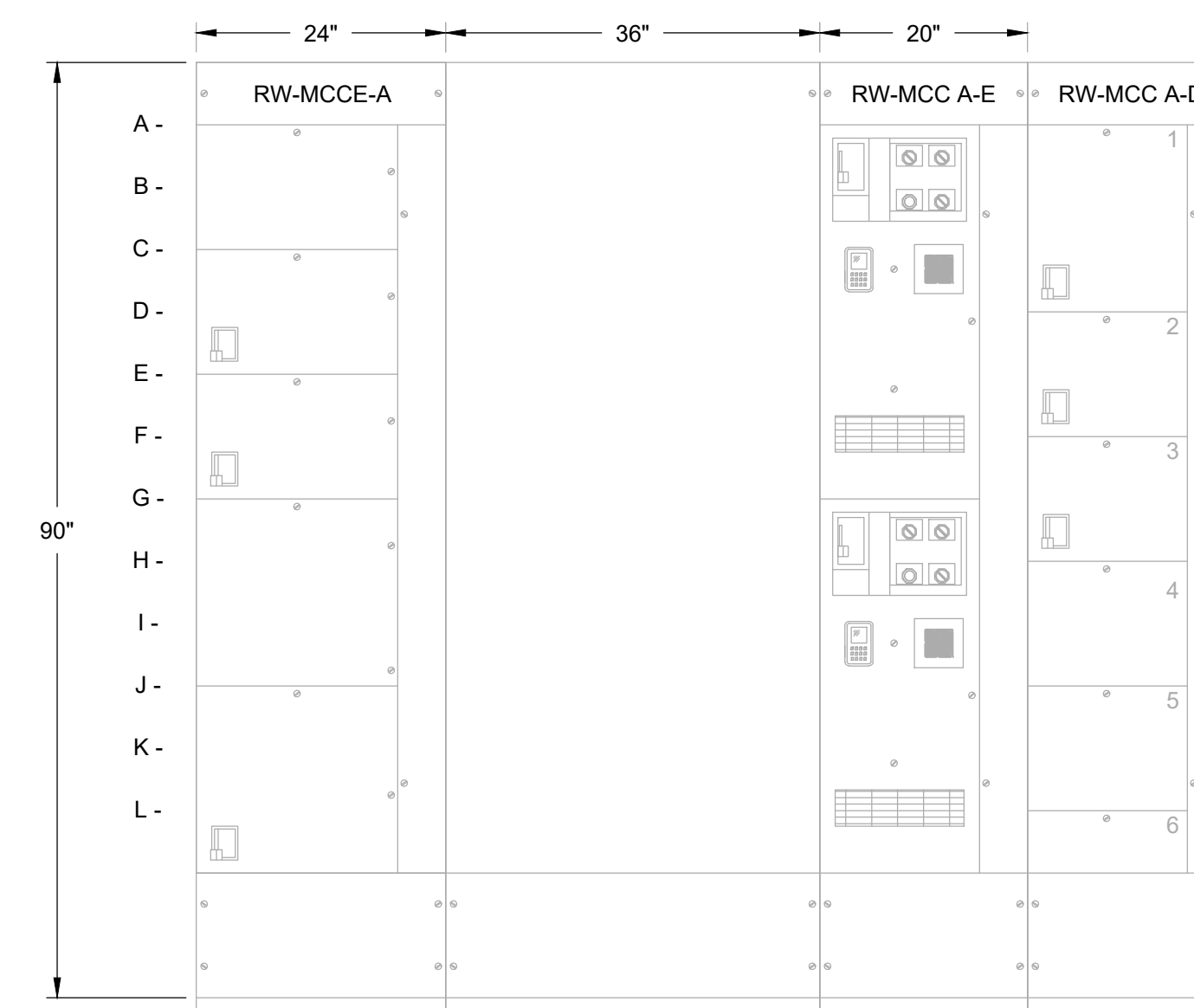
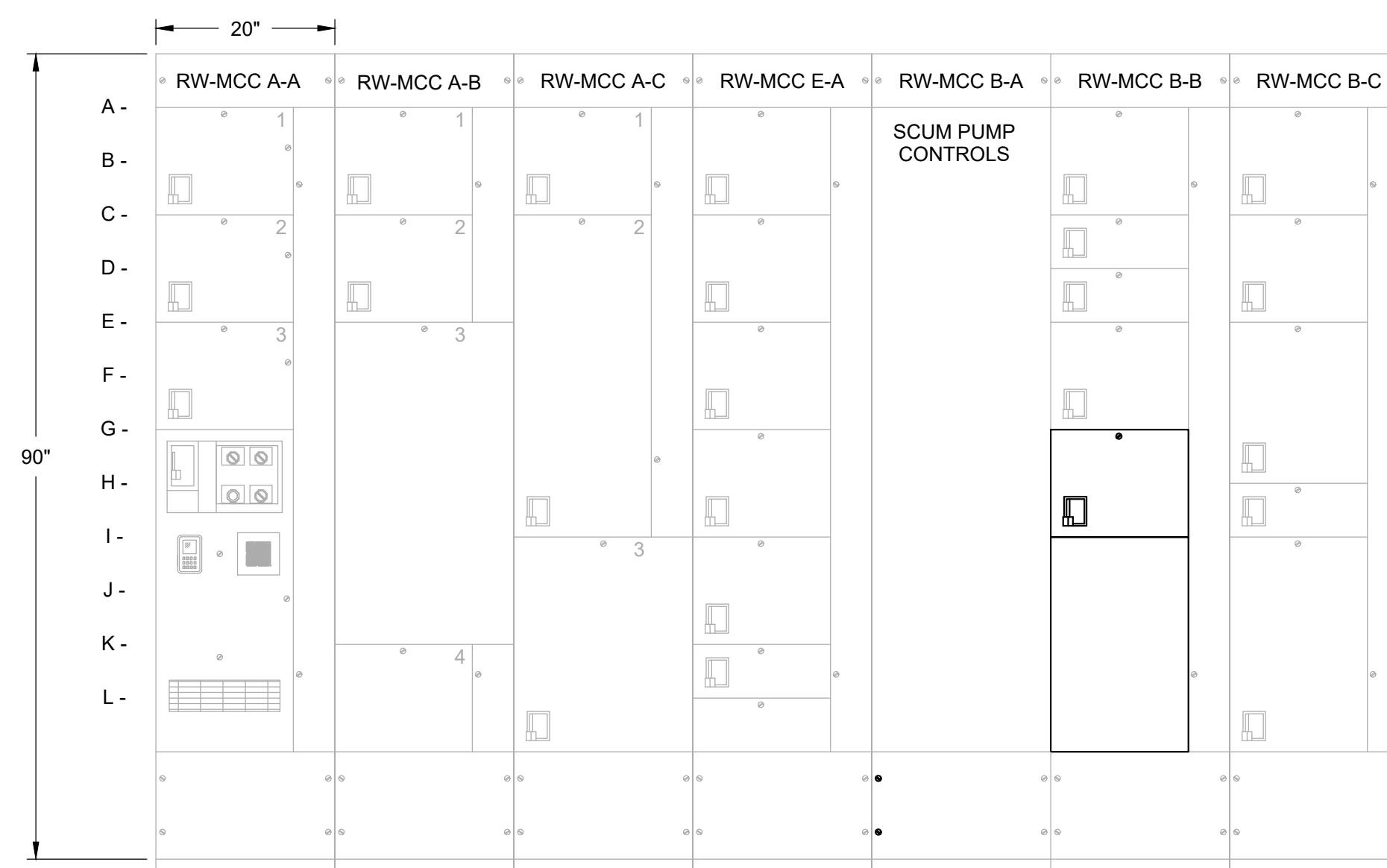


**GENERAL NOTES:**

1. THE VFDS SHOWN HERE ARE GENERIC AND DO NOT INDICATE A PREFERENCE FOR ONE MANUFACTURER.
2. VFD INSTALLATION, RACEWAY AND WIRING AND MCC MODIFICATIONS ARE PROVIDED BY OTHERS.



