

Existing Branch Panel: LP1										System: NORMAL									
Bus Rating: 225 A					200 A MLO					Fed By: MDP					Isolated Ground Bus: NO				
Bus Material: CUSN					Neutral Rating: 100%					Location: ELEC ROOM					Location: ELEC ROOM				
Wire / Conduit: 3/630, #3/IN, #5G, 2" C					Feed-Thru Lugs NO					Mounting: SURFACE					Mounting: SURFACE				
Feeder Ampacity: 200 A					AIC Rating: 22000 A					Enclosure (NEMA): TYPE 1					Enclosure (NEMA): TYPE 1				
Distribution System: 208Y/120 VAC, 3, 0, 4 W					Fused Branches: NO														

CKT	LOAD DESCRIPTION	TYPE	LOAD AMPS	WIRE SIZE	COND. SIZE	TRIP/POLE (Note 2)	A [VA]	B [VA]	C [VA]	TRIP/POLE (Note 2)	COND. SIZE	WIRE SIZE	LOAD AMPS	TYPE	LOAD DESCRIPTION	CKT		
1	(E) RR LIGHTING	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P	500	500		20 A / 1P	3/4"	1-#12, 1-#12, 1-#12	4 A	MIS	(E) RR LIGHTING	2		
3	(E) RR LIGHTING	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P				20 A / 1P	3/4"	1-#12, 1-#12, 1-#12	4 A	MIS	(E) STOCK LIGHTING	4		
5	(E) STOCK LIGHTING	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P				20 A / 1P	3/4"	1-#12, 1-#12, 1-#12	4 A	MIS	(E) OFFICE LIGHTING	6		
7	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P	500	30		20 A / 1P	3/4"	1-#12, 1-#12, 1-#12	0 A	L	(E) EXIT SIGNS	8		
9	RESTROOM LIT & (E) EF	L, MT	1 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P		170	1000					8 A	MIS	BUILDING SIGN	10	
11	CUSTOMER SALES LIT	L	14 A	1-#8, 1-#8, 1-#8	3/4"	20 A / 1P			1620	0						Space	12	
13	EMPLOYEE SALES LIT	L	14 A	1-#8, 1-#8, 1-#8	3/4"	20 A / 1P	1674	0								Space	14	
15	DAYLIGHT LIT	L	7 A	1-#10, 1-#10, 1-#10	3/4"	20 A / 1P		628	500								16	
17	CUSTOMER SALES LIT	L	9 A	1-#10, 1-#10, 1-#10	3/4"	20 A / 1P			936	500							18	
19	Space						0	500									20	
21	Space							0	0								22	
23	Space							0	0								24	
25	Space						0	0									26	
27	Space							0	0								28	
29	Space							0	0								30	
31	Space						0	0									32	
33	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P		500	500								34	
35	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P		500	500								36	
37	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P	500	500									38	
39	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P		500	500								40	
41	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P		500	500								42	
Total Load:							4650 VA	5462 VA	5982 VA									
							39 A	47 A	51 A									

Notes:
 1. Each circuit is shown as an individual homerun. Contractor may elect to combine two or three non-harmonics producing circuits in a common raceway. Contractor shall not install more than three circuits in a common conduit, except where specifically noted and allowed. Where more than three conductors are installed in a common raceway, the ampacity of all current-carrying conductors shall be derated and conductor size All wires shall have THHN/THWN insulation unless noted otherwise. Increased per N.E.C. 2017 Article 310.15(B)(3)(a). Voltage drop - Use #10 wires for 20Amp 120V ckt's longer than 75 feet, use #10 wires for 20Amp 277V ckt's longer than 200 feet.
 2. All breakers 100amp or less shall be rated for 75/60°C wire termination. Breakers rated for only 60°C wire termination shall not be used. All breakers greater than 100amp shall be rated for 75°C termination. N.E.C. 2017 Article 110.14(C)(1).
 3. For 3-pole breaker, provide 3 wires + grd where neutral is not used or req'd. Similarly for 2-pole brk, provide 2 wires + grd if neut. is not req'd.

