

Plot Date: 10/15/2021 9:57:28 AM

201238GN04.dwg

201238-100000

jwicks

FLOW	
	BATCH
	CORIOLIS
	MAGNETIC
	ORIFICE
	PADDLE WHEEL
	PISTON
	ANNUBAR
	PITOT TUBE
	POSITIVE-DISPLACEMENT
	PROPELLER-TURBINE
	ROTAMETER
	THERMAL
	ULTRASONIC
	ULTRASONIC BIOGAS

	V-CONE
	VENTURI TUBE OR FLOW NOZZLE
	VORTEX

FLUMES	
	LEOPOLD-LAGCO
	PALMER-BOWLUS
	PARSHALL
	REGULAR CUTTHROAT
	TRAPEZOIDAL

GATES	
SIDE VIEW	PLAN VIEW
	FLAP
	KNIFE
	SLIDE
	SLUICE
	STOP
	WEIR
	BUTTERFLY

LEVEL	
	BUBBLER
	CAPACITANCE
	DIFFERENTIAL PRESSURE
	ELECTRODE
	FLOAT
	INVERTED COLUMN
	PROBE
	RADAR PTOF
	RADAR (FREQUENCY MODULATED CONTINUOUS WAVE)
	RADAR TDR
	SUSPENDED/SUBMERSIBLE
	TUNING FORK
	ULTRASONIC

PRESSURE/VACUUM		
PRESSURE	DIFFERENTIAL PRESSURE	PRESSURE SEALS
		EXAMPLE

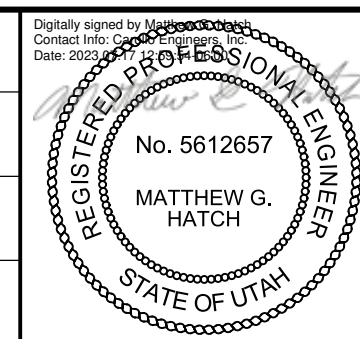
TEMPERATURE	
	TEMPERATURE w/THERMOWELL
	TEMPERATURE GAUGE
	THERMOMETER

WEIGHT	
	HYDRAULIC
	STRAIN GAUGE

WEIRS	
SIDE VIEW	PLAN VIEW
	RECTANGULAR w/o END CONTRACTIONS
	RECTANGULAR w/ END CONTRACTIONS
	V-NOTCH (TRIANGULAR)
	TRAPEZOIDAL (CIPOLLETTI)

REV	DATE	BY	DESCRIPTION

DESIGNED CE
 DRAWN CE
 CHECKED BL
 DATE JULY 2023



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

SOUTH VALLEY WATER RECLAMATION		VERIFY SCALES	JOB NO. 201238
2023 VFD REPLACEMENT		BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. GN04
INSTRUMENTATION		0 1"	SHEET NO. 85 OF 116
SYMBOLS AND ABBREVIATIONS 4		IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	

Plot Date: 9/28/2022 10:30:42 AM

201238-GN05.dwg

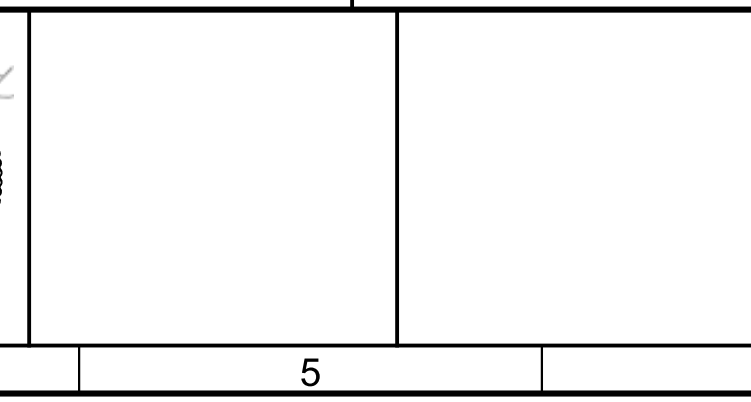
201238-100000

juwicks

1	2	3	4	5	6	7	8	9	10	11	12	13
PROCESS SWITCHES		HAND SWITCHES		RELAYS		TERMINAL BLOCKS		I/O		MISC		
	FLOAT SWITCH CLOSE ON RISING LEVEL		NORMALLY OPEN MOMENTARY PUSHBUTTON		RELAY COIL a = TYPE CR - CONTROL RELAY TD - TIME DELAY RELAY M - MOTOR STARTER COIL L - MOTOR STARTER COIL - LOW SPEED H - MOTOR STARTER COIL - HIGH SPEED F - MOTOR STARTER COIL - FORWARD R - MOTOR STARTER COIL - REVERSE		TERMINAL IN PLC/PCM PANEL		PLC DISCRETE a = INPUT OR OUTPUT AS INDICATED		SOLENOID	
	FLOAT SWITCH OPEN ON RISING LEVEL		NORMALLY CLOSED MOMENTARY PUSHBUTTON		b = TDON - TIME DELAY ON ENERGIZATION TDOFF - TIME DELAY ON DEENERGIZATION		TERMINAL IN MOTOR CONTROL CENTER		PLC ANALOG a = INPUT OR OUTPUT AS INDICATED		METER UNIT M = TYPE	
	PRESSURE SWITCH CLOSE ON RISING PRESSURE		THREE POSITION SELECTOR SWITCH x - DENOTES POSITION CONTACTS CLOSED IN		c = TIMING RANGE/SETTING d = DESCRIPTION		TERMINAL IN LOCAL STARTER CONTROL PANEL OR VARIABLE FREQUENCY DRIVE		DIGITAL BUS		MOTOR	
	PRESSURE SWITCH OPEN ON RISING PRESSURE		TWO POSITION SELECTOR SWITCH x - DENOTES POSITION CONTACTS CLOSED IN				TERMINAL AT FIELD DEVICE				CIRCUIT BREAKER	
	TEMPERATURE SWITCH CLOSE ON RISING TEMPERATURE		MUSHROOM HEAD PUSHBUTTON				TERMINAL IN RTU				DISCONNECT	
	TEMPERATURE SWITCH OPEN ON RISING TEMPERATURE		PUSH-PULL PUSHBUTTON MAINTAINED CONTACT				TERMINAL IN FIELD PANEL				FUSE	
	FLOW SWITCH CLOSE ON INCREASE IN FLOW		PADLOCK SWITCH x - DENOTES POSITION CONTACTS CLOSED IN		TIME DELAY CONTACT NORMALLY OPEN TIMED CLOSING		TERMINAL IN (USER CHOICE)				TRANSIENT SURGE PROTECTION	
	FLOW SWITCH OPEN ON INCREASE IN FLOW		PULL CORD SWITCH		TIME DELAY CONTACT NORMALLY CLOSED TIMED OPENING		DIGITAL BUS CONNECTOR * = D - DEVICENET * = PA - PROFIBUS PA * = DP - PROFIBUS DP * = H1 - FOUNDATION FIELDBUS H1 * = H2 - FOUNDATION FIELDBUS H2 * = E - ETHERNET				MOTOR WINDING HEATER * - MOTOR TAG I.D.	
	VIBRATION SWITCH OPEN ON RISING VIBRATION		STOP-LOCKOUT PUSHBUTTON		TIME DELAY CONTACT NORMALLY OPEN TIMED OPENING						SPACE HEATER	
	VIBRATION SWITCH CLOSE ON RISING VIBRATION		SPRING-RETURN x - DENOTES POSITION CONTACTS CLOSED IN		TIME DELAY CONTACT NORMALLY CLOSED TIMED CLOSING						VARISTOR	
	TORQUE SWITCH OPEN ON HIGH TORQUE	INDICATORS									CAPACITOR	
	TORQUE SWITCH CLOSE ON HIGH TORQUE		PILOT LIGHT a = LENS COLOR R = RED G = GREEN W = WHITE A = AMBER B = BLUE Y = YELLOW C = CLEAR								RESISTOR	
	NORMALLY CLOSED LIMIT SWITCH		BEACON a = LENS COLOR R = RED G = GREEN W = WHITE A = AMBER B = BLUE M = MAGENTA C = CLEAR								BATTERY	
	NORMALLY CLOSED HELD OPEN LIMIT SWITCH		HORN								DIODE	
	NORMALLY OPEN LIMIT SWITCH										MOTOR OVERLOAD HEATERS	
	NORMALLY OPEN HELD CLOSED LIMIT SWITCH										OVERLOAD CONTACT	
											DRAWOUT CONNECTION	
											GROUND	
											LIGHTNING ARRESTOR	
											CONTROL POWER TRANSFORMER	
											ELAPSED TIME METER	

DESIGNED CE	DATE JULY 2023	BY CAC	DESCRIPTION ADDENDUM NO. 1
DRAWN CE			
CHECKED BL			
DATE JULY 2023			

Digitally signed by Matthew G. Hatch
Contact info: 801-225-2000
Date: 2023.07.27 10:00:00 -0400



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

SOUTH VALLEY WATER RECLAMATION
2023 VFD REPLACEMENT
INSTRUMENTATION
SCHEMATIC SYMBOLS

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

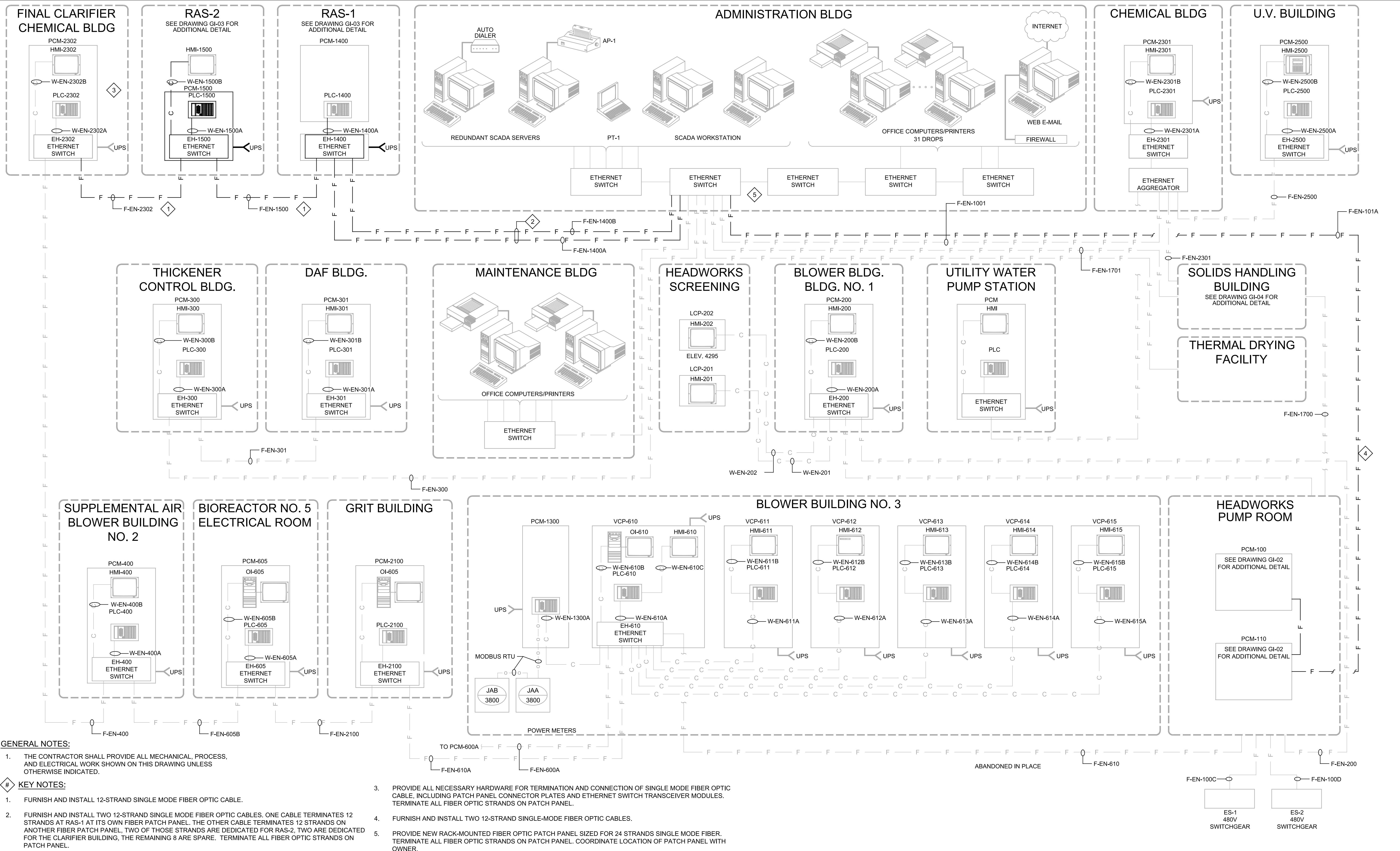
JOB NO. 201238	DRAWING NO. GN05
SHEET NO. 86 OF 116	

Plot Date: 10/15/2021 9:58:31 AM

201238.GI01.dwg

201238-100000

sshepard



- GENERAL NOTES:**
1. THE CONTRACTOR SHALL PROVIDE ALL MECHANICAL, PROCESS, AND ELECTRICAL WORK SHOWN ON THIS DRAWING UNLESS OTHERWISE INDICATED.
- KEY NOTES:**
1. FURNISH AND INSTALL 12-STRAND SINGLE MODE FIBER OPTIC CABLE.
 2. FURNISH AND INSTALL TWO 12-STRAND SINGLE MODE FIBER OPTIC CABLES. ONE CABLE TERMINATES 12 STRANDS AT RAS-1 AT ITS OWN FIBER PATCH PANEL. THE OTHER CABLE TERMINATES 12 STRANDS ON ANOTHER FIBER PATCH PANEL. TWO OF THOSE STRANDS ARE DEDICATED FOR RAS-2. TWO ARE DEDICATED FOR THE CLARIFIER BUILDING. THE REMAINING 8 ARE SPARE. TERMINATE ALL FIBER OPTIC STRANDS ON PATCH PANEL.
 3. PROVIDE ALL NECESSARY HARDWARE FOR TERMINATION AND CONNECTION OF SINGLE MODE FIBER OPTIC CABLE, INCLUDING PATCH PANEL CONNECTOR PLATES AND ETHERNET SWITCH TRANSCEIVER MODULES. TERMINATE ALL FIBER OPTIC STRANDS ON PATCH PANEL.
 4. FURNISH AND INSTALL TWO 12-STRAND SINGLE-MODE FIBER OPTIC CABLES.
 5. PROVIDE NEW RACK-MOUNTED FIBER OPTIC PATCH PANEL SIZED FOR 24 STRANDS SINGLE MODE FIBER. TERMINATE ALL FIBER OPTIC STRANDS ON PATCH PANEL. COORDINATE LOCATION OF PATCH PANEL WITH OWNER.