**RW-MCC B ELEVATION**

- |                                 |                            |
|---------------------------------|----------------------------|
| B1 - PMP-1406<br>RAS PUMP       | C1 - RW-MX-2<br>SCUM MIXER |
| B2 - RW-ME-1<br>FURNACE AND FAN | C2 - RW-ME-4<br>CONDENSER  |
| B3 - OVERHEAD DOOR              | C3 - RW-ME-5<br>CONDENSER  |
| B4 - PMP-1404<br>RAS PUMP       | C4 - RW-F-2<br>A/C FAN     |
| B5 - PMP-1405<br>RAS PUMP       | C5 - MAIN FROM ES-3        |
| B6 - SPACE                      |                            |

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CAC  
DRAWN  
BLS  
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DATE  
SEPTEMBER 2022

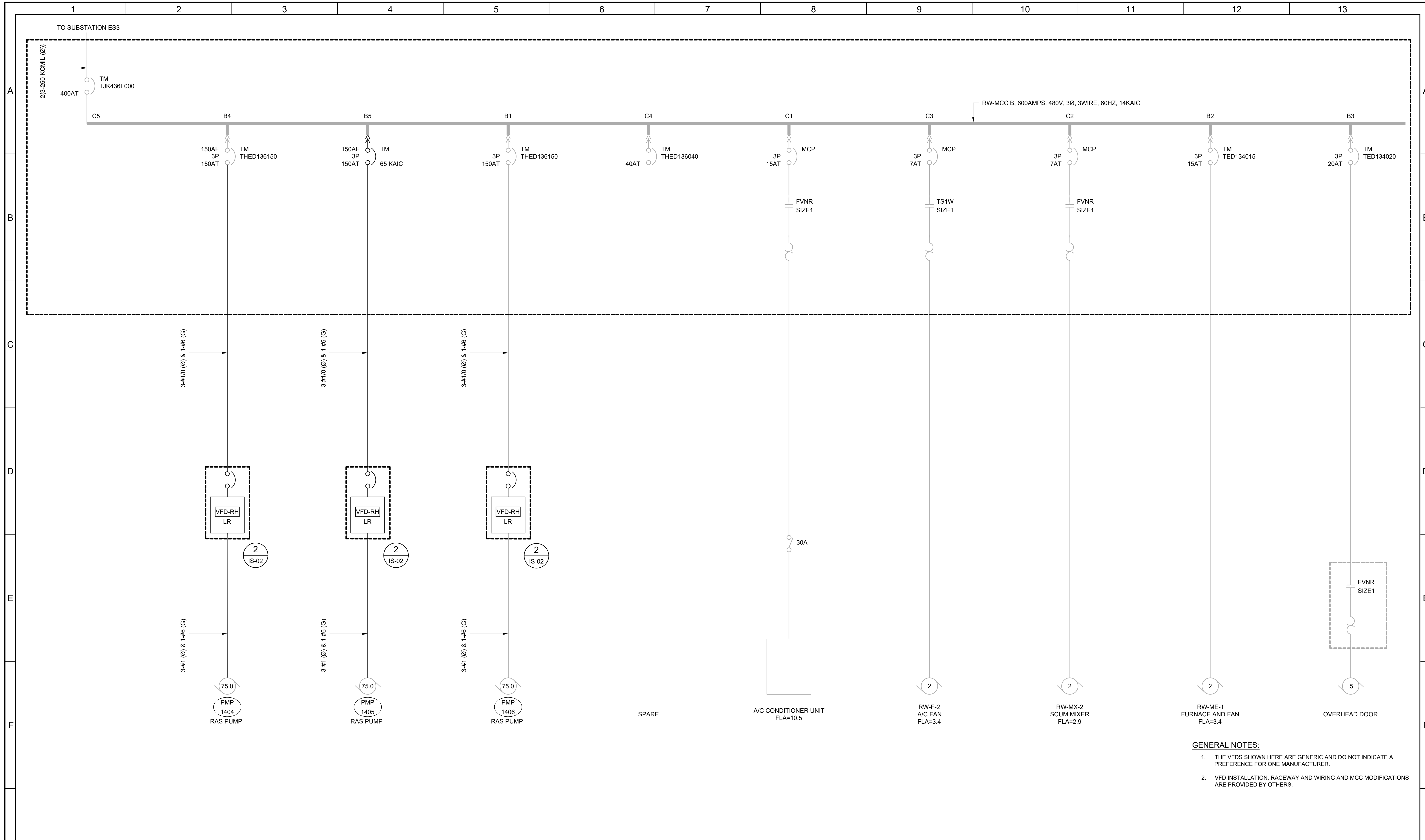


**SV South Valley**  
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West Jordan, Utah 84084

SOUTH VALLEY WATER RECLAMATION  
2022 VFD REPLACEMENT  
ELECTRICAL  
**RW-MCC-B**  
REVISED ELEVATION

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.  
**GE-OL-RW-04**  
SHEET NO.  
OF 108



- GENERAL NOTES:**
1. THE VFDS SHOWN HERE ARE GENERIC AND DO NOT INDICATE A PREFERENCE FOR ONE MANUFACTURER.
  2. VFD INSTALLATION, RACEWAY AND WIRING AND MCC MODIFICATIONS ARE PROVIDED BY OTHERS.

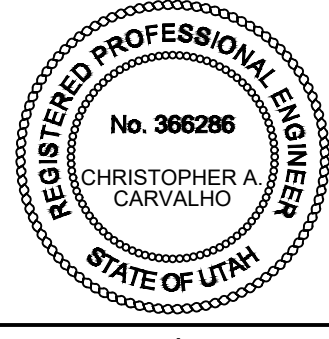
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CAC

