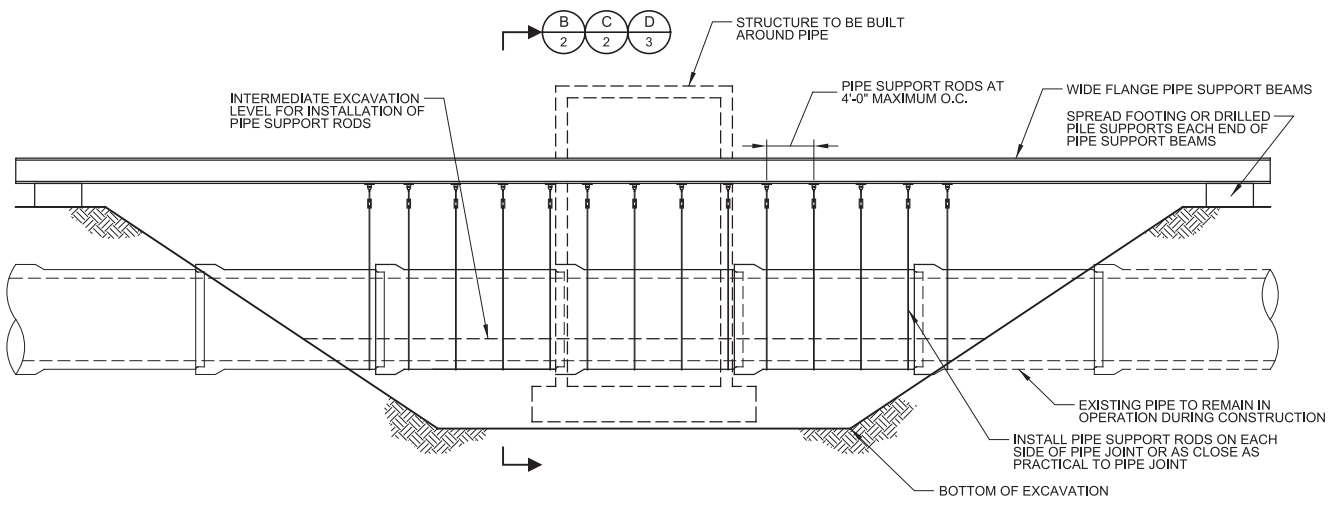
SV South Valley
WATER RECLAMATION FACILITY
7495 South 1300 West
West Jordan, Utah 84084

SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
TYPICAL DETAILS
PIPING TYPICAL DETAILS 2

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 10548A.10
DRAWING NO. GM-04
SHEET NO. 111 OF 159

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 LAST SAVED BY: jfevre



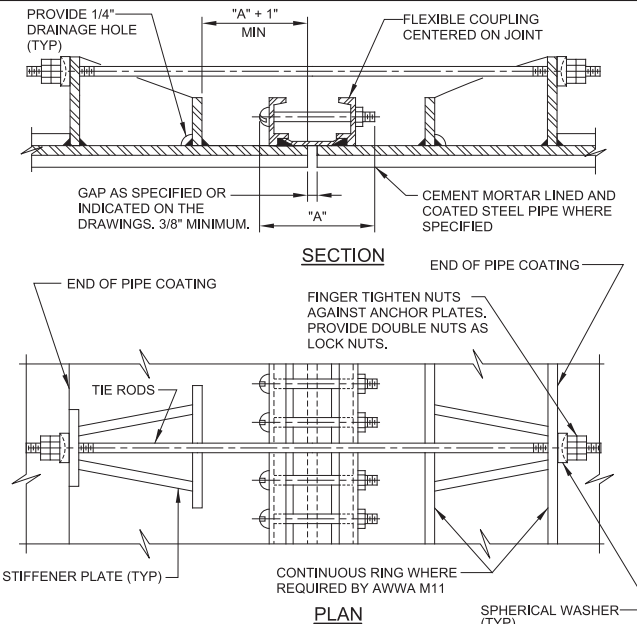
A ELEVATION - TEMPORARY PIPE SUPPORT SYSTEM

- NOTES:**
- TEMPORARY PIPE SUPPORT SYSTEM IS DRAWN FOR OPEN CUT EXCAVATION. PIPE SUPPORT SYSTEM MAY BE USED FOR SHORED EXCAVATION. SIZE OF OPEN CUT OR SHORED EXCAVATION SHALL BE LARGE ENOUGH TO ALLOW FOR ADJUSTMENT OF STRUCTURE LOCATION AND SIZE OF STRUCTURE BASED ON ACTUAL LOCATION OF PIPE AND PIPE JOINTS.
 - DESIGN BEAMS AND PIPE SUPPORT SYSTEM TO BE STIFF TO MINIMIZE DEFLECTION UNDER LOAD FROM PIPE AND CONTENTS.
 - EXCAVATE DOWN TO TOP OF RCP PIPE. SURVEY LOCATION OF PIPE JOINTS, PIPE CENTERLINE, AND TOP ELEVATION OF PIPE AND SUBMIT TO ENGINEER.
 - SCHEDULE 45 DAYS DELAY FOR REDESIGN OF STRUCTURE AFTER LOCATION SURVEY HAS BEEN SUBMITTED. REDESIGN MAY CONSIST OF CHANGING STRUCTURE DIMENSIONS, ADJUSTING PLAN LOCATION OF STRUCTURE, OR SOME COMBINATION OF BOTH.
 - DO NOT SUBMIT SHOP DRAWINGS OR FABRICATE COMPONENTS FOR STRUCTURE AND PIPE UNTIL REDESIGN HAS BEEN COMPLETED.
 - DESIGN AND SUBMIT DESIGN FOR PIPE SUPPORT SYSTEM. DO NOT FABRICATE COMPONENTS FOR PIPE SUPPORT SYSTEM UNTIL SUBMITTAL HAS BEEN ACCEPTED BY ENGINEER.
- SEE SHEET 4 FOR CONTINUATION OF NOTES

P080 TEMPORARY SUPPORT DURING CONSTRUCTION FOR EXISTING BURIED PIPE
 TYP SHEET 1 OF 4 05/14/15

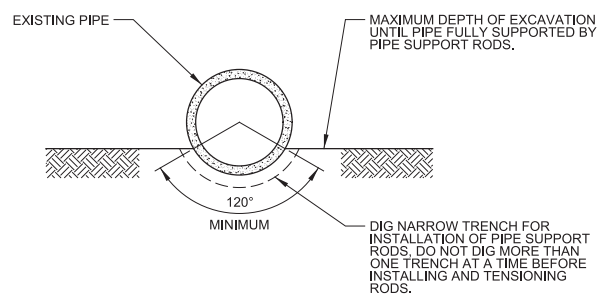
- NOTES CONTINUED FROM SHEET 1:**
- DESIGN FOUNDATION FOR TEMPORARY PIPE SUPPORT SYSTEM SO THAT IT DOES NOT OVERLOAD OR DAMAGE EXISTING PIPE.
 - AFTER STRUCTURE CONSTRUCTED, BACKFILL EXCAVATION, TO AVOID DAMAGE TO PIPE, MAINTAIN SAME DEPTH OF BACKFILL ON BOTH SIDES OF PIPE.
 - CONSTRUCTION SEQUENCE
 - CONSTRUCT PIPE SUPPORT SYSTEM EXCEPT FOR INSTALLATION OF PIPE SUPPORT RODS.
 - EXCAVATE DEEPER BUT MAINTAIN MINIMUM OF 120 DEGREE SUPPORT OF PIPE BY SOIL UNTIL ALL SUPPORT RODS ARE INSTALLED AND TIGHTENED.
 - INSTALL SUPPORT RODS ONE AT A TIME BY DIGGING NARROW TRENCH UNDER PIPE.
 - MAINTAIN EXISTING ELEVATION OF TOP OF PIPE BY ADJUSTING TIE RODS TO COMPENSATE FOR DEFLECTION OF PIPE SUPPORT SYSTEM AS PIPE LOAD IS TRANSFERRED TO PIPE SUPPORT SYSTEM.
 - AFTER ALL TIE RODS ARE INSTALLED, DEEPEN EXCAVATION TO FULL DEPTH INDICATED ON THE DRAWINGS.
 - CONSTRUCT BOTTOM SLAB FOR STRUCTURE.
 - AFTER SLAB CONCRETE REACHES ADEQUATE STRENGTH, SUPPORT EXISTING PIPE OFF SLAB WITH CONCRETE.
 - AFTER CONCRETE SUPPORTING PIPE WITHIN STRUCTURE REACHES ADEQUATE STRENGTH, SUPPORT RODS WITHIN STRUCTURE MAY BE REMOVED.
 - CONSTRUCT REST OF STRUCTURE AROUND EXISTING PIPE.
 - AFTER STRUCTURE CONSTRUCTED, BACKFILL EXCAVATION, TO AVOID DAMAGE TO PIPE, MAINTAIN SAME DEPTH OF BACKFILL ON BOTH SIDES OF PIPE.
 - REMOVE PORTION OF PIPE INSIDE STRUCTURE AS INDICATED ON THE DRAWING.
 - COAT CUT PIPE WITH HEAVY COAT OF EPOXY GEL.

P080 TEMPORARY SUPPORT DURING CONSTRUCTION FOR EXISTING BURIED PIPE
 TYP SHEET 4 OF 4 05/14/15

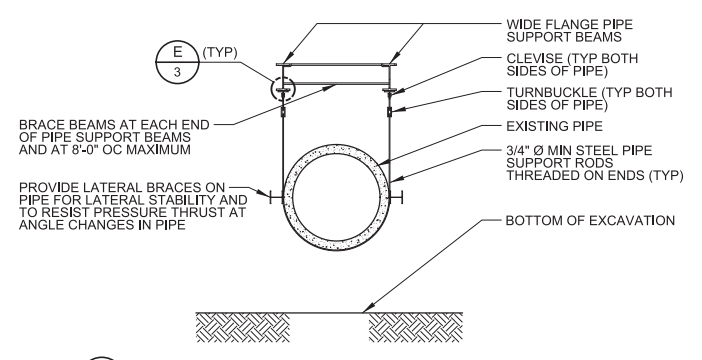


- NOTES:**
- ALL EXPOSED FLEXIBLE COUPLINGS SHALL HAVE TIE RODS UNLESS SPECIFICALLY INDICATED OTHERWISE ON THE DRAWINGS.
 - BASE PIPE THRUST ON TEST PRESSURE.
 - PIPE THRUST = $0.7854 \times D^2 \times \text{TEST PRESSURE}$, WHERE "D" IS PIPE "OD".
 - ANCHOR LUGS AND TIE RODS SHALL BE DESIGNED BY PIPE MANUFACTURER IN ACCORDANCE WITH AWWA M11 STEEL PIPE MANUAL.
 - GRIND ALL CORNERS SMOOTH.
 - COAT ALL EXPOSED STEEL SURFACES WITH EPOXY IN ACCORDANCE WITH SPECIFICATIONS.

P112 STEEL PIPE FLEXIBLE COUPLING TIE DOWN
 TYP 04/09/15

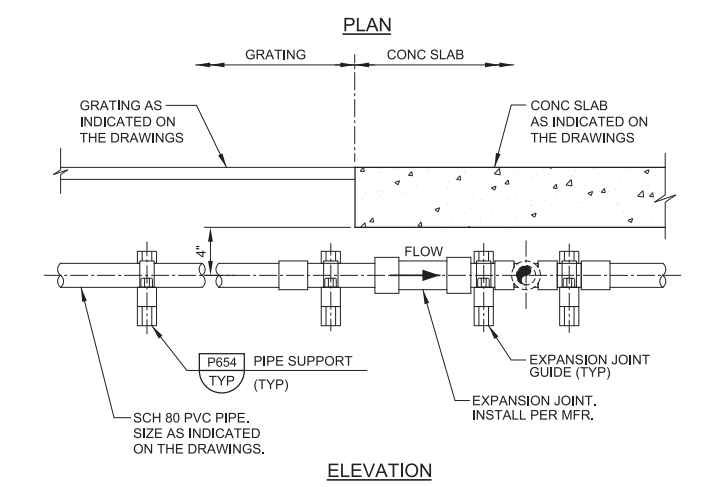
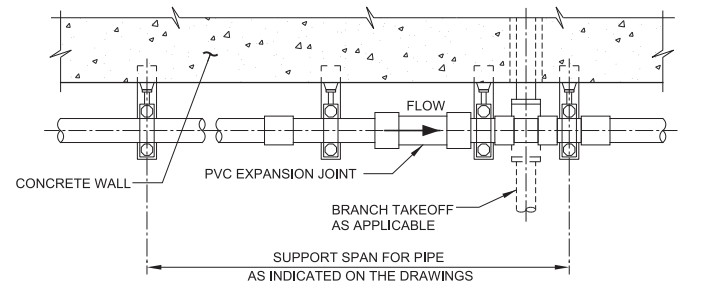


B DETAIL - INTERMEDIATE EXCAVATION LEVEL

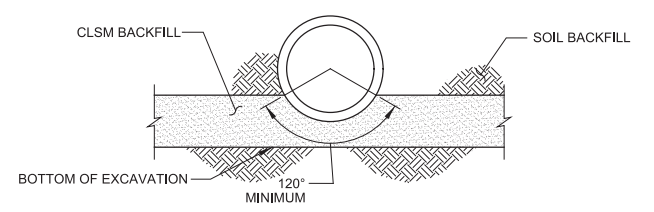


C DETAIL - PIPE SUPPORTED BY PIPE SUPPORT RODS

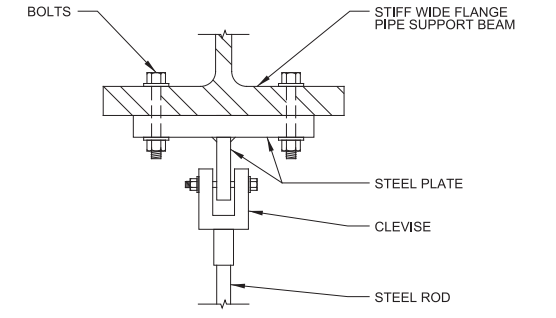
P080 TEMPORARY SUPPORT DURING CONSTRUCTION FOR EXISTING BURIED PIPE
 TYP SHEET 2 OF 4 05/14/15



P230 PVC EXPANSION JOINT
 TYP 03/01/10

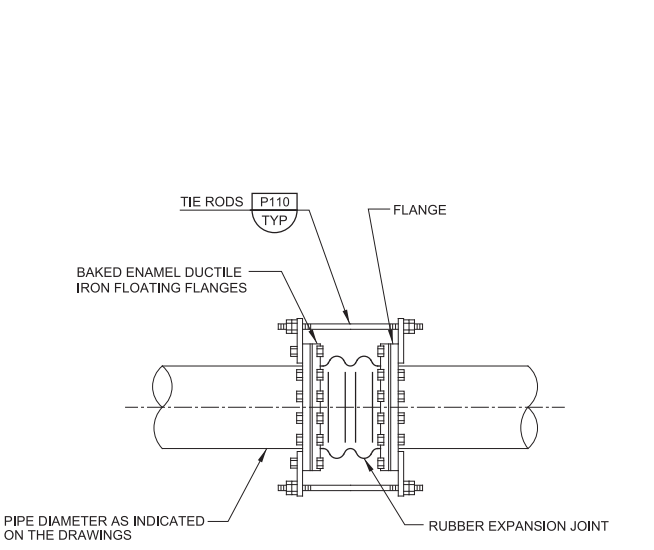


D DETAIL - PIPE BACKFILL OUTSIDE STRUCTURE



E DETAIL - PIPE SUPPORT ROD TO BEAM CONNECTION

P080 TEMPORARY SUPPORT DURING CONSTRUCTION FOR EXISTING BURIED PIPE
 TYP SHEET 3 OF 4 05/14/15



P232 RUBBER EXPANSION JOINTS FOR DIP
 TYP 03/01/10

REV	DATE	BY	DESCRIPTION

DESIGNED
RWB/JD
DRAWN
JRL
CHECKED
GCS
DATE
MARCH 2019

REGISTERED PROFESSIONAL ENGINEER
No. 10171598-2202
RYAN W. BENCH
STATE OF UTAH

REGISTERED PROFESSIONAL ENGINEER
No. 4775621-2202
BRAD D. JEPSON
STATE OF UTAH



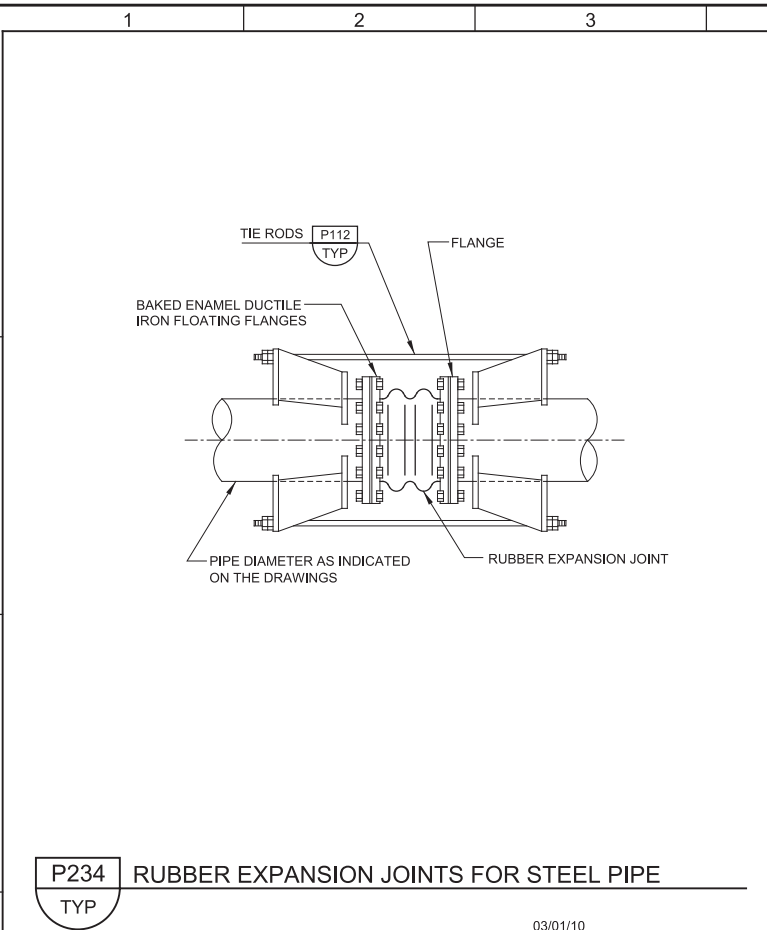
SV South Valley
 WATER RECLAMATION FACILITY
 7495 South 1300 West
 West Jordan, Utah 84084

SOUTH VALLEY WATER RECLAMATION FACILITY
 PROJECT 5
 TYPICAL DETAILS
 PIPING TYPICAL DETAILS 3

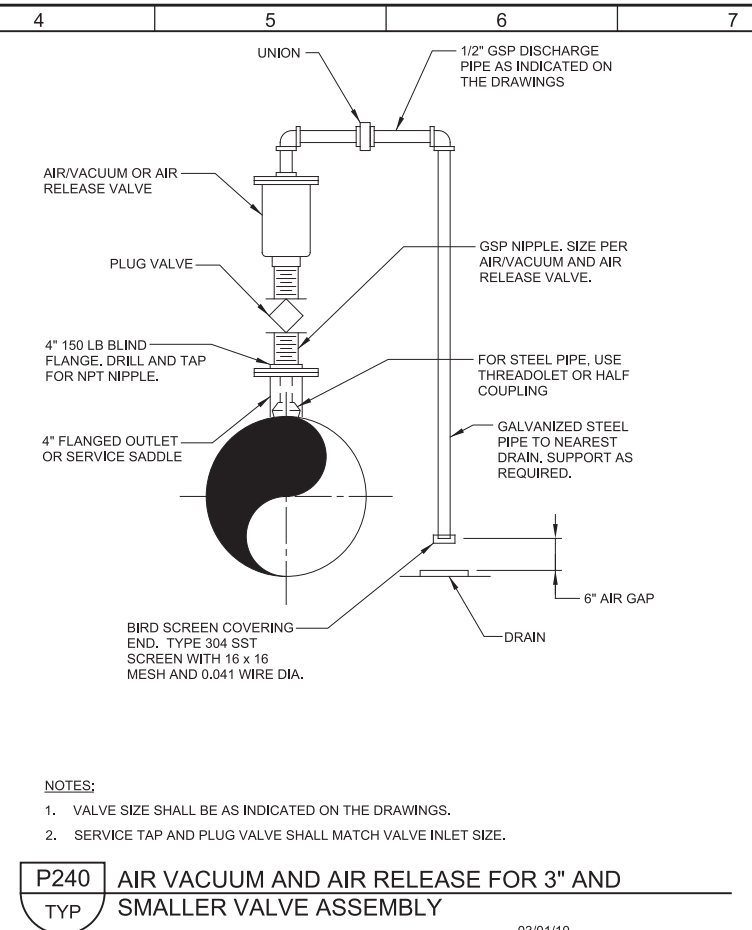
VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1"
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
10548A.10
DRAWING NO.
GM-05
SHEET NO.
112 OF 159

