PANEL SCHEDULE

PANEL: **MDP PANEL**
LOCATION: SOUTHEAST CORNER OF WAREHOUSE
FEEDER SOURCE: CLECO
VOLTAGE: 277/480V 1,200A, 3Ø 4W MMB
ENCLOSURE: SURFACE MOUNTED W/ EQUIPMENT GND BAR SQ D TYPE QO PANELBOARD

CKT NO	THHN WIRE SIZE	LOAD DESCRIPTION / LOCATION	BREAKER AMP	BREAKER POLE	LOAD (KVA)	LOAD (KVA)	BREAKER POLE	BREAKER AMP	LOAD DESCRIPTION / LOCATION	THHN WIRE SIZE	CKT NO
1					143.9	161.0					2
3	2-400	PANELBOARD P1-480V	600	3	141.6	160.7	3	600	PANELBOARD P2-480V	2-400	4
5					141.0	161.5					6
7					21.3	48.8					8
9	#4	TRANSFORMER T-3 (45kva) OFFICE PANEL P3-208V	70	3	15.0	48.8	3	110	TRANSFORMER T-4 (112.5 kva) FEEDS PANEL P4-208V	3/0	10
11					14.8	48.1					12
13	#12	WAREHOUSE LIGHTS - SOUTH ROWS	20	1	3.6	-	1	20	SPARE	-	14
15	#12	WAREHOUSE LIGHTS - CENTER ROWS	20	1	3.6	-	1	20	SPARE	-	16
17	#12	WAREHOUSE LIGHTS - NORTH ROWS	20	1	3.6	-	1	20	SPARE	-	18

SOLID NEUTRAL NEUTRAL WIRE (W) — TOTAL CONNECTED LOAD (KVA) = 1,117.2 kva — GROUND BUS GROUND WIRE (G)
AØ = 378.6 kva | BØ = 369.7 kva | CØ = 369.0 kva

PANEL SCHEDULE

PANEL: **P1-480V (NEW)**
LOCATION: INSIDE OF SOUTHWEST CORNER OF WAREHOUSE
FEEDER SOURCE: CLECO VIA MDP PANEL
VOLTAGE: 277/480V, 600A, 3Ø, 4W MLO
ENCLOSURE: SURFACE MOUNTED W/ EQUIPMENT GND BAR SQ D TYPE QO PANELBOARD

CKT NO	THHN WIRE SIZE	LOAD DESCRIPTION / LOCATION	BREAKER AMP	BREAKER POLE	LOAD (KVA)	LOAD (KVA)	BREAKER POLE	BREAKER AMP	LOAD DESCRIPTION / LOCATION	THHN WIRE SIZE	CKT NO
1					11.7	11.7					2
3	#3	WELDING MACHINE DISCONNECT #1	80	3	11.7	11.7	3	80	WELDING MACHINE DISCONNECT #2	#3	4
5					11.7	11.7					6
7					11.7	11.7					8
9	#3	WELDING MACHINE DISCONNECT #3	80	3	11.7	11.7	3	80	WELDING MACHINE DISCONNECT #4	#3	10
11					11.7	11.7					12
13					11.7	11.7					14
15	#3	WELDING MACHINE DISCONNECT #5	80	3	11.7	11.7	3	80	WELDING MACHINE DISCONNECT #6	#3	16
17					11.7	11.7					18
19					3.9	15.8					20
21	#10	1606 ACCUPRESS DISCONNECT	20	3	3.9	14.4	3	40	T-1 TRANSFORMER (30 kva) TO P1-208V PANELBOARD	#8	22
23					3.9	13.2					24
25					1.9	15.5					26
27	#12	FORKLIFT CHARGER DISCONNECT	10	3	1.9	15.5	3	70	TRUMPF V230 DISCONNECT	#3	28
29					1.9	15.5					30
31	-	NEW EXTERIOR LIGHTING OVER SANDBLASTING EQUIPMENT	20	1	0.6	-	1	20	SPARE	-	32
33	-	SPARE	20	1	-	-	1	20	SPARE	-	34
35	-	SPACE	-	1	-	-	1	-	SPACE	-	36
37	-	SPACE	-	1	-	-	1	-	SPACE	-	38
39	-	SPACE	-	1	-	-	1	-	SPACE	-	40
41	-	SPACE	-	1	-	-	1	-	SPACE	-	42

