

STANDARD NOTES:

A FOR CONTROL PANEL ASSEMBLY AND WIRING GUIDELINES SEE CONTROL PANEL WIRING SPECIFICATION ES-7014.

B SCHEMATIC SYMBOL LEGEND

SOLID WIRING (—) INDICATES WIRING INSTALLED BY AASI (AQUA-AEROBIC SYSTEMS, INC).
 DASHED WIRING (- - -) INDICATES WIRING INSTALLED BY OTHERS IN FIELD.
 DIAMONDS "⊠" INDICATE COMPONENTS EXTERNAL TO THE CONTROL PANEL.
 UNFILLED CIRCLES "○" INDICATE TERMINAL STRIP TERMINATIONS SUPPLIED BY AASI.
 UNFILLED SQUARES "□" INDICATE TERMINAL STRIP TERMINATIONS IN JUNCTION BOX SUPPLIED BY AASI.
 FROM # REPRESENTS CONTINUATION OF WIRING AND/OR COMPONENTS.
 ↑ AND ↓ FROM INDEX POSITION TO INDEX POSITION AS INDICATED.
 TO # AT THE LEFT EDGE OF EACH COLUMN OF SCHEMATIC.
 GROUND SYMBOL (⊥) INDICATES COMMON GROUND BAR TO CHASSIS.
 GROUND SYMBOL (⊥_{ISO}) INDICATES ISOLATED GROUND BAR.

C MINIMUM SINGLE CONDUCTOR (COPPER) WIRE GAUGE SIZE
 18 AWG SHIELDED TWISTED PAIR CABLE = ANALOG CONTROL CIRCUITS
 16 AWG STRANDED MTW = DIGITAL CONTROL CIRCUITS AND DC POWER
 ≥ 14 AWG STRANDED MTW = MOTOR POWER

D WHENEVER POSSIBLE LOW VOLTAGE DC WIRING SHOULD CROSS PERPENDICULAR TO HIGHER VOLTAGE AC WIRING. GROUNDS FROM LOW VOLTAGE COMPONENTS AND ANALOG CABLE SHIELDS SHOULD BE TERMINATED ON AN ISOLATED GROUND BAR. THE ISOLATED GROUND BAR SHOULD BE TIED WITH ONE WIRE TO THE MAIN GROUND BAR IN THE ENCLOSURE.

E WIRE COLOR CODE

BLACK = 230V OR GREATER 3 PHASE
 RED = 115V 1PH
 WHITE = 115V NEUTRAL
 BLUE = (+) 24VDC, INDICATED ON WIRING BY "BLU" ON THE WIRE
 WHITE w/BLUE STRIPE = (-) 24VDC, INDICATED ON WIRING BY "W/B" ON THE WIRE
 GREEN w/YELLOW STRIPE = GROUND, INDICATED ON WIRING BY "G/Y" ON THE WIRE
 ORANGE = POWER FROM REMOTE SOURCE, INDICATED BY "ORG" ON THE WIRE
 WHITE w/ORANGE STRIPE = NEUTRAL FROM REMOTE SOURCE, INDICATED BY "W/O" ON THE WIRE

F WIRE LABEL IDENTIFICATION IS TYPICALLY FOUR OR FIVE DIGITS LONG UTILIZING THE DRAWING AND LINE NUMBER OF THE POINT TO POINT WIRING DIAGRAM.

EXAMPLE: 215, 1
 WIRE NUMBER 1 ON THAT LINE NUMBER
 REFERENCE NUMBER 215
 THE FIRST DIGIT OF THE LINE NUMBER ALSO REPRESENTS SHEET NUMBER OF ELECT SCHEMATIC

WIRE LABELS ARE WHITE VINYL SELF-LAMINATING THERMAL TRANSFER PRINTABLE TYPE.
 LINE NUMBER OF THE POINT TO POINT WIRING DIAGRAM.

G PILOT LIGHT COLOR KEY

AM OR A = AMBER (ALARM)
 RE OR R = RED (VALVE CLOSED)
 GN OR G = GREEN (MOTOR ON, VALVE OPEN)
 WH OR W = WHITE (INFORMATION)

H SEE PROJECT SPECIFIC NOTES FOR PANEL CERTIFICATION REQUIREMENTS

J ENGRAVED IDENTIFICATION NAMEPLATE TYPES ARE AS FOLLOWS:

DOOR MOUNTED OPERATOR DEVICES = STANDARD 30.5 mm RING TYPE NAMEPLATE (WHITE WITH BLACK LETTERS)
 SUB-PANEL MOUNTED COMPONENTS = RECTANGULAR NAMEPLATE (WHITE WITH BLACK LETTERS)
 ALL NAMEPLATES TO BE ATTACHED WITH 1/2" 3M SCOTCH ATG ADHESIVE TRANSFER TAPE 926 CLEAR UNLESS OTHERWISE SPECIFIED.

CRITICAL FIELD INSTALLATION NOTES:

AA WHEN ROUTING CONDUIT TO THE CONTROL PANEL, AVOID TOP ENTRY INTO THE ENCLOSURE. TOP CONDUIT ENTRY PROVIDES A POTENTIAL MOISTURE PATH TO ELECTRICAL DEVICES WITHIN THE PANEL. BOTTOM CONDUIT ENTRY IS RECOMMENDED. IF TOP ENTRY CANNOT BE AVOIDED, KEEP AWAY FROM THE AREA DIRECTLY OVER THE PLC OR OTHER ELECTRICAL DEVICES.

BB FOR OUTDOOR INSTALLATIONS, AVOID MOUNTING THE ENCLOSURE WITH DOOR FACING A SOUTHERLY DIRECTION WHEN POSSIBLE.

PROJECT SPECIFIC NOTES:

1 SHORT CIRCUIT CURRENT RATING NAMEPLATE: 5kA RMS SYMMETRICAL @ 120VAC MAXIMUM.

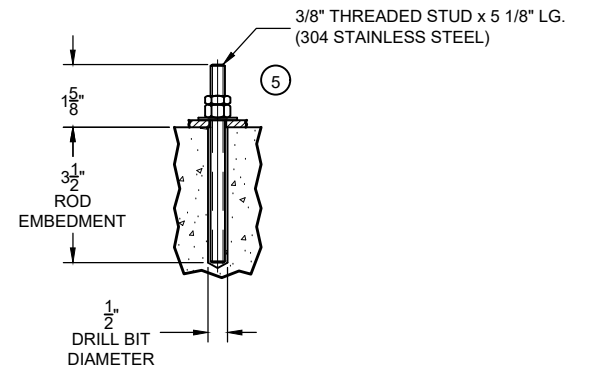
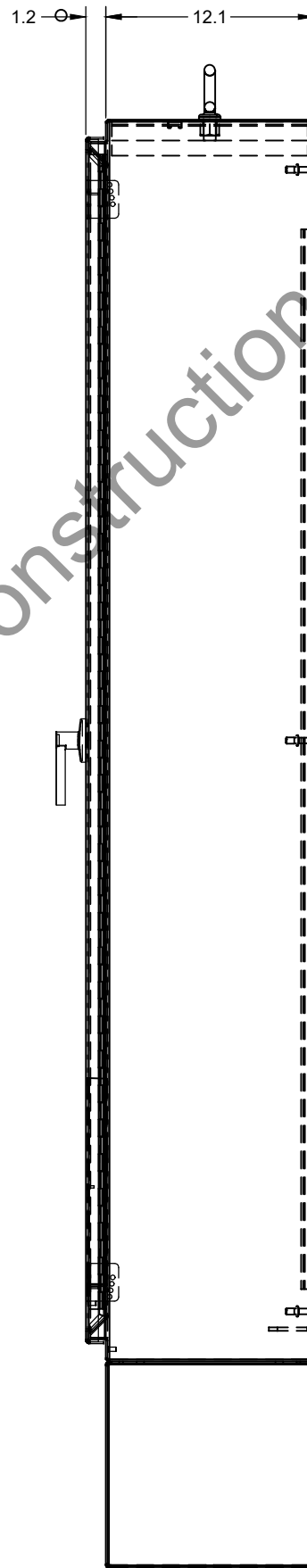
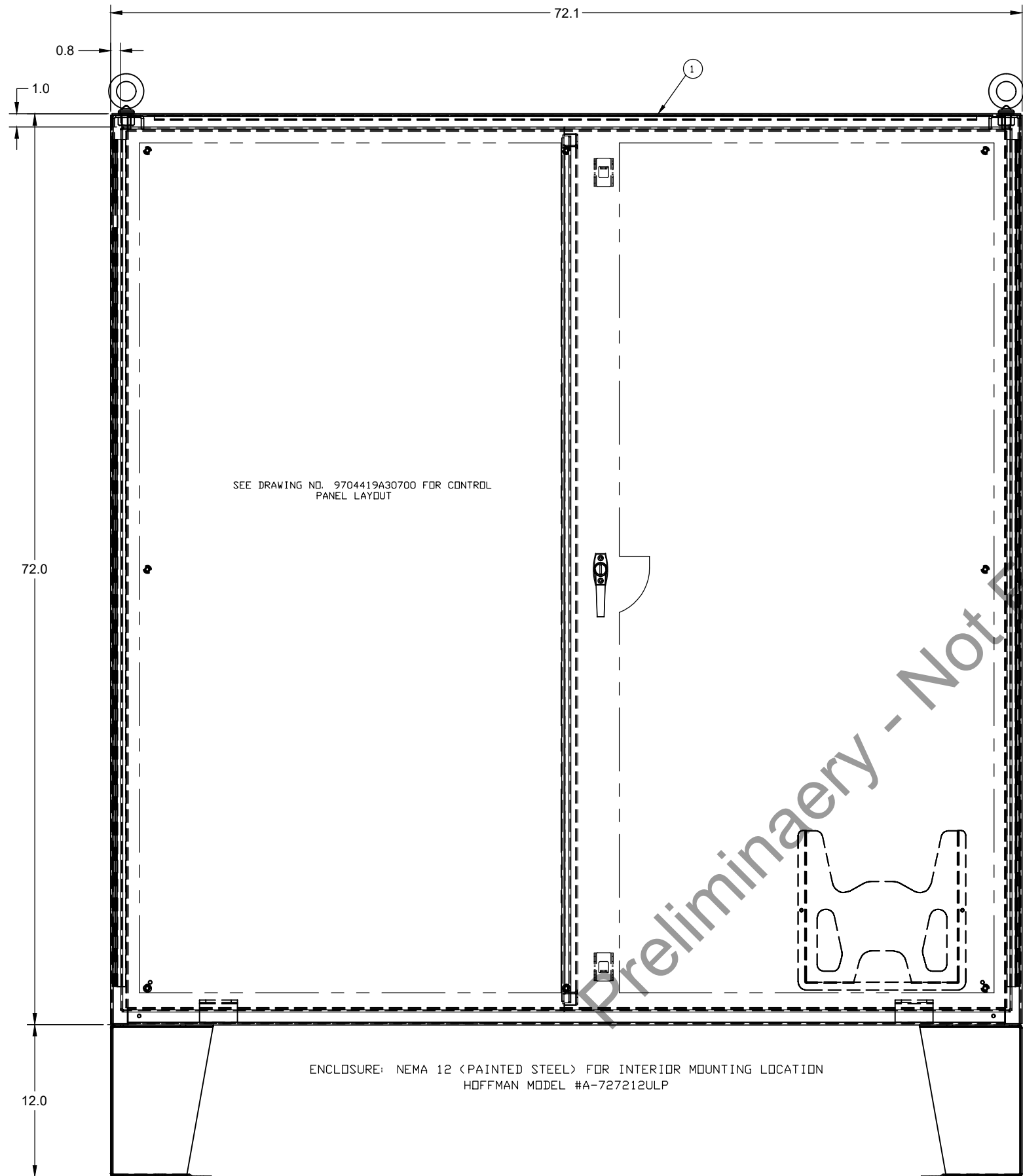
2 CONTROL PANEL TO BE CSA CERTIFIED.

AQUA AEROBIC SYSTEMS, INC.
 ROCKFORD, IL (815)654-2501
 ENCLOSURE RATED TYPE 12
 120 VAC 1 PHASE 60 HZ
 TOTAL FLA: 20
 LARGEST MOTOR: N/A
 DRAWING #: 9704419A30700
 SHORT CIRCUIT CURRENT RATING:
 5 kA rms symmetrical 460v max.

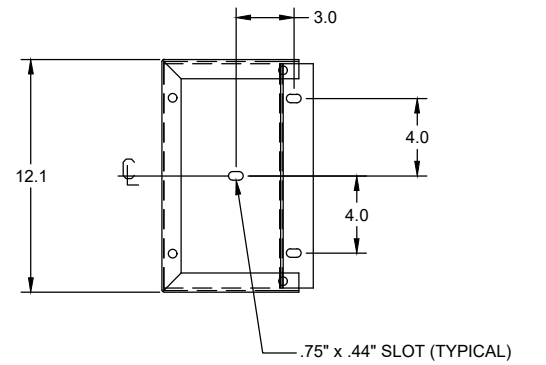
CSA DATA NAMEPLATE TO BE 3x4 GRAVOPLY, WHITE WITH BLACK CORE, ENGRAVED AS INDICATED ABOVE. TAG TO AFFIXED TO INTERIOR OF ENCLOSURE WITH DOUBLE SIDED TAPE.

Preliminary - Not For Construction

JOB NAME: NAPANEE WWTP				DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ANSI	
				FRACTIONAL DIMENSIONS ALL TWO PLACE DECIMALS ±0.010			
				ALL THREE PLACE DECIMALS ±0.005			
				ALL ANGLES ±10'			
				TYPE: 3-BASIN AQUANEREDA			
				DRAWN BY: BLP		DATE: 2024-08-08	
REV				ERN / ECO		DATE	
				BY		REVISION DESCRIPTION	
DRAWING NAME: AQUANEREDA CONTROL PANEL INSTALLATION NOTES				DRAWING NUMBER: 9704419A30600		SCALE: NONE	
				SHEET: 1 OF 4		SIZE: D	



ANCHOR BOLT INSTALLATION DETAIL

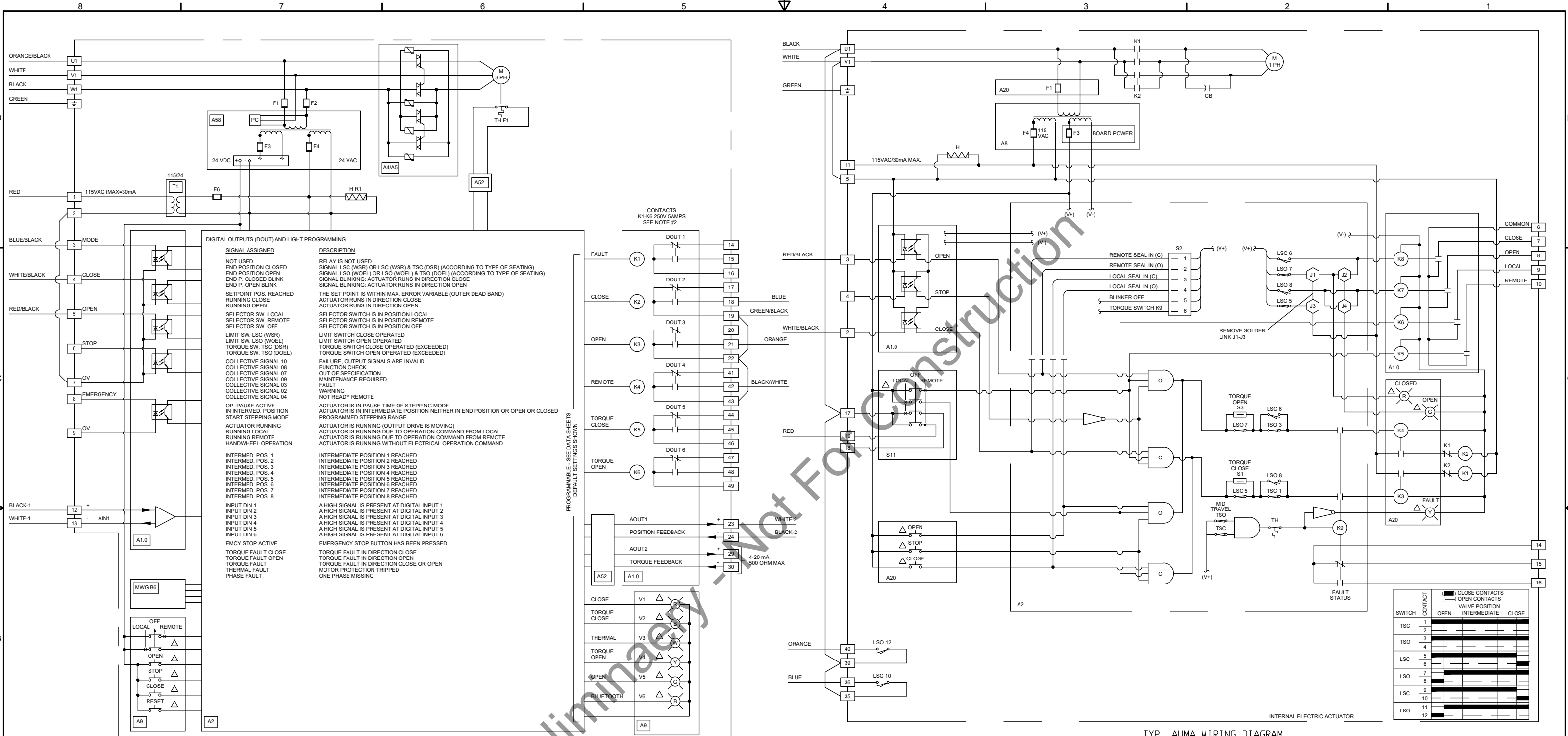


PANEL MTG. DETAIL

5	6	2967161-1	ANCHOR KIT, 3/8"	A
4				D
3	REF	9704419A30910	AGS NETWORK ASSEMBLY	D
2	1	9704419A30800	CONTROL PANEL ELECTRICAL SCHEMATIC	D
1	1	9704419A30700	CONTROL PANEL ASSEMBLY	D

JOB NAME: NAPANEE WWTP		DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ANSI	
		FRACTIONAL DIMENSIONS: ±0.015			
		ALL TWO PLACE DECIMALS: ±0.005			
		ALL THREE PLACE DECIMALS: ±0.002			
		ALL ANGLES: ±1°			
		TYPE: 3-BASIN AQUANEREDA			
DRAWN BY: BLP		DATE: 2024-08-08			
REV		ERN / ECO		DATE	
BY		REVISION DESCRIPTION		WEIGHT: -	
DRAWING NAME: AQUANEREDA CONTROL PANEL INSTALLATION NOTES		DRAWING NUMBER: 9704419A30600		SHEET: 2 OF 4	
		SCALE: NONE		SIZE: D	

