MULTIPLE FAMILY CALCULATION

MKE & ASSOCIATES, INC.

METER CTR	MSB2						
LINE TO LINE VOLTAGE, PHASE			208 V		3 Ø		
SYSTEM VOLTAGE:	360V						
TOTAL NUMBER OF DWELLING UNITS			118 UNITS				
DEMAND FACTOR:	0.23						
FEEDER LOADS							
(1) LIGHTING AND APPLIANCE LOAD							
UNIT TYPE	STUDIO	466 SQ FT (*3VA/SQ FT)	x	24 UNITS	=	33,552	VA
UNIT TYPE	1 BR	754 SQ FT (*3VA/SQ FT)	x	27 UNITS	=	61,074	VA
UNIT TYPE	1 BR LOFT	775 SQ FT (*3VA/SQ FT)	x	52 UNITS	=	120,900	VA
UNIT TYPE	2 BR	1,283 SQ FT (*3VA/SQ FT)	x	15 UNITS	=	57,735	VA
(2) KITCHEN APPLIANCE CIRCUITS		118 UNITS	x	3,000 VA	=	354,000	VA
(3) LAUNDRY CIRCUIT IF APPLICABLE		118 UNITS	x	1,500 VA	=	177,000	VA
(4) WATER HEATER		118 UNITS	x	0 VA	=	0	VA
(5) DISPOSAL		118 UNITS	x	750 VA	=	88,500	VA
(6) DISHWASHER		118 UNITS	x	1,000 VA	=	118,000	VA
(7) MICROWAVE		118 UNITS	x	1,000 VA	=	118,000	VA
(8) RANGE		118 UNITS	x	8,200 VA	=	967,600	VA
(9) DRYER		118 UNITS	x	5,000 VA	=	590,000	VA
(10) ELECTRIC HEATING AND AC (ENTER LARGEST LOAD)							
UNIT TYPE	STUDIO	1,768 VA	x	24 UNITS	=	42,432	VA
UNIT TYPE	1 BR	2,933 VA	x	27 UNITS	=	79,191	VA
UNIT TYPE	1 BR LOFT	4,056 VA	x	52 UNITS	=	210,912	VA
UNIT TYPE	2 BR	4,056 VA	x	15 UNITS	=	60,840	VA
NET COMPUTED LOAD						3,079,736	VA
CODE DEMAND (NET COMPUTED LOAD * DEMAND FACTOR)						**708,339**	**VA**
						1,968	**A**

MULTIPLE FAMILY CALCULATION

MKE & ASSOCIATES, INC.

METER CTR	MC-03						
LINE TO LINE VOLTAGE, PHASE			208 V		3 Ø		
SYSTEM VOLTAGE:	360V						
TOTAL NUMBER OF DWELLING UNITS			64 UNITS				
DEMAND FACTOR:	0.23						
FEEDER LOADS							
(1) LIGHTING AND APPLIANCE LOAD							
UNIT TYPE	STUDIO	484 SQ FT (*3VA/SQ FT)	x	13 UNITS	=	18,876	VA
UNIT TYPE	1 BR	871 SQ FT (*3VA/SQ FT)	x	16 UNITS	=	41,808	VA
UNIT TYPE	1 BR LOFT	775 SQ FT (*3VA/SQ FT)	x	27 UNITS	=	62,775	VA
UNIT TYPE	2 BR	1,283 SQ FT (*3VA/SQ FT)	x	8 UNITS	=	30,792	VA
(2) KITCHEN APPLIANCE CIRCUITS		64 UNITS	x	3,000 VA	=	192,000	VA
(3) LAUNDRY CIRCUIT IF APPLICABLE		64 UNITS	x	1,500 VA	=	96,000	VA
(4) WATER HEATER		64 UNITS	x	0 VA	=	0	VA
(5) DISPOSAL		64 UNITS	x	750 VA	=	48,000	VA
(6) DISHWASHER		64 UNITS	x	1,200 VA	=	76,800	VA
(7) MICROWAVE		64 UNITS	x	1,200 VA	=	76,800	VA
(8) RANGE		64 UNITS	x	8,200 VA	=	524,800	VA
(9) DRYER		64 UNITS	x	5,000 VA	=	320,000	VA
(10) ELECTRIC HEATING AND AC (ENTER LARGEST LOAD)							
UNIT TYPE	STUDIO	1,768 VA	x	13 UNITS	=	22,984	VA
UNIT TYPE	1 BR	2,933 VA	x	16 UNITS	=	46,928	VA
UNIT TYPE	1 BR LOFT	4,056 VA	x	27 UNITS	=	109,512	VA
UNIT TYPE	2 BR	4,056 VA	x	8 UNITS	=	32,448	VA
NET COMPUTED LOAD						1,700,523	VA
CODE DEMAND (NET COMPUTED LOAD * DEMAND FACTOR)						**391,120**	**VA**
						1,086	**A**

