

PANEL MSB ELECTRICAL LOAD CALCULATIONS				
LOAD TYPE	CONNECTED	FACTOR	DEMAND	CODE REF
LIGHTING	10864	1.25	13211.25	215.3
RECEPTACLES (1ST 10K)	10000	1.00	10000	220.44
ADDL RECEPTACLES	1306	0.50	653	215.3
HEATING	3500	0.00	0	215.3
COOLING	44313	1.00	44313	220.5
WATER HEATER	1000	1.25	1250	422.13
SIGNAGE	4250	1.25	5312.5	215.3
KITCHEN EQUIP	41426	0.65	27251.4	220.56
MISC	60472	1.00	60472	215.3
TOTAL VA	171,836		162,964	
AMPS @ 208 VOLT		3Ø =	452.34	AMP5

EXIST PANEL: B					VOLTS: 120/208V			PH: 3Ø		WIRE: 4W		LOCATION: OFFICE			MOUNTING: FLUSH					
BUS: 100A					MAIN: 100A MLO									FEEDER: SEE RISER DIAGRAM						
CKT	DESCRIPTION				AMPS	POLE	WIRE	ØA	ØB	ØC	ØA	ØB	ØC	WIRE	POLE	AMPS	DESCRIPTION	CKT NO.		
4	1	LTG - KITCHEN [LC]				20	1	12	765			500			12	1	20	PARKING LOT LIGHTS [EX]	2	
	3	N-146 BATHROOM FAUCETS				20	1	12		200			500		12	1	20	PARKING LOT LIGHTS [EX]	4	
4	5	LTG - COOLER & FREEZER [LC]				20	1	12			800			500	12	2	20	PARKING LOT LIGHTS	6	
4	7	SPARE				20	1					500						[EX]	8	
4	9	LTG - EXTERIOR LIGHTS [LC]				20	1	12		800			500		10	2	20	PARKING LOT LIGHTS	10	
	11	SPARE				20	1						500					[EX]	12	
	13	SPARE				20	1				500			12	2	20	PARKING LOT LIGHTS	14		
2	15	SPARE [LC]				20	1	12					500					[EX]	16	
	17	S-286 WATER FILTER SYS				20	1	12			240			130	12	1	20	S-240 ORDER CONFIRM BOARD	18	
4	19	SPARE				20	1					1,200			12	1	20	LTG - BLDG SIGN [LC]	20	
4	21	LTG - SHOW WINDOW [LC]				20	1	12		600				1,000	12	1	20	LTG - MENU, ORDER CANOPY [LC]	22	
4	23	LTG - SHOW WINDOW [LC]				20	1	12			800			410	10	1	20	LTG - PYLON SIGN [LC]	24	
4	25	LTG - SHOW WINDOW [LC]				20	1	12	600				1,200		12	1	20	LTG - BLDG SIGN [LC]	26	
5	27	SPARE				20	1						1,440		12	1	20	LTG - BLDG SIGN [LC]	28	
5	29	SPARE				20	1	10								1	20	SPARE	30	
2	31	LTG - CLEARANCE BAR [LC]				20	1	10	500										32	
5	33	SPARE				20	1								3	20		SPARE	34	
5	35	SPARE				20	1												36	
5	37	SPARE				20	1												38	
5	39	LTG - DINING ROOM [LC]				20	1	10		704						3	20		SPARE	40
5	41	U-068 OFFICE SECURITY				20	1	10			100								42	
NOTES:								1,865	2,304	1,940	3,900	3,940	1,540							
[LC] - ROUTED THRU LIGHTING CONTROLS								5,765		6,244		3,480		TOTAL CONNECTED LOAD:						
INCLUDE WITH FEED THRU LUGS, [EX]-EXISTING BRKR												NEG DEMAND LOAD:								
RE-LABEL THIS PANEL (LA) AS "B", PROVIDE COMPATIBLE BREAKERS														DEMAND AMPS @ 208 VOLT / 3Ø:						
														15,489 VA						
														19,194 VA						
														53.28 A						