Preliminary - Not for Construction

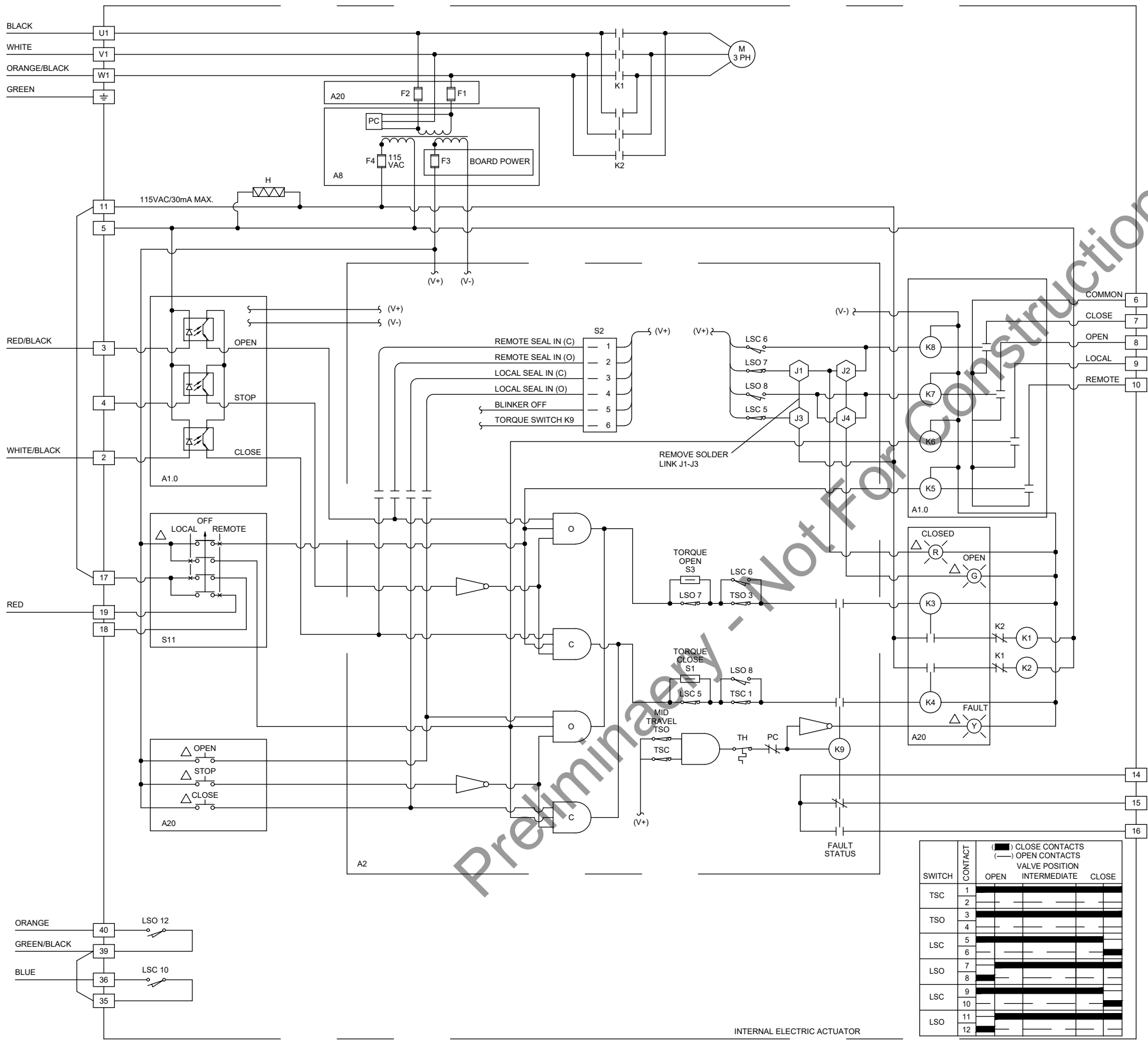


TYP. AUMA WIRING DIAGRAM
AUMA MODEL:
THREE PHASE FOR SAR/SOR MODULATING
PER AASI WIRING DIAGRAM 2702953

TYP. AUMA WIRING DIAGRAM
AUMA MODEL:
SINGLE PHASE FOR SA/SO
PER AASI WIRING DIAGRAM 2702997

SWITCH	CONTACT	VALVE POSITION		
		OPEN	INTERMEDIATE	CLOSE
TSC	1			
	2			
	3			
TSO	4			
	5			
LSC	6			
	7			
LSO	8			
	9			
LSC	10			
	11			
LSO	12			

JOB NAME: NAPANEE WWTP				DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA						UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
						FRACTIONAL DIMENSIONS ALL TWO PLACE DECIMALS ±0.015	
						ALL THREE PLACE DECIMALS ±0.005	
						ALL ANGLES ±1°	
TYPE: 3-BASIN AQUANEREDA				DRAWN BY: BLP		DATE: 2024-08-08	
REV: ERN / ECO				DATE:		REVISION DESCRIPTION	
DRAWING NAME: AQUANEREDA CONTROL PANEL INSTALLATION NOTES				DRAWING NUMBER: 9704419A30600		SCALE: NONE	



SWITCH	CONTACT	VALVE POSITION		
		OPEN	INTERMEDIATE	CLOSE
TSC	1	█		
	2	█		
TSO	3	█		
	4	█		
LSC	5	█		
	6	█		
LSO	7	█		
	8	█		
LSC	9	█		
	10	█		
LSO	11	█		
	12	█		

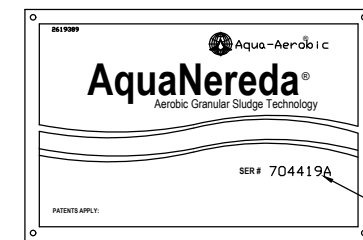
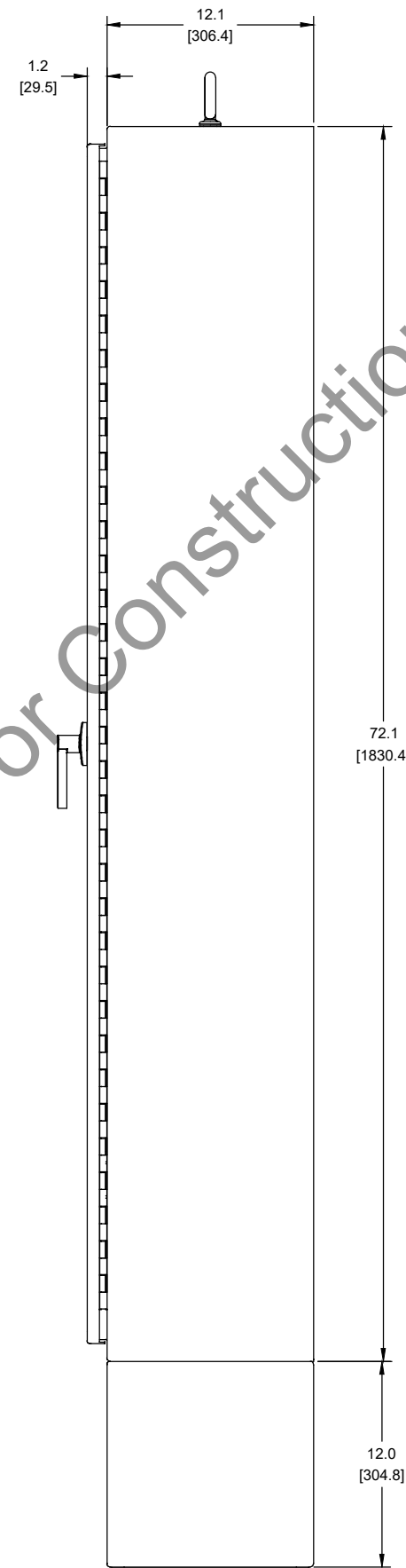
TYP. AUMA WIRING DIAGRAM
 AUMA MODEL:
 THREE PHASE FOR SA
 PER AASI WIRING DIAGRAM 2702815

JOB NAME: NAPANEE WWTP				DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ANSI	
TYPE: 3-BASIN AQUANEREDA				DRAWN BY: BLP		DATE: 2024-08-08	
REVISION DESCRIPTION				WEIGHT: -		SHEET: 4 OF 4	
DRAWING NAME: AQUANEREDA CONTROL PANEL INSTALLATION NOTES				DRAWING NUMBER: 9704419A30600		SCALE: NONE	



DOOR LAYOUT

ENCLOSURE: NEMA 12 (PAINTED STEEL) FOR INTERIOR MOUNTING LOCATION
HOFFMAN MODEL #A-727212ULP

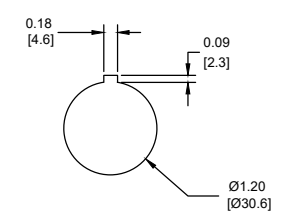
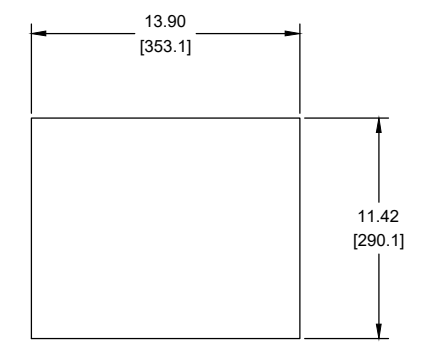
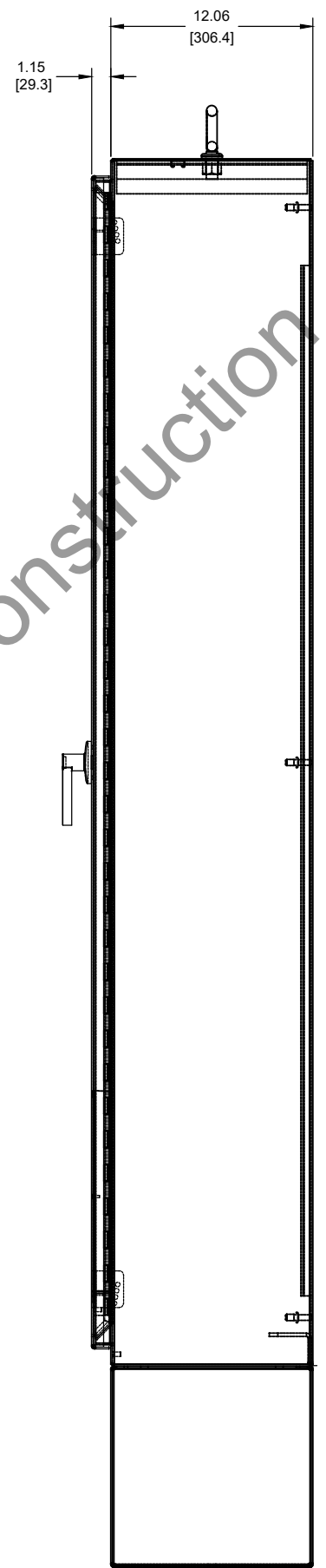
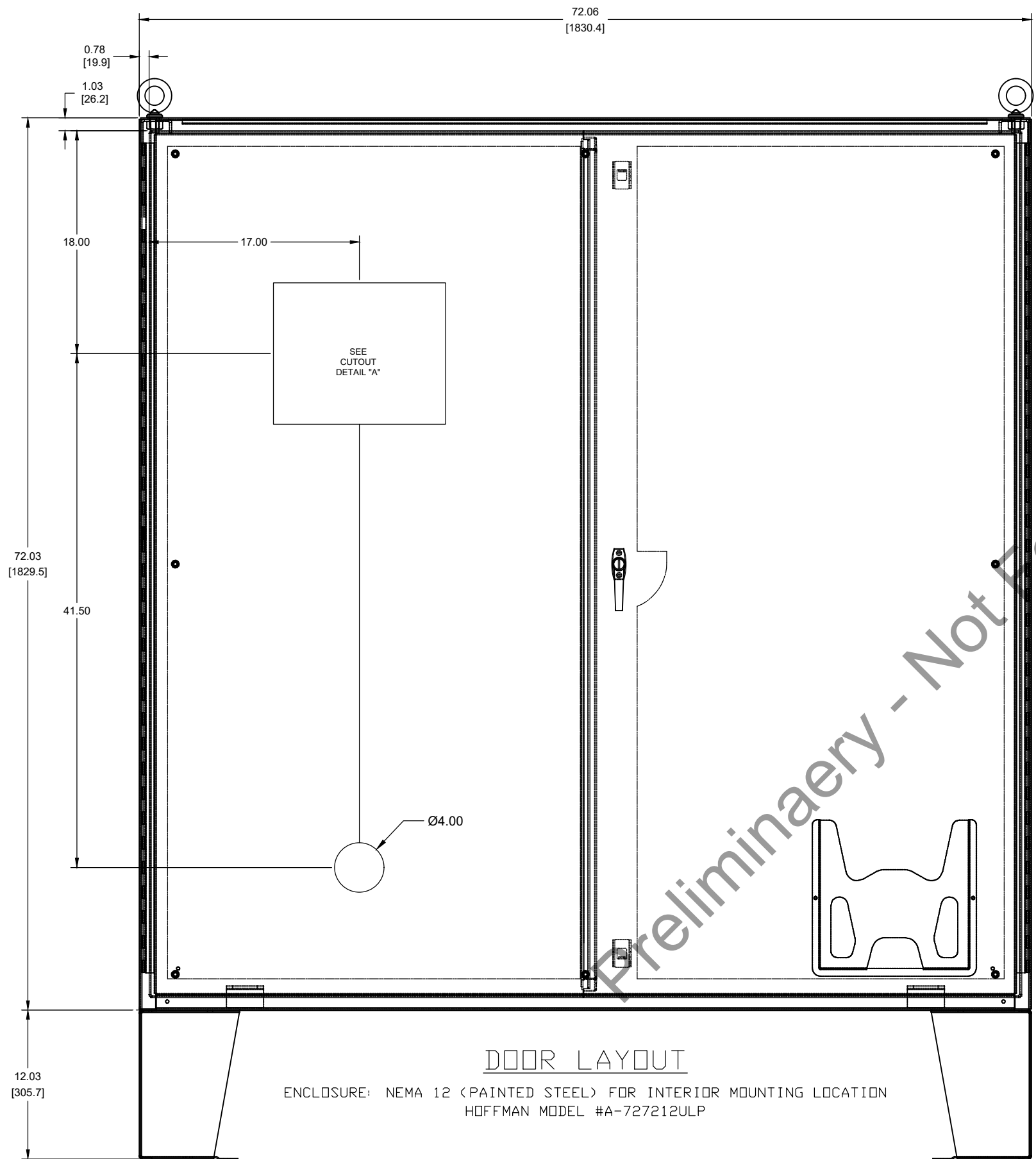


INFORMATION TO BE STAMPED INTO PART NUMBER 2619389

SHEET SPECIFIC NOTES:

- 1 STANDARD WIRING NOTES PER INSTALLATION DRAWING 9704419A30600
- 2 CONTROL PANEL ELEMENTARY PER DRAWING 9704419A30800
- 3 SYSTEM CONNECTION DIAGRAM PER DRAWING 9704419A30910
- 4 CONTROL PANEL TO BE CSA LISTED
- 5 RUN WIRES FOR DOOR MOUNTED DEVICES TO TERMINAL STRIP VIA SPIRAL WRAP. WIRE TO BE RUN IN LENGTHS ADEQUATE ENOUGH TO OPEN CABINET DOOR(S) 180 DEGREES.
- 6 ENCLOSURE NAMEPLATE TO BE SUPPLIED WITH 1" HIGH BLACK LETTERS ON WHITE BACKGROUND

JOB NAME: NAPANEE WWTP				DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ANSI	
				FRACTIONAL DIMENSIONS ALL TWO PLACE DECIMALS		+/- 0.015	
				ALL THREE PLACE DECIMALS		+/- 0.005	
				ALL ANGLES		+/- 1/2°	
TYPE: 3-BASIN AQUANEREDA				DRAWN BY: BLP		DATE: 2024-08-08	
REV: ERN / ECO				DATE		BY	
DRAWING NAME: AQUANEREDA CONTROL PANEL ASSEMBLY				DRAWING NUMBER: 9704419A30700		SCALE: NONE	
				WEIGHT: -		SHEET: 1 OF 5	

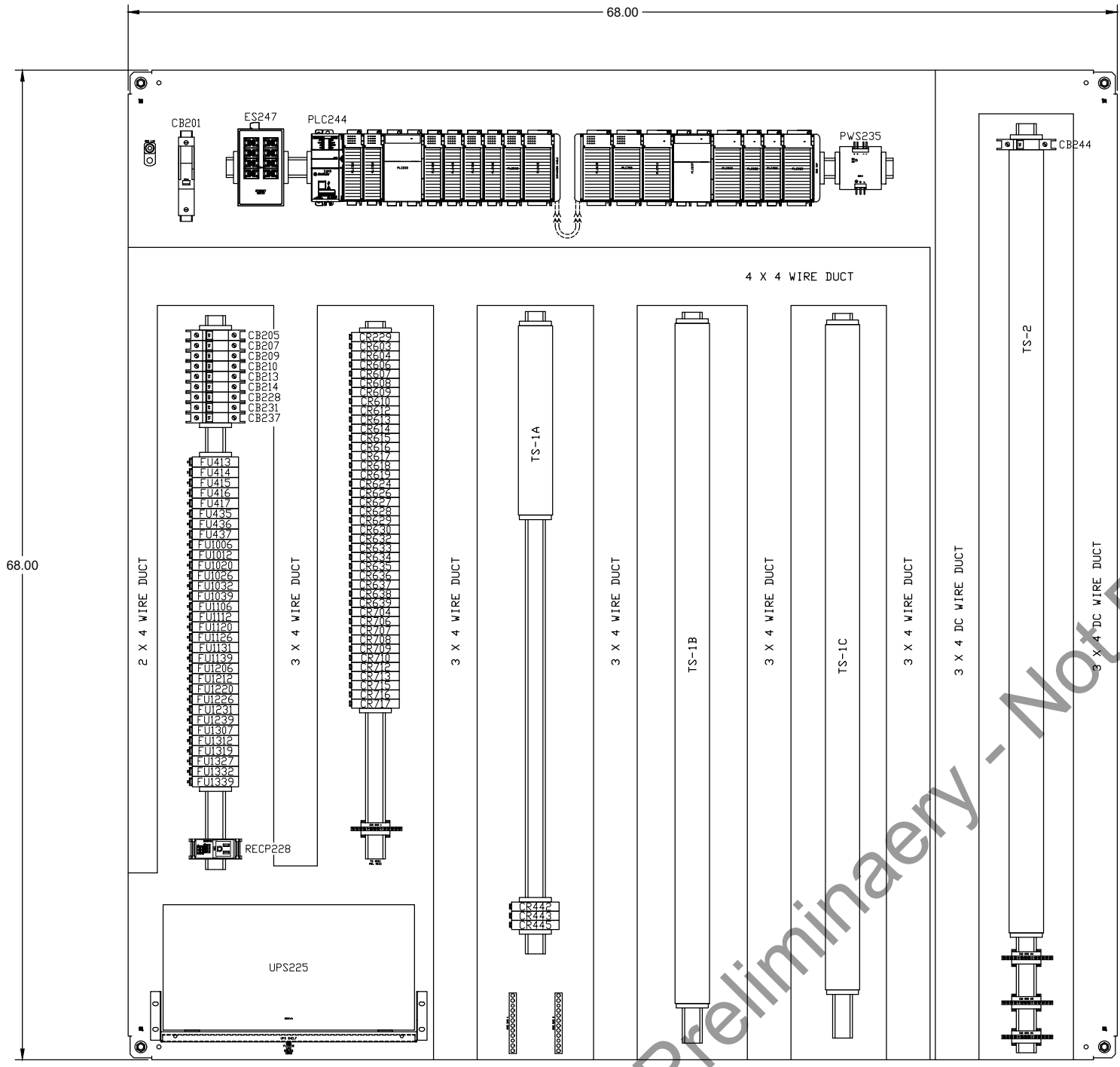


PUSHBUTTON CUTOUT DETAIL
SCALE 1: .25

NOTES:
1. CUTOUT DIMENSIONS SHOWN ARE FROM EDGE OF DOOR

DOOR LAYOUT
ENCLOSURE: NEMA 12 (PAINTED STEEL) FOR INTERIOR MOUNTING LOCATION
HOFFMAN MODEL #A-727212ULP

JOB NAME: NAPANEE WWTP				DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ANSI	
				FRACTIONAL DIMENSIONS ± 0.18			
				ALL TWO PLACE DECIMALS ± 0.010			
				ALL THREE PLACE DECIMALS ± 0.005			
				ALL ANGLES ± 1°			
TYPE: 3-BASIN AQUANEREDA				DRAWN BY: BLP		DATE: 2024-08-08	
REV: ERN / ECO DATE BY REVISION DESCRIPTION				WEIGHT: -		SHEET: 2 OF 5	
DRAWING NAME: AQUANEREDA CONTROL PANEL ASSEMBLY				DRAWING NUMBER: 9704419A30700		SCALE: NONE SIZE: D	