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
L	Lighting	125.00%	6448 VA	
OL	Outside Lighting	0 VA	0 VA	Total Conn. Load: 16063 VA
C	Cooling	0 VA	0 VA	Total Est. Demand: 17379 VA
H	Heating	0 VA	0 VA	Total Conn. Load: 16063 VA
MT	Motor	125.00%	125 VA	Total Est. Demand: 89 A
R	Receptacle	0 VA	0 VA	
NC	Non-Coincidental	0 VA	0 VA	
MIS	Misc Non-Continuous	11000 VA	100.00%	11000 VA
MC	Misc Continuous	0 VA	0.00%	0 VA
K	Kitchen	0 VA	0.00%	0 VA
EX	Existing	0 VA	0.00%	0 VA
Spare	Existing	0 VA	0.00%	0 VA

Existing Branch Panel: LP3										System: NORMAL									
Bus Rating: 225 A					200 A MLO					Fed By: MDP					Isolated Ground Bus: NO				
Bus Material: CUSN					Neutral Rating: 100%					Location: ELEC ROOM					Location: ELEC ROOM				
Wire / Conduit: 3/630, #3/IN, #5G, 2" C					Feed-Thru Lugs NO					Mounting: SURFACE					Mounting: SURFACE				
Feeder Ampacity: 200 A					AIC Rating: 22000 A					Enclosure (NEMA): TYPE 1					Enclosure (NEMA): TYPE 1				
Distribution System: 208Y/120 VAC, 3, 0, 4 W					Fused Branches: NO														

CKT	LOAD DESCRIPTION	TYPE	LOAD AMPS	WIRE SIZE	COND. SIZE	TRIP/POLE (Note 2)	A [VA]	B [VA]	C [VA]	TRIP/POLE (Note 2)	COND. SIZE	WIRE SIZE	LOAD AMPS	TYPE	LOAD DESCRIPTION	CKT	
1	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P	500	500		20 A / 1P	3/4"	1-#12, 1-#12, 1-#12	4 A	MIS	EXISTING LOAD	2	
3	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P				20 A / 1P	3/4"	1-#12, 1-#12, 1-#12	4 A	MIS	EXISTING LOAD	4	
5	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P				20 A / 1P	3/4"	1-#12, 1-#12, 1-#12	4 A	MIS	EXISTING LOAD	6	
7	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P	500	500		20 A / 1P	3/4"	1-#12, 1-#12, 1-#12	4 A	MIS	EXISTING LOAD	8	
9	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P		500	720					6 A	R	EXISTING LOAD	10
11	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P			500	1000				8 A	R	EXISTING LOAD	12
13	CASH REGISTER	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P	500	0									14
15	CASH REG - ISO GRND	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P		500	0								16
17	CASH REGISTER	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P			500	0							18
19	CASH REG - ISO GRND	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P	500	500									20
21	Space							0	500								22
23	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P			500	500							24
25	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P			500	1000							26
27	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P			500	1000							28
29	Space								0	500	20 A / 1P	3/4"	1-#12, 1-#12, 1-#12	4 A	MIS	EXISTING LOAD	30
31	Space								0	300							32
33	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P			500	0							34
35	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P			500	500							36
37	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P	500	500									38
39	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P		500	500								40
41	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P		500	500								42
Total Load:							6300 VA	6300 VA	6564 VA								
							53 A	53 A	54 A								

Notes:
 1. Each circuit is shown as an individual homerun. Contractor may elect to combine two or three non-harmonics producing circuits in a common raceway. Contractor shall not install more than three circuits in a common conduit, except where specifically noted and allowed. Where more than three conductors are installed in a common raceway, the ampacity of all current-carrying conductors shall be derated and conductor size All wires shall have THHN/THWN insulation unless noted otherwise. Increased per N.E.C. 2017 Article 310.15(B)(3)(a). Voltage drop - Use #10 wires for 20Amp 120V ckt's longer than 75 feet, use #10 wires for 20Amp 277V ckt's longer than 200 feet.
 2. All breakers 100amp or less shall be rated for 75/60°C wire termination. Breakers rated for only 60°C wire termination shall not be used. All breakers greater than 100amp shall be rated for 75°C termination. N.E.C. 2017 Article 110.14(C)(1).
 3. For 3-pole breaker, provide 3 wires + grd where neutral is not used or req'd. Similarly for 2-pole brk, provide 2 wires + grd if neut. is not req'd.

