



POWER RISER DIAGRAM GENERAL NOTES

- HVAC CIRCUIT BREAKERS SHALL BE "HACR" TYPE WHERE REQUIRED BY EQUIPMENT NAMEPLATE PER N.E.C.
- PROPER CLEARANCE MUST BE MAINTAINED ABOUT ELECTRICAL EQUIPMENT PER N.E.C. FIELD VERIFY EXACT MOUNTING SPACE AVAILABLE IN ELECTRICAL ROOM/AREA PRIOR TO INSTALLATION OF ELECTRICAL EQUIPMENT.
- INSPECT AND TEST ALL EXISTING EQUIPMENT THAT WILL BE USED/REUSED. REPORT TO G.C. REGARDING ANY REQUIRED MAINTENANCE OR REPAIR ITEMS.
- INSTALL A MINIMUM OF 1/2" HIGH BLACK ENGRAVED LETTERING ON ALL ELECTRICAL ENCLOSURE COVER PLATE, INDICATING PANELBOARD DESIGNATION, RELAY CONTACTOR, AND LIGHTING CONTACTOR WITHIN ENCLOSURE. INSIDE EACH ELECTRICAL ENCLOSURE PROVIDE A MINIMUM OF 1/2" HIGH PERMANENT PEN INDICATING EQUIPMENT DESIGNATION.

NOTE TO ELECTRICAL CONTRACTOR

UPON DELIVERY THE ELECTRICAL CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE FOR THE EQUIPMENT AND ACCESSORIES, INCLUDING THEIR UNLOADING, STORAGE, INSTALLATION AND START UP ON THE PROJECT.

LEGEND:

--- DENOTES EXISTING WORK TO REMAIN

— DENOTES NEW WORK

NEW STORE

GAP INC.
CORPORATE ARCHITECTURE
1 HARRISON STREET
SAN FRANCISCO, CA 94105

STORE NO.: **7641**

STORE NAME:
PORTLAND

STORE LOCATION:
152 MIDDLE STREET
PORTLAND, ME 04101

PROJ. I.D.: 0000053356

PROTOTYPE DATE: 09/4/15
PROTOTYPE VERSION 4.1

POWER RISER DIAGRAM AND NOTES

EQUIPMENT WIRING SCHEDULE

SYMBOL	ITEM	VOLTAGE	HP	KVA	AMPS	FEEDER	TYPE OF CONN.	NEMA RATING	DISCON. SWITCH	FUSES	REMARKS
1	INCOMING SERVICE PANEL A	120V/208V 3PH			200.0	2"C.-4 # 3/0 & 1 # 6 GROUND	DIRECT	1			
2	PANEL A	120V/208V 3PH			197.4	2"C.-4 # 3/0 & 1 # 6 GROUND	200A MCB	1			
3	INCOMING SERVICE PANEL B & C	120V/208V 3PH			200.0	2"C.-4 # 3/0 & 1 # 6 GROUND & (1) # 6 IG	DIRECT	1			COORDINATE NEW SERVICE WITH LANDLORD AND UTILITY COMPANY
4	PANEL B	120V/208V 3PH			117.6	2"C.-4 # 3/0 & 1 # 6 GROUND & (1) # 6 IG	200A MCB	1			
5	PANEL C	120V/208V 3PH			32.0	1-1/4"C.-4 # 3 & 1 # 8 GROUND & (1) # 8 IG	MLO	1			
6	ACCU-1	208V 3PH			45.1	3/4"C.-3 # 6 & 1 # 10 GROUND	DISCON. SWITCH	3R	60A-3P	NON-F	
7	ACCU-2	208V 3PH			21.0	3/4"C.-3 # 10 & 1 # 10 GROUND	DISCON. SWITCH	3R	30A-3P	NON-F	
8	AHU-1	208V 3PH			7.8	3/4"C.-3 # 10 & 1 # 10 GROUND	DISCON. SWITCH	1	30A-3P	NON-F	
9	AHU-2	208V 1PH			10.0	3/4"C.-2 # 12 & 1 # 12 GROUND	TOGGLE SWITCH	1	20A-1P	NON-F	
10	DH-1	208V 3PH	35.0			1-1/2"C.-3 # 1 & 1 # 6 GROUND	DISCON. SWITCH	1	125A-3P	NON-F	
11	DH-2	208V 3PH	22.5			1"C.-3 # 3 & 1 # 8 GROUND	DISCON. SWITCH	1	100A-3P	NON-F	
12	UH-1	208V 3PH			5.0	3/4"C.-3 # 10 & 1 # 10 GROUND	DISCON. SWITCH	1	30A-3P	NON-F	
13	HAC-1	208V 3PH			12.0	3/4"C.-2 # 12 & 1 # 12 GROUND	TOGGLE SWITCH	1	20A-1P	NON-F	