SOLID NEUTRAL NEUTRAL WIRE (W) — TOTAL CONNECTED LOAD (KVA) = 426.4 kva — GROUND BUS GROUND WIRE (G)
AØ = 143.9 kva | BØ = 141.6 kva | CØ = 141.0 kva

PANEL SCHEDULE

PANEL: **P2-480V (NEW)**
LOCATION: INSIDE OF NORTH WAREHOUSE WALL
FEEDER SOURCE: CLECO VIA MDP PANEL
VOLTAGE: 277/480V, 600A, 3Ø, 4W MLO
ENCLOSURE: SURFACE MOUNTED W/ EQUIPMENT GND BAR SQ D TYPE QO PANELBOARD

CKT NO	THHN WIRE SIZE	LOAD DESCRIPTION / LOCATION	BREAKER AMP	BREAKER POLE	LOAD (KVA)	LOAD (KVA)	BREAKER POLE	BREAKER AMP	LOAD DESCRIPTION / LOCATION	THHN WIRE SIZE	CKT NO
1					5.5	5.5					2
3	#10	PAINT BOOTH DISCONNECT	25	3	5.5	5.5	3	25	PAINT BOOTH DISCONNECT	#10	4
5					5.5	5.5					6
7					8.3	12.4					8
9	#8	CHILLER DISCONNECT	40	3	8.3	12.4	3	60	CHILLER DISCONNECT	#4	10
11					8.3	12.4					12
13					4.1	1.7					14
15	#10	DUST COLLECTOR DISCONNECT	20	3	4.1	1.7	3	10	DUST COLLECTOR DISCONNECT	#10	16
17					4.1	1.7					18
19					8.3	16.6					20
21	#8	SLUDGE COLLECTOR(S) DISCONNECT	40	3	8.3	16.6	3	80	480V COMPRESSOR DISCONNECT	#3	22
23					8.3	16.6					24
25					27.7	27.7					26
27	1/0	BYSTAR 3015 DISCONNECT	120	3	27.7	27.7	3	120	BYSTAR 3015 DISCONNECT	1/0	28
29					27.7	27.7					30
31					8.1	27.7					32
33	#8	TUMBLER DISCONNECT	40	3	8.1	27.7	3	120	BYJET SMART 3015 DISCONNECT	1/0	34
35					8.1	27.7					36
37					5.8	1.6	1	20	NEW EXTERIOR LIGHTING OVER EQUIPMENT	#12	38
39	#8	T-2 TRANSFORMER (30 kva) TO P2-208V PANELBOARD	40	3	7.1	-	1	-	SPACE	-	40
41					7.9	-	1	-	SPACE	-	42

SOLID NEUTRAL NEUTRAL WIRE (W) — TOTAL CONNECTED LOAD (KVA) = 483.2 kva — GROUND BUS GROUND WIRE (G)
AØ = 161.0 kva | BØ = 160.7 kva | CØ = 161.5 kva

PANEL SCHEDULE

PANEL: **OFFICE PANEL P3 (EXISTING)**
LOCATION: INSIDE OF NORTHEAST CORNER OF WAREHOUSE
FEEDER SOURCE: TRANSFORMER T-3 LINKED TO MDP PANEL
VOLTAGE: 120/208V, 200A, 3Ø, 4W MLO
ENCLOSURE: FLUSH MOUNTED W/ EQUIPMENT GND BAR SQ D TYPE QO PANELBOARD

