

Distribution Panel: MDP

LOCATION: SUPPLY FROM: A MOUNTING: SURFACE ENCLOSURE: NEMA 3R

VOLTS: 120/208 Wye PHASES: 3 WIRES: 4

A.I.C. SERIES RATING: 65K MAINS TYPE: MCB MAINS RATING: 1200 A MCB RATING:

Table with columns: NT, CKT, LOAD DESCRIPTION, TRIP, POLE, A, B, C, POLE, TRIP, LOAD DESCRIPTION, CKT, NT. Lists various electrical loads and their specifications.

Table with columns: Load Classification, Connected Load, Demand Factor, Estimated Demand, Panel Totals. Summarizes load data for HVAC, Kitchen Equipment, etc.

LOAD SUMMARY

Table with columns: TOTAL CONNECTED KVA, IF TOTAL LOAD IS 0_200 KVA, IF TOTAL LOAD IS 201_325 KVA, IF TOTAL LOAD IS 326-500 KVA, IF TOTAL LOAD IS OVER 500 KVA, DIVERSIFIED AMPS AT 208 VOLT.

Branch Panel: POS

LOCATION: SUPPLY FROM: A MOUNTING: FLUSH ENCLOSURE: NEMA 1

VOLTS: 120/120 Single PHASES: 1 WIRES: 3 24-GHG PROVIDE JUMPER FOR PHASE A & B

A.I.C. SERIES RATING: 10K MAINS TYPE: MCB MAINS RATING: 100 A

Table with columns: NT, CKT, LOAD DESCRIPTION, TRIP, POLE, A, B, C, POLE, TRIP, LOAD DESCRIPTION, CKT, NT. Lists loads for Counter Stations, Network Cabinet, etc.

Table with columns: Load Classification, Connected Load, Demand Factor, Estimated Demand, Panel Totals. Summarizes load data for Miscellaneous, Receptacles, etc.

GFCI REQUIREMENTS PER 2020 NEC:

THE CONTRACTOR SHALL PROVIDE GROUND FAULT PROTECTION FOR ALL RECEPTACLE OUTLET BRANCH CIRCUITS IN THE KITCHEN / FOOD PREPARATION AREAS IN ACCORDANCE WITH THE 2020 EDITION OF THE NEC.

Branch Panel: B

LOCATION: SUPPLY FROM: MDP MOUNTING: FLUSH ENCLOSURE: NEMA 1

VOLTS: 120/208 Wye PHASES: 3 WIRES: 4

A.I.C. SERIES RATING: 65K/10K MAINS TYPE: MLO MAINS RATING: 250 A

Table with columns: NT, CKT, LOAD DESCRIPTION, TRIP, POLE, A, B, C, POLE, TRIP, LOAD DESCRIPTION, CKT, NT. Lists various kitchen and utility loads.

Table with columns: Load Classification, Connected Load, Demand Factor, Estimated Demand, Panel Totals. Summarizes load data for HVAC, Kitchen Equipment, etc.

PANELBOARD NOTES

- (A) CONTROLLED BY RELAY IN CONTROL PANEL CFA-T500 AND STORE-OPEN EXHAUST FAN SWITCH. PANELBOARD SUPPLIER TO PROVIDE NOTATION ON CIRCUIT THAT THE CFA-T500 ALSO HAS AN INTEGRAL BREAKER ON THE FAN CIRCUITS FOR THE DISCONNECTION OF POWER AT THE CONTROLLER PER THE NEC. SEE CFA-T500 CONTROL PANEL CONNECTION DIAGRAM ON E-001. (B) CONTROLLED BY EXTERIOR SIGN RELAY IN CONTROL PANEL CFA-T500. (C) CONTROLLED BY EXTERIOR LIGHTING RELAY IN CONTROL PANEL CFA-T500. (D) CONTROLLED BY EXTERIOR LIGHTING RELAY - DUSK TO DAWN ZONE. (E) CONTROLLED BY PARKING LOT LIGHTING CONTROL SWITCH. (F) GFCI TYPE BREAKER TO BE 30MA TYPE BREAKER. (H) THE CONTRACTOR SHALL PROVIDE GROUND FAULT TYPE RECEPTACLES FOR ALL 120 VOLT, 15 AND 20 AMP, RECEPTACLES IN THE KITCHEN/FOOD PREPARATION AREA UNLESS NOTED OTHERWISE. (I) GFCI TYPE BREAKER TO BE 5MA TYPE BREAKER. (J) CONTROLLED BY INTERIOR LIGHTING RELAYS IN CONTROL PANEL T-500. LIGHTS SHALL TURN ON WHEN STORE IS OCCUPIED. (L) LOCK-ON. (LO) LOCK-OFF FOR MAINTENANCE. (M) HIGH MAG LOAD. (SB) THRU (1) SB6100-020-0 GFCI PROTECTION DEVICE IN SB6000 PANEL ENCLOSURE OR (1) SB6100-021-0 GFCI PROTECTION DEVICE SURFACE MOUNTED ENCLOSURE FOR 80 AMP FRYERS; OR (1) SB6000-021-0 GFCI PROTECTION DEVICE SURFACE MOUNTED ENCLOSURE FOR 60 AMP DISHWASHER. (ST) SHUNT TRIP, INTERLOCK W/ FIRE SUPPRESSION SYSTEM VIA T-500 PANEL. (S) SURGE PROTECTION FOR INDIVIDUAL CIRCUIT; MOUNT SINGLE CIRCUIT SURGE PROTECTION DEVICE (SQUARE D) SDSA11757 TO FACEPLATE MOUNTED ON JUNCTION BOX DIRECTLY ABOVE PANELBOARD SERVING LOAD.

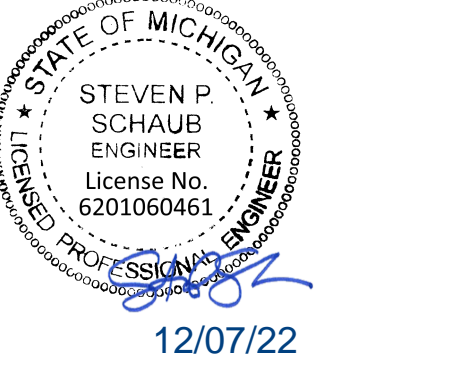


Chick-fil-A logo and address: 5200 Buffington Road, Atlanta, Georgia, 30349-2998

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GPD GROUP Professional Corporation 520 S. MAIN STREET, SUITE 2011 AARON, OH 44411



STEVEN P. SCHAUB ENGINEER License No. 620106461 12/07/22

CHICK-FIL-A I-75 & MILLER ROAD 3140 MILLER ROAD FLINT TOWNSHIP, MI 48503

FSR#05198 BUILDING TYPE / SIZE: P14 LE LRG RELEASE: 22-08

ISSUED FOR CONSTRUCTION REVISION SCHEDULE NO. DATE DESCRIPTION

CONSULTANT PROJECT # 202223.23 DATE 12/07/22

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PANEL SCHEDULES SHEET NUMBER

E-501a



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 5200 Buffington Road
 Atlanta, Georgia
 30349-2998



CHICK-FIL-A
 I-75 & MILLER ROAD
 3140 MILLER ROAD
 FLINT TOWNSHIP, MI 48503

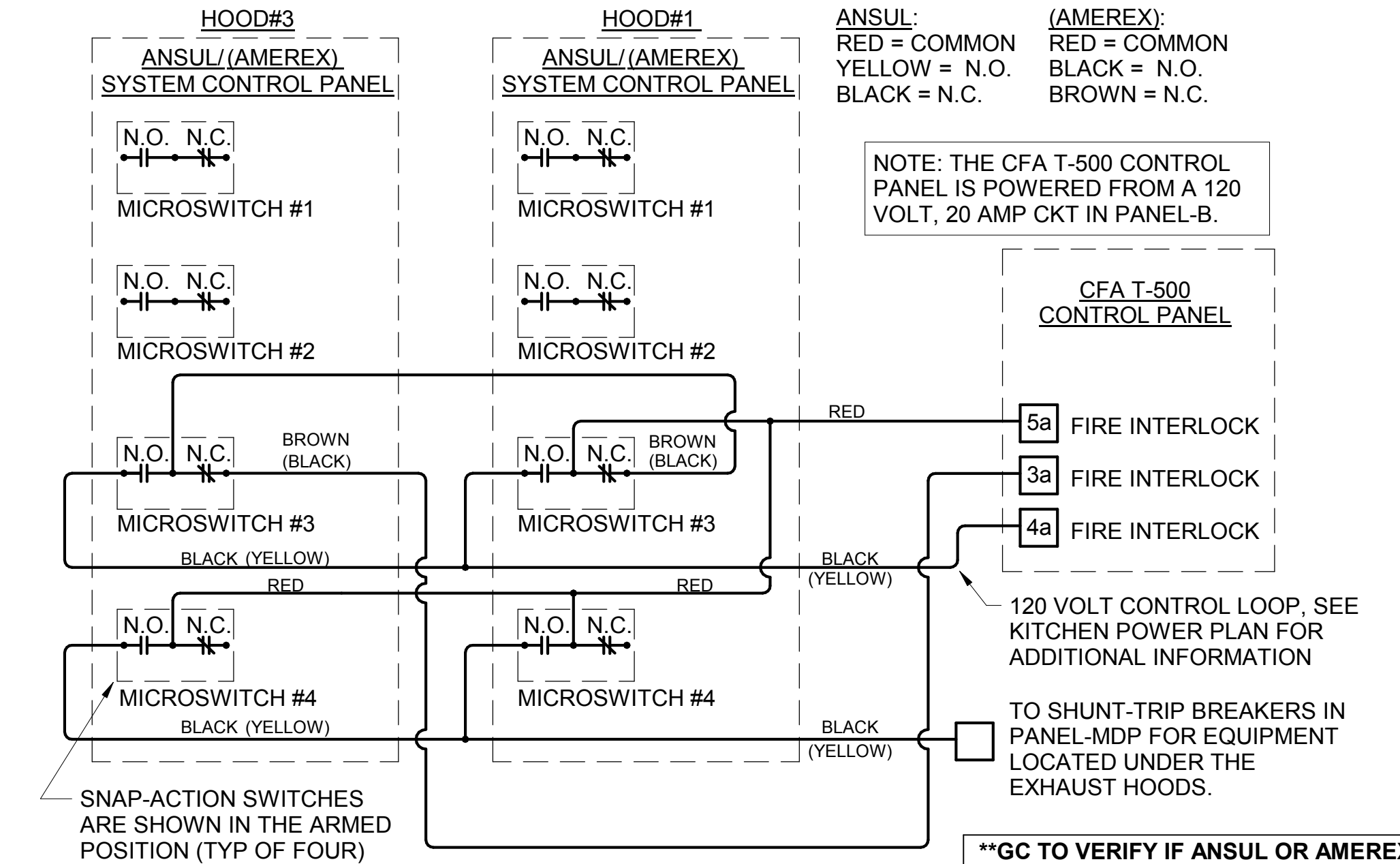
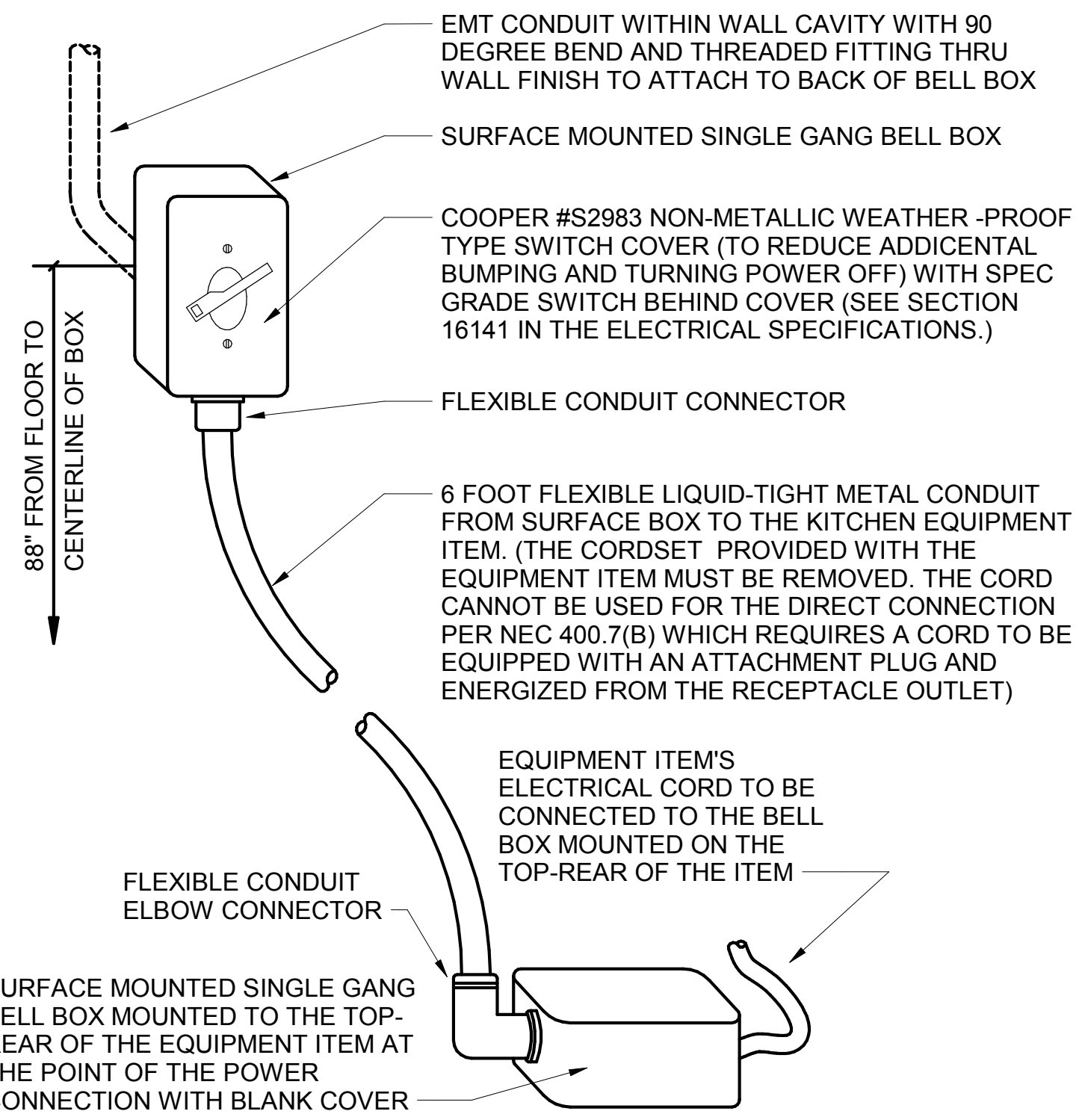
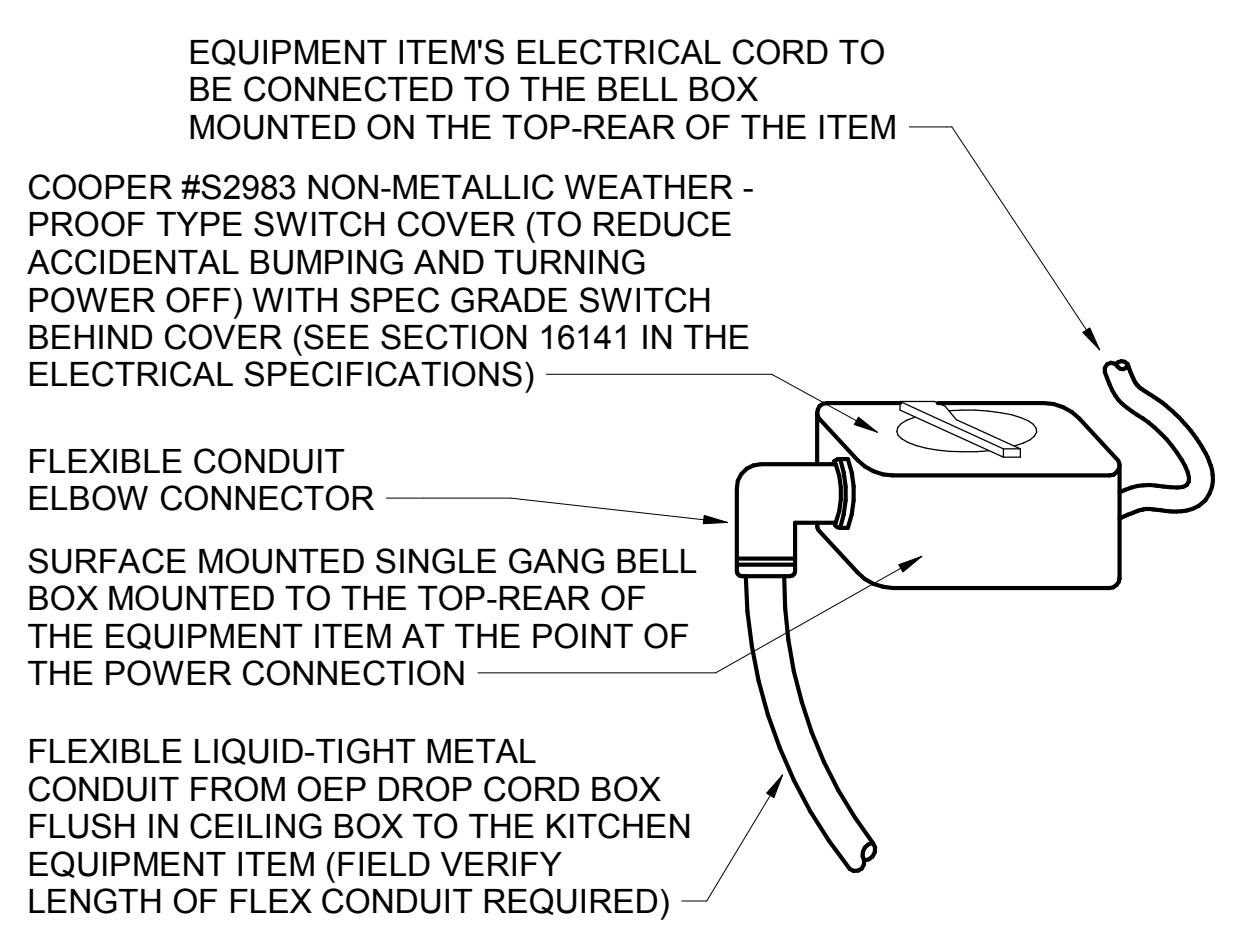
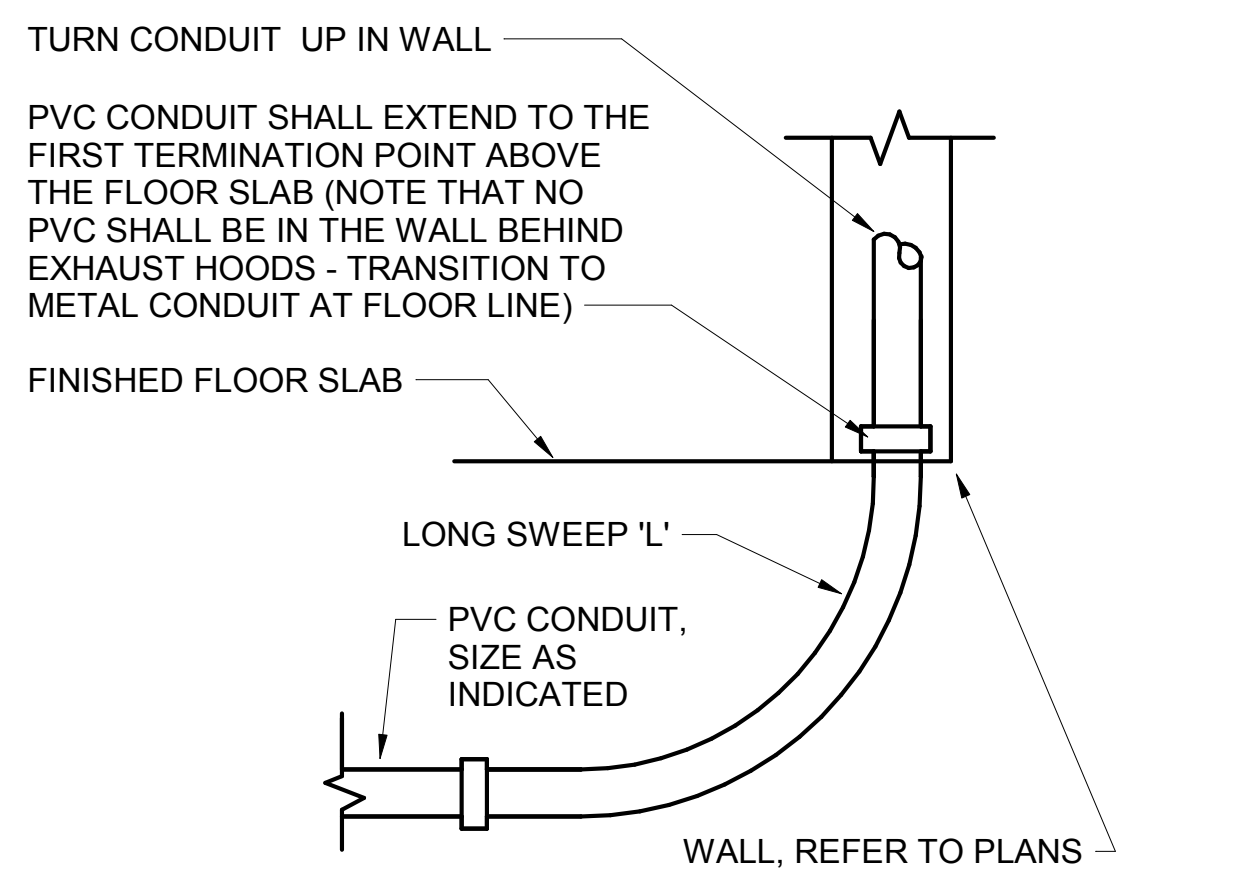
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ELECTRICAL SCHEDULES AND DETAILS
 SHEET NUMBER **E-002**

KITCHEN EQUIPMENT SCHEDULE - CHICK-FIL-A P14 EDITION