MULTIPLE FAMILY CALCULATION

MKE & ASSOCIATES, INC.

METER CTR	MC-06						
LINE TO LINE VOLTAGE, PHASE			208 V		3 Ø		
SYSTEM VOLTAGE:	360V						
TOTAL NUMBER OF DWELLING UNITS			60 UNITS				
DEMAND FACTOR:	0.24						
FEEDER LOADS							
(1) LIGHTING AND APPLIANCE LOAD							
UNIT TYPE	STUDIO	484 SQ FT (*3VA/SQ FT)	x	12 UNITS	=	17,424	VA
UNIT TYPE	1 BR	871 SQ FT (*3VA/SQ FT)	x	14 UNITS	=	36,582	VA
UNIT TYPE	1 BR LOFT	775 SQ FT (*3VA/SQ FT)	x	26 UNITS	=	60,450	VA
UNIT TYPE	2 BR	1,283 SQ FT (*3VA/SQ FT)	x	8 UNITS	=	30,792	VA
(2) KITCHEN APPLIANCE CIRCUITS		60 UNITS	x	3,000 VA	=	180,000	VA
(3) LAUNDRY CIRCUIT IF APPLICABLE		60 UNITS	x	1,500 VA	=	90,000	VA
(4) WATER HEATER		60 UNITS	x	0 VA	=	0	VA
(5) DISPOSAL		60 UNITS	x	750 VA	=	45,000	VA
(6) DISHWASHER		60 UNITS	x	1,200 VA	=	72,000	VA
(7) MICROWAVE		60 UNITS	x	1,200 VA	=	72,000	VA
(8) RANGE		60 UNITS	x	8,200 VA	=	492,000	VA
(9) DRYER		60 UNITS	x	5,000 VA	=	300,000	VA
(10) ELECTRIC HEATING AND AC (ENTER LARGEST LOAD)							
UNIT TYPE	STUDIO	1,768 VA	x	12 UNITS	=	21,216	VA
UNIT TYPE	1 BR	2,933 VA	x	14 UNITS	=	41,062	VA
UNIT TYPE	1 BR LOFT	4,056 VA	x	26 UNITS	=	105,456	VA
UNIT TYPE	2 BR	4,056 VA	x	8 UNITS	=	32,448	VA
NET COMPUTED LOAD						1,596,430	VA
CODE DEMAND (NET COMPUTED LOAD * DEMAND FACTOR)						**383,143**	**VA**
						1,064	**A**

MULTIPLE FAMILY CALCULATION

MKE & ASSOCIATES, INC.

METER CTR	MC-08						
LINE TO LINE VOLTAGE, PHASE			208 V		3 Ø		
SYSTEM VOLTAGE:	360V						
TOTAL NUMBER OF DWELLING UNITS			58 UNITS				
DEMAND FACTOR:	0.24						
FEEDER LOADS							
(1) LIGHTING AND APPLIANCE LOAD							
UNIT TYPE	STUDIO	484 SQ FT (*3VA/SQ FT)	x	12 UNITS	=	17,424	VA
UNIT TYPE	1 BR	871 SQ FT (*3VA/SQ FT)	x	13 UNITS	=	33,969	VA
UNIT TYPE	1 BR LOFT	775 SQ FT (*3VA/SQ FT)	x	26 UNITS	=	60,450	VA
UNIT TYPE	2 BR	1,283 SQ FT (*3VA/SQ FT)	x	7 UNITS	=	26,943	VA
(2) KITCHEN APPLIANCE CIRCUITS		58 UNITS	x	3,000 VA	=	174,000	VA
(3) LAUNDRY CIRCUIT IF APPLICABLE		58 UNITS	x	1,500 VA	=	87,000	VA
(4) WATER HEATER		58 UNITS	x	0 VA	=	0	VA
(5) DISPOSAL		58 UNITS	x	750 VA	=	43,500	VA
(6) DISHWASHER		58 UNITS	x	1,200 VA	=	69,600	VA
(7) MICROWAVE		58 UNITS	x	1,200 VA	=	69,600	VA
(8) RANGE		58 UNITS	x	8,200 VA	=	475,600	VA
(9) DRYER		58 UNITS	x	5,000 VA	=	290,000	VA
(10) ELECTRIC HEATING AND AC (ENTER LARGEST LOAD)							
UNIT TYPE	STUDIO	1,768 VA	x	12 UNITS	=	21,216	VA
UNIT TYPE	1 BR	2,933 VA	x	13 UNITS	=	38,129	VA
UNIT TYPE	1 BR LOFT	4,056 VA	x	26 UNITS	=	105,456	VA
UNIT TYPE	2 BR	4,056 VA	x	7 UNITS	=	28,392	VA
NET COMPUTED LOAD						1,541,279	VA
CODE DEMAND (NET COMPUTED LOAD * DEMAND FACTOR)						**369,907**	**VA**
						1,028	**A**