DRAWN  
BLS

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DATE  
SEPTEMBER 2022



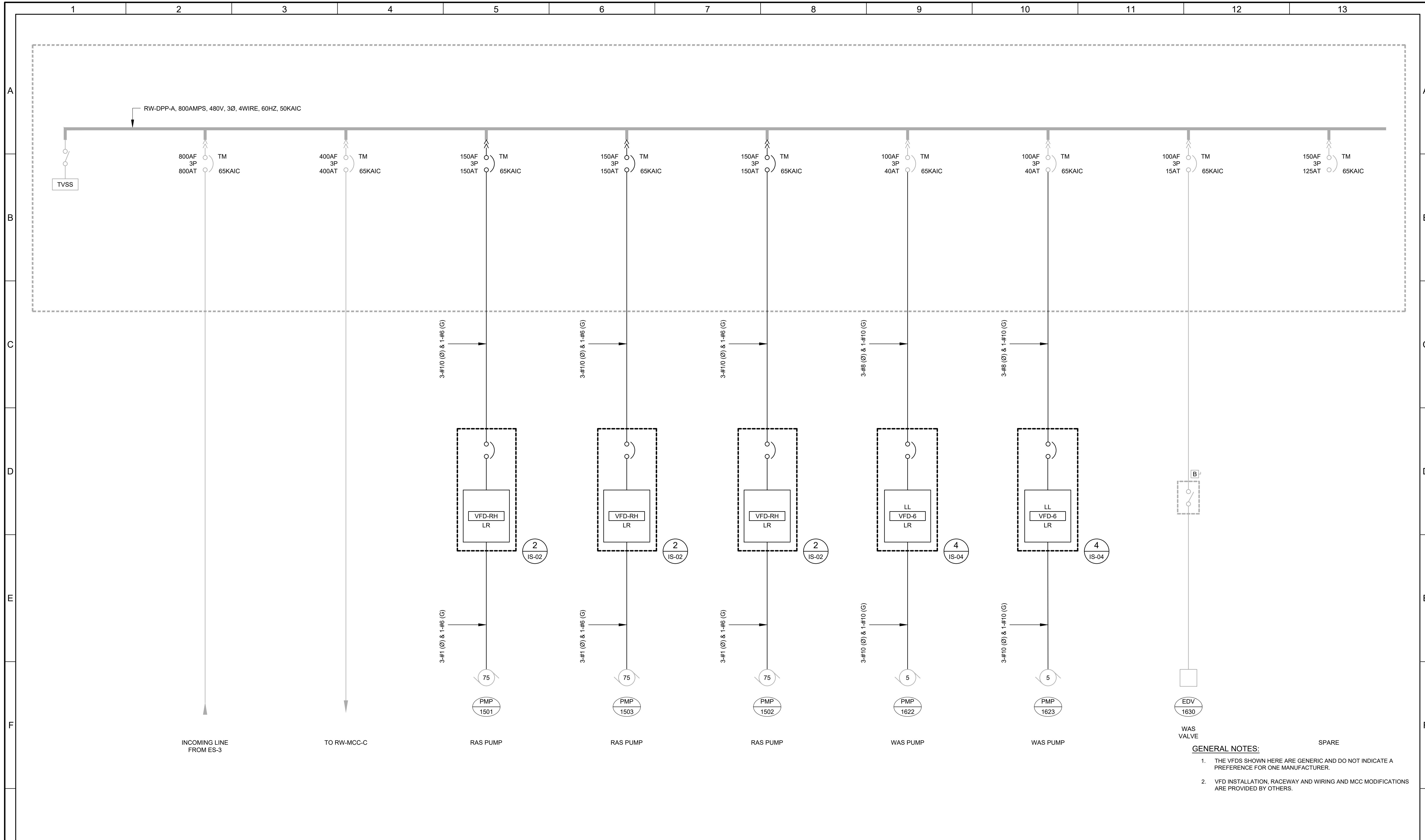
**SV South Valley**  
WATER RECLAMATION FACILITY  
7495 South 1300 West  
West Jordan, Utah 84084

SOUTH VALLEY WATER RECLAMATION  
2022 VFD REPLACEMENT  
ELECTRICAL  
**RW-MCC-B**  
REVISED ONE-LINE DIAGRAM

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. **GE-OL-RW-05**  
SHEET NO. OF 108

LAST SAVED BY: tncrablio



- GENERAL NOTES:**
1. THE VFDS SHOWN HERE ARE GENERIC AND DO NOT INDICATE A PREFERENCE FOR ONE MANUFACTURER.
  2. VFD INSTALLATION, RACEWAY AND WIRING AND MCC MODIFICATIONS ARE PROVIDED BY OTHERS.

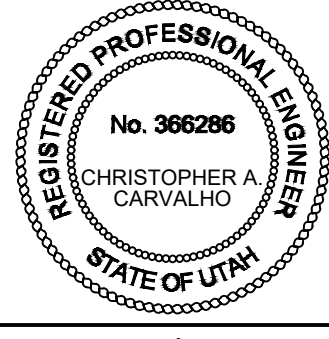
REV	DATE	BY	DESCRIPTION
1			
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DESIGNED  
CAC

DRAWN  
BLS

CHECKED

DATE  
SEPTEMBER 2022



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SOUTH VALLEY WATER RECLAMATION  
2022 VFD REPLACEMENT  
ELECTRICAL  
RW-DPP-A  
REVISED ONE-LINE DIAGRAM

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

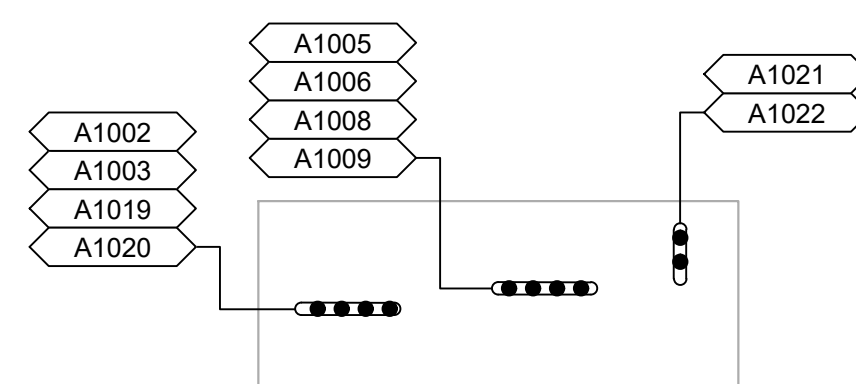
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 201238  
DRAWING NO. GE-OL-RW-06  
SHEET NO. OF 108

LAST SAVED BY: tncrablic

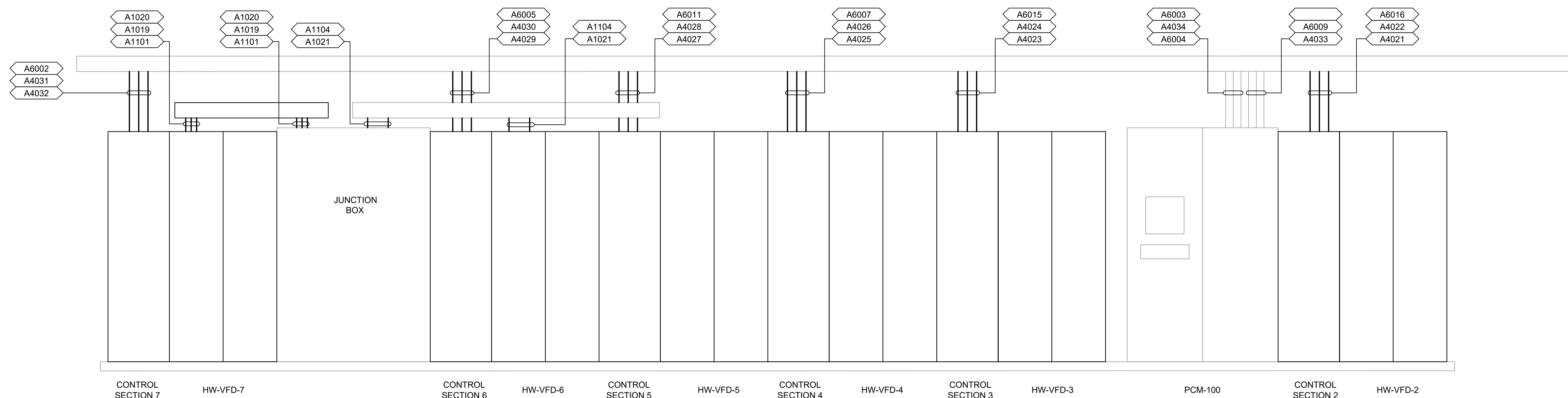
**GENERAL NOTES**

1. THE VFDS SHOWN HERE ARE GENERIC AND DO NOT INDICATE A PREFERENCE FOR ONE MANUFACTURER.
2. THE CONTROL SECTIONS ARE PROVIDED BY OTHERS. REFER TO THE SPECIFICATIONS FOR AND SCHEMATICS FOR VFD WIRING REQUIREMENTS.
3. ALL VFDS ARE FED FROM THE TOP AND ALL MOTOR LEADS EXIT THE TOP WITH THE EXCEPTION OF HW-VFD-4 WHICH IS BOTTOM FED.
4. VFD INSTALLATION, ALL RACEWAY AND WIRING IS PROVIDED BY OTHERS.
5. STANDBY POWER FROM DIESEL GENERATORS IS AVAILABLE TO ALL INFLUENT PUMP VFDS.



