

BURNSIDE APARTMENTS																			
RESIDENTIAL LOAD SUMMARY 'MC1'																			
UNIT TYPE:	QTY PER FLOOR						TOTAL	AREA (SF)	LTG/RECEPT (3VA / SF)	SM APPL (1500VA X2)	LAUNDRY (1500VA)	COOKING (Gas Range) (CONNECTED)	MICROWAVE (CONNECTED)	DISHWASHER (CONNECTED)	ELECT DRYER (CONNECTED)	WATER HEATER (CONNECTED)	DISPOSAL (CONNECTED)	MOTORS (CONNECTED)	LARGEST OF: AC/HEATING (CONNECTED)
	LW 1	LW 2	LW 3	LW 4	LW 5	LW 6													
1 Bedroom					18	17	35	600	1800	3000	1500	8500	1500	1200	5400	0	900	0	3500
2 Bedroom					4	3	7	1000	3000	3000	1500	8500	1500	1200	5400	0	900	0	5000
3 Bedroom					1	1	2	1400	4200	3000	1500	8500	1500	1200	5400	0	900	0	6000
Townhouse							0	1100	3300	3000	1500	8500	1500	1200	5400	0	900	0	5000
TOTALS:	0	0	0	0	23	21	44	30800	92400	132000	66000	374000	66000	52800	237600	0	39600	0	169500
VOLTS:								208 3ph											
TOTAL CONNECTED:								1230 KVA											
DEMAND FACTOR:								0.27 Based on Total Number of Residential Units = 43-45 (See N.E.C. Article: 220.84 )											
TOTAL CALCULATED:								332 KVA											
CALCULATED AMPS:								922 AMPS											
NOTE:																			

BURNSIDE APARTMENTS																			
RESIDENTIAL LOAD SUMMARY 'MC2'																			
UNIT TYPE:	QTY PER FLOOR						TOTAL	AREA (SF)	LTG/RECEPT (3VA / SF)	SM APPL (1500VA X2)	LAUNDRY (1500VA)	COOKING (Gas Range) (CONNECTED)	MICROWAVE (CONNECTED)	DISHWASHER (CONNECTED)	ELECT DRYER (CONNECTED)	WATER HEATER (CONNECTED)	DISPOSAL (CONNECTED)	MOTORS (CONNECTED)	LARGEST OF: AC/HEATING (CONNECTED)
	LW 1	LW 2	LW 3	LW 4	LW 5	LW 6													
1 Bedroom			21	22			43	600	1800	3000	1500	8500	1500	1200	5400	0	900	0	3500
2 Bedroom			4	6			10	1000	3000	3000	1500	8500	1500	1200	5400	0	900	0	5000
3 Bedroom			1	1			2	1400	4200	3000	1500	8500	1500	1200	5400	0	900	0	6000
Townhouse							0	1100	3300	3000	1500	8500	1500	1200	5400	0	900	0	5000
TOTALS:	0	0	26	29	0	0	55	38600	115800	165000	82500	467500	82500	66000	297000	0	49500	0	212500
VOLTS:								208 3ph											
TOTAL CONNECTED:								1538 KVA											
DEMAND FACTOR:								0.25 Based on Total Number of Residential Units = 51-55 (See N.E.C. Article: 220.84 )											
TOTAL CALCULATED:								385 KVA											
CALCULATED AMPS:								1068 AMPS											
NOTE:																			

BURNSIDE APARTMENTS																			
RESIDENTIAL LOAD SUMMARY 'MC3'																			
UNIT TYPE:	QTY PER FLOOR						TOTAL	AREA (SF)	LTG/RECEPT	SM APPL	LAUNDRY	COOKING (Gas Range)	MICROWAVE	DISHWASHER	ELECT DRYER	WATER HEATER	DISPOSAL	MOTORS	LARGEST OF: AC/HEATING
	LW 1	LW 2	LW 3	LW 4	LW 5	LW 6			(3VA / SF)	(1500VA X2)	(1500VA)	(CONNECTED)	(CONNECTED)	(CONNECTED)	(CONNECTED)	(CONNECTED)	(CONNECTED)	(CONNECTED)	(CONNECTED)
1 Bedroom	4	4	1	0	0	0	9	600	1800	3000	1500	8500	1500	1200	5400	0	900	0	3500
2 Bedroom	1	2	2	0	0	0	5	1000	3000	3000	1500	8500	1500	1200	5400	0	900	0	5000
3 Bedroom	0	0	0	0	0	0	0	1400	4200	3000	1500	8500	1500	1200	5400	0	900	0	6000
Townhouse (Loft)	6	0	0	0	0	0	6	1100	3300	3000	1500	8500	1500	1200	5400	0	900	0	5000
TOTALS:	11	6	3	0	0	0	20	17000	51000	60000	30000	170000	30000	24000	108000	0	18000	0	86500
VOLTS: 208 3ph																			
TOTAL CONNECTED: 578 KVA																			
DEMAND FACTOR: 0.38 Based on Total Number of Residential Units = 18-20 (See N.E.C. Article: 220.84 )																			
TOTAL CALCULATED: 219 KVA																			
CALCULATED AMPS: 609 AMPS																			
NOTE:																			