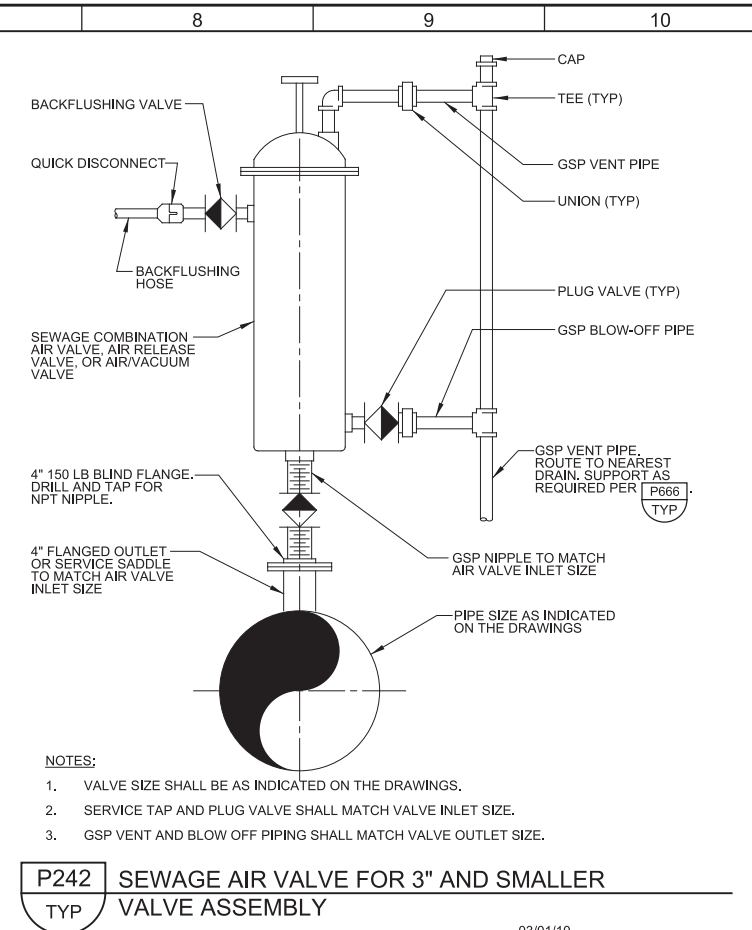
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 LAST SAVED BY: jfevry



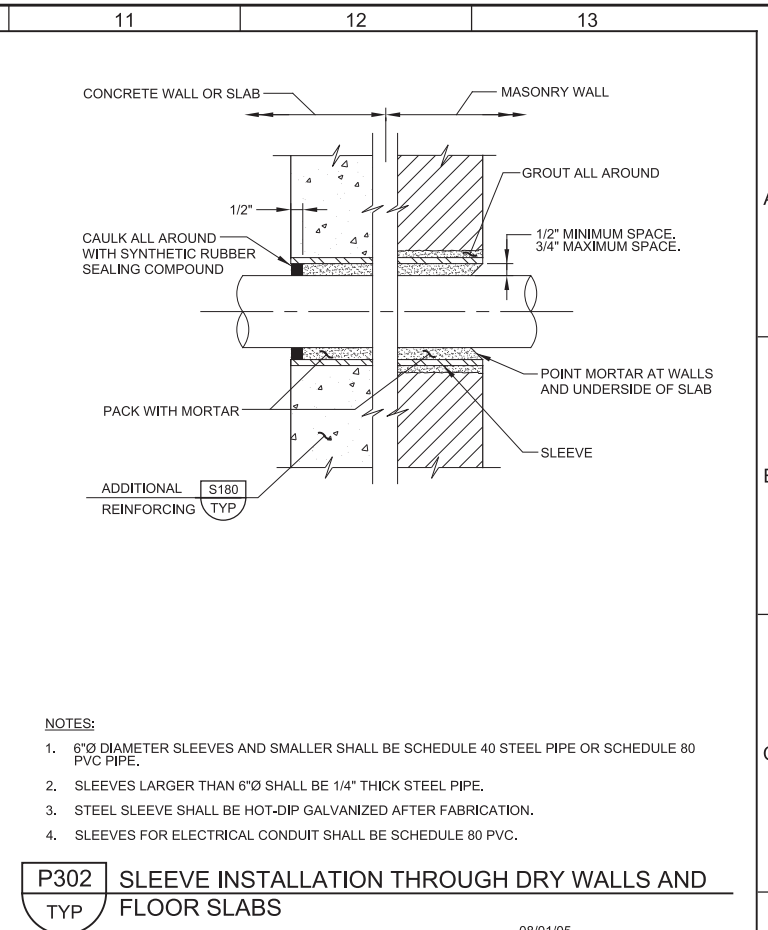
P234 RUBBER EXPANSION JOINTS FOR STEEL PIPE
TYP
03/01/10



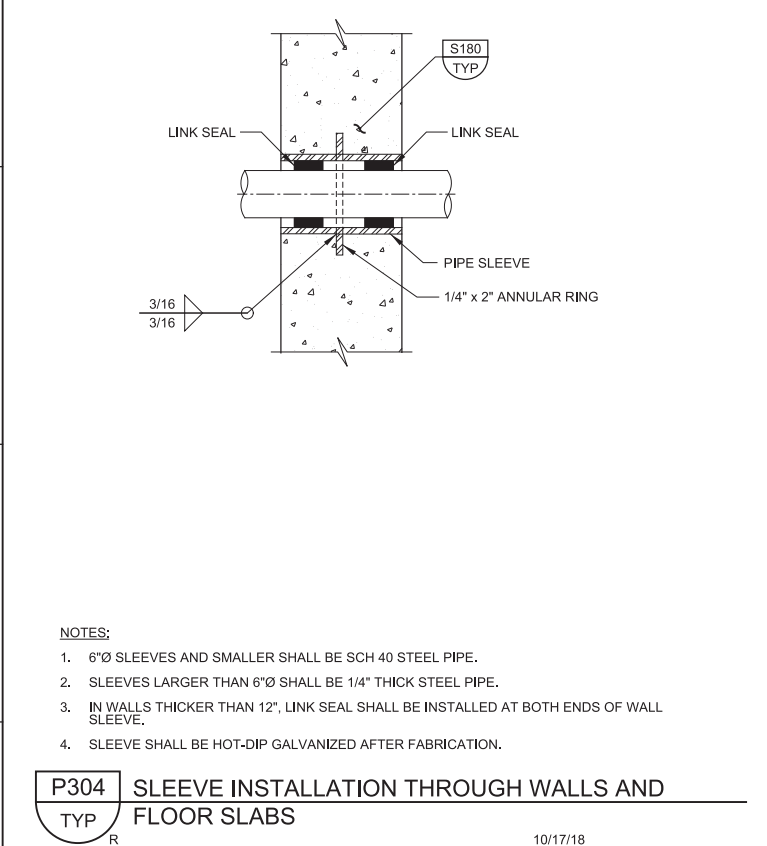
P240 AIR VACUUM AND AIR RELEASE FOR 3" AND SMALLER VALVE ASSEMBLY
TYP
03/01/10



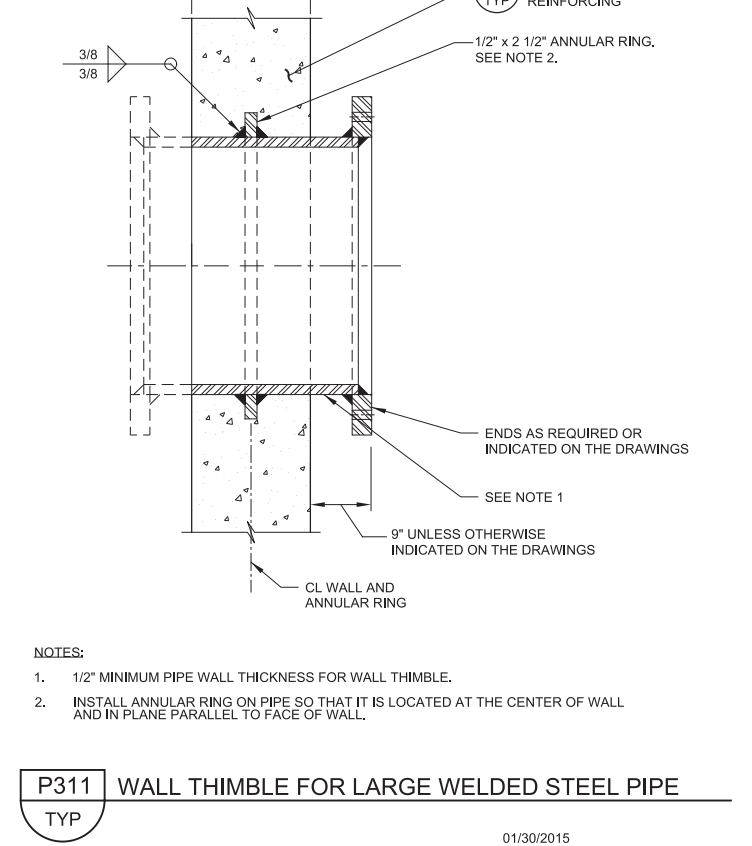
P242 SEWAGE AIR VALVE FOR 3" AND SMALLER VALVE ASSEMBLY
TYP
03/01/10



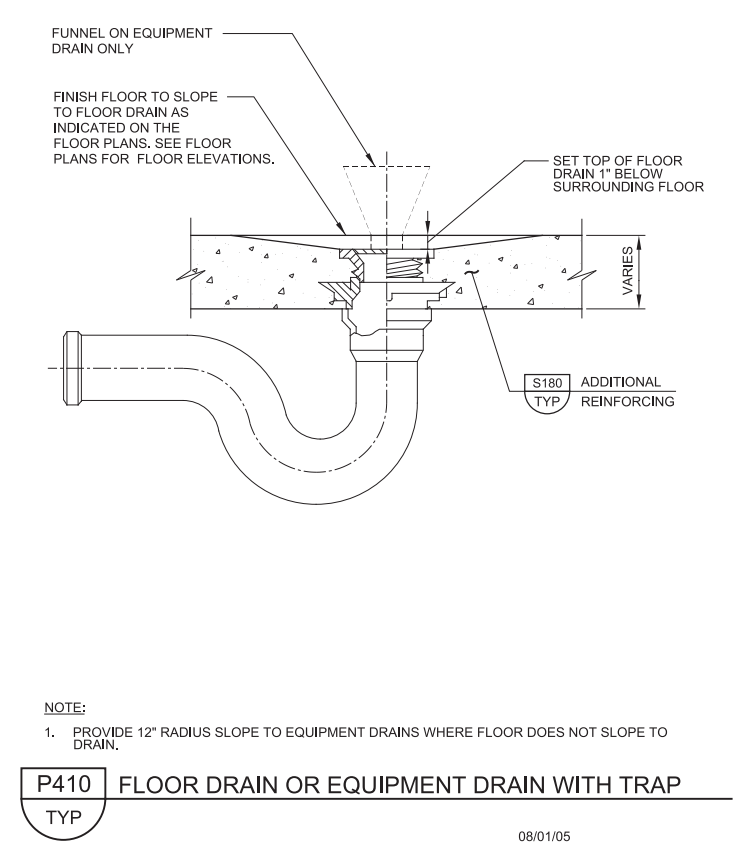
P302 SLEEVE INSTALLATION THROUGH DRY WALLS AND FLOOR SLABS
TYP
08/01/05



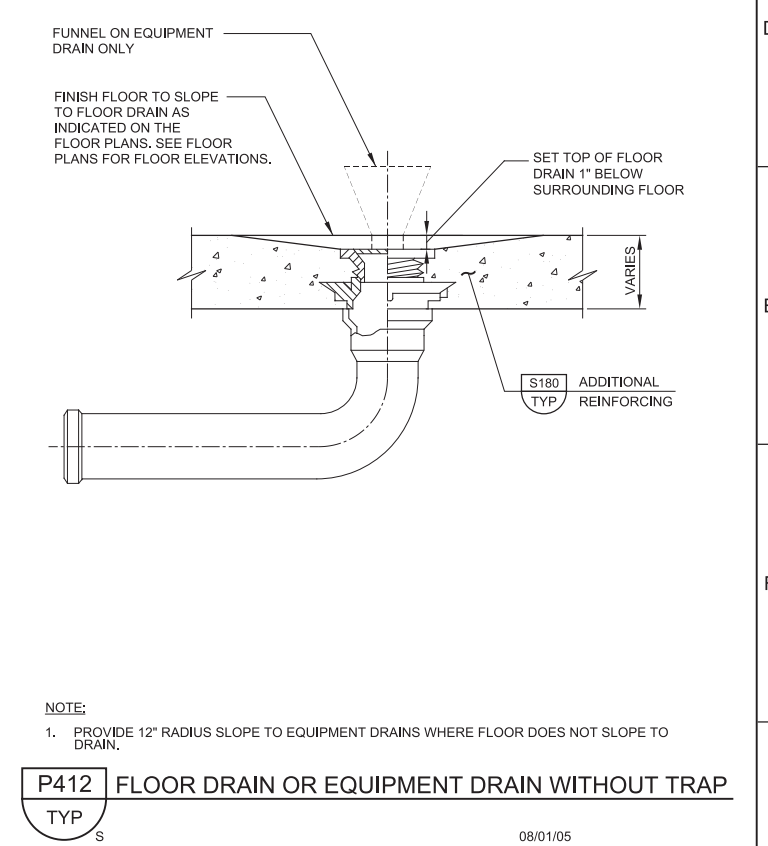
P304 SLEEVE INSTALLATION THROUGH WALLS AND FLOOR SLABS
TYP
10/17/18



P311 WALL THIMBLE FOR LARGE WELDED STEEL PIPE
TYP
01/30/2015

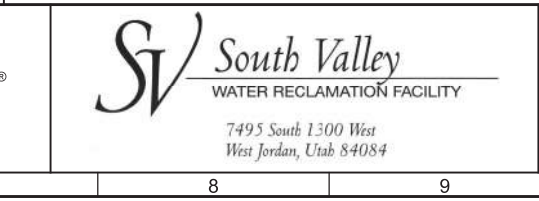
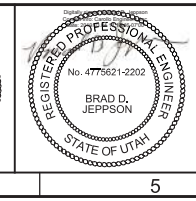


P410 FLOOR DRAIN OR EQUIPMENT DRAIN WITH TRAP
TYP
08/01/05



P412 FLOOR DRAIN OR EQUIPMENT DRAIN WITHOUT TRAP
TYP
08/01/05

REV	DATE	BY	DESCRIPTION



SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
 TYPICAL DETAILS
PIPING TYPICAL DETAILS 4

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1"	JOB NO. 10548A.10 DRAWING NO. GM-06 SHEET NO. 113 OF 159
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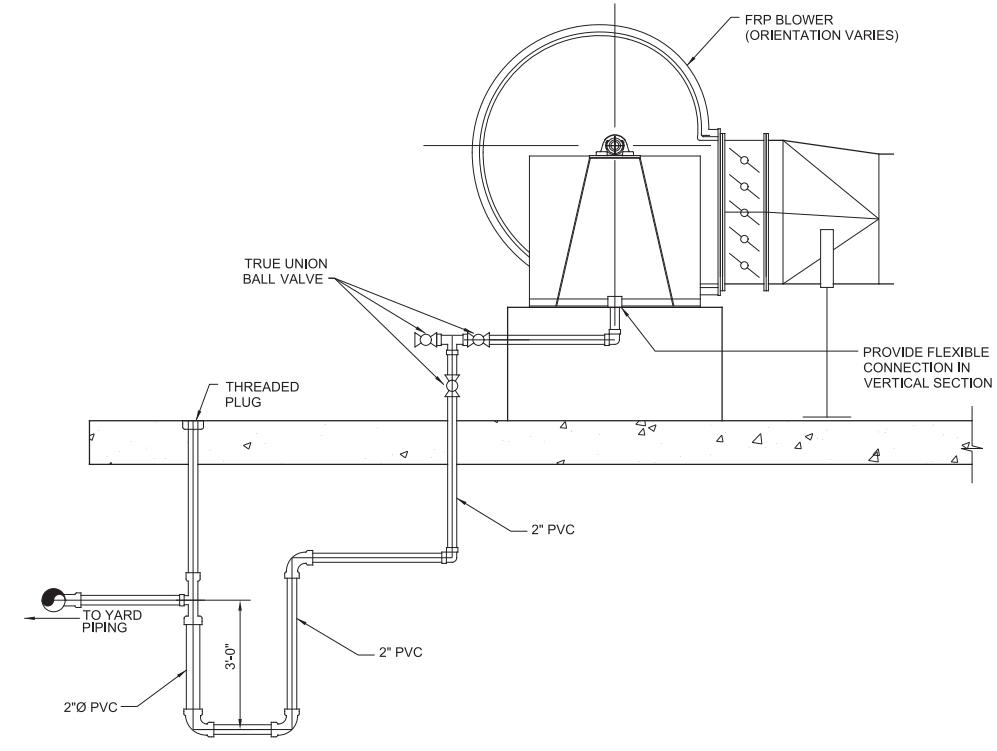
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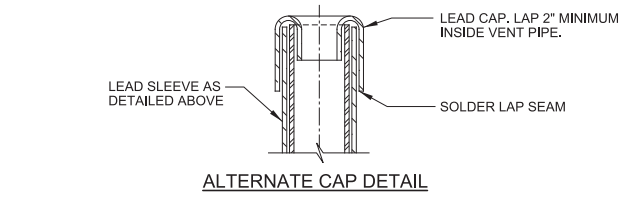
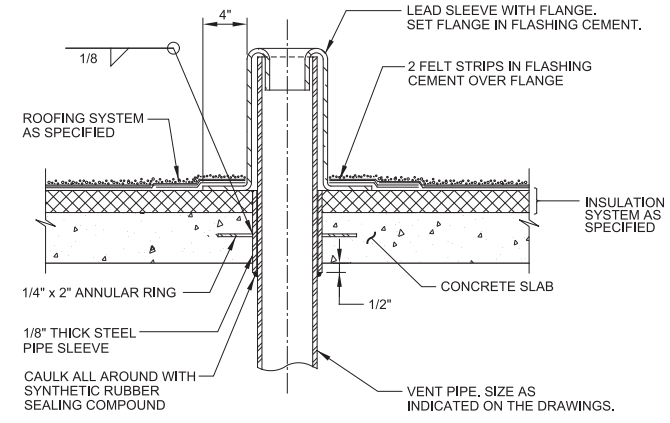
User: svcPW

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo_Std_Pen_v0905.pen PlotScale: 2:1

LAST SAVED BY: jfevre



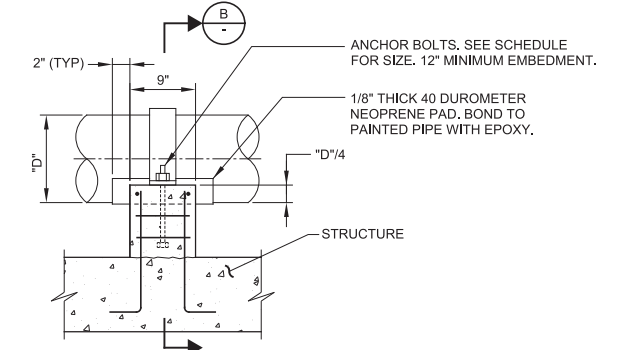
P416 CONDENSATE DRAIN AT ODOR CONTROL FAN
TYP



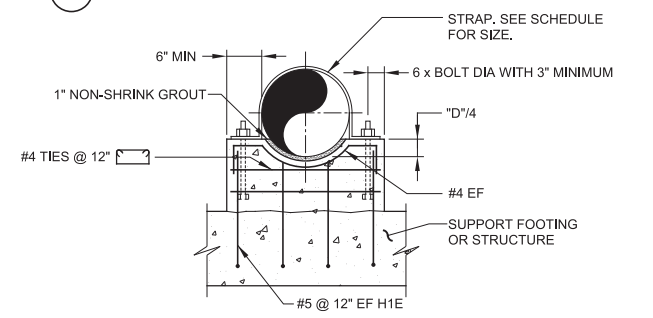
ALTERNATE CAP DETAIL

- NOTES:
1. SLEEVE LENGTH VARIES WITH INSULATION SYSTEM THICKNESS.
2. PIPE SLEEVE ID SHALL BE MINIMUM OF PIPE OD + 1/4".

