

## LOAD CALCULATIONS

### TYP UNIT PANEL

LGST UNIT=989 S.F.

LIGHTING	989 SF @ 3VA	=	2,967 VA
APPLIANCE	@ 3,000 VA	=	3,000 VA
LAUNDRY	@ 1,500 VA	=	1,500 VA
RANGE		=	9,600 VA
DRYER		=	5,000 VA
D/W	@ 1,200 VA	=	1,200 VA
DISPOSAL	@ 750 VA	=	750 VA
MICROWAVE	@ 1,500 VA	=	1,500 VA

TOTAL	25,517 VA		
1ST 10,000	-10,000 VA		10,000 VA
	15,517 VA @ 40% =		6,206 VA
HEAT	3,200 VA @ 65% =		2,080 VA
			18,286 VA/208 = 87.9A @ 120/208V 1φ

**NOTE**

INSTALL 100A 1φ LOAD CENTERS IN ALL UNITS

### COMMERCIAL LOAD

2,829 SQ FT RETAIL SPACE

	<u>POWER</u>	<u>NEUTRAL</u>
HVAC	= 50 KVA	
LIGHTING @ 1.5VA PER SQ FT	= 4.24 KVA	4.24 KVA
GENERAL OUTLETS	= 7 KVA	7 KVA
KITCHEN	= 70 KVA	50 KVA
MISC	= 20 KVA	20 KVA
<b>TOTAL COMMERCIAL LOADS</b>	<b>= 151.24 KVA @ 208Y/120V=364.5 3φ</b>	<b>81.24 KVA</b>

**NOTE**

INSTALL 600A 208Y/120V 3φ SERVICE

### HOUSE LOAD

	<u>POWER</u>	<u>NEUTRAL</u>
LIGHTING	= 18 KVA	18 KVA
GENERAL OUTLETS	= 5 KVA	5 KVA
MISC.	= 5 KVA	5 KVA
ELEVATOR	= 28.8 KVA	
LGST MOTOR	= 7.2 KVA	
CAR CHARGING	= 72 KVA	
HVAC	= 40 KVA	
<b>TOTAL HOUSE LOAD</b>	<b>= 176 KVA @ 208Y/120V=488 A 3φ</b>	<b>28 KVA</b>

## TOTAL BUILDING LOAD

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TOTAL COMMERCIAL LOAD	=	151,240 VA	}	327,240VA FOR MSB-1=909A
TOTAL HOUSE LOAD	=	176,000 VA		
TOTAL RESIDENTIAL LOAD	=	336,118 VA		
<b>TOTAL BUILDING LOAD</b>	<b>=</b>	<b>663,358 VA @ 208Y/120V 3φ=1,843A</b>		

## CAR CHARGING CALCULATION

### CAR CHARGING CALC

52 PARKING SPACES 40A @ 208V	=	8,320 VA	EACH
3 @ 8,320 VA	=	24,960 VA	
12 @ 8,320 VA @ 75%	=	74,880 VA	
<b>TOTAL VC REQUIRED W/O VC MANAGEMENT</b>	<b>=</b>	<b>99,840 VA @ 208Y/120V = 277A</b>	

**NOTE**

INSTALL 72KVA VC SYSTEM

## CUSTOMER REQUIREMENTS

DOCUMENT CHECKLIST:

- VOLTAGE
- AMPERAGE
- TOTAL LOAD
- LOAD SUMMARY
- MOTOR LOAD DETAIL (IF APPLICABLE)
- HYDRAULIC MOTOR ELEVATOR SPECIFICATIONS (IF APPLICABLE)
- STARTING CURRENT OF SOFT START DEVICES ON ELECTRICAL MOTORS LARGER THAN 15HP (AMPERES OR %) (IF APPLICABLE)

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### Seattle City Light

Distribution Engineering

**APPROVED FOR SEATTLE CITY LIGHT**

PROJECT ENGINEER	SHEET CONTENTS
QUARTERSECTION NUMBER(S)	SECTION / TOWNSHIP / RANGE

PROJECT TYPE	LOAD CALCULATIONS
PROJECT NAME	
PROJECT ADDRESS	

SHEET	1 OF 1
WORK ORDER NO.-TASK	
CITY	
DRAWING NO.	REV. NO.
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