DWELLING UNIT LOAD CALCULATION

Project: Burnside Mixed Use

Unit Type: 1Bedroom

Area: 665 square feet(average)

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF

Small Appliance load (2 ckt at 1500VA each)

Laundry Load (1 ckt at 1500VA)

Range (GAS)

Other Cooking Appliance Load (Microwave Oven)

Dishwasher Load

Electric Dryer Load

Electric Water Heater Load

Disposal load

Other motor loads

Total "General Loads"

First 10 kVA of "general loads" at 100%

Remainder of "general loads" at 40%

Net "general load"

Largest of:

0 VA of electric space heating (less than 4) at 65%

0 VA of electric space heating (4 or more) at 40%

5,000 VA of air conditioning/cooling/heat pumps at 100%

21,995 VA

3,000 VA

8,500 VA

1,500 VA

1,200 VA

5,400 VA

0 VA

0 VA

900 VA

0 VA

21,995 VA

10,000 VA

5,598 VA

15,598 VA

0 VA

0 VA

5,000 VA

TOTAL LOAD

20,598 VA

For 120/208-volt, 3-wire, single-phase service or feeder,

20,598 VA / 208 volts =

99 Amps

Therefore, this dwelling unit shall be permitted to be served by a 125 amp service.

DWELLING UNIT LOAD CALCULATION

Project: Burnside Mixed Use

Unit Type: 2Bedroom

Area: 985 square feet(average)

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF

Small Appliance load (2 ckt at 1500VA each)

Laundry Load (1 ckt at 1500VA)

Range (GAS)

Other Cooking Appliance Load (Microwave Oven)

Dishwasher Load

Electric Dryer Load

Electric Water Heater Load

Disposal load

Other motor loads

Total "General Loads"

First 10 kVA of "general loads" at 100%

Remainder of "general loads" at 40%

Net "general load"

Largest of:

0 VA of electric space heating (less than 4) at 65%

0 VA of electric space heating (4 or more) at 40%

5,500 VA of air conditioning/cooling/heat pumps at 100%

2,955 VA

3,000 VA

8,500 VA

1,500 VA

1,200 VA

5,400 VA

0 VA

0 VA

900 VA

0 VA

24,955 VA

10,000 VA

5,982 VA

15,982 VA

0 VA

0 VA

5,500 VA

TOTAL LOAD

21,482 VA

For 120/208-volt, 4-wire, single-phase service or feeder,

21,482 VA / 208 volts =

103 Amps

Therefore, this dwelling unit shall be permitted to be served by a 125 amp service.

DWELLING UNIT LOAD CALCULATION

Project: Burnside Mixed Use

Unit Type: 3 Bedroom

Area: 1,400 square feet(average)

Minimum Size Feeder (NEC 220.40):

General lighting load at 3 VA / SF

Small Appliance load (2 ckt at 1500VA each)

Laundry Load (1 ckt at 1500VA)

Range (GAS)

Other Cooking Appliance Load (Microwave Oven)

Dishwasher Load

Electric Dryer Load

Electric Water Heater Load

Disposal load

Other motor loads

Total "General Loads"

First 10 kVA of "general loads" at 100%

Remainder of "general loads" at 40%

Net "general load"

Largest of:

0 VA of electric space heating (less than 4) at 65%

0 VA of electric space heating (4 or more) at 40%

11,000 VA of air conditioning/cooling/heat pumps at 100%

4,200 VA

3,000 VA

8,500 VA

1,500 VA

1,200 VA

5,400 VA

0 VA

0 VA

900 VA

0 VA

26,200 VA

10,000 VA

6,480 VA

16,480 VA

0 VA

0 VA

11,000 VA

TOTAL LOAD

27,480 VA

For 120/208-volt, 4-wire, single-phase service or feeder,

27,480 VA / 208 volts =

132 Amps

Therefore, this dwelling unit shall be permitted to be served by a 150 amp service.

MFA CIRCUIT DIRECTORY										13-Oct-20
Loadcenter Name LC-1BR (TYPICAL)	mounting				location					
	RECESSED									
	voltage		phase 1		bus & main		voltage			
	208/120		100A	MLO	L1	L2	(SCCR: 22K)			
service	a/p	no.	L1	L2	no.	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	20/1(A)	7	*	8	20/1	MICRO/HOOD				
SPARE	20/1(A)	9	*	10	20/1	RANGE (GAS)				
SPARE	20/1(A)	11	*	12	20/1	SPARE				
WASHER	20/1(G)	13	*	14	20/1	DISHWASHER (WHERE USED)				
DRYER	40/2	15	*	16	20/1	DISPOSAL				
	*	17	*	18	20/2	HEAT				
WATER METER	20/1	19	*	20						
DRYER BOOSTER (OPT)	20/1	21	*	22	20/2	HEAT				
SMART PANEL	20/1	23	*	24	*	*				
BLANK	-----	25	*	26	20/1	SPARE				
BLANK	-----	27	*	28	-----	BLANK				
BLANK	-----	29	*	30	-----	BLANK				
NOTES:										
(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 INSTALLATION.										
(4) (G) DENOTES GFCI RATED BREAKER.										