REV	DATE	BY	DESCRIPTION
1			
2			

DESIGNED
NS

DRAWN
TCD

CHECKED
BL

DATE
JULY 2023

2023
No. 5612657
MATTHEW G. HATCH
REGISTERED PROFESSIONAL ENGINEER
STATE OF UTAH

carollo

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

SOUTH VALLEY WATER RECLAMATION
2023 VFD REPLACEMENT
INSTRUMENTATION
CONTROL SYSTEM BLOCK DIAGRAM 1

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

JOB NO.
201238

DRAWING NO.
GI-01

SHEET NO.
87 OF 116

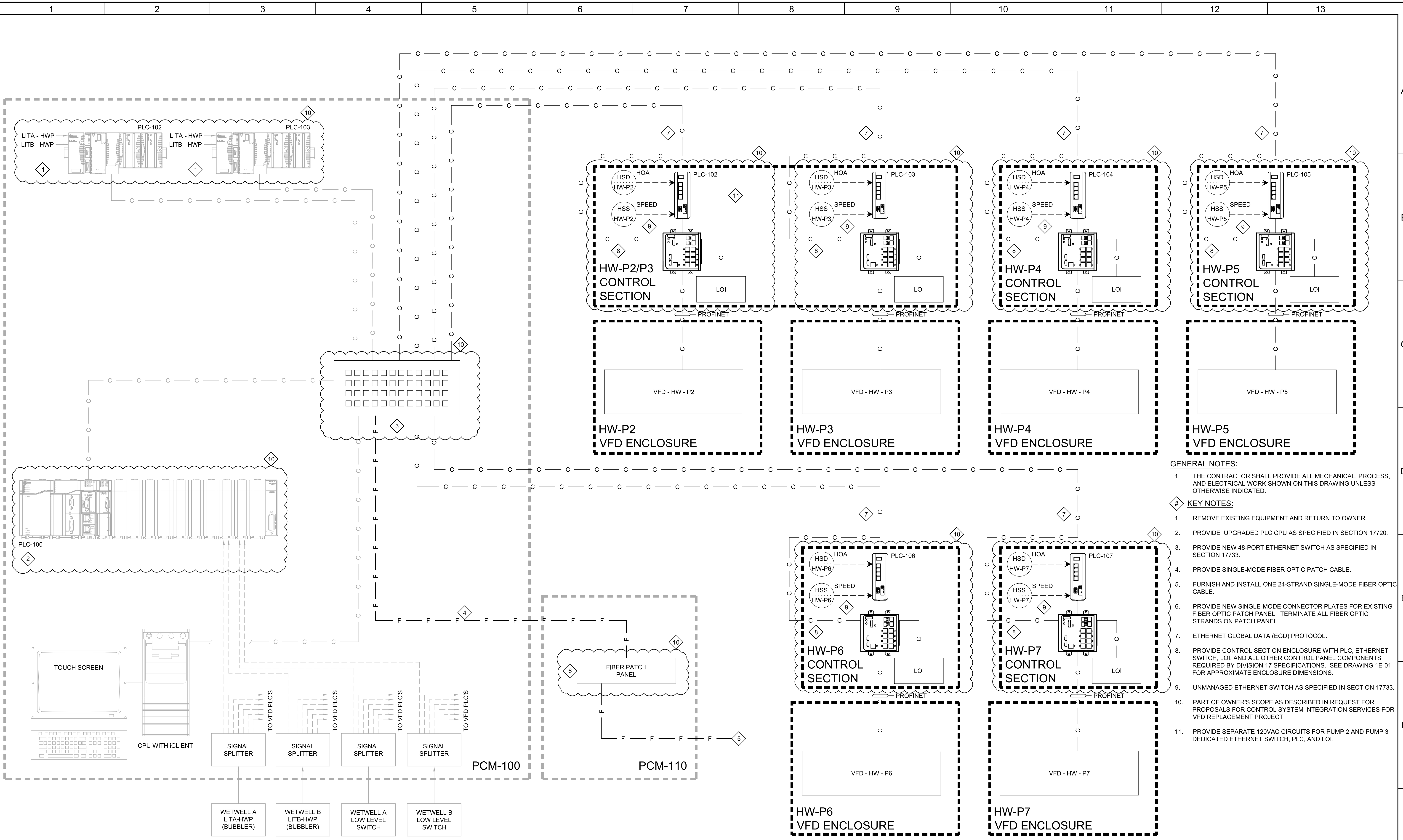
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Plot Date: 10/15/2021 9:58:31 AM

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201238-100000

sshepard



- GENERAL NOTES:**
- THE CONTRACTOR SHALL PROVIDE ALL MECHANICAL, PROCESS, AND ELECTRICAL WORK SHOWN ON THIS DRAWING UNLESS OTHERWISE INDICATED.
- KEY NOTES:**
- REMOVE EXISTING EQUIPMENT AND RETURN TO OWNER.
 - PROVIDE UPGRADED PLC CPU AS SPECIFIED IN SECTION 17720.
 - PROVIDE NEW 48-PORT ETHERNET SWITCH AS SPECIFIED IN SECTION 17733.
 - PROVIDE SINGLE-MODE FIBER OPTIC PATCH CABLE.
 - FURNISH AND INSTALL ONE 24-STRAND SINGLE-MODE FIBER OPTIC CABLE.
 - PROVIDE NEW SINGLE-MODE CONNECTOR PLATES FOR EXISTING FIBER OPTIC PATCH PANEL. TERMINATE ALL FIBER OPTIC STRANDS ON PATCH PANEL.
 - ETHERNET GLOBAL DATA (EGD) PROTOCOL.
 - PROVIDE CONTROL SECTION ENCLOSURE WITH PLC, ETHERNET SWITCH, LOI, AND ALL OTHER CONTROL PANEL COMPONENTS REQUIRED BY DIVISION 17 SPECIFICATIONS. SEE DRAWING 1E-01 FOR APPROXIMATE ENCLOSURE DIMENSIONS.
 - UNMANAGED ETHERNET SWITCH AS SPECIFIED IN SECTION 17733.
 - PART OF OWNER'S SCOPE AS DESCRIBED IN REQUEST FOR PROPOSALS FOR CONTROL SYSTEM INTEGRATION SERVICES FOR VFD REPLACEMENT PROJECT.
 - PROVIDE SEPARATE 120VAC CIRCUITS FOR PUMP 2 AND PUMP 3 DEDICATED ETHERNET SWITCH, PLC, AND LOI.

REV	DATE	BY	DESCRIPTION
1			
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NS

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BL

DATE
JULY 2023

REGISTERED PROFESSIONAL ENGINEER
No. 5612657
MATTHEW G. HATCH
STATE OF UTAH



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

SOUTH VALLEY WATER RECLAMATION
2023 VFD REPLACEMENT
INSTRUMENTATION
CONTROL SYSTEM BLOCK DIAGRAM 2

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

JOB NO.
201238

DRAWING NO.
GI-02

SHEET NO.
88 OF 116

Plot Date: 10/15/2021 9:56:31 AM

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sshepard

GENERAL NOTES:

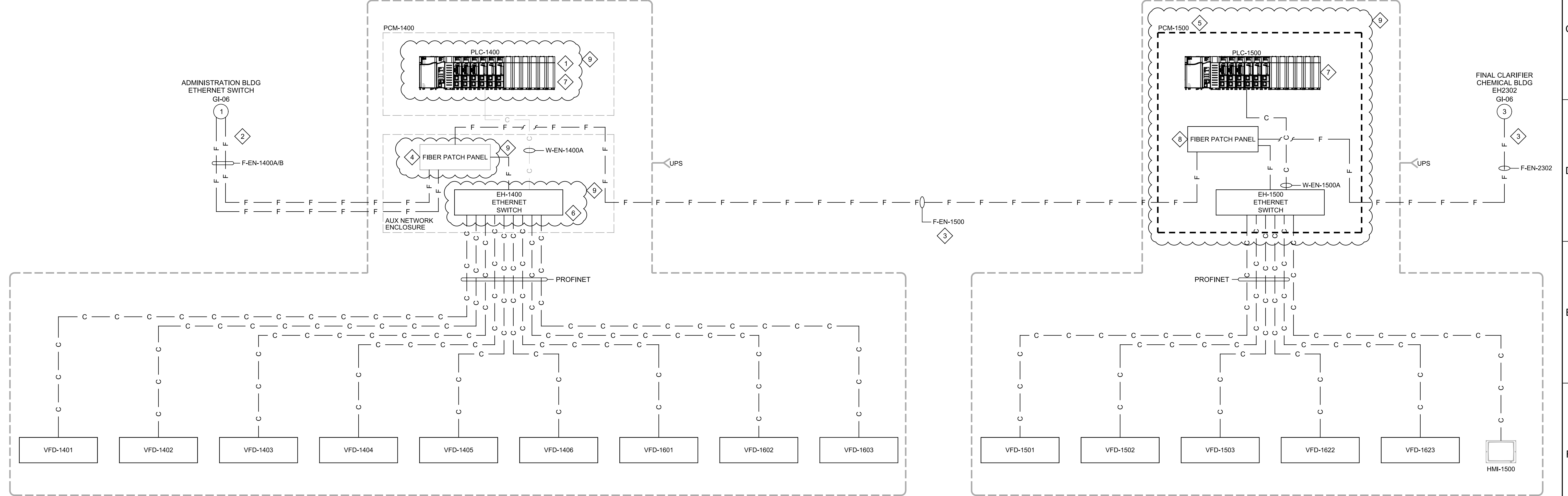
- 1. THE CONTRACTOR SHALL PROVIDE ALL MECHANICAL, PROCESS, AND ELECTRICAL WORK SHOWN THIS DRAWING UNLESS OTHERWISE INDICATED.

KEY NOTES:

- 1. PROVIDE NEW PROFINET COMMUNICATIONS MODULE AND UPGRADED PLC CPU AS SPECIFIED IN SECTION 17720.
- 2. FURNISH AND INSTALL TWO 12-STRAND SINGLE MODE FIBER OPTIC CABLES.
- 3. FURNISH AND INSTALL 12-STRAND SINGLE MODE FIBER OPTIC CABLE.
- 4. PROVIDE NEW SINGLE MODE CONNECTOR PLATES FOR EXISTING FIBER OPTIC PATCH PANEL. TERMINATE ALL FIBER OPTIC STRANDS ON PATCH PANEL.
- 5. FURNISH AND INSTALL NEW PLC ENCLOSURE WITH ALL INTERNAL COMPONENTS. PROVIDE I/O MODULES FOR 32 DISCRETE INPUT (DI), 16 DISCRETE OUTPUT (DO), AND 4 ANALOG INPUT (AI) SIGNALS WITH SPARE POINTS AND MODULES AS SPECIFIED IN SECTION 17720. COORDINATE I/O SIGNAL TAGS AND DESCRIPTIONS WITH THE OWNER.
- 6. PROVIDE NEW 48-PORT ETHERNET SWITCH AS SPECIFIED IN SECTION 17733.
- 7. CONTROL AND MONITORING OF NEW VFDs WILL BE VIA PROFINET DATA NETWORK, AS SHOWN ON THE P&ID DRAWINGS. FOR PUMPS WITH NEW VFD, REMOVE EXISTING HARDWIRED I/O FIELD WIRING AND RELABEL THOSE I/O POINTS AS SPARE.
- 8. TERMINATE ALL FIBER OPTIC STRANDS ON PATCH PANEL.
- 9. PART OF OWNER'S SCOPE AS DESCRIBED IN REQUEST FOR PROPOSALS FOR CONTROL SYSTEM INTEGRATION SERVICES FOR VFD REPLACEMENT PROJECT.

RAS-1 PUMP STATION

RAS-2 PUMP STATION



REV	DATE	BY	DESCRIPTION
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2			
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DRAWN TCD	
CHECKED BL	
DATE JULY 2023	



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

SOUTH VALLEY WATER RECLAMATION		VERIFY SCALES	JOB NO. 201238
2023 VFD REPLACEMENT		BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. GI-03
INSTRUMENTATION		0 1"	SHEET NO. 89 OF 116
CONTROL SYSTEM BLOCK DIAGRAM 3		IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	

Plot Date: 10/15/2021 9:56:31 AM

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sshpeard

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

A

B

C

D

E

F

G

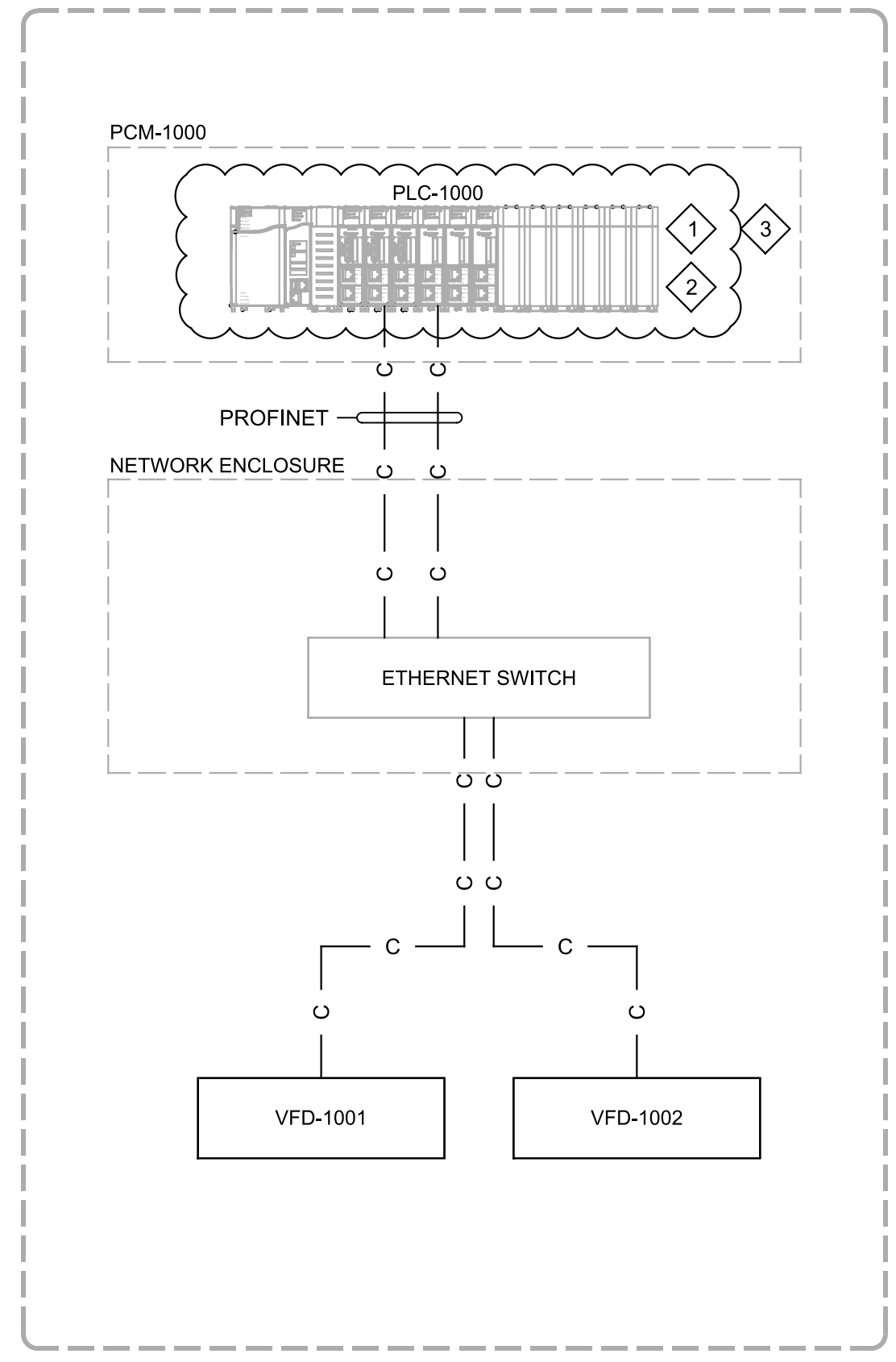
GENERAL NOTES:

- 1. THE CONTRACTOR SHALL PROVIDE ALL MECHANICAL, PROCESS, AND ELECTRICAL WORK SHOWN ON THIS DRAWING UNLESS OTHERWISE INDICATED.

KEY NOTES:

- 1. PROVIDE NEW PROFINET COMMUNICATIONS MODULE AND UPGRADED PLC CPU AS SPECIFIED IN SECTION 17720.
- 2. CONTROL AND MONITORING OF NEW VFDs WILL BE VIA DATA NETWORK, AS SHOWN ON THE P&ID DRAWINGS.
- 3. PART OF OWNER'S SCOPE AS DESCRIBED IN REQUEST FOR PROPOSALS FOR CONTROL SYSTEM INTEGRATION SERVICES FOR VFD REPLACEMENT PROJECT.

