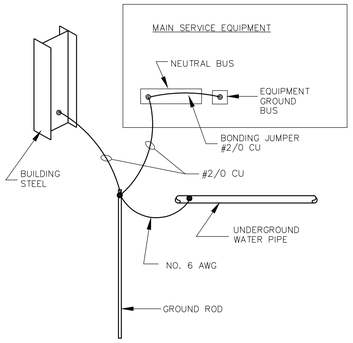


ELECTRICAL SYSTEM GROUNDING AND BONDING

1. THE GROUNDING ELECTRODE CONDUCTOR AT THE MAIN SERVICE EQUIPMENT SHALL BE SIZED IN ACCORDANCE WITH NEC 250.66 AND AS SHOWN ON THE ADJACENT SKETCH.

2. THE MAIN BONDING JUMPER AT THE MAIN SERVICE EQUIPMENT SHALL BE SIZED IN ACCORDANCE WITH NEC 250.92 AND AS SHOWN ON THE ADJACENT SKETCH.

3. EQUIPMENT GROUNDING CONDUCTORS FOR FEEDERS AND BRANCH CIRCUITS MAY BE A COPPER OR CORROSION RESISTANT CONDUCTOR, RIGID METAL CONDUIT, INTERMEDIATE METAL CONDUIT, ELECTRICAL METALLIC TUBING, OR THE METALLIC SHEATH OR COMBINED METALLIC SHEATH AND GROUNDING CONDUCTORS OF TYPE MC CABLE.