10/31/2019 10:36:08 AM

3

Branch Panel

PANEL: 2EM2
FED BY: ATS-EM
LOC: GENERATOR 116

MKE & ASSOCIATES, INC.

MOUNTING: SURFACE
BUS/MAIN 100 FTL

VOLTS 120/208 | **PHASE** 3 | **WIRE** 4

C	DESCRIPTION	A/P	No.	A	B	C	A	B	C	No.	A/P	DESCRIPTION	C
1	L-ELECT E001	20/1	1	155			0			2	20/3	TVSS	5
1	L-ELEVATOR PIT	20/1	3		280			0		4	--	--	--
1	L-ELEV. EQUIP. 230	20/1	5			45			0	6	--	--	--
1	L-PARKING 112 (NORTH)	20/1	7	1036			674			8	20/1	L-EXTERIOR CANOPIES	1
1	L-PARKING 112 (SOUTH)	20/1	9		883			200		10	20/1	DAS PANEL - FIRE OPERATIONS 111B	5
1	L-MAIL 108 / LOBBY 110 / FIRE 111B / EXIT 113	20/1	11			686			200	12	20/1	FA PANEL - FIRE OPERATIONS 111B	5
1	L-LOBBY 100 / OPEN LEASING 101	20/1	13	1156			200			14	20/1	FA PWR PANEL - FIRE OPERATIONS 111B	5
			15					100		16	20/1	FAN CONTROL PANEL - FIRE OPERATIONS 111B	5
1	L-UTILITY U200 / CORR 200	20/1	17			534			100	18	20/1	ELEV STATUS PANEL - FIRE OPERATIONS 111B	5
1	L-BIKE STORAGE 204	20/1	19	1047			100			20	20/1	GEN ANNUCIATOR PANEL - FIRE OPERATIONS 111B	5
1	L-GENERATOR 100	20/1	21		217			200		22	20/1	TWO WAY COMM PANEL - FIRE OPERATIONS 111B	5
1	L-AMENITY 210	20/1	23			583			360	24	20/1	R-FIRE OPERATIONS 111B	2
--	SPARE (20A/1P)	--	25	0			360			26	20/1	R-FIRE OPERATIONS 111B	2
--	SPARE (20A/1P)	--	27		0			360		28	20/1	R-FIRE OPERATIONS 111B	2
--	SPARE (20A/1P)	--	29			0			200	30	20/1	SMOKE CONTROL PANEL - FIRE OPERATIONS 111B	5
--	SPARE (20A/1P)	--	31	0			200			32	20/1	FP STATUS INDICATORS - FIRE OPERATIONS 111B	5
--	SPARE (20A/1P)	--	33		0			0		34	--	SPACE	--
--	SPARE (20A/1P)	--	35			0			0	36	--	SPACE	--
--	SPARE (20A/1P)	--	37	0			0			38	--	SPACE	--
--	SPARE (20A/1P)	--	39		0			0		40	--	SPACE	--
--	SPARE (20A/1P)	--	41			0			0	42	--	SPACE	--