SOLIDS HANDLING BUILDING



REV	DATE	BY	DESCRIPTION
1			
2			
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DRAWN
TCD
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DATE
JULY 2023



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

SOUTH VALLEY WATER RECLAMATION
2023 VFD REPLACEMENT
INSTRUMENTATION
CONTROL SYSTEM BLOCK DIAGRAM 4

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

JOB NO.
201238
DRAWING NO.
GI-04
SHEET NO.
90 OF 116

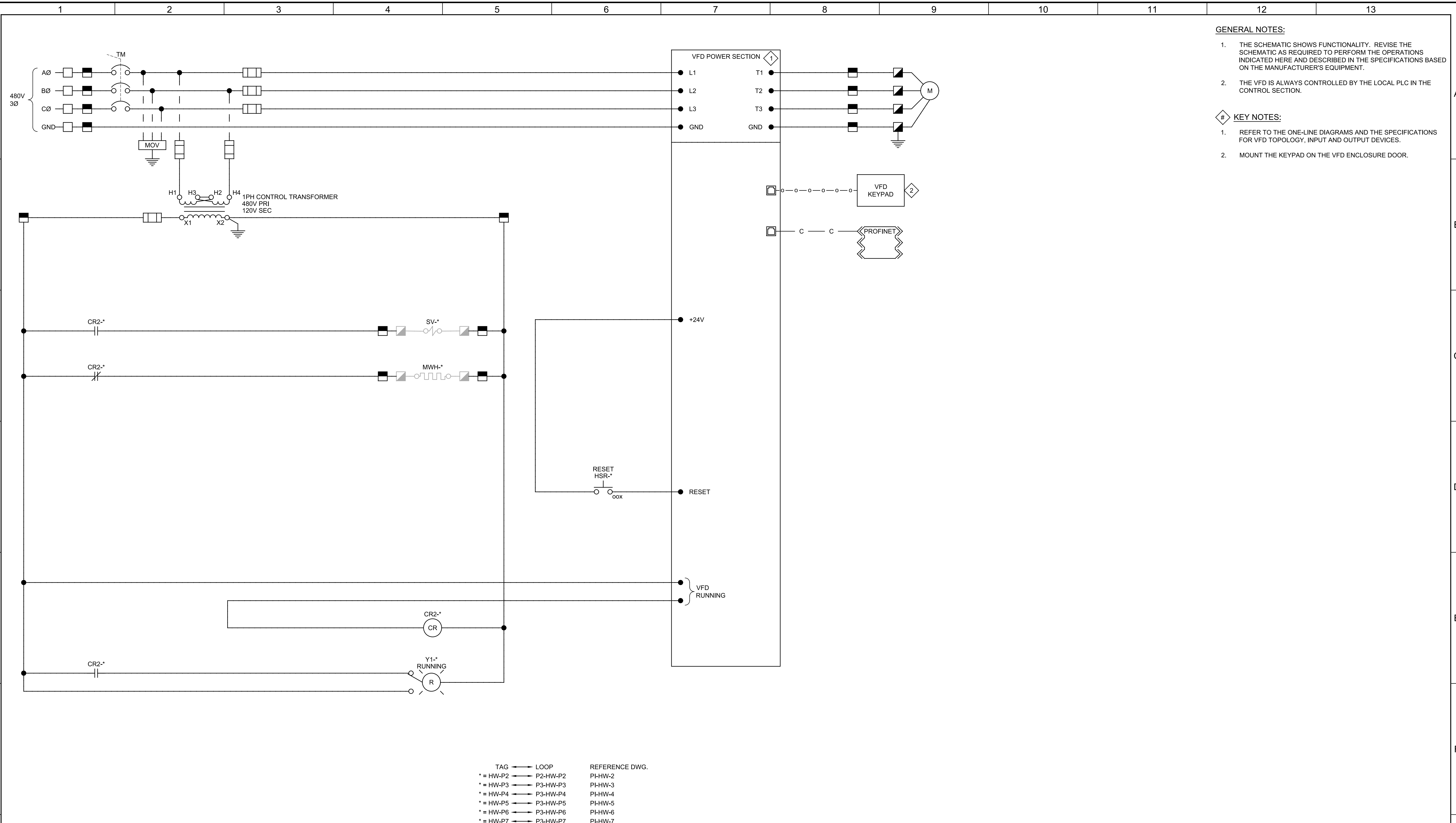
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User: svcPW

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

MCGallivan



- GENERAL NOTES:**
1. THE SCHEMATIC SHOWS FUNCTIONALITY. REVISE THE SCHEMATIC AS REQUIRED TO PERFORM THE OPERATIONS INDICATED HERE AND DESCRIBED IN THE SPECIFICATIONS BASED ON THE MANUFACTURER'S EQUIPMENT.
 2. THE VFD IS ALWAYS CONTROLLED BY THE LOCAL PLC IN THE CONTROL SECTION.
- KEY NOTES:**
1. REFER TO THE ONE-LINE DIAGRAMS AND THE SPECIFICATIONS FOR VFD TOPOLOGY, INPUT AND OUTPUT DEVICES.
 2. MOUNT THE KEYPAD ON THE VFD ENCLOSURE DOOR.

TAG	→	LOOP	REFERENCE DWG.
* = HW-P2	→	P2-HW-P2	PI-HW-2
* = HW-P3	→	P3-HW-P3	PI-HW-3
* = HW-P4	→	P3-HW-P4	PI-HW-4
* = HW-P5	→	P3-HW-P5	PI-HW-5
* = HW-P6	→	P3-HW-P6	PI-HW-6
* = HW-P7	→	P3-HW-P7	PI-HW-7

1 CONTROL SCHEMATIC HEADWORKS PUMPS

REV	DATE	BY	DESCRIPTION

DESIGNED
NS

DRAWN
TCD

CHECKED
BL

DATE
JULY 2023

Digitally signed by Matthew G. Hatch
Contact info: 801-224-2000
Date: 2023.07.05 10:00:00 -0700

REGISTERED PROFESSIONAL ENGINEER
No. 5612657
MATTHEW G. HATCH
STATE OF UTAH

carollo

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

SOUTH VALLEY WATER RECLAMATION
2023 VFD REPLACEMENT
INSTRUMENTATION
HEADWORKS PUMPS CONTROL SCHEMATIC

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

JOB NO.
201238

DRAWING NO.
IS-01

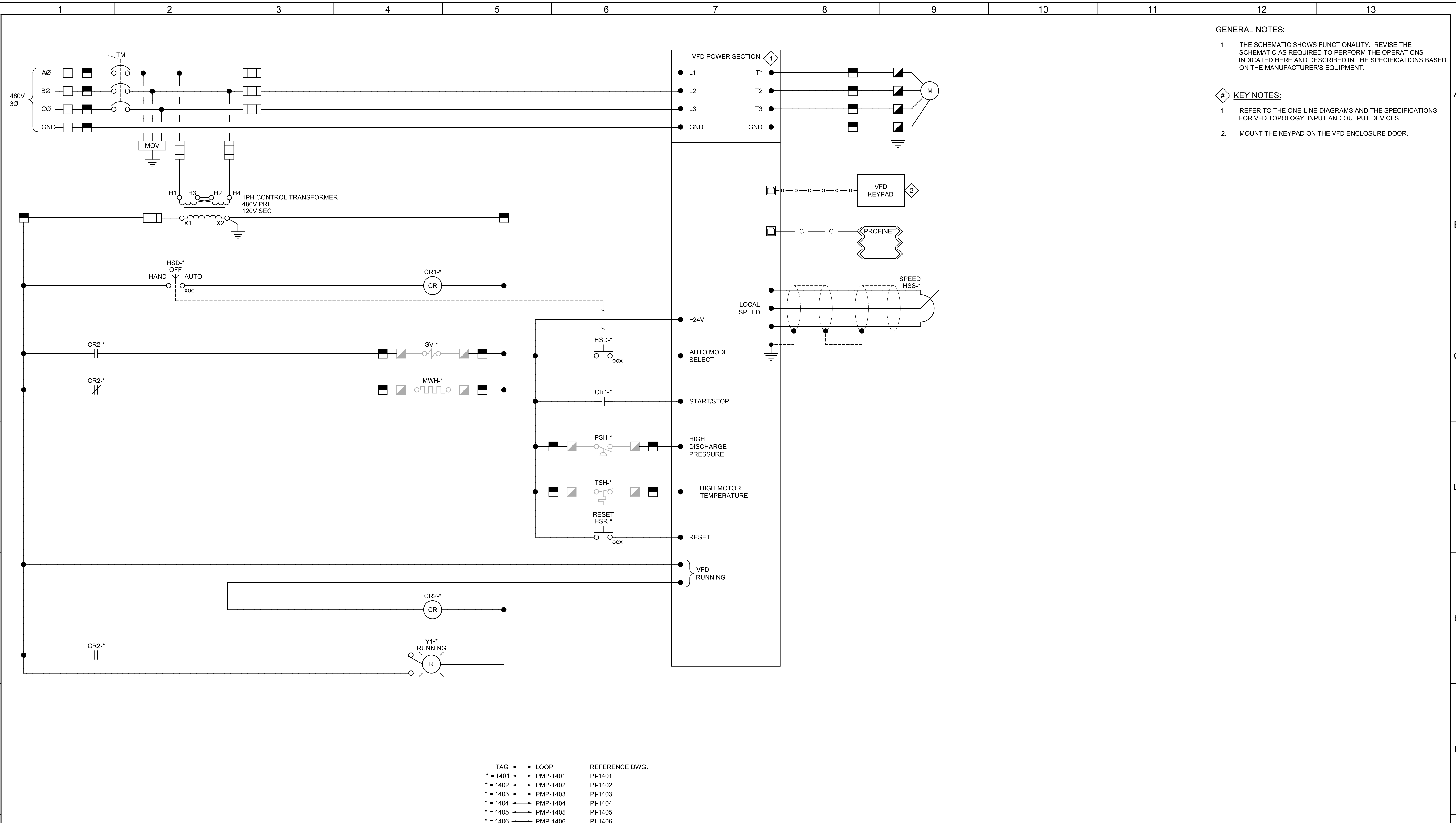
SHEET NO.
91 OF 116

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User: svcPW

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

MCallivan



- GENERAL NOTES:**
- THE SCHEMATIC SHOWS FUNCTIONALITY. REVISE THE SCHEMATIC AS REQUIRED TO PERFORM THE OPERATIONS INDICATED HERE AND DESCRIBED IN THE SPECIFICATIONS BASED ON THE MANUFACTURER'S EQUIPMENT.
- KEY NOTES:**
- REFER TO THE ONE-LINE DIAGRAMS AND THE SPECIFICATIONS FOR VFD TOPOLOGY, INPUT AND OUTPUT DEVICES.
 - MOUNT THE KEYPAD ON THE VFD ENCLOSURE DOOR.

TAG	LOOP	REFERENCE DWG.
* = 1401	PMP-1401	PI-1401
* = 1402	PMP-1402	PI-1402
* = 1403	PMP-1403	PI-1403
* = 1404	PMP-1404	PI-1404
* = 1405	PMP-1405	PI-1405
* = 1406	PMP-1406	PI-1406
* = 1501	PMP-1501	PI-1501
* = 1502	PMP-1502	PI-1502
* = 1503	PMP-1503	PI-1503

2 CONTROL SCHEMATIC RAS PUMPS

REV	DATE	BY	DESCRIPTION
1			
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DESIGNED
NS

DRAWN
SGS

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BL

DATE
JULY 2023

REGISTERED PROFESSIONAL ENGINEER
No. 5612657
MATTHEW G. HATCH
STATE OF UTAH

carollo

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

SOUTH VALLEY WATER RECLAMATION
2023 VFD REPLACEMENT
INSTRUMENTATION
RAS PUMPS CONTROL SCHEMATIC

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

JOB NO.
201238

DRAWING NO.
IS-02

SHEET NO.
92 OF 116

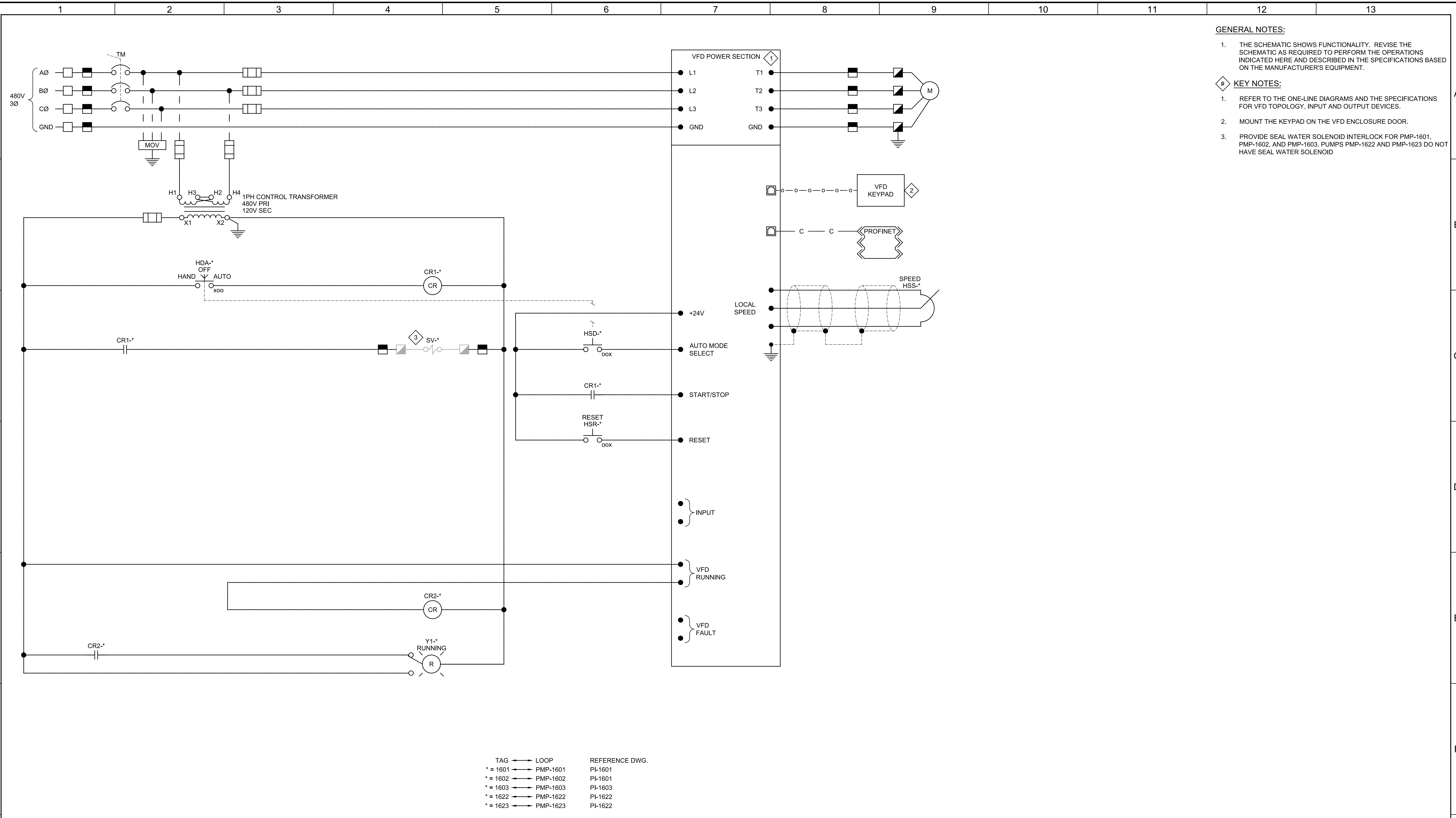
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User: svcPW

PlotScale: 1:1

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

MCallivan



- GENERAL NOTES:**
1. THE SCHEMATIC SHOWS FUNCTIONALITY. REVISE THE SCHEMATIC AS REQUIRED TO PERFORM THE OPERATIONS INDICATED HERE AND DESCRIBED IN THE SPECIFICATIONS BASED ON THE MANUFACTURER'S EQUIPMENT.
- KEY NOTES:**
1. REFER TO THE ONE-LINE DIAGRAMS AND THE SPECIFICATIONS FOR VFD TOPOLOGY, INPUT AND OUTPUT DEVICES.
 2. MOUNT THE KEYPAD ON THE VFD ENCLOSURE DOOR.
 3. PROVIDE SEAL WATER SOLENOID INTERLOCK FOR PMP-1601, PMP-1602, AND PMP-1603. PUMPS PMP-1622 AND PMP-1623 DO NOT HAVE SEAL WATER SOLENOID

TAG → LOOP REFERENCE DWG.
 * = 1601 → PMP-1601 PI-1601
 * = 1602 → PMP-1602 PI-1601
 * = 1603 → PMP-1603 PI-1603
 * = 1622 → PMP-1622 PI-1622
 * = 1623 → PMP-1623 PI-1622

3 CONTROL SCHEMATIC WAS PUMPS

REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED NS
 DRAWN SGS
 CHECKED BL
 DATE JULY 2023

Digitally signed by Matthew G. Hatch
 No. 5612657
 MATTHEW G. HATCH
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF UTAH