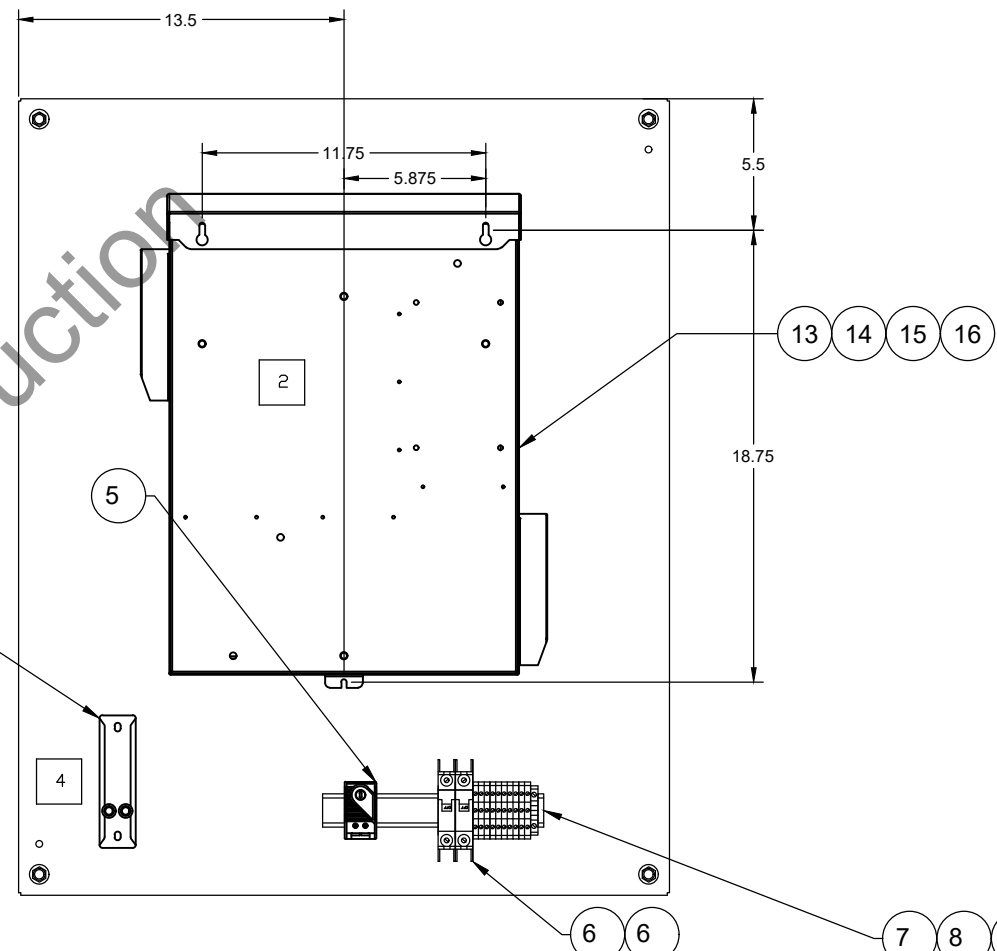
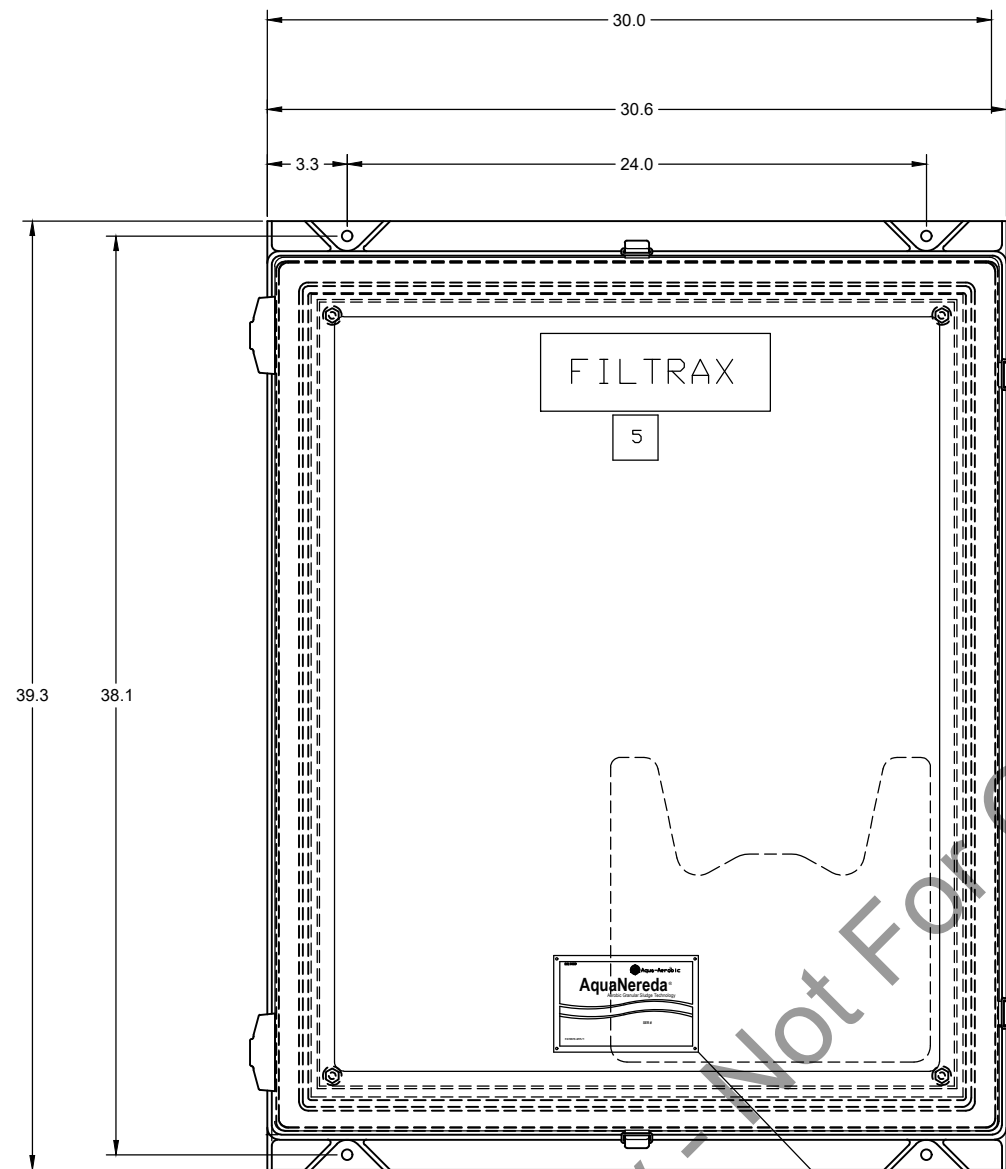
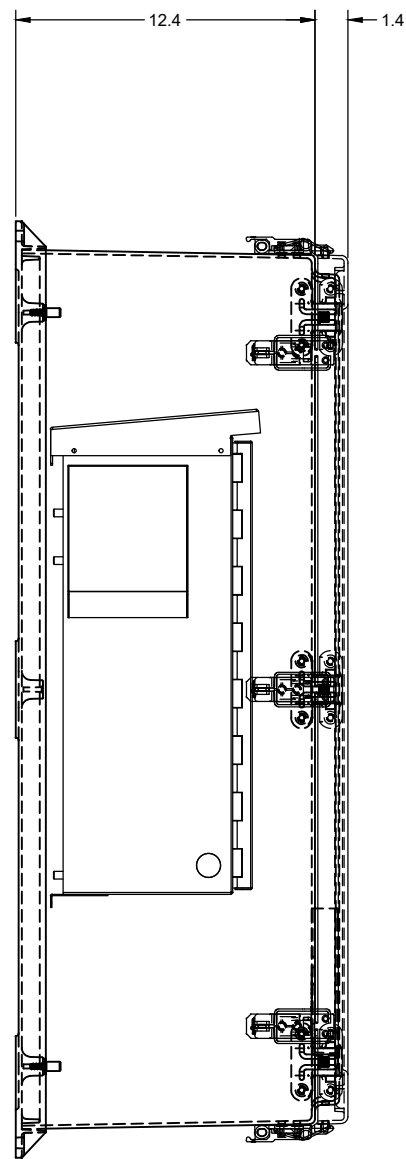


SUB-PANEL LAYOUT

SHEET SPECIFIC NOTES:

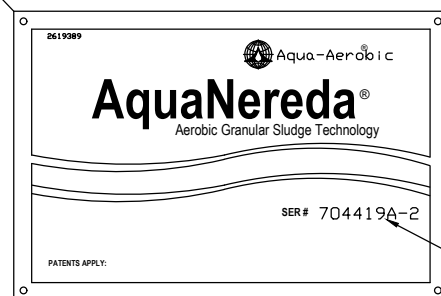
- 1 STANDARD WIRING NOTES PER INSTALLATION DRAWING 9704419A30600
- 2 CONTROL PANEL ELEMENTARY PER DRAWING 9704419A30800
- 3 NETWORK COMMUNICATION DIAGRAM PER DRAWING 9704419A30910
- 4 CONTROL PANEL TO BE CSA LISTED
- 5 RUN WIRES FOR DOOR MOUNTED DEVICES TO TERMINAL STRIP VIA SPIRAL WRAP. WIRE TO BE RUN IN LENGTHS ADEQUATE ENOUGH TO OPEN CABINET DOOR(S) 180 DEGREES.

JOB NAME: NAPANEE WWTP		DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ANSI	
		FRACTIONAL DIMENSIONS ALL TWO PLACE DECIMALS		+/- 0.10	
		ALL THREE PLACE DECIMALS		+/- 0.05	
		ALL ANGLES		+/- 10'	
TYPE: 3-BASIN AQUANEREDA		DRAWN BY: BLP		DATE: 2024-08-08	
REV		ERN / ECO		DATE	
BY		REVISION DESCRIPTION		WEIGHT: -	
DRAWING NAME: AQUANEREDA CONTROL PANEL ASSEMBLY		DRAWING NUMBER: 9704419A30700		SHEET: 3 OF 5	
		SCALE: NONE		SIZE: D	



DOOR LAYOUT
ENCLOSURE: NEMA 4X FIBERGLASS
HOFFMAN MODEL A36H3020GQRLP

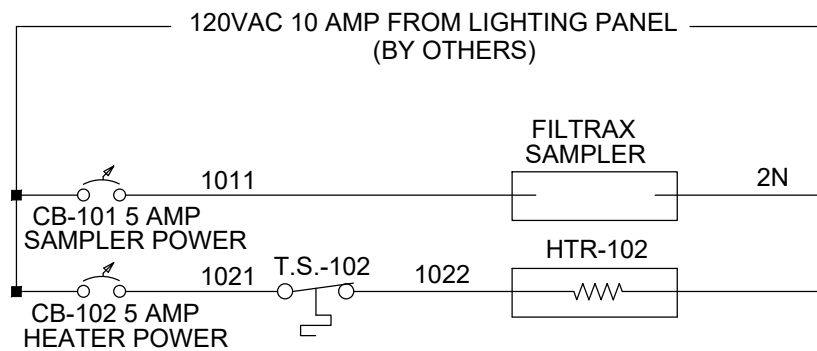
SUB-PANEL LAYOUT
SUB-PANEL MODEL NO. A36P30



INFORMATION TO BE STAMPED INTO PART NUMBER 2619389

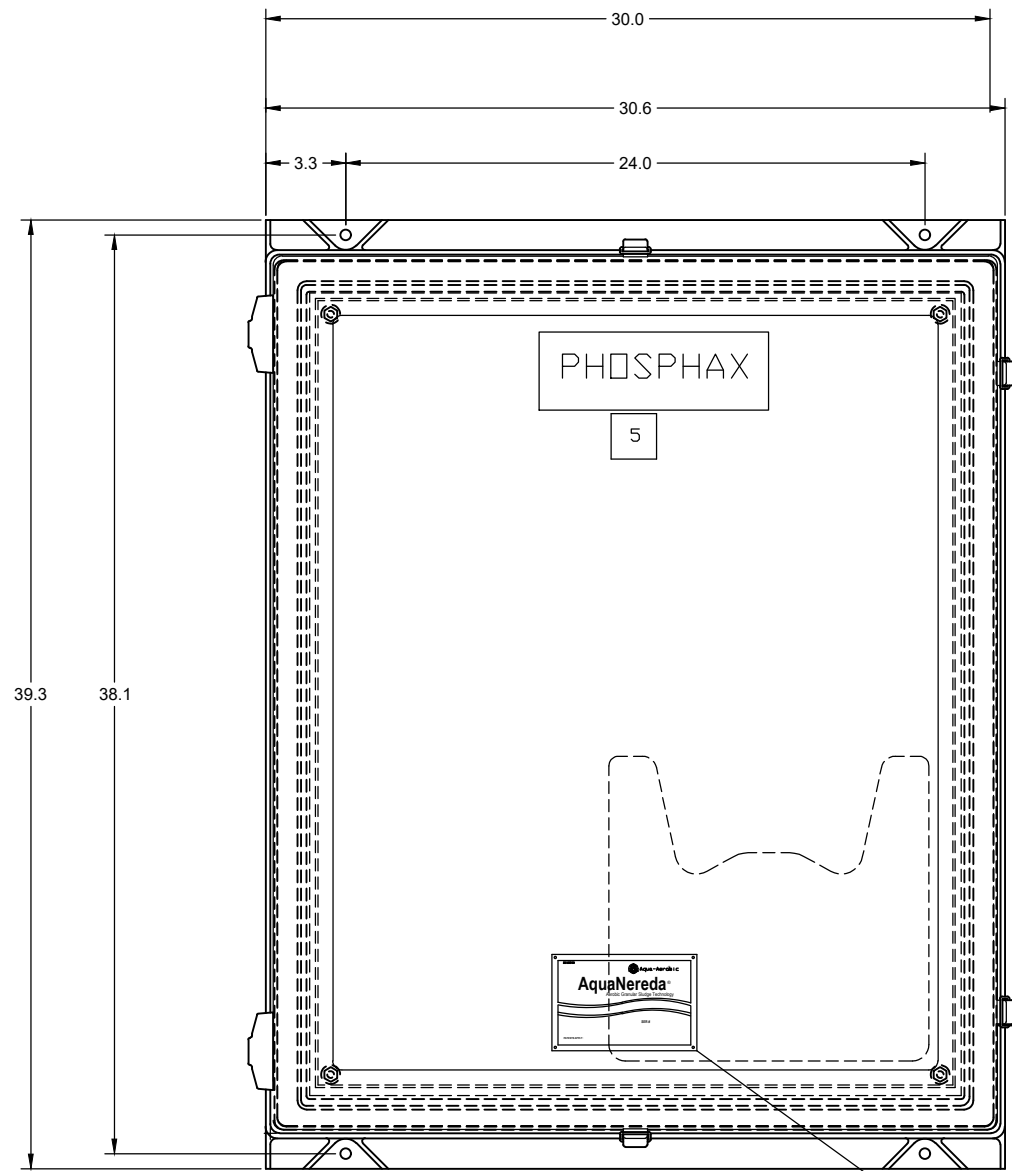
SHEET SPECIFIC NOTES:

- 1 STANDARD WIRING NOTES PER INSTALLATION DRAWING 9704419A30600
- 2 FILTRAX UNIT SHOWN ON INSTRUMENTATION DRAWING 9704419A30030
- 3 TUBING CONNECTIONS TO BE INSTALLED IN THE FIELD. CABINET ENTRY HOLES TO BE SUPPLIED AS NEEDED
- 4 CHROMALOX STRIP HEATER TO BE MOUNTED ON 4" STAND-OFF TO ALLOW FOR HEAT DISSIPATION
- 5 ENCLOSURE NAMEPLATE TO BE SUPPLIED WITH 1" HIGH BLACK LETTERS ON WHITE BACKGROUND



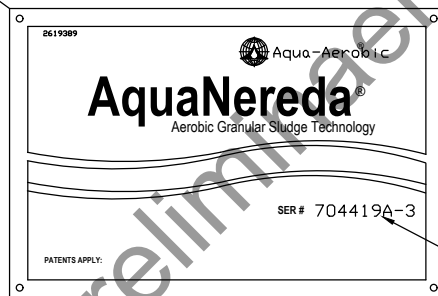
16	8	2600224	WASHER, FLAT 1/4"	-
15	4	2603600	NUT, NYLOCK 1/4"	-
14	4	2614556	HEXHEAD CAPSCREW 1/2-20X1.5LG	-
13	1	2620523	HACH FILTRAX ANALYZER	-
12	1	2609910	ALLEN BRADLEY DIN RAIL	-
11	2	2751304	ALLEN BRADLEY END ANCHOR	-
10	1	2751302	ALLEN BRADLEY END TERMINAL	-
9	10	2751299	ALLEN BRADLEY TERMINAL BLOCK	-
8	1	2751199	ALLEN BRADLEY TERMINAL MARKER	-
7	1	2751329	ALLEN BRADLEY 10-POLE TERMINAL JUMPER	-
6	2	2753916	SQ-D 5 AMP U.L. 489 BREAKER	-
5	1	2751744	HOFFMAN N.C. TEMP SWITCH	-
4	1	2702503	PROTECTIVE COVER CHROMALOX PT-AC-1	SS
3	1	2702502	STRIP HEATER CHROMALOX PT-502	STEEL
2	1	2750060	HOFFMAN ENCLOSURE SUB PANEL	PAINTED STEEL
1	1	2750521	HOFFMAN ENCLOSURE A36H3012GQRLP	FIBERGLASS

JOB NAME: NAPANEE WWTP		DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA		UNLESS OTHERWISE SPECIFIED		ANSI	
		FRACTIONAL DIMENSIONS		+/- 0.10	
		ALL TWO PLACE DECIMALS		+/- 0.05	
		ALL THREE PLACE DECIMALS		+/- 0.005	
		ALL ANGLES		+/- 10'	
TYPE: 3-BASIN AQUANEREDA		DRAWN BY: BLP		DATE: 2024-08-08	
DRAWING NAME: FILTRAX HOUSING CONTROL PANEL ASSEMBLY		DRAWING NUMBER: 9704419A30702		SCALE: NONE	
REV: ERN / ECO		DATE		BY	
REVISION DESCRIPTION		WEIGHT:		SHEET: 1 OF 1	
		DRAWING NUMBER:		SCALE: SIZE	
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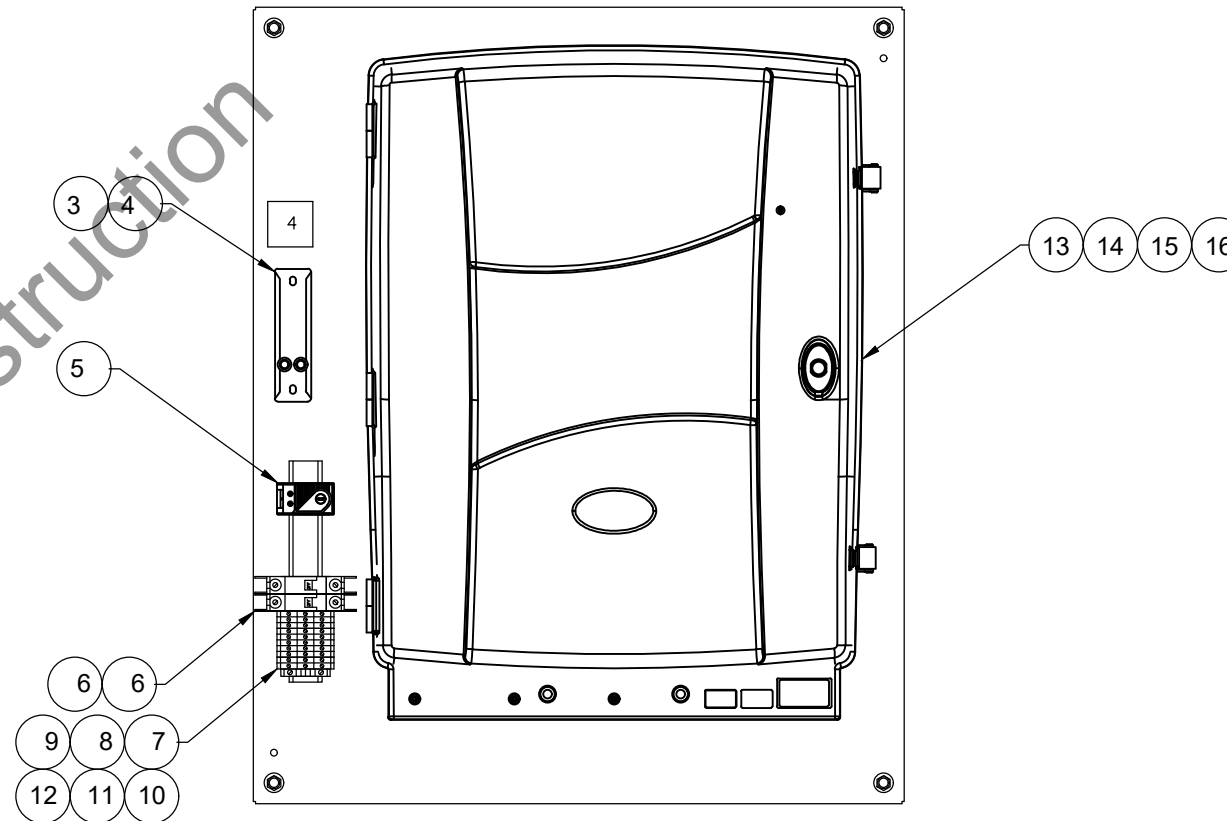
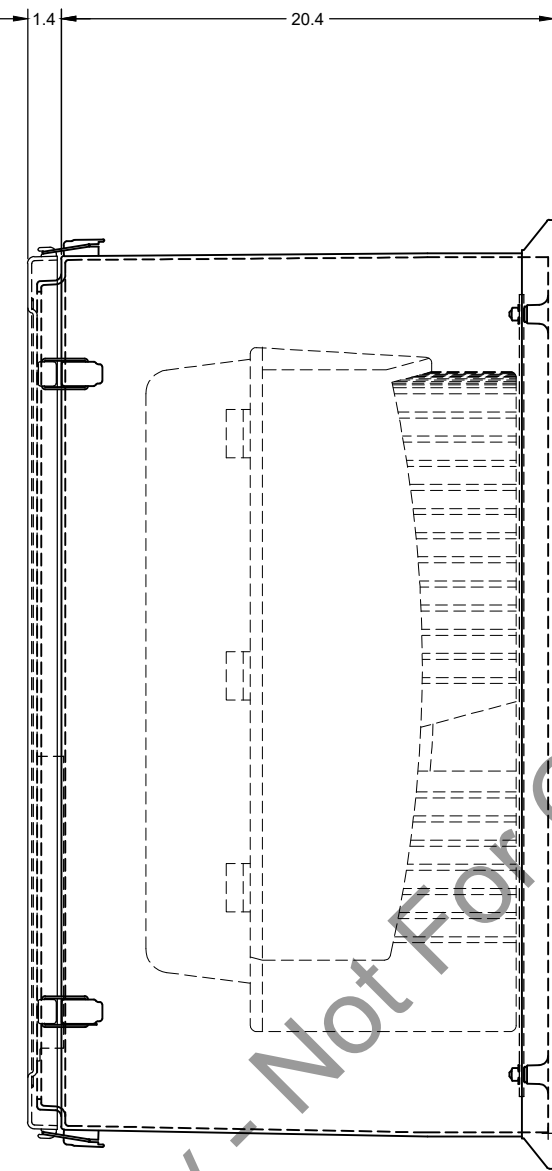