P507 VENT THROUGH CONCRETE ROOF DECK
TYP



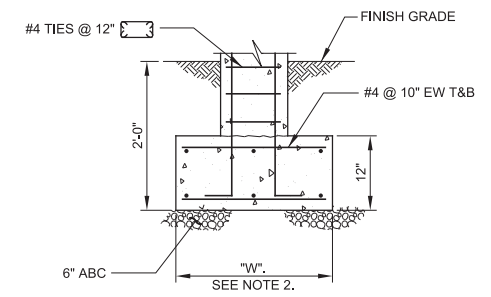
SECTION-SUPPORT AT STRUCTURE



SECTION

P602 CONCRETE PIPE SUPPORT
TYP

12/06/05 SHEET 1 OF 2 07/19/16



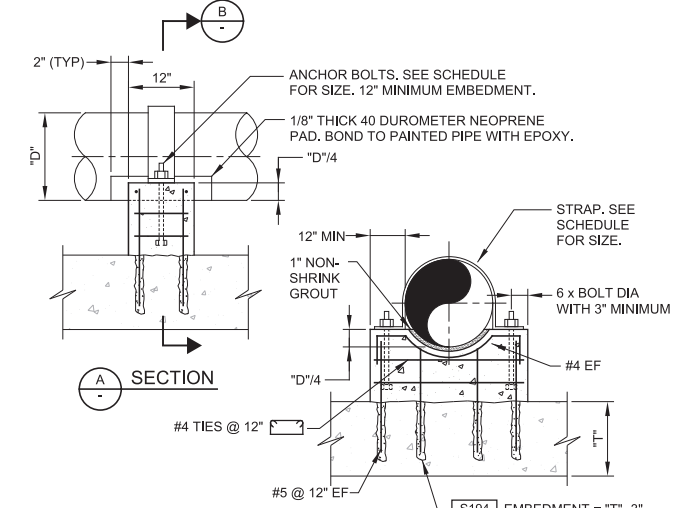
SECTION-ISOLATED SUPPORT WITH FOOTING

PIPE SIZE	STRAP SIZE	ANCHOR BOLT DIA
8" - 12"	FB 1/4" x 4"	1/2"
14" - 24"	FB 5/16" x 4"	5/8"
26" - 36"	FB 3/8" x 4"	3/4"

- NOTES:
1. IF SUPPORT IS SUBMERGED OR LOCATED BELOW THE TOP OF WALL IN WATER BEARING STRUCTURE, MATERIAL FOR ANCHOR BOLTS AND STRAP SHALL BE STAINLESS STEEL. IN ALL OTHER AREAS, THE MATERIAL FOR ANCHOR BOLTS AND STRAP SHALL BE HOT-DIP GALVANIZED STEEL UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
2. THE WIDTH OF THE FOOTING "W" = 2'-6". THE LENGTH OF THE FOOTING = "D" + 2'-0".

P602 CONCRETE PIPE SUPPORT
TYP

SHEET 2 OF 2 11/30/08



SECTION

SECTION

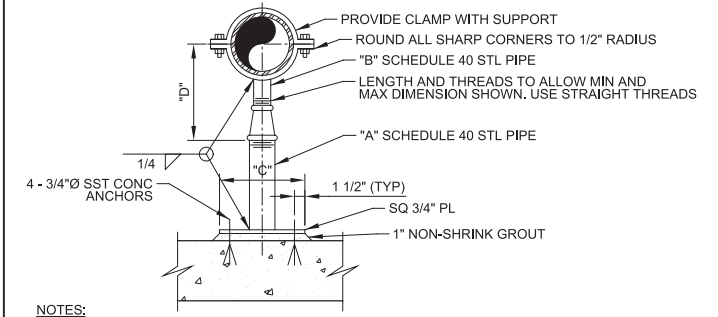
PIPE SIZE	STRAP SIZE	ANCHOR BOLT DIA
8" - 12"	FB 1/4" x 4"	1/2"
14" - 24"	FB 5/16" x 4"	5/8"
26" - 42"	FB 3/8" x 4"	3/4"
> 36"	FB 3/8" x 4"	3/4"

- NOTES:
1. IF SUPPORT IS SUBMERGED OR LOCATED BELOW THE TOP OF WALL IN WATER BEARING STRUCTURE, MATERIAL FOR ANCHOR BOLTS AND STRAP SHALL BE 316 STAINLESS STEEL. IN ALL OTHER AREAS, THE MATERIAL FOR ANCHOR BOLTS AND STRAP SHALL BE HOT-DIP GALVANIZED STEEL UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
2. MIN "T" = 12".

P604 CONCRETE PIPE SUPPORT AT EXISTING STRUCTURE
TYP

07/31/08

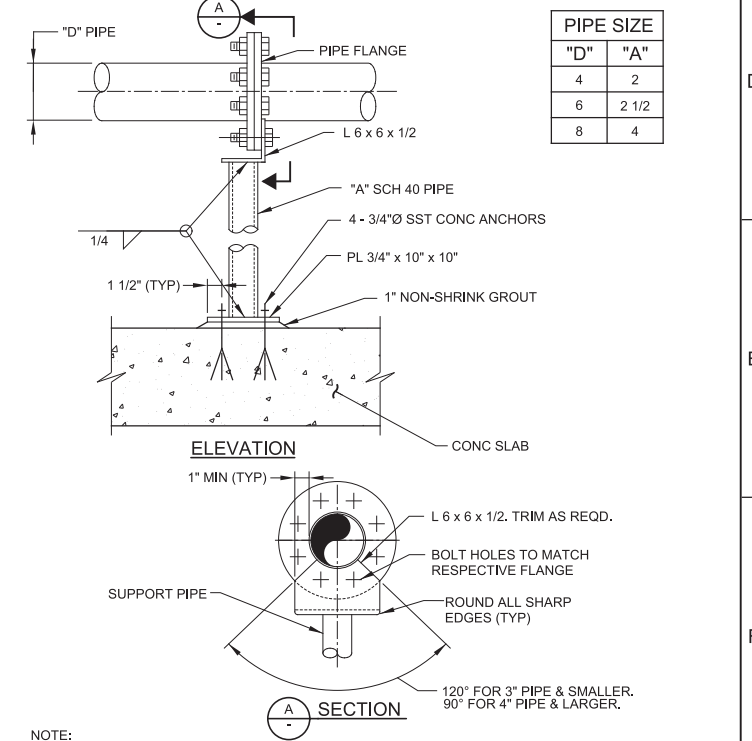
SIZE OF SUPPORTED PIPE **	ADJUSTABLE PIPE SADDLE SUPPORT SCHEDULE (INCHES)				"D"	
	PIPE SIZE "A"	PIPE SIZE "B"	"C"	"D"		
				MINIMUM	MAXIMUM	
2 1/2 *	2 1/2	1 1/2	12	8	13	
3	2 1/2	1 1/2	12	8 1/2	13 1/2	
3 1/2	2 1/2	1 1/2	12	8 1/2	13 1/2	
4	3	2 1/2	12	9 1/2	14	
6	3	2 1/2	12	10 1/2	15 1/2	
8	3	2 1/2	12	11 1/2	16 1/2	
10	3	2 1/2	12	13 1/2	18 1/2	
12	3	2 1/2	12	15	19 1/2	
14	4	3	12	16 1/2	20 1/2	
16	4	3	12	17 1/2	22 1/2	
18	6	3 1/2	14	19 1/2	24	
20	6	3 1/2	14	21	25 1/2	
24	6	4	14	23 1/2	28 1/2	
30	6	4	14	27	31 1/2	
32	6	4	14	28 1/2	32 1/2	
36	6	4	14	30 1/2	34 1/2	



- NOTES:
1. HOT-DIP GALVANIZED SUPPORT AFTER FABRICATION.
2. * = USE 2 1/2" SUPPORTS FOR PIPES LESS THEN 2 1/2".
3. ** = NOMINAL PIPE SIZE.

P624 ADJUSTABLE PIPE SUPPORT
TYP

09/04/13

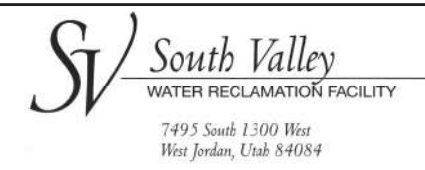
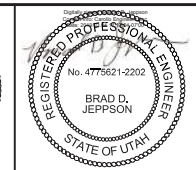
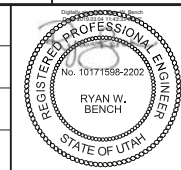


PIPE SIZE	
"D"	"A"
4	2
6	2 1/2
8	4

- NOTE:
1. IF SUPPORT IS SUBMERGED OR LOCATED BELOW THE TOP OF WALL IN WATER BEARING STRUCTURE, ALL MATERIAL FOR SUPPORT SHALL BE STAINLESS STEEL. IN ALL OTHER AREAS, ALL MATERIAL FOR SUPPORT SHALL BE HOT-DIP GALVANIZED STEEL UNLESS OTHERWISE INDICATED ON DRAWINGS. HOT-DIP GALVANIZE AFTER FABRICATION.

P626 PIPE SUPPORT WITH PIPE FLANGE CONNECTION
TYP

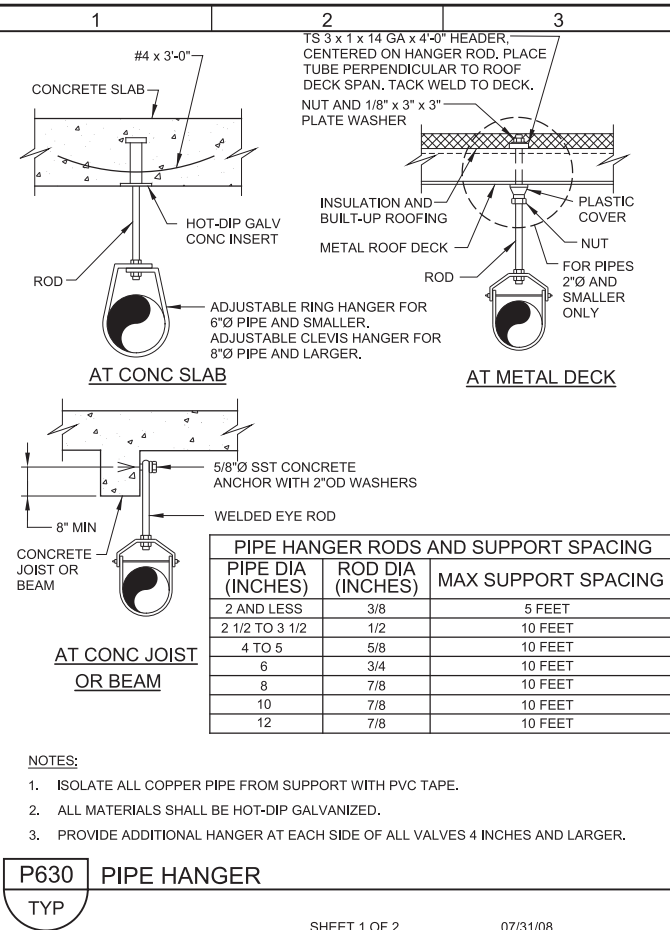
07/01/13



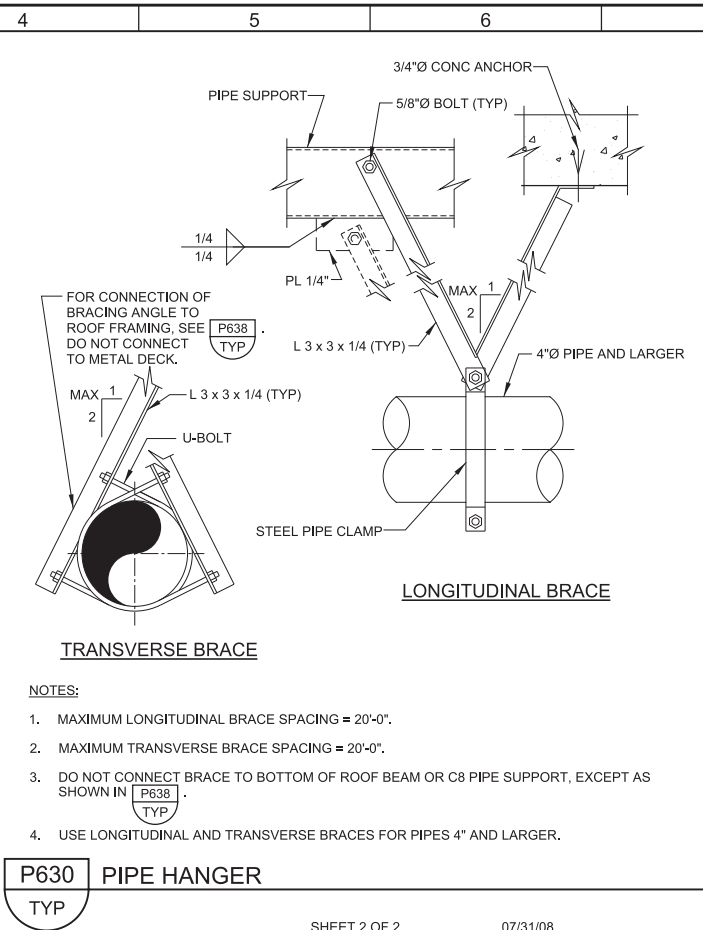
SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
TYPICAL DETAILS
PIPING TYPICAL DETAILS 5

VERIFY SCALES
JOB NO. 10548A.10
DRAWING NO. GM-07
SHEET NO. 114 OF 159

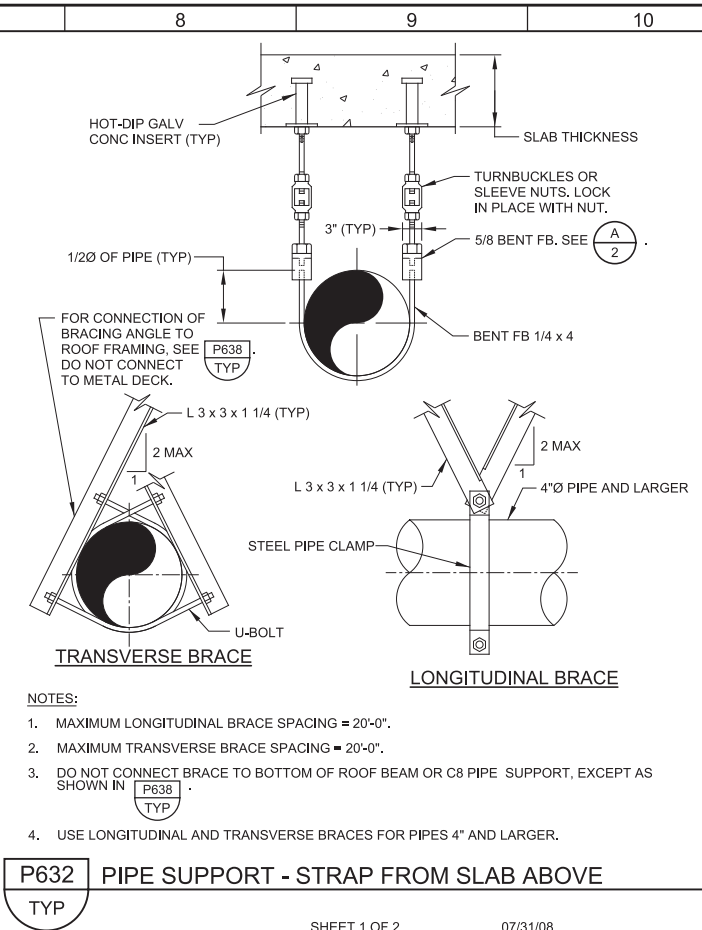
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 LAST SAVED BY: jfevre



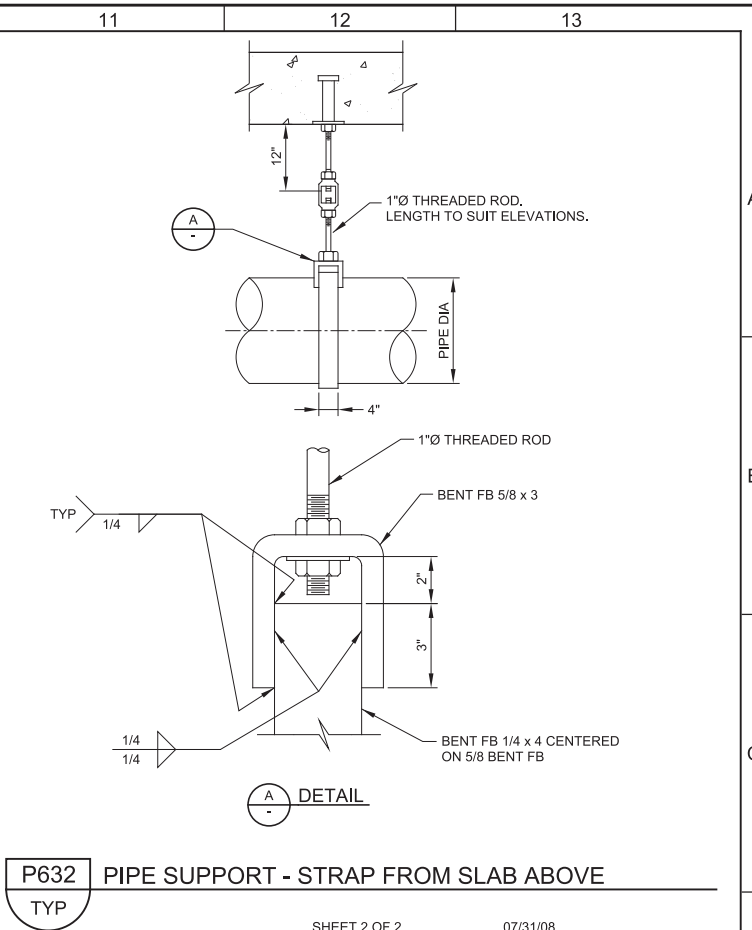
P630 PIPE HANGER
TYP
SHEET 1 OF 2 07/31/08



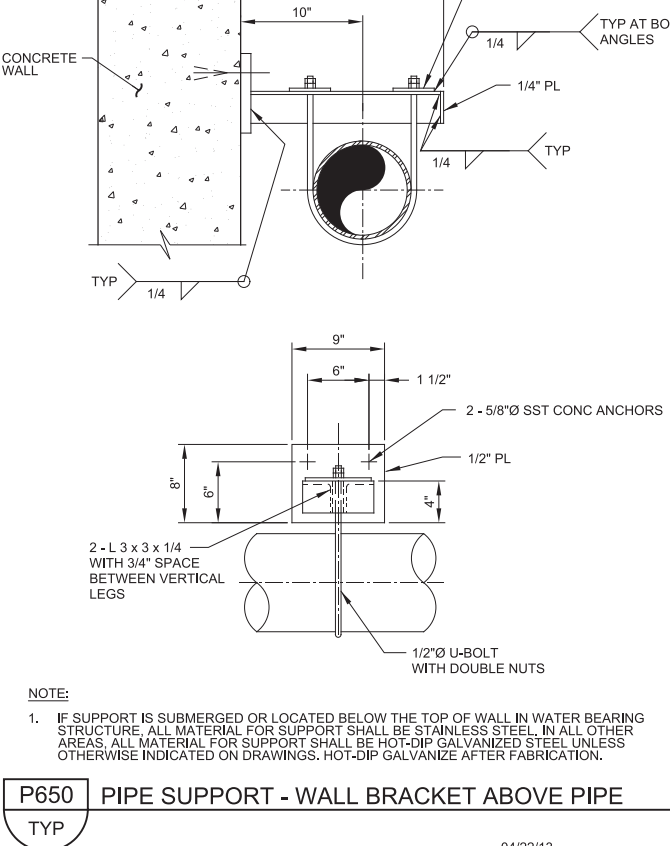
P630 PIPE HANGER
TYP
SHEET 2 OF 2 07/31/08