SOUTH VALLEY WATER RECLAMATION
 2023 VFD REPLACEMENT
 INSTRUMENTATION
WAS PUMPS CONTROL SCHEMATIC

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

JOB NO. 201238
 DRAWING NO. IS-03
 SHEET NO. 93 OF 116

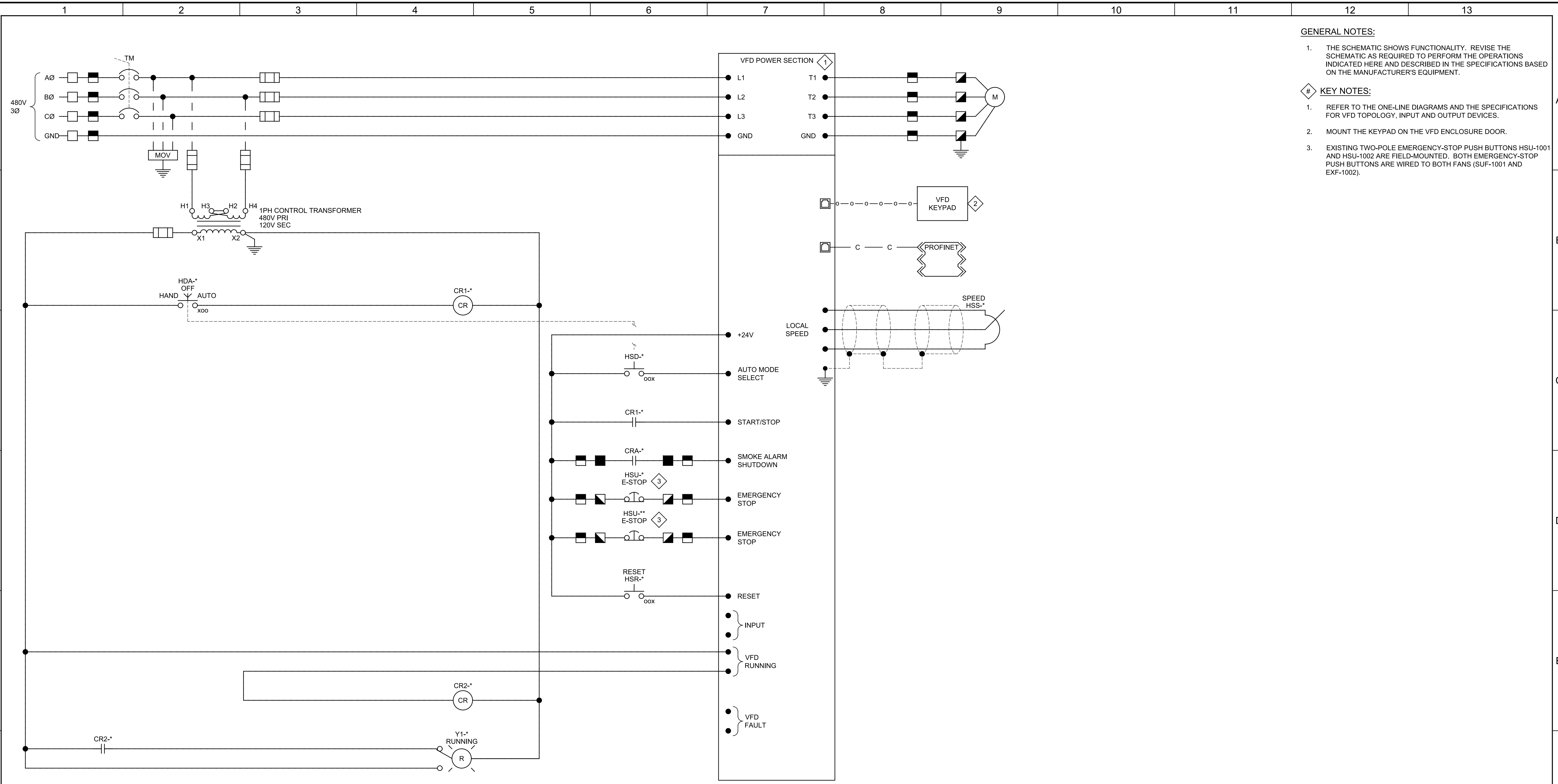
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User: svcPW

PlotScale: 1:1

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

MCGallivan



- GENERAL NOTES:**
1. THE SCHEMATIC SHOWS FUNCTIONALITY. REVISE THE SCHEMATIC AS REQUIRED TO PERFORM THE OPERATIONS INDICATED HERE AND DESCRIBED IN THE SPECIFICATIONS BASED ON THE MANUFACTURER'S EQUIPMENT.
- KEY NOTES:**
1. REFER TO THE ONE-LINE DIAGRAMS AND THE SPECIFICATIONS FOR VFD TOPOLOGY, INPUT AND OUTPUT DEVICES.
 2. MOUNT THE KEYPAD ON THE VFD ENCLOSURE DOOR.
 3. EXISTING TWO-POLE EMERGENCY-STOP PUSH BUTTONS HSU-1001 AND HSU-1002 ARE FIELD-MOUNTED. BOTH EMERGENCY-STOP PUSH BUTTONS ARE WIRED TO BOTH FANS (SUF-1001 AND EXF-1002).

TAG ← LOOP REFERENCE DWG.
 * = 1001 → SUF-1001 PI-1001-03
 * = 1002 → EXF-1002 PI-1002-02

4 CONTROL SCHEMATIC SHB SUPPLY AND EXHAUST FAN

REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED NS
 DRAWN SGS
 CHECKED BL
 DATE JULY 2023

Digitally signed by Matthew G. Hatch
 Contact info: mat.hatch@carollo.com
 No. 5612657
 MATTHEW G. HATCH
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF UTAH

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

SOUTH VALLEY WATER RECLAMATION
 2023 VFD REPLACEMENT
 INSTRUMENTATION
 SHB SUPPLY AND EXHAUST FAN
 CONTROL SCHEMATIC

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

JOB NO. 201238
 DRAWING NO. IS-04
 SHEET NO. 94 OF 116

Plot Date: 17-JUL-2023 9:35:16 AM

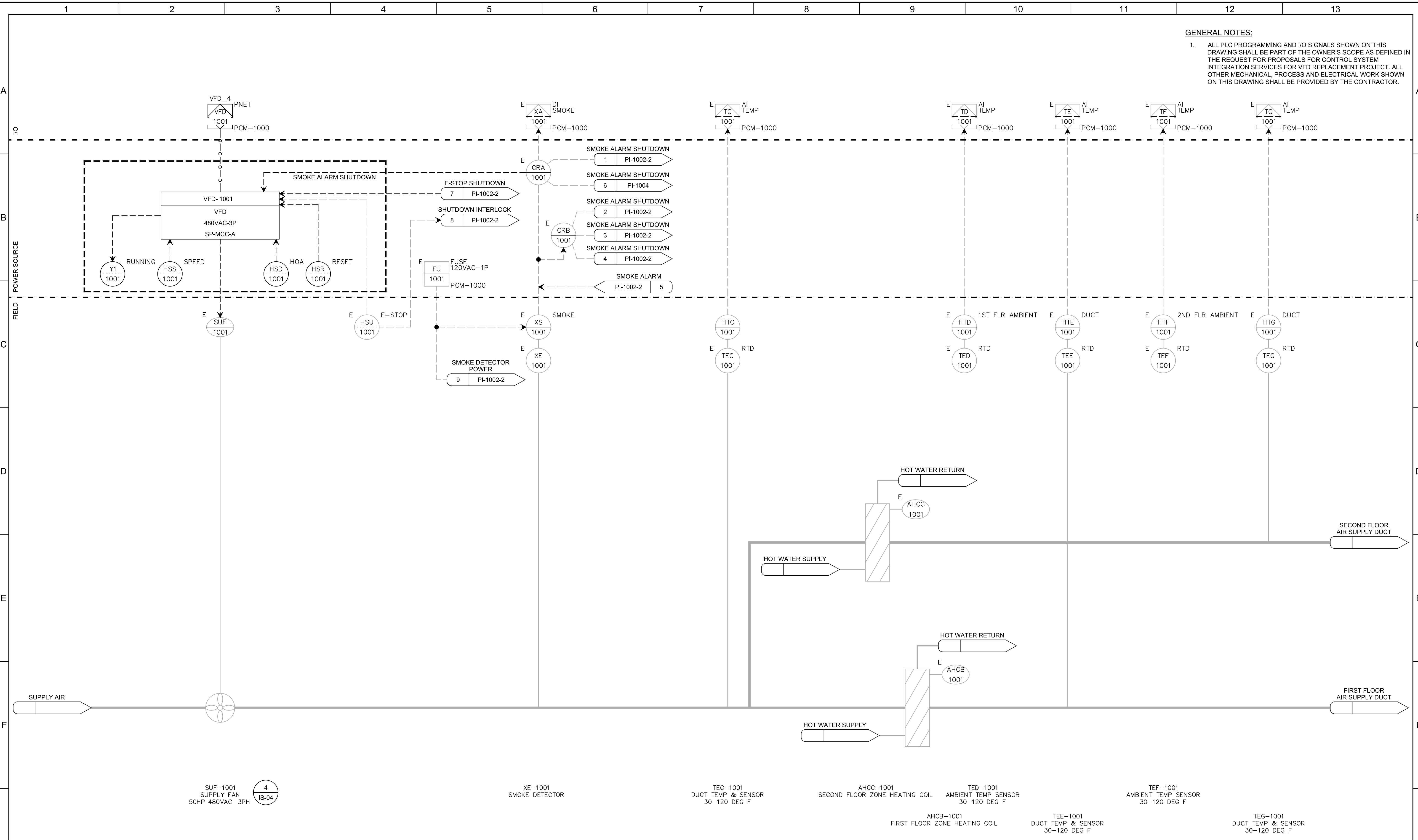
User: svcPW

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo_Sig_Pen_v0905.pen PlotScale: 1:1

MCGallivan

GENERAL NOTES:

1. ALL PLC PROGRAMMING AND I/O SIGNALS SHOWN ON THIS DRAWING SHALL BE PART OF THE OWNER'S SCOPE AS DEFINED IN THE REQUEST FOR PROPOSALS FOR CONTROL SYSTEM INTEGRATION SERVICES FOR VFD REPLACEMENT PROJECT. ALL OTHER MECHANICAL, PROCESS AND ELECTRICAL WORK SHOWN ON THIS DRAWING SHALL BE PROVIDED BY THE CONTRACTOR.



REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED NS
 DRAWN LMB
 CHECKED BL
 DATE JULY 2023

Digitally signed by Matthew G. Hatch
 Contact info: [redacted]
 Date: 2023.07.05 10:00:00 -0400

REGISTERED PROFESSIONAL ENGINEER
 No. 5612657
 MATTHEW G. HATCH
 STATE OF UTAH

4
 XE-1001 SMOKE DETECTOR

5
 TEC-1001 DUCT TEMP & SENSOR 30-120 DEG F

6
 AHCC-1001 SECOND FLOOR ZONE HEATING COIL
 AHCB-1001 FIRST FLOOR ZONE HEATING COIL

7
 TITC-1001 DUCT TEMP & SENSOR 30-120 DEG F
 TEE-1001 DUCT TEMP & SENSOR 30-120 DEG F

8
 TED-1001 AMBIENT TEMP SENSOR 30-120 DEG F
 TEF-1001 AMBIENT TEMP SENSOR 30-120 DEG F
 TEG-1001 DUCT TEMP & SENSOR 30-120 DEG F



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

SOUTH VALLEY WATER RECLAMATION
 2023 VFD REPLACEMENT
 INSTRUMENTATION
 SOLIDS BUILDING SUPPLY FAN

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

JOB NO. 201238
 DRAWING NO. PI-1001-3
 SHEET NO. 95 OF 116

Plot Date: 17-JUL-2023 9:35:41 AM

User: svcPW

Model: Layout1

ColorTable: gshade.ctb

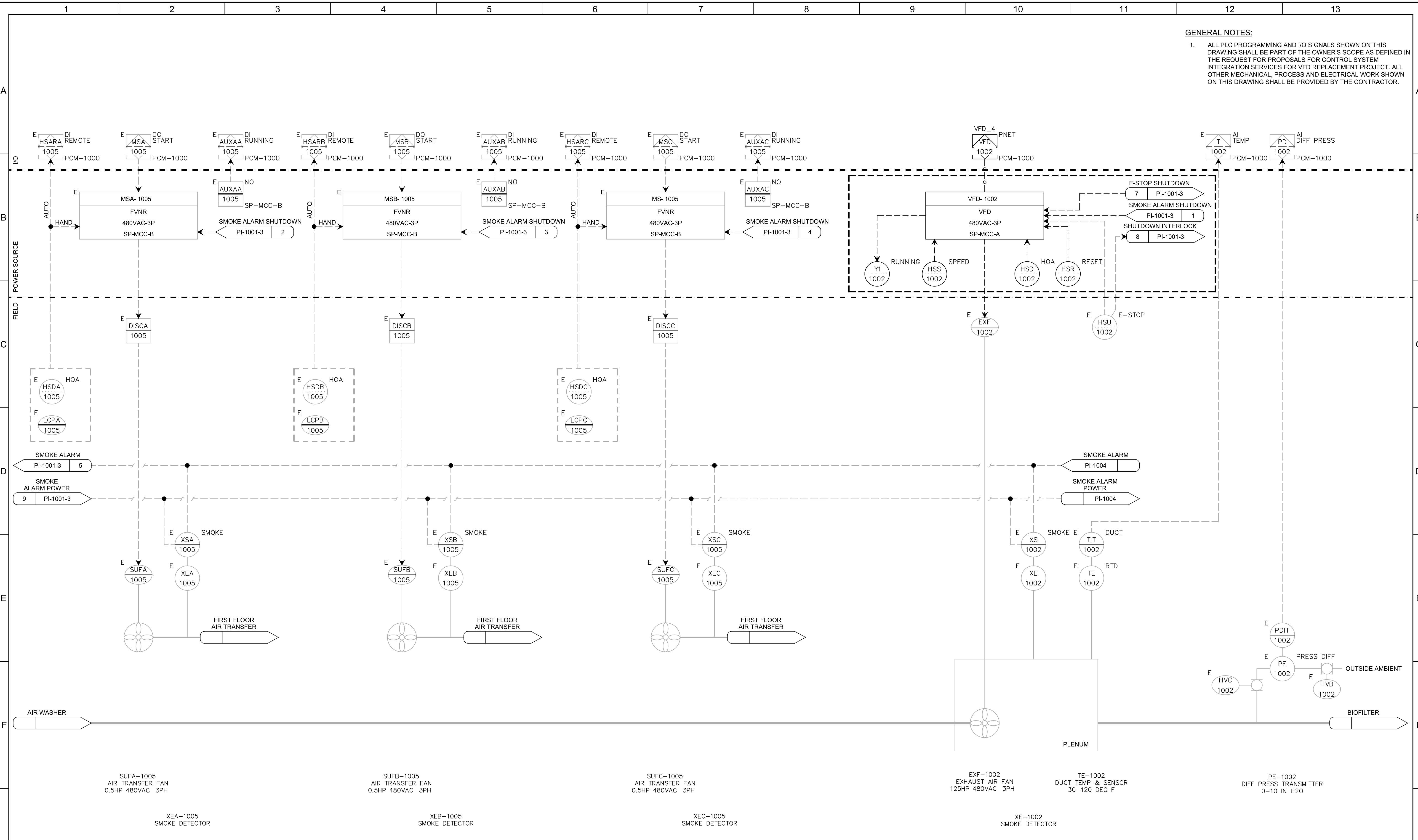
DesignScript: Carollo_Sld_Pen_v0905.pen

PlotScale: 1:1

McGillivan

GENERAL NOTES:

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SUFA-1005 AIR TRANSFER FAN 0.5HP 480VAC 3PH
 XEA-1005 SMOKE DETECTOR