DOOR LAYOUT

ENCLOSURE: NEMA 4X FIBERGLASS
HOFFMAN MODEL A36H3020GQRLP



INFORMATION TO BE STAMPED INTO PART NUMBER 2619389

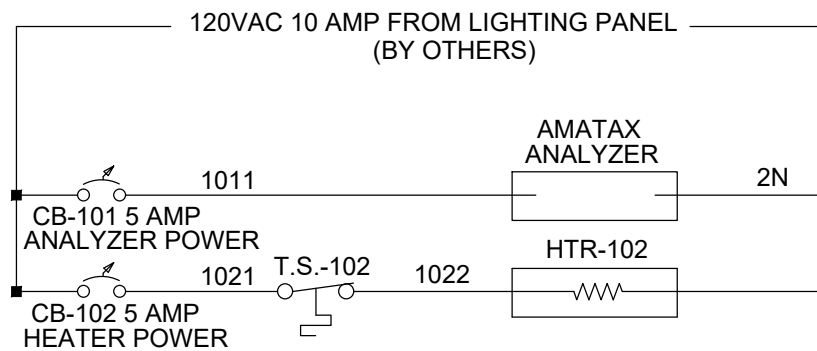


SUB-PANEL LAYOUT

SUB-PANEL MODEL NO. A36P30

SHEET SPECIFIC NOTES:

- 1 STANDARD WIRING NOTES PER INSTALLATION DRAWING 9704419A30600
- 2 PHOSPHAX UNIT SHOWN ON INSTRUMENTATION DRAWING 9704419A30030
- 3 TUBING CONNECTIONS TO BE INSTALLED IN THE FIELD. CABINET ENTRY HOLES TO BE SUPPLIED AS NEEDED
- 4 CHROMALOX STRIP HEATER TO BE MOUNTED ON 4' STAND-OFF TO ALLOW FOR HEAT DISSIPATION
- 5 ENCLOSURE NAMEPLATE TO BE SUPPLIED WITH 1" HIGH BLACK LETTERS ON WHITE BACKGROUND



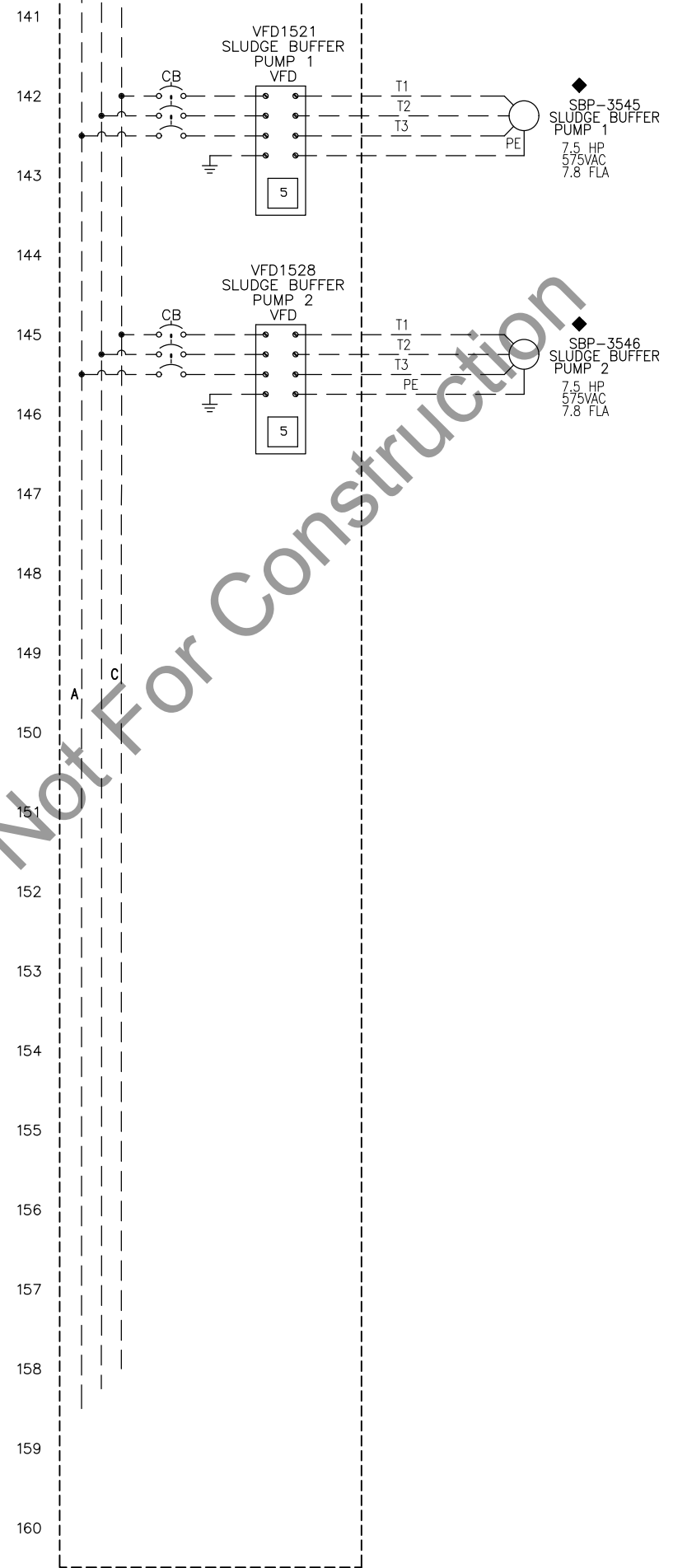
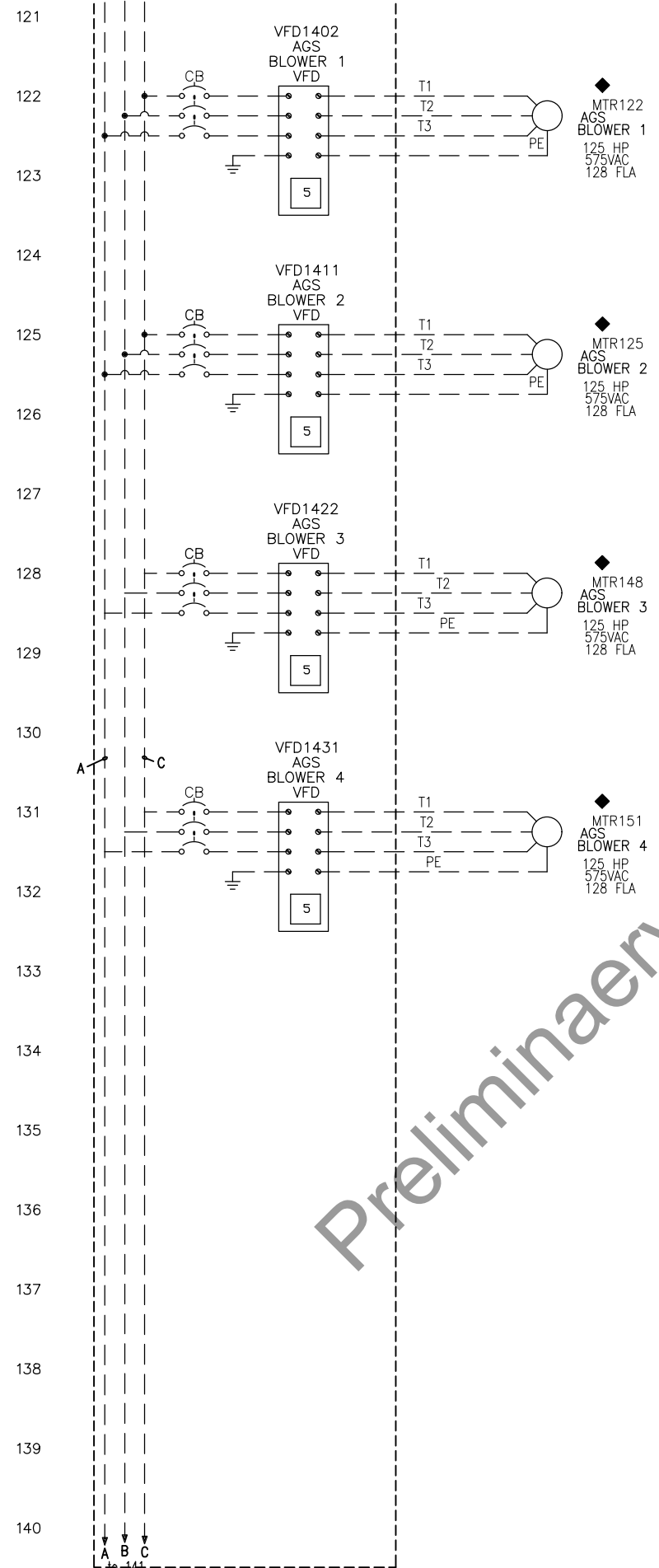
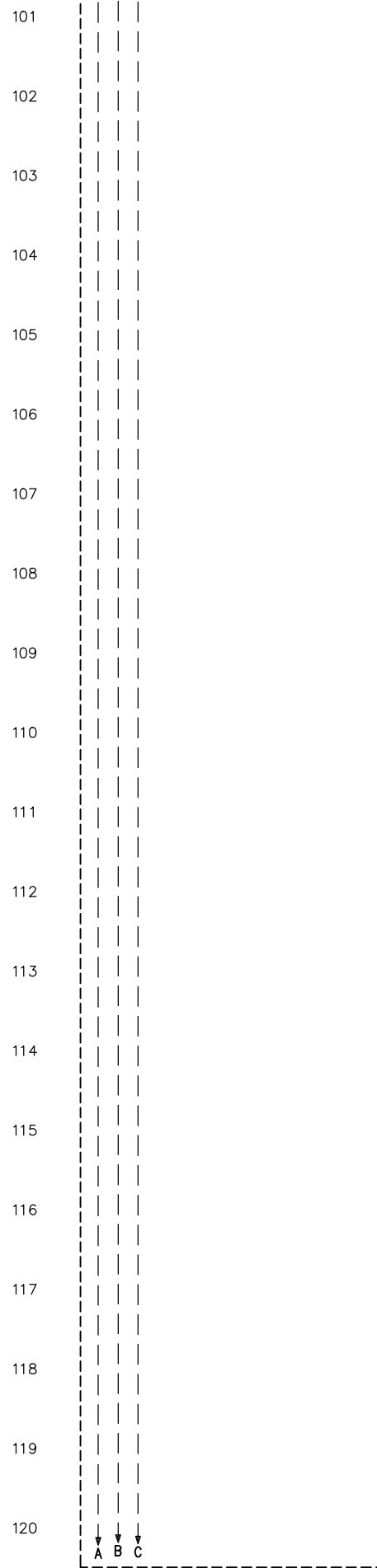
16	8	2600224	WASHER, FLAT 1/4"	-
15	4	2603600	NUT, NYLOCK 1/4"	-
14	4	2614556	HEXHEAD CAPSCREW 1/2-20X1.5LG	-
13	1	2620680	HACH PHOSPHAX ANALYZER	-
12	1	2609910	ALLEN BRADLEY DIN RAIL	-
11	2	2751304	ALLEN BRADLEY END ANCHOR	-
10	1	2751302	ALLEN BRADLEY END TERMINAL	-
9	10	2751299	ALLEN BRADLEY TERMINAL BLOCK	-
8	1	2751199	ALLEN BRADLEY TERMINAL MARKER	-
7	1	2751329	ALLEN BRADLEY 10-POLE TERMINAL JUMPER	-
6	2	2753916	SQ-D 5 AMP U.L. 489 BREAKER	-
5	1	2751744	HOFFMAN N.C. TEMP SWITCH	-
4	1	2702503	PROTECTIVE COVER CHROMALOX PT-AC-1	SS
3	1	2702502	STRIP HEATER CHROMALOX PT-502	STEEL
2	1	2750060	HOFFMAN ENCLOSURE SUB PANEL	PAINTED STEEL
1	1	2754545	HOFFMAN ENCLOSURE A36H3020GQRLP	FIBERGLASS

JOB NAME: NAPANEE WWTP		DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA		UNLESS OTHERWISE SPECIFIED		ANSI	
		FRACTIONAL DIMENSIONS		+/- 0.16	
		ALL TWO PLACE DECIMALS		+/- 0.010	
		ALL THREE PLACE DECIMALS		+/- 0.005	
		ALL ANGLES		+/- 10'	
TYPE: 3-BASIN AQUANEREDA		DRAWN BY: BLP		DATE: 2024-08-08	
DRAWING NAME: PHOSPHAX HOUSING CONTROL PANEL ASSEMBLY		DRAWING NUMBER: 9704419A30703		SCALE: NONE	
REV: ERN / ECO		DATE		BY	
REVISION DESCRIPTION		WEIGHT:		SHEET: 1 OF 1	
DRAWING NUMBER: 9704419A30703		SCALE: NONE		SIZE: D	

460V, 3PH, 60HZ
BY MCC-31 (BY OTHERS)

from 120
A B C
MCC-31 (BY OTHERS)

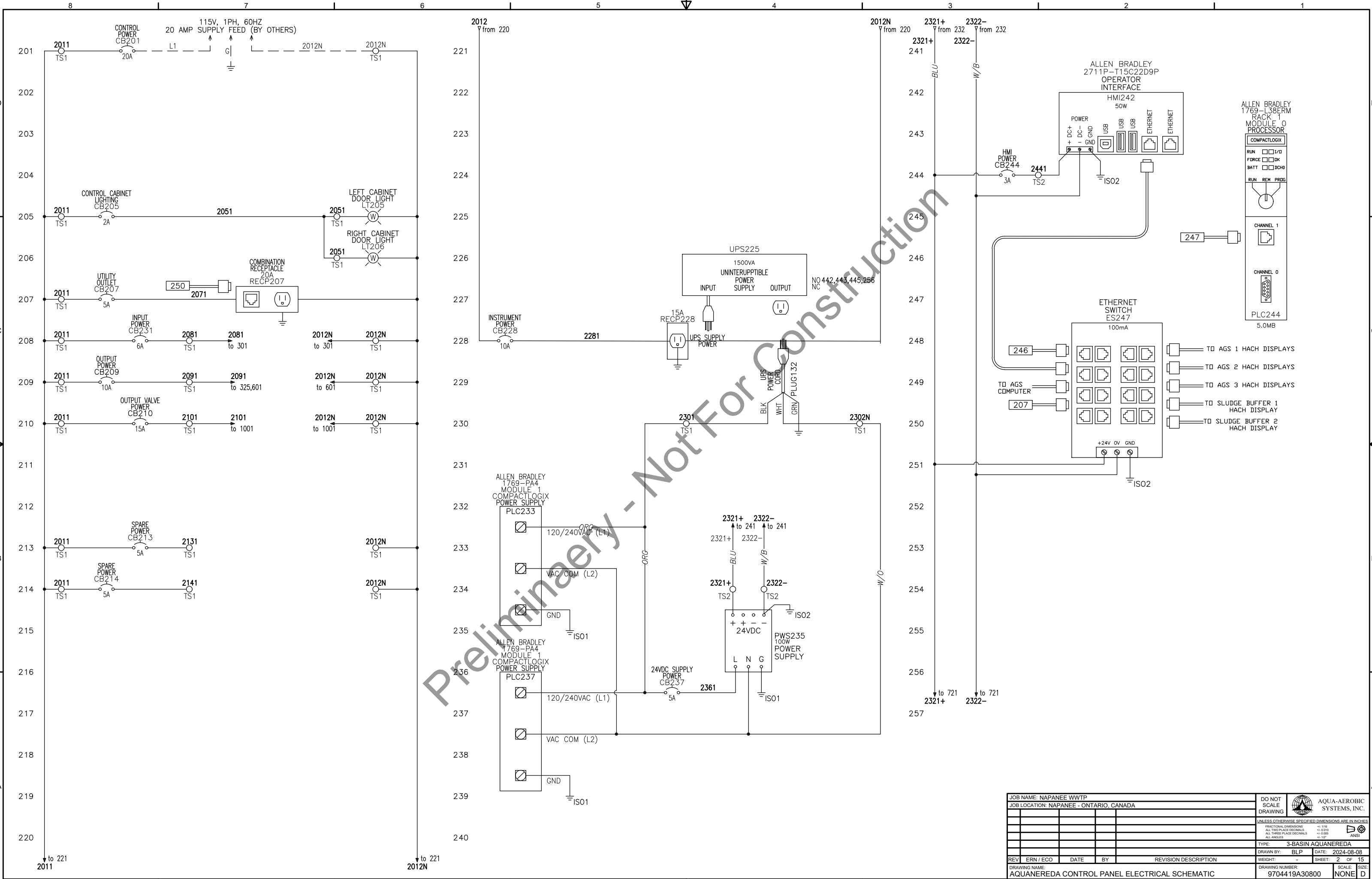
from 140
A B C
MCC-31 (BY OTHERS)