4. WHERE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED IT SHALL BE SIZED IN ACCORDANCE WITH NEC 250.122.

ELECTRICAL SYSTEM GROUNDING AND BONDING

NOT TO SCALE

MSB

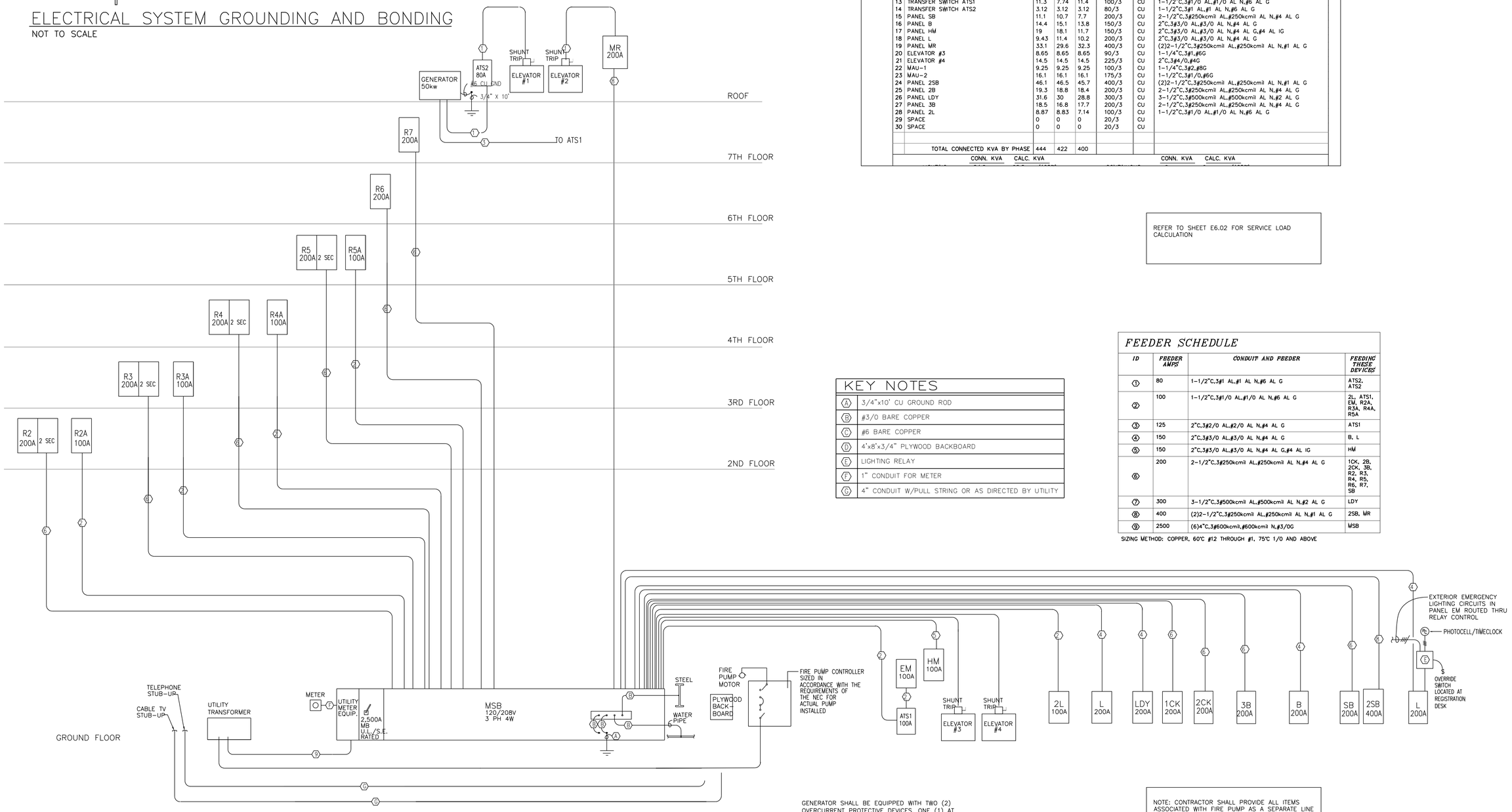
ROOM
MOUNTING FLOOR
FED FROM UTILITY
NOTE VERIFY FAULT CURRENT WITH CMP

VOLTS 208Y/120V 3P 4W
BUS AMPS 2500
NEUTRAL 100%

AIC 100,000
MAIN BKR 2500
LUGS STANDARD

CKT #	CIRCUIT DESCRIPTION	KVA LOAD A	KVA LOAD B	KVA LOAD C	BREAKER TRIP/POLES	COND.	FEEDER RACEWAY AND CONDUCTORS
1	PANEL R2	20.3	20.3	18.9	200/3	CU	2-1/2"C,3#250kcmil AL,#250kcmil AL N,#4 AL G
2	PANEL R2A	6.2	4.78	3.45	100/3	CU	1-1/2"C,3#1/0 AL,#1/0 AL N,#6 AL G
3	PANEL R3	22.6	20.1	20.2	200/3	CU	2-1/2"C,3#250kcmil AL,#250kcmil AL N,#4 AL G
4	PANEL R3A	4.55	3.4	2.83	100/3	CU	1-1/2"C,3#1/0 AL,#1/0 AL N,#6 AL G
5	PANEL R4	22.1	20.1	19.7	200/3	CU	2-1/2"C,3#250kcmil AL,#250kcmil AL N,#4 AL G
6	PANEL R4A	3.83	3	2.34	100/3	CU	1-1/2"C,3#1/0 AL,#1/0 AL N,#6 AL G
7	PANEL R5	26	25.1	19.7	200/3	CU	2-1/2"C,3#250kcmil AL,#250kcmil AL N,#4 AL G
8	PANEL R5A	3.79	1.95	1.67	100/3	CU	1-1/2"C,3#1/0 AL,#1/0 AL N,#6 AL G
9	PANEL R6	18	16.9	16	200/3	CU	2-1/2"C,3#250kcmil AL,#250kcmil AL N,#4 AL G
10	PANEL R7	12.5	11.3	9.34	200/3	CU	2-1/2"C,3#250kcmil AL,#250kcmil AL N,#4 AL G
11	PANEL 1CK	16.4	17.7	16.2	200/3	CU	2-1/2"C,3#250kcmil AL,#250kcmil AL N,#4 AL G
12	PANEL 2CK	13.2	12.5	13.5	200/3	CU	2-1/2"C,3#250kcmil AL,#250kcmil AL N,#4 AL G
13	TRANSFER SWITCH ATS1	11.3	7.74	11.4	100/3	CU	1-1/2"C,3#1/0 AL,#1/0 AL N,#6 AL G
14	TRANSFER SWITCH ATS2	3.12	3.12	3.12	80/3	CU	1-1/2"C,3#1 AL,#1 AL N,#6 AL G
15	PANEL SB	11.1	10.7	7.7	200/3	CU	2-1/2"C,3#250kcmil AL,#250kcmil AL N,#4 AL G
16	PANEL B	14.4	15.1	13.8	150/3	CU	2"C,3#3/0 AL,#3/0 AL N,#4 AL G
17	PANEL HM	19	18.1	11.7	150/3	CU	2"C,3#3/0 AL,#3/0 AL N,#4 AL G,#4 AL IG
18	PANEL L	9.43	11.4	10.2	200/3	CU	2"C,3#3/0 AL,#3/0 AL N,#4 AL G
19	PANEL MR	33.1	29.6	32.3	400/3	CU	(2)2-1/2"C,3#250kcmil AL,#250kcmil AL N,#1 AL G
20	ELEVATOR #3	8.65	8.65	8.65	90/3	CU	1-1/4"C,3#1,#6G
21	ELEVATOR #4	14.5	14.5	14.5	225/3	CU	2"C,3#4/0,#4G
22	MAU-1	9.25	9.25	9.25	100/3	CU	1-1/4"C,3#2,#8G
23	MAU-2	16.1	16.1	16.1	175/3	CU	1-1/2"C,3#1/0,#6G
24	PANEL 2SB	46.1	46.5	45.7	400/3	CU	(2)2-1/2"C,3#250kcmil AL,#250kcmil AL N,#1 AL G
25	PANEL 2B	19.3	18.8	18.4	200/3	CU	2-1/2"C,3#250kcmil AL,#250kcmil AL N,#4 AL G
26	PANEL LDY	31.6	30	28.8	300/3	CU	3-1/2"C,3#500kcmil AL,#500kcmil AL N,#2 AL G
27	PANEL 3B	18.5	16.8	17.7	200/3	CU	2-1/2"C,3#250kcmil AL,#250kcmil AL N,#4 AL G
28	PANEL 2L	8.87	8.83	7.14	100/3	CU	1-1/2"C,3#1/0 AL,#1/0 AL N,#6 AL G
29	SPACE	0	0	0	20/3	CU	
30	SPACE	0	0	0	20/3	CU	
	TOTAL CONNECTED KVA BY PHASE	444	422	400			
	CONN. KVA / CALC. KVA						CONN. KVA / CALC. KVA