SUFB-1005 AIR TRANSFER FAN 0.5HP 480VAC 3PH
 XEB-1005 SMOKE DETECTOR

SUFC-1005 AIR TRANSFER FAN 0.5HP 480VAC 3PH
 XEC-1005 SMOKE DETECTOR

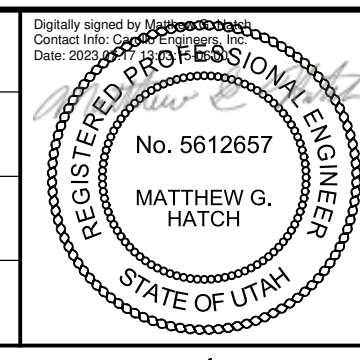
EXF-1002 EXHAUST AIR FAN 125HP 480VAC 3PH
 XE-1002 SMOKE DETECTOR

TE-1002 DUCT TEMP & SENSOR 30-120 DEG F

PE-1002 DIFF PRESS TRANSMITTER 0-10 IN H2O

REV	DATE	BY	DESCRIPTION
1			
2			

DESIGNED NS
 DRAWN LMB
 CHECKED BL
 DATE JULY 2023



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

SOUTH VALLEY WATER RECLAMATION
2023 VFD REPLACEMENT
 INSTRUMENTATION
SOLIDS BUILDING EXHAUST FAN

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

JOB NO. 201238
 DRAWING NO. **PI-1002-2**
 SHEET NO. 96 OF 116

Plot Date: 17-JUL-2023 9:31:12 AM

User: svcPW

Plot Scale: 1:1

Model: Layout1

ColorTable: gshade.ctb

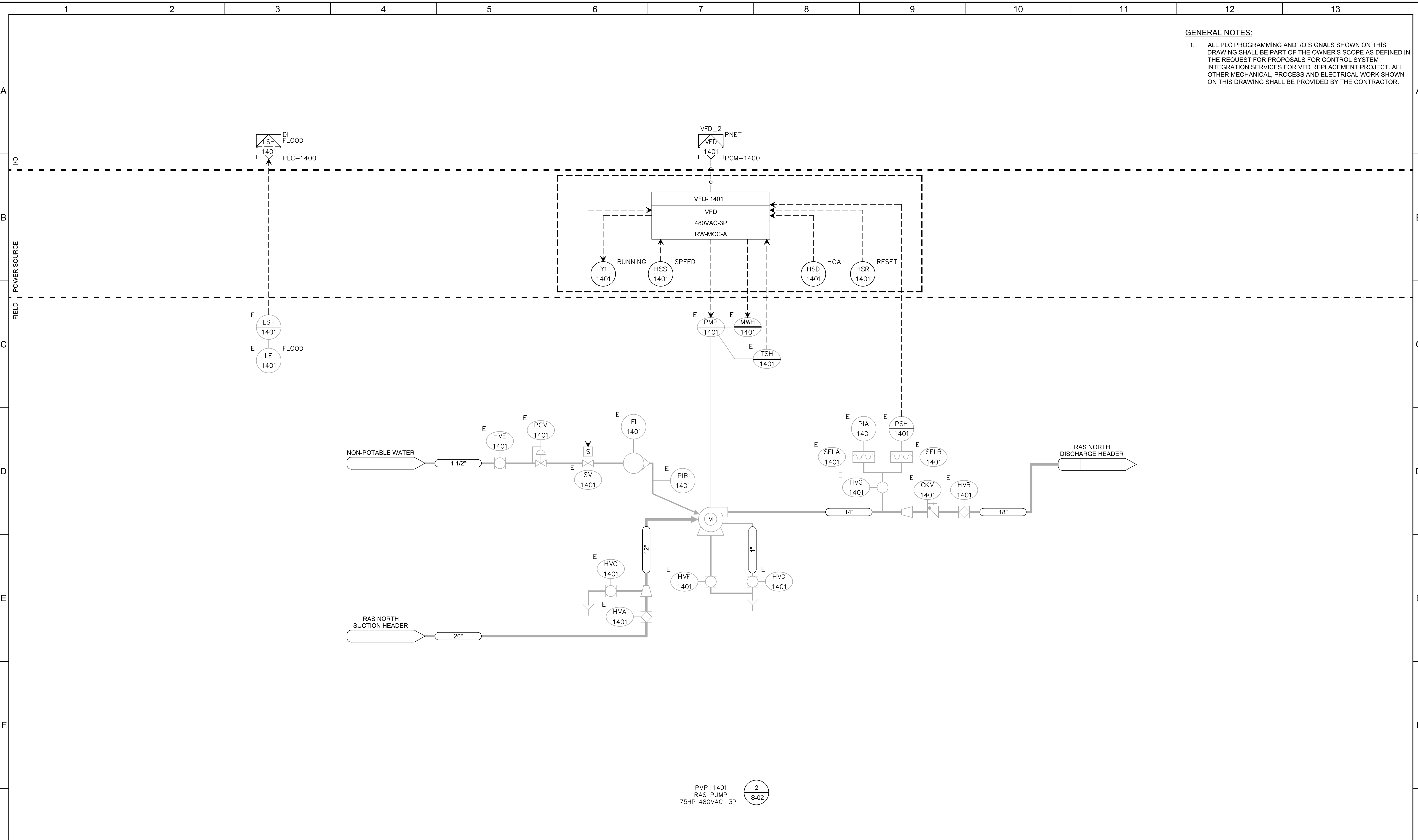
DesignScript: Carollo_Sld_Pen_v0905.pen

DesignScript: gshade.ctb

PROJECT NO. 201238-100000 FILE NAME: 201238PI1401.dwg

GENERAL NOTES:

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REV	DATE	BY	DESCRIPTION
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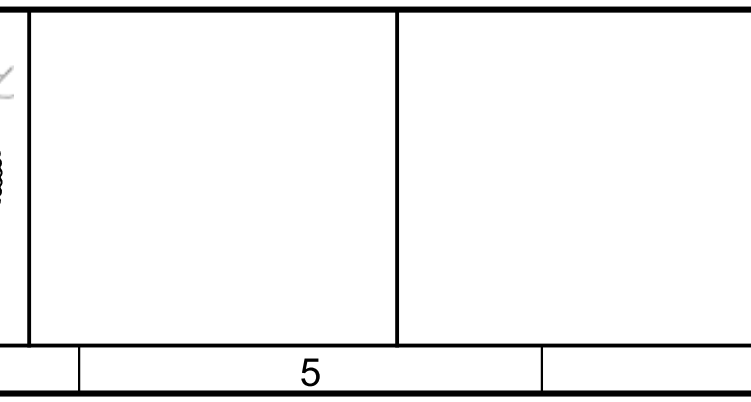
DESIGNED
NS

DRAWN
SGS

CHECKED
BL

DATE
JULY 2023

REGISTERED PROFESSIONAL ENGINEER
No. 5612657
MATTHEW G. HATCH
STATE OF UTAH



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

SOUTH VALLEY WATER RECLAMATION
2023 VFD REPLACEMENT
INSTRUMENTATION
RAS/WAS BUILDING NO. 1
RAS PUMP 1401

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

JOB NO.
201238

DRAWING NO.
PI-1401

SHEET NO.
97 OF 116

Plot Date: 17-JUL-2023 9:31:49 AM

User: svcPW

Model: Layout1

ColorTable: gshade.ctb

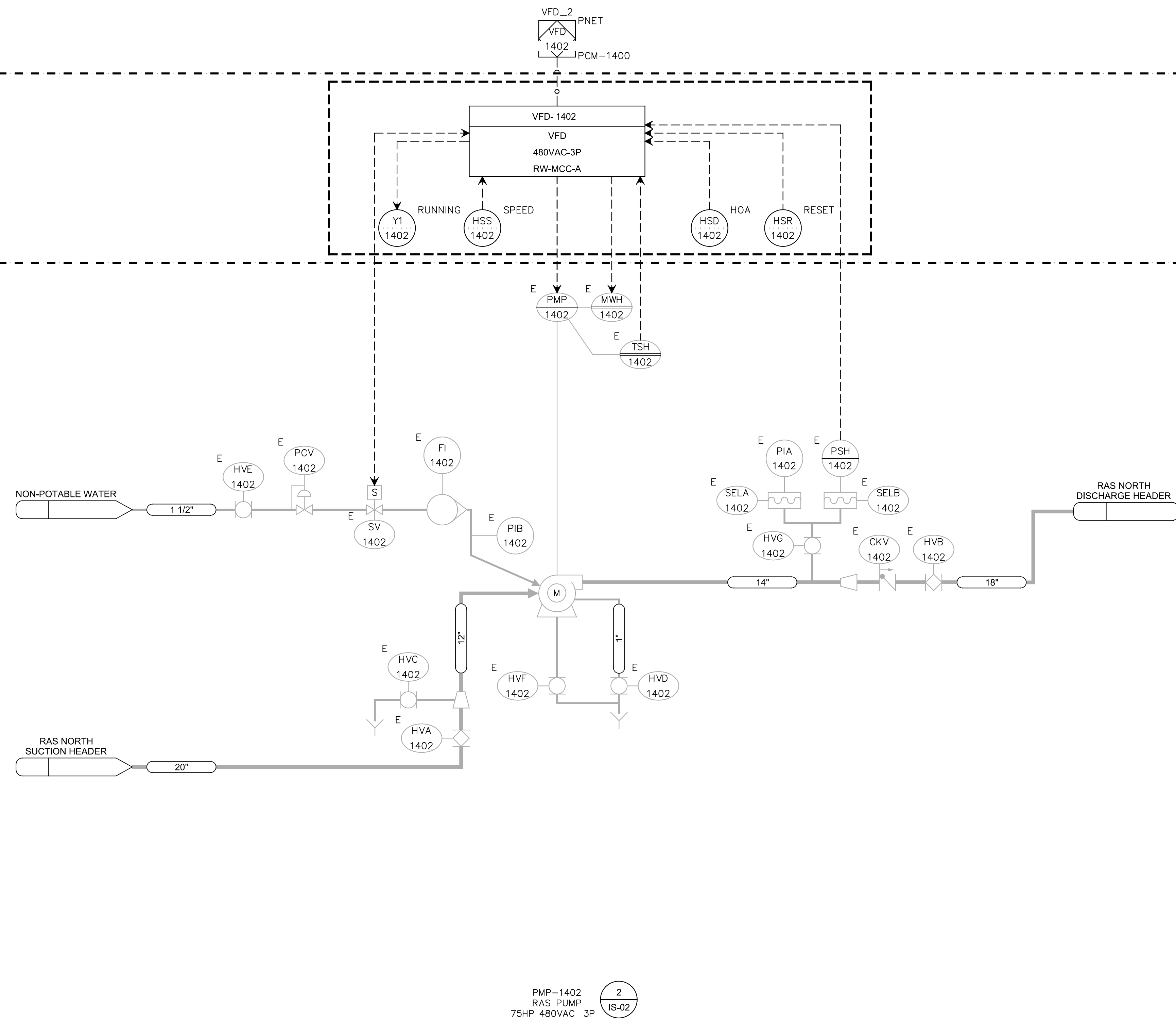
DesignScript: Carollo_Sld_Pen_v0905.pen

PlotScale: 1:1

McGallivan

GENERAL NOTES:

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PMP-1402
RAS PUMP
75HP 480VAC 3P

2
IS-02

REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED
NS

DRAWN
SGS

CHECKED
BL

DATE
JULY 2023

REGISTERED PROFESSIONAL ENGINEER
No. 5612657
MATTHEW G. HATCH
STATE OF UTAH



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

SOUTH VALLEY WATER RECLAMATION		VERIFY SCALES	JOB NO. 201238
2023 VFD REPLACEMENT		BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. PI-1402
INSTRUMENTATION		0 1"	SHEET NO. 98 OF 116
RAS/WAS BUILDING NO. 1		IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	
RAS PUMP 1402			

Plot Date: 17-JUL-2023 9:32:38 AM

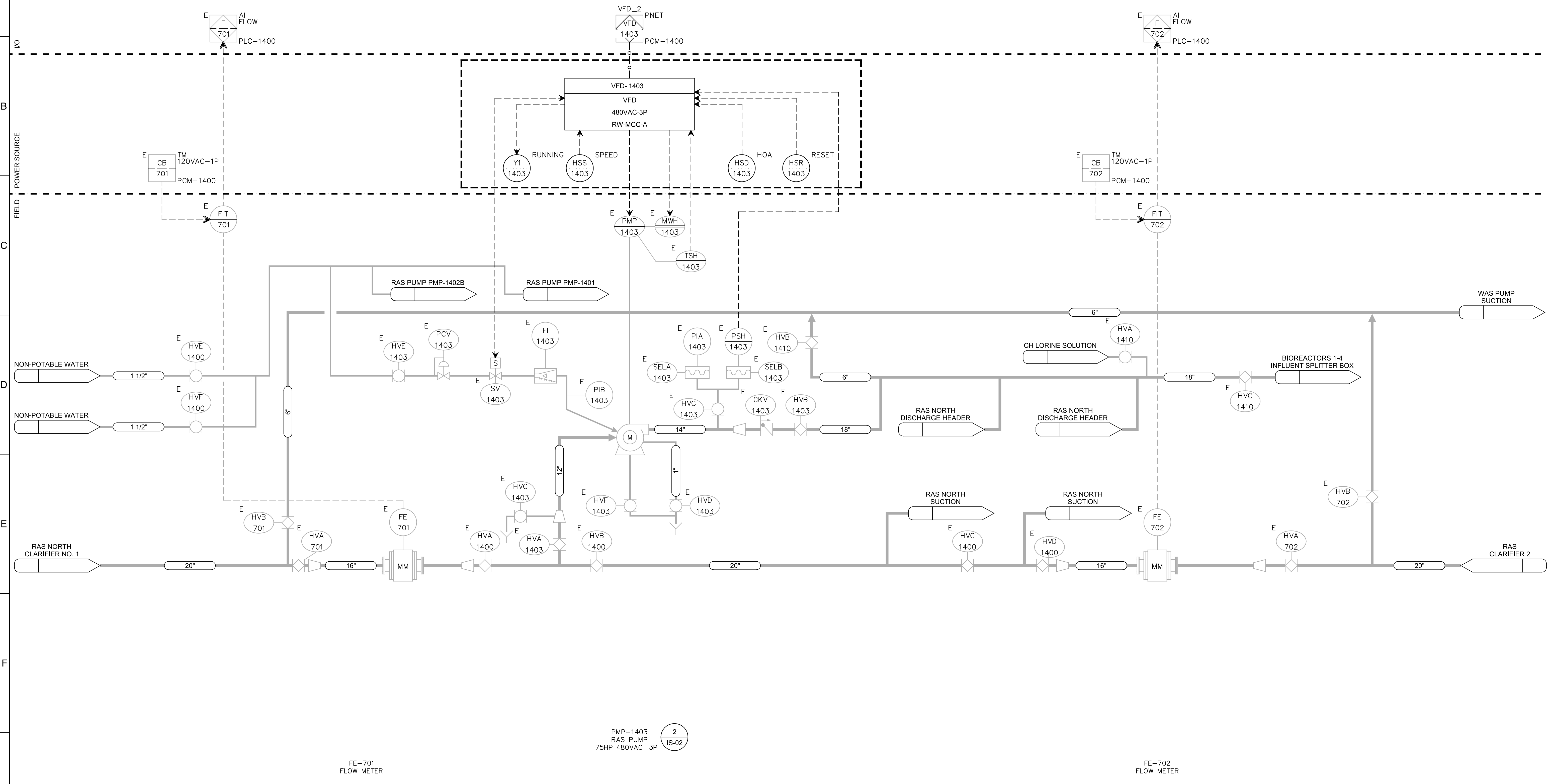
User: svcPW

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

MCallivan

GENERAL NOTES:

- ALL PLC PROGRAMMING AND I/O SIGNALS SHOWN ON THIS DRAWING SHALL BE PART OF THE OWNER'S SCOPE AS DEFINED IN THE REQUEST FOR PROPOSALS FOR CONTROL SYSTEM INTEGRATION SERVICES FOR VFD REPLACEMENT PROJECT. ALL OTHER MECHANICAL, PROCESS AND ELECTRICAL WORK SHOWN ON THIS DRAWING SHALL BE PROVIDED BY THE CONTRACTOR.



PMP-1403
RAS PUMP
75HP 480VAC 3P

2
IS-02

FE-701
FLOW METER

FE-702
FLOW METER

REV	DATE	BY	DESCRIPTION
1			
2			

DESIGNED NS	
DRAWN AAW	
CHECKED BL	
DATE JULY 2023	

SOUTH VALLEY WATER RECLAMATION		VERIFY SCALES	JOB NO. 201238
2023 VFD REPLACEMENT		BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. PI-1403
INSTRUMENTATION		0 1"	SHEET NO. 99 OF 116
RAS/WAS BUILDING NO. 1		IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	
RAS PUMP 1403			

Plot Date: 17-JUL-2023 9:31:53 AM

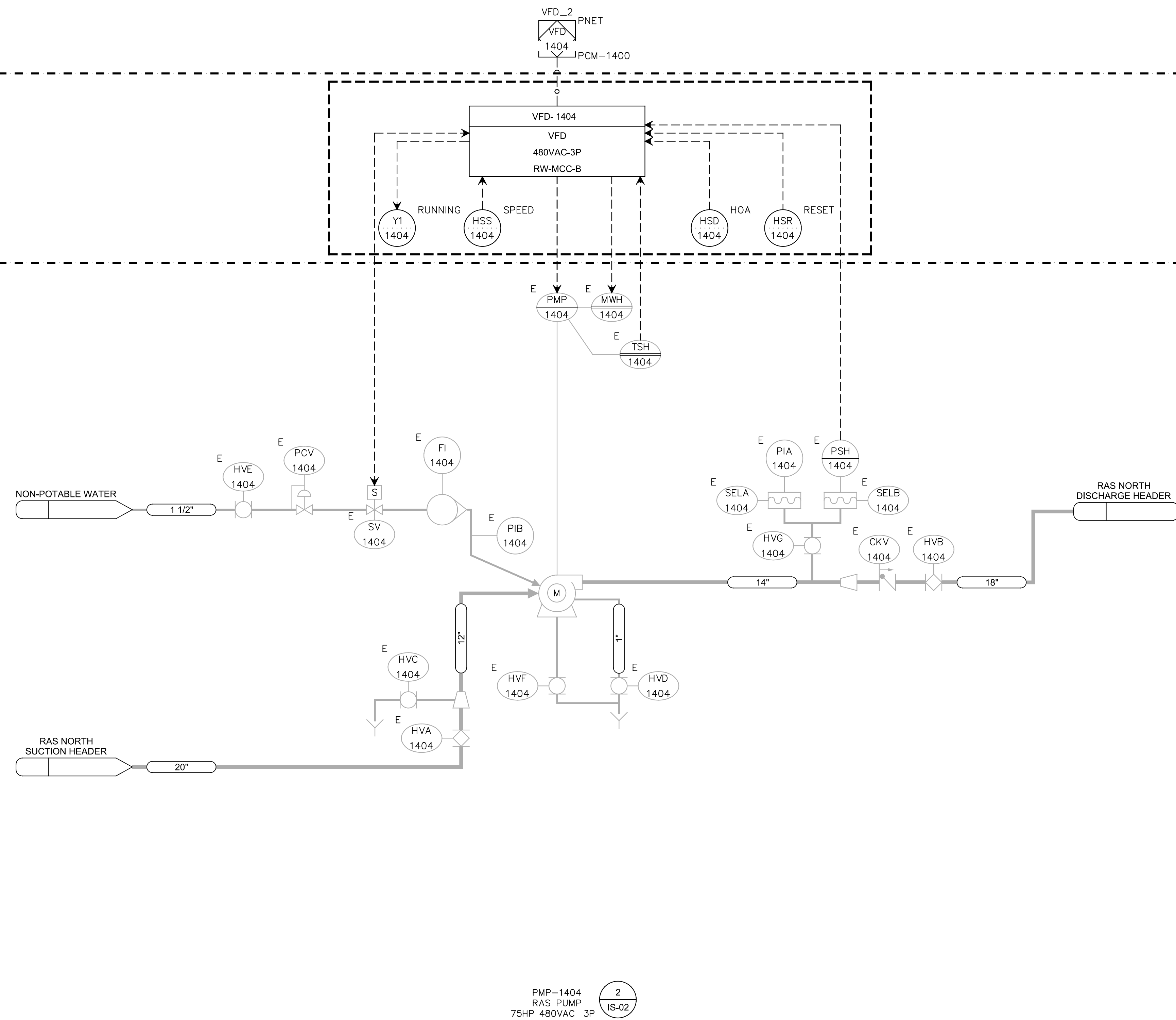
User: svcPW

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MCallivan

GENERAL NOTES:

- 1. ALL PLC PROGRAMMING AND I/O SIGNALS SHOWN ON THIS DRAWING SHALL BE PART OF THE OWNER'S SCOPE AS DEFINED IN THE REQUEST FOR PROPOSALS FOR CONTROL SYSTEM INTEGRATION SERVICES FOR VFD REPLACEMENT PROJECT. ALL OTHER MECHANICAL, PROCESS AND ELECTRICAL WORK SHOWN ON THIS DRAWING SHALL BE PROVIDED BY THE CONTRACTOR.