CKT NO	THHN WIRE SIZE	LOAD DESCRIPTION / LOCATION	BREAKER AMP	BREAKER POLE	LOAD (KVA)	LOAD (KVA)	BREAKER POLE	BREAKER AMP	LOAD DESCRIPTION / LOCATION	THHN WIRE SIZE	CKT NO
1	-	Office Receptacles	20	1	1.2	1.2	1	20	OFFICE LIGHTS	-	2
3	-	Office Receptacles	20	1	1.2	1.2	1	20	OFFICE LIGHTS	-	4
5	-	Office Receptacles	20	1	1.2	1.2	1	20	MAIN OFFICE LIGHTS	-	6
7	-	Office Receptacles	20	1	1.2	4.8	2	60	HVAC AHU	-	8
9	-	Kitchen	20	1	1.5	4.8					10
11	-	Kitchen	20	1	1.5	4.8	2	60	HVAC AHU	-	12
13	-	Phone Room & Server Receptacles	20	1	1.8	4.8					14
15	-	Office Receptacles	20	1	1.2	-	1	-	SPACE	-	16
17	-	Refrigerator	20	1	1.0	-	1	-	SPACE	-	18
19	-	Bathroom GFCI's	20	1	0.5	-	1	-	SPACE	-	20
21	-	Office Receptacles	20	1	1.2	-	1	-	SPACE	-	22
23	-	Exit and Emergency Lights	20	1	1.0	-	1	-	SPACE	-	24
25	-	Office 1,2,3 Lights	20	1	1.2	-	1	-	SPACE	-	26
27	-	Hot Water Heater	30	2	1.7	-	1	-	SPACE	-	28
29					1.7	-	1	-	SPACE	-	30
31	-	HVAC CONDENSER 3-TON HEAT PUMP	40	2	2.2	-	1	-	SPACE	-	32
33					2.2	-	1	-	SPACE	-	34
35	-	HVAC CONDENSER 3.5-TON HEAT PUMP	40	2	2.4	-	1	-	SPACE	-	36
37					2.4	-	1	20	SPARE	-	38
39	-	SPACE	-	1	-	-	1	20	SPARE	-	40
41	-	SPACE	-	1	-	-	1	20	SPARE	-	42

SOLID NEUTRAL NEUTRAL WIRE (W) — TOTAL CONNECTED LOAD (KVA) = 51.1 kva — GROUND BUS GROUND WIRE (G)
AØ = 21.3 kva | BØ = 15.0 kva | CØ = 14.8 kva

PANEL SCHEDULE

PANEL: **P4-208V (NEW)**
LOCATION: INSIDE OF SOUTHEAST WALL OF WAREHOUSE
FEEDER SOURCE: TRANSFORMER T4 LINKED TO MDP PANEL
VOLTAGE: 120/208V, 400A, 3Ø, 4W MLO
ENCLOSURE: FLUSH MOUNTED W/ EQUIPMENT GND BAR SQ D TYPE QO PANELBOARD

CKT NO	THHN WIRE SIZE	LOAD DESCRIPTION / LOCATION	BREAKER AMP	BREAKER POLE	LOAD (KVA)	LOAD (KVA)	BREAKER POLE	BREAKER AMP	LOAD DESCRIPTION / LOCATION	THHN WIRE SIZE	CKT NO
1					2.9	2.9					2
3	#10	EXISTING WAREHOUSE FANS - EAST	30	3	2.9	2.9	3	30	EXISTING WAREHOUSE FANS - WEST	#10	4
5					2.9	2.9					6
7	#10	EXISTING ROLLUP DOOR	20	2	1.7	1.7	2	20	EXISTING ROLLUP DOOR	#10	8
9					1.7	1.7					10
11					8.3	6.0					12
13	#3	FADAL 3016 DISCONNECT-NEW	90	3	8.3	6.0	3	60	FADAL 4525 DISCONNECT-NEW	#3	14
15					8.3	6.0					16
17					12.0	9.6					18
19	1/0	HWACHON DISCONNECT-NEW	120	3	12.0	9.6	3	100	HAAS ST30Y DISCONNECT-NEW	#2	20
21					12.0	9.6					22
23					1.9	1.8	1	20	RECEPTACLES-EXISTING	#12	24
25	#12	KNEE MILL DISCONNECT-NEW	20	3	1.9	1.8	1	20	SWITCHES FOR CONTACTOR-EXISTING	#12	26
27					1.9	1.8	1	20	RECEPTACLES-EXISTING	#12	28
29	-	CONTACTOR-EXISTING	20	1	1.8	0.9	1	20	110V RECEPTACLES ON EAST AND SOUTH WALLS OF WAREHOUSE	#12	30
31	-	SPARE	20	1	-	-	1	20	SPARE	-	32
33	-	SPARE	20	1	-	-	1	20	SPARE	-	34
35	-	SPARE	20	1	-	-	1	20	SPARE	-	36
37	-	SPARE	20	1	-	-	1	20	SPARE	-	38
39	-	SPACE	-	1	-	-	1	-	SPACE	-	40
41	-	SPACE	-	1	-	-	1	-	SPACE	-	42

