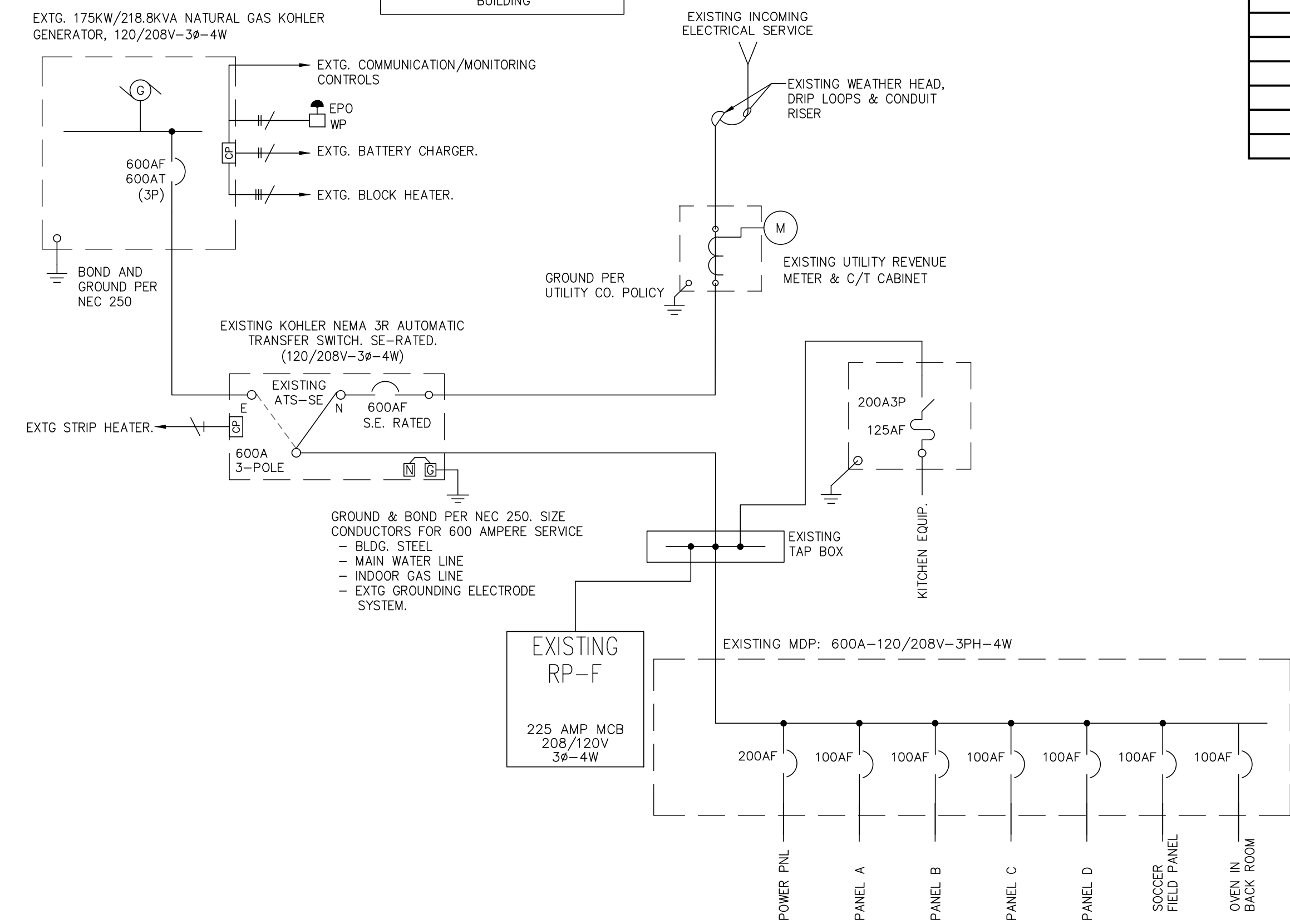


**ELECTRICAL LEGEND**

A12	ALPHANUMERIC LABEL INDICATES PANEL AND CIRCUIT TO WHICH ITEM IS CONNECTED (I.E. PANEL A, CIRCUIT 12)
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
CCT	CIRCUIT
C.P.	COVER PLATE
E.C.	ELECTRICAL (SUB) CONTRACTOR
EXTG.	EXISTING
F.B.O.	FURNISHED BY OTHERS, INSTALLED AND/OR WIRED BY ELECTRICAL CONTRACTOR
G.C.	GENERAL (SUB) CONTRACTOR
HP	HORSEPOWER
L.D.	LOCATE AS DIRECTED
MAX	MAXIMUM
M.C.	MECHANICAL (HVAC, PLBG, FP, OR TC) (SUB) CONTRACTOR
MH	MOUNTING HEIGHT TO BOTTOM OF DEVICE, BOX, OR FIXTURE, UNO
MIN	MINIMUM
OREQ	OR EQUAL
PAF	PAINTED AFTER FABRICATION
REV	REVIEW
R/M	REMOVE
R/L	RELOCATE/RELOCATED
TW/LK	TWIST/TURN TO LOCK TYPE RECEPT/PLUG UNLESS NOTED OTHERWISE
W/	COMPLETE WITH
WG	WITH WIRE GUARD
WP	WEATHERPROOF DEVICE, ENCLOSURE OR COVER PLATE, EXPLOSION-PROOF DEVICE OR ENCLOSURE, RATED FOR CLASS I, DIV 1, UNO
XP	EXPLOSION-PROOF DEVICE OR ENCLOSURE, RATED FOR CLASS I, DIV 1, UNO
(2)	INDICATES NOTE-SEE TABULATION ON SAME SHEET
(30)	INDICATES MECHANICAL OR HEATING EQUIPMENT ITEM, SEE MECHANICAL EQUIPMENT SCHEDULE
