

**30hop SOWP**  
1020 NW Pryor Road,  
Lees Summit, MO 64081  
30hop  
owner

orientation

project number 232882

scale As Noted

date 8/30/2024

sheet title	Power Plan
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sheet number

E101





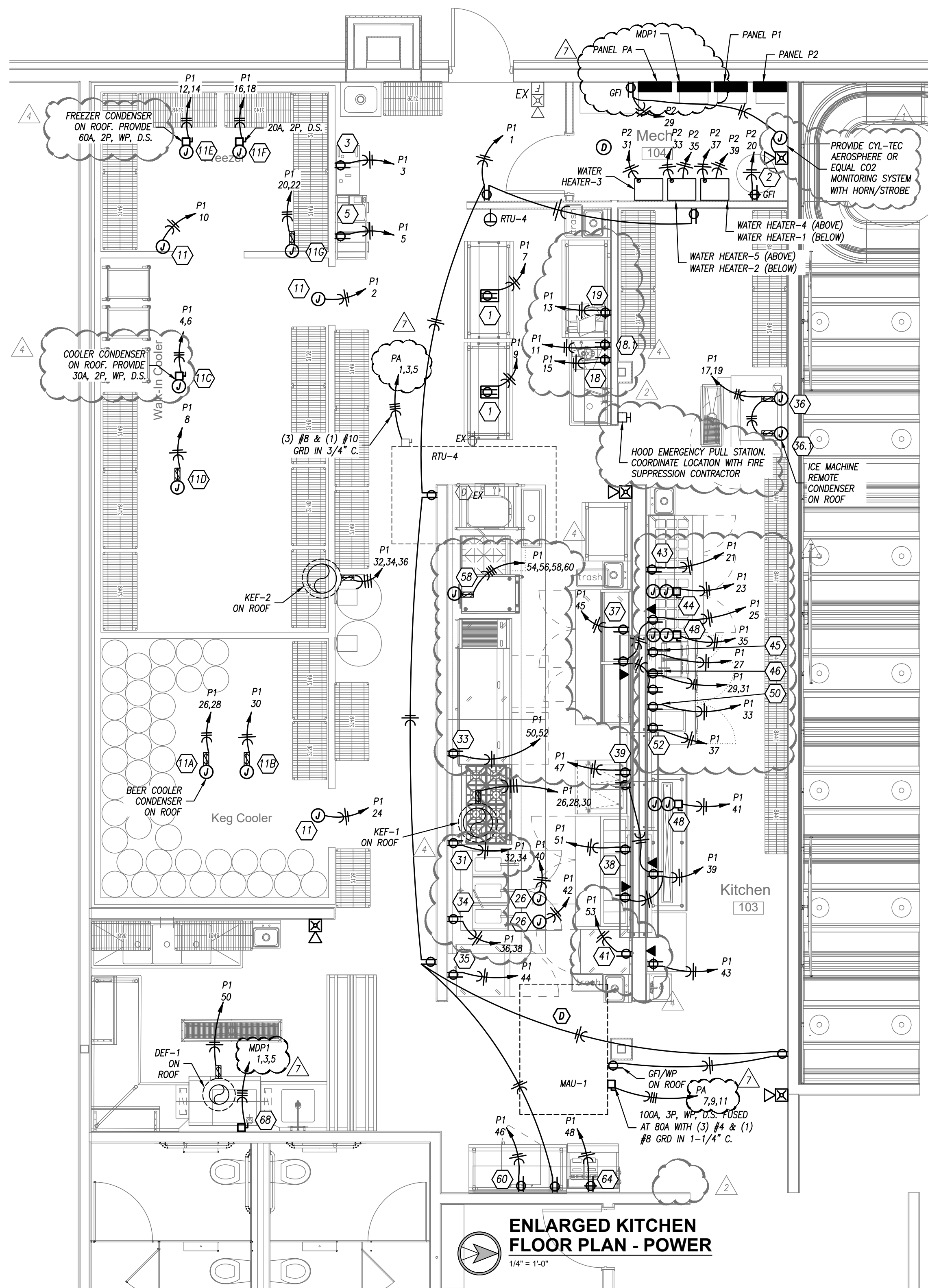
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NOTES:

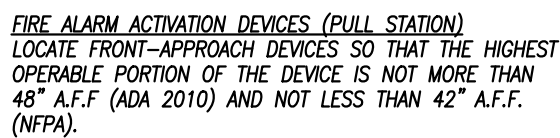
1. PROVIDE (2) JUNCTION BOXES, ONE FOR HEAT LAMP AND ONE FOR REMOTE CONTROL ENCLOSURE. PROVIDE DISCONNECT SWITCH ABOVE ACCESSIBLE CEILING, UPSTREAM OF REMOTE CONTROL AND HEAT LAMP. SEE KITCHEN EQUIPMENT DRAWINGS FOR EXACT MOUNTING HEIGHT AND MANUFACTURER'S INSTRUCTIONS FOR WIRING REQUIREMENTS.
2. PROVIDE CONNECTION TO ALL ACCESSORIES (HEAT TAPE, PRESSURE RELIEF PORT, LIGHT/THERMOMETER SWITCH, VAPOR LIGHT, ETC) PER MANUFACTURER'S INSTRUCTIONS.

REMARKS:

1. EQUIPMENT ON SCHEDULE FURNISHED BY OTHERS.
2. EQUIPMENT SUBJECT TO CHANGE, FIELD VERIFY EQUIPMENT W/ OWNER AND ARCHITECT.
3. FIELD VERIFY ELECTRICAL REQUIREMENTS FOR ALL EQUIPMENT.
4. ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
5. COORDINATE EXACT LOCATION OF EQUIPMENT WITH OWNER.

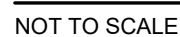






NOT TO SCALE

1. PROVIDE DIMMABLE LED DRIVER UNIVERSAL VOLTAGE.
2. PROVIDE WITH PHILIPS BW, A19 WARM GLOW LED DIMMABLE BULB.
3. PROVIDE WET LOCATION RATED FIXTURE.
4. PROVIDE COLD LOCATION RATED BALLAST.
5. PROVIDE 1 CIRCUIT SURFACE TRACK -- REFER TO PLANS FOR TRACK LENGTH AND CONFIGURATION. PROVIDE ALL NECESSARY POWER FEEDS AND ACCESSORIES FOR COMPLETE INSTALLATION TRACK AND COMPONENT FINISHES TO MATCH FIXTURE. PROVIDE EACH TRACK RUN WITH 3 AMP CURRENT LIMITER.
6. PROVIDE EMERGENCY BATTERY MINIMUM OF 1000 LUMENS FOR 90 MINUTES

NOTES LEGEND

1. PROVIDE HOA SWITCH THROUGH FRONT COVER.
2. CONTRACTOR SHALL BE CONTROLLED VIA SCENE CONTROLLER. OPEN CONTRACTS SHALL TURN ELECTRIC HEAT OFF AND CLOSED CONTACTS SHALL TURN ELECTRIC HEAT ON.

Diagram illustrating the wiring for a Room Controller (Typical) connected to a Junction Box (Not Shown on Plans for Clarity) and Light Fixture(s).

Key components and connections shown:

- JUNCTION BOX (NOT SHOWN ON PLANS FOR CLARITY):** The source of power, providing low voltage wiring to the switch(es) and sensor(s). A note refers to details for wiring of same.
- ROOM CONTROLLER (TYPICAL):** The central control unit, connected to the junction box and the light fixture(s).
- LIGHT FIXTURE(S):** The load being controlled by the room controller.
- TO OTHER ROOM CONTROLLERS (IF SHOWN ON PLANS):** A connection line leading to other room controllers.
- SECOND RELAY (IF SHOWN):** An additional component connected to the system.
- PROVIDE "HOT" CONDUCTOR WHERE FIXTURE IS SHOWN TO HAVE EM BATTERY/BALLAST (TYPICAL):** A note indicating the requirement for a hot conductor where the fixture is shown to have an electromagnetic ballast.

1. REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.
2. LIGHT FIXTURES INDICATED AS EMERGENCY FIXTURES ARE TO FUNCTION AS NIGHT LIGHTS UNLESS SPECIFICALLY SHOWN SWITCHED.
3. ALL CIRCUITING SHOWN ON THIS PLAN IS DIAGNOSTIC.
  - 3.1. ALL FIXTURES SHALL BE FED FROM JUNCTION BOXES WITH LIGHT PULLS TO EACH FIXTURE (CEPT). DUST-CHANGING OF FIXTURES IS NOT ALLOWED.
  - 3.2. SWITCH BOX LOCATIONS SHALL BE WIRED SO THAT A NEUTRAL WIRE IS AVAILABLE AT THE SWITCH BOX LOCATION, EITHER IN THE BOX OR AVAILABLE TO BE ADDED VIA RACEWAY OR AN ACCESSIBLE WALL CAVITY.
  - 3.3. SWITCHES SHALL BE INSTALLED IN THE FOLLOWING TYPES (EWNORMAL, 120/277V, ETC.) SHALL NOT BE IN A SINGLE BOX.
4. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