LOAD CODE	TOTAL (VA)	FACTOR	CODE LOAD	PANEL TOTALS
1 LIGHTS:	7296 VA	125.00%	9120 VA	
2 RECEPTACLE:	1080 VA	100.00%	1080 VA	9876 **TOTAL LOAD (VA)**
3 HEATING:	0 VA	0.00%	0 VA	11700 **TOTAL DEMAND (VA)**
4 KITCHEN:	0 VA	0.00%	0 VA	27.4 **TOTAL LOAD (A)**
5 EQUIPMENT:	1500 VA	100.00%	1500 VA	32 **CODE DEMAND (A)**
6 MOTORS:	0 VA	0.00%	0 VA	
LM LARGEST MOTOR:	0 VA	0.00%	0 VA	
7 MISC.	0 VA	0.00%	0 VA	

Notes:
* FIRST 10 KVA +50% OF THE BALANCE
** 125% OF THE LARGEST MOTOR + THE BALANCE

Branch Panel

PANEL: 2EM4
FED BY: ATS-EM
LOC: ELECTRICAL E400

MKE & ASSOCIATES, INC.

MOUNTING: SURFACE
BUS/MAIN 100 FTL

VOLTS 120/208 | **PHASE** 3 | **WIRE** 4

C	DESCRIPTION	A/P	No.	A	B	C	A	B	C	No.	A/P	DESCRIPTION	C
1	L-LEVEL 3	20/1	1	638			0			2	20/3	TVSS	5
1	L-LEVEL 4	20/1	3		638			0		4	--	--	--
1	L-LEVEL 5	20/1	5			638			0	6	--	--	--
1	L-LEVEL 6	20/1	7	638			0			8	--	SPACE	--
1	L-LEVEL 7	20/1	9		638			0		10	--	SPACE	--
1	L-LEVEL 8	20/1	11			784			0	12	--	SPACE	--
--	SPARE (20A/1P)	--	13	0			0			14	--	SPACE	--
--	SPARE (20A/1P)	--	15		0			0		16	--	SPACE	--
--	SPARE (20A/1P)	--	17			0			0	18	--	SPACE	--
--	SPARE (20A/1P)	--	19	0			0			20	--	SPACE	--
--	SPARE (20A/1P)	--	21		0			0		22	--	SPACE	--
--	SPARE (20A/1P)	--	23			0			0	24	--	SPACE	--

LOAD CODE	TOTAL (VA)	FACTOR	CODE LOAD	PANEL TOTALS
1 LIGHTS:	3974 VA	125.00%	4968 VA	
2 RECEPTACLE:	0 VA	0.00%	0 VA	3974 **TOTAL LOAD (VA)**
3 HEATING:	0 VA	0.00%	0 VA	4968 **TOTAL DEMAND (VA)**
4 KITCHEN:	0 VA	0.00%	0 VA	11 **TOTAL LOAD (A)**
5 EQUIPMENT:	0 VA	0.00%	0 VA	14 **CODE DEMAND (A)**
6 MOTORS:	0 VA	0.00%	0 VA	
LM LARGEST MOTOR:	0 VA	0.00%	0 VA	
7 MISC.	0 VA	0.00%	0 VA	

Notes:
* FIRST 10 KVA +50% OF THE BALANCE
** 125% OF THE LARGEST MOTOR + THE BALANCE

Branch Panel

PANEL: 2EM7
FED BY: ATS-EM
LOC: ELECTRICAL E700

MKE & ASSOCIATES, INC.

MOUNTING: SURFACE
BUS/MAIN 100 MLO

VOLTS 120/208 | **PHASE** 3 | **WIRE** 4

C	DESCRIPTION	A/P	No.	A	B	C	A	B	C	No.	A/P	DESCRIPTION	C
1	L-STAIR 1	20/1	1	486			0			2	20/3	TVSS	5
1	L-STAIR 2	20/1	3		733			0		4	--	--	--
1	L-ELEV VEST R900 / WATER HEATERS 902	20/1	5			212			0	6	--	--	--
1	L-ELEVATOR SHAFT	20/1	7	810			200			8	20/1	NAC PANEL - ELECTRICAL E300 / E400	5
1	L-HANDRAIL (ROOF TERRACE)	20/1	9		552			200		10	20/1	NAC PANEL - ELECTRICAL E500 / E600	5
1	L-STEP / UNDERBENCH (ROOF TERRACE)	20/1	11			280			200	12	20/1	NAC PANEL - ELECTRICAL E700 / E800	5
1	L-STRING (ROOF TERRACE)	20/1	13	150			0			14	--	SPACE	--
--	SPARE (20A/1P)	--	15		0			0		16	--	SPACE	--
--	SPARE (20A/1P)	--	17			0			0	18	--	SPACE	--
--	SPARE (20A/1P)	--	19	0			0			20	--	SPACE	--
--	SPARE (20A/1P)	--	21		0			0		22	--	SPACE	--
--	SPARE (20A/1P)	--	23			0			0	24	--	SPACE	--