*	INDICATES EXISTING ITEM SHALL BE REMOVED INCLUDING ASSOCIATED CONDUIT AND WIRING NO LONGER IN SERVICE
(---)	EXISTING CONDUIT & WIRING-TO REMAIN
(---)	EXISTING ITEMS ARE TO REMAIN-UNO
(---)	EXISTING ITEMS SHOWN DASHED ARE TO BE REMOVED-UNO
(---)	EXISTING FLOOR RECEPTACLE TO REMAIN-UNO

**CAUTION!**  
TWO SOURCES OF SUPPLY  
EMERGENCY POWER SOURCE  
LOCATED ON WEST SIDE OF  
BUILDING



**SINGLE LINE DIAGRAM**  
N.T.S.

**BRANCH CIRCUIT CONDUCTOR SIZING CHART**

MAX. CIRCUIT LENGTH TO FARTHEST OUTLET	CIRCUIT VOLTAGE	MINIMUM BRANCH CIRCUIT SIZE
100 FEET	120	#12 AWG
165 FEET	120	#10 AWG
265 FEET	120	#8 AWG
400 FEET	120	#6 AWG
250 FEET	277	#12 AWG
400 FEET	277	#10 AWG
550 FEET	277	#8 AWG
750 FEET	277	#6 AWG

**"EXISTING 600AMP SERVICE" LOAD SUMMARY**

LOAD TYPE	CONNECTED VA	DEMAND FACTOR	DEMAND VA
EXISTING **	NEC 220.87	120%	151190
REMOVED LOAD		100%	-3840
DEDICATED LOAD	NEC 220.42	100%	2508
TOTAL LOAD IN VA			149858
TOTAL AMPS @ 208VOLT-3PHASE			416

\*\* EXISTING LOAD CONSISTS OF HIGHEST ELECTRICAL DEMAND, FROM 12-MONTH BILLING, RECORDED IN DECEMBER, 2022.

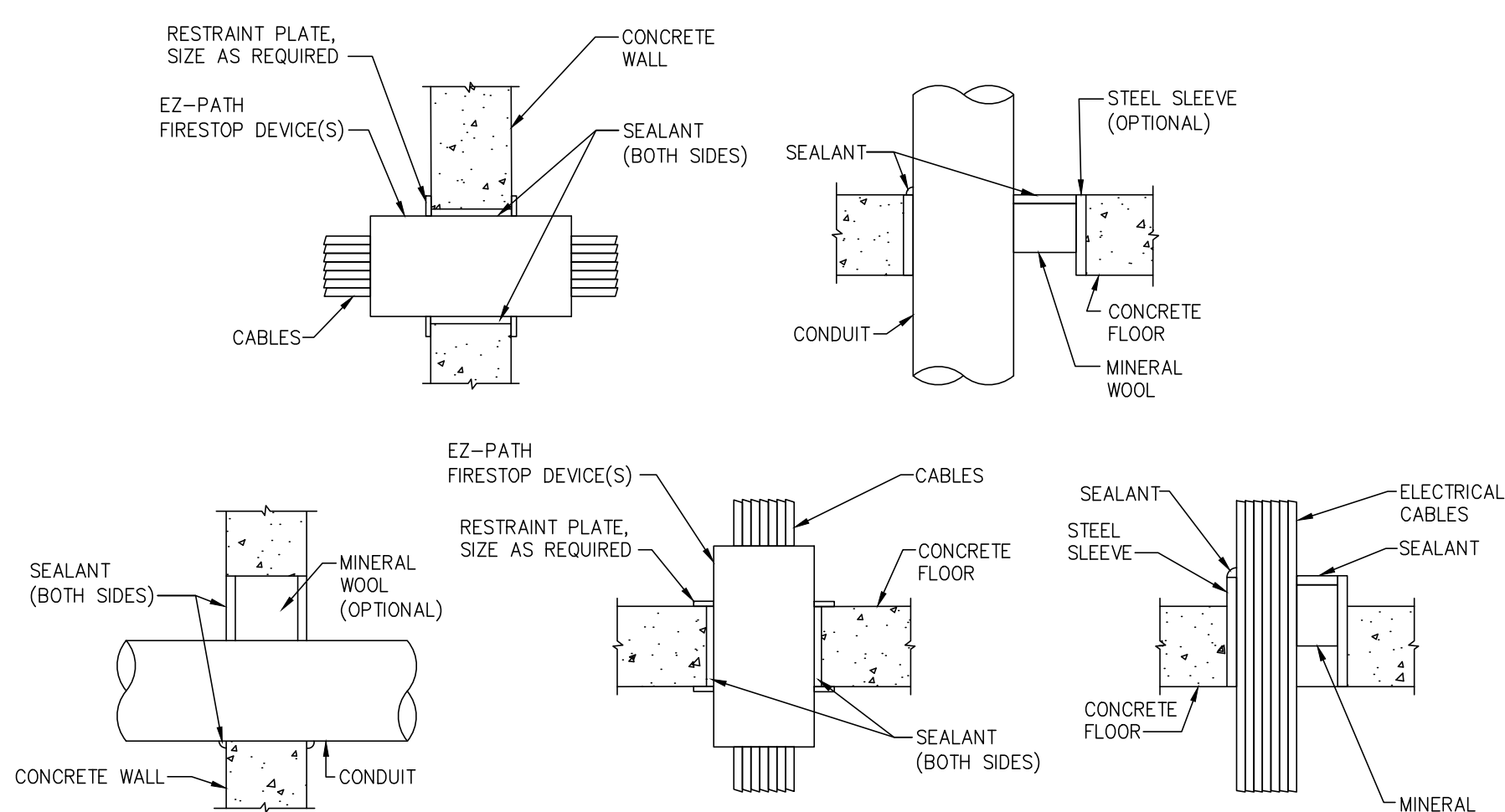
**PANELBOARD SCHEDULE (EXISTING CIRCUITING)**

LOAD DESCRIPTION	NOTES	VOLT AMPS	C.B. AMP	A	B	C	C.B. P AMP	VOLT AMPS	NOTES	LOAD DESCRIPTION
1 UNKNOWN		500	20	1	1000		1	20	500	2 UNKNOWN
3 EXH FAN AT WINDOW		1000	20	1		2500	1	20	1500	4 RANGE+OVEN HOOD
5 MILK COOLER PLUG		1200	20	1			1	20	500	6 UNKNOWN
7 SERVING LINE COOLER PLUG		1200	20	1	1700		1	20	500	8 UNKNOWN
9 KITCHEN COOLER PLUG		1200	20	1		2400	1	20	1200	10 WARMING OVEN PLUG
11 OUTDOOR LIGHT CAFE		500	20	1			1	20	1000	12 FAN-SOUTH WALL
13 SKYLIGHT FAN		1000	20	1	1500		1	20	500	14 PLUG-PANEL BACK
15 WARMING TABLE		1920	20	2		3120	1	20	1200	16 BACK KITCH FRZR PLUG
17 -		1920	20	2			1	20	1000	18 BACK KITCHEN EXH FAN
19 UNKNOWN		1000	30	1	1500		1	20	500	20 WORK COUNTER PLUG
21 SPACE		0				500	1	20	500	22 WORK COUNTER PLUG
23 SPACE		0				1200	1	20	1200	24 FREEZER PLUG
25 SPACE		0		0				0	0	26 SPACE
27 SPACE		0		0				0	0	28 SPACE
29 SPACE		0		0				0	0	30 SPACE
					5700	8520		7320		
					79%	BALANCE	115%	102%		
<b>TOTAL LOAD:</b>					21540				<b>TOTAL AMPS:</b>	59.8

**PANELBOARD SCHEDULE (NEW CIRCUITING)**

LOAD DESCRIPTION	NOTES	VOLT AMPS	C.B. AMP	A	B	C	C.B. P AMP	VOLT AMPS	NOTES	LOAD DESCRIPTION
1 UNKNOWN		500	20	1	1000		1	20	500	2 UNKNOWN
3 EXH FAN AT WINDOW		1000	20	1		2500	1	20	1500	4 RANGE+OVEN HOOD
5 MILK COOLER PLUG		1200	20	1			1	20	500	6 UNKNOWN
7 SERVING LINE COOLER PLUG		1200	20	1	1700		1	20	500	8 UNKNOWN
9 KITCHEN COOLER PLUG		1200	20	1		2400	1	20	1200	10 WARMING OVEN PLUG
11 OUTDOOR LIGHT CAFE		500	20	1			1	20	1000	12 FAN-SOUTH WALL
13 SKYLIGHT FAN		1000	20	1	1500		1	20	500	14 PLUG-PANEL BACK
15 SPARE		0	20	2		1200	1	20	1200	16 BACK KITCH FRZR PLUG
17 -		0	20	2			1	20	1000	18 BACK KITCHEN EXH FAN
19 UNKNOWN		1000	30	1	1500		1	20	500	20 WORK COUNTER PLUG
21 STEAM TABLE		2508	30	1		3008	1	20	500	22 WORK COUNTER PLUG
23 SPACE		0				1200	1	20	1200	24 FREEZER PLUG
25 SPACE		0		0				0	0	26 SPACE
27 SPACE		0		0				0	0	28 SPACE
29 SPACE		0		0				0	0	30 SPACE
					5700	9108		5400		
					85%	BALANCE	135%	80%		
<b>TOTAL LOAD:</b>					20208				<b>TOTAL AMPS:</b>	56.1

- PANEL SCHEDULE NOTES**
- UPDATE PANEL DIRECTORY AT COMPLETION OF PROJECT.
  - REMOVE EXISTING ITEM INCLUDING ASSOCIATED CONDUIT AND WIRING NO LONGER IN SERVICE. EXISTING BREAKER SHALL REMAIN AND BE RE-USED OR BECOME A SPARE. NEW BRANCH CIRCUITS SHALL BE IN DEDICATED RACEWAYS AS PER THE SPECIFICATIONS. FIELD VERIFY CIRCUIT DESIGNATIONS ASSOCIATED WITH RENOVATIONS AND FIELD VERIFY LOAD FOR ANY CIRCUIT MODIFIED OR EXTENDED AS PART OF THIS PROJECT.
  - PROVIDE CIRCUIT BREAKER TO MATCH EXISTING IN AVAILABLE SPACES. NEW BREAKERS TO MATCH EXISTING IN TYPE, STYLE, MANUFACTURER, AND AIC RATING.
  - PANEL DIRECTORIES REFLECT INFORMATION OBSERVED FROM FIELD PICTURES. EXISTING BRANCH CIRCUIT LOADS ARE ESTIMATED. FIELD VERIFY CIRCUIT DESIGNATIONS ASSOCIATED WITH RENOVATIONS AND FIELD VERIFY LOAD FOR ANY CIRCUIT MODIFIED OR EXTENDED AS PART OF THIS PROJECT. MAINTAIN BRANCH CIRCUIT WIRING CONTINUITY TO EXISTING DEVICES REMAINING.



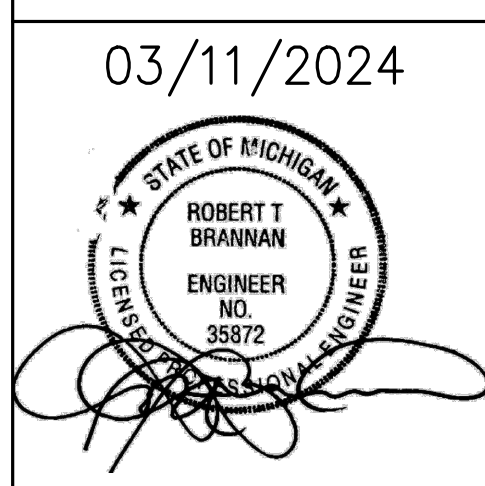
**CONCRETE/MASONRY FLOOR & WALLS CONDUIT/CABLE PENETRATIONS THROUGH RATED ASSEMBLIES**  
N.T.S.

- GENERAL NOTES**
- CABLE AND CONDUIT PENETRATION DETAILS ARE BASED ON A U.L. LISTED FIRE RATED ASSEMBLY (MINIMUM) UTILIZING S71 FIRE STOP PRODUCTS. MANUFACTURER'S SHALL BE S71, HILT, 3M OR APPROVED EQUAL. REFER TO MANUFACTURER'S SPECIFICATIONS AND INSTALLATION DETAILS FOR EXACT INSTALLATION METHODS.
  - PACKING AND SEALANT DEPTHS SHALL BE PER MANUFACTURER'S SPECIFICATIONS FOR U.L. ASSEMBLY RATING COMPLIANCE.
  - ALL FIRE STOP LOCATIONS SHALL BE LABELED AT POINT OF PENETRATION LABEL SHALL IDENTIFY FIRE STOPPING MATERIAL, U.L. LISTING NUMBER AND HOUR RATING OF WALL/FLOOR

**ELECTRICAL DRAWING LIST**

DWG NO.	TITLE	FILE NO.
E1.01	ELECTRICAL LEGEND, SINGLE-LINE & PANEL SCHEDULES	23024E1.01.dwg
E3.01	KITCHEN POWER PLANS	23024E3.01.dwg

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY ROBERT TIMOTHY BRANNAN, PE, USING A DIGITAL SIGNATURE AND DATE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED, AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.



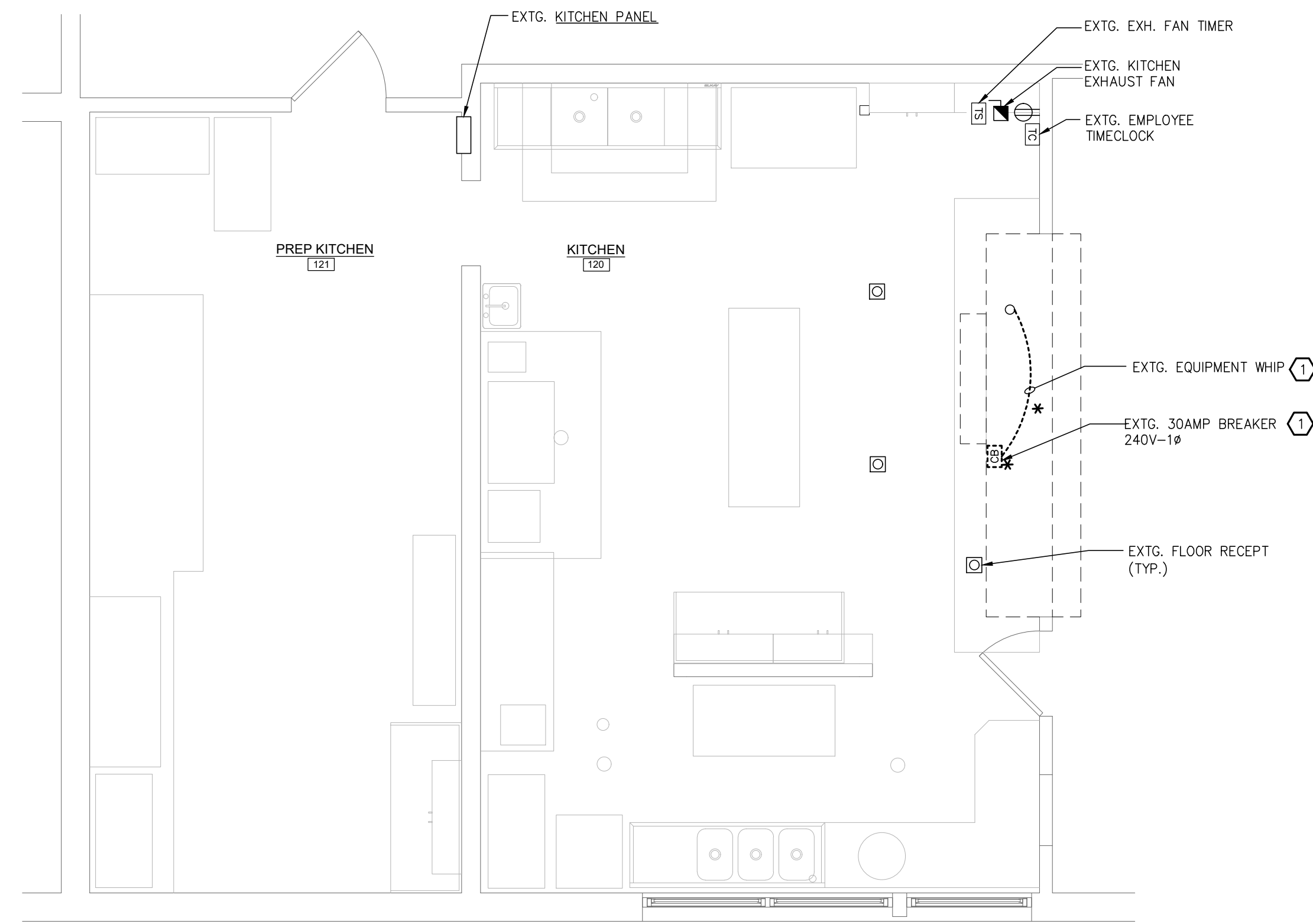
DATE	DESCRIPTION
03.18.2024	BIDDING & STATE REVIEW

**KITCHEN SERVING COUNTER ALTERATIONS & RELATED WORK**  
**CUSTER II ELEMENTARY**  
5001 WEST ALBAIN ROAD, MONROE, MI 48161  
**MONROE PUBLIC SCHOOLS**  
1275 N. MACOMB STREET, MONROE, MI 48162

**JOB # 24101**

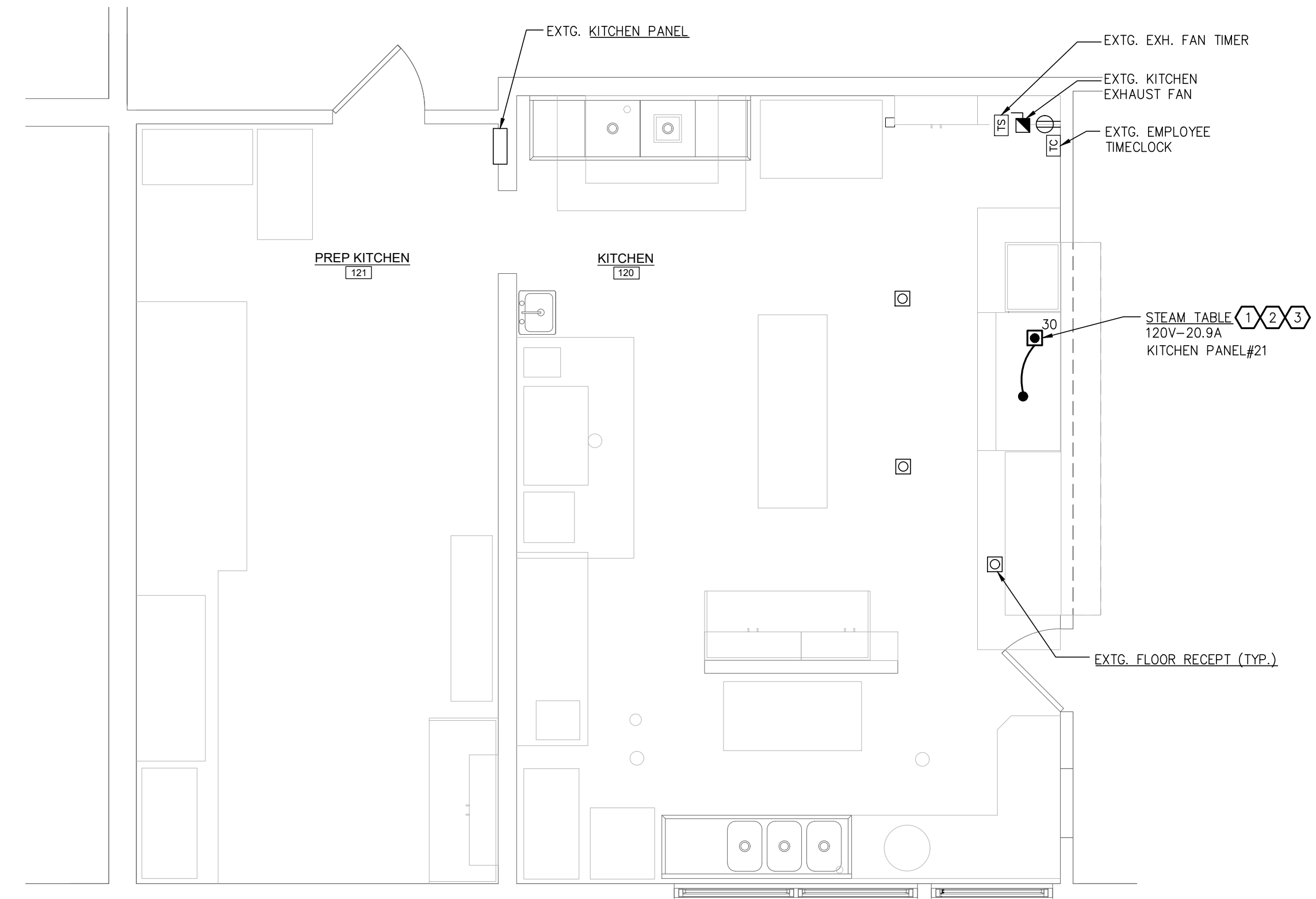
**ELECTRICAL LEGEND, SINGLE-LINE, & PANEL SCHEDULES**  
**E1.01**

S:\24\Projects\24003610.001A - MPS Custer II Kitchen Reno\Dwg\24003610E3.01.dwg 03/11/24 12:01:35 NBruno



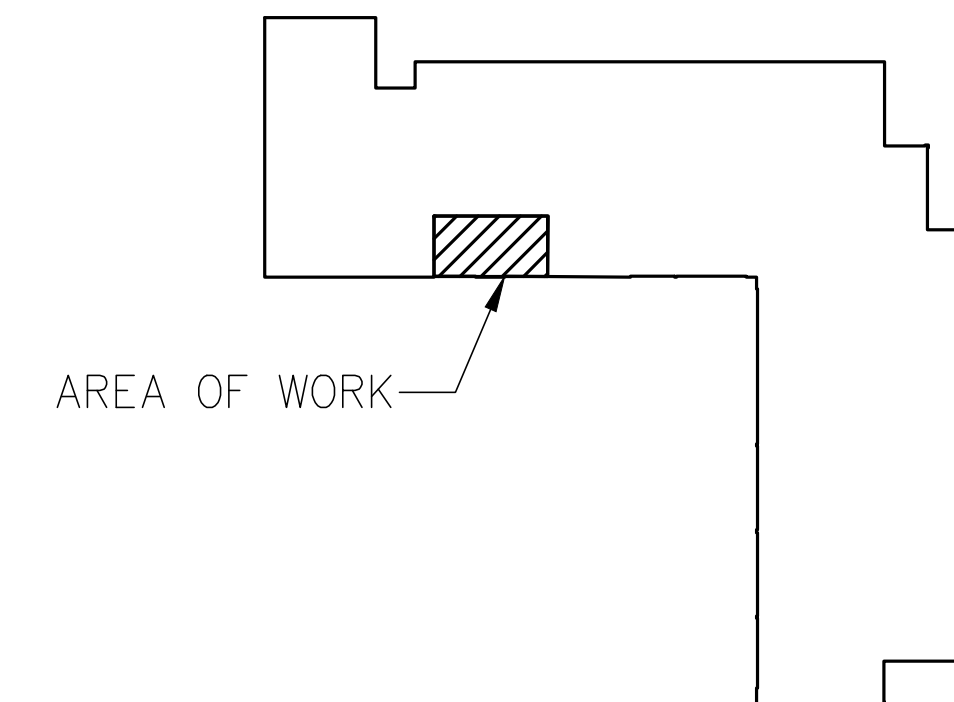
**KITCHEN POWER PLAN - DEMOLITION**  
SCALE: 1/4" = 1'-0"

**PLAN NOTES**  
 ① EQUIPMENT INDICATED FOR REMOVAL SHALL BE REMOVED WITH CARE. EXISTING BRANCH CIRCUIT WIRING SHALL BE REMOVED BACK TO SOURCE. ASSUMED SOURCE IS THE EXISTING KITCHEN PANEL SHOWN THIS SHEET. EXISTING CONDUIT SHALL BE RE-USED AND RE-WORKED FOR NEW EQUIPMENT.



**KITCHEN POWER PLAN**  
SCALE: 1/4" = 1'-0"

**PLAN NOTES**  
 ① COORDINATE WITH OWNER AND G.C. BEFORE ROUGH-IN.  
 ② REFERENCE THIS SHEET FOR EXISTING PANEL LOCATION AND SHEET E1.01 FOR MORE INFORMATION.  
 ③ RE-USE AND REWORK EXISTING CONDUIT FOR NEW FLOOR RECEPTACLE.



**KEY PLAN**  
NO SCALE

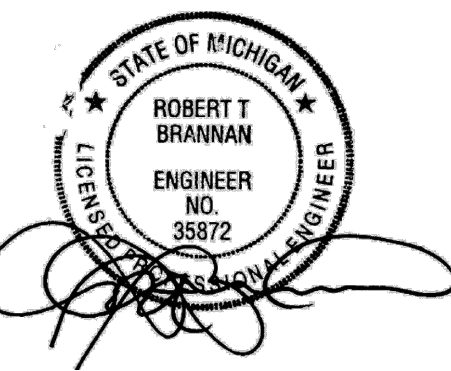
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**KOHLER ARCHITECTURE**  
1110 WEST FRONT STREET  
MONROE, MICHIGAN 46161  
WWW.KOHLERARCHITECT.NET



03/11/2024



DATE	DESCRIPTION
03.18.2024	BIDDING & STATE REVIEW

**KITCHEN SERVING COUNTER ALTERATIONS & RELATED WORK**  
**CUSTER II ELEMENTARY**  
 5001 WEST ALBAIN ROAD, MONROE, MI 48161  
**MONROE PUBLIC SCHOOLS**  
 1275 N. MACOMB STREET, MONROE, MI 48162

JOB # 24101

KITCHEN POWER PLANS

**E3.01**