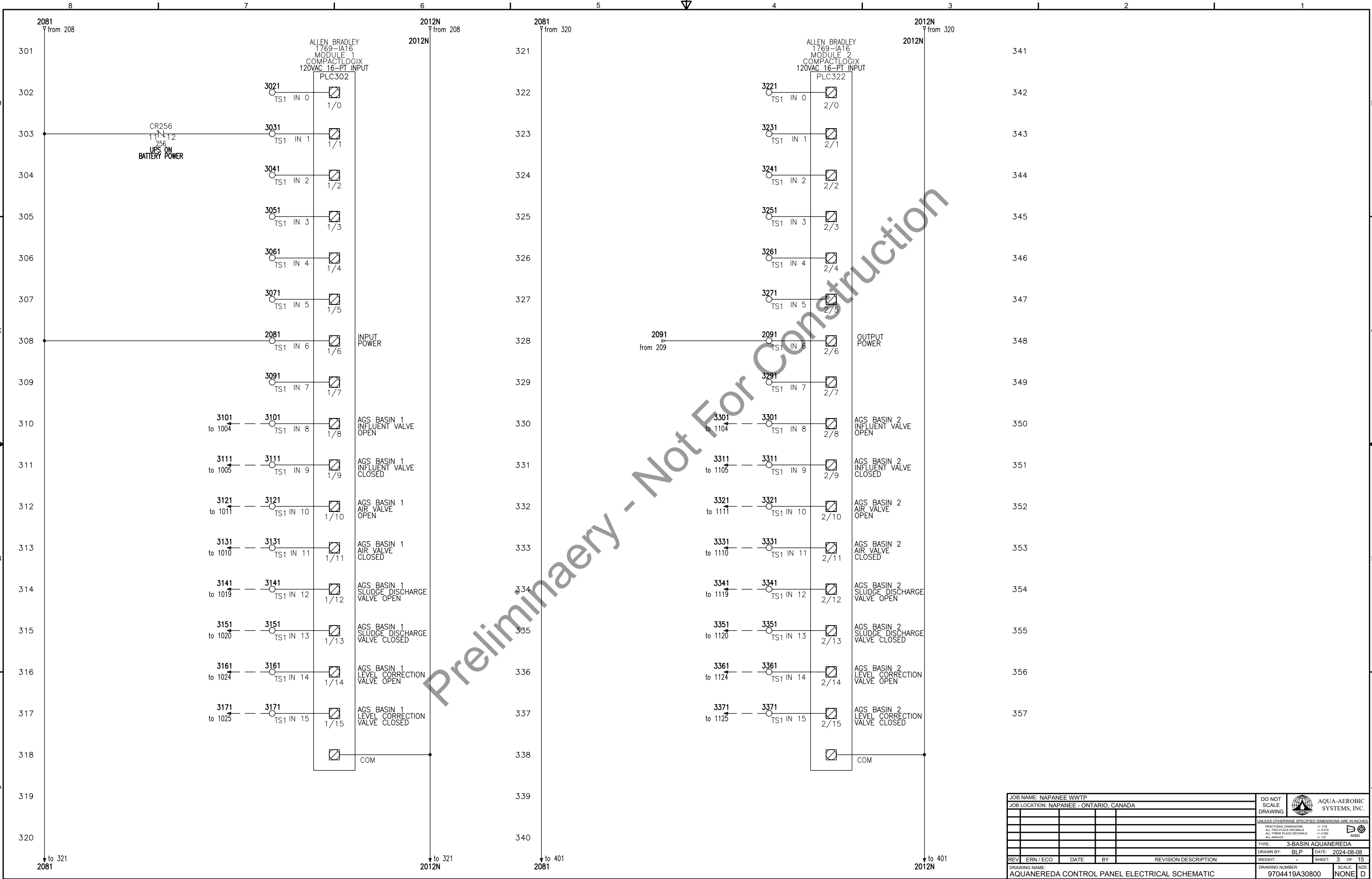
- SHEET SPECIFIC NOTES:
- 1 STANDARD WIRING NOTES PER INSTALLATION DRAWING 9704419A30600
 - 2 CONTROL PANEL ASSEMBLY PER DRAWING 9704419A30700
 - 3 NETWORK COMMUNICATION DIAGRAM PER DRAWING 9704419A30910
 - 4 CONTROL PANEL TO BE CSA LISTED
 - 5 SEE VFD WIRING DETAILS (BY OTHERS)

JOB NAME: NAPANEE WWTP				DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ANSI	
				FRACTIONAL DIMENSIONS: ±0.125			
				ALL TWO PLACE DECIMALS: ±0.005			
				ALL THREE PLACE DECIMALS: ±0.002			
				ALL ANGLES: ±1°			
TYPE: 3-BASIN AQUANEREDA				DRAWN BY: BLP		DATE: 2024-08-08	
DRAWING NAME: AQUANEREDA CONTROL PANEL ELECTRICAL SCHEMATIC				WEIGHT: -		SHEET: 1 OF 15	
DRAWING NUMBER: 9704419A30800				SCALE: NONE		SIZE: D	

Preliminary - Not For Construction

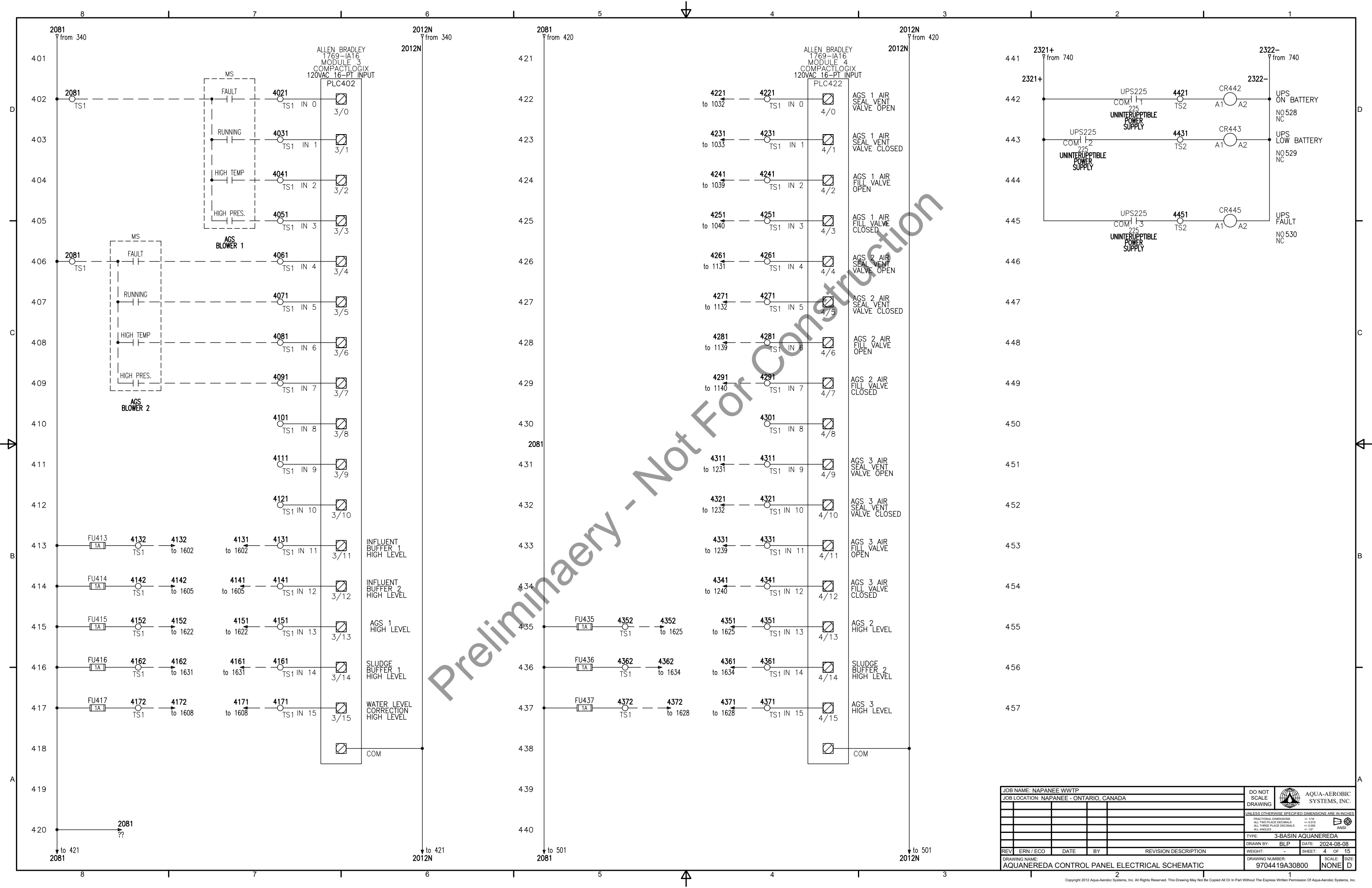


JOB NAME: NAPANEE WWTP				DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		<small>FRACTIONAL DIMENSIONS: ±0.125</small> <small>ALL TWO PLACE DECIMALS: ±0.005</small> <small>ALL THREE PLACE DECIMALS: ±0.002</small> <small>ALL ANGLES: ±1°</small>	
TYPE: 3-BASIN AQUANEREDA				DRAWN BY: BLP		DATE: 2024-08-08	
REV	ERN / ECO	DATE	BY	REVISION DESCRIPTION	WEIGHT:	SHEET: 2 OF 15	SCALE: NONE
DRAWING NAME: AQUANEREDA CONTROL PANEL ELECTRICAL SCHEMATIC				DRAWING NUMBER: 9704419A30800		SIZE: D	



Preliminary - Not For Construction

JOB NAME: NAPANEE WWTP				DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ANSI	
TYPE: 3-BASIN AQUANEREDA				DRAWN BY: BLP		DATE: 2024-08-08	
DRAWING NAME: AQUANEREDA CONTROL PANEL ELECTRICAL SCHEMATIC				DRAWING NUMBER: 9704419A30800		SCALE: NONE	
REV: ERN / ECO				DATE		BY	
REVISION DESCRIPTION				WEIGHT: -		SHEET: 3 OF 15	

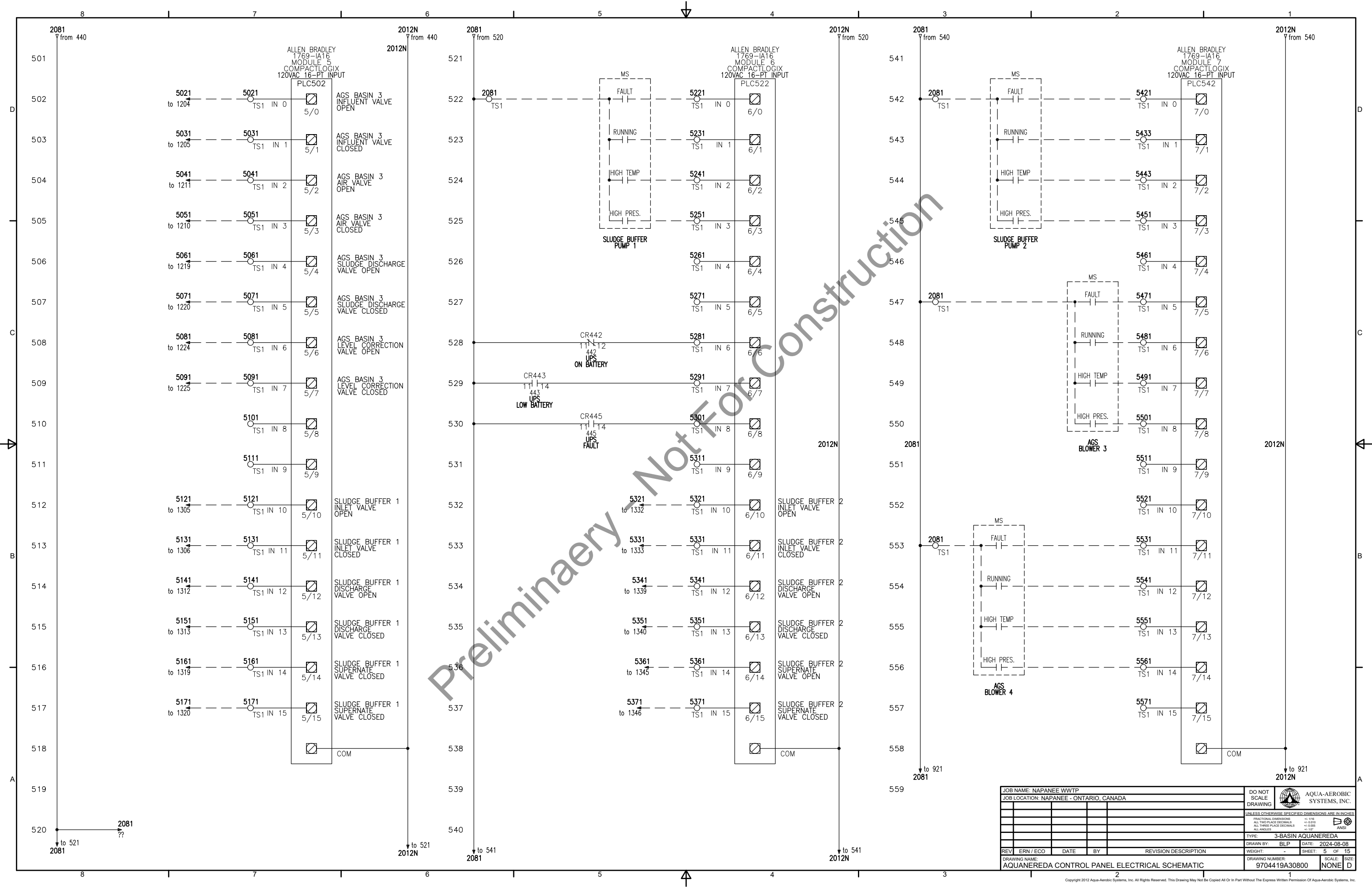


ALLEN BRADLEY
1769-IA16
MODULE 3
COMPACTLOGIX
120VAC 16-PT INPUT
PLC402

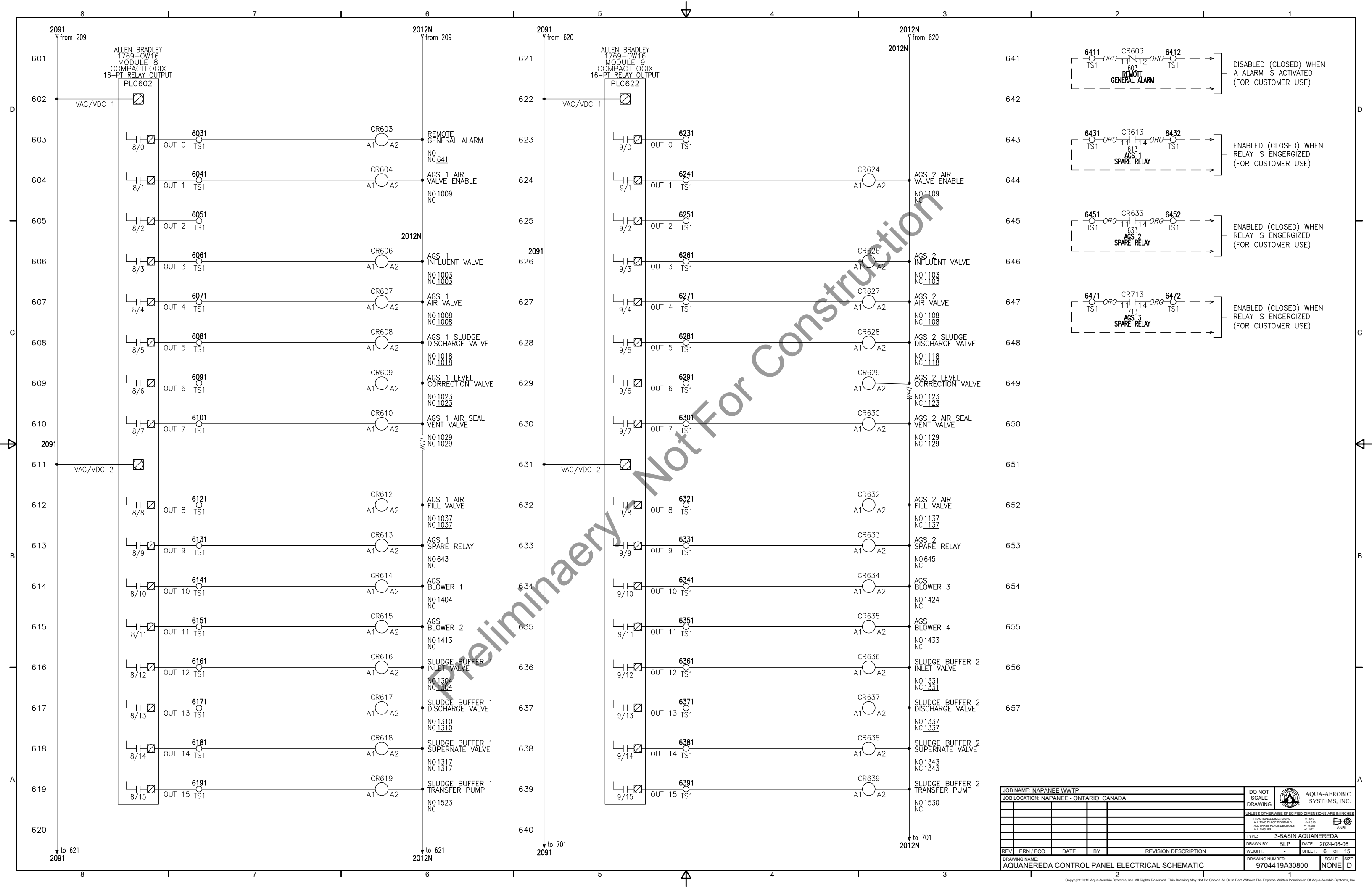
ALLEN BRADLEY
1769-IA16
MODULE 4
COMPACTLOGIX
120VAC 16-PT INPUT
PLC422

JOB NAME: NAPANEE WWTP				DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			
				FRACTIONAL DIMENSIONS		+1/16	
				ALL TWO PLACE DECIMALS		+0.005	
				ALL THREE PLACE DECIMALS		+0.0005	
				ALL ANGLES		45°	
				TYPE: 3-BASIN AQUANEREDA			
DRAWN BY: BLP				DATE: 2024-08-08			
REV: ERN / ECO				DATE:		SHEET: 4 OF 15	
REVISION DESCRIPTION				WEIGHT:		SCALE: NONE	
DRAWING NAME: AQUANEREDA CONTROL PANEL ELECTRICAL SCHEMATIC				DRAWING NUMBER: 9704419A30800		SIZE: D	

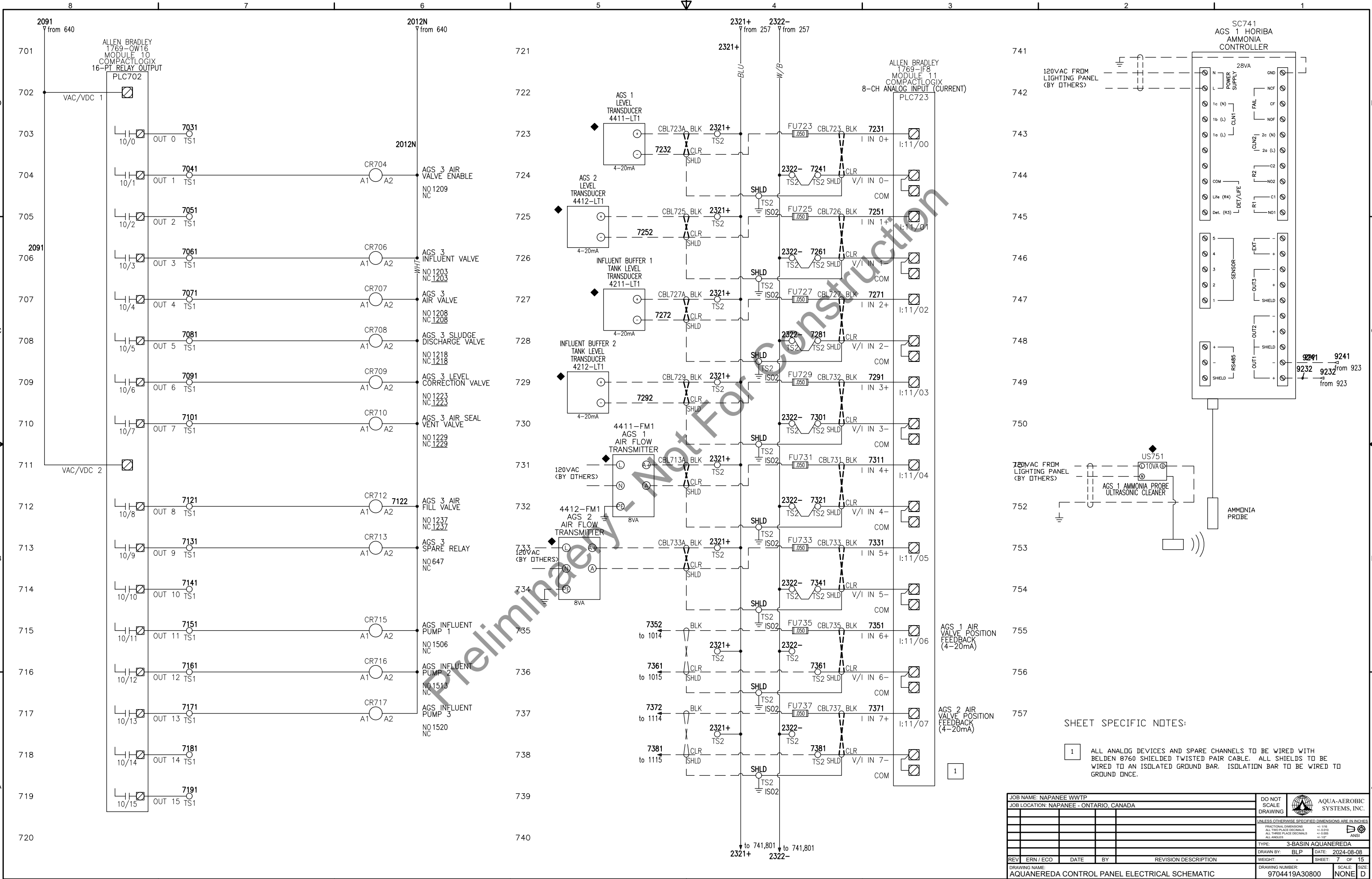
Preliminary - Not For Construction



JOB NAME: NAPANEE WWTP				DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ANSI	
				FRACTIONAL DIMENSIONS: ± 0.10			
				ALL THREE PLACE DECIMALS: ± 0.005			
				ALL ANGLES: ± 10'			
TYPE: 3-BASIN AQUANEREDA				DRAWN BY: BLP		DATE: 2024-08-08	
REV: ERN / ECO				DATE: BY		REVISION DESCRIPTION	
DRAWING NAME: AQUANEREDA CONTROL PANEL ELECTRICAL SCHEMATIC				WEIGHT: -		SHEET: 5 OF 15	
				DRAWING NUMBER: 9704419A30800		SCALE: NONE	