LOAD CODE	TOTAL (VA)	FACTOR	CODE LOAD	PANEL TOTALS
1 LIGHTS:	3223 VA	125.00%	4029 VA	
2 RECEPTACLE:	0 VA	0.00%	0 VA	3823 **TOTAL LOAD (VA)**
3 HEATING:	0 VA	0.00%	0 VA	4629 **TOTAL DEMAND (VA)**
4 KITCHEN:	0 VA	0.00%	0 VA	10.6 **TOTAL LOAD (A)**
5 EQUIPMENT:	600 VA	100.00%	600 VA	13 **CODE DEMAND (A)**
6 MOTORS:	0 VA	0.00%	0 VA	
LM LARGEST MOTOR:	0 VA	0.00%	0 VA	
7 MISC.	0 VA	0.00%	0 VA	

Notes:
* FIRST 10 KVA +50% OF THE BALANCE
** 125% OF THE LARGEST MOTOR + THE BALANCE

RELAY PANEL SCHEDULE

MKE & ASSOCIATES, INC

PANEL: RPA
LOCATION: ELECTRICAL E200

MOUNTING: SURFACE

RELAY #	VOLTAGE	PANEL	CIRCUIT	AREA CONTROLLED	METHOD OF CONTROL	OVERRIDE SWITCH CONTROL ZONE
1	120 V	2H2A	64	EXTERIOR MAIN ENTRY SIGN	TIMECLOCK ON/OFF	NONE
2	120 V	2H2A	72	EXTERIOR CANOPY LIGHTS	TIMECLOCK ON/OFF	NONE
3	120 V	2H2A	43	ELEVATOR LOBBY WALL WASHERS (GND LVL)	TIMECLOCK ON/OFF	NONE
4	120 V	2H2A	12	AMENITY 215	TIMECLOCK ON/OFF	LOW VOLTAGE SWITCH 'LV1'
5	120 V			SPARE		
6	120 V			SPARE		
7	120 V			SPARE		
8	120 V			SPARE		

RELAY PANEL SCHEDULE

MKE & ASSOCIATES, INC

PANEL: RPB
LOCATION: ELEC ROOM E700

MOUNTING: SURFACE

RELAY #	VOLTAGE	PANEL	CIRCUIT	AREA CONTROLLED	METHOD OF CONTROL	OVERRIDE SWITCH CONTROL ZONE
1	120 V	2H7	38	LANDSCAPE LIGHTING - ROOF TERRACE	TIMECLOCK ON/OFF	NONE
2	120 V	2H7	38	BBQ TASK LIGHTING - ROOF TERRACE	TIMECLOCK ON/OFF	LOW VOLTAGE SWITCH 'LV2'
3	120 V	2H7	42	STEP/UNDERBENCH LTG - ROOF TERRACE	TIMECLOCK ON/OFF	LOW VOLTAGE SWITCH 'LV2'
4	120 V	2H7	42	STRING LIGHTING - ROOF TERRACE	TIMECLOCK ON/OFF	LOW VOLTAGE SWITCH 'LV2'
5	120 V	2H7	42	HANDRAIL LIGHTING - ROOF TERRACE	TIMECLOCK ON/OFF	LOW VOLTAGE SWITCH 'LV2'
6	120 V	2H7	38	TERRACE 821B	TIMECLOCK ON/OFF	LOW VOLTAGE SWITCH 'LV3' & 'LV4'
7	120 V			SPARE		
8	120 V			SPARE		

Branch Panel

PANEL: 2SB2
FED BY: ATS-SB
LOC: GENERATOR 116

MKE & ASSOCIATES, INC.

