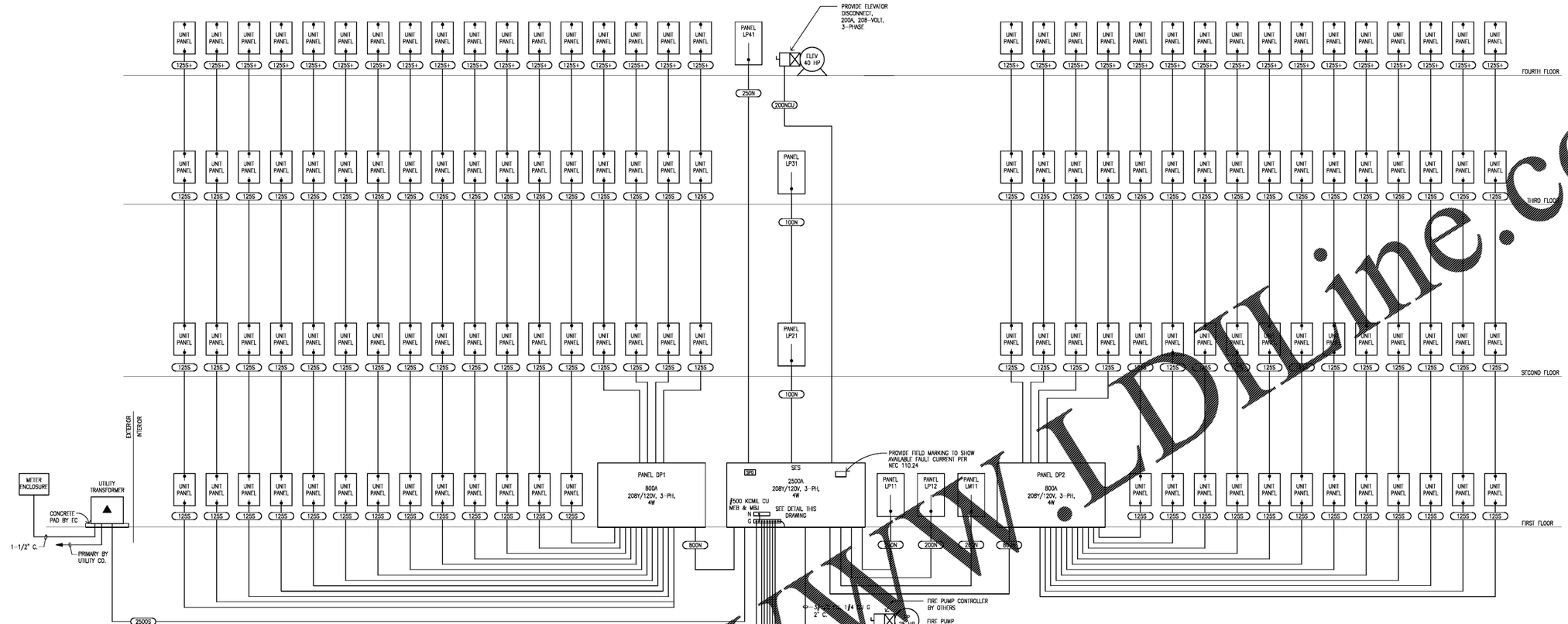


GENERAL NOTES

ELECTRIC UTILITY COMPANY:

REFER TO UTILITY SERVICE RULES AND REGULATIONS GUIDE FOR ADDITIONAL REQUIREMENTS.

FAULT CURRENT NOTE

SHORT CIRCUIT CURRENTS (Isc) INDICATED ARE BASED ON ENGINEERING CALCULATIONS USING APPROXIMATE FEEDER LENGTHS AND COPPER CONDUCTOR. SHORT CIRCUIT CURRENTS SHALL BE RECALCULATED USING ACTUAL INSTALLED DATA FOR CIRCUIT LENGTHS, CONDUCTOR TYPE, AND CONDUIT TYPE. EQUIPMENT PROVIDED SHALL BE PROPERLY RATED FOR THE AVAILABLE FAULT CURRENT AT THE EQUIPMENT.

CONTRACTOR SHALL PROVIDE A TYPE WRITTEN LABEL FOR EACH PANEL INDICATING THE MAXIMUM AVAILABLE FAULT CURRENT AND DATE OF CALCULATION IN ACCORDANCE WITH NEC 110.24 (2014).

EQUIPMENT SHALL BE PROPERLY RATED TO WITHSTAND THE AVAILABLE FAULT CURRENT.