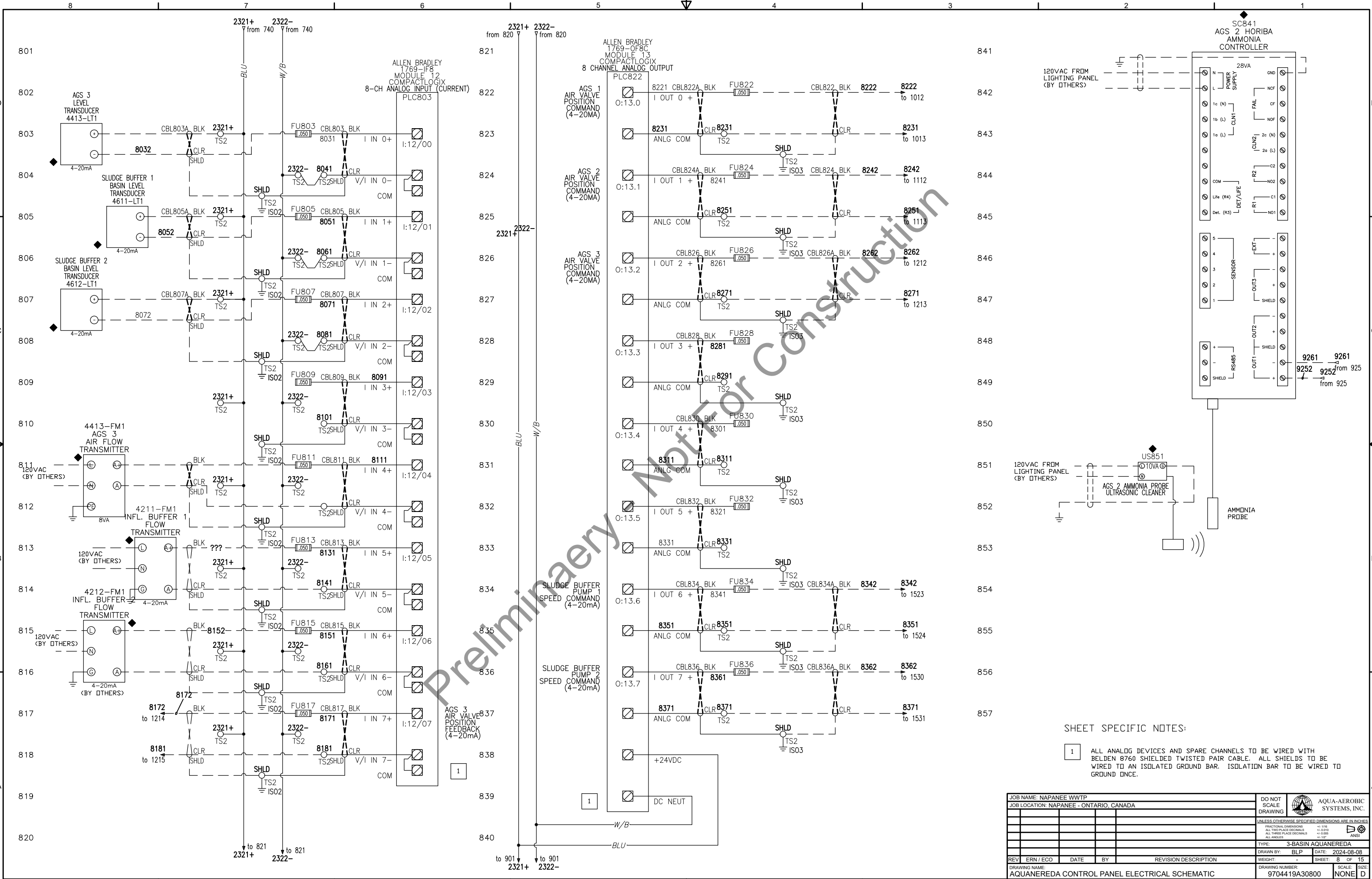
JOB NAME: NAPANEE WWTP				DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA						UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
						FRACTIONAL DIMENSIONS: ± 0.10	
						ALL TWO PLACE DECIMALS: ± 0.005	
						ALL THREE PLACE DECIMALS: ± 0.001	
						ALL ANGLES: ± 10'	
						ANSI	
TYPE: 3-BASIN AQUANEREDA				DRAWN BY: BLP		DATE: 2024-08-08	
REV: ERN / ECO				DATE:		REVISION DESCRIPTION	
DRAWING NAME: AQUANEREDA CONTROL PANEL ELECTRICAL SCHEMATIC				DRAWING NUMBER: 9704419A30800		SCALE: NONE	
				SHEET: 6 OF 15		SIZE: D	



SHEET SPECIFIC NOTES:

1 ALL ANALOG DEVICES AND SPARE CHANNELS TO BE WIRED WITH BELDEN 8760 SHIELDED TWISTED PAIR CABLE. ALL SHIELDS TO BE WIRED TO AN ISOLATED GROUND BAR. ISOLATION BAR TO BE WIRED TO GROUND ONCE.

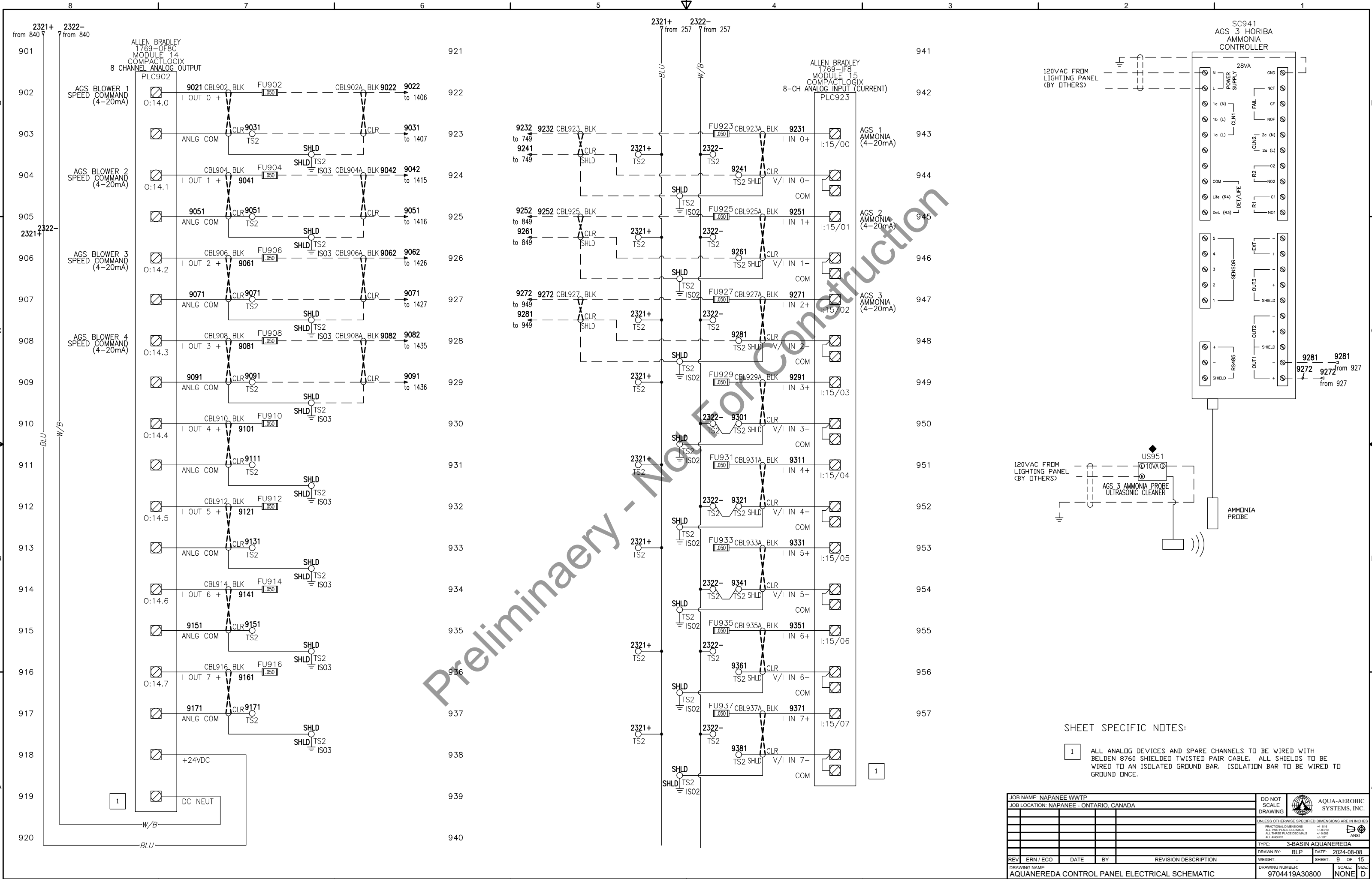
JOB NAME: NAPANEE WWTP		DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
				FRACTIONAL DIMENSIONS: ±0.125	
				ALL TWO PLACE DECIMALS: ±0.005	
				ALL THREE PLACE DECIMALS: ±0.0005	
				ALL ANGLES: ±1°	
TYPE: 3-BASIN AQUANEREDA		DRAWN BY: BLP		DATE: 2024-08-08	
DRAWING NAME: AQUANEREDA CONTROL PANEL ELECTRICAL SCHEMATIC		WEIGHT: -		SHEET: 7 OF 15	
DRAWING NUMBER: 9704419A30800		SCALE: NONE		SIZE: D	



SHEET SPECIFIC NOTES:

1 ALL ANALOG DEVICES AND SPARE CHANNELS TO BE WIRED WITH BELDEN 8760 SHIELDED TWISTED PAIR CABLE. ALL SHIELDS TO BE WIRED TO AN ISOLATED GROUND BAR. ISOLATION BAR TO BE WIRED TO GROUND ONCE.

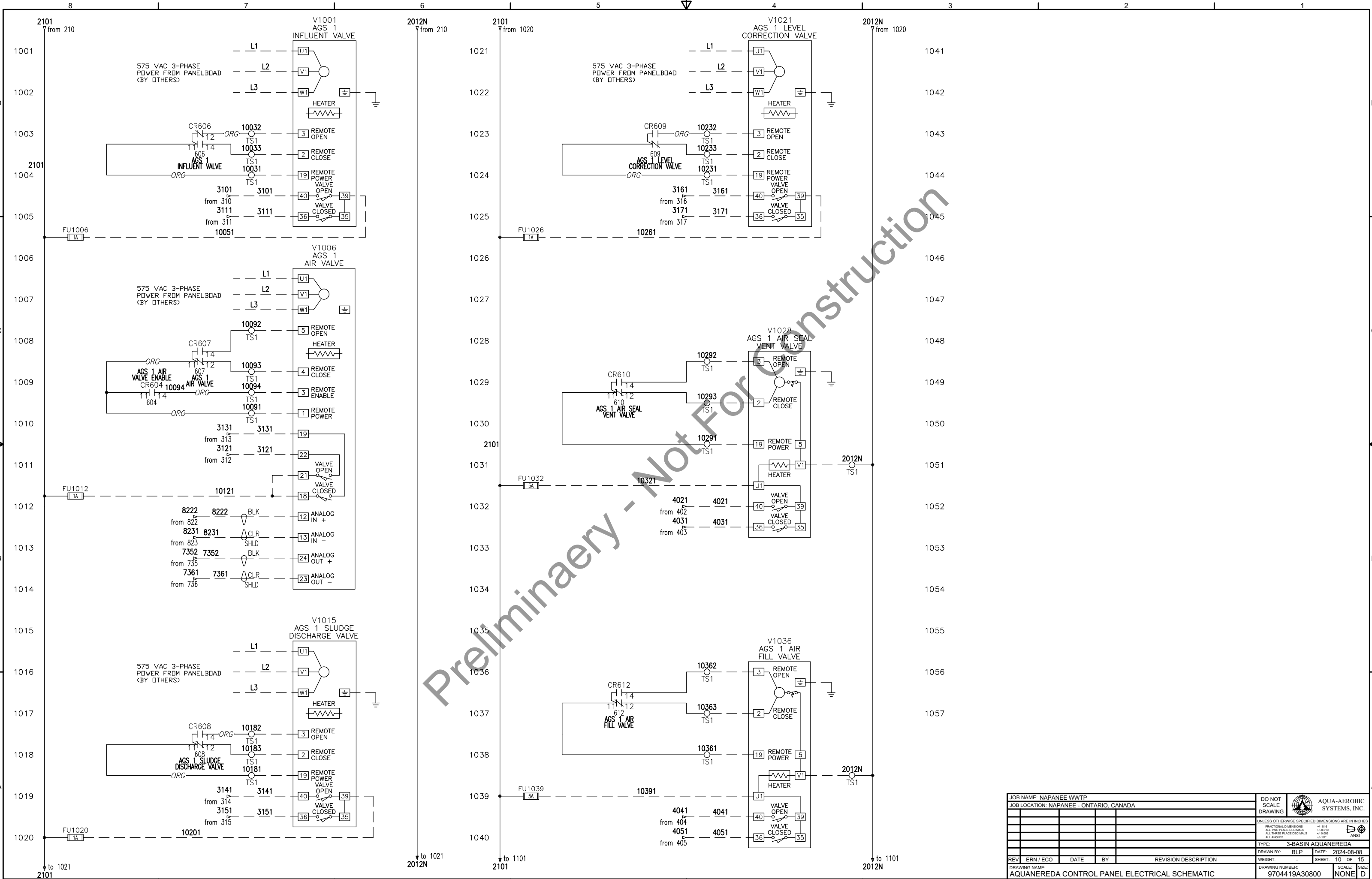
JOB NAME: NAPANEE WWTP		DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		FRACTIONAL DIMENSIONS: ±0.125	
				ALL TWO PLACE DECIMALS: ±0.005	
				ALL THREE PLACE DECIMALS: ±0.002	
				ALL ANGLES: ±1°	
TYPE: 3-BASIN AQUANEREDA		DRAWN BY: BLP		DATE: 2024-08-08	
DRAWING NAME: AQUANEREDA CONTROL PANEL ELECTRICAL SCHEMATIC		DRAWING NUMBER: 9704419A30800		SCALE: NONE	
REV	ERN / ECO	DATE	BY	REVISION DESCRIPTION	WEIGHT: -
				SHEET: 8 OF 15	



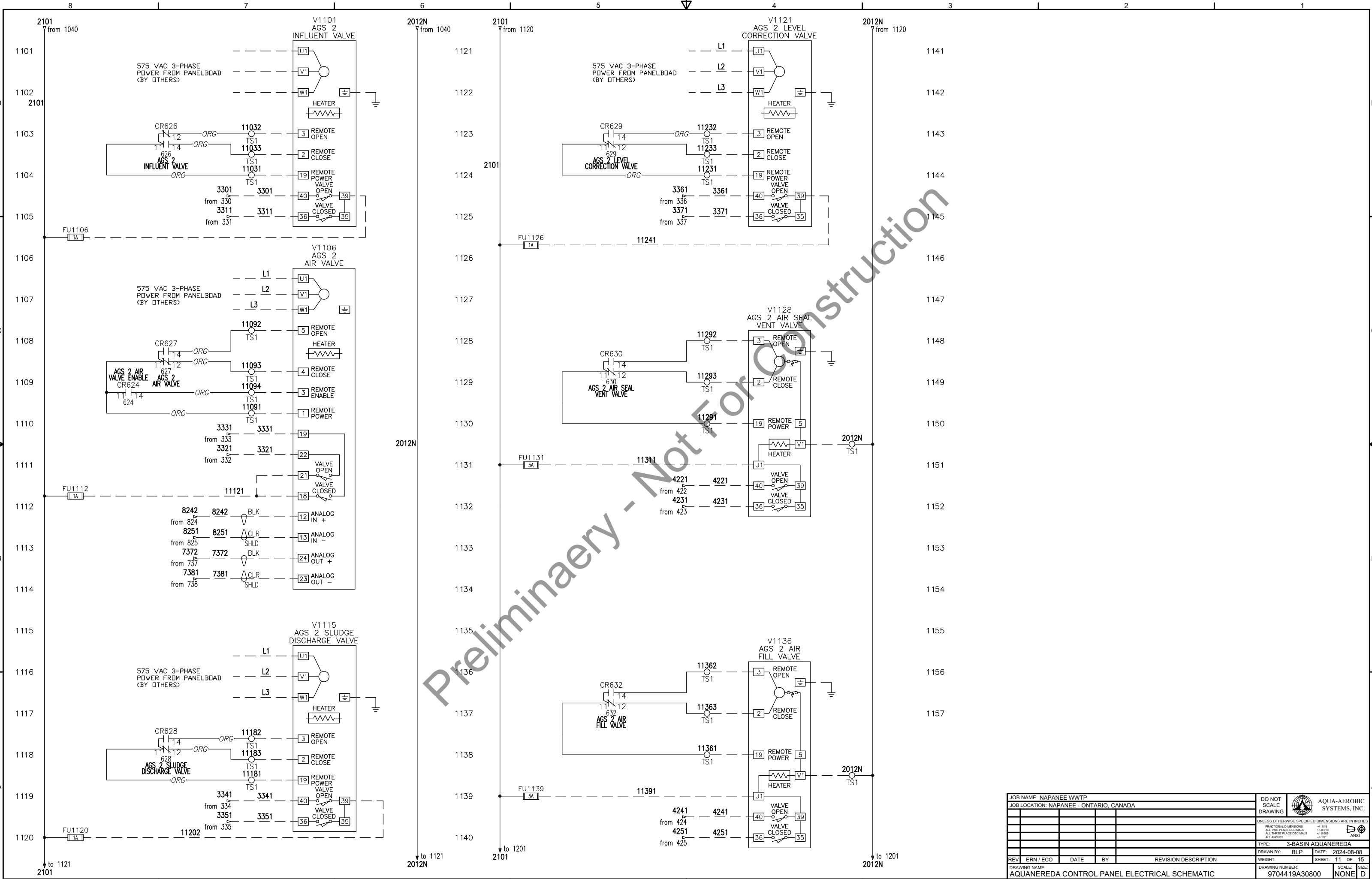
SHEET SPECIFIC NOTES:

1 ALL ANALOG DEVICES AND SPARE CHANNELS TO BE WIRED WITH BELDEN 8760 SHIELDED TWISTED PAIR CABLE. ALL SHIELDS TO BE WIRED TO AN ISOLATED GROUND BAR. ISOLATION BAR TO BE WIRED TO GROUND ONCE.

