EXISTING PANEL 'M-A'

Location: Mezzanine	AIC: EXISTING											208/120 Volt, 3ø, 4w
Mounting: Surface												Main: MCB 400A
Circuit Description	KVA	CB	NO.	NOTE	A	B	C	NOTE	NO.	CB	KVA	Circuit Description
WATER HEATER (XEWH-1)	3.7	40/3	1	C	X			B	2	50/2	2.8	CU-1
	3.7		3			X			4		2.8	
	3.7		5				X	B	6	30/2	1.7	CU-2
WATER HEATER (XEWH-2)	3.7	40/3	7	C	X				8		1.7	
	3.7		9			X		B	10	50/2	2.8	CU-3
	3.7		11				X		12		2.8	
FCU-1/HP-1	0.8	20/2	13	B	X			B	14	50/2	2.8	CU-4
	0.8		15			X			16		2.8	
SPARE		20/1	17				X		18	20/1		SPARE
SPACE			19		X				20	30/3		
SPACE			21			X		C	22			SPARE
SPACE			23				X		24			
SPACE			25		X				26		2.3	
SPACE			27			X		C	28	40/3	2.3	XCU-5
SPACE			29				X		30		2.3	
SPACE			31		X				32		2.3	
SPACE			33			X		C	34	40/3	2.3	XCU-6
SPACE			35				X		36		2.3	
SPACE			37		X				38		2.3	
SPACE			39			X		C	40	40/3	2.3	XCU-7
SPACE			41				X		42		2.3	
					A	B	C					
CONNECTED KVA:	163.4				55.3	56.4	51.7					DESIGN DEMAND KVA: 120.9
CONNECTED HIGH PHASE AMPS:	470.0											DESIGN DEMAND AMPS: 335.8

PANEL NOTES:
A - PROVIDE CIRCUIT BREAKER WITH LOCK-ON DEVICE.
B - PROVIDE HACR CIRCUIT BREAKER.
C - EXISTING BREAKER TO REMAIN. NO NEW LOAD ON CIRCUIT.
BALANCE PHASE LOADS TO WITHIN 10% OF EACH OTHER.

EXISTING PANEL 'M-B'

Location: Mezzanine	AIC: EXISTING											208/120 Volt, 3ø, 4w
Mounting: Surface												Main: MLO 400A
Circuit Description	KVA	CB	NO.	NOTE	A	B	C	NOTE	NO.	CB	KVA	Circuit Description
XBCU-1	4.1	45/3	1	C	X				2	20/3		SPARE
	4.1		3			X			4			
	4.1		5				X		6			
XBCU-2	4.1	45/3	7	C	X				8	20/3		SPARE
	4.1		9			X			10			
	4.1		11				X		12			
XBCU-3	2.9	30/3	13	C	X			C	14	30/3	2.0	XBCU-3
	2.9		15			X			16		2.0	
	2.9		17				X		18		2.0	
XBCU-4	4.1	45/3	19	C	X			C	20	20/3	1.0	SPARE
	4.1		21			X			22		1.0	
	4.1		23				X		24		1.0	
XBCU-5	2.9	30/3	25	C	X			C	26	30/3	2.0	XBCU-5
	2.9		27			X			28		2.0	
	2.9		29				X		30		2.0	
XBCU-6	2.9	30/3	31	C	X			C	32	30/3	2.0	XBCU-6
	2.9		33			X			34		2.0	
	2.9		35				X		36		2.0	
XBCU-7	2.9	30/3	37	C	X			C	38	30/3	2.0	XBCU-7
	2.9		39			X			40		2.0	
	2.9		41				X		42		2.0	
					A	B	C					
CONNECTED KVA:	98.7				32.9	32.9	32.9					DESIGN DEMAND KVA: 101.8
CONNECTED HIGH PHASE AMPS:	274.2											DESIGN DEMAND AMPS: 282.7

PANEL NOTES:
A - PROVIDE CIRCUIT BREAKER WITH LOCK-ON DEVICE.
B - PROVIDE HACR CIRCUIT BREAKER.
C - EXISTING BREAKER TO REMAIN. NO NEW LOAD ON CIRCUIT.
BALANCE PHASE LOADS TO WITHIN 10% OF EACH OTHER.