GUESTROOM PANEL FEEDER SCHEDULE

FEEDER	AMPACITY	CONDUIT QTY	CONDUIT SIZE	CONDUCTORS (IN EACH CONDUIT) - ALUMINUM PHASE	NEUTRAL	GROUND	MAX LENGTH
125S	125	1	2"	2#2/0	1#2/0	1#2/0	170-FT
125S+	125	1	2"	2#3/0	1#3/0	1#3/0	208-FT

NOTE: TO MAINTAIN A VOLTAGE DROP OF 3% OR LESS, FEEDERS SHALL NOT EXCEED THE MAXIMUM FEEDER LENGTH INDICATED. CONTRACTOR SHALL FIELD VERIFY LENGTH AND PROVIDE FEEDER AS REQUIRED. FEEDER LENGTH SHALL BE THE OVERALL LENGTH TO THE LAST PANEL SERVED BY THE FEEDER.
NOTE: WHERE ALLOWED BY LOCAL JURISDICTION, SER CABLE MAY BE USED IN LIEU OF CONDUIT WIRING METHOD. SER CABLE SHALL BE PROPERLY RATED FOR AMPACITY AND VOLTAGE DROP.

FEEDER SCHEDULE

FEEDER	AMPACITY	CONDUIT QTY	CONDUIT SIZE	CONDUCTORS (IN EACH CONDUIT) - ALUMINUM UNO PHASE	NEUTRAL	GROUND
100N	100	1	1-1/2"	3#1	#1	#6
200NCU	200	1	2-1/2"	3#3/0 COPPER	#3/0 CU	#6 CU
200N	200	1	2-1/2"	[illegible]	#300KCMIL	#4
225N	225	1	2-1/2"	3#300KCMIL	#300KCMIL	#4
250N	250	1	3"	3#350KCMIL	#350KCMIL	#1
400N	400	2	2-1/2"	6#250KCMIL	#250KCMIL	#1
800N	800	3	3-1/2"	9#400KCMIL	#400KCMIL	#3/0
2500S	2500	6	4"	[illegible] KCMIL	#600 KCMIL	---

NOTE 7 SETS OF (2)600KCMIL CU MAY BE SUBSTITUTED IN LIEU OF ALUMINUM
COORDINATE WITH REQUIREMENTS WITH UTILITY COMPANY
NOTE: CONDUCTOR SIZES ARE BASED ON ALUMINUM. COPPER CONDUCTORS ARE ACCEPTABLE. CONTRACTOR SHALL BE RESPONSIBLE FOR TYPE AND QUANTITY FEEDERS AND CONDUIT TO COMPLY WITH CODE

FAULT CURRENT CALCULATIONS

TARGET	SOURCE (Start Point)	Isc/SOURCE (Amps)	VOLTAGE	SETS	CONDUCTORS SIZE	TYPE	LENGTH		C VALUE	"E" FACTOR	"M" MULTIPLIER	Isc (Amps) Target	Voltage Drop
PANEL DP1	MSB	65,000	208	3	#500 KCMIL	CU	20	STEEL	15,082	0.199	0.834	54,234	0.2%
PANEL DP2	MSB	65,000	208	3	#500 KCMIL	CU	20	STEEL	15,082	0.199	0.834	54,234	0.2%
PANEL LP11	MSB	65,000	208	1	#3/0	CU	10	STEEL	15,082	0.359	0.736	47,834	0.1%
PANEL LP12	MSB	65,000	208	1	#3/0	CU	8	STEEL	15,082	0.287	0.777	50,501	0.1%
PANEL LM11	MSB	65,000	208	1	#4/0	CU	20	STEEL	15,082	0.718	0.582	37,840	0.3%
PANEL LP21	MSB	65,000	208	1	#4/0	CU	90	STEEL	15,082	3.230	0.236	15,367	1.2%
PANEL LP31	PANEL LP21	15,367	208	1	#4/0	CU	10	STEEL	15,082	0.065	0.922	14,165	1.3%
PANEL LP41	MSB	65,000	208	3	#300	CU	110	STEEL	25,988	2.318	0.301	19,562	1.5%
UNIT PANEL	DP1	54,234	208	1	#8	CU	40	STEEL	8,925	2.024	0.331	17,935	0.6%
UNIT PANEL	DP1	54,234	208	1	#10	CU	75	STEEL	8,925	3.542	0.220	11,941	1.1%
UNIT PANEL	DP1	54,234	208	1	#10	CU	100	STEEL	8,925	5.060	0.165	8,950	1.6%
UNIT PANEL	DP1	54,234	208	1	#10	CU	130	STEEL	8,925	6.578	0.132	7,157	2.0%
UNIT PANEL	DP1	54,234	208	1	#10	CU	150	STEEL	8,925	7.590	0.116	6,314	2.3%
UNIT PANEL	DP2	54,234	208	1	#2/0	CU	195	STEEL	14,755	8.189	0.109	5,903	2.9%