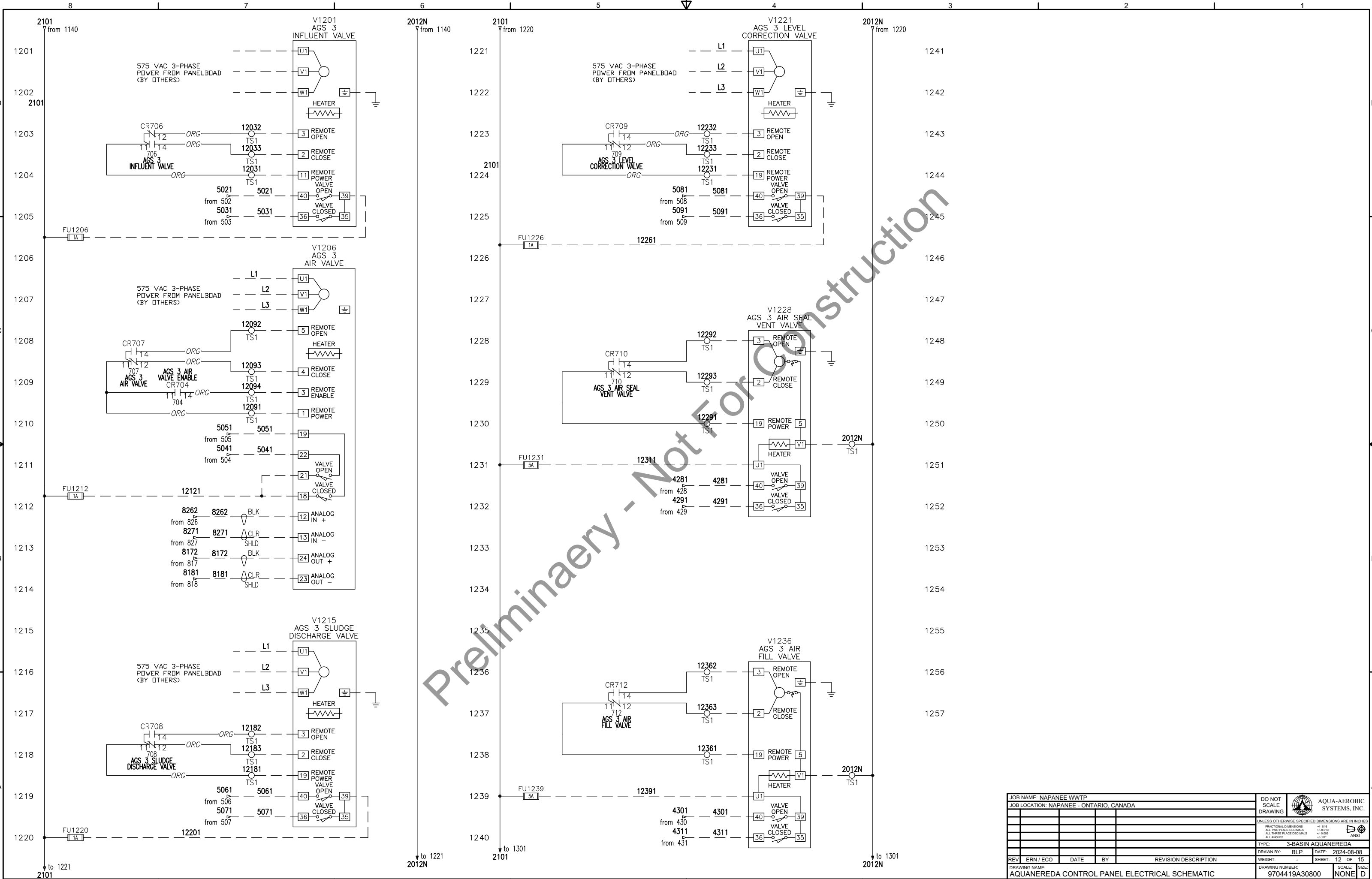
JOB NAME: NAPANEE WWTP				DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA						UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
						FRACTIONAL DIMENSIONS: ±0.125	
						ALL TWO PLACE DECIMALS: ±0.005	
						ALL THREE PLACE DECIMALS: ±0.001	
						ALL ANGLES: ±1°	
						ANSI	
TYPE: 3-BASIN AQUANEREDA				DRAWN BY: BLP		DATE: 2024-08-08	
REV: ERN / ECO				DATE: BY		REVISION DESCRIPTION	
DRAWING NAME: AQUANEREDA CONTROL PANEL ELECTRICAL SCHEMATIC				DRAWING NUMBER: 9704419A30800		SCALE: NONE	
						SHEET: 9 OF 15	
						SIZE: D	



JOB NAME: NAPANEE WWTP				DO NOT SCALE		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA				DRAWING		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
				FRACTIONAL DIMENSIONS		+/- 0.10	
				ALL TWO PLACE DECIMALS		+/- 0.005	
				ALL THREE PLACE DECIMALS		+/- 0.001	
				ALL ANGLES		+/- 1°	
				TYPE: 3-BASIN AQUANEREDA		ANSI	
DRAWN BY: BLP				DATE: 2024-08-08		WEIGHT: -	
REVISION DESCRIPTION				SHEET: 10 OF 15		SCALE: SIZE:	
DRAWING NAME: AQUANEREDA CONTROL PANEL ELECTRICAL SCHEMATIC				DRAWING NUMBER: 9704419A30800		SCALE: SIZE: NONE D	

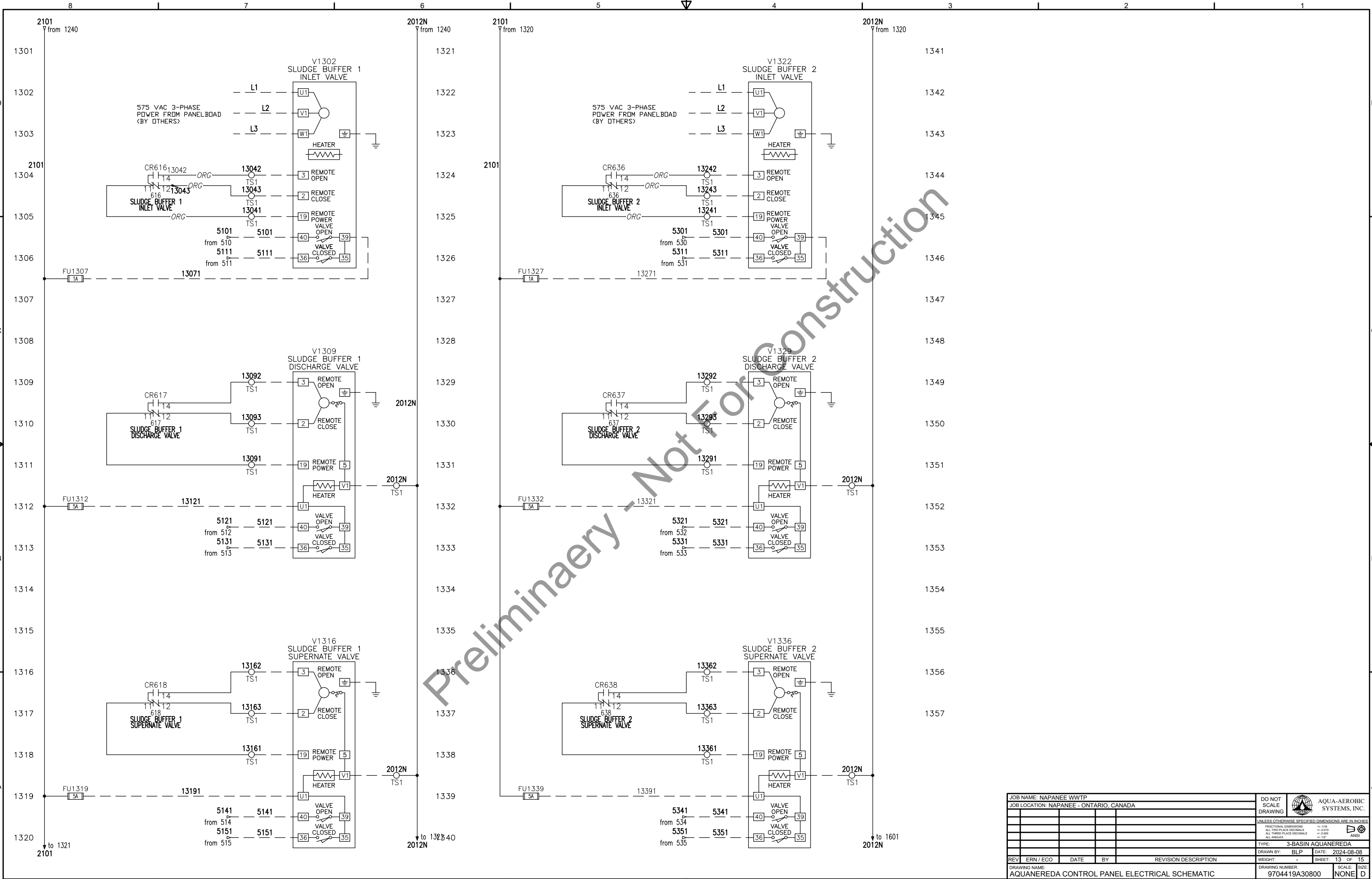


JOB NAME: NAPANEE WWTP				DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ANSI	
TYPE: 3-BASIN AQUANEREDA				DRAWN BY: BLP		DATE: 2024-08-08	
DRAWING NAME: AQUANEREDA CONTROL PANEL ELECTRICAL SCHEMATIC				WEIGHT: -		SHEET: 11 OF 15	
DRAWING NUMBER: 9704419A30800				SCALE: NONE		SIZE: D	

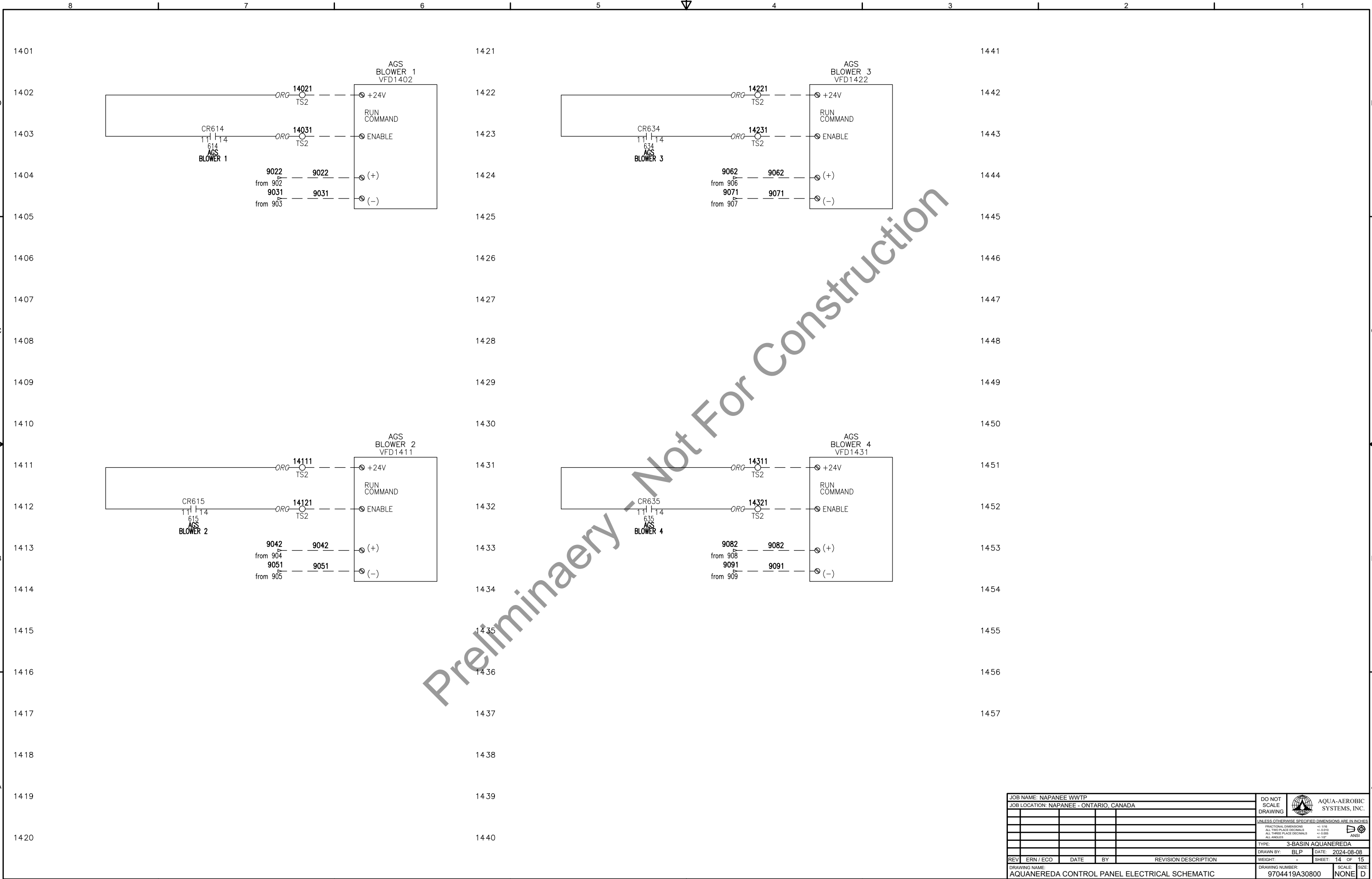


Preliminary - Not For Construction

JOB NAME: NAPANEE WWTP				DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ANSI	
				FRACTIONAL DIMENSIONS: ±0.125			
				ALL TWO PLACE DECIMALS: ±0.005			
				ALL THREE PLACE DECIMALS: ±0.0005			
				ALL ANGLES: ±1°			
TYPE: 3-BASIN AQUANEREDA				DRAWN BY: BLP		DATE: 2024-08-08	
DRAWING NAME: AQUANEREDA CONTROL PANEL ELECTRICAL SCHEMATIC				WEIGHT: -		SHEET: 12 OF 15	
DRAWING NUMBER: 9704419A30800				SCALE: NONE		SIZE: D	

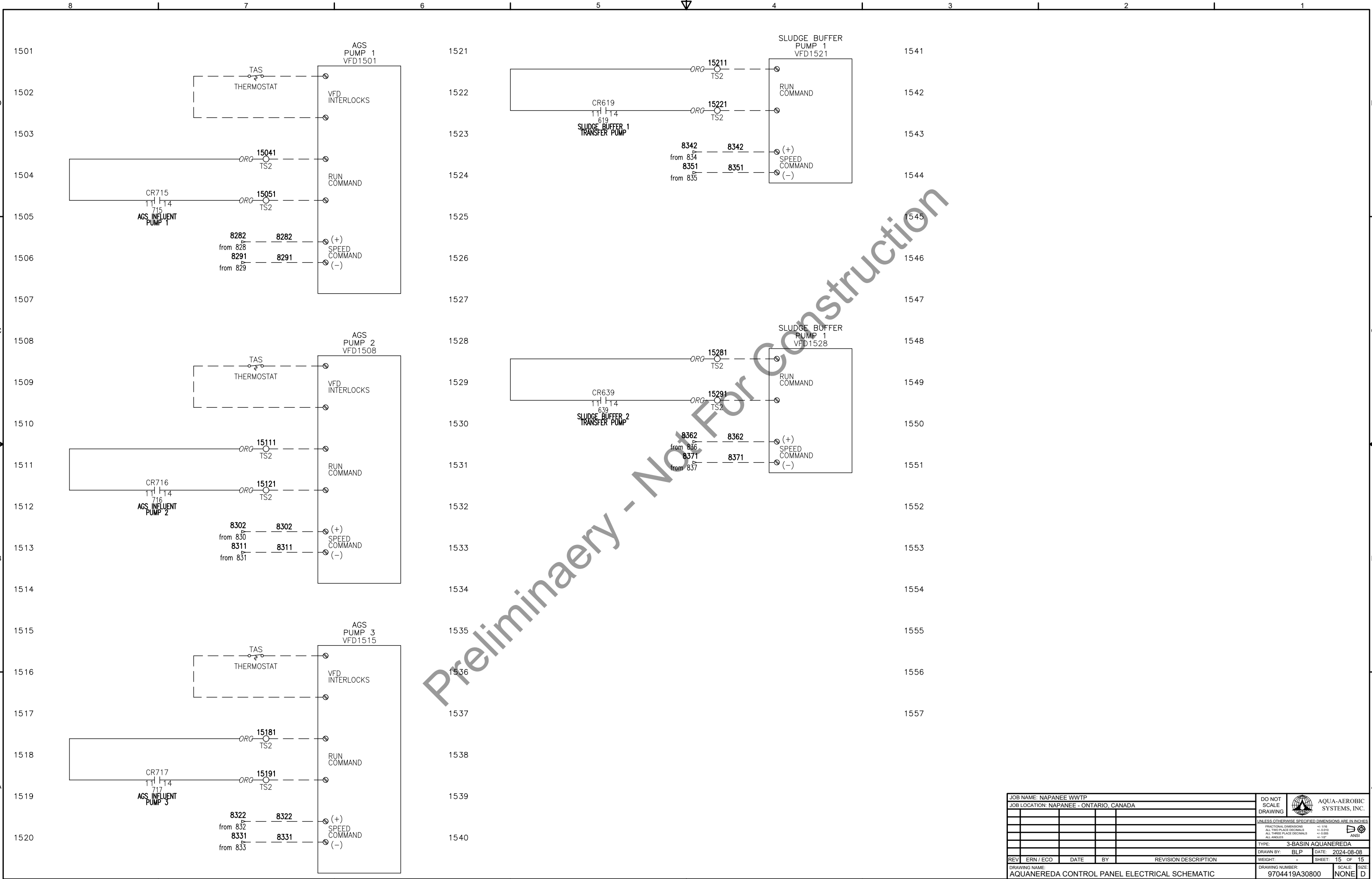


JOB NAME: NAPANEE WWTP				DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ANSI	
TYPE: 3-BASIN AQUANEREDA				DRAWN BY: BLP		DATE: 2024-08-08	
DRAWING NAME: AQUANEREDA CONTROL PANEL ELECTRICAL SCHEMATIC				WEIGHT: -		SHEET: 13 OF 15	
DRAWING NUMBER: 9704419A30800				SCALE: NONE		SIZE: D	