EXISTING PANEL 'P'

Location: Mezzanine	22,000 AIC											208/120 Volt, 3ø, 4w
Mounting: Surface												Main: MCB 400A
Circuit Description	KVA	CB	NO.	NOTE	A	B	C	NOTE	NO.	CB	KVA	Circuit Description
DRINKING FOUNTAIN	0.5	20/1	1	D	X				2	20/1	0.8	RECEPTION RECEPTACLES
WAREHOUSE RECEPTACLES	0.2	20/1	3	D		X			4	20/1	0.7	PRINTER/ROUTER
CP-1	0.1	20/1	5	A			X	A	6	20/1	0.8	P.O.S. DED. RECS.
HVAC UNIT LIGHT/RECEPTACLES	0.4	20/1	7		X			A	8	20/1	0.8	P.O.S. DED. RECS.
BACK OF HOUSE CONV. RECEPTACLES	0.9	20/1	9			X		A	10	20/1	0.8	P.O.S. DED. RECS.
SPARE		20/1	11				X	A	12	20/1	0.8	P.O.S. DED. RECS.
TOILET RECEPTACLES/XEF-1	0.4	20/1	13	D	X				14	20/1	1.5	P.O.S. GENERAL RECS.
CORRIDOR RECEPTACLES	1.1	20/1	15	D		X			16	20/1	0.5	DISPLAY CASE LIGHTING
EXISTING HANDICAP DOOR ACTUATOR	1.0	20/1	17	D			X	A	18	20/1	1.0	ATM MACHINES
HAND DRYER	0.6	20/1	19	C	X			A	20	20/1	1.2	INTERIOR SIGNS
HAND DRYER	0.6	20/1	21	C		X			22	20/1	0.5	TV RECEPTACLES
RESTROOM RECEPTACLES	0.4	20/1	23				X		24	20/1	0.5	WALL CASEWORK DISPLAY LIGHTS
MEZZANINE MECH RECEPTACLES	0.8	20/1	25	D	X				26	20/1	0.4	RETAIL AREA RECEPTACLES
REFRIGERATOR	1.0	20/1	27	C		X			28	20/1	1.0	FULFILLMENT AREA PLUGMOLD
MICROWAVE	1.0	20/1	29				X		30	20/1		SPARE
APPLIANCE RECEPTACLE	0.5	20/1	31		X				32	20/1	1.0	FULFILLMENT AREA PLUGMOLD
OFFICE RECEPTACLES	1.3	20/1	33	D		X			34	20/1	1.0	FULFILLMENT AREA PLUGMOLD
WORK AREA PLUGMOLD	0.5	20/1	35				X	A	36	20/1	1.0	SAFE POWER
WORK AREA PLUGMOLD	0.5	20/1	37		X				38	20/1	0.2	VAULT P.O.S. DED. REC.
WORK AREA PLUGMOLD	0.5	20/1	39			X			40	20/1	0.2	VAULT P.O.S. DED. REC.
SPARE		20/1	41				X		42	20/1	0.2	VAULT P.O.S. DED. REC.
					A	B	C					
CONNECTED KVA:	57.4				22.4	19.1	15.9					DESIGN DEMAND KVA: 64.2
CONNECTED HIGH PHASE AMPS:	186.7											DESIGN DEMAND AMPS: 178.2

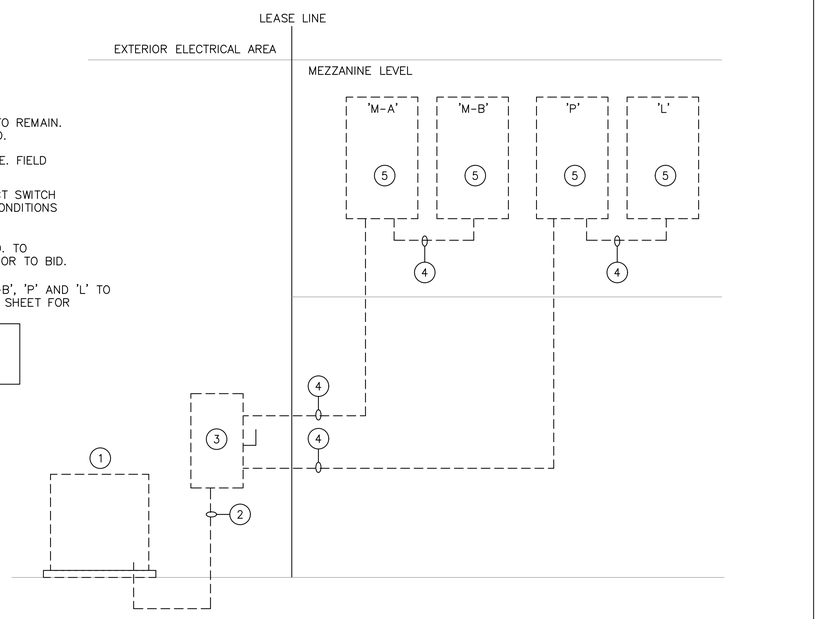
PANEL NOTES:
A - PROVIDE CIRCUIT BREAKER WITH LOCK-ON DEVICE.
B - PROVIDE HACR CIRCUIT BREAKER.
C - BREAKER SHALL BE 5 Ma 'G.F.I.' TYPE
D - EXISTING BREAKER TO REMAIN. NO NEW LOAD ON CIRCUIT.
BALANCE PHASE LOADS TO WITHIN 10% OF EACH OTHER.