**JUNCTION BOX FLOOR PLAN**

SCALE: 1/2" = 1' - 0"  
FILE: 01-089-901.dwg



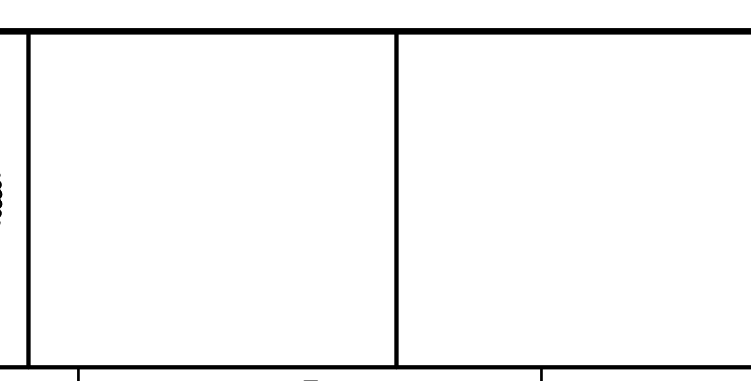
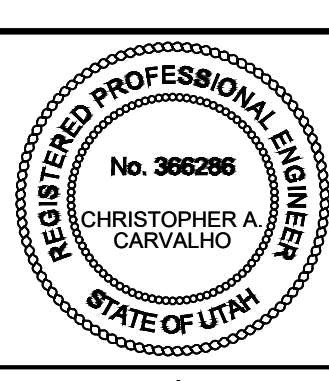
**REVISED VFD LINEUP ELEVATION**

SCALE: 1/2" = 1'-0"  
FILE: 01-089-901.dwg

LAST SAVED BY: tncrablio

REV	DATE	BY	DESCRIPTION
1			
2			
3			

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DATE SEPTEMBER 2022



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West Jordan, Utah 84084

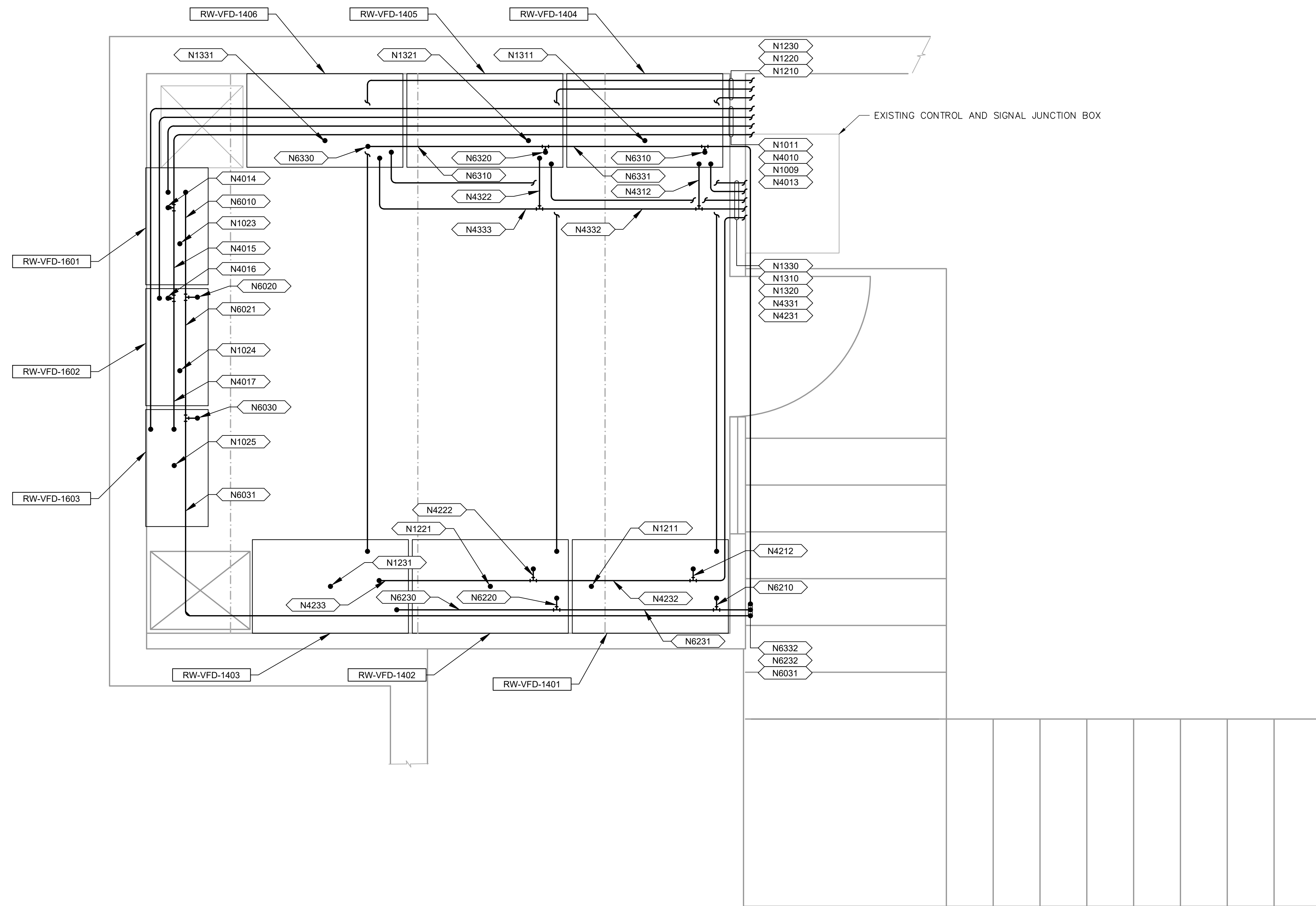
**SOUTH VALLEY WATER RECLAMATION**  
**2022 VFD REPLACEMENT**  
ELECTRICAL  
**HEADWORKS PUMP STATION**  
**REVISED VFD LINEUP**

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.  
**1E-01**  
SHEET NO.  
OF 108



- GENERAL NOTES**
1. THE VFDS SHOWN HERE ARE GENERIC AND DO NOT INDICATE A PREFERENCE FOR ONE MANUFACTURER.
  2. ALL VFDS WILL HAVE TOP AND BOTTOM CONDUIT ENTRIES.
  3. VFD INSTALLATION, ALL RACEWAY AND WIRING IS PROVIDED BY OTHERS.
  4. STANDBY POWER IS NOT AVAILABLE TO THESE VFDS.