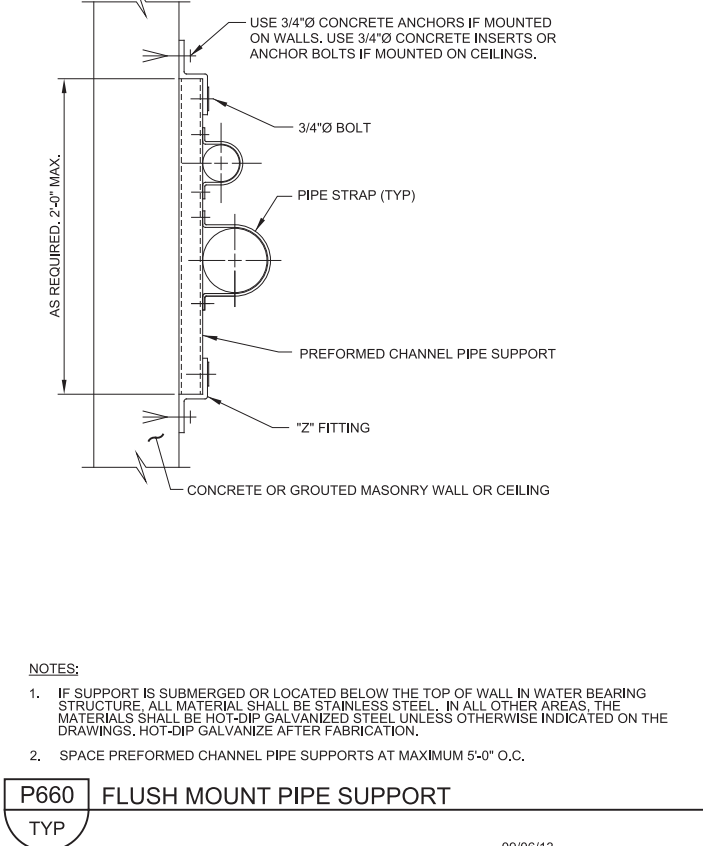
P632 PIPE SUPPORT - STRAP FROM SLAB ABOVE
TYP
SHEET 1 OF 2 07/31/08



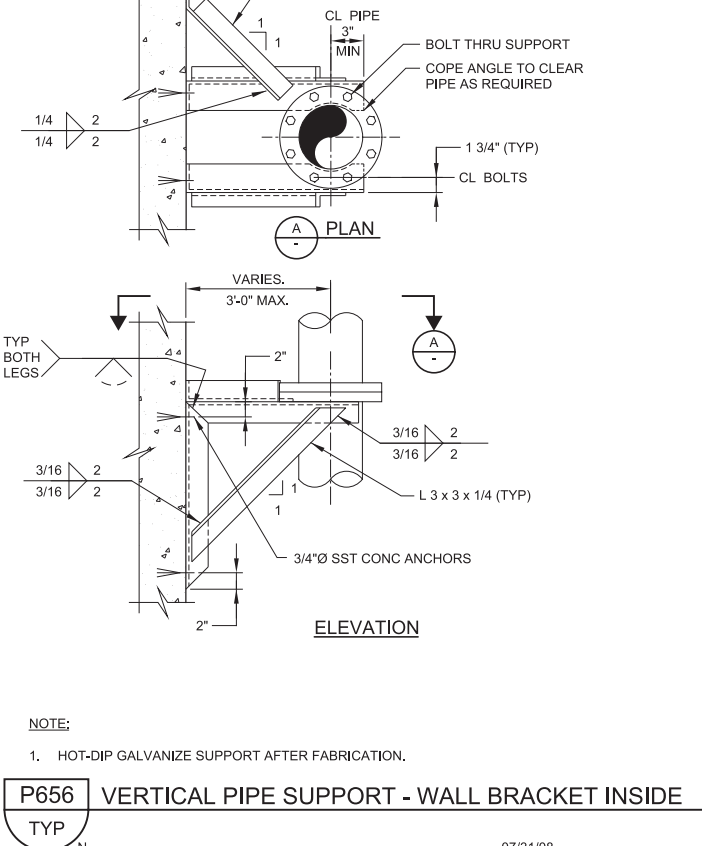
P632 PIPE SUPPORT - STRAP FROM SLAB ABOVE
TYP
SHEET 2 OF 2 07/31/08



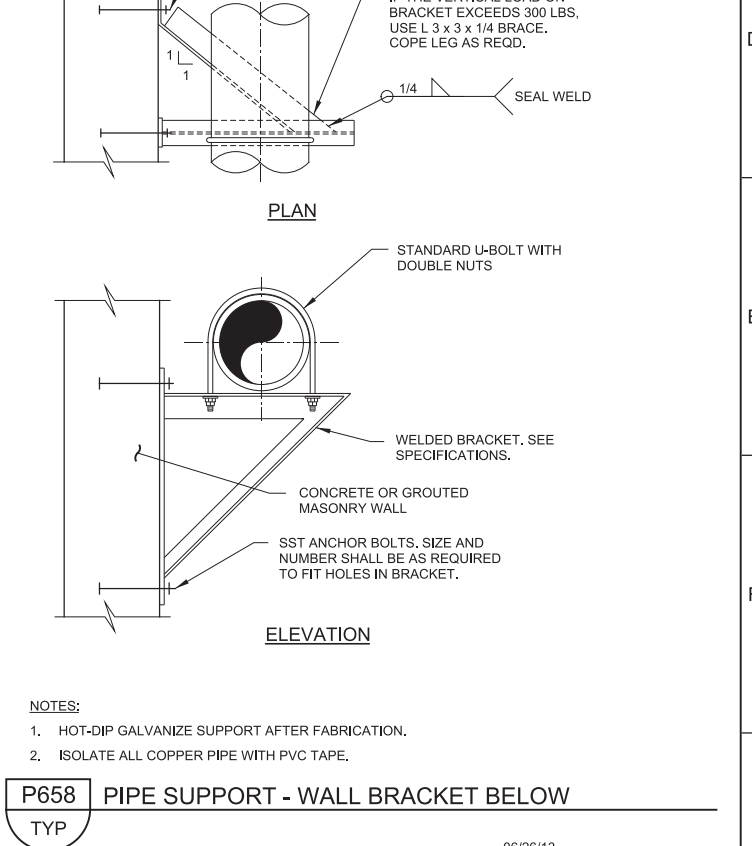
P650 PIPE SUPPORT - WALL BRACKET ABOVE PIPE
TYP
04/22/13



P660 FLUSH MOUNT PIPE SUPPORT
TYP
09/06/13



P656 VERTICAL PIPE SUPPORT - WALL BRACKET INSIDE
TYP
07/31/08



P658 PIPE SUPPORT - WALL BRACKET BELOW
TYP
06/26/13

REV	DATE	BY	DESCRIPTION

DESIGNED: RWB/JD
 DRAWN: JRL
 CHECKED: GCS
 DATE: MARCH 2019

REGISTERED PROFESSIONAL ENGINEER
 RYAN W. BENCH
 No. 10171558-2202
 STATE OF UTAH

REGISTERED PROFESSIONAL ENGINEER
 BRAD D. JEPSON
 No. 4775621-2202
 STATE OF UTAH

SV South Valley
 WATER RECLAMATION FACILITY
 7495 South 1300 West
 West Jordan, Utah 84084

SOUTH VALLEY WATER RECLAMATION FACILITY
 PROJECT 5
 TYPICAL DETAILS
PIPING TYPICAL DETAILS 6

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

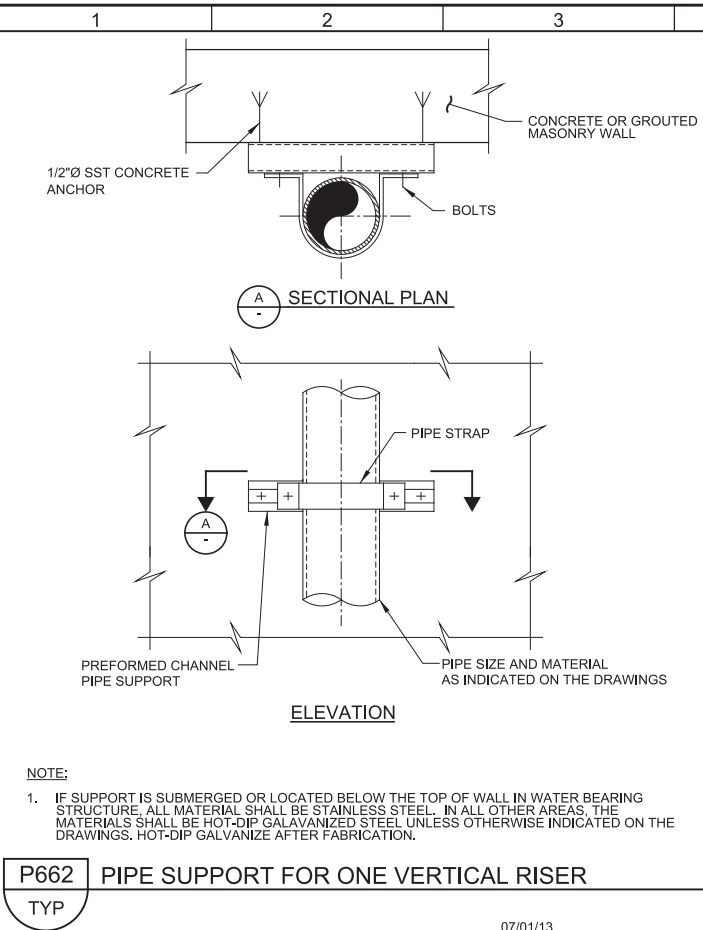
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 DRAWING NO. GM-08
 SHEET NO. 115 OF 159

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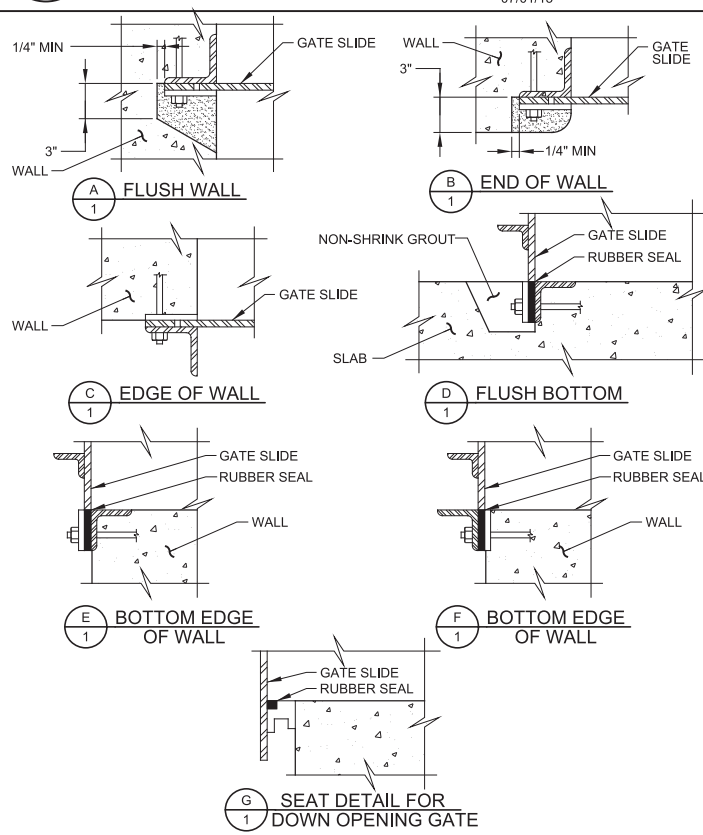
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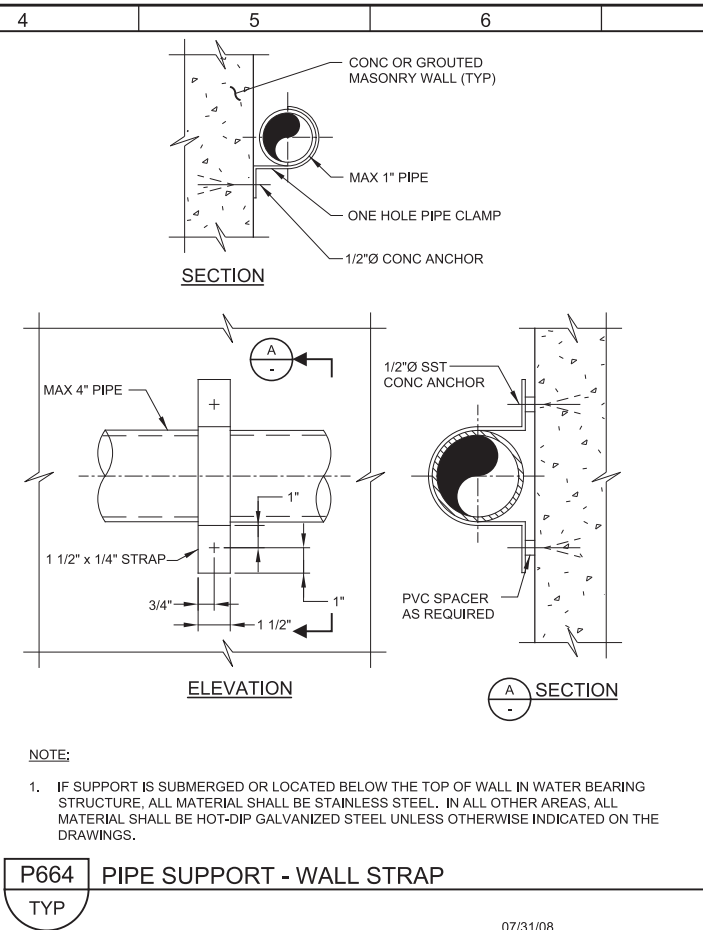
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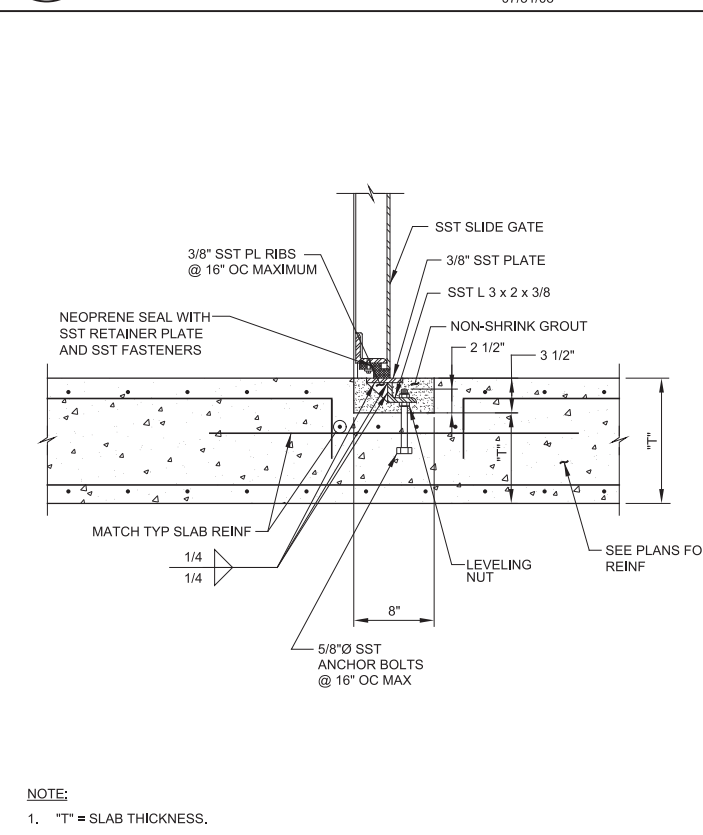
P662 PIPE SUPPORT FOR ONE VERTICAL RISER
TYP



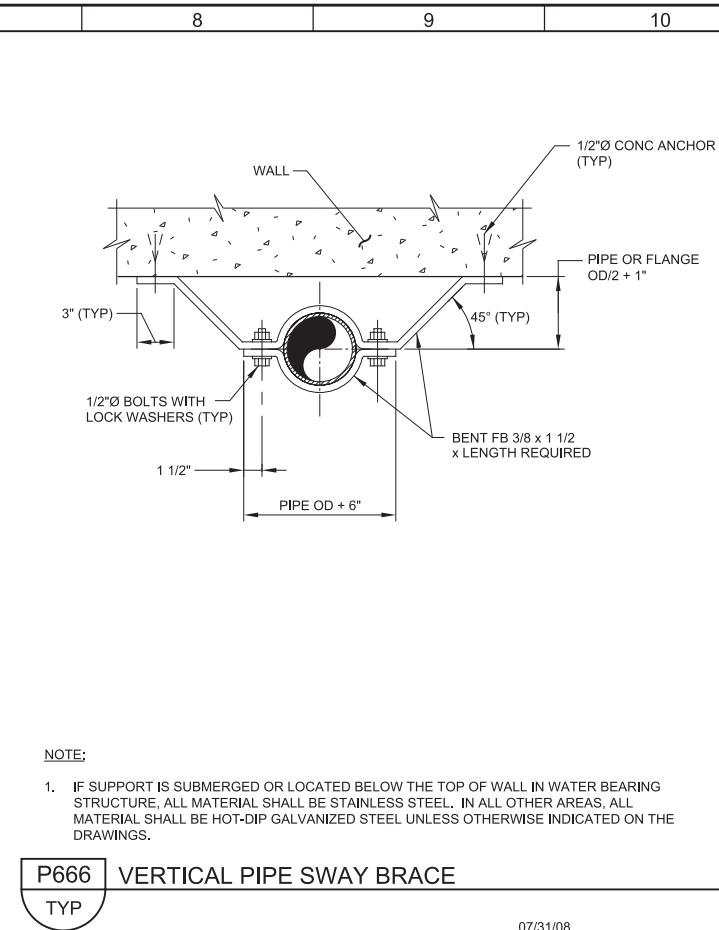
P710 SST-LOW-HEAD FABRICATED SLIDE GATE
TYP