PMP-1404
RAS PUMP
75HP 480VAC 3P

2
IS-02

REV	DATE	BY	DESCRIPTION
1			
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3			

DESIGNED
NS

DRAWN
SGS

CHECKED
BL

DATE
JULY 2023

REGISTERED PROFESSIONAL ENGINEER
No. 5612657
MATTHEW G. HATCH
STATE OF UTAH



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

SOUTH VALLEY WATER RECLAMATION
2023 VFD REPLACEMENT
INSTRUMENTATION
RAS/WAS BUILDING NO. 1
RAS PUMP 1404

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

JOB NO.
201238

DRAWING NO.
PI-1404

SHEET NO.
100 OF 116

Plot Date: 17-JUL-2023 9:31:57 AM

User: svcPW

Model: Layout1

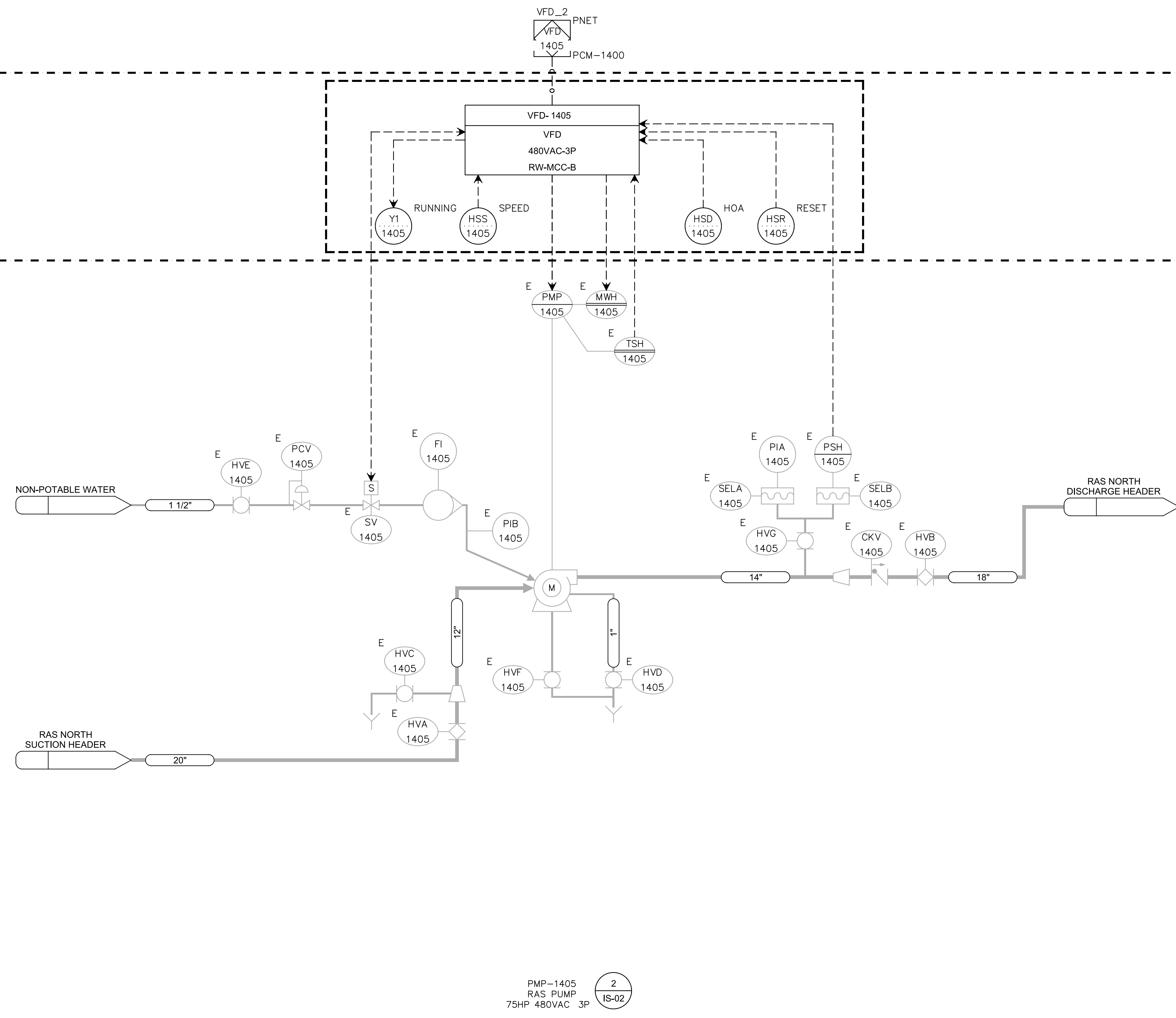
ColorTable: gshade.ctb

DesignScript: Carollo_Sld_Pen_v0905.pen

PlotScale: 1:1

GENERAL NOTES:

- 1. ALL PLC PROGRAMMING AND I/O SIGNALS SHOWN ON THIS DRAWING SHALL BE PART OF THE OWNER'S SCOPE AS DEFINED IN THE REQUEST FOR PROPOSALS FOR CONTROL SYSTEM INTEGRATION SERVICES FOR VFD REPLACEMENT PROJECT. ALL OTHER MECHANICAL, PROCESS AND ELECTRICAL WORK SHOWN ON THIS DRAWING SHALL BE PROVIDED BY THE CONTRACTOR.



PMP-1405
RAS PUMP
75HP 480VAC 3P

2
IS-02

REV	DATE	BY	DESCRIPTION
1			
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3			

DESIGNED
NS

DRAWN
SGS

CHECKED
BL

DATE
JULY 2023

REGISTERED PROFESSIONAL ENGINEER
No. 5612657
MATTHEW G. HATCH
STATE OF UTAH



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

SOUTH VALLEY WATER RECLAMATION
2023 VFD REPLACEMENT
INSTRUMENTATION
RAS/WAS BUILDING NO. 1
RAS PUMP 1405

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

JOB NO.
201238

DRAWING NO.
PI-1405

SHEET NO.
101 OF 116

Plot Date: 17-JUL-2023 9:32:46 AM

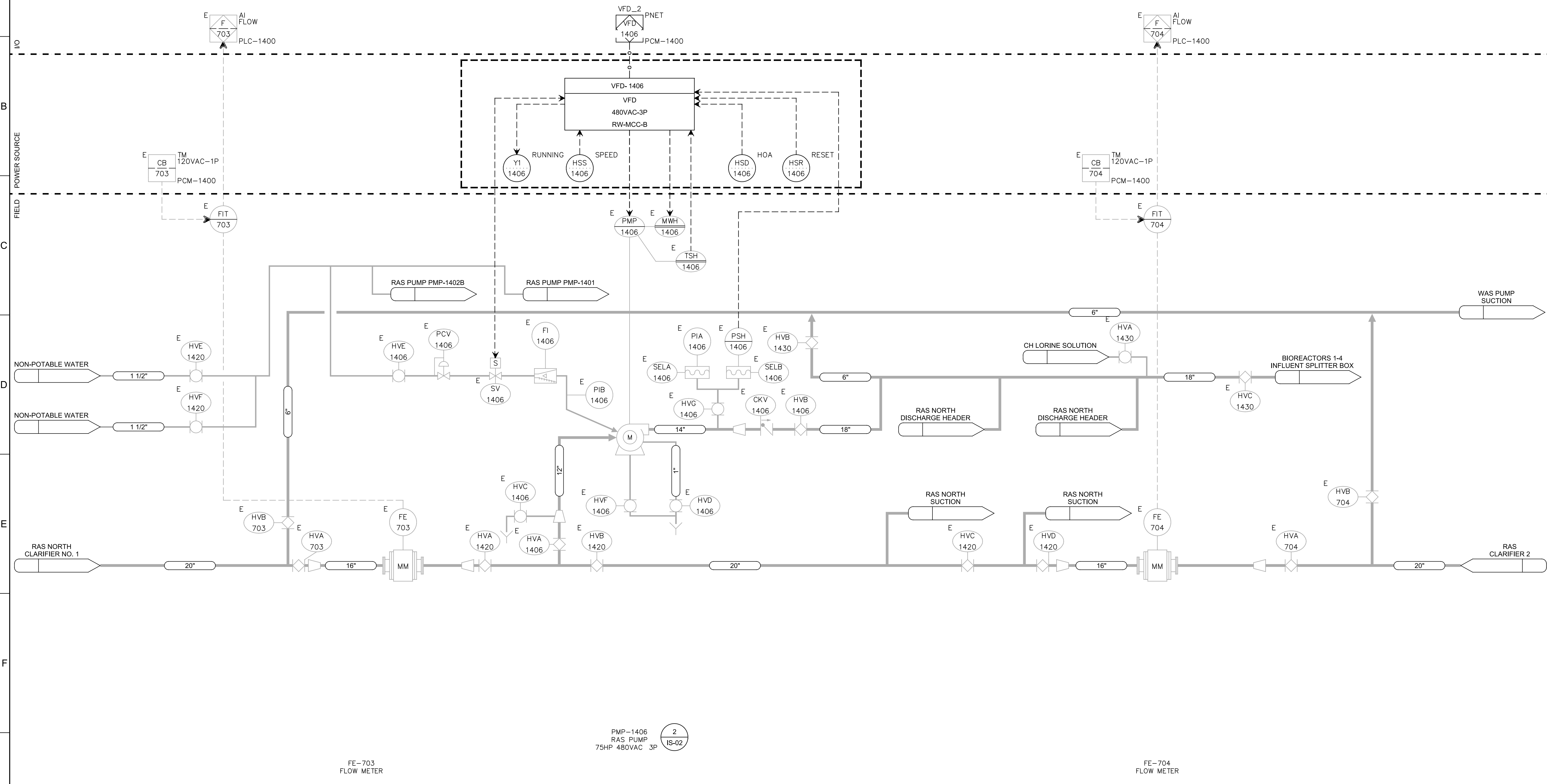
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Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo_Sld_Pen_v0905.pen PlotScale: 1:1

MCallivan

GENERAL NOTES:

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PMP-1406
RAS PUMP
75HP 480VAC 3P

2
IS-02

FE-703
FLOW METER

FE-704
FLOW METER

REV	DATE	BY	DESCRIPTION
1			
2			

DESIGNED NS	
DRAWN AAW	
CHECKED BL	
DATE JULY 2023	

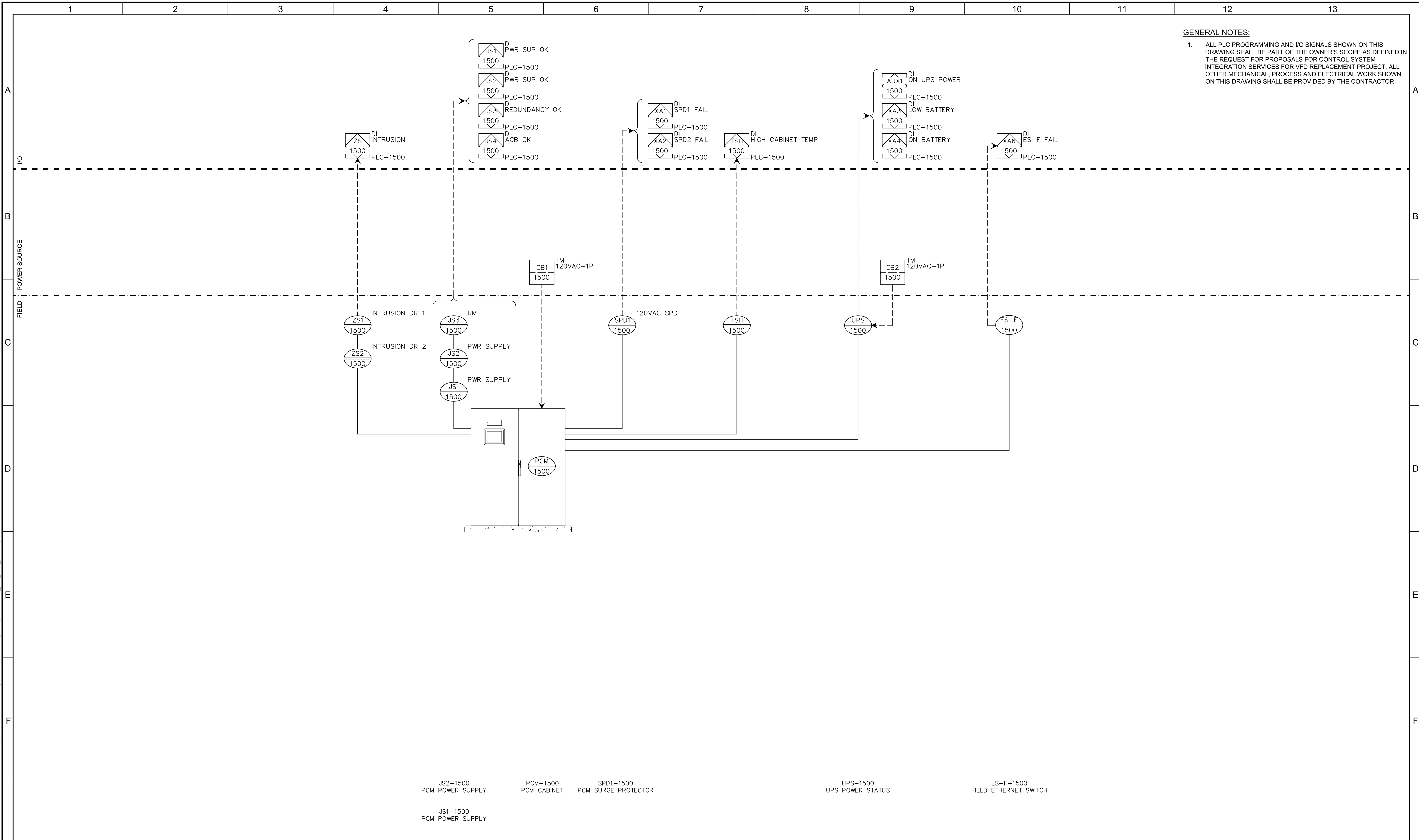
SOUTH VALLEY WATER RECLAMATION		VERIFY SCALES	JOB NO. 201238
2023 VFD REPLACEMENT		BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. PI-1406
INSTRUMENTATION		0 1"	SHEET NO. 102 OF 116
RAS/WAS BUILDING NO. 1		IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	
RAS PUMP 1406			

Plot Date: 17-JUL-2023 9:35:29 AM

User: svcPW

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

MCGallivan



GENERAL NOTES:

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JS2-1500 PCM POWER SUPPLY PCM-1500 PCM CABINET SPD1-1500 PCM SURGE PROTECTOR UPS-1500 UPS POWER STATUS ES-F-1500 FIELD ETHERNET SWITCH

JS1-1500 PCM POWER SUPPLY

REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED NS
 DRAWN SGS
 CHECKED BL
 DATE JULY 2023

REGISTERED PROFESSIONAL ENGINEER
 MATTHEW G. HATCH
 STATE OF UTAH

Carollo

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

SOUTH VALLEY WATER RECLAMATION
 2023 VFD REPLACEMENT
 INSTRUMENTATION
 PCM-1500

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

JOB NO. 201238
 DRAWING NO. PI-1500
 SHEET NO. 103 OF 116

Plot Date: 17-JUL-2023 9:32:06 AM

User: svcPW

PlotScale: 1:1

Model: Layout1

ColorTable: gshade.ctb

DesignScript: Carollo_Sld_Pen_v0905.pen

ColorTable: gshade.ctb

DesignScript: Carollo_Sld_Pen_v0905.pen

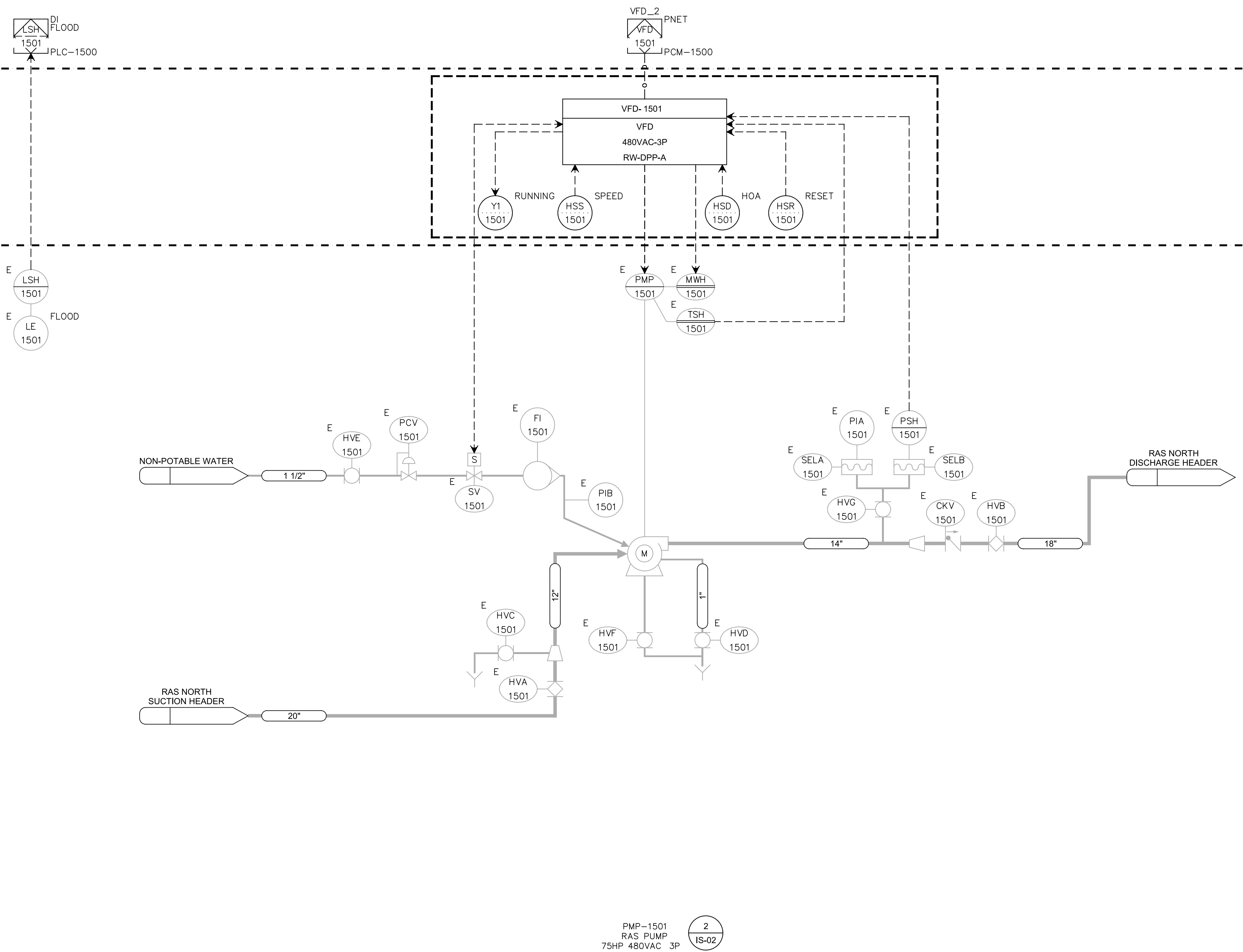
PlotScale: 1:1

User: svcPW

Plot Date: 17-JUL-2023 9:32:06 AM

GENERAL NOTES:

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PMP-1501
RAS PUMP
75HP 480VAC 3P

2
IS-02

REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED
NS

DRAWN
SGS

CHECKED
BL

DATE
JULY 2023

REGISTERED PROFESSIONAL ENGINEER
No. 5612657
MATTHEW G. HATCH
STATE OF UTAH



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

SOUTH VALLEY WATER RECLAMATION
2023 VFD REPLACEMENT
INSTRUMENTATION
RAS/WAS BUILDING NO. 2
RAS PUMP 1501

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

JOB NO.
201238

DRAWING NO.
PI-1501

SHEET NO.
104 OF 116

Plot Date: 17-JUL-2023 9:32:28 AM

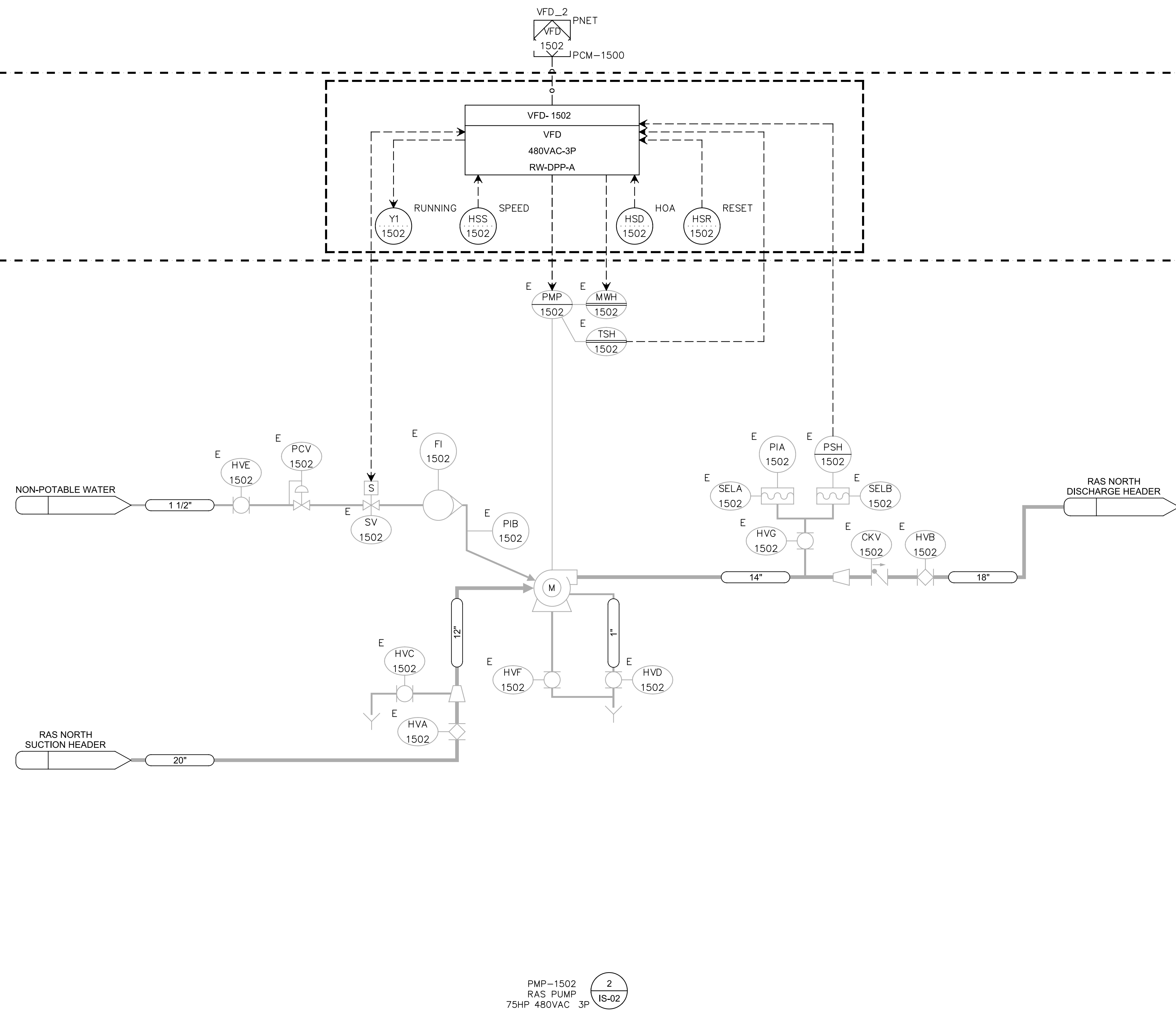
User: svcPW

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

MCallivan

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PMP-1502
RAS PUMP
75HP 480VAC 3P

2
IS-02

REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED
NS

DRAWN
SGS

CHECKED
BL

DATE
JULY 2023

REGISTERED PROFESSIONAL ENGINEER
No. 5612657
MATTHEW G. HATCH
STATE OF UTAH



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

SOUTH VALLEY WATER RECLAMATION
2023 VFD REPLACEMENT
INSTRUMENTATION
RAS/WAS BUILDING NO. 2
RAS PUMP 1502

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

JOB NO.
201238

DRAWING NO.
PI-1502

SHEET NO.
105 OF 116

Plot Date: 17-JUL-2023 9:32:50 AM

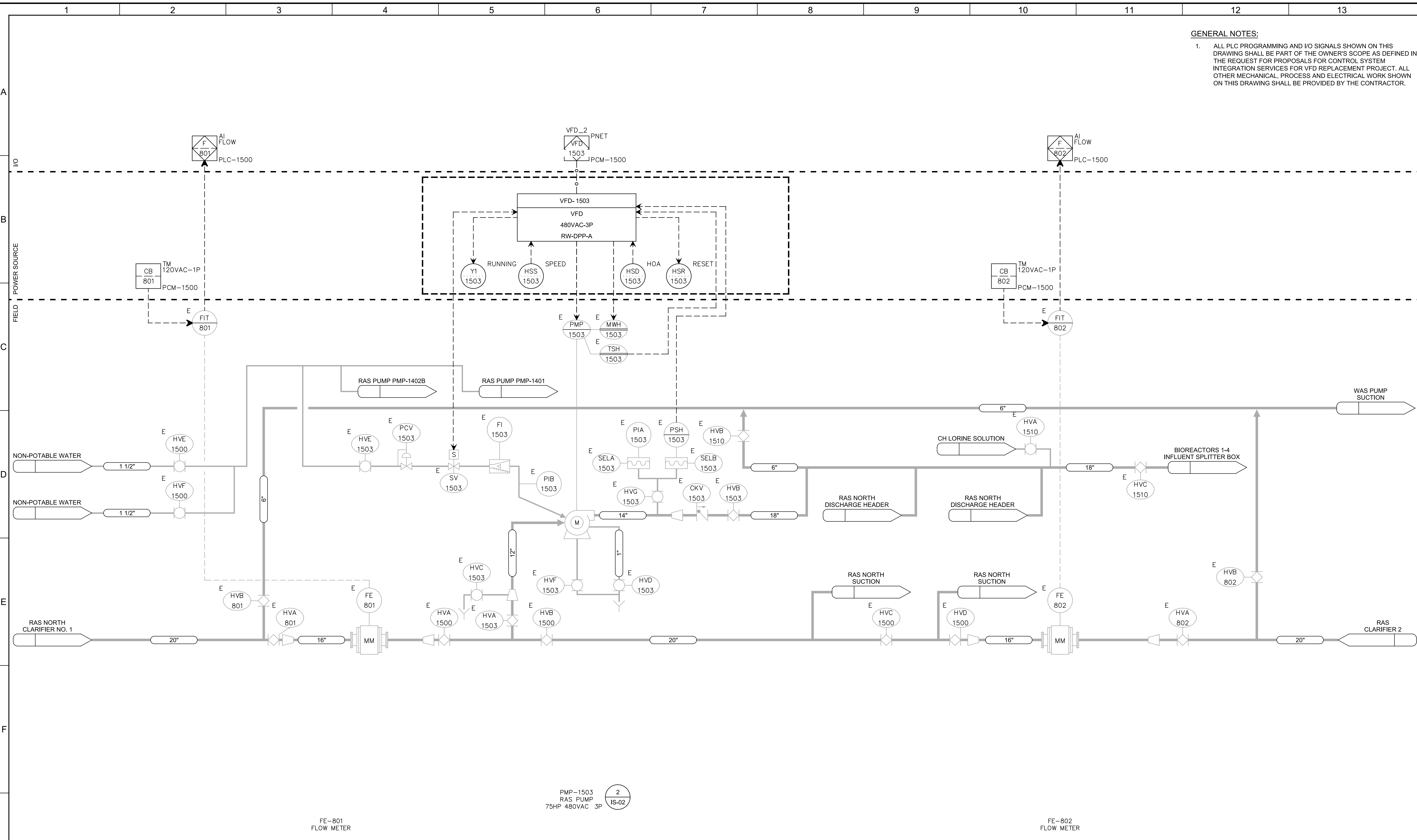
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MCallivan

GENERAL NOTES:

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PMP-1503
RAS PUMP
75HP 480VAC 3P

2
IS-02

FE-801
FLOW METER

FE-802
FLOW METER

REV	DATE	BY	DESCRIPTION
1			
2			

DESIGNED NS	
DRAWN AAW	
CHECKED BL	
DATE JULY 2023	

7495 South 1300 West
West Jordan, Utah 84084

SOUTH VALLEY WATER RECLAMATION		VERIFY SCALES	JOB NO. 201238
2023 VFD REPLACEMENT		BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. PI-1503
INSTRUMENTATION		0 1"	SHEET NO. 106 OF 116
RAS/WAS BUILDING NO. 2			
RAS PUMP 1503			

Plot Date: 17-JUL-2023 9:33:03 AM

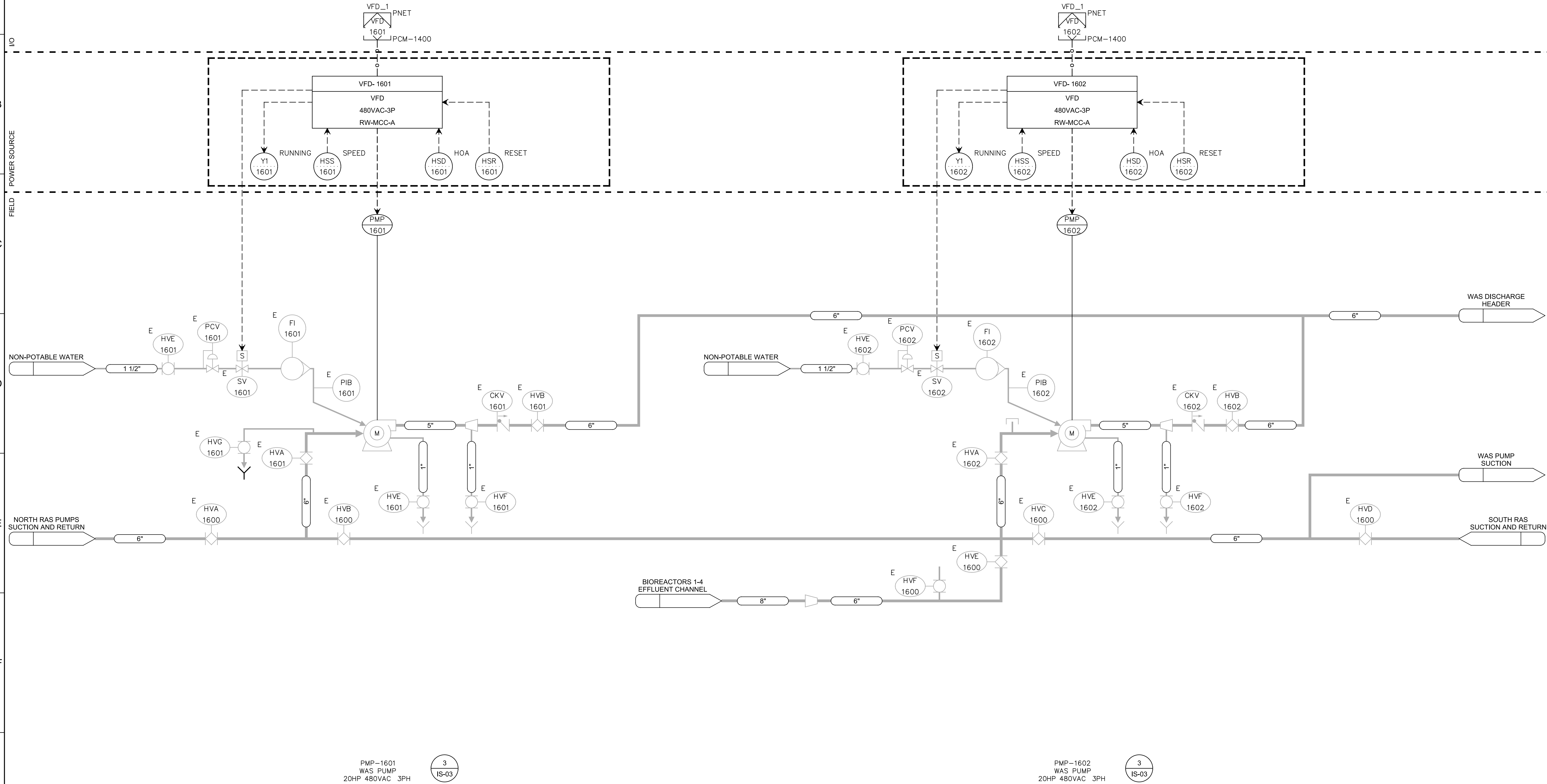
User: svcPW

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

MCGallivan

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PMP-1601
WAS PUMP
20HP 480VAC 3PH