REMARKS:

ELECTRICAL LOAD SUMMARY - 120/208V SYSTEM PANEL A

LOAD DESCRIPTION	ACTUAL CONNECTED KVA	DEMAND FACTOR	ACTUAL DEMAND KVA	NEC CONNECTED KVA	DEMAND FACTOR	NEC DEMAND KVA
MOTORS	4.891	100% + 25% OF LARGEST MOTOR**	5.6	4.891	100% + 25% OF LARGEST MOTOR**	5.591
AIR CONDITIONING *	57.501	100% + 25% OF LARGEST MOTOR**	59.101	57.501	0%	0.000
ELECTRIC HEAT *	66.150	100%	66.2	66.150	100%	66.150
	128.5	TOTAL KVA	130.8		TOTAL KVA	71.741

NOTES:
* USE GREATER LOAD OF THE TWO CATEGORIES
** 125% OF THE LARGEST MOTOR OF COMPRESSOR IN SYSTEM (APPLIED ONLY ON ONE UNIT)

N.E.C. DEMAND KVA
SYSTEM VOLTAGE x 1.732 = MINIMUM FEEDER AMPERAGE

$\frac{71.74}{208 \times 1.732} = 199$ AMPS

ELECTRICAL SERVICE @ 120/208V-3P-4W
200 AMPS

ELECTRICAL LOAD SUMMARY - 120/208V SYSTEM PANEL B

LOAD DESCRIPTION	ACTUAL CONNECTED KVA	DEMAND FACTOR	ACTUAL DEMAND KVA	NEC CONNECTED KVA	DEMAND FACTOR	NEC DEMAND KVA
TRACK LIGHTING	1.992	125%	2.5	170 FT	150 W/2 FT	12.750
LIGHTING	3.450	125%	4.3	3,450	125%	4.313
SHOW WINDOW LIGHTING ***	1.260	125%	1.6	26 FT	200 W/FT ****	5.200
SIGNAGE	1.200	125%	1.5	1,200	125%	1.500
RECEPTACLES	15.500	1ST 10KVA @ 100% REMAINING @ 50%	10.0	15.500	1ST 10KVA @ 100% REMAINING @ 50%	12.750
MOTORS	0.876	100% + 25% OF LARGEST MOTOR**	6.0	0.876	100% + 25% OF LARGEST MOTOR**	6.000
AIR CONDITIONING *	0.000	100% + 25% OF LARGEST MOTOR**	1.800	0.000	0%	0.000
ELECTRIC HEAT *	16.500	100%	16.5	16.500	100%	16.500
WATER HEATER	3.000	100%	3.0	3.000	100%	3.000
	43.8	TOTAL KVA	48.2		TOTAL KVA	62.013

NOTES:
* USE GREATER LOAD OF THE TWO CATEGORIES
** 125% OF THE LARGEST MOTOR OF COMPRESSOR IN SYSTEM (APPLIED ONLY ON ONE UNIT)
*** ACTUAL SHOW WINDOW LIGHTING IS INCLUDED IN TRACK LIGHTING AND LIGHTING SECTIONS
**** 200VA/FT REQUIREMENT MINUS ACTUAL INSTALLED SHOW WINDOW LIGHTING

N.E.C. DEMAND KVA
SYSTEM VOLTAGE x 1.732 = MINIMUM FEEDER AMPERAGE

$\frac{62.01}{208 \times 1.732} = 172$ AMPS

ELECTRICAL SERVICE @ 120/208V-3P-4W
200 AMPS

DICKERSON ENGINEERING, INC.
Professional Electrical Engineers
8101 NORTH MILWAUKEE AVENUE
NILES, ILLINOIS 60714
TEL (847) 966-0290

PROFESSIONAL STAMP:

STATE OF MAINE
RICK A. SABATELLO
8243
LICENSED PROFESSIONAL ENGINEER

SIGNATURE: *[Signature]*

DATE: 05/20/2016
EXPIRATION DATE: 12/31/2017

ARCHITECT INFO:

Chipman Design
Architecture Group P.C.
2105 S. River Road, Suite 400
Portland, ME 04106
Tel: 603.753.5555

ISSUE TYPE:
100% CD CHECKSET 5/20/16
PERMIT / BID
LL APPROVAL

DRAWN BY: PR
A&E JOB NO.: 16-5433

SHEET TITLE:
POWER RISER
& SCHEDULES

SHEET NUMBER:
E9-0