REFER TO SHEET E6.02 FOR SERVICE LOAD CALCULATION



KEY NOTES

A	3/4"x10' CU GROUND ROD
B	#3/0 BARE COPPER
C	#6 BARE COPPER
D	4'x8'x3/4" PLYWOOD BACKBOARD
E	LIGHTING RELAY
F	1" CONDUIT FOR METER
G	4" CONDUIT W/PULL STRING OR AS DIRECTED BY UTILITY

FEEDER SCHEDULE

ID	FEEDER AMPS	CONDUIT AND FEEDER	FEEDING THESE DEVICES
1	80	1-1/2"C,3#1 AL,#1 AL N,#6 AL G	ATS2, ATS2
2	100	1-1/2"C,3#1/0 AL,#1/0 AL N,#6 AL G	2L, ATS1, EM, R2A, R3A, R4A, R5A
3	125	2"C,3#2/0 AL,#2/0 AL N,#4 AL G	ATS1
4	150	2"C,3#3/0 AL,#3/0 AL N,#4 AL G	B, L
5	150	2"C,3#3/0 AL,#3/0 AL N,#4 AL G,#4 AL IG	HM
6	200	2-1/2"C,3#250kcmil AL,#250kcmil AL N,#4 AL G	1CK, 2B, 2CK, 3B, R2, R3, R4, R5, R6, R7, SB
7	300	3-1/2"C,3#500kcmil AL,#500kcmil AL N,#2 AL G	LDY
8	400	(2)2-1/2"C,3#250kcmil AL,#250kcmil AL N,#1 AL G	2SB, MR
9	2500	(6)4"C,3#600kcmil,#600kcmil N,#3/0G	MSB

SIZING METHOD: COPPER, 60°C #12 THROUGH #1, 75°C 1/0 AND ABOVE

GENERATOR SHALL BE EQUIPPED WITH TWO (2) OVERCURRENT PROTECTIVE DEVICES, ONE (1) AT 100 AMPERES TO FEED ATS-1, AND ONE (1) AT 80 AMPERES TO FEED ATS-2

NOTE: CONTRACTOR SHALL PROVIDE ALL ITEMS ASSOCIATED WITH FIRE PUMP AS A SEPARATE LINE ITEM. THIS SHALL INCLUDE PUMP, CONTROLLER, JOCKEY PUMP, ALL FEEDS, AND DISCONNECTING MEANS, AND ALL RELATED FIRE ALARM DEVICES.

1 | PANELBOARD SCHEDULES
SCALE: NTS

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 01/22/14

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Revisions:

1	13_10-14	Issue for Bid & Marriott Revw
2	13_10-21	Addendum #2
3	13_10-31	Addendum #3

Scale: As indicated

Date: 23 OCT 13

RISER DIAGRAM

E6.01