PMP-1602
WAS PUMP
20HP 480VAC 3PH

REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED
NS

DRAWN
AAW

CHECKED
BL

DATE
JULY 2023

STATE OF UTAH
REGISTERED PROFESSIONAL ENGINEER
No. 5612657
MATTHEW G. HATCH



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

SOUTH VALLEY WATER RECLAMATION
2023 VFD REPLACEMENT
INSTRUMENTATION
RAS/WAS BUILDING NO. 1
WAS PUMPS 1601 & 1602

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

JOB NO.
201238

DRAWING NO.
PI-1601

SHEET NO.
107 OF 116

Plot Date: 17-JUL-2023 9:34:11 AM

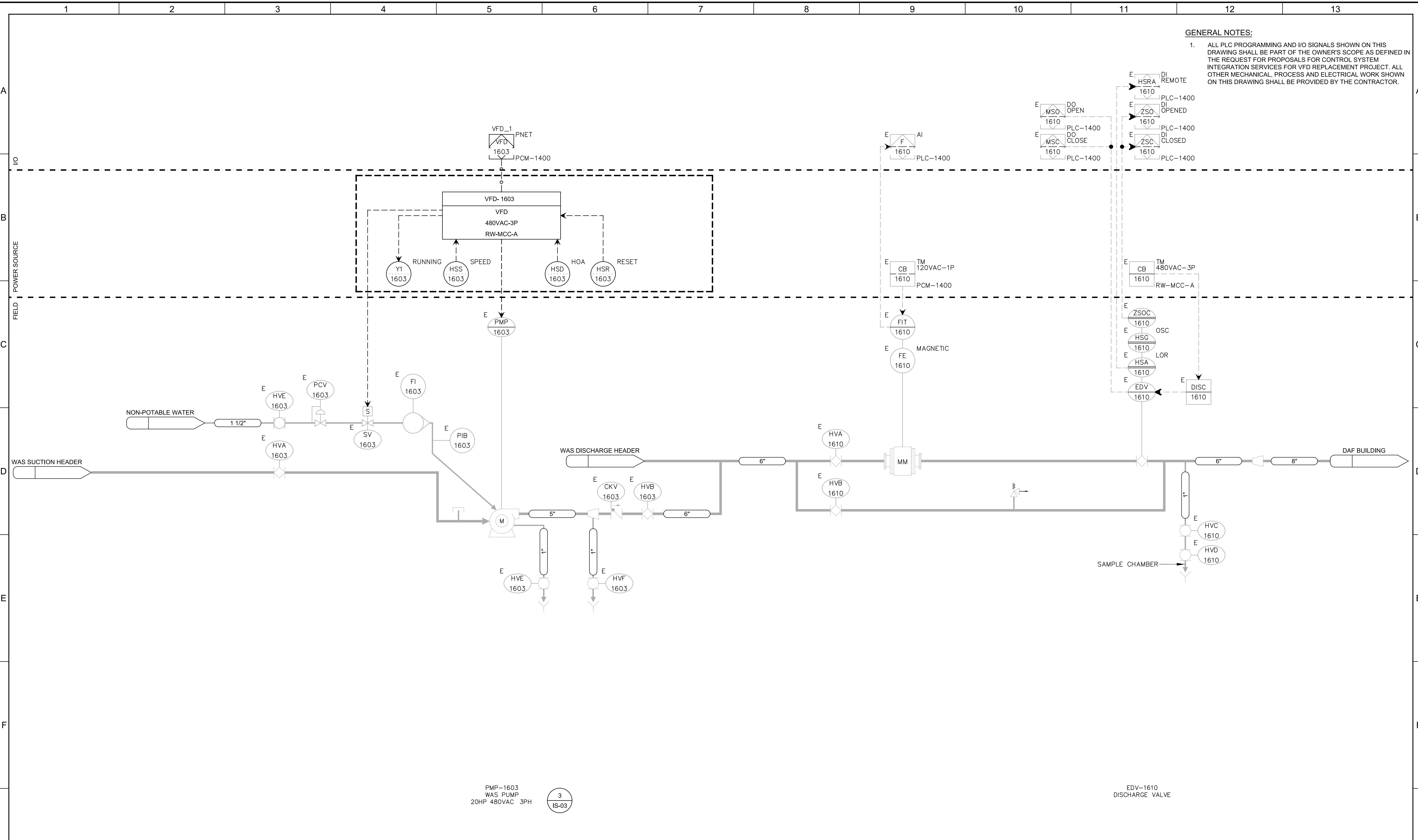
User: svcPW

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo_Sig_Pen_v0905.pen PlotScale: 1:1

MCallivan

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PMP-1603
WAS PUMP
20HP 480VAC 3PH

3
IS-03

EDV-1610
DISCHARGE VALVE

REV	DATE	BY	DESCRIPTION

DESIGNED NS	
DRAWN TCD	
CHECKED BL	
DATE JULY 2023	

SOUTH VALLEY WATER RECLAMATION
2023 VFD REPLACEMENT
INSTRUMENTATION
RAS/WAS BUILDING NO. 1
WAS PUMP 1603

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1"	JOB NO. 201238
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	DRAWING NO. PI-1603
	SHEET NO. 108 OF 116

Plot Date: 17-JUL-2023 9:34:40 AM

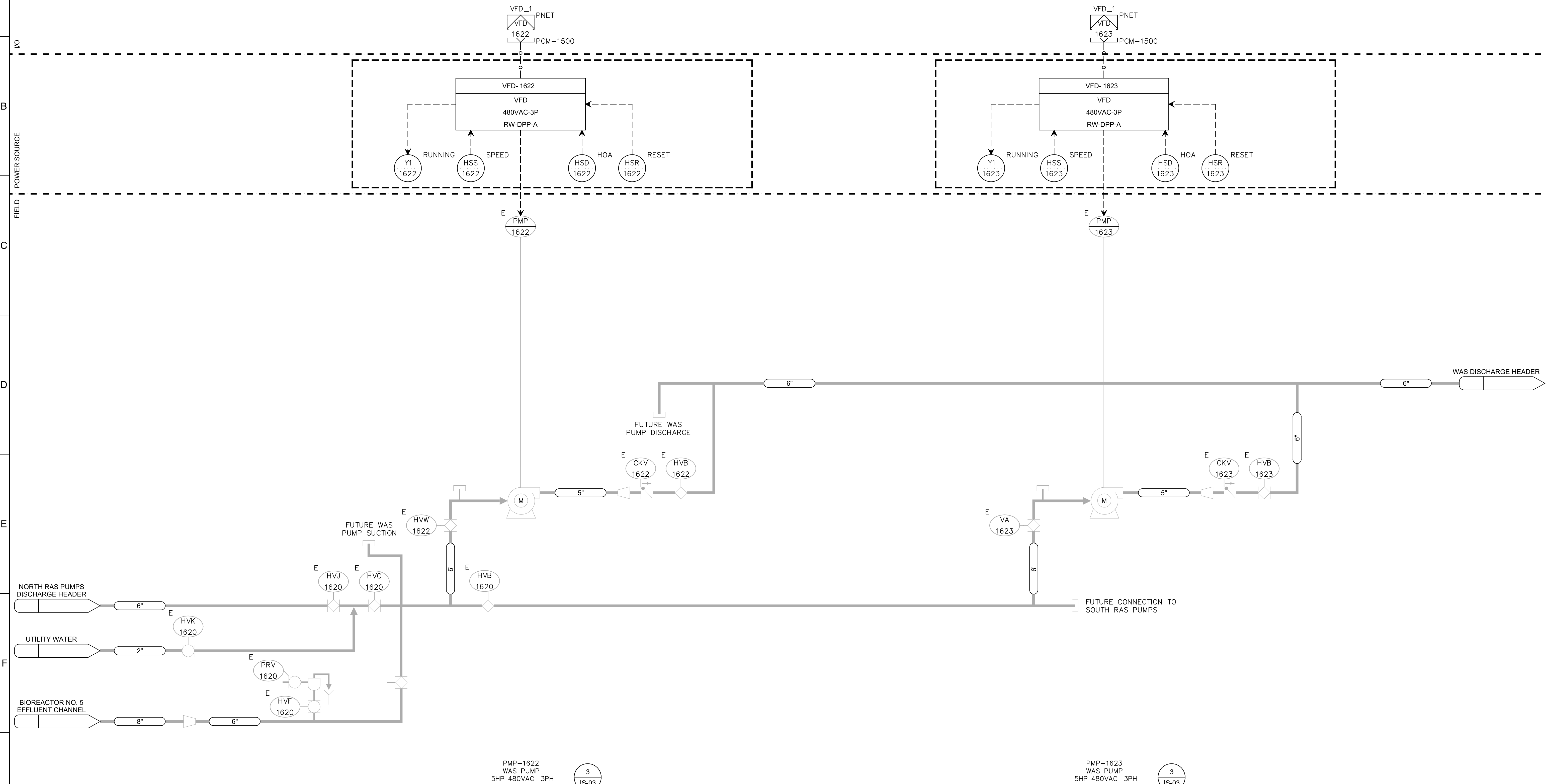
User: svcPW

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

MCallivan

GENERAL NOTES:

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REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED NS
 DRAWN TCD
 CHECKED BL
 DATE JULY 2023

3
IS-03

3
IS-03



SOUTH VALLEY WATER RECLAMATION
 2023 VFD REPLACEMENT
 INSTRUMENTATION
 RAS/WAS BUILDING NO. 2
 WAS PUMPS 1622 & 1623

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

JOB NO. 201238
 DRAWING NO. PI-1622
 SHEET NO. 109 OF 116

Plot Date: 17-JUL-2023 9:32:54 AM

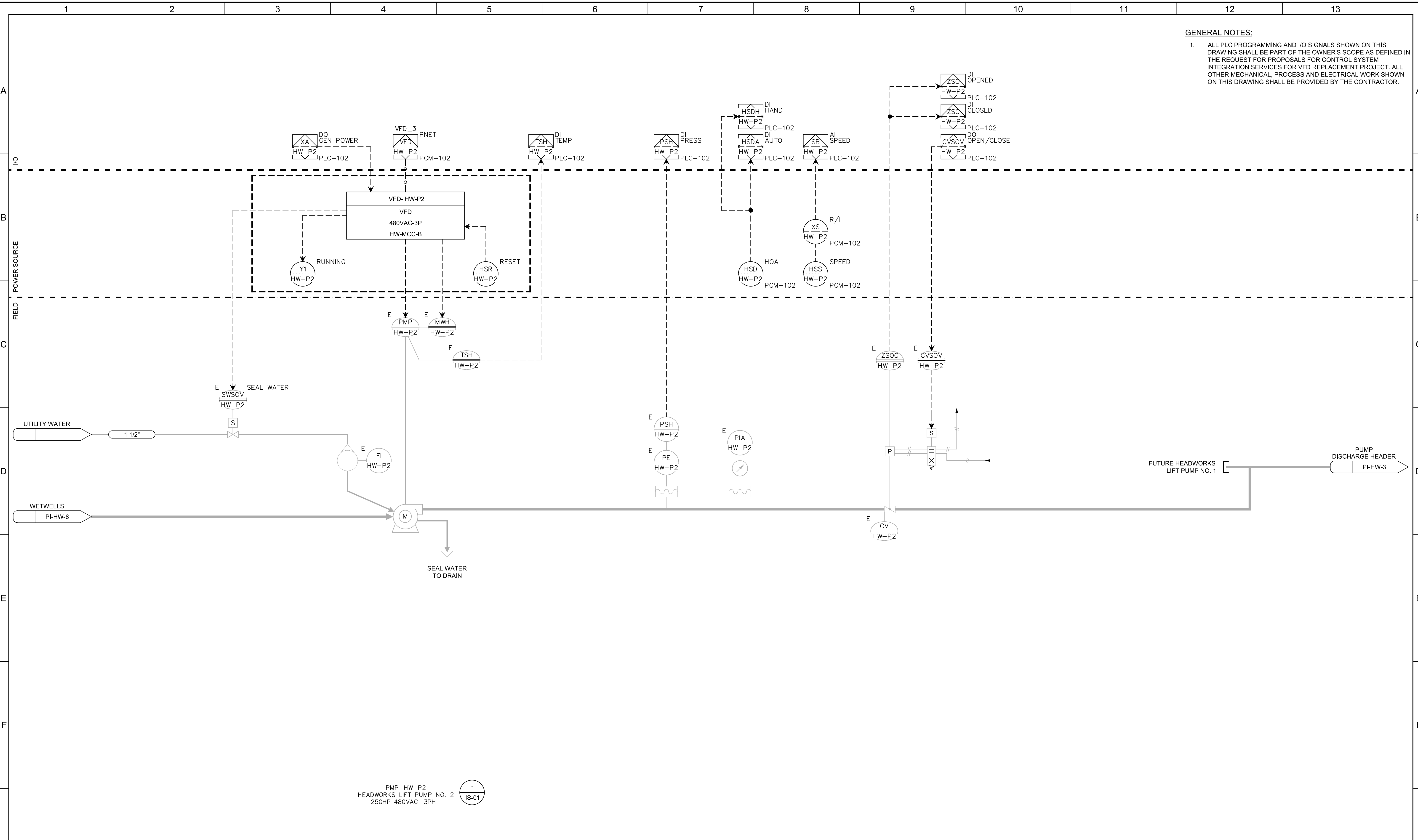
User: svcPW

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MCallivan

GENERAL NOTES:

- ALL PLC PROGRAMMING AND I/O SIGNALS SHOWN ON THIS DRAWING SHALL BE PART OF THE OWNER'S SCOPE AS DEFINED IN THE REQUEST FOR PROPOSALS FOR CONTROL SYSTEM INTEGRATION SERVICES FOR VFD REPLACEMENT PROJECT. ALL OTHER MECHANICAL, PROCESS AND ELECTRICAL WORK SHOWN ON THIS DRAWING SHALL BE PROVIDED BY THE CONTRACTOR.



PMP-HW-P2
HEADWORKS LIFT PUMP NO. 2
250HP 480VAC 3PH

1
IS-01

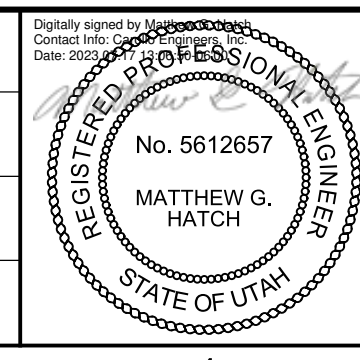
REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED
NS

DRAWN
TCD

CHECKED
BL

DATE
JULY 2023



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

SOUTH VALLEY WATER RECLAMATION		VERIFY SCALES	JOB NO. 201238
2023 VFD REPLACEMENT		BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. PI-HW-2
INSTRUMENTATION		0 1"	SHEET NO. 110 OF 116
HEADWORKS LIFT PUMP NO. 2		IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	