**RAS/WAS BUILDING NO. 1 UPPER LEVEL  
ELECTRICAL ROOM MODIFICATION PLAN**  
SCALE: 3/4" = 1'-0"  
FILE: 07-080-201

LAST SAVED BY: tncrablio

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CAC  
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7495 South 1300 West  
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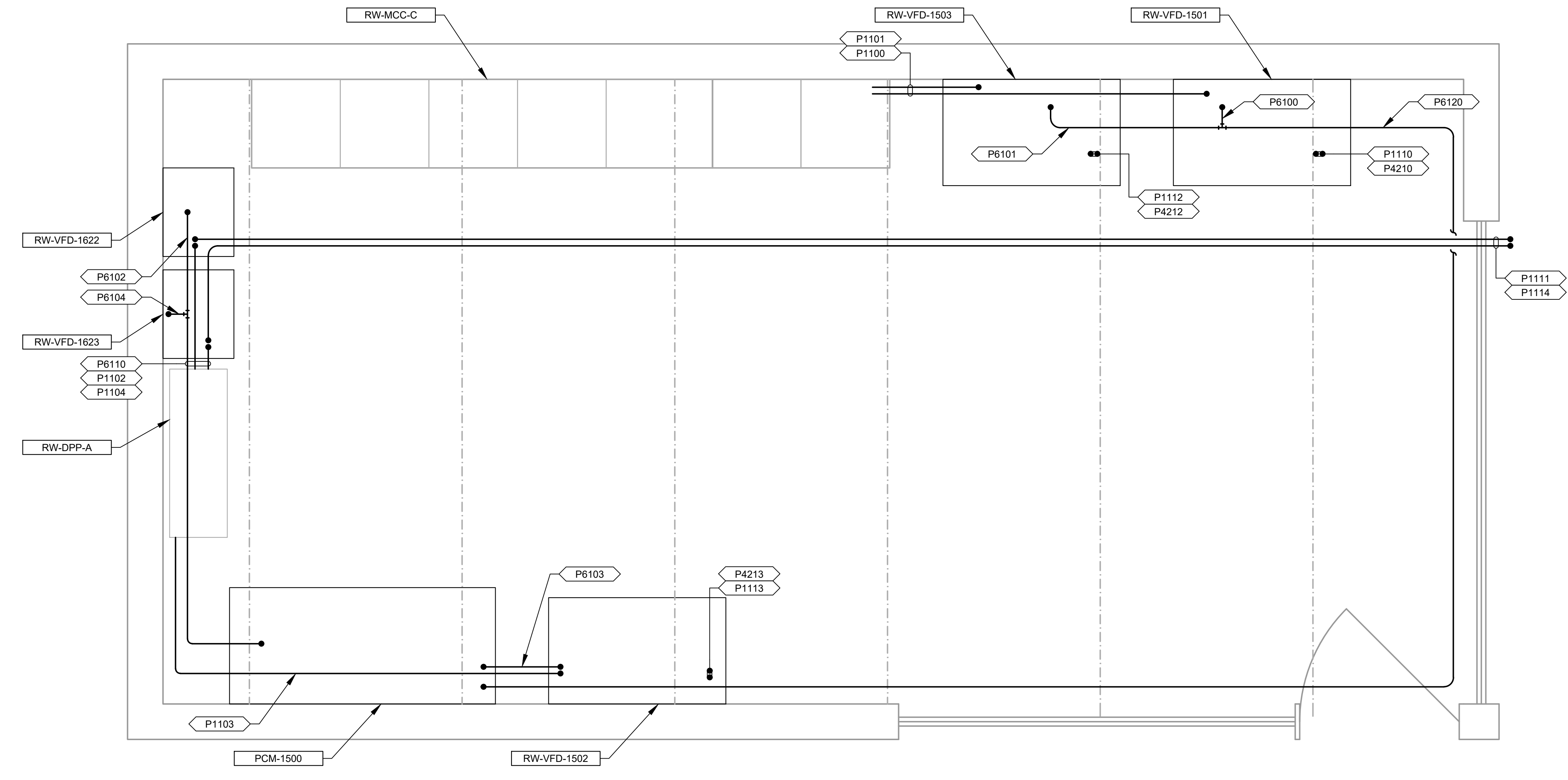
**SOUTH VALLEY WATER RECLAMATION  
2022 VFD REPLACEMENT  
ELECTRICAL  
RAS/WAS BUILDING #1  
UPPER LEVEL REVISED PLAN**

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.  
**14E-02**  
SHEET NO.  
OF 108



- GENERAL NOTES**
1. THE VFDS SHOWN HERE ARE GENERIC AND DO NOT INDICATE A PREFERENCE FOR ONE MANUFACTURER.
  2. ALL VFDS WILL HAVE TOP AND BOTTOM CONDUIT ENTRIES.
  3. VFD INSTALLATION, ALL RACEWAY AND WIRING IS PROVIDED BY OTHERS.
  4. STANDBY POWER IS NOT AVAILABLE TO THESE VFDS.



**RAS/WAS BUILDING NO. 2 UPPER LEVEL  
ELECTRICAL ROOM PLAN**  
SCALE: 3/4" = 1'-0"  
FILE: 07-080-201

LAST SAVED BY: tncrablio

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SOUTH VALLEY WATER RECLAMATION  
2022 VFD REPLACEMENT  
ELECTRICAL  
**RAS/WAS BUILDING #2 UPPER LEVEL  
REVISED PLAN**

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.  
**17E-02**  
SHEET NO.  
OF 108

Plot Date: 10/15/2021 9:58:07 AM

201238-GN05.dwg

201238-100000

bshpard

PROCESS SWITCHES

HAND SWITCHES

RELAYS

TERMINAL BLOCKS

I/O

MISC

- FLOAT SWITCH  
CLOSE ON RISING LEVEL
- FLOAT SWITCH  
OPEN ON RISING LEVEL
- PRESSURE SWITCH  
CLOSE ON RISING PRESSURE
- PRESSURE SWITCH  
OPEN ON RISING PRESSURE
- TEMPERATURE SWITCH  
CLOSE ON RISING TEMPERATURE
- TEMPERATURE SWITCH  
OPEN ON RISING TEMPERATURE
- FLOW SWITCH  
CLOSE ON INCREASE IN FLOW
- FLOW SWITCH  
OPEN ON INCREASE IN FLOW
- VIBRATION SWITCH  
OPEN ON RISING VIBRATION
- VIBRATION SWITCH  
CLOSE ON RISING VIBRATION
- TORQUE SWITCH  
OPEN ON HIGH TORQUE
- TORQUE SWITCH  
CLOSE ON HIGH TORQUE
- NORMALLY CLOSED  
LIMIT SWITCH
- NORMALLY CLOSED  
HELD OPEN LIMIT SWITCH
- NORMALLY OPEN  
LIMIT SWITCH
- NORMALLY OPEN  
HELD CLOSED LIMIT SWITCH

- NORMALLY OPEN  
MOMENTARY PUSHBUTTON
- NORMALLY CLOSED  
MOMENTARY PUSHBUTTON
- THREE POSITION SELECTOR SWITCH  
x - DENOTES POSITION CONTACTS  
CLOSED IN
- TWO POSITION SELECTOR SWITCH  
x - DENOTES POSITION CONTACTS  
CLOSED IN
- MUSHROOM HEAD PUSHBUTTON
- PUSH-PULL PUSHBUTTON  
MAINTAINED CONTACT
- PADLOCK SWITCH  
x - DENOTES POSITION CONTACTS  
CLOSED IN
- PULL CORD SWITCH
- STOP-LOCKOUT PUSHBUTTON
- SPRING-RETURN  
x - DENOTES POSITION CONTACTS  
CLOSED IN