MOUNTING: SURFACE
BUS/MAIN 400 FTL

VOLTS 120/208 | **PHASE** 3 | **WIRE** 4

C	DESCRIPTION	A/P	No.	A	B	C	A	B	C	No.	A/P	DESCRIPTION	C
6	GARAGE OVERHEAD ROLLUP DOOR	20/3	1	1320			444			2	20/3	JOCKEY PUMP - WATER 118	6
--	--	--	3		1320			444		4	--	--	--
--	--	--	5			1320			444	6	--	--	--
5	REMOTE FUEL FILL STATION	20/1	7	200			1080			8	20/3	SP-1	6
5	DOOR ENTRY SYSTEM	20/1	9		200			1080		10	--	--	--
5	DOOR OPERATOR	20/1	11			400			1080	12	--	--	--
5	DVR / SEC CAM MONITORS - WORK RM 105	20/1	13	500			720			14	20/1	ELEV SMOKE CURTAIN - LOBBY 110	6
2	R-ELEV. EQUIP. 230	20/1	15		360			720		16	20/1	ELEV SMOKE CURTAIN - CORRIDOR 200	6
2	R-ELEVATOR PIT	20/1	17			180			720	18	20/1	ELEV SMOKE CURTAIN - CORRIDOR 300	6
5	ELEV #1 CONTROLLER - ELEV. EQUIP. 230	20/1	19	1500			720			20	20/1	ELEV SMOKE CURTAIN - CORRIDOR 400	6
5	ELEV #2 CONTROLLER - ELEV. EQUIP. 230	20/1	21		1500			200		22	20/1	HEAT TRACE - PARKING 112	5
--	SPARE (20A/1P)	--	23			0			900	24	20/1	HEAT TRACE - LEVEL 2	5
--	SPARE (20A/1P)	--	25	0			900			26	20/1	HEAT TRACE - LEVEL 2	5
--	SPARE (20A/1P)	--	27		0			1200		28	20/1	HEAT TRACE - LEVEL 2	5
--	SPARE (20A/1P)	--	29			0			1200	30	20/1	HEAT TRACE - LEVEL 2	5
--	SPARE (20A/1P)	--	31	0			0			32	--	SPACE	--
--	SPARE (20A/1P)	--	33		0			0		34	--	SPACE	--
5	SD 1-1 / SD 1-2	20/1	35			400			306	36	20/1	EF-24	6
6	SPF-1A	20/1	37	305			483			38	20/3	SF-2	6
5	DS-3 / CU-3	30/2	39		2080			483		40	--	--	--
--	--	--	41			2080			483	42	--	--	--

LOAD CODE	TOTAL (VA)	FACTOR	CODE LOAD	PANEL TOTALS
1 LIGHTS:	0 VA	0.00%	0 VA	
2 RECEPTACLE:	540 VA	100.00%	540 VA	27273 **TOTAL LOAD (VA)**
3 HEATING:	0 VA	0.00%	0 VA	27273 **TOTAL DEMAND (VA)**
4 KITCHEN:	0 VA	0.00%	0 VA	75.7 **TOTAL LOAD (A)**
5 EQUIPMENT:	13260 VA	100.00%	13260 VA	76 **CODE DEMAND (A)**
6 MOTORS:	13473 VA	100.00%	13473 VA	
LM LARGEST MOTOR:	0 VA	0.00%	0 VA	
7 MISC.	0 VA	0.00%	0 VA	

Notes:
* FIRST 10 KVA +50% OF THE BALANCE
** 125% OF THE LARGEST MOTOR + THE BALANCE

Branch Panel

PANEL: 2SB7
FED BY: ATS-SB
LOC: ELECTRICAL E700

MKE & ASSOCIATES, INC.