SOLID NEUTRAL NEUTRAL WIRE (W) — TOTAL CONNECTED LOAD (KVA) = 145.1 kva — GROUND BUS GROUND WIRE (G)
AØ = 48.8 kva | BØ = 48.8 kva | CØ = 48.1 kva

PANEL SCHEDULE

PANEL: **P1-208V (NEW)**
LOCATION: SOUTHWEST CORNER WALL OF WAREHOUSE
FEEDER SOURCE: TRANSFORMER T1 LINKED TO PANEL P1-480V
VOLTAGE: 120/208V, 125A, 3Ø, 4W MLO
ENCLOSURE: FLUSH MOUNTED W/ EQUIPMENT GND BAR SQ D TYPE QO PANELBOARD

CKT NO	THHN WIRE SIZE	LOAD DESCRIPTION / LOCATION	BREAKER AMP	BREAKER POLE	LOAD (KVA)	LOAD (KVA)	BREAKER POLE	BREAKER AMP	LOAD DESCRIPTION / LOCATION	THHN WIRE SIZE	CKT NO
1	#12	220V RECEPTACLE ON SOUTH WALL OF WAREHOUSE AT THE WELDING MACHINES	20	2	1.7	1.7	2	20	220V RECEPTACLE ON SOUTH WALL OF WAREHOUSE AT THE WELDING MACHINES	#12	2
3					1.7	1.7					4
5	#12	220V RECEPTACLE ON SOUTH WALL OF WAREHOUSE AT THE WELDING MACHINES	20	2	1.7	0.3	1	20	110V RECEPTACLES ON SOUTH WALL OF WAREHOUSE	#12	6
7					1.7	0.4	1	20	110V RECEPTACLES ON WEST WALL OF WAREHOUSE	#12	8
9					3.8	1.8					10
11	#8	TIMESAVER DISCONNECT	70	3	3.8	1.8	3	20	DUST COLLECTOR DISCONNECT	#10	12
13					3.8	1.8					14
15	#10	SANDBLASTER DISCONNECT	10	2	0.7	4.4					16
17					0.7	4.4	3	45	SAW DISCONNECT	#6	18
19	#12	110V RECEPTACLES ON WEST WALL OF WAREHOUSE	20	1	0.3	4.4					20
21	#12	110V RECEPTACLES ON SOUTH WALL OF WAREHOUSE	20	1	0.3	-	1	20	SPARE	-	22
23	#12	110V RECEPTACLES ON SOUTH WALL OF WAREHOUSE	20	1	0.5	0.3	1	20	110V RECEPTACLES ON SOUTH WALL OF WAREHOUSE	#12	24
25	-	SPACE	-	1	-	-	1	20	SPARE	-	26
27	-	SPACE	-	1	-	-	1	20	SPARE	-	28
29	-	SPACE	-	1	-	-	1	20	SPARE	-	30
31	-	SPACE	-	1	-	-	1	20	SPARE	-	32

SOLID NEUTRAL NEUTRAL WIRE (W) — TOTAL CONNECTED LOAD (KVA) = 43.6 kva — GROUND BUS GROUND WIRE (G)
AØ = 15.8 kva | BØ = 14.4 kva | CØ = 13.5 kva