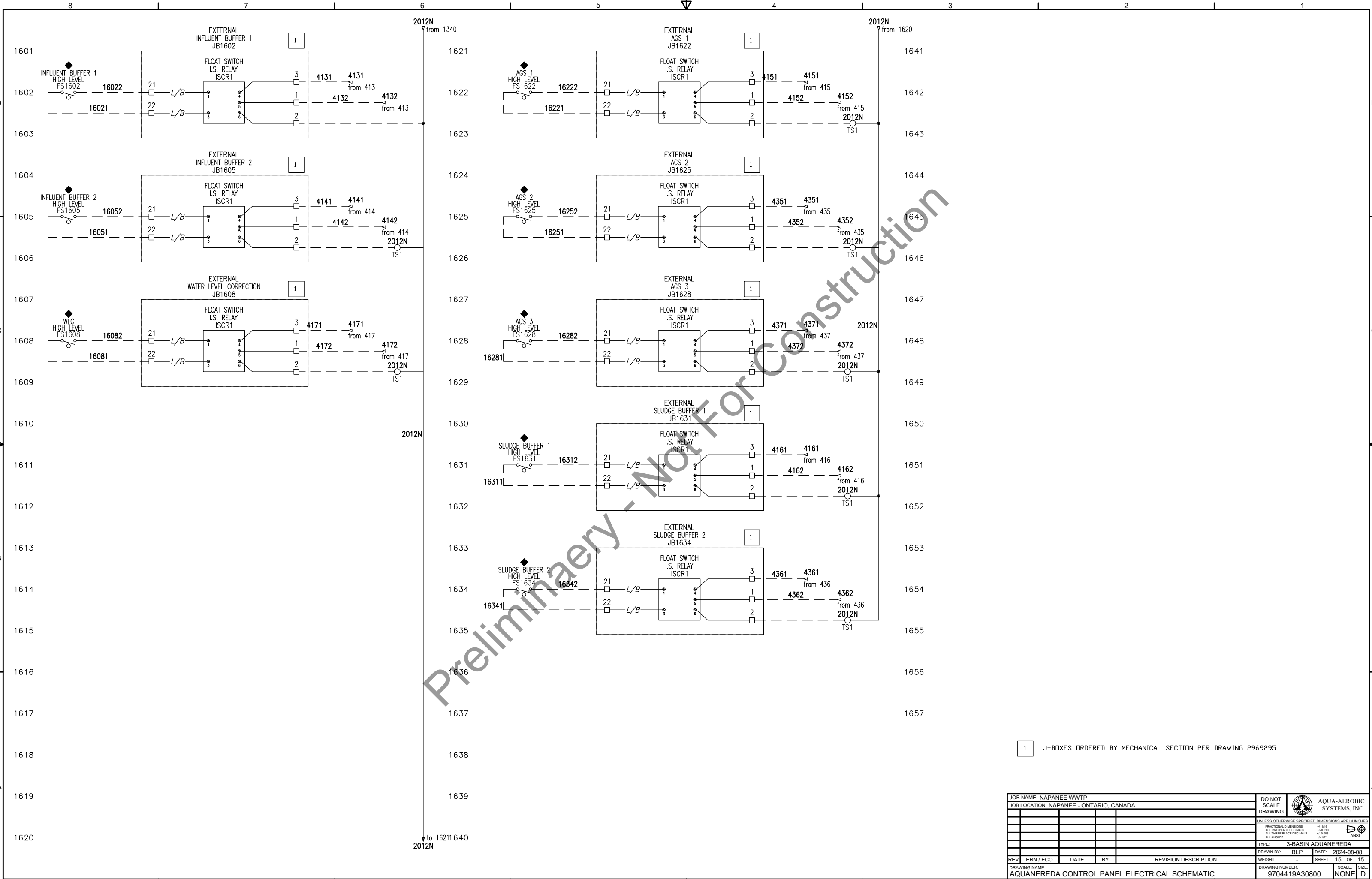


Preliminary - Not For Construction

JOB NAME: NAPANEE WWTP				DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ANSI	
				FRACTIONAL DIMENSIONS: ±0.125			
				ALL TWO PLACE DECIMALS: ±0.005			
				ALL THREE PLACE DECIMALS: ±0.002			
				ALL ANGLES: ±1°			
TYPE: 3-BASIN AQUANEREDA				DRAWN BY: BLP		DATE: 2024-08-08	
REV: ERN / ECO DATE BY REVISION DESCRIPTION				WEIGHT: -		SHEET: 14 OF 15	
DRAWING NAME: AQUANEREDA CONTROL PANEL ELECTRICAL SCHEMATIC				DRAWING NUMBER: 9704419A30800		SCALE: NONE	

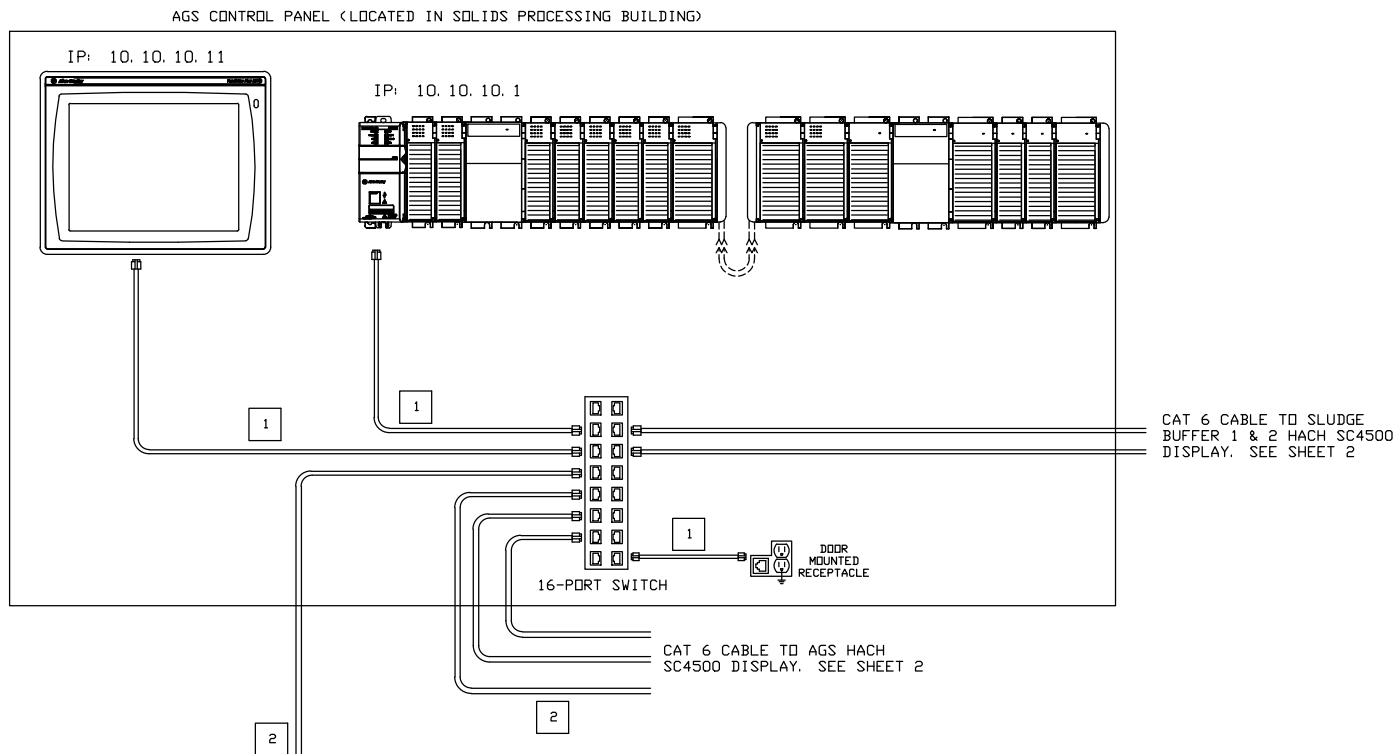


JOB NAME: NAPANEE WWTP				DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ANSI	
				FRACTIONAL DIMENSIONS: ±0.125			
				ALL TWO PLACE DECIMALS: ±0.005			
				ALL THREE PLACE DECIMALS: ±0.001			
				ALL ANGLES: ±1°			
TYPE: 3-BASIN AQUANEREDA				DRAWN BY: BLP		DATE: 2024-08-08	
REV: ERN / ECO DATE BY REVISION DESCRIPTION				WEIGHT: -		SHEET: 15 OF 15	
DRAWING NAME: AQUANEREDA CONTROL PANEL ELECTRICAL SCHEMATIC				DRAWING NUMBER: 9704419A30800		SCALE: NONE	

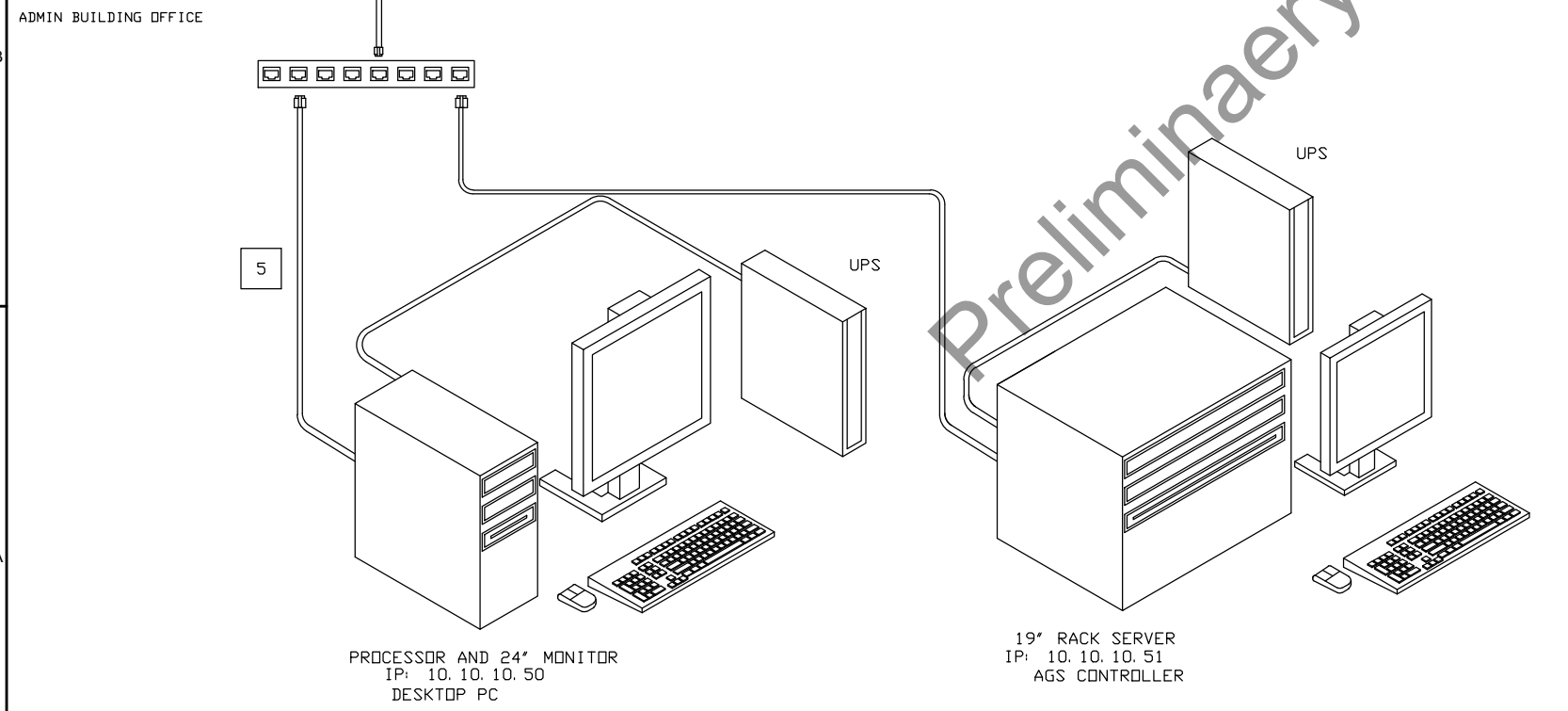


1 J-BOXES ORDERED BY MECHANICAL SECTION PER DRAWING 2969295

JOB NAME: NAPANEE WWTP				DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		<small>FRACTIONAL DIMENSIONS ± 0.125 ALL TWO PLACE DECIMALS ± 0.005 ALL THREE PLACE DECIMALS ± 0.002 ALL ANGLES ± 10'</small>	
TYPE: 3-BASIN AQUANEREDA				DRAWN BY: BLP		DATE: 2024-08-08	
DRAWING NAME: AQUANEREDA CONTROL PANEL ELECTRICAL SCHEMATIC				WEIGHT: -		SHEET: 15 OF 15	
DRAWING NUMBER: 9704419A30800				SCALE: NONE		SIZE: D	

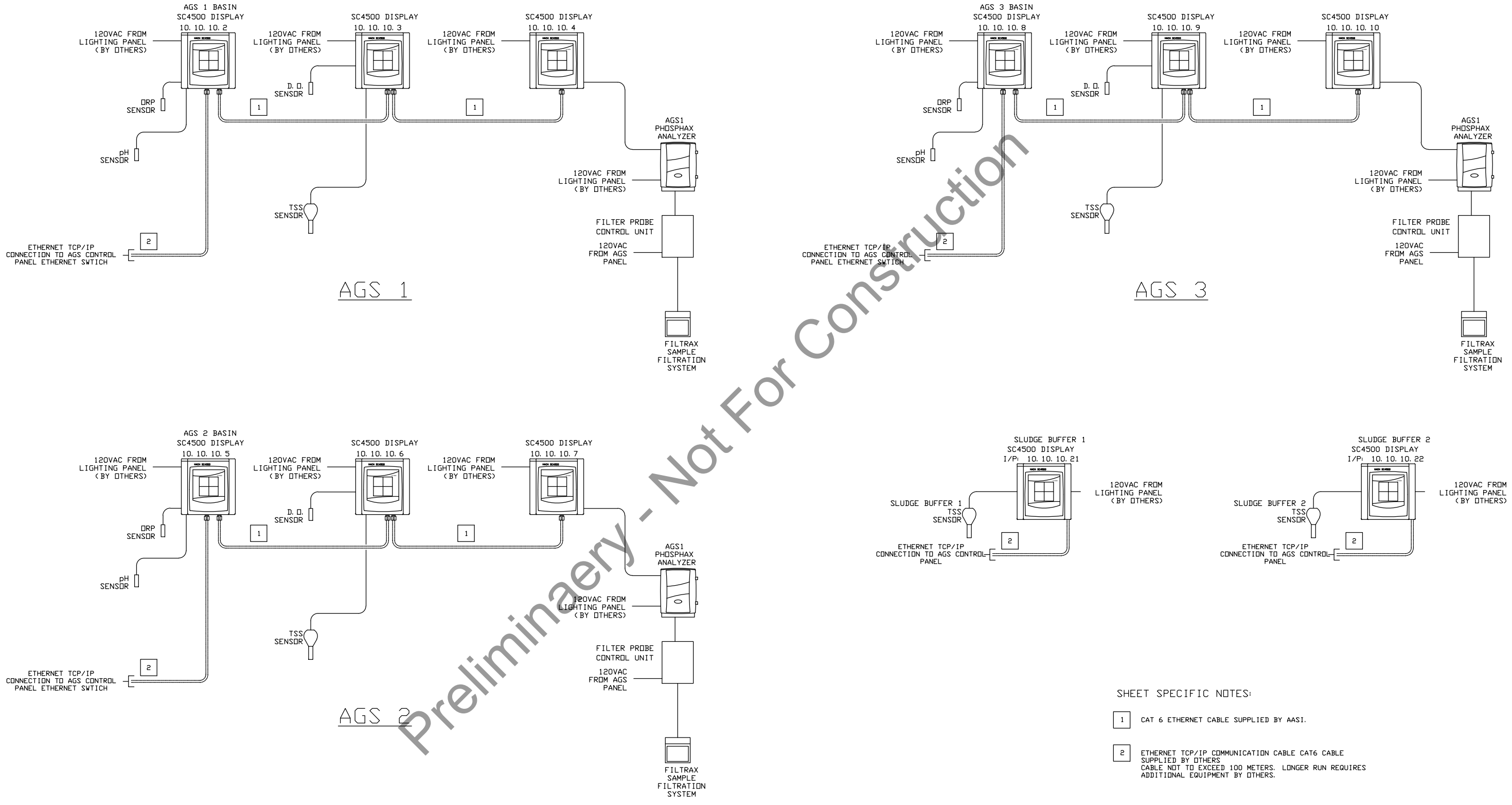


BOM / COMPONENT LISTING					
DEVICE	AQUA PART #	MANUFACTURER PART #	TYPE	QTY	DESCRIPTION
AGS DESK TOP PC	911689230910-1	DELL QUOTE # 3000173133906.1	P	1	DELL INTEL I7-11700 PROCESSOR, (3.6GHZ, 8.25MB), OPTIPLEX 7010 SMALL MINI-TOWER BASE, 32GB MEMORY, USB KEYBOARD, PRIMARY HARD DRIVE 512 GB, SECONDARY 1TB, INTEL INTEGRATED GRAPHICS VIDEO CARD, WINDOWS 11 PROFESSIONAL 64 BIT OPERATING SYSTEM.
AGS DESK TOP MONITOR	911689230910-2	DELL QUOTE # 3000173134175.1	P	1	24" ULTRASHARP MONITOR
AGS SERVER	2754817-001	R250	P	1	DELL - POWER EDGE R250 SERVER Intel® Xeon® W-2334 (8 MB cache, 4 cores, 8 threads, 3.4 GHz (2) HARD DRIVE 1TB, INTEL INTEGRATED GRAPHICS VIDEO CARD
	2754818-001	E1920H	P	1	DELL 19" LED MONITOR 1920H
	2754819-001	SMT1500RM2UC	P	1	APC SMART UPS 1500VA
	2754820-001	AP9562	P	1	APC BASIC RACK MOUNT POWER DIST. STRIP
	2754821-001	RK1233BKM	P	1	STARTECH 12U SERVER RACK CABINET
	2754822-001	MS116-BK	P	1	DELL OPTICAL 3-BUTTON WIRED USB MOUSE - BLACK
	2754823-001	KB216-BK	P	1	DELL USB KEYBOARD - BLACK
	2754826-001		P	5	MICROSOFT CSP - PERPETUAL LICENSE WINDOWS SERVER 2022
	2754827-001		P	1	MICROSOFT CSP - PERPETUAL LICENSE 16 CORE PACK
	2752205	GS-308	P	1	NETGEAR ETHERNET SWITCH
SOFTWARE	2752187	9701-VWSTENM	P	1	ROCKWELL AUTOMATION, FACTORYTALK VIEW STUDIO SE
	2753046	9701-VWSB250AENM	P	1	ROCKWELL AUTOMATION, FACTORYTALK VIEW SITE 250 DISPLAY
	2754399	9324M-RLDT10M	P	1	ROCKWELL AUTOMATION, RSLOGIX 5000 STUDIO LITE EDITION
	2753031		P	1	MICROSOFT OFFICE HOME LATEST VERSION
	2754040	DECP-A-120-NA-STD	P	1	CYLANCE MALWARE SOFTWARE
	2751980	EX4-ABSTE-NA00	P	1	KEPWARE OPC SERVER SOFTWARE
	2621443	B-BWSNM-IPP24-00	P	1	MACRIUM BACK-UP IMAGING SOFTWARE
UPS	2753095	BR1500MS2	P	1	APC 1500VA UNINTERRUPTIBLE POWER SUPPLY



- SHEET SPECIFIC NOTES:
- 1 CAT6 ETHERNET CABLE SUPPLIED BY AASI
 - 2 CAT6 ETHERNET CABLE SUPPLIED BY ELECTRICAL CONTRACTOR.

JOB NAME: NAPANEE WWTP		DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC.	
JOB LOCATION: NAPANEE - ONTARIO, CANADA				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
				FRACTIONAL DIMENSIONS ALL TWO PLACE DECIMALS ALL THREE PLACE DECIMALS ALL ANGLES	
				ANSI	
				TYPE: 3-BASIN AQUANEREDA	
				DRAWN BY: BLP DATE: 2024-08-08	
REV		DATE		REVISION DESCRIPTION	
DRAWING NAME:		DRAWING NUMBER:		SCALE: SIZE:	
AGS NETWORK COMPUTER ASSEMBLY		9704419A30910		NONE D	



SHEET SPECIFIC NOTES:

- 1 CAT 6 ETHERNET CABLE SUPPLIED BY AASI.
- 2 ETHERNET TCP/IP COMMUNICATION CABLE CAT6 CABLE SUPPLIED BY OTHERS. CABLE NOT TO EXCEED 100 METERS. LONGER RUN REQUIRES ADDITIONAL EQUIPMENT BY OTHERS.

JOB NAME: NAPANEE WWTP				DO NOT SCALE DRAWING		AQUA-AEROBIC SYSTEMS, INC. A Mettler Company	
JOB LOCATION: NAPANEE - ONTARIO, CANADA						UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
						FRACTIONAL DIMENSIONS ALL TWO PLACE DECIMALS ±0.010	
						ALL THREE PLACE DECIMALS ±0.005	
						ALL ANGLES ±1°	
						ANSI	
						TYPE: 3-BASIN AQUANEREDA	
DRAWN BY: BLP				DATE: 2024-08-08			
REV: ERN / ECO				DATE		REVISION DESCRIPTION	
DRAWING NAME: AGS NETWORK COMPUTER ASSEMBLY				DRAWING NUMBER: 9704419A30910		SCALE: NONE	
						SHEET: 2 OF 2	
						SIZE: D	