INDICATORS

- PILOT LIGHT  
a = LENS COLOR  
R = RED  
G = GREEN  
W = WHITE  
A = AMBER  
B = BLUE  
Y = YELLOW  
C = CLEAR
- BEACON  
a = LENS COLOR  
R = RED  
G = GREEN  
W = WHITE  
A = AMBER  
B = BLUE  
M = MAGENTA  
C = CLEAR
- HORN

- 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  
b = TDON - TIME DELAY ON ENERGIZATION  
TDOFF - TIME DELAY ON DEENERGIZATION  
c = TIMING RANGE/SETTING  
d = DESCRIPTION
- NORMALLY OPEN  
CONTROL CONTACT
- NORMALLY CLOSED  
CONTROL CONTACT
- TIME DELAY CONTACT  
NORMALLY OPEN  
TIMED CLOSING
- TIME DELAY CONTACT  
NORMALLY CLOSED  
TIMED OPENING
- TIME DELAY CONTACT  
NORMALLY OPEN  
TIMED OPENING
- TIME DELAY CONTACT  
NORMALLY CLOSED  
TIMED CLOSING

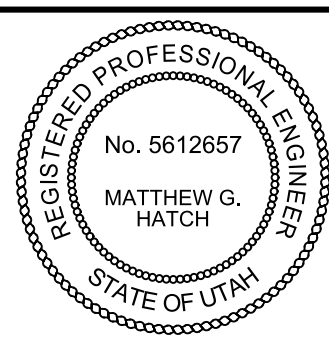
- TERMINAL  
IN PLC/PCM PANEL
- TERMINAL  
IN MOTOR CONTROL CENTER
- TERMINAL  
IN LOCAL STARTER CONTROL PANEL
- TERMINAL  
AT FIELD DEVICE
- TERMINAL  
IN RTU
- TERMINAL  
IN FIELD PANEL
- TERMINAL  
IN (USER CHOICE)
- DIGITAL BUS CONNECTOR  
\* = D - DEVICENET  
\* = PA - PROFIBUS PA  
\* = DP - PROFIBUS DP  
\* = H1 - FOUNDATION FIELDBUS H1  
\* = H2 - FOUNDATION FIELDBUS H2  
\* = E - ETHERNET

- PLC DISCRETE  
a = INPUT OR OUTPUT AS INDICATED
- PLC ANALOG  
a = INPUT OR OUTPUT AS INDICATED
- DIGITAL BUS

- SOLENOID
- METER UNIT  
M = TYPE
- MOTOR
- CIRCUIT BREAKER
- DISCONNECT
- FUSE
- TRANSIENT SURGE  
PROTECTION
- MOTOR WINDING HEATER  
\* - MOTOR TAG I.D.
- SPACE HEATER
- VARISTOR
- CAPACITOR
- RESISTOR
- BATTERY
- DIODE
- MOTOR OVERLOAD  
HEATERS
- OVERLOAD CONTACT
- DRAWOUT CONNECTION
- GROUND
- LIGHTNING ARRESTOR
- CONTROL POWER  
TRANSFORMER
- ELAPSED TIME METER

REV	DATE	BY	DESCRIPTION

DESIGNED  
CE  
DRAWN  
CE  
CHECKED  
CE  
DATE  
SEPTEMBER 2022



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

SOUTH VALLEY WATER RECLAMATION  
2022 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.  
OF

Plot Date: 20-SEP-2022 9:07:09 AM

User: svcPW

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo\_Sig\_Pen\_v0905.pen PlotScale: 1:1

LAST SAVED BY: jsteward

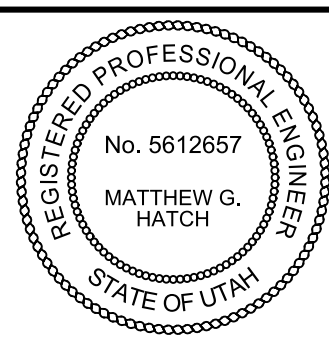
VFD_1						
VFD						
PROTOCOL: PROFINET						
DESCRIPTION	CONTROL	HISTORIZE	INDICATE	ALARM	TREND	INTERLOCK
HAND			✓			
OFF	✓		✓			
AUTO			✓			
STOP	✓		✓			
START	✓		✓			
SPEED	✓		✓			
SPEED FEEDBACK		✓	✓			
RESET ELAPSED TIME	✓		✓			
RUNNING		✓	✓		✓	
TOTAL STARTS		✓	✓			
DAILY STARTS		✓	✓			
ELAPSED TIME		✓	✓			
DAILY RUN TIME		✓	✓			
A PH V		✓	✓		✓	
B PH V		✓	✓		✓	
C PH V		✓	✓		✓	
A PH CURRENT		✓	✓		✓	
B PH CURRENT		✓	✓		✓	
C PH CURRENT		✓	✓		✓	
AVERAGE 3 PH CURRENT		✓	✓		✓	
POWER KVA		✓	✓		✓	
POWER KW		✓	✓		✓	
POWER FACTOR		✓	✓		✓	
CURRENT ALARM HIGH			✓	✓		✓
OVERLOAD			✓	✓		✓
FAULT		✓	✓	✓		✓
SMART OVERLOAD FAILED			✓	✓		✓
FAIL TO RESPOND			✓	✓		✓
SAFETY STOP STATUS			✓	✓		✓

VFD_2						
VFD						
PROTOCOL: PROFINET						
DESCRIPTION	CONTROL	HISTORIZE	INDICATE	ALARM	TREND	INTERLOCK
HAND			✓			
OFF	✓		✓			
AUTO			✓			
STOP	✓		✓			
START	✓		✓			
SPEED	✓		✓			
SPEED FEEDBACK		✓	✓		✓	
RESET ELAPSED TIME	✓		✓			
RUNNING		✓	✓		✓	
TOTAL STARTS		✓	✓			
DAILY STARTS		✓	✓			
ELAPSED TIME		✓	✓			
DAILY RUN TIME		✓	✓			
A PH V		✓	✓		✓	
B PH V		✓	✓		✓	
C PH V		✓	✓		✓	
A PH CURRENT		✓	✓		✓	
B PH CURRENT		✓	✓		✓	
C PH CURRENT		✓	✓		✓	
AVERAGE 3 PH CURRENT		✓	✓		✓	
POWER KVA		✓	✓		✓	
POWER KW		✓	✓		✓	
POWER FACTOR		✓	✓		✓	
CURRENT ALARM HIGH			✓	✓		✓
OVERLOAD			✓	✓		✓
FAULT		✓	✓	✓		✓
SMART OVERLOAD FAILED			✓	✓		✓
FAIL TO RESPOND			✓	✓		✓
SAFETY STOP STATUS			✓	✓		✓