NOTE: GUESTROOM UNIT PANELS SHALL BE SERIES RATED WITH UPSTREAM DEVICE. WHERE FEEDER TO GUESTROOM PANELS IS LESS THAN 60-FEET, THE AVAILABLE FAULT CURRENT AT THE PANEL IS LESS THAN 10,000 AMPS. WHERE THE FEEDER TO GUESTROOM PANELS IS 60-FEET OR MORE, THE CALCULATED AVAILABLE FAULT CURRENT IS LESS THAN 10,000 A

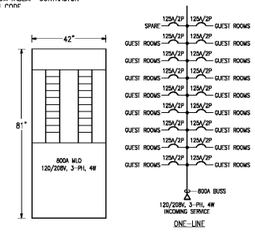
NOTE: FEEDER LENGTHS INDICATED ARE APPROXIMATED FOR THE PURPOSE OF THESE CALCULATIONS. THE CONTRACTOR SHALL NOT USE THESE LENGTHS FOR ORDERING. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLETE FEEDER LENGTHS REQUIRED FOR INSTALLATION.

SHORT CIRCUIT RATING NOTE:
ALL OVERCURRENT PROTECTIVE DEVICES WITHIN A PANEL OR SWITCHBOARD SHALL HAVE THE SAME SHORT CIRCUIT RATING AS THE RATING OF THE PANEL OR SWITCHBOARD.

SES LOAD CALCULATION

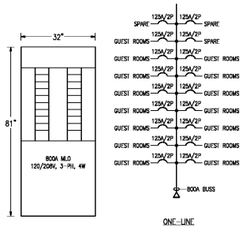
LOAD DESCRIPTION	LOAD (KVA)
PANEL LP11	56.9
PANEL LP12	42.1
PANEL LM11	32.0
PANEL LP21/LP31	20.0
PANEL LP41	71.1
DOAS-1	33.1
ELEVATORS	108.0
SUB TOTAL	363.2
GUEST ROOM LOAD	312.5
TOTAL	675.7
AMPS AT 208V/3-PH	1,876

1 ONE-LINE RISER DIAGRAM
E601 SCALE: NONE



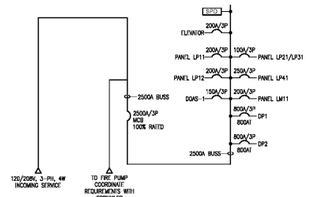
SPECIFICATIONS:
1. PANELBOARD CONSTRUCTION, NEMA 1 ENCLOSURE.
2. COPPER OR TIN-PLATED ALUMINUM BUSSING.
3. COPPER GROUND BAR.
4. 65,000 A/C RATING.

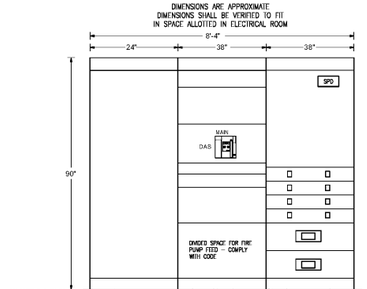
4 PANEL DP1 DETAIL
E601 SCALE: NONE



SPECIFICATIONS:
1. PANELBOARD CONSTRUCTION, NEMA 1 ENCLOSURE.
2. COPPER OR TIN-PLATED ALUMINUM BUSSING.
3. COPPER GROUND BAR.
4. 65,000 A/C RATING.

3 PANEL DP2 DETAIL
E601 SCALE: NONE





SPECIFICATIONS:
1. SWITCHBOARD CONSTRUCTION, NEMA 1 ENCLOSURE, SERVICE ENTRANCE RATED.
2. COPPER OR TIN-PLATED ALUMINUM BUSSING.
3. COPPER GROUND BAR.
4. 65,000 A/C RATING.
5. FINAL CIRCUIT BREAKER ARRANGEMENT SHALL BE AS DETERMINED BY MANUFACTURER.
6. BASIS OF DESIGN: SIEMENS
7. SURGE PROTECTIVE DEVICE:
8. SWITCHGEAR SHALL COMPLY WITH REQUIREMENTS FOR ARC FLASH MITIGATION PER NEC.

2 MAIN SWITCHBOARD MSB DETAIL
E601 SCALE: NONE

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11/1/18

ONE-LINE RISER DIAGRAM

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