EXISTING ———————
NEW ———————

POWER RISER DIAGRAM NOTES

1. EXISTING PAD MOUNTED UTILITY TRANSFORMER TO REMAIN. FIELD VERIFY EXISTING CONDITIONS PRIOR TO BID.
2. EXISTING CONDUIT(S) AND 800 AMP FEEDER WIRE. FIELD VERIFY EXISTING CONDITIONS PRIOR TO BID.
3. EXISTING 800A/3P, NEMA 3R, FUSED DISCONNECT SWITCH WITH (3) 800A FUSES. FIELD VERIFY EXISTING CONDITIONS PRIOR TO BID.
4. EXISTING 3-1/2"C.-4#500 KCMIL CU, + 1#3 GND. TO REMAIN. FIELD VERIFY EXISTING CONDITIONS PRIOR TO BID.
5. EXISTING 120/208V, 3PH, 4W PANELS 'M-A', 'M-B', 'P' AND 'L' TO REMAIN. REFER TO PANEL SCHEDULES ON THIS SHEET FOR ADDITIONAL INFORMATION.

NOTE:
ELECTRICAL SYSTEM SHALL BE GROUNDED AND BONDED PER NEC REQUIREMENTS AND AUTHORITY HAVING JURISDICTION.



1 POWER RISER DIAGRAM
NTS

LOAD SUMMARY - PANEL 'M-A'

	CONNECTED KVA	DESIGN FACTOR	DESIGN DEMAND KVA
LIGHTING	0.0	1.25	0.0
RECEPTACLES	0.0	1.0	0.0
SIGN	0.0	1.25	0.0
WATER HEATER	22.2	1.0	22.2
HVAC (LARGEST)	0.0	1.25	0.0
HVAC (REMAINING)	98.7	1.0	98.7
HVAC (NONCOINCIDENTAL)	42.5	0.0	0.0
MISCELLANEOUS	0.0	1.0	0.0
TOTAL KVA:	163.4		120.9
TOTAL AMPS:	453.9		335.8

LOAD SUMMARY - PANEL'M-B'

	CONNECTED KVA	DESIGN FACTOR	DESIGN DEMAND KVA
LIGHTING	0.0	1.25	0.0
RECEPTACLES	0.0	1.0	0.0
SIGN	0.0	1.25	0.0
WATER HEATER	0.0	1.0	0.0
HVAC (LARGEST)	12.3	1.25	15.4
HVAC (REMAINING)	86.4	1.0	86.4
HVAC (NONCOINCIDENTAL)	0.0	0.0	0.0
MISCELLANEOUS	0.0	1.0	0.0
TOTAL KVA:	98.7		101.8
TOTAL AMPS:	274.2		282.7

LOAD SUMMARY - PANEL 'P'

	CONNECTED KVA	DESIGN FACTOR	DESIGN DEMAND KVA
LIGHTING	22.2	1.25	27.8
RECEPTACLES	8.9	1.0	8.9
SIGN	4.8	1.25	6.0
WATER HEATER	0.0	1.0	0.0
HVAC (LARGEST)	0.0	1.25	0.0
HVAC (REMAINING)	0.1	1.0	0.1
HVAC (NONCOINCIDENTAL)	0.0	0.0	0.0
MISCELLANEOUS	21.4	1.0	21.4
TOTAL KVA:	57.4		64.2
TOTAL AMPS:	159.4		178.2

LOAD SUMMARY - PANEL 'L'

	CONNECTED KVA	DESIGN FACTOR	DESIGN DEMAND KVA
LIGHTING	21.2	1.25	26.5
RECEPTACLES	0.6	1.0	0.6
SIGN	3.6	1.25	4.5
WATER HEATER	0.0	1.0	0.0
HVAC (LARGEST)	0.0	1.25	0.0
HVAC (REMAINING)	0.0	1.0	0.0
HVAC (NONCOINCIDENTAL)	0.0	0.0	0.0
MISCELLANEOUS	4.8	1.0	4.8
TOTAL KVA:	30.2		36.4
TOTAL AMPS:	83.9		101.1