MOUNTING: SURFACE
BUS/MAIN 400 MLO

VOLTS 120/208 | **PHASE** 3 | **WIRE** 4

C	DESCRIPTION	A/P	No.	A	B	C	A	B	C	No.	A/P	DESCRIPTION	C
6	EF-3A	20/1	1	528			696			2	20/1	EF-15A	6
6	EF-3B	20/1	3		528			696		4	20/1	EF-15B	6
6	EF-3C	20/1	5			528			864	6	20/1	EF-15C	6
6	EF-4A	20/1	7	528			1176			8	20/1	EF-16A	6
6	EF-4B	20/1	9		528			864		10	20/1	EF-16B	6
6	EF-4C	20/1	11			528			864	12	20/1	EF-16C	6
6	EF-5A	20/1	13	864			1176			14	20/1	EF-17A	6
6	EF-5B	20/1	15		696			864		16	20/1	EF-17B	6
6	EF-5C	20/1	17			696			864	18	20/1	EF-17C	6
6	EF-6A	20/1	19	864			864			20	20/1	EF-19A	6
6	EF-6B	20/1	21		696			696		22	20/1	EF-19B	6
6	EF-6C	20/1	23			696			696	24	20/1	EF-19C	6
6	EF-7A	20/1	25	864			864			26	20/1	EF-20A	6
6	EF-7B	20/1	27		696			696		28	20/1	EF-20B	6
6	EF-7C	20/1	29			696			696	30	20/1	EF-20C	6
6	EF-8A	20/1	31	528			696			32	20/1	EF-2	6
6	EF-8B	20/1	33		528			200		34	20/1	SD-9-1	5
6	EF-8C	20/1	35			528			800	36	20/1	SD-9-2 / SD-9-3 / SD-9-4 / SD-9-5	5
6	EF-9A	20/1	37	528			2080			38	30/2	CU-1	5
6	EF-9B	20/1	39		528			2080		40	--	--	--
6	EF-9C	20/1	41			528			2080	42	30/2	CU-2	5
6	EF-10A	20/1	43	864			2080			44	--	--	--
6	EF-10B	20/1	45		696			720		46	20/1	ELEV SMOKE CURTAIN - CORRIDOR 500	6
6	EF-10C	20/1	47			696			720	48	20/1	ELEV SMOKE CURTAIN - CORRIDOR 600	6
6	EF-11A	20/1	49	864			720			50	20/1	ELEV SMOKE CURTAIN - CORRIDOR 700	6
6	EF-11B	20/1	51		696			720		52	20/1	ELEV SMOKE CURTAIN - CORRIDOR 800	6
6	EF-11C	20/1	53			696			720	54	20/1	ELEV SMOKE CURTAIN - ELEVATOR VESTIBULE R900	6
6	EF-12A	20/1	55	864			0			56	--	SPARE (20A/1P)	--
6	EF-12B	20/1	57		696			0		58	--	SPARE (20A/1P)	--
6	EF-12C	20/1	59			696			0	60	--	SPARE (20A/1P)	--
6	EF-13A	20/1	61	864			0			62	--	SPARE (20A/1P)	--
6	EF-13B	20/1	63		696			0		64	--	SPARE (20A/1P)	--
6	EF-13C	20/1	65			696			0	66	--	SPARE (20A/1P)	--
6	EF-14A	20/1	67	864			3036			68	50/3	SPF-1	6
6	EF-14B	20/1	69		696			3036		70	--	--	--
6	EF-14C	20/1	71			696			3036	72	--	--	--
6	ELEVATOR #1	70/3	73	5040			3036			74	50/3	SPF-2	6
--	--	--	75		5040			3036		76	--	--	--
--	--	--	77			5040			3036	78	--	--	--
6	ELEVATOR #2	70/3	79	5040			0			80	20/3	TVSS	5
--	--	--	81		5040			0		82	--	--	--
--	--	--	83			5040			0	84	--	--	--

LOAD CODE	TOTAL (VA)	FACTOR	CODE LOAD	PANEL TOTALS
1 LIGHTS:	0 VA	0.00%	0 VA	
2 RECEPTACLE:	0 VA	0.00%	0 VA	99032 **TOTAL LOAD (VA)**
3 HEATING:	0 VA	0.00%	0 VA	99032 **TOTAL DEMAND (VA)**
4 KITCHEN:	0 VA	0.00%	0 VA	274.9 **TOTAL LOAD (A)**
5 EQUIPMENT:	9320 VA	100.00%	9320 VA	275 **CODE DEMAND (A)**
6 MOTORS:	89712 VA	100.00%	89712 VA	
LM LARGEST MOTOR:	0 VA	0.00%	0 VA	
7 MISC.	0 VA	0.00%	0 VA	

Notes:
* FIRST 10 KVA +50% OF THE BALANCE
** 125% OF THE LARGEST MOTOR + THE BALANCE

3

Branch Panel

PANEL: 2EVC
FED BY: MC-R
LOC: ELEC E001

MKE & ASSOCIATES, INC.