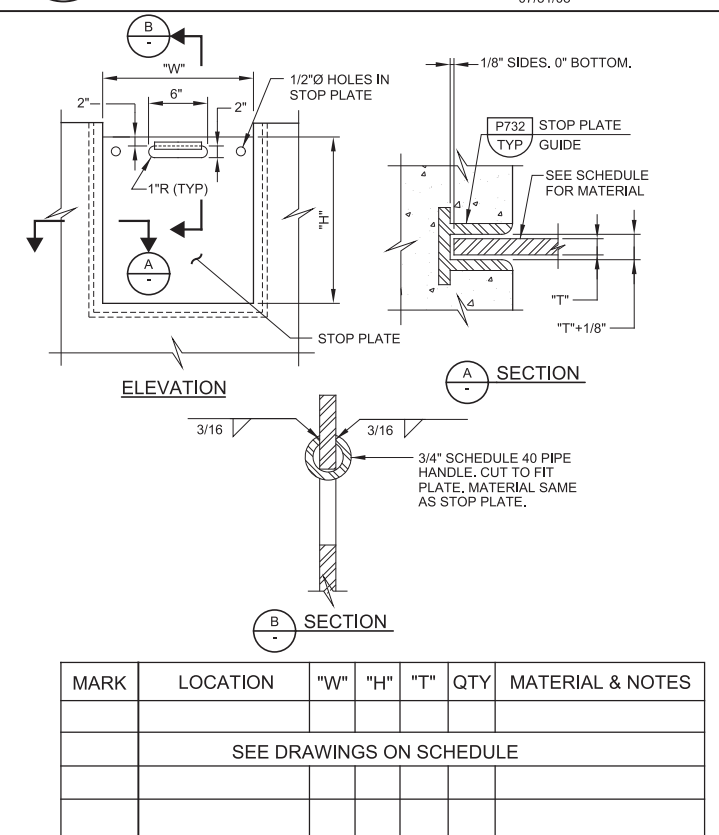
P664 PIPE SUPPORT - WALL STRAP
TYP



P720 SST LOW-HEAD FABRICATED SLIDE GATE WITH BOTTOM SEAL
TYP

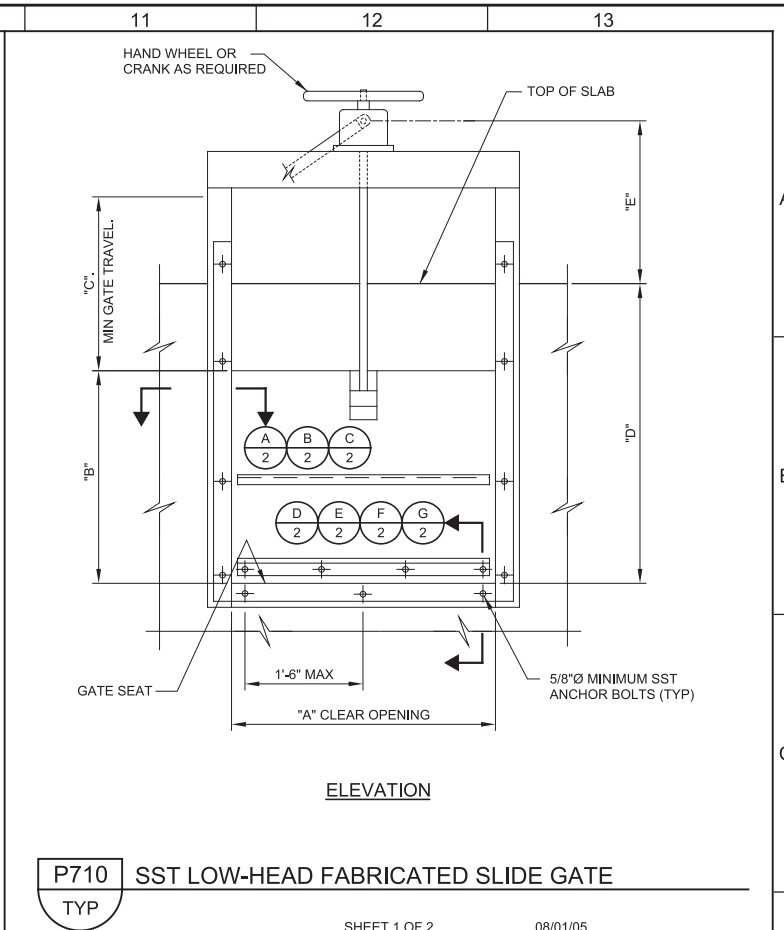


P666 VERTICAL PIPE SWAY BRACE
TYP

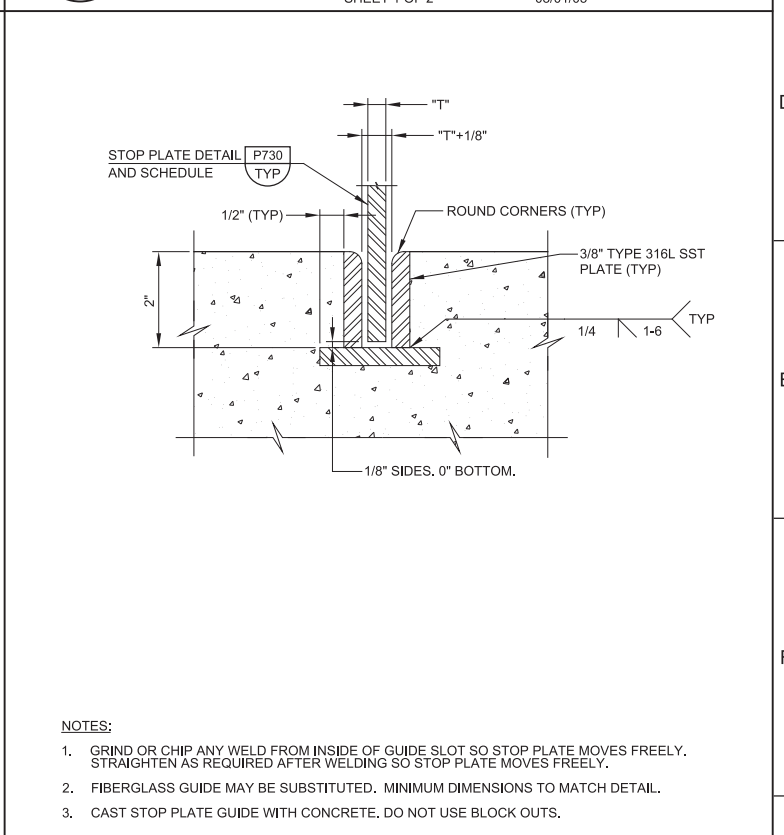


P730 STOP PLATE SCHEDULE AND GUIDE
TYP

MARK	LOCATION	"W"	"H"	"T"	QTY	MATERIAL & NOTES
SEE DRAWINGS ON SCHEDULE						



P710 SST LOW-HEAD FABRICATED SLIDE GATE
TYP



P732 STOP PLATE GUIDE
TYP

- NOTES:**
- GRIND OR CHIP ANY WELD FROM INSIDE OF GUIDE SLOT SO STOP PLATE MOVES FREELY. STRAIGHTEN AS REQUIRED AFTER WELDING SO STOP PLATE MOVES FREELY.
 - FIBERGLASS GUIDE MAY BE SUBSTITUTED. MINIMUM DIMENSIONS TO MATCH DETAIL.
 - CAST STOP PLATE GUIDE WITH CONCRETE. DO NOT USE BLOCK OUTS.

REV	DATE	BY	DESCRIPTION

DESIGNED RWB/JD	
DRAWN JRL	
CHECKED GCS	
DATE MARCH 2019	

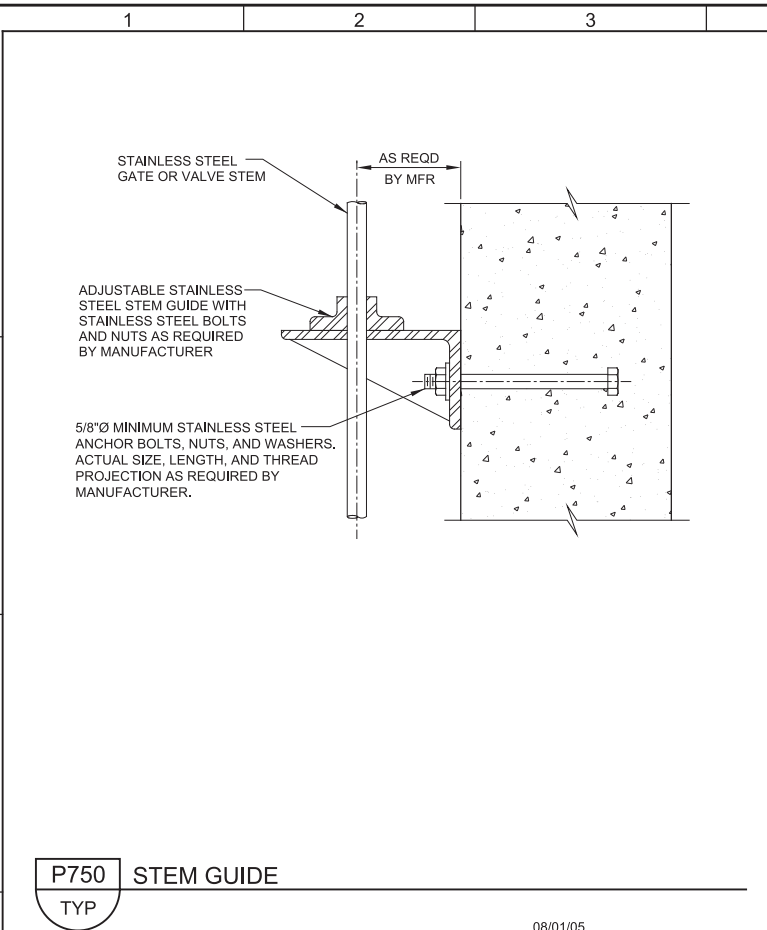


SV South Valley
WATER RECLAMATION FACILITY
7495 South 1300 West
West Jordan, Utah 84084

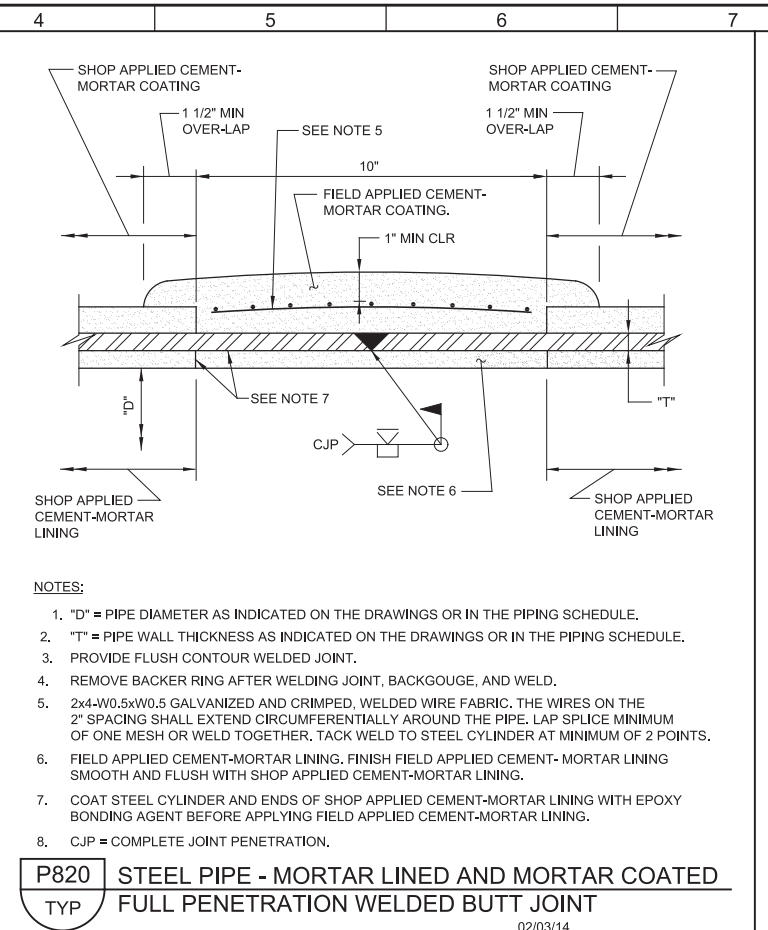
SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
TYPICAL DETAILS
PIPING TYPICAL DETAILS 7

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	JOB NO. 10548A.10 DRAWING NO. GM-09 SHEET NO. 116 OF 159
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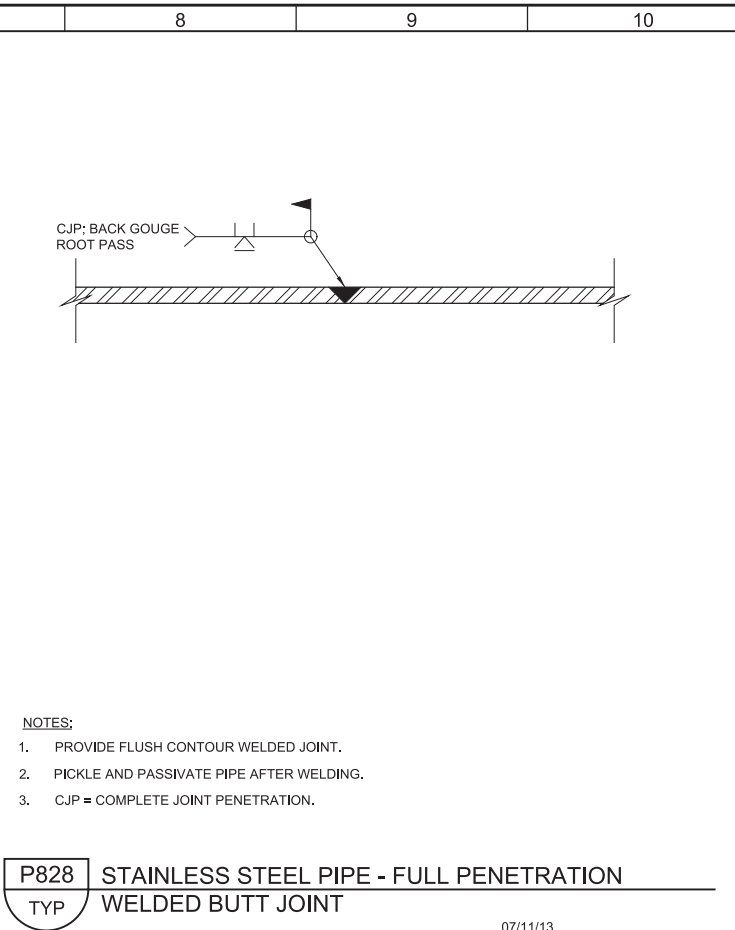
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 PlotScale: 2:1
 LAST SAVED BY: jfevre



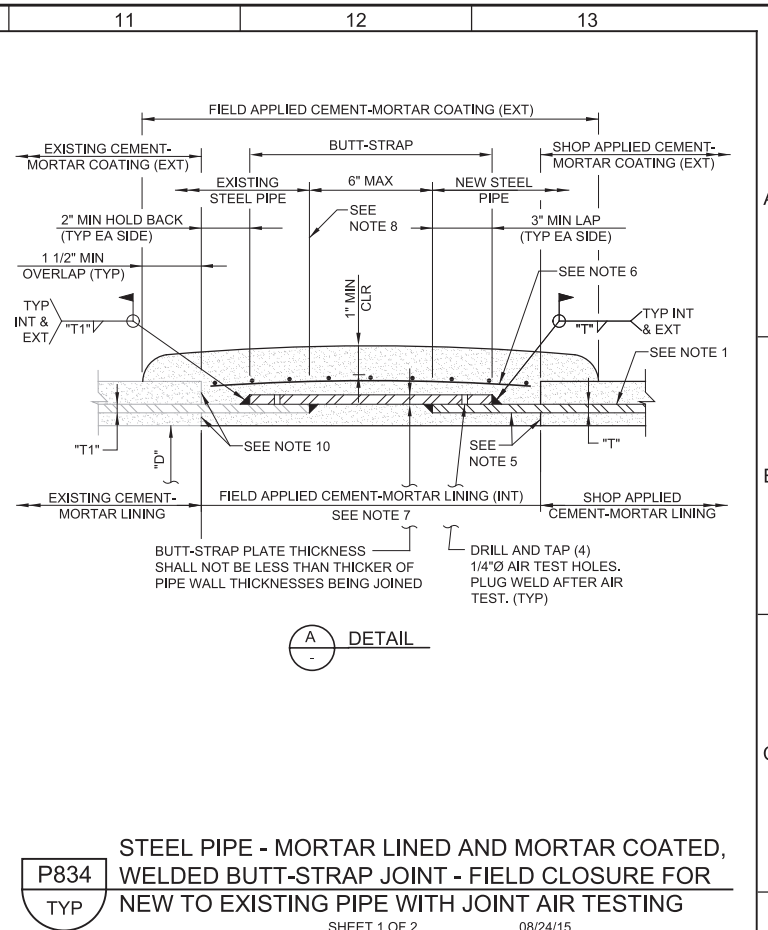
P750 STEM GUIDE
TYP
08/01/05



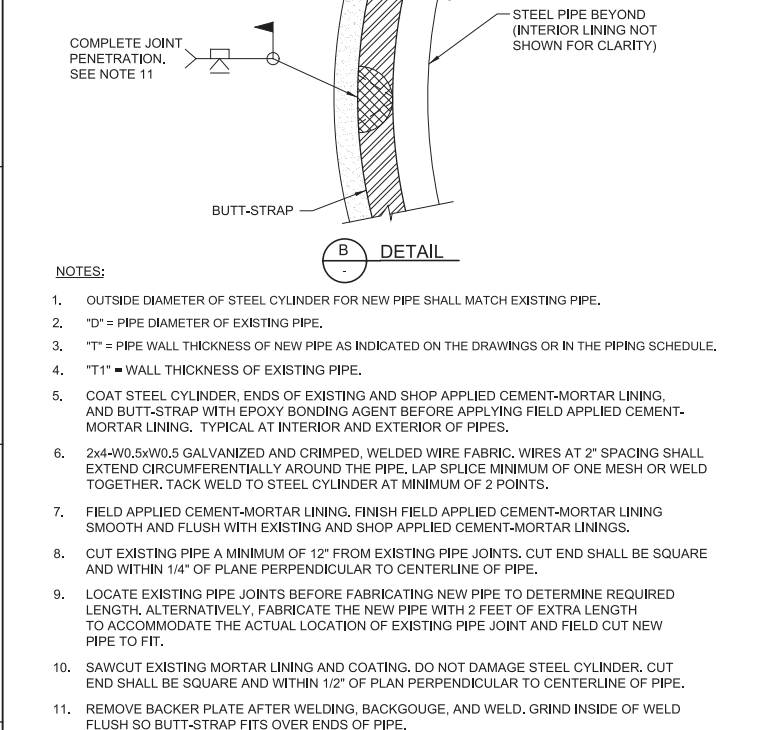
P820 STEEL PIPE - MORTAR LINED AND MORTAR COATED FULL PENETRATION WELDED BUTT JOINT
TYP
02/03/14



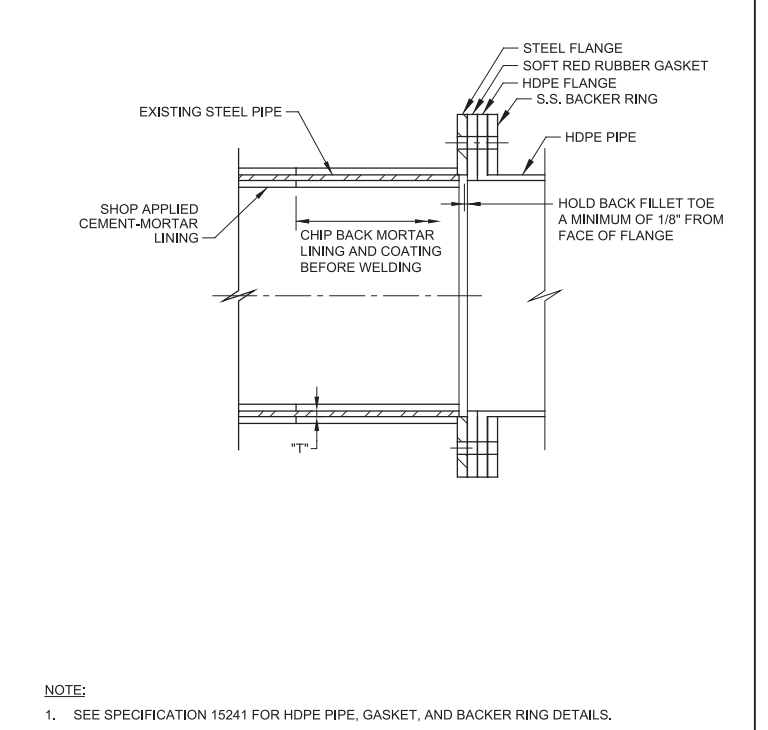
P828 STAINLESS STEEL PIPE - FULL PENETRATION WELDED BUTT JOINT
TYP
07/11/13



P834 STEEL PIPE - MORTAR LINED AND MORTAR COATED, WELDED BUTT-STRAP JOINT - FIELD CLOSURE FOR NEW TO EXISTING PIPE WITH JOINT AIR TESTING
TYP
SHEET 1 OF 2
08/24/15



P834 STEEL PIPE - MORTAR LINED AND MORTAR COATED, WELDED BUTT-STRAP JOINT - FIELD CLOSURE FOR NEW TO EXISTING PIPE WITH JOINT AIR TESTING
TYP
SHEET 2 OF 2
08/24/15



P851 STEEL PIPE WITH HDPE FLANGED CONNECTION
TYP
10/17/18

REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED
RWB/JD
DRAWN
JRL
CHECKED
GCS
DATE
MARCH 2019

carollo

South Valley
WATER RECLAMATION FACILITY
7495 South 1300 West
West Jordan, Utah 84084

SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
TYPICAL DETAILS
PIPING TYPICAL DETAILS 8