VFD_3						
VFD						
PROTOCOL: PROFINET						
DESCRIPTION	CONTROL	HISTORIZE	INDICATE	ALARM	TREND	INTERLOCK
HAND			✓			
OFF	✓		✓			
AUTO			✓			
STOP	✓		✓			
START	✓		✓			
SPEED	✓		✓			
SPEED FEEDBACK		✓	✓		✓	
RESET ELAPSED TIME	✓		✓			
RUNNING		✓	✓		✓	
TOTAL STARTS		✓	✓			
DAILY STARTS		✓	✓			
ELAPSED TIME		✓	✓			
DAILY RUN TIME		✓	✓			
A PH V		✓	✓		✓	
B PH V		✓	✓		✓	
C PH V		✓	✓		✓	
A PH CURRENT		✓	✓		✓	
B PH CURRENT		✓	✓		✓	
C PH CURRENT		✓	✓		✓	
AVERAGE 3 PH CURRENT		✓	✓		✓	
POWER KVA		✓	✓		✓	
POWER KW		✓	✓		✓	
POWER FACTOR		✓	✓		✓	
CURRENT ALARM HIGH			✓	✓		✓
OVERLOAD			✓	✓		✓
FAULT		✓	✓	✓		✓
SMART OVERLOAD FAILED			✓	✓		✓
FAIL TO RESPOND			✓	✓		✓
SAFETY STOP STATUS			✓	✓		✓

REV	DATE	BY	DESCRIPTION

DESIGNED  
MGH  
DRAWN  
AAW  
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CLL  
DATE  
SEPTEMBER 2022



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

SOUTH VALLEY WATER RECLAMATION  
2022 VFD REPLACEMENT  
INSTRUMENTATION  
I/O TABLES

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-0001**  
SHEET NO.  
OF

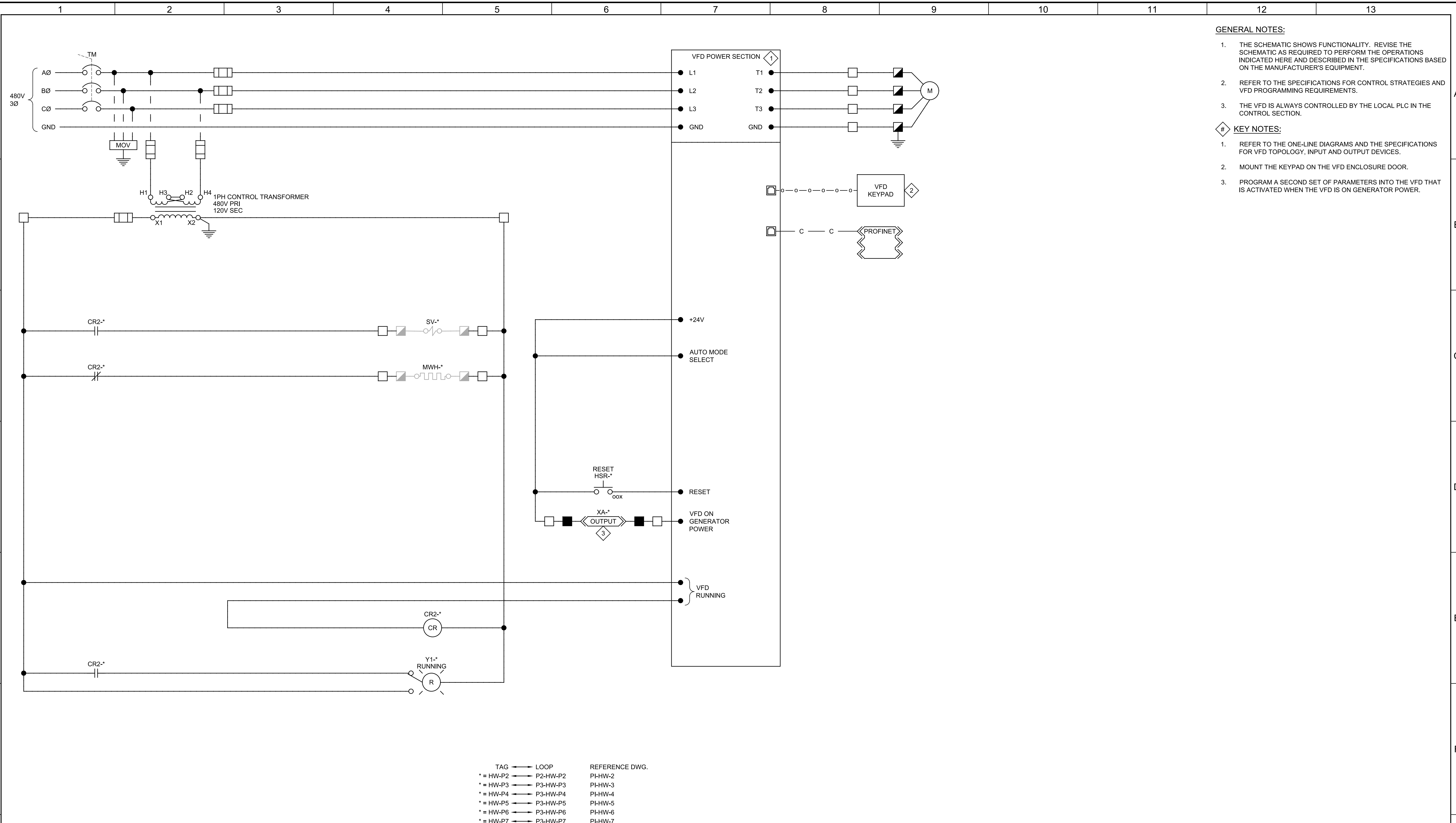


Plot Date: 20-SEP-2022 9:06:59 AM

User: svcPW

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo\_Sld\_Pen\_v0905.pen PlotScale: 1:1

bshppard



- 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. REFER TO THE SPECIFICATIONS FOR CONTROL STRATEGIES AND VFD PROGRAMMING REQUIREMENTS.
  3. 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.
  3. PROGRAM A SECOND SET OF PARAMETERS INTO THE VFD THAT IS ACTIVATED WHEN THE VFD IS ON GENERATOR POWER.

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  
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CHECKED  
CLL  
DATE  
SEPTEMBER 2022