EXIST PANEL: D					VOLTS: 120/208V			PH: 3Ø		WIRE: 4W		LOCATION: OFFICE			OFFICE			MOUNTING: FLUSH				
BUS: 400A					MAIN: 400A MLO												FEEDER: SEE RISER DIAGRAM					
CKT	DESCRIPTION				AMPS	POLE	WIRE	ØA	ØB	ØC	ØA	ØB	ØC	WIRE	POLE	AMPS	DESCRIPTION				CKT NO	
	1								1,620			700			12	1	20	HEAT TRACE [GF]				2
5	3	N-059-1 WALK-IN COOLER				20	3	12			1,620		1,400		12	1	20	HEAT TRACE [GF]				4
	5									1,620			1,400		12	1	20	HEAT TRACE [GF]				6
5	7								1,320			500			12	1	15	F-131 MUSIC SYSTEM (MUZAK)				8
	9	N-059-2 WALK-IN FREEZER				20	3	12			1,320		260		12	1	20	S-513 ICE MAKER S/S & D/Y				10
	11										1,320			1,000	12	2	20	S-513 ICE MAKER CONDENSER				12
	13	HUB TABLE RECS				20	1	12	540				1,000									14
	15	HUB TABLE KIOSK				20	1	12			500			1,000	12	2	20	S-513 ICE MAKER CONDENSER				16
	17	SPARE				20	1							1,000								18
5	19	N-043 POWER SOAK				15	2	12	1,186			660			12	1	15	EXHAUST FAN (EF-2)				20
	21									1,186			1,250		12	2	15	S-140 FROZEN BEVERAGE DISPENSER CONDENSER				22
1	23	E-107 HOOD FIRE SUPP SYS [HL]				20	1	12			760			1,250								24
5	25	IRRIGATION TIMER				20	1	12	360			180			12	1	20	UTILITY RECS				26
5	27	ROOF RECS				20	1	12			360			1,120	12	1	20	E-107 HOOD EXHAUST FAN (EF-1)				28
	29	BUSSED SPACE												720	12	1	20	UTILITY RECS [GF]				30
	31											6,245										32
	33	SPARE				30	3						6,245		6	3	60	RTU-1				34
	35													6,245				[RE-USE EXISTING]				36
5	37								8,526			1,120			12	1	20	F-090 & U-081 CG ROUTER/READER [GF]				38
	39	RTU - 2				80	3	4			8,526		2,500		10	2	30	S-734 FROZEN BEVERAGE DISPENSER				40
	41										8,526			2,500								42
NOTES:								13,552	13,512	12,226	10,405	13,775	14,115									
[HL]-HANDLE LOCK, [GF]-GFCI BRKR								23,957		27,287		26,341		TOTAL CONNECTED LOAD:				77,585 VA				
[GF] - 6FEP BRKR												NEG DEMAND LOAD:				66,882 VA						
RE-LABEL THIS PANEL (FC) AS 'D', PROVIDE COMPATIBLE BREAKERS												DEMAND AMPS @ 208 VOLT / 3Ø:				185.65 A						

EXIST PANEL: MSB		VOLTS: 120/208V		PH: 3Ø		WIRE: 4W		LOCATION: EXTERIOR	
BUS: 600A		MAIN: 600A MLO						FEEDER: SEE RISER DIAGRAM	
CKT NO	DESCRIPTION			FRAME	POLE	TRIP	KVA LOAD	FEEDER SIZE:	
1	PANELBOARD "A" [EX]				3	150	33.3	4-#1/0, 1-#6G, 1-1/2"C	
2	PANELBOARD "B" [EX]				3	200	15.5	4-#3/0, 1-#6G, 2"C	
3	EVO-DUAL-LINE EQUIPMENT CABINET [EX]				3	200	51.5	4-#3/0, 1-#6G, 2"C	
4	PANELBOARD "D" [EX]				3	400	77.6	TWO SETS 4-#3/0, 1-#3G, 2"C EACH	
5	BUSSED SPACE (VERIFY)								
6	BUSSED SPACE (VERIFY)								
NOTES:									
EXISTING NEMA 3R - SERVICE ENTRANCE							TOTAL CONNECTED LOAD:		177.6 KVA
VERIFY EXISTING CONDITIONS - ORDER / SIZE OF BREAKERS MAY BE DIFFERENT							NEG DEMAND LOAD:		163.0 KVA
PROVIDE NEW SCHEDULE WITH UPDATED PANEL NAMES AS INDICATED ABOVE							DEMAND AMPS @ 208 VOLT / 3Ø		452.34 AMPS

NOTE TO CONTRACTORS

ALL CONTRACTORS PRIOR TO BID SUBMISSION PROCESS SHALL VISIT PROPOSED WORK SITE AND FIELD VERIFY ALL EXISTING CONDITIONS. ANY CONDITION THAT DIFFERS FROM THAT SHOWN ON THESE PLANS SHALL BE REPORTED TO THE TENANTS ARCHITECT/ENGINEER SO THAT NEW AND REVISED BID DRAWINGS OR INFORMATION MAY BE ISSUED. MODIFICATIONS TO THE SCOPE OF WORK WHICH RESULTS FROM THE CONTRACTORS NEGLECT TO VISIT THE SITE PRIOR TO SUBMITTING BID, SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY.