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

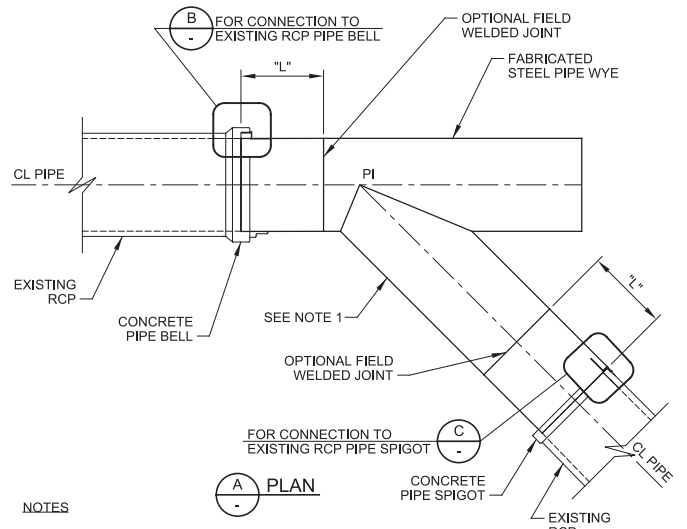
JOB NO.
10548A.10
DRAWING NO.
GM-10
SHEET NO.
117 OF 159

Plot Date: 28-FEB-2019 8:06:38 AM

User: svcPW

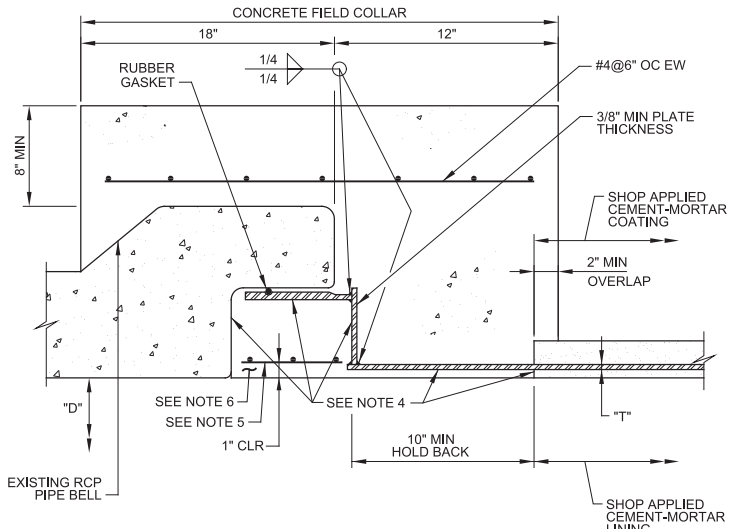
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LAST SAVED BY: jfevre

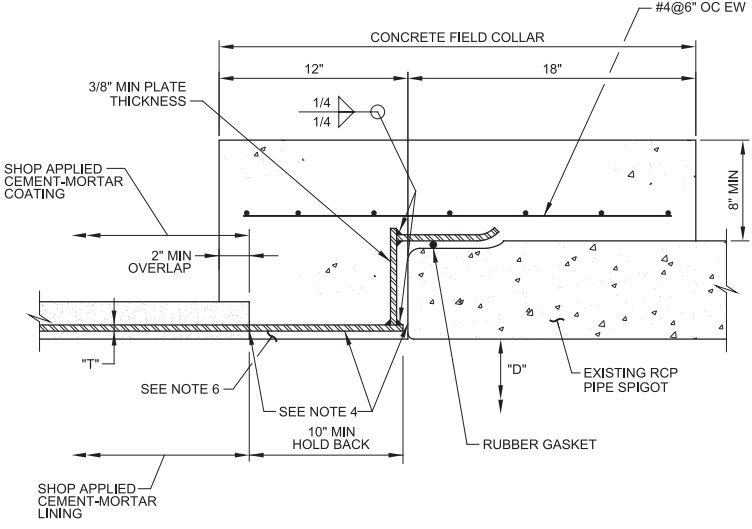


- NOTES**
- MORTAR COATING ON STEEL PIPE NOT SHOWN FOR CLARITY.
 - END CONNECTIONS ON STEEL WYE SHALL MATCH BELL OR SPIGOT USED ON CONNECTING ENDS OF RCP.
 - "L" = GREATER OF LENGTH INDICATED ON THE DRAWINGS AND LENGTH REQUIRED FOR RCP JOINT LAYOUT. 12" MIN LENGTH. CONTRACTOR TO FIELD MEASURE ALL EXISTING PIPE DIMENSIONS AND LAYOUTS.
 - COAT STEEL CYLINDER, END OF SHOP APPLIED CEMENT-MORTAR LINING AND END OF RCP PIPE WITH EPOXY BONDING AGENT BEFORE APPLYING FIELD APPLIED CEMENT-MORTAR LINING.
 - 2x4-W0.5 GALVANIZED AND CRIMPED, WELDED WIRE FABRIC.
 - FIELD APPLIED CEMENT-MORTAR LINING. FINISH FIELD APPLIED CEMENT-MORTAR LINING SMOOTH AND FLUSH WITH SHOP APPLIED CEMENT-MORTAR LINING.
 - CONTRACTOR TO DIG UP AND MEASURE EXISTING RCP JOINT DIMENSIONS AND SPACING BEFORE THE NEW STEEL WYE CAN BE DETAILED AND FABRICATED.

P883 FABRICATED MORTAR LINED AND MORTAR COATED STEEL PIPE WYE TO EXISTING RCP
TYP R SHEET 1 OF 3 02/15/19



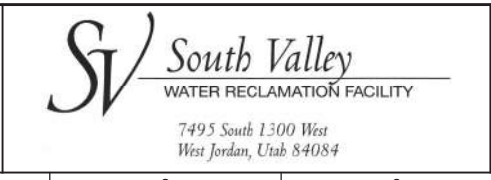
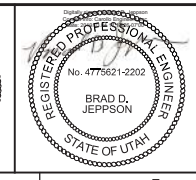
B DETAIL - EXISTING RCP PIPE BELL TO STEEL PIPE CONNECTION
TYP R SHEET 2 OF 3 02/15/19



C DETAIL - EXISTING RCP PIPE SPIGOT TO STEEL PIPE CONNECTION
TYP R SHEET 3 OF 3 02/15/19

REV	DATE	BY	DESCRIPTION

DESIGNED
RWB/JD
DRAWN
JRL
CHECKED
GCS
DATE
MARCH 2019



SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
TYPICAL DETAILS
PIPING TYPICAL DETAILS 9

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
10548A.10
DRAWING NO.
GM-11
SHEET NO.
118 OF 159

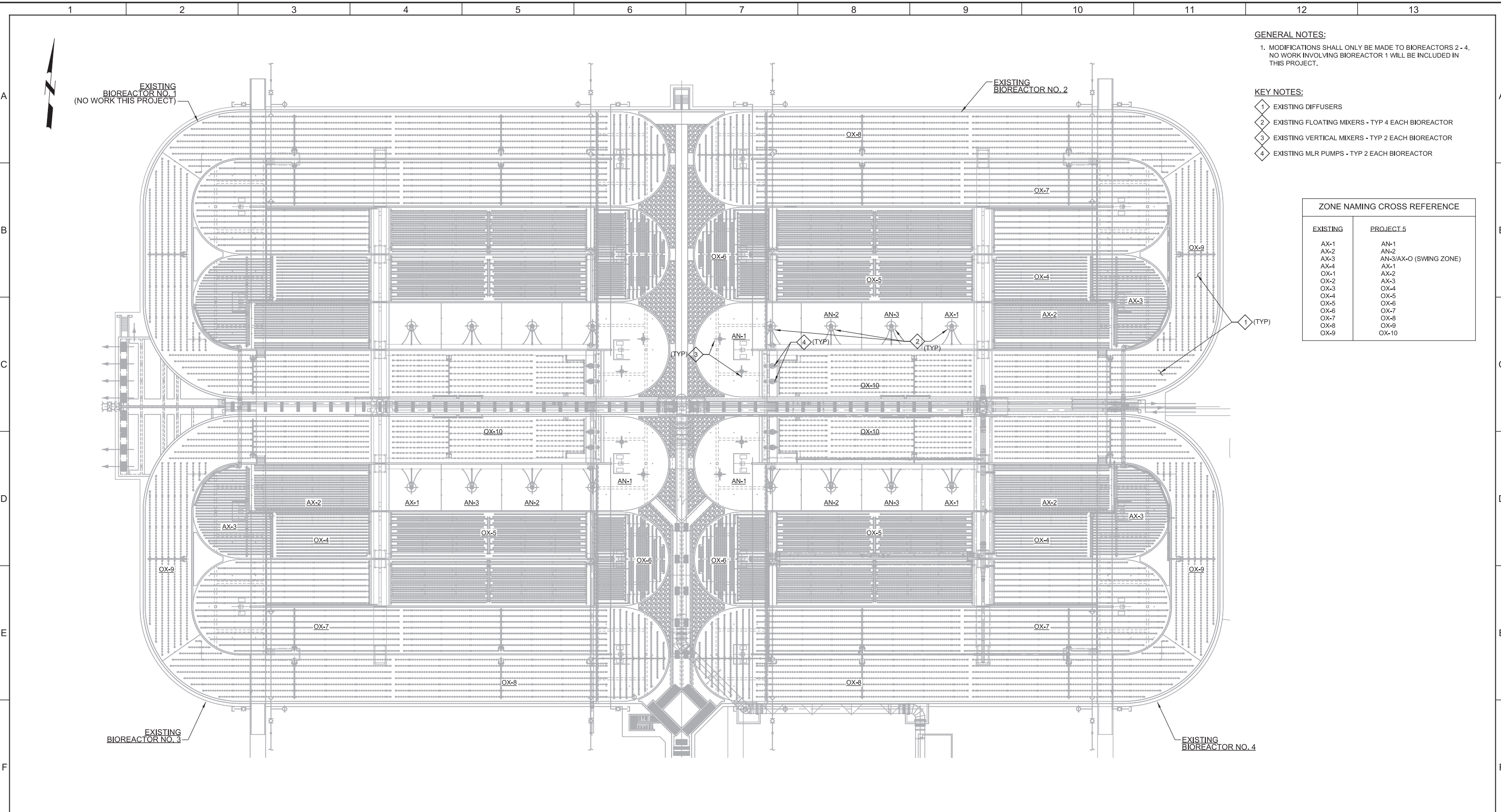
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User: svcPW

Plot Scale: 2:1

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo_Std_Pen_v0905.pen PlotScale: 2:1

LAST SAVED BY: jscheele



GENERAL NOTES:
 1. MODIFICATIONS SHALL ONLY BE MADE TO BIOREACTORS 2 - 4. NO WORK INVOLVING BIOREACTOR 1 WILL BE INCLUDED IN THIS PROJECT.

KEY NOTES:

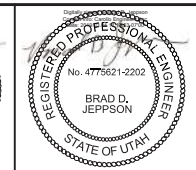
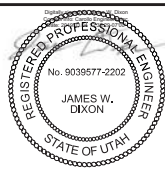
- 1 EXISTING DIFFUSERS
- 2 EXISTING FLOATING MIXERS - TYP 4 EACH BIOREACTOR
- 3 EXISTING VERTICAL MIXERS - TYP 2 EACH BIOREACTOR
- 4 EXISTING MLR PUMPS - TYP 2 EACH BIOREACTOR

ZONE NAMING CROSS REFERENCE	
EXISTING	PROJECT 5
AX-1	AN-1
AX-2	AN-2
AX-3	AN-3/AX-O (SWING ZONE)
AX-4	AX-1
OX-1	AX-2
OX-2	AX-3
OX-3	OX-4
OX-4	OX-5
OX-5	OX-6
OX-6	OX-7
OX-7	OX-8
OX-8	OX-9
OX-9	OX-10

A EXISTING BIOREACTORS PLAN
 SCALE: 1" = 30'
 FILE: 10548A10M169101

REV	DATE	BY	DESCRIPTION

DESIGNED JD
 DRAWN KHB
 CHECKED GCS
 DATE MARCH 2019



SV South Valley
 WATER RECLAMATION FACILITY
 7495 South 1300 West
 West Jordan, Utah 84084

SOUTH VALLEY WATER RECLAMATION FACILITY
 PROJECT 5
 MECHANICAL
BIOREACTORS
OVERALL EXISTING PLAN

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1"
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 10548A.10
 DRAWING NO. **M16-01**
 SHEET NO. 119 OF 159

Plot Date: 27-FEB-2019 2:43:06 PM
 User: svcPW
 Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo_Std_Pen_v0905.pen PlotScale: 2:1
 LAST SAVED BY: ascheale

EXISTING BIOREACTOR NO. 1
(NO WORK THIS PROJECT)

EXISTING BIOREACTOR NO. 2

EXISTING BIOREACTOR NO. 3

EXISTING BIOREACTOR NO. 4

- GENERAL NOTES:**
- SEE SPECIFICATION SECTION 01230 FOR BID ALTERNATIVES.
- KEY NOTES:**
- NEW FLOATING MIXER PER SPECIFICATION SECTION 11224A (TYP OF 6), SEE SECTION JM16-08 AND DETAIL 8/M16-10.
 - NEW MIXED LIQUOR PUMPS PER SPECIFICATION SECTION 11312P. (TYP OF 6).
 - NEW VERTICAL DECK-MOUNTED MIXER PER SPECIFICATION SECTION 11224B. (TYP OF 6), SEE SECTION H/M16-08.
 - REPLACE EXISTING PROPELLER ASSEMBLY ON EXISTING VERTICAL MIXERS PER SPECIFICATION SECTION 11224B. (TYP OF 6), SEE SECTION H/M16-08.
- KEY TAGS:**
- STOP PLATE GAT 16.266
 - STOP PLATE GAT 16.265
 - VERTICAL MIXER BRXB 602
 - VERTICAL MIXER BRXA 602
 - SLIDE GATE GAT 16.263
 - NOT USED
 - MIXED LIQUOR PUMP PMP 16.262
 - MIXED LIQUOR PUMP PMP 16.261
 - BUTTERFLY VALVE VAL 16.202
 - BUTTERFLY VALVE VAL 16.201
 - FLOATING MIXER BRX 16.207
 - FLOATING MIXER BRX 16.208
 - VERTICAL MIXER BRX 16.210
 - VERTICAL MIXER BRX 16.209
 - VERTICAL MIXER BRX 16.309
 - VERTICAL MIXER BRX 16.310
 - FLOATING MIXER BRX 16.308
 - FLOATING MIXER BRX 16.307
 - BUTTERFLY VALVE VAL 16.301
 - BUTTERFLY VALVE VAL 16.302
 - MIXED LIQUOR PUMP PMP 16.361
 - MIXED LIQUOR PUMP PMP 16.362
 - SLIDE GATE GAT 16.363
 - NOT USED
 - VERTICAL MIXER BRXA 603
 - VERTICAL MIXER BRXB 603
 - VERTICAL MIXER BRXA 604
 - VERTICAL MIXER BRXB 604
 - SLIDE GATE GAT 16.463
 - NOT USED
 - MIXED LIQUOR PUMP PMP 16.461
 - MIXED LIQUOR PUMP PMP 16.462
 - BUTTERFLY VALVE VAL 16.402
 - BUTTERFLY VALVE VAL 16.401
 - FLOATING MIXER BRX 16.407
 - FLOATING MIXER BRX 16.408
 - VERTICAL MIXER BRX 16.409
 - VERTICAL MIXER BRX 16.410
 - STOP PLATE GAT 16.365
 - STOP PLATE GAT 16.366
 - STOP PLATE GAT 16.465
 - STOP PLATE GAT 16.466
 - STOP PLATE GAT 16.267
 - STOP PLATE GAT 16.367
 - STOP PLATE GAT 16.467

B OVERALL LOWER PLAN
 SCALE: 1" = 30'
 FILE: 10548A10_16M-101

REV	DATE	BY	DESCRIPTION
1			
2			
3			

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DATE MARCH 2019	



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SOUTH VALLEY WATER RECLAMATION FACILITY
 PROJECT 5
 MECHANICAL
**BIOREACTORS
 OVERALL LOWER PLAN**

VERIFY SCALES	JOB NO. 10548A.10
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. M16-02
0 1"	SHEET NO. 120 OF 159
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	

Plot Date: 27-FEB-2019 2:41:46 PM

User: svcBW

PlotScale: 2:1

LAST SAVED BY: dscheele

1 2 3 4 5 6 7 8 9 10 11 12 13

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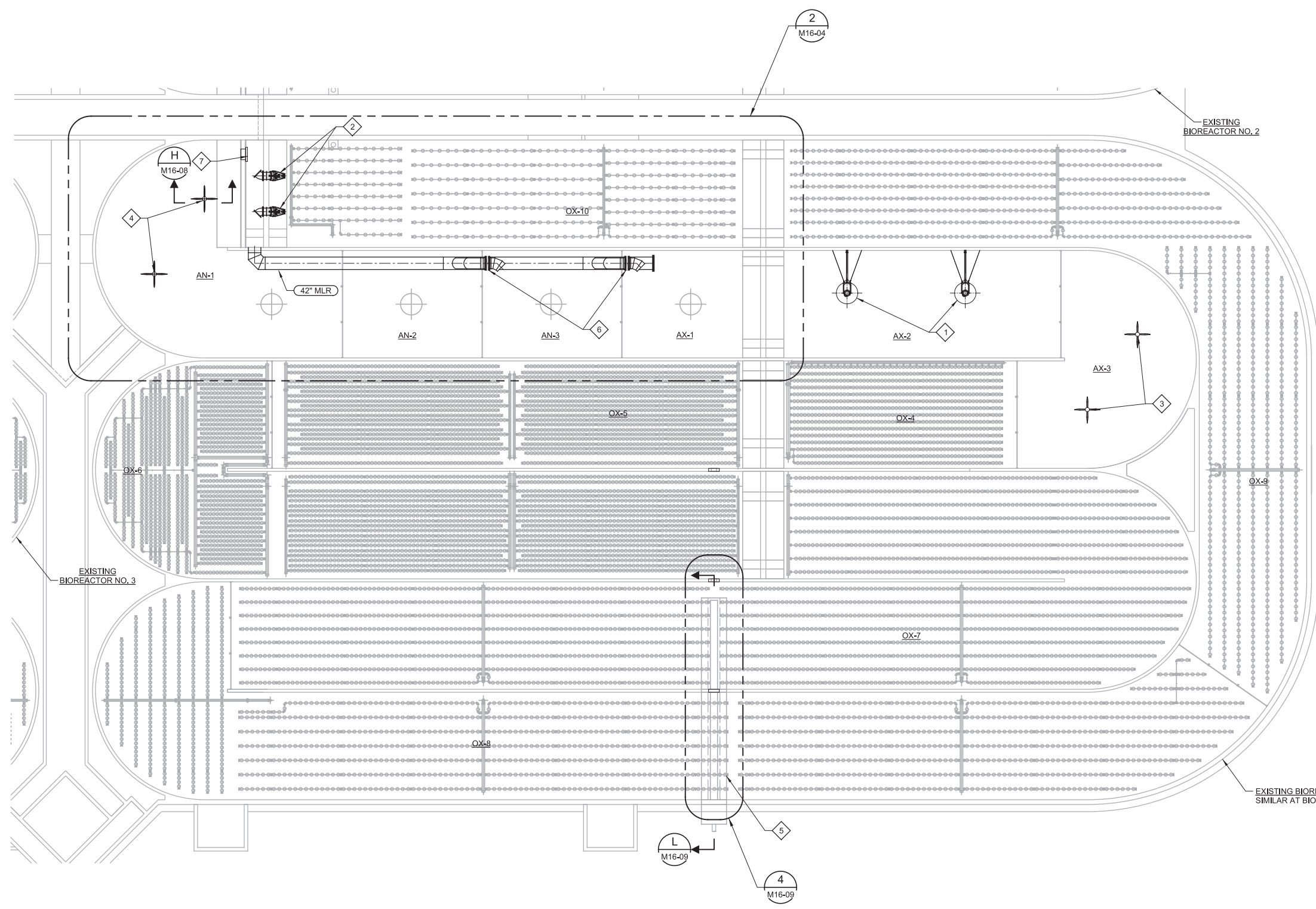
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GENERAL NOTES:

1. ALL IMPROVEMENTS NOTED HERE SHALL BE REQUIRED ON BIOREACTORS 2 THROUGH 4, UNLESS NOTED OTHERWISE.
2. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEBRIS AND BIOSOLID MATERIAL AS OUTLINED IN SECTION 01140, AND AS REQUIRED TO COMPLETE THE WORK. DIFFUSERS, PIPING, AND SUPPORTS SHALL BE PROTECTED IN PLACE. FOR BIDDING PURPOSES, ASSUME 6" OF SETTLED GRITLIKE MATERIAL ON THE FLOOR OF THE BASIN.
3. SEE SPECIFICATION SECTION 01230 FOR BID ALTERNATIVES.