MOUNTING: SURFACE
BUS/MAIN 200 MLO

VOLTS 120/208 | **PHASE** 3 | **WIRE** 4

C	DESCRIPTION	A/P	No.	A	B	C	A	B	C	No.	A/P	DESCRIPTION	C
5	CAR CHARGING STATION - PARKING 112	40/2	1	3330			1667			2	20/3	EUH-1 (RETAIL 150) - TEMPORARY HEAT	3
--	--	--	3		3330			1667		4	--	--	--
5	CAR CHARGING STATION - PARKING 112	40/2	5			3330			1667	6	--	--	--
--	--	--	7	3330			1100			8	20/3	EUH-2 (RETAIL 150) - TEMPORARY HEAT	3
--	SPACE	--	9		0			1100		10	--	--	--
--	SPACE	--	11			0			1100	12	--	--	--
--	SPACE	--	13	0			1100			14	20/3	EWH-14 (RETAIL 152) - TEMPORARY HEAT	3
--	SPACE	--	15		0			1100		16	--	--	--
--	SPACE	--	17			0			1100	18	--	--	--
--	SPACE	--	19	0			1100			20	20/3	EUH-15 (RETAIL 152) - TEMPORARY HEAT	3
--	SPACE	--	21		0			1100		22	--	--	--
--	SPACE	--	23			0			1100	24	--	--	--
--	SPACE	--	25	0			1667			26	20/3	EUH-16 (RETAIL 109) - TEMPORARY HEAT	3
--	SPACE	--	27		0			1667		28	--	--	--
2	R-ELECT RM 29	20/1	29			540			1667	30	--	--	--

LOAD CODE	TOTAL (VA)	FACTOR	CODE LOAD	PANEL TOTALS
1 LIGHTS:	0 VA	0.00%	0 VA	
2 RECEPTACLE:	540 VA	100.00%	540 VA	33760 **TOTAL LOAD (VA)**
3 HEATING:	19900 VA	125.00%	24875 VA	38735 **TOTAL DEMAND (VA)**
4 KITCHEN:	0 VA	0.00%	0 VA	93.7 **TOTAL LOAD (A)**
5 EQUIPMENT:	13320 VA	100.00%	13320 VA	108 **CODE DEMAND (A)**
6 MOTORS:	0 VA	0.00%	0 VA	
LM LARGEST MOTOR:	0 VA	0.00%	0 VA	
7 MISC.	0 VA	0.00%	0 VA	

Notes:
* FIRST 10 KVA +50% OF THE BALANCE
** 125% OF THE LARGEST MOTOR + THE BALANCE

MSB2	2EM2	2SB2
MC-03	2EM4	2SB7
MC-06	2EM7	2EVC
MC-08	RPA	
	RPB	

City Of Portland

REVIEWED FOR CODE COMPLIANCE

Date: 02/11/20

Project: 19-106743-REV-01-CO

Bergelectric Corp.
Contractors & Engineers
13650 Ne Whitaker Way
Portland, OR 97230
License #C10-85046
Phone: (503) 255-1818

PROPRIETARY STATEMENT
THE ELECTRICAL DESIGN/CALCULATIONS ON THESE DOCUMENTS ARE FOR THE EXCLUSIVE USE/CONSTRUCTION BY BERGELECTRIC CORPORATION. THESE DOCUMENTS ARE NOT TO BE USED FOR COMPETITIVE BIDDING PURPOSES. ANY DISTRIBUTION, REPRODUCTION, OR OTHER USE WITHOUT WRITTEN CONSENT OF BERGELECTRIC CORPORATION IS STRICTLY PROHIBITED. ALL RIGHTS RESERVED.

MKE & ASSOCIATES, INC.
CONSULTING ENGINEERS
6915 SW MACADAM AVE. #200
PORTLAND, OREGON, 97219
CONTACT... JEFF REILLY
PHONE: (503) 892-1188

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 20, 1993
STEPHEN M. LOCKHART
EXPIRES 12-31-20

18TH & SALMON

GREYSTAR
1715 SW Salmon St
Portland, OR 97205

REVISIONS

B	PERMIT RESPONSE 2	07/26/2019
C	PERMIT RESPONSE 3	09/18/2019
3	AB-01	09/27/2019

CHECKED BY: SL
ISSUE DATE: 27 SEP 2019
PROJECT NO: 1803002

ELECTRICAL SCHEDULES

E00.04

CONSTRUCTION SET