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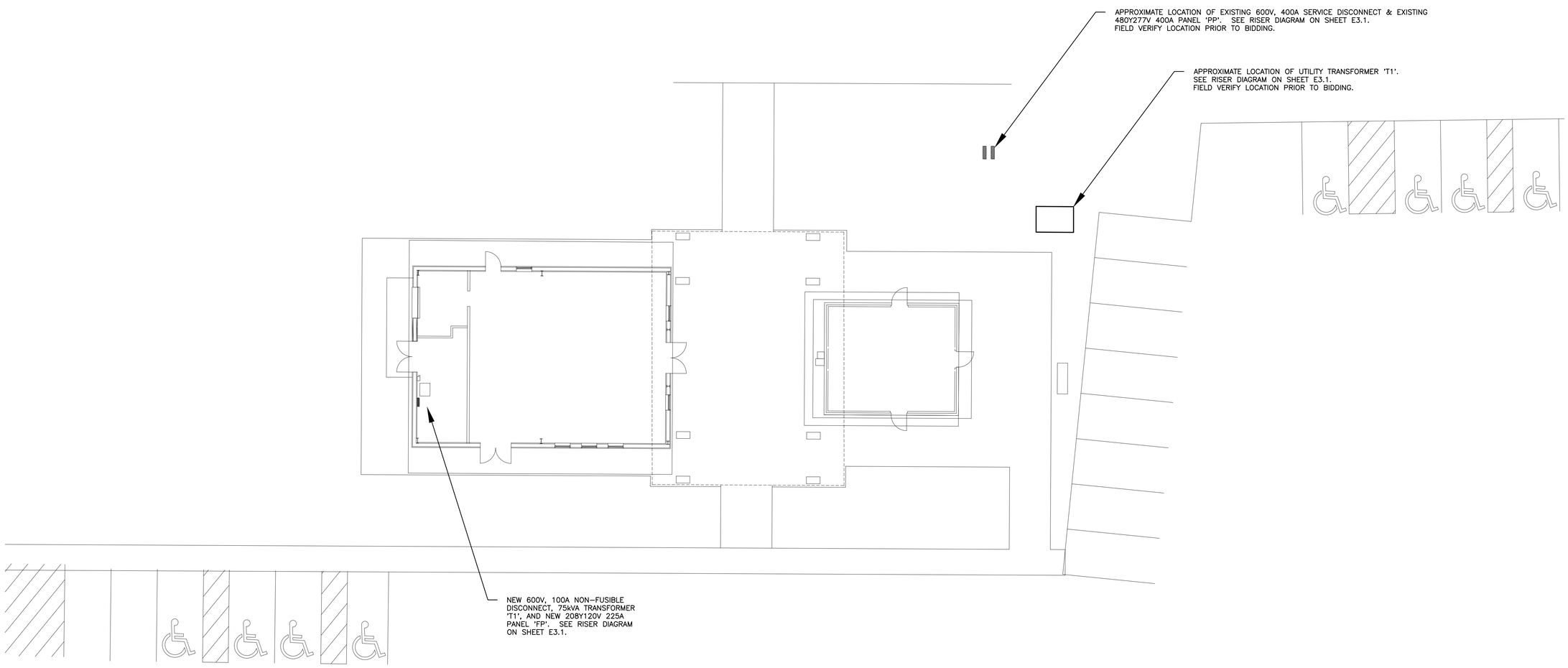
NO	DATE	REVISION	DR.	CHK.



ELECTRICAL SITE PLAN
SCALE: 1"=10'0"

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ELECTRICAL SITE PLAN

FARMER'S MARKET
ELECTRICAL PACKAGE
City of Manchester
Manchester Soccer Park

JOB 102-159.04

SHEET ES1.1 OF SHEETS

April 14, 2022

OLG #34121

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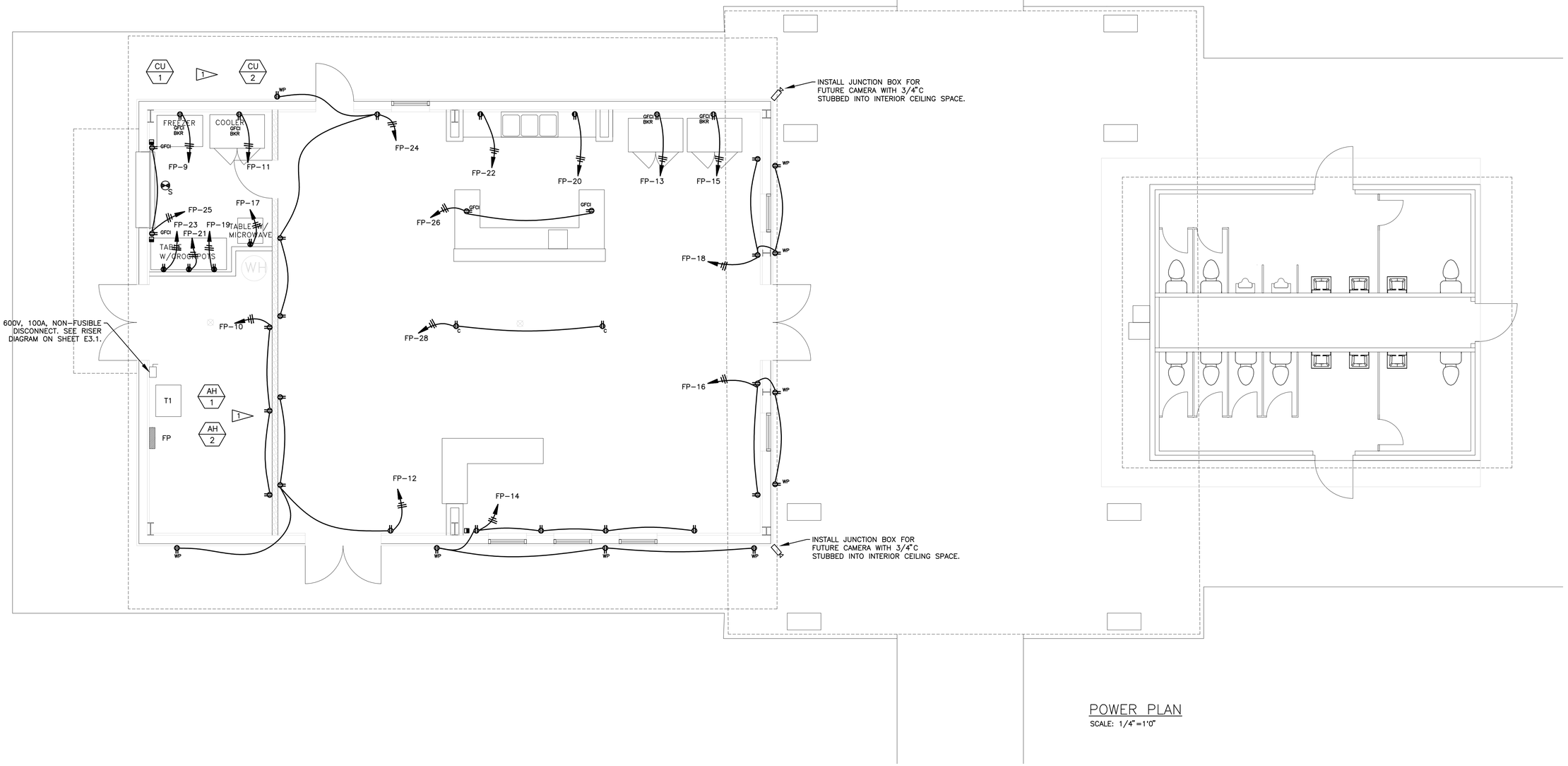
NOTES:

1 COORDINATE LOCATIONS AND POWER REQUIREMENTS FOR ALL HVAC EQUIPMENT.



POWER PLAN
SCALE: 1/4"=1'0"

POWER/WIRING INFORMATION FOR HVAC EQUIPMENT

	HVAC#	DISCONNECT SIZE	CONDUIT/WIRE SIZE		FEEDER PANEL	FEEDER BREAKER(S)
*	AH-1	240V, 60A NON-FUSIBLE	3/4"	(2)#8 & (1)#10 GND.	FP	1,3
**	AH-2	240V,100A NON-FUSIBLE	1-1/4"	(2)#3 & (1)#8 GND.	FP	27,29
***	CU-1	240V, 30A NON-FUSIBLE, NEMA 3R	1/2"	(2)#10 & (1)#10 GND.	FP	5,7
****	CU-2	240V, 60A NON-FUSIBLE, NEMA 3R	3/4"	(2)#8 & (1)#10 GND.	FP	31,33
	WH-1	240V, 30A NON-FUSIBLE	3/4"	(2)#10 & (1)#10 GND.	FP	6.8

* INDOOR 2 TON HVAC EQUIPMENT
** INDOOR 5 TON HVAC EQUIPMENT
*** OUTDOOR 2 TON HVAC EQUIPMENT
**** OUTDOOR 5 TON HVAC EQUIPMENT

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NO	DATE	REVISION	DR.	CHK.

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POWER PLAN

FARMER'S MARKET
ELECTRICAL PACKAGE
City of Manchester
Manchester Soccer Park

ANTHONY DALE GIPSON
REGISTERED ENGINEER
COMMERCIAL
104956
STATE OF TENNESSEE
4/14/22

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OF SHEETS

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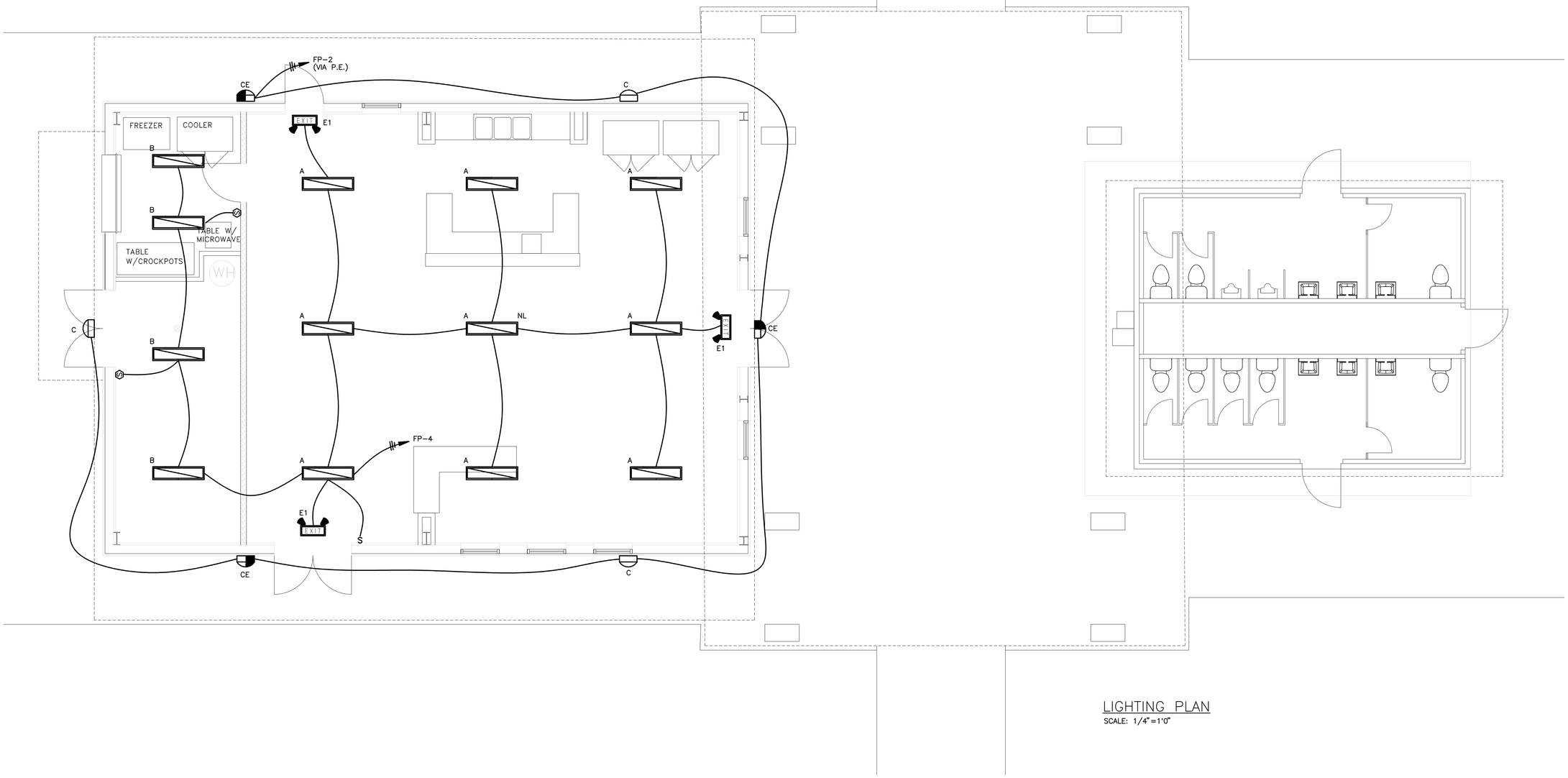

LIGHTING PLAN
SCALE: 1/4"=1'0"

LIGHTING FIXTURE SCHEDULE						
TYPE	MANUFACTURER	CATALOG#	LAMPS	VOLTAGE	MOUNTING	TYPE/REMARKS
A	COLUMBIA	LCL-4-40HL-EU	52W LED	120	SURFACE/SUSPENDED	1' X 4' LINEAR STRIP
B	COLUMBIA	LCL-4-40ML-EU	42W LED	120	SURFACE/SUSPENDED	1' X 4' LINEAR STRIP
C	HUBBELL	LNC2-12L-4K-070-4-U-DBT	29W LED	120	WALL	EXTERIOR WALL PACK WITH EMERGENCY BATTERY
CE	HUBBELL	LNC2-12L-4K-070-4-U-DBT-E	29W LED	120	WALL	SAME AS 'C' WITH EMERGENCY BATTERY PACK
E1	DUAL LITE	EVCURW	LED	120	UNIVERSAL	COMBINATION EXIT SIGN/EMERGENCY EGRESS FIXTURE

April 14, 2022

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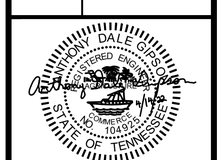
LIGHTING PLAN

FARMER'S MARKET
ELECTRICAL PACKAGE
City of Manchester
Manchester Soccer Park



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OF SHEETS

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PANEL SCHEDULE

PANEL NUMBER	FP
LOCATION	STORAGE ROOM

DIRECTORY	CKT. NO.	AMPS/ POLES	kW	"A" PHASE	"B" PHASE	"C" PHASE	kW	AMPS/ POLES	CKT. NO.	DIRECTORY
2 TON UNIT AUX HEAT (HACR)	1	40/2	3.84	•			0.17	20/1	2	EXTERIOR LIGHTING
	3		3.84		•		0.68	20/1	4	LIGHTING
2 TON UNIT CONDENSER (HACR)	5	25/2	1.36			•	2.25	30/2	6	WH-1
	7		1.36	•			2.25		8	
(GFCI) R - FREEZER	9	20/1	1.20		•		0.54	20/1	10	R - GENERAL PURPOSE
(GFCI) R - COOLER	11	20/1	1.50			•	0.72	20/1	12	R - GENERAL PURPOSE
(GRCI) R - VENDING	13	20/1	1.00	•			1.26	20/1	14	R - GENERAL PURPOSE
(GFCI) R - VENDING	15	20/1	1.00		•		0.72	20/1	16	R - GENERAL PURPOSE
R - MICROWAVE	17	20/1	1.20			•	0.72	20/1	18	R - GENERAL PURPOSE
R - CROCKPOTS	19	20/1	1.00	•			0.18	20/1	20	R - COUNTER
R - CROCKPOTS	21	20/1	1.00		•		0.18	20/1	22	R - COUNTER
R - CROCKPOTS	23	20/1	1.00			•	0.72	20/1	24	R - GENERAL PURPOSE
R - POS & GENERAL PURPOSE	25	20/1	0.36	•			0.36	20/1	26	R - ISLAND
5 TON UNIT AUX HEAT (HACR)	27	90/2	7.87		•		0.36	20/1	28	R - GENERAL PURPOSE
	29		7.87			•	0.00	20/1	30	SPARE
5 TON UNIT CONDENSER (HACR)	31	50/2	3.07	•			0.00	20/1	32	SPARE
	33		3.07		•		0.00	20/1	34	SPARE
SPARE	35	20/1	0.00			•	0.00	20/1	36	SPARE
SPARE	37	20/1	0.00	•			0.00	20/1	38	SPARE
SPARE	39	20/1	0.00		•		0.00	20/1	40	SPARE
SPARE	41	20/1	0.00			•	0.00	20/1	42	SPARE

MAIN BREAKER:	225A	NOTES:	kW PHASE "A"	14.85
MAIN BUS:	225A		kW PHASE "B"	20.46
VOLTAGE:	208Y120V		kW PHASE "C"	17.34
AIC:	22,000		TOTAL kW	52.65
FRAME:				
TRIP:				
MOUNTING:	SURFACE			

LEGEND:

(15") ALL RECEPTACLES ARE TAMPER RESISTANT

- PANELBOARD – FLUSH MOUNT
- T — DRY TYPE TRANSFORMER
- DISCONNECT, SIZE AS INDICATED (60")
- J — JUNCTION BOX
- EXHAUST FAN
- T — THERMOSTAT (60")
- M — UTILITY METER
- EXIT — EXIT SIGN (ARROW INDICATES ILLUMINATED FACE) (96")
- TWIN HEAD EMERGENCY BATTERY UNIT
- S — SWITCH – SNAP, 120 V, 20 A, SINGLE POLE
- S_3 — SWITCH – SNAP, 120 V, 20 A, 3–WAY OPERATION
- S_4 — SWITCH – SNAP, 120 V, 20 A, 4–WAY OPERATION
- S — WALL MOUNTED DUAL SENSING OCCUPANCY SENSOR
- S C — CEILING MOUNTED, DUAL SENSING OCCUPANCY SENSOR
- • — HARD–WIRE CONNECTION POINT
- OUTLET – DUPLEX, GENERAL PURPOSE, 120 V, 20 A
- C — OUTLET – DUPLEX, CEILING MOUNTED, 120 V, 20 A
- USB — OUTLET – COMBO DUPLEX/ISBA/USBC, 120 V, 20 A
- OUTLET – DUPLEX, COUNTER HEIGHT, 120 V, 20 A (8" A.C.T.)
- GFCI — OUTLET – DUPLEX, COUNTER HEIGHT, GFCI, 120 V, 20 A (8" A.C.T.)
- GFCI — GROUND FAULT CURRENT INTERRUPTER
- WP — OUTLET – DUPLEX, WEATHER PROOF, GROUND FAULT CURRENT INTERRUPTER, 120 V, 20 A
- OV — OUTLET – OVEN, 240 V, 60 A
- OUTLET – QUADRUPLEX, GENERAL PURPOSE, 120 V, 20 A
- TV — TELEVISION OUTLET AND RECEPTACLE FIELD COORDINATE HEIGHT WITH OWNER
- TELEPHONE OUTLET
- W — WALL PHONE, 60" A.F.F.
- PHONE & DATA COMBINATION OUTLET

NOTE:
ALL OF THE SYMBOLS AND ABBREVIATIONS INCLUDED ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

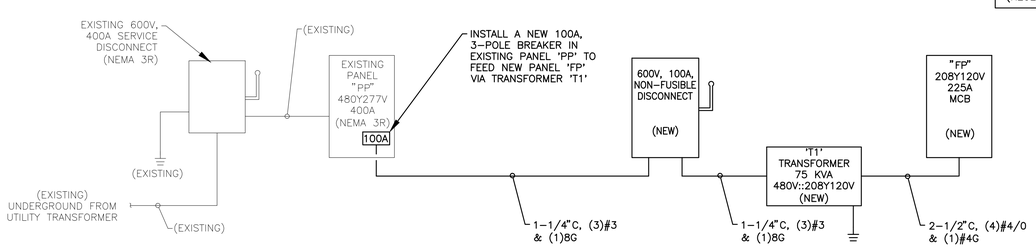
(RECEPTACLES MOUNTED @ 15" A.F.F. UNLESS NOTED OTHERWISE)

GENERAL NOTES:

1. ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70, NATIONAL ELECTRICAL CODE. ALL ITEMS ARE ON AN EQUAL BASIS.
2. ALL SINGLE PHASE BRANCH CIRCUITS (RECEPTACLES, LIGHTING, ETC.) ARE 1/2" CONDUIT OR EMT WITH (3)#12 BLACK/WHITE/GREEN, THHN, 90°C WIRING. ALL OTHER CONDUIT AND WIRING SHALL BE AS INDICATED ON THE PLANS. ACTUAL ROUTING AND HOMERUN GROUPINGS ARE TO BE DETERMINED IN THE FIELD.
3. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC EXCEPT FOR DETAILS AND ELEVATIONS. DO NOT SCALE FROM DIAGRAMMATIC DRAWINGS. EXACT LOCATIONS OF DEVICES AND PANELS ARE TO BE DETERMINED AND ROUGHED–IN DURING CONSTRUCTION TO AVOID INTERFERENCE, TO MEET USER REQUIREMENTS, TO PROVIDE ADEQUATE MOUNTING, AND TO MEET NEC LINEAR ACCESS AND CLEARANCE REQUIREMENTS.
4. CIRCUIT BREAKER FOR WATER HEATERS TO BE PROVIDED WITH THE MEANS TO BE LOCKED IN THE OPEN POSITION.
5. VERIFY EXACT LOCATION OF ALL MOTORS AND EQUIPMENT BEFORE ROUGHING IN.
6. FINAL CONNECTIONS TO ALL AIR–HANDLERS, CONDENSING UNITS, EXHAUST FANS, AND OTHER EQUIPMENT DEVICES WHICH VIBRATE, SHALL BE MADE WITH FLEXIBLE SEALTITE AND APPROPRIATE WIRING.
7. BACK TO BACK MOUNTING OF RECEPTACLES IS NOT PERMITTED.
8. IN ADDITION TO THE NEC REQUIREMENTS FOR GFCI RATED RECEPTACLES, THE FOLLOWING RECEPTACLES SHALL ALSO BE GFCI RATED:

   8.1. ALL RECEPTACLES LOCATED WITHIN 6 FEET OF A SINK.
   8.2. ALL RECEPTACLES WHICH ARE PROVIDED FOR CONVENIENCE IN SERVICING HVAC EQUIPMENT REGARDLESS OF LOCATION.
   8.3. ALL RECEPTACLES IN AREAS THAT ARE DEFINED BY THE NEC AS KITCHENS.

   EITHER INDIVIDUAL GFCI DEVICES OR GFCI CIRCUIT BREAKERS ARE ACCEPTABLE BUT RECEPTACLES PROVIDED BY CIRCUIT BREAKERS OR OTHER GFCI DEVICES SHALL BE CLEARLY MARKED AS GFCI AND THE SOURCE OF PROTECTION SHOWN.
9. PROVIDE A LAMICOID NAMEPLATE (WHITE LETTERS ON BLACK BACKGROUND) ON EACH PANELBOARD, MOTOR STARTER, CONTACTOR, TRANSFORMER, ETC. LETTERS SHALL BE 0.75 INCH MINIMUM.
10. CIRCUIT BREAKERS FOR HVAC EQUIPMENT SHALL BE HACR RATED.
11. MINIMUM HORIZONTAL SEPARATION BETWEEN BOXES ON OPPOSITE WALLS OF FIRE RATED WALL SHALL BE 24 INCHES.
12. VERIFY ALL DOOR SWINGS WITH ARCHITECTURAL BEFORE ROUGHING IN LIGHT SWITCHES.
13. TRADE NAMES ARE GIVEN TO CLARIFY TYPE OF PRODUCT AND QUALITY DESIRED.
14. CONTRACTOR SHALL CUT AS REQUIRED TO INSTALL ELECTRICAL EQUIPMENT. REPAIR OF FLOOR OR WALLS SHALL BE COORDINATED WITH GENERAL CONTRACTOR. CONTRACTOR SHALL ALSO REPAIR ALL OPENINGS LEFT DUE TO EQUIPMENT REMOVAL.
15. CONDUCTORS ARE AWG#12 COPPER UNLESS OTHERWISE SHOWN. ALL CONDUCTORS LARGER THAN #10 SHALL BE STRANDED. RUNS IN EXCESS OF 90'–0" (ONE WAY) SHALL BE SIZED PER THE NATIONAL ELECTRICAL CODE MAXIMUM 2% VOLTAGE DROP.
16. PANELBOARDS SHALL CONTAIN A TYPEWRITTEN DIRECTORY WITH A PLASTIC COVER AFFIXED TO THE INSIDE DOOR.
17. ALL FIXTURES, DEVICES, CONDUIT, AND EQUIPMENT SHALL BE SECURED WITH APPROVED HANGERS AND ANCHORS AND IN ACCORDANCE WITH APPROVED STANDARDS OF INSTALLATION.
18. ALL BREAKERS SHOWN IN THE PANELBOARD SCHEDULE SHALL BE RATED AS SHOWN FOR BOTH CIRCUIT CAPACITY AND FAULT CURRENT INTERRUPTING CAPACITY.
19. TELEPHONE SERVICE CONDUIT SHALL BE SCHEDULE 40 PVC, SIZED AS SHOWN, TURNED UP AT A TELEPHONE BACKBOARD. LOCATION OF TELEPHONE INTERFACE TO BE COORDINATED WITH THE LOCAL TELEPHONE UTILITY.
20. FOR PHONE AND/OR DATA DROPS, INSTALL JUNCTION BOX WITH 3/4" CONDUIT STUBBED INTO ACCESSIBLE CEILING SPACE.
21. ALL PANELBOARDS, DISCONNECT SWITCHES, MOTOR STARTERS, AND CONTACTORS SHALL BE NEMA 1 UNLESS OTHERWISE NOTED.



RISER DIAGRAM
SCALE: NONE

April 14, 2022

NO	DATE	REVISION	DR.	CHK.

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SCHEDULES, RISER DIAGRAM, LEGEND & NOTES

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