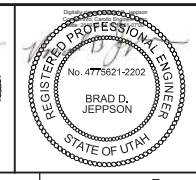
KEY NOTES:

- 1 NEW FLOATING MIXER PER SPECIFICATION SECTION 11224A (TYP OF 2 EACH BIOREACTOR), SEE SECTION J/M16-08.
- 2 NEW MIXED LIQUOR PUMPS PER SPECIFICATION SECTION 11312P (TYP OF 2 EACH BIOREACTOR).
- 3 NEW VERTICAL DECK-MOUNTED MIXER PER SPECIFICATION SECTION 11224C (TYP OF 2 EACH BIOREACTOR), SEE SECTION H/M16-08.
- 4 REPLACE EXISTING PROPELLER ASSEMBLY ON EXISTING VERTICAL MIXERS PER SPECIFICATION SECTION 11224B. (TYP OF 2 EACH BIOREACTOR). SEE SECTION H/M16-08.
- 5 REMOVE AND REPLACE IN-KIND DIFFUSER GRID FOR TRENCH DRAIN CONSTRUCTION. SEE DETAIL 5/M16-09.
- 6 NEW 36" BUTTERFLY VALVE PER SPECIFICATION SECTION 15112.
- 7 NEW GATE PER SPECIFICATION SECTION 11294C.

1 ENLARGED LOWER PLAN
 M16-02 SCALE: 1/16" = 1'-0"
 FILE: 10548A10_16M-101D

REV	DATE	BY	DESCRIPTION

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SOUTH VALLEY WATER RECLAMATION FACILITY
 PROJECT 5
 MECHANICAL
BIOREACTORS
TYPICAL ENLARGED LOWER PLAN

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1"
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
10548A.10
 DRAWING NO.
M16-03
 SHEET NO.
121 OF 159

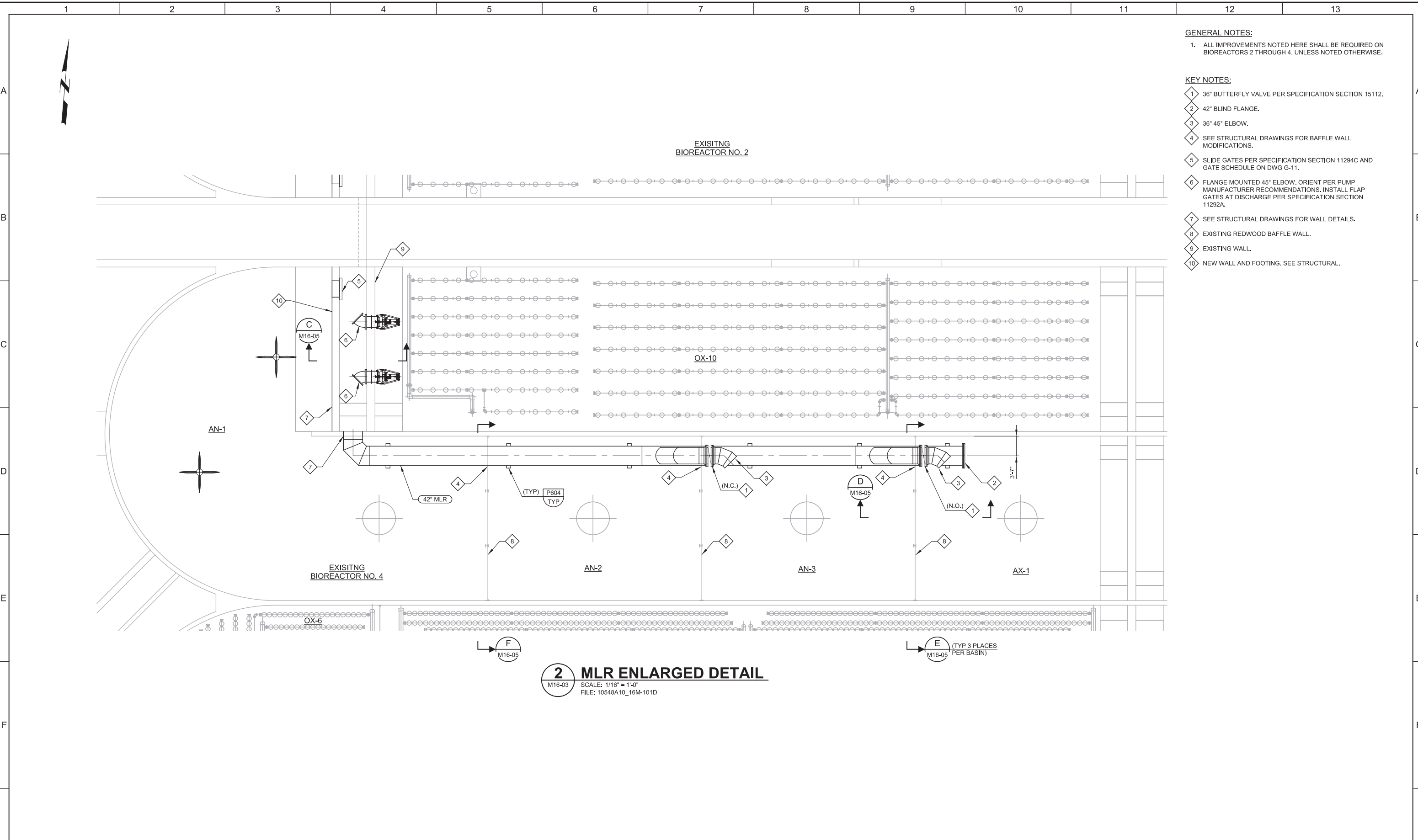
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User: svcPW

PlotScale: 2:1

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo_Std_Pen_v0905.pen

LAST SAVED BY: ascheele



- GENERAL NOTES:**
- ALL IMPROVEMENTS NOTED HERE SHALL BE REQUIRED ON BIOREACTORS 2 THROUGH 4, UNLESS NOTED OTHERWISE.
- KEY NOTES:**
- 36" BUTTERFLY VALVE PER SPECIFICATION SECTION 15112.
 - 42" BLIND FLANGE.
 - 36" 45° ELBOW.
 - SEE STRUCTURAL DRAWINGS FOR BAFFLE WALL MODIFICATIONS.
 - SLIDE GATES PER SPECIFICATION SECTION 11294C AND GATE SCHEDULE ON DWG G-11.
 - FLANGE MOUNTED 45° ELBOW. ORIENT PER PUMP MANUFACTURER RECOMMENDATIONS. INSTALL FLAP GATES AT DISCHARGE PER SPECIFICATION SECTION 11292A.
 - SEE STRUCTURAL DRAWINGS FOR WALL DETAILS.
 - EXISTING REDWOOD BAFFLE WALL.
 - EXISTING WALL.
 - NEW WALL AND FOOTING. SEE STRUCTURAL.

2 MLR ENLARGED DETAIL
 M16-03 SCALE: 1/16" = 1'-0"
 FILE: 10548A10_16M-101D

REV	DATE	BY	DESCRIPTION
1			
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GCS
 DATE
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SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
 MECHANICAL
BIOREACTORS MLR DETAIL

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1"
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
10548A.10
 DRAWING NO.
M16-04
 SHEET NO.
122 OF 159

Plot Date: 27-FEB-2019 2:42:28 PM

User: svcPW

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo_Sld_Pen_v0905.pen PlotScale: 2:1

LAST SAVED BY: ascheale

1 2 3 4 5 6 7 8 9 10 11 12 13

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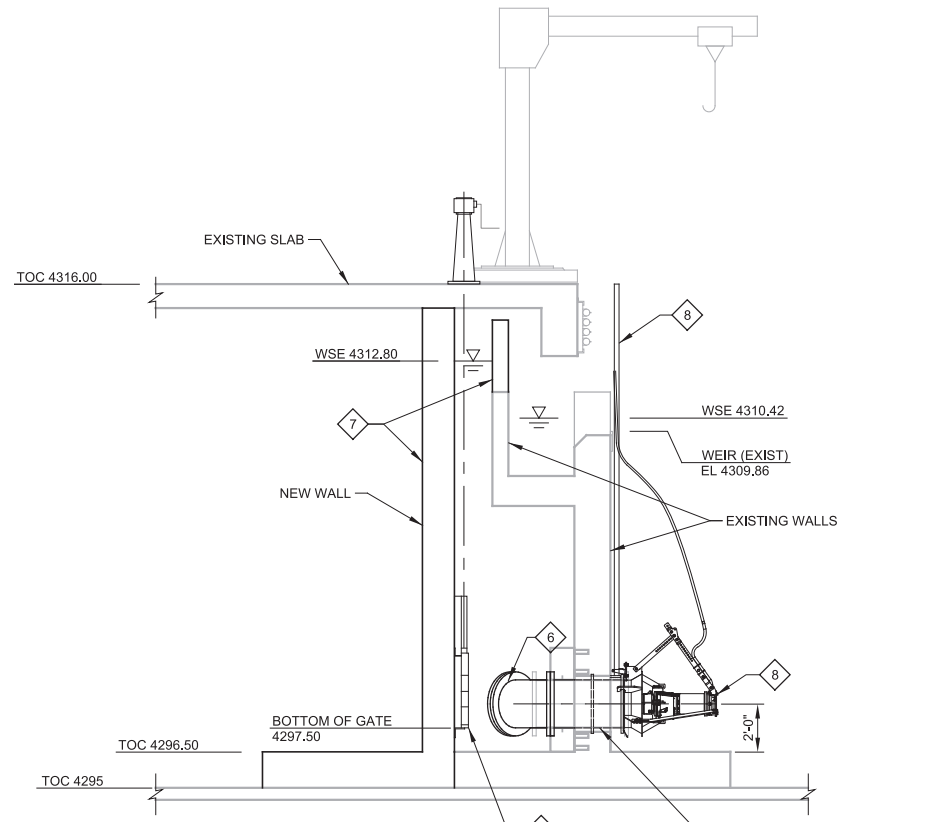
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GENERAL NOTES:

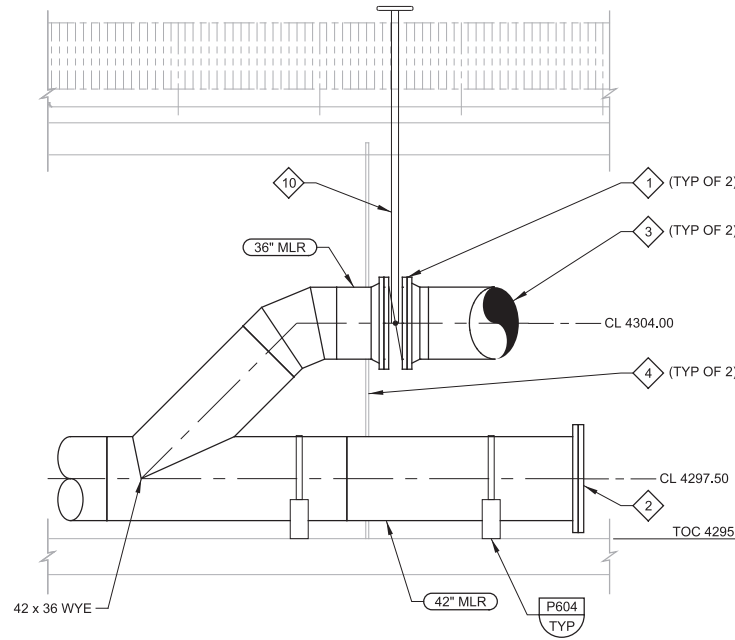
- 1. ALL IMPROVEMENTS NOTED HERE SHALL BE REQUIRED ON BIOREACTORS 2 THROUGH 4, UNLESS NOTED OTHERWISE.

KEY NOTES:

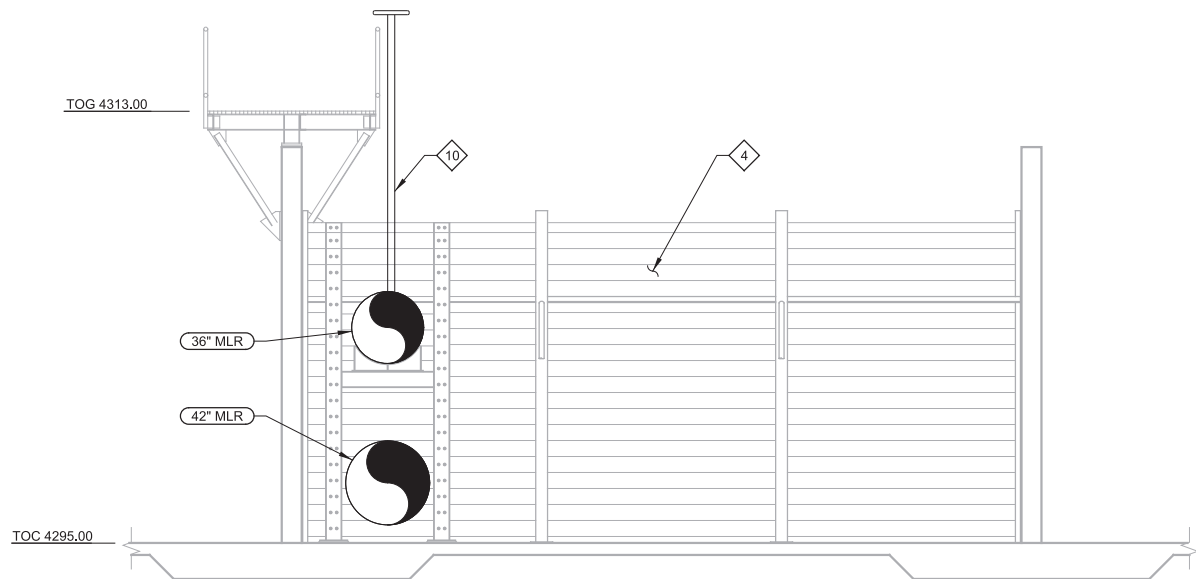
- 1 36" BUTTERFLY VALVE WITH VALVE STEM/ HANDWHEEL PER SPECIFICATION SECTION 15112.
- 2 42" BOLTED BLIND FLANGE.
- 3 36" 45° ELBOW.
- 4 EXISTING REDWOOD BAFFLE WALL. SEE STRUCTURAL DRAWINGS FOR BAFFLE WALL MODIFICATIONS.
- 5 SLIDE GATES PER SPECIFICATION SECTION 11294C.
- 6 FLANGE MOUNTED 45° ELBOW. ORIENT PER PUMP MANUFACTURER RECOMMENDATIONS. INSTALL FLAP GATES AT DISCHARGE PER SPECIFICATION SECTION 11292A.
- 7 SEE STRUCTURAL DRAWINGS FOR WALL DETAILS.
- 8 NEW AXIAL WALL PUMP AND RAIL PER SPECIFICATION SECTION 11312P. INCREASE WALL CORE SIZE TO FIT NEW PUMP PER STRUCTURAL.
- 9 FLOATING MIXER SHOWN IN LOWER POSITION.
- 10 INSTALL VALVES WITH TORQUE TUBES TO MAINTAIN ACTUATORS ABOVE THE WATER. INSTALL THE ACTUATORS AT WALKWAY ELEVATIONS SO THAT OPERATORS HAVE EASY ACCESS. ATTACH TORQUE TUBES AND ACTUATORS TO THE WALKWAY PER TUBE MANUFACTURER RECOMMENDATIONS.



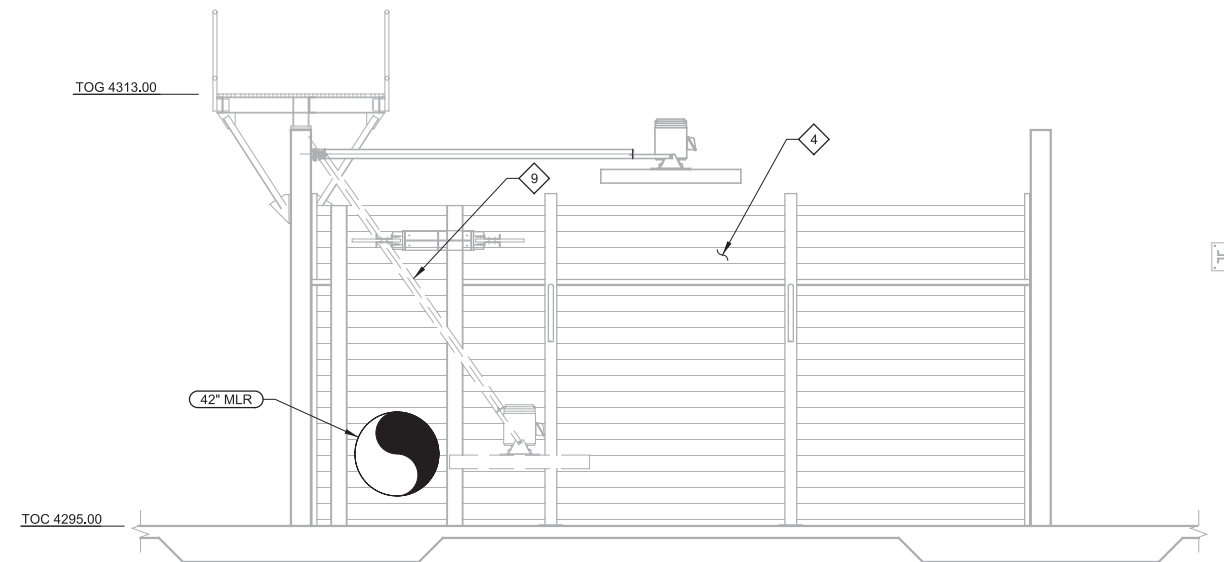
C SECTION
 M16-04 SCALE: 1/4" = 1'-0"
 FILE: 10548A10M16301D
 SEE 16 FOR WALL PENETRATION DETAIL



D SECTION
 M16-04 SCALE: 1/4" = 1'-0"
 FILE: 10548A10M16301B



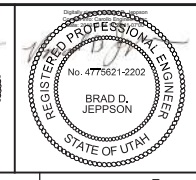
E SECTION
 M16-04 SCALE: 1/4" = 1'-0"
 FILE: 10548A10M16302B



F SECTION
 M16-04 SCALE: 1/8" = 1'-0"
 FILE: 10548A10_16M-302B

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KHB
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GCS
 DATE
MARCH 2019



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 WATER RECLAMATION FACILITY
 7495 South 1300 West
 West Jordan, Utah 84084

SOUTH VALLEY WATER RECLAMATION FACILITY
 PROJECT 5
 MECHANICAL
BIOREACTORS MLR SECTIONS

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1"
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
10548A.10
 DRAWING NO.
M16-05
 SHEET NO.
123 OF 159

Plot Date: 27-FEB-2019 2:42:38 PM

User: svcPW

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo_Std_Pen_v0905.pen PlotScale: 2:1