PANEL SCHEDULE

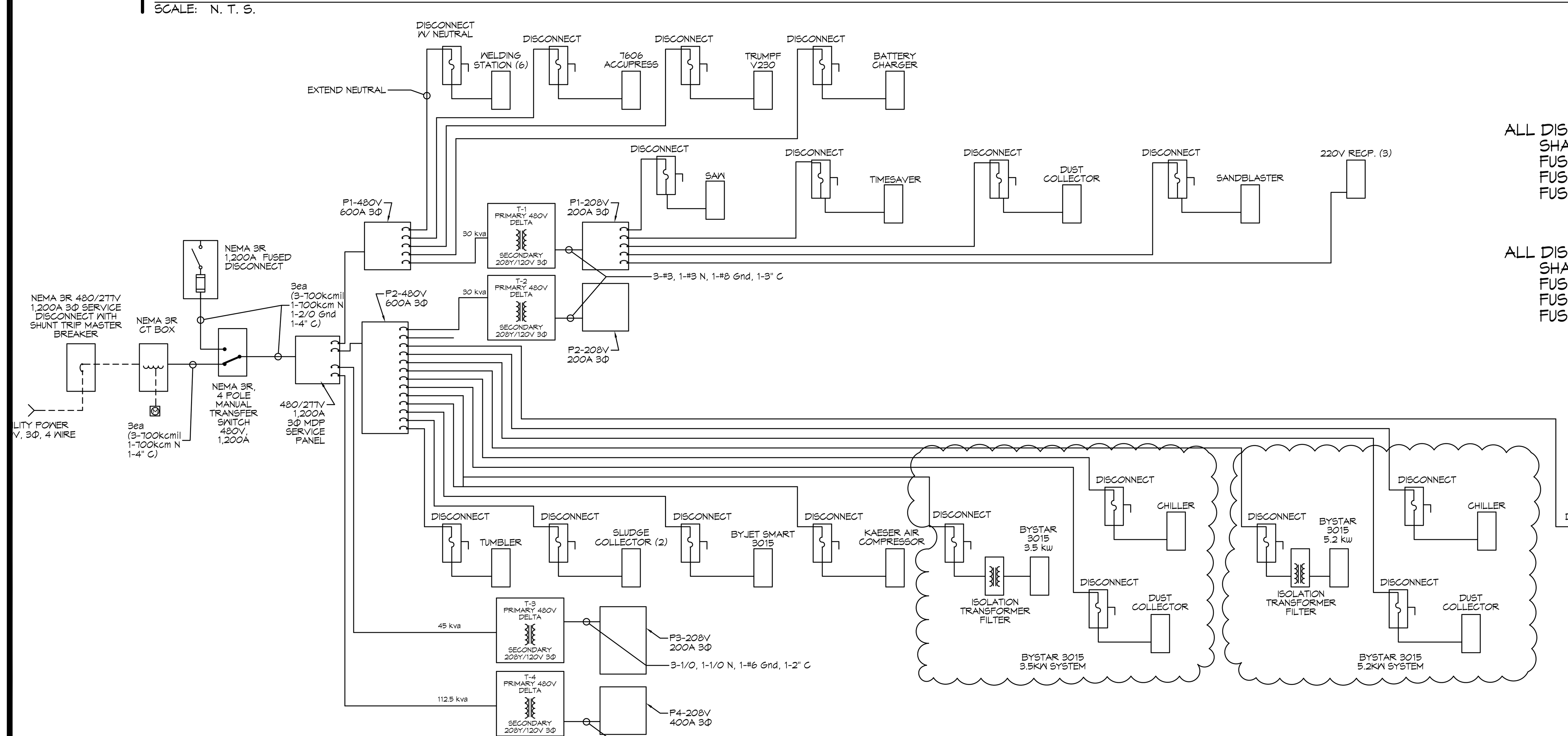
PANEL: **P2-208V (NEW)**
LOCATION: INSIDE OF NORTH WAREHOUSE WALL
FEEDER SOURCE: TRANSFORMER T-2 LINKED TO PANEL P2-480V
VOLTAGE: 120/208V, 125A, 3Ø, 4W MLO
ENCLOSURE: FLUSH MOUNTED W/ EQUIPMENT GND BAR SQ D TYPE QO PANELBOARD

CKT NO	THHN WIRE SIZE	LOAD DESCRIPTION / LOCATION	BREAKER AMP	BREAKER POLE	LOAD (KVA)	LOAD (KVA)	BREAKER POLE	BREAKER AMP	LOAD DESCRIPTION / LOCATION	THHN WIRE SIZE	CKT NO
1	#12	110V RECEPTACLES ON NORTH WALL OF WAREHOUSE (STD & GFI)	20	1	0.7	0.9	2	10	DRYER DISCONNECT	#10	2
3	#3	220V COMPRESSOR DISCONNECT	80	2	6.2	0.9					4
5					6.2	1.7	2	20	220V RECEPTACLE ON NORTH WALL OF WAREHOUSE BETWEEN THE TWO BYSTAR 3015 EQUIP.	#12	6
7	#12	TRIFECTA	20	1	1.8	1.7					8
9	-	SPARE	20	1	-	-	1	20	SPARE	-	10
11	-	SPARE	20	1	-	-	1	20	SPARE	-	12
13	#12	110V RECEPTACLES ON NORTH WALL OF WAREHOUSE (STD & GFI)	20	1	0.7	-	1	20	SPARE	-	14
15	-	SPARE	20	1	-	-	1	20	SPARE	-	16
17	-	SPARE	20	1	-	-	1	20	SPARE	-	18

SOLID NEUTRAL NEUTRAL WIRE (W) — TOTAL CONNECTED LOAD (KVA) = 20.8 kva — GROUND BUS GROUND WIRE (G)
AØ = 5.8 kva | BØ = 7.1 kva | CØ = 7.9 kva

1 CIRCUIT PANEL SCHEDULES

SCALE: N. T. S.

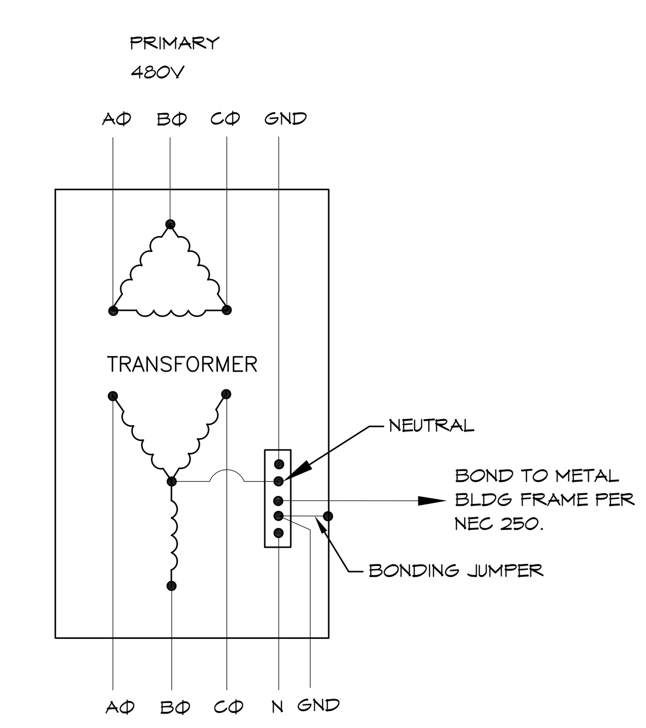


2 ELECTRICAL ONE-LINE DIAGRAM

SCALE: N. T. S.

ALL DISCONNECTS CONNECTED TO 480V PANELS SHALL BE 600VAC INDUSTRIAL GRADE AND FUSED AS RECOMMENDED BY MANUFACTURER. FUSES SHALL BE DUAL ELEMENT TIME DELAY FUSES, 200,000 AMP INTERRUPTING CAP.

ALL DISCONNECTS CONNECTED TO 208V PANELS SHALL BE 240VAC INDUSTRIAL GRADE AND FUSED AS RECOMMENDED BY MANUFACTURER. FUSES SHALL BE DUAL ELEMENT TIME DELAY FUSES, 200,000 AMP INTERRUPTING CAP.



TRANSFORMER NOTES:
TRANSFORMERS SHALL BE A 480V DELTA - 208Y/120V DRY TYPE, WITH NEMA 1 ENCLOSURE MOUNT TRANSFORMERS ABOVE POWER PANEL ON SHELF UNLESS OTHERWISE NOTED.

3 TRANSFORMER DETAIL

SCALE: N. T. S.

DAMMON ENGINEERING, INC.
LOUISIANA & MISSISSIPPI

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REVISIONS

#	DESCRIPTION	DATE

SEAL:

RENOVATIONS AND ADDITIONS FOR
ALLIANCE LASER
60207 CAMP VILLERE ROAD
SLIDELL, LA 70460

JOB No: 2298	DATE: 01-17-17
DRAWN BY: JTL/DD	CHECKED BY: CKD

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SHEET TITLE: ELECTRICAL CIRCUIT PANELS & ONE-LINE DIAGRAM

DRAWING NUMBER: E103

FILE NAME: J:\- INDUSTRIAL SITES\2298 - Alliance Laser\Drawings\Current Drawings\E103-Electrical Circuit Panels.dwg PLOT DATE & TIME: Friday, February 17, 2017 1:00:29 PM