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

SOUTH VALLEY WATER RECLAMATION  
2022 VFD REPLACEMENT  
INSTRUMENTATION  
HEADWORKS PUMPS CONTROL SCHEMATIC

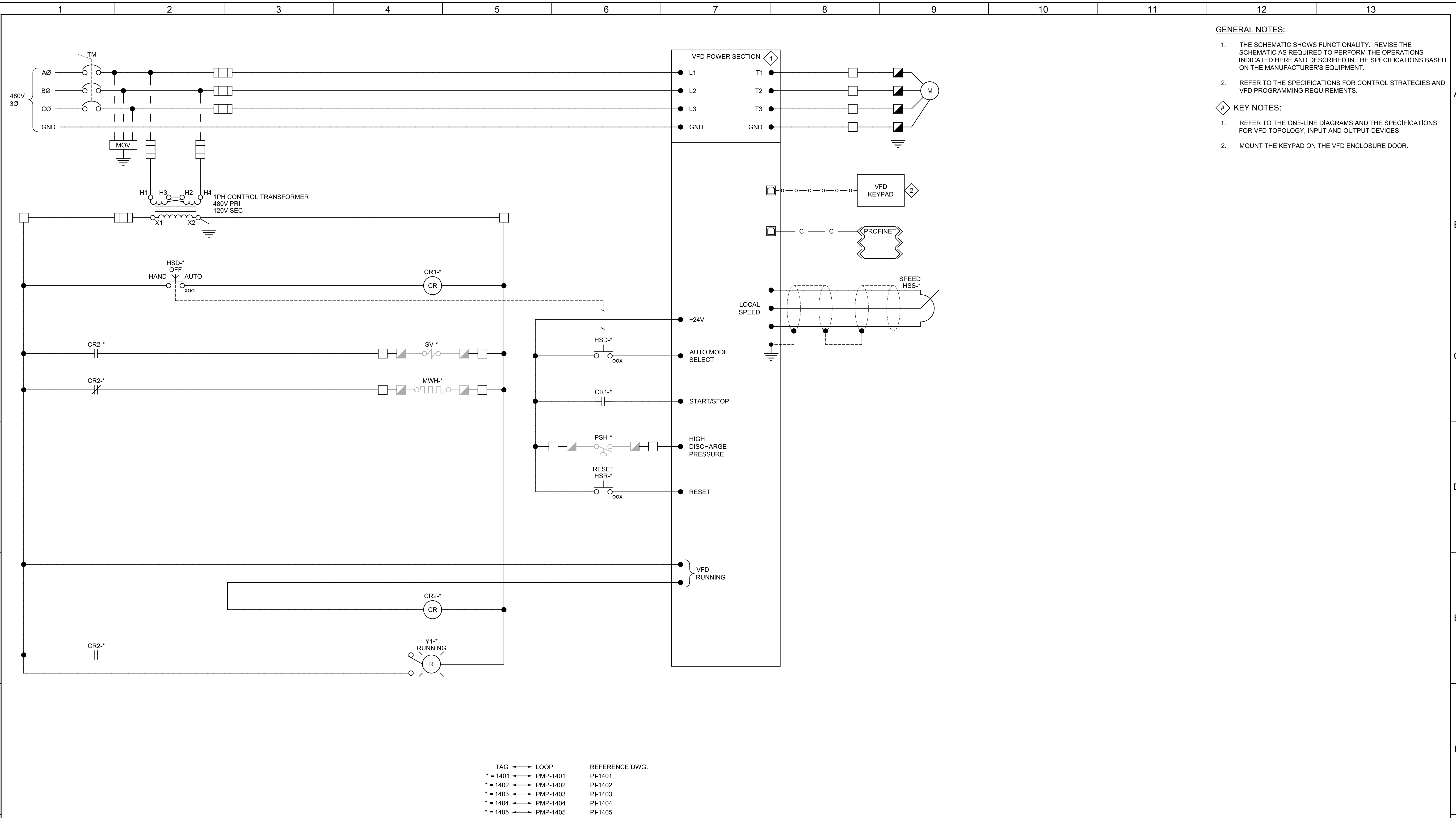
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1"	JOB NO. 201238
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	DRAWING NO. <b>IS-01</b>
	SHEET NO. OF

Plot Date: 20-SEP-2022 9:07:01 AM

User: svcPW

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo\_Sld\_Pen\_v0905.pen PlotScale: 1:1

bshpard



- 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. REFER TO THE SPECIFICATIONS FOR CONTROL STRATEGIES AND VFD PROGRAMMING REQUIREMENTS.
- 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.
* = 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			
2			

DESIGNED  
NS  
DRAWN  
SGS  
CHECKED  
CLL  
DATE  
SEPTEMBER 2022



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

SOUTH VALLEY WATER RECLAMATION  
2022 VFD REPLACEMENT  
INSTRUMENTATION  
RAS PUMPS CONTROL SCHEMATIC

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

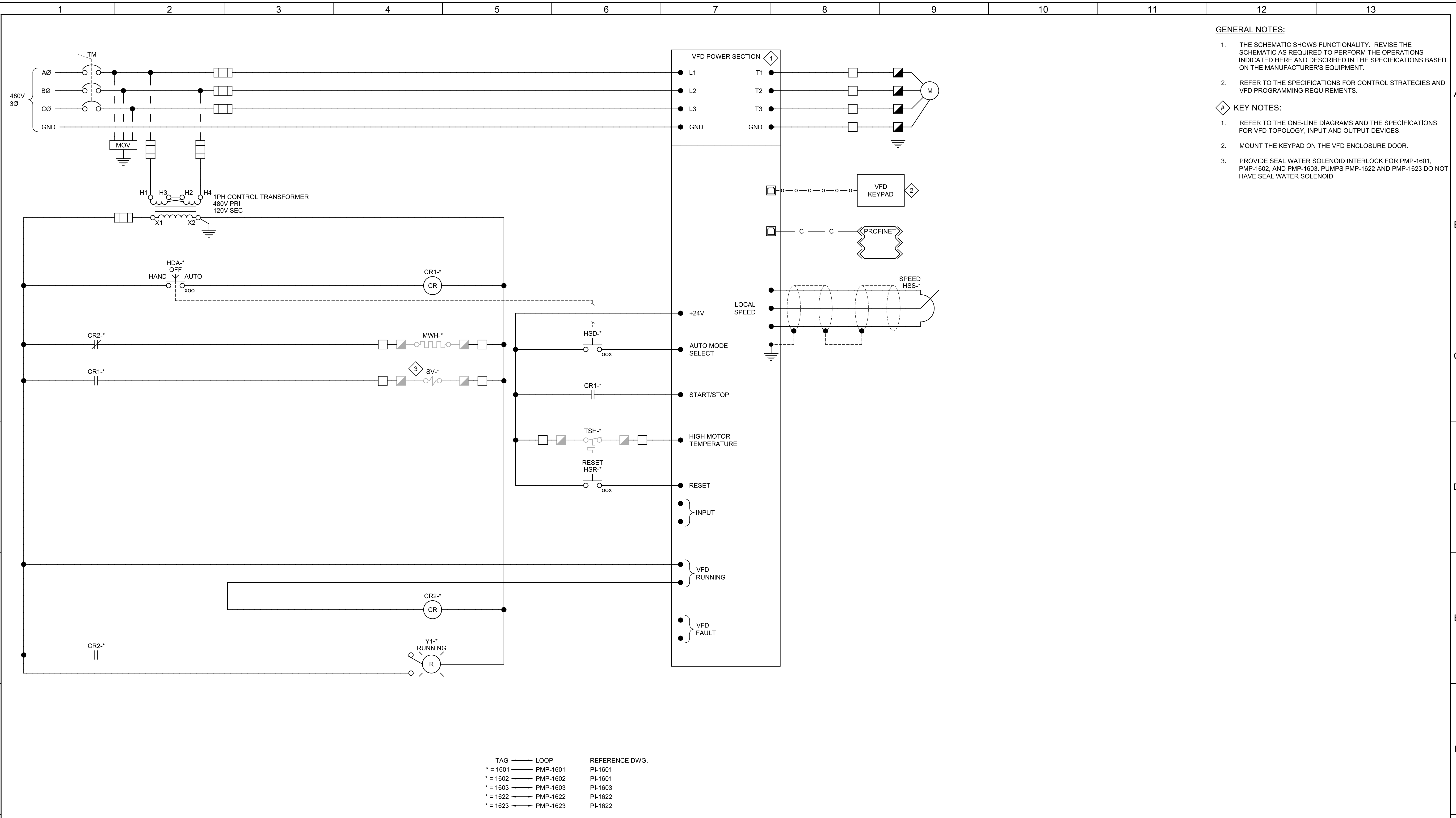
JOB NO.  
201238  
DRAWING NO.  
**IS-02**  
SHEET NO.  
OF

Plot Date: 20-SEP-2022 9:07:12 AM

User: svcPW

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo\_Sld\_Pen\_v0905.pen PlotScale: 1:1

bshpard



- 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. REFER TO THE SPECIFICATIONS FOR CONTROL STRATEGIES AND VFD PROGRAMMING REQUIREMENTS.
- 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  
CLL  
DATE  
SEPTEMBER 2022



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

SOUTH VALLEY WATER RECLAMATION  
2022 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.  
OF