

PRELIMINARY  
NOT FOR  
CONSTRUCTION

Park Ave. Apartments Preliminary Estimated House Electrical Service Load								
LOAD:	LIGHTS	RECEPT	HEAT	KITCHEN	EQUIP	MOTORS	MISC	LARGEST MOTOR
House Loads (8985sf @ 25w/sf)							225,000	
Elevator (40hp)							41000	
Fire Pump (40hp)							41000	
<b>SUBTOTAL</b>	0	0	0	0	0	0	307,000	0
X-FACTOR	1	1 + .5	1	1	1	1	1	0
<b>CODE LOAD:</b>	0	0	0	0	0	0	307,000	0

  

<b>CONN LOAD:</b>	307	KVA
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<b>VOLTS:</b>	208	3ph
<b>TOTAL CALC:</b>	307	KVA
<b>CALC AMPS:</b>	852	AMPS

11/16/2020

Park Ave. Apartments Preliminary Residential Electrical Service Load												
UNIT TYPE:	QTY PER FLOOR	TOTAL	AREA (SF)	LIG/RECEPT (3VA / SF)	SM APPL (1500VA X 2)	COOKING (CONNECTED)	MICRO/HOOD (CONNECTED)	DISHWASHER (CONNECTED)	ELECT DRYER (CONNECTED)	WATER HEATER (CONNECTED)	DISPOSAL (CONNECTED)	LARGEST OF: AC/HEATING (CONNECTED)
	Studio											
Level 1	2	2	325	975	3000	11600	1500	0	0	0	0	3000
Level 2	8	8	325	975	3000	11600	1500	0	0	0	0	3000
Level 3	9	9	325	975	3000	11600	1500	0	0	0	0	3000
Level 4	9	9	325	975	3000	11600	1500	0	0	0	0	3000
Level 5	9	9	325	975	3000	11600	1500	0	0	0	0	3000
Level 6	9	9	325	975	3000	11600	1500	0	0	0	0	3000
Level 7	9	9	325	975	3000	11600	1500	0	0	0	0	3000
Level 8	9	9	325	975	3000	11600	1500	0	0	0	0	3000
Level 9	9	9	325	975	3000	11600	1500	0	0	0	0	3000
Level 10	9	9	325	975	3000	11600	1500	0	0	0	0	3000
Level 11	9	9	325	975	3000	11600	1500	0	0	0	0	3000
<b>TOTALS:</b>	91	91	29575	88725	273000	1055600	136500	0	0	0	0	273000

  

VOLTS: 208 3ph  
TOTAL CONNECTED: 1827 KVA  
DEMAND FACTOR: 0.23 Based on Total Number of Residential Units = 63 & Over (See N.E.C. Article: 220.84)  
TOTAL CALCULATED: 420 KVA  
CALCULATED AMPS: 1167 AMPS

NOTE:

**DWELLING UNIT LOAD CALCULATION**

Project: Park Ave Apartments  
Unit Type: Studio  
Area: 325 square feet(average)

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF	975 VA
Small Appliance load (2 circuits at 1500VA each)	3,000 VA
Laundry Load (1 ckt at 1500VA)	1,500 VA
Range	11,600 VA
Other Cooking Appliance Load (Microwave Oven)	1,500 VA
Dishwasher Load	0 VA
Electric Dryer Load	0 VA
Electric Water Heater Load	0 VA
Disposal load	900 VA
Other motor loads	0 VA
<b>Total "General Loads"</b>	<b>17,975 VA</b>

First 10 kVA of "general loads" at 100% = 10,000 VA  
Remainder of "general loads" at 40% = 3,190 VA  
**Net "general load" = 13,190 VA**

Largest of: 3,000 VA of electric space heating (less than 4) at 65%	1,950 VA
-or- VA of electric space heating (4 or more) at 40%	0 VA
-or- VA of air conditioning/cooling/heat pumps at 100%	0 VA

**TOTAL LOAD = 15,140 VA**

For 120/208-volt, 3-wire, single-phase service or feeder,  
15,140 VA / 208 volts = 65 Amps

Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

**MFA CIRCUIT DIRECTORY** 05-Oct-20

Loadcenter Name LC-STUDIO (TYPICAL)	mounting		location			
	RECESSED		bus & main			
120/208 voltage	phase	100A MLO	(SCCR: 22k)			
service	a/p	no.	L1	L2	a/p	service
LIGHTS-KITCHEN/LIVING	20/1(A)	1	*	2	20/1(A)	APPLIANCE CIRCUIT
LTS & RECEPT - BATH	20/1	3	*	4	20/1(A)	APPLIANCE CIRCUIT
LTS & RECEPT - BEDROOM	20/1(A)	5	*	6	20/1	REFRIGERATOR
RECEPT - LIVING (OPTIONAL)	20/1(A)	7	*	8	20/1	MICRO/HOOD
SMART PANEL	20/1	9	*	10	50/2	RANGE
AC PORT (OPTIONAL)	20/1	11	*	12	*	*
HEAT	20/2	13	*	14	20/1	DISPOSAL (OPTIONAL)
*	*	15	*	16	20/1	SPARE
SPARE	20/1	17	*	18	20/1	SPARE
BLANK	-----	19	*	20	-----	BLANK
BLANK	-----	21	*	22	-----	BLANK
BLANK	-----	23	*	24	-----	BLANK
BLANK	-----	25	*	26	-----	BLANK
BLANK	-----	27	*	28	-----	BLANK
BLANK	-----	29	*	30	-----	BLANK

NOTES:  
1. (A) DENOTES: ARC-FAULT INTERRUPTER CIRCUIT BREAKER. INSTALL PER NEC 210.12  
2. LOADS FOR THIS PANEL ARE INDICATED ON THE "DWELLING UNIT LOAD CALCULATION".  
3. BREAKER & WIRE SHALL BE SIZED FOR EQUIPMENT INSTALLED.  
4. (G) DENOTES GFCI RATED BREAKER.

Date:	11-06-2020
Proj No:	10105
Drawn By:	DMT
Chkd By:	RLC
DSGN By:	DMT
Acad File:	

**SW PARK APARTMENTS**  
**RYSTADT**  
**2057 SW PARK AVE.**  
 PORTLAND OREGON  
**ELECTRICAL LOAD SUMMARY & SCHEDULES**



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SHEET  
**E1.12**  
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