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
L	Lighting	0 VA	0 VA	
OL	Outside Lighting	0 VA	0 VA	Total Conn. Load: 18100 VA
C	Cooling	0 VA	0 VA	Total Est. Demand: 19100 VA
H	Heating	0 VA	0 VA	Total Conn. Load: 63 A
MT	Motor	0 VA	0.00%	0 VA
R	Receptacle	0 VA	0.00%	4300 VA
NC	Non-Coincidental	0 VA	0.00%	0 VA
MIS	Misc Non-Continuous	14000 VA	100.00%	14000 VA
MC	Misc Continuous	0 VA	0.00%	0 VA
K	Kitchen	0 VA	0.00%	0 VA
EX	Existing	0 VA	0.00%	0 VA
Spare	Existing	0 VA	0.00%	0 VA

Existing Branch Panel: LP2										System: NORMAL									
Bus Rating: 225 A					200 A MLO					Fed By: MDP					Isolated Ground Bus: NO				
Bus Material: CUSN					Neutral Rating: 100%					Location: ELEC ROOM					Location: ELEC ROOM				
Wire / Conduit: 3/630, #3/IN, #5G, 2" C					Feed-Thru Lugs NO					Mounting: SURFACE					Mounting: SURFACE				
Feeder Ampacity: 200 A					AIC Rating: 22000 A					Enclosure (NEMA): TYPE 1					Enclosure (NEMA): TYPE 1				
Distribution System: 208Y/120 VAC, 3, 0, 4 W					Fused Branches: NO														

CKT	LOAD DESCRIPTION	TYPE	LOAD AMPS	WIRE SIZE	COND. SIZE	TRIP/POLE (Note 2)	A [VA]	B [VA]	C [VA]	TRIP/POLE (Note 2)	COND. SIZE	WIRE SIZE	LOAD AMPS	TYPE	LOAD DESCRIPTION	CKT	
1	WATER FOUNTAIN	R	2 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P	180	180		20 A / 1P	3/4"	1-#12, 1-#12, 1-#12	15 A	MIS	EXISTING LOAD	2	
3	HAND DRYER	MIS	10 A	1-#8, 1-#8, 1-#8	3/4"	20 A / 1P		1200	180								4
5	EMPLOYEE RM - DR	R	2 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P	180	180									6
7	EMPLOYEE RM - DR	R	2 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P	180	180									8
9	EMPLOYEE RM - DR	R	2 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P	180	180									10
11	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P	500	720									12
13	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P	500	720									14
15	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P		500	720								16
17	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P		500	180								18
19	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P	500	500									20
21	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P			500	180							22
23	EXISTING LOAD	MIS	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P			500	180							24
25	PRE-SALES - 5 DR	R	8 A	1-#10, 1-#10, 1-#10	3/4"	20 A / 1P	900	180									26
27	PRE-SALES - 6 DR	R	8 A	1-#10, 1-#10, 1-#10	3/4"	20 A / 1P	900	180									28
29	SALES AREA - BOXES	MIS	2 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P			1000	100							30
31	SALES AREA - BOXES	MIS	7 A	1-#10, 1-#10, 1-#10	3/4"	20 A / 1P	800	600									32
33	SECURITY CAMERAS	R	4 A	1-#12, 1-#12, 1-#12	3/4"	20 A / 1P		450	1000								34
35	AC-1	MIS	16 A	1-#8, 1-#8, 1-#8	3/4"	20 A / 1P			1100	20							36
37	Space							0	0								38
39	(E) WALL HEATER	MIS	10 A	2-#12, 1-#12, 1-#12	3/4"	20 A / 2P		1040	0								40