EXISTING PANEL 'L'

Location:Mezzanine	22,000 AIC											208/120 Volt, 3ø, 4w
Mounting: Surface												Main: MLO 400A
Circuit Description	KVA	CB	NO.	NOTE	A	B	C	NOTE	NO.	CB	KVA	Circuit Description
MEZZANINE/MECH LIGHTS	1.2	20/1	1	D	X			D	2	20/2	1.0	FLAG/FACADE LTG. (VIA CONTACTOR)
WAREHOUSE LIGHTS	1.1	20/1	3	D		X			4		1.0	
NON-CANNABIS STORAGE LIGHTS	1.5	20/1	5	D			X	D	6	20/2	1.0	PARKING LOT LTG. (VIA CONTACTOR)
STOREFRONT SIGN	1.2	20/1	7	A	X				8		1.0	
SPARE		20/1	9			X		D	10	20/1	1.2	SIGNAGE
NON-CANNABIS STORAGE LIGHTS	1.8	20/1	11	D			X		12	20/1	1.0	SECURITY SYSTEM BACK-UP
CORRIDOR LIGHTS	1.7	20/1	13	D	X				14	20/1	1.0	NEW IT EQUIPMENT
SPARE		20/1	15			X		D	16	20/1	1.0	TIMECLOCK/CONTACTORS
TOILET ROOM LIGHTS, EF-2, EF-3	0.2	20/1	17	D			X		18	20/1	0.4	DED. QUAD IT ROOM
OFFICE/JANITOR/CORRIDOR LTG	1.4	20/1	19	D	X				20	20/1	0.4	DED. QUAD IT ROOM
FULFILLMENT/CORRIDOR/WALK-UP LIGHTS	0.5	20/1	21			X			22	20/1	0.6	FULFILLMENT AREA CONV. RECS.
SPARE		20/1	23				X		24	20/1		SPARE
RETAIL ROOM LIGHTS	0.3	20/1	25		X				26	20/1	1.0	SECURITY MONITORS
RETAIL ROOM STRIP LIGHTS	0.5	20/1	27			X			28	20/1		SPARE
RETAIL ROOM PENDANT LIGHTS	0.1	20/1	29				X		30	20/1		SPARE
SPARE		20/1	31		X				32	20/1	0.6	LOBBY LIGHTS
INTERIOR SIGNS	1.2	20/1	33			X			34	20/1	0.2	LOBBY DOWNLIGHTS
NON-CANNABIS STORAGE TRACK LIGHTS	1.5	20/1	35	D			X		36	20/1		SPARE
NON-CANNABIS STORAGE TRACK LIGHTS	1.5	20/1	37	D	X				38	20/1	0.5	SPARE
EXTERIOR LIGHTS	1.5	20/1	39	D		X			40	20/1		SPARE
VESTIBULE/EXTERIOR LIGHTS	1.1	20/1	41	D			X		42	20/1		SPARE
					A	B	C					
CONNECTED KVA:	30.2				12.8	8.8	8.6					DESIGN DEMAND KVA: 36.4
CONNECTED HIGH PHASE AMPS:	106.7											DESIGN DEMAND AMPS: 101.1

PANEL NOTES:
A - PROVIDE CIRCUIT BREAKER WITH LOCK-ON DEVICE.
B - PROVIDE HACR CIRCUIT BREAKER
C- BREAKER SHALL BE 5 Ma 'G.F.I.' TYPE
D - EXISTING BREAKER TO REMAIN. NO NEW LOAD ON CIRCUIT.
BALANCE PHASE LOADS TO WITHIN 10% OF EACH OTHER.

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STATE OF MISSOURI
PAUL J. FETTINGER
NUMBER
PROFESSIONAL ENGINEER
01.12.2024

FOR PERMIT ISSUE

C3 - BRANSON MO
3125 GREEN MOUNTAIN DRIVE
BRANSON, MO 65616

DATE	DESCRIPTION
12.28.2023	REVIEW SET
01.12.2024	PERMIT SET

CHECKED	DJQ/PJF
DRAWN	BJK
HEI PROJECT NO.	R23-4590.006

ELEC. ONE-LINE DIAGRAM & PANEL SCHEDULES

E3.0