## NOTES LEGEND

1. PROVIDE WITH REMOTE CONTROLLER AND SERVICE DISCONNECT. CONTROLLER SHALL CONTROL MULTIPLE HEATERS ON THE SAME ZONE. SEE POWER PLANS AND CONTRACTOR SCHEDULE FOR ZONES. INSTALL PER MANUFACTURERS INSTRUCTIONS
2. CONNECT EACH HEATER VIA (2) #12 & (1) #12 GRD IN 3/4" C. TROUGH LIGHTING CONTACTOR INDICATED ON PLANS



## SINGLE-SECTION PANELBOARD SCHEDULE

PANEL DESIGNATION: <b>MDP1</b>										CIRCUIT #		MAIN LUG AMPS: 600				SCCR RATING (AIC): 35,000			
MOUNTING: SURFACE												MAIN BREAKER: 600							
LOCATION: CORRIDOR												VOLTAGE: 208/120							
DESCRIPTION		PHASE			C/B		CIRCUIT #		C/B		PHASE			DESCRIPTION					
		A	B	C	TRIP	POLE			POLE	TRIP	A	B	C						
6	DISHWASHER	13367			125	3	1	2	3	20	22880						PANELBOARD P1		
	-		13367		-	3	4	-	-	-		23080					-		
	-			13367	-	5	6	-	-	-			32440				-		
	RTU-2	6167			70	3	7	8	3	200	11640						PANELBOARD P2		
	-			6167	-	9	10	-	-	-		8600					-		
	-			6167	-	11	12	-	-	-			10870				-		
	RTU-3	4200			50	3	13	14	1	-	-						SPACE		
	-			4200	-	15	16	1	-	-		-					SPACE		
	-			4200	-	17	18	1	-	-			-				SPACE		
	SPACE	-			-	1	19	20	1	-	-						SPACE		
	SPACE	-	-		-	1	21	22	1	-	-		-				SPACE		
	SPACE	-			-	1	23	24	1	-	-						SPACE		
	TOTALS		23733	23733	23733							34520	31680	43310	TOTALS				

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	4,520	1.25	5,650
RECEPTACLES	13,900	10KVA + 50% REST	11,900
MOTORS	7,910	<i>→ LARGEST + SUM OF REMAINING</i>	8,833
AIR CONDITIONING	31,100	1.00	31,100
SPACE HEATING	800	0.00	0
HEAT PUMP	0	1.00	0
CONTINUOUS	0	1.25	0
NON-CONTINUOUS	83,180	1.00	83,180
MISC. LOADS 1	0	1.00	0

CONNECTED PHASE LOADS		
PHASE	VA	AMPS
A	58,253	485.1
B	55,413	461.4
C	67,043	558.3
TOTALS	180,710	501.6

**REMARKS:**  
1. EATON POW-R-LINE 2X OR EQUAL.  
2.  
3.  
4.  
5.

## SINGLE-SECTION PANELBOARD SCHEDULE

PANEL DESIGNATION: PA					CIRCUIT #	MAIN LUG AMPS: 225 MAIN BREAKER: 200 VOLTAGE: 208/120 PHASE/WIRE: 3Ø, 4W					SCCR RATING (AIC): 35,000			
MOUNTING: -														
LOCATION: -														
DESCRIPTION	PHASE			C/B		C/B		PHASE			DESCRIPTION			
	A	B	C	TRIP		POLE	POLE	TRIP	A	B				C
RTU-1	6167			70	3	1	2	1	-	-			SPACE	
-		6167		-	-	3	4	1	-	-			SPACE	
-			6167	-	-	5	6	1	-	-	-		SPACE	
MAU-1	7367			80	3	7	8	1	-	-			SPACE	
-		7367		-	-	9	10	1	-	-	-		SPACE	
-			7367	-	-	11	12	1	-	-	-		SPACE	
RTU-4	4200			50	3	13	14	1	-	-			SPACE	
-		4200		-	-	15	16	1	-	-	-		SPACE	
-			4200	-	-	17	18	1	-	-	-		SPACE	
SPACE	-			-	1	19	20	1	-	-			SPACE	
SPACE		-		-	1	21	22	1	-	-	-		SPACE	
SPACE			-	-	1	23	24	1	-	-	-		SPACE	
TOTALS		17733	17733	17733						0	0	0	TOTALS	