LAST SAVED BY: ascheale

1 2 3 4 5 6 7 8 9 10 11 12 13

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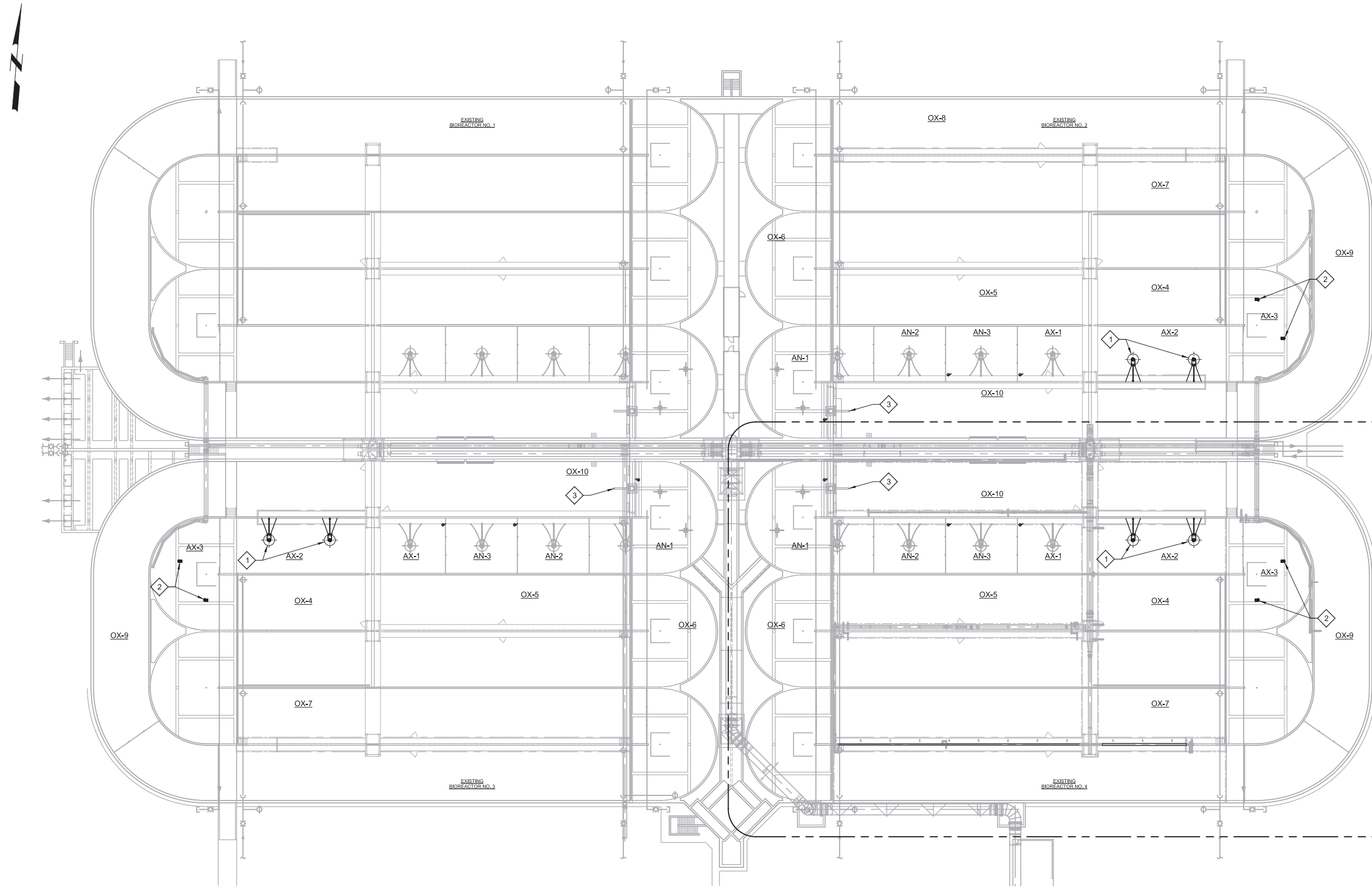
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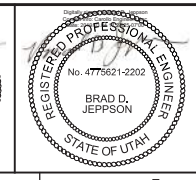


- GENERAL NOTES:**
- ALL IMPROVEMENTS NOTED HERE SHALL BE REQUIRED ON BIOREACTORS 2 THROUGH 4, UNLESS NOTED OTHERWISE.
 - SEE SPECIFICATION SECTION 01230 FOR BID ALTERNATIVES.
- KEY NOTES:**
- NEW FLOATING MIXER PER SPECIFICATION SECTION 11224A (TYP OF 6).
 - NEW VERTICAL DECK-MOUNTED MIXER PER SPECIFICATION SECTION 11224C (TYP OF 6).
 - EXISTING JIB CRANE, TYP. (TYP OF 3)

G OVERALL UPPER PLAN
 SCALE: 1" = 30'
 FILE: 10548A10M16102

REV	DATE	BY	DESCRIPTION
1			
2			
3			

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SOUTH VALLEY WATER RECLAMATION FACILITY
 PROJECT 5
 MECHANICAL
BIOREACTORS
OVERALL UPPER PLAN

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1"
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
10548A.10
 DRAWING NO.
M16-06
 SHEET NO.
124 OF 159

Plot Date: 27-FEB-2019 2:41:39 PM

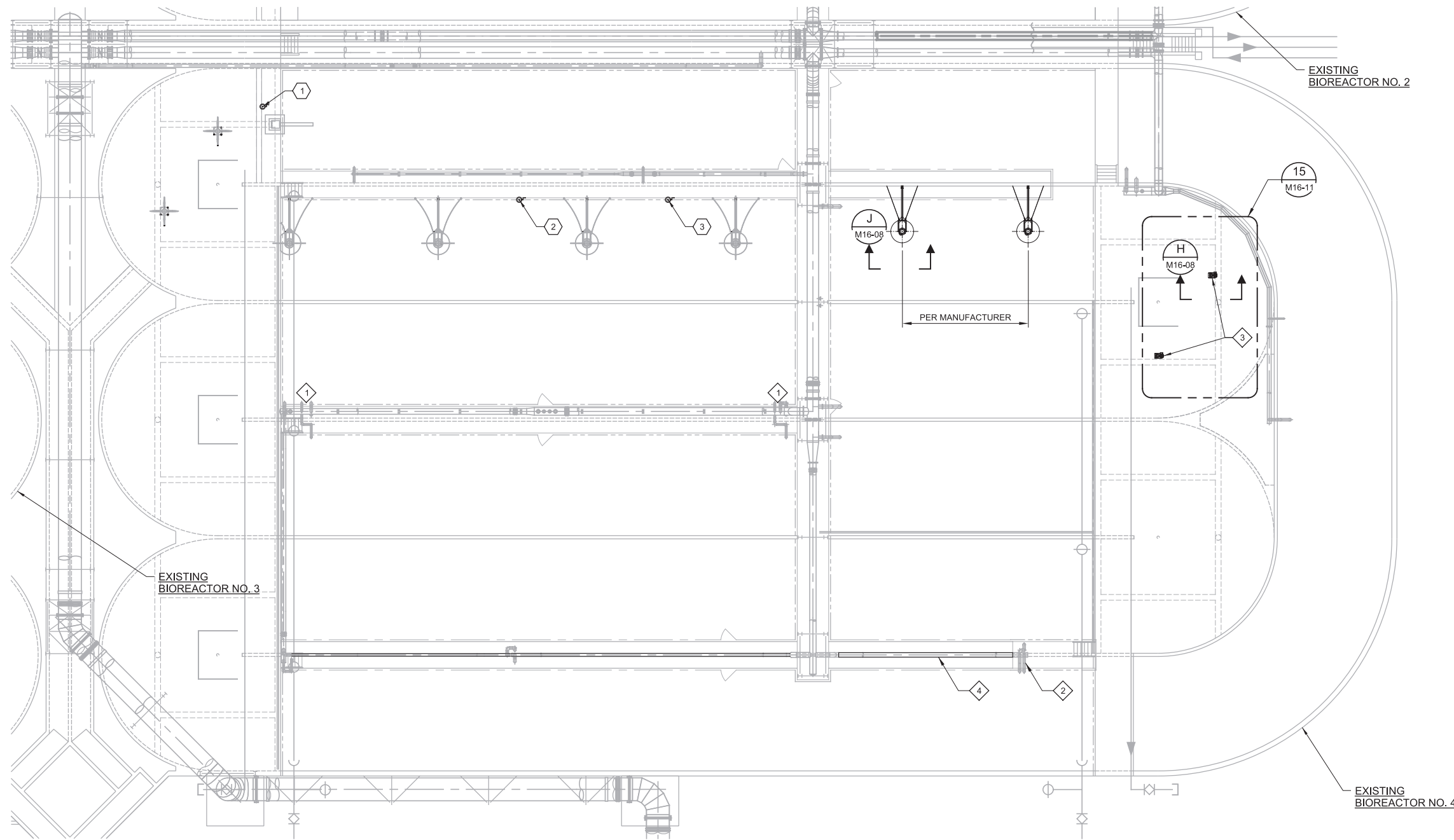
User: svcPW

PlotScale: 2:1

LAST SAVED BY: ascheele

1 2 3 4 5 6 7 8 9 10 11 12 13

A
B
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- GENERAL NOTES:**
1. ALL IMPROVEMENTS NOTED HERE SHALL BE REQUIRED ON BIOREACTORS 2 THROUGH 4, UNLESS NOTED OTHERWISE.
 2. SEE SPECIFICATION SECTION 01230 FOR BID ALTERNATIVES.
 3. CONTRACTOR SHALL PROVIDE FINAL LOCATION OF NEW MIXERS PER MFR DESIGN AS DESCRIBED IN SECTION 11224A AND SECTION 11224 B.
 4. INSTALL VALVE ACTUATORS ON ALL MANUAL AIR VALVES PER SPECIFICATION SECTION 13447 AT 14 VALVES PER BIOREACTOR.

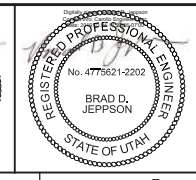
- KEY NOTES:**
1. REPLACE 4" AIR VALVES IN OX-6 WITH NEW 6" VALVES PER DETAIL 10/M16-12. DEMO OF EXISTING VALVES IS SHOWN ON DRAWING D16-04 (TYP OF 6).
 2. EXTEND UTILITY WATER PIPING ALONG ENTIRE WALKWAY. PROVIDE HOSE BIB CONNECTIONS AT 50 FOOT INTERVALS.
 3. NEW VERTICAL DECK-MOUNTED MIXER PER SPECIFICATION SECTION 11224C (TYP OF 6).
 4. RELOCATE EXISTING AIR PIPING ON TOP OF NEW WALKWAY. SIMILAR TO EXISTING WALKWAYS. ADJUST PIPING AND FITTINGS AS NECESSARY.

- KEY TAGS:**
1. SLIDE GATE GAT16.463
 2. BUTTERFLY VALVE VAL 16.401
 3. BUTTERFLY VALVE VAL 16.402

3 ENLARGED UPPER PLAN
 16M-06 SCALE: 1/16" = 1'-0"
 FILE: 10548A10_16M-102

REV	DATE	BY	DESCRIPTION

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GCS
 DATE
MARCH 2019



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 7495 South 1300 West
 West Jordan, Utah 84084

SOUTH VALLEY WATER RECLAMATION FACILITY
 PROJECT 5
 MECHANICAL
BIOREACTORS
 TYPICAL ENLARGED UPPER PLAN

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1"
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
10548A.10
 DRAWING NO.
M16-07
 SHEET NO.
125 OF 159

Plot Date: 27-FEB-2019 2:42:48 PM

User: svcPW

Plot Scale: 2:1

Design Script: Carollo_Sld_Pen_v0905.pen

Color Table: gshade.ctb

Model: Layout1

Color Table: gshade.ctb

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Color Table: gshade.ctb

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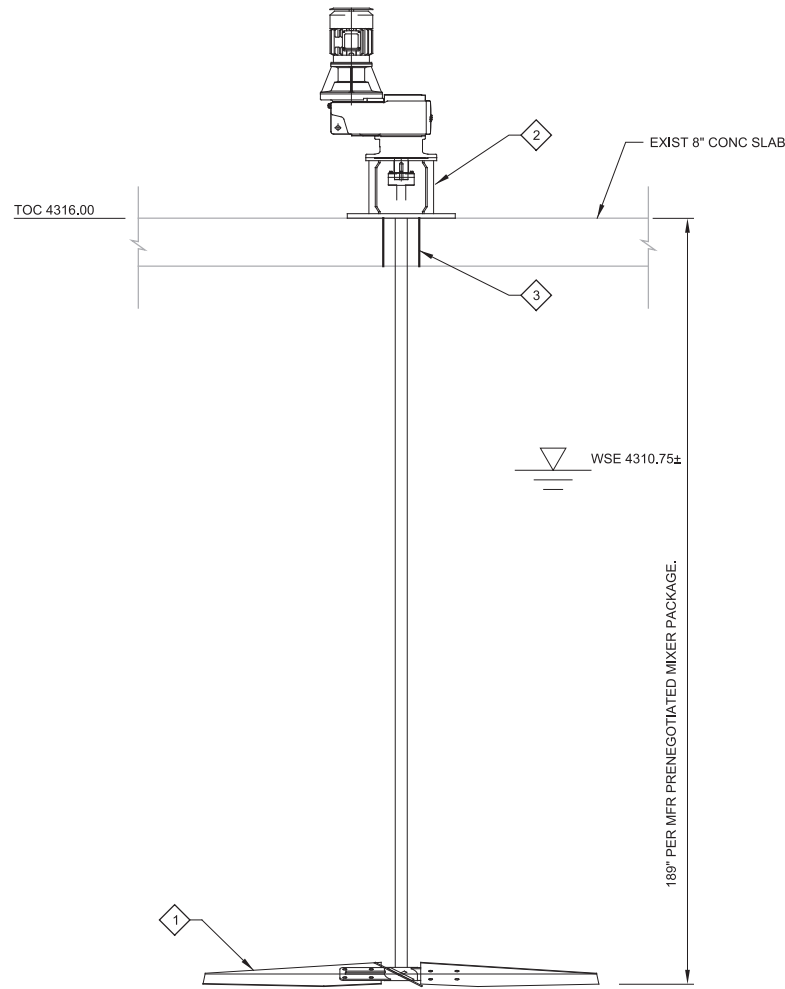
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GENERAL NOTES:

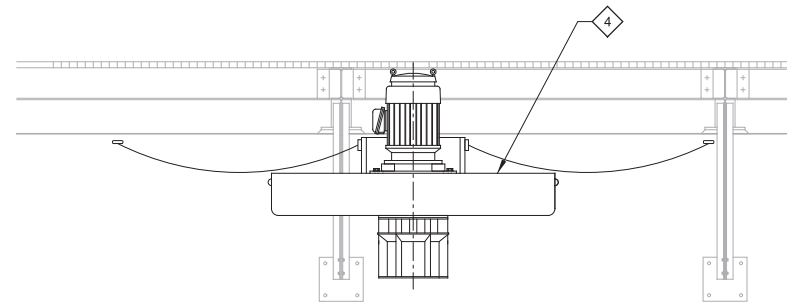
- 1. ALL IMPROVEMENTS NOTED HERE SHALL BE REQUIRED ON BIOREACTORS 2 THROUGH 4, UNLESS NOTED OTHERWISE.

KEY NOTES:

- 1. SUPPLY AND INSTALL NEW VERTICAL MIXERS (TYP OF 6). REPLACE EXISTING IMPELLER ON EXISTING MIXERS WITH 99" DIAMETER IMPELLER (TYP OF 6). SEE MIXER SCHEDULE ON DWG G-11 FOR DETAILS.
- 2. SUPPLY 6 NEW MIXERS. SEE SPECIFICATION SECTION 11224C AND MIXER SCHEDULE ON G-11.
- 3. DRILL PENETRATION IN DECK SUFFICIENT TO LEAVE ANNULAR SPACE PER MANUFACTURER RECOMMENDATIONS FOR THE SHAFT. LOCATE PENETRATION TO PREVENT DAMAGING EXISTING REBAR WHEN CORING.
- 4. SEE SPECIFICATION SECTION 11224A AND MIXER SCHEDULE ON DRAWING G-11.



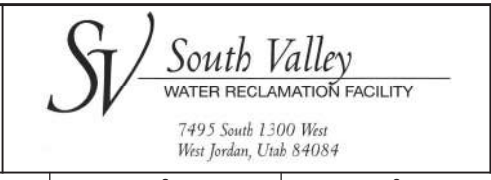
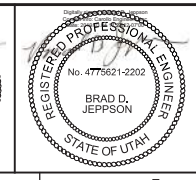
H VERTICAL SHAFT MIXER SECTION
 M16-07 SCALE: 1/2" = 1'-0"
 FILE: 10548A10M16312



J FLOATING MIXER SECTION
 M16-07 SCALE: 1/2" = 1'-0"
 FILE: 10548A10M16313

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DATE MARCH 2019



SOUTH VALLEY WATER RECLAMATION FACILITY
 PROJECT 5
 MECHANICAL
 BIOREACTORS
 SECTIONS AND DETAILS 1

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1"
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

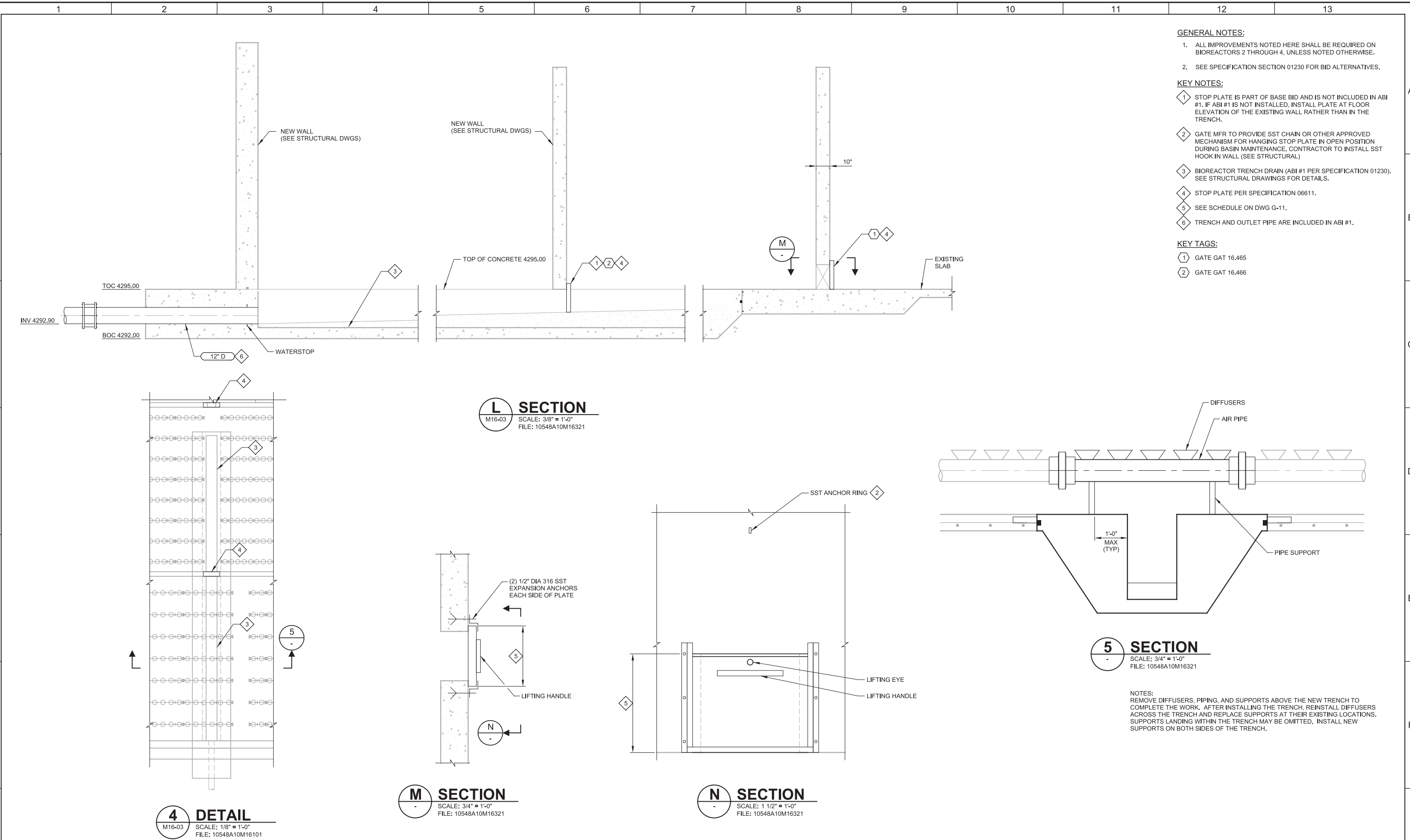
JOB NO.
10548A.10
 DRAWING NO.
M16-08
 SHEET NO.
126 OF 159

Plot Date: 27-FEB-2019 2:42:21 PM

User: svcPW

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo_Std_Pen_v0905.pen PlotScale: 2:1

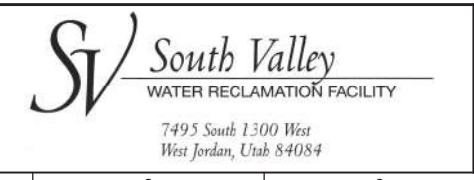
LAST SAVED BY: ascheale



REV	DATE	BY	DESCRIPTION

DESIGNED JD	
DRAWN KHB	
CHECKED GCS	
DATE MARCH 2019	

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SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
MECHANICAL
BIOREACTORS
SECTIONS AND DETAILS 2

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	JOB NO. 10548A.10 DRAWING NO. M16-09 SHEET NO. 127 OF 159
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