EXIST PANEL: A			VOLTS: 120/208V			PH: 3Ø		WIRE: 4W		LOCATION: OFFICE			MOUNTING: FLUSH								
BUS: 225A			MAIN: 225A MLO									FEEDER: SEE RISER DIAGRAM									
CKT	DESCRIPTION	AMPS	POLE	WIRE	ØA	ØB	ØC	ØA	ØB	ØC	WIRE	POLE	AMPS	DESCRIPTION	CKT NO						
5	1	S-285 BEVERAGE DISPENSER D/T [GF]	20	1	12	1,246			1,780		12	1	20	S-546 ICE TEA EQUIPMENT	2						
5	3	S-284 BEVERAGE DISPENSER [66] [GF]	20	1	12		1,116			1,200	12	1	20	U-100 & U-070 POS (2) PRINT RECS [GF]	4						
5	5	R-207 FULL HEIGHT FREEZER [GF]	20	1	12			1,080			360	12	1	20	F-114 SAFE IVY TOUGH BGR CTRL [GF]	6					
	7	SPARE	20	1		0			860		12	1	20	S-570 CARBONATOR [GF]	8						
	9	F-452 HOT WATER DISPENSER	30	2	10		2,039			960	12	1	20	F-090, U-081, U-070 POS (2) PRINT, CG READ [GF]	10						
5	11						2,039				12	1	20	SPARE [GF]	12						
	13	S-027 HEATED CABINET	20	1	12	1,920			240		12	1	20	F-080 OFFICE PRINTER/COPIER	14						
	15	F-040 OFFICE COMPUTER	20	1	12		300			1,200	12	1	20	U-100 & F-090 POS & UPS [GF]	16						
1	17	U-052 SECURITY SYSTEM [HL]	20	1	12			360			96	12	1	20	G-400 & F-411 TIMERS [GF]	18					
5	19	RECEPTACLES OFFICE	20	1	12	540			860		12	1	20	S-570 CARBONATOR [GF]	20						
5	21	S-240 ORDER CONFIRM BRD	20	1	12		130			240	12	1	20	U-011 BASE STATION D/T COM [GF]	22						
5	23	U-054 CCTV AND MONITOR [GF]	20	1	12			360			240	12	1	20	C-107 RETHRMALIZER [DP] [ST]	24					
5	25	S-540 PEPS S-TANK / S-081 CGZ [GF]	20	1	12	576								(SHUNT TRIP SPACE)	26						
	27	HAND DRYER	20	1	12		1,000			1,080	12	1	20	L-043 MENU BOARD & REMOTE ALARM	28						
	29	HAND DRYER	20	1	12			1,000				1	20	SPARE	30						
	31	TANKLESS WATER HEATER	20	1	12	500			180		12	1	20	U-238 KITCHEN MONITOR - IG [GF]	32						
	33	TANKLESS WATER HEATER	20	1	12		500			860	12	1	20	S-204 D/T TIMING SYSTEM [GF]	34						
5	35	F-452 HOT WATER DISPENSER	30	2	10			2,039			1,430	12	1	20	S-547 BUN F BREWER [GF]	36					
5	37					2,039						1	20	SPARE	38						
5	39	SPARE [GF]	20	1						972	12	1	20	C-026 DUAL VAT FYER [DP] [ST]	40						
5	41	S-026 HEATED CABINET [GF]	20	1	12			1,920						(SHUNT TRIP SPACE)	42						
NOTES:					6,871		5,085		8,798		3,920		6,512		2,126						
(GF)-5mA GFCI BRKR, [HL]-HANDLE LOCK					10,791		11,597		10,924		TOTAL CONNECTED LOAD:					33,312 VA					
[DP]-ROUTED THRU DEAD-FRONT GFCI DEVICE-DETAIL 12/ET-0, [ST]-SHUNT TRIP BRKR, [GF]-GFCI BRKR															NEG DEMAND LOAD:		26,091 VA				
RE-LABEL THIS PANEL (PB) AS "A", PROVIDE COMPATIBLE BREAKERS															DEMAND AMPS @ 208 VOLT / 3Ø:					72.42 A	