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	0	1.25	0
RECEPTACLES	0	10KVA + 50% REST	0
MOTORS	0	***LARGEST * SUM OF REST	0
AIR CONDITIONING	53,200	1.00	53,200
SPACE HEATING	0	0.00	0
HEAT PUMP	0	1.00	0
CONTINUOUS	0	1.25	0
NON-CONTINUOUS	0	1.00	0
MISC. LOADS 1	0	1.00	0

CONNECTED PHASE LOADS		
PHASE	VA	AMPS
A	17,733	147.7
B	17,733	147.7
C	17,733	147.7
TOTALS	53,200	147.7

**REMARKS:**

1. EATON POW-R-LINE 2X OR EQUAL.

2.

3.

4.

5.

## SINGLE-SECTION PANELBOARD SCHEDULE

PANEL DESIGNATION: <b>P1</b>					CIRCUIT #	MAIN LUG AMPS: 225		SCCR RATING (AIC): 35,000			
MOUNTING: SURFACE						MAIN BREAKER: M.L.O.					
LOCATION: MECH 104						VOLTAGE: 208/120					
						PHASE/WIRE: 3Ø, 4W					
DESCRIPTION		PHASE				C/B					
	A	B	C	TRIP	POLE	POLE	TRIP	A	B	C	DESCRIPTION
REC-KITCHEN-GFI	1800			20	1	1	2	1	20	1200	WALK-IN COOLER-GFI
PORTABLE OIL FILTER-GFI		1800		20	1	3	4	2	30	2670	COOLER CONDENSER
BAG-IN-BOX SYSTEM-GFI			1800	20	1	5	6	-	-	2670	-
S/S WORK TABLE-GFI	1800			20	1	7	8	1	20	1800	COOLER COIL
S/S WORK TABLE-GFI			1800	20	1	9	10	1	20	1200	FREEZER-GFI
HAND MIXER-GFI			1200	20	1	11	12	2	35	3040	FREEZER CONDENSER
FOOD SLICER-GFI	180			20	1	13	14	-	-	3040	-
FOOD PROCESSOR-GFI		1440		20	1	15	16	2	20	1800	FREEZER COIL
ICE MAKER-GFI			1450	20	2	17	18	-	-	1800	-
-	1450			-	-	19	20	2	20	1800	DRAIN LINE HEATER-GFI
MEGA TOP PREP REF-GFI		340		20	1	21	22	-	-	1800	-
HEAT LAMP-GFI			1600	20	1	23	24	1	20	1200	BEER COOLER-GFI
REC-KITCHEN-GFI	540			20	1	25	26	2	20	1940	BEER COOLER CONDENSER
REFRIG SLICER WORK TOP-GFI			500	20	1	27	28	2	20	1200	-

PANINI GRILL-GFI		1600	20	2	29	30	1	20	
	1600		-	-	31	32	1	20	
REFRIGERATED WORKTOP-GFI	240		20	1	33	34	1	20	
HEAT LAMP-GFI		2800	30	1	35	36	1	20	
FOOD WARMER-GFI	1000		20	1	37	38	1	20	
REC-KITCHEN-GFI		540	20	1	39	40	1	20	
HEAT LAMP-GFI		2800	25	1	41	42	1	20	
REC-KITCHEN-GFI	380		20	1	43	44	1	20	
PREP REFRIGERATOR-GFI		700		20	1	45	46	1	20
HOOT FOOD SERVING-GFI		1500	20	1	47	48	1	20	
SPARE-GFI	-				49	50	1	20	
SPARE-GFI		700	25	1	51	52	1	20	

	1800	BEER COOLER COIL
		REFRIGERATED EQUIP STAND-GFI
		SHUNT TRIP
	1440	BATTERY FRYER-GFI
		SHUNT TRIP
1800		EXHAUST HOOD

		UNDERCOUNTER
280		UNDERCOUNTER
	290	SODA
		REFRIGERATED EQUIPMENT
-		
	3430	MULTI

SPACE		.		.	1	57	58	.	.		3430		.
SPARE-GFI		.	.	.	1	59	60	1	.		.		SHUNT TRIP
TOTALS	8010	8160	14970							14870	14920	17470	TOTALS

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	0	1.25	0
RECEPTACLES	2,520	10KVA + 50% REST	2,520
MOTORS	0	<i>* LARGEST SUM OF REQ.</i>	0
AIR CONDITIONING	0	1.00	0
SPACE HEATING	0	0.00	0
HEAT PUMP	0	1.00	0
CONTINUOUS	0	1.25	0
NON-CONTINUOUS	36,660	1.00	36,660
MISC. LOADS 1	0	1.00	0

CONNECTED PHASE LOADS		
PHASE	VA	AMPS
A	22,880	190.5
B	23,080	192.2
C	32,440	270.1
TOTALS	78,400	217.6

**REMARKS:**  
1. EATON POW-R-LINE 2X OR EQUAL.

## SINGLE-SECTION PANELBOARD SCHEDULE

PANEL DESIGNATION: <b>P2</b>						CIRCUIT #		MAIN LUG AMPS: 225		SCCR RATING (AIC): 35,000		
MOUNTING: SURFACE LOCATION: MECH 104								MAIN BREAKER: M.L.O.				
								VOLTAGE: 208/120				
								PHASE/WIRE: 3Ø, 4W				
DESCRIPTION	PHASE			C/B		C/B		PHASE			DESCRIPTION	
	A	B	C	TRIP	POLE	POLE	TRIP	A	B	C		
REC-RESTAURANT	720			20	1	1	2	1	20	1000		LIGHT UP SIGN
REC-RESTAURANT		540		20	1	3	4	1	20		1000	LIGHT UP SIGN
REC-RESTAURANT			540	20	1	5	6	1	20			LIGHT UP SIGN
REC-RESTAURANT	540			20	1	7	8	1	20	1150		LIGHTING-KITCHEN/OFFICE
REC-RESTAURANT		540		20	1	9	10	1	20	750		LIGHTING-HOST/RR
REC-HOST			540	20	1	11	12	1	20		540	LIGHTING-RESTAURANT
REC-OFFICE	720			20	1	13	14	1	20	1160		LIGHTING-BAR
REC-RESTROOMS		540		20	1	15	16	1	20		320	LIGHTING-PATIO
REC-CLOSET			720	20	1	17	18	1	20		1500	PATIO CEILING FANS
REC-BAR - GFI	900			20	1	19	20	1	20	1800		BULK CO2 TANK
REC-BAR - GFI		720		20	1	21	22	1	15		700	EF-1
REC-BAR - GFI			1080	20	1	23	24	1	15		520	DEF-1
UNDERCOUNTER DISHWASHER-GFI	420			20	1	25	26	3	20	1000		KEF-1

REC-MECH			360	20	1	29	30	-	-
WATER HEATER-1	200			20	1	31	32	3	20
WATER HEATER-2		200		20	1	33	34	-	-
WATER HEATER-3			200	20	1	35	36	-	-
WATER HEATER-4	200			20	1	37	38	1	20
WATER HEATER-5		200		20	1	39	40	1	20
REFRIGERATED CABINET-GFI			840	20	1	41	42	1	15
SPARE	-			20	1	43	44	1	20
SPARE	-			20	1	45	46	1	20
SPARE		-		20	1	47	48	1	20
SPARE	-			20	1	49	50	1	-

	1000	-
		KEF-2
1230		-
	1230	-
		LIGHTING INVERTER
500		FIRE PIT

.		
	.	
.		
	.	

SPACE		.		.	1	57	58	1	.		.		SPACE	
SPACE			.	.	1	59	60	1	.			.	SPACE	
TOTALS				3700	3100	4280					7940	5500	6590	TOTALS

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	4,520	1.25	5,650
RECEPTACLES	11,460	10KVA + 50% REST	10,730
MOTORS	7,910	$FL \times 1.25 \times \text{SUM OF DFL}$	8,833
AIR CONDITIONING	0	0.00	0
SPACE HEATING	800	1.00	800
HEAT PUMP	0	1.00	0
CONTINUOUS	0	1.25	0
NON-CONTINUOUS	6,420	1.00	6,420
MISC. LOADS 1	0	1.00	0

CONNECTED PHASE LOADS		
PHASE	VA	AMPS
A	11,640	96.9
B	8,600	71.6
C	10,870	90.5
TOTALS	31,110	86.4

**REMARKS:**  
1. EATON POW-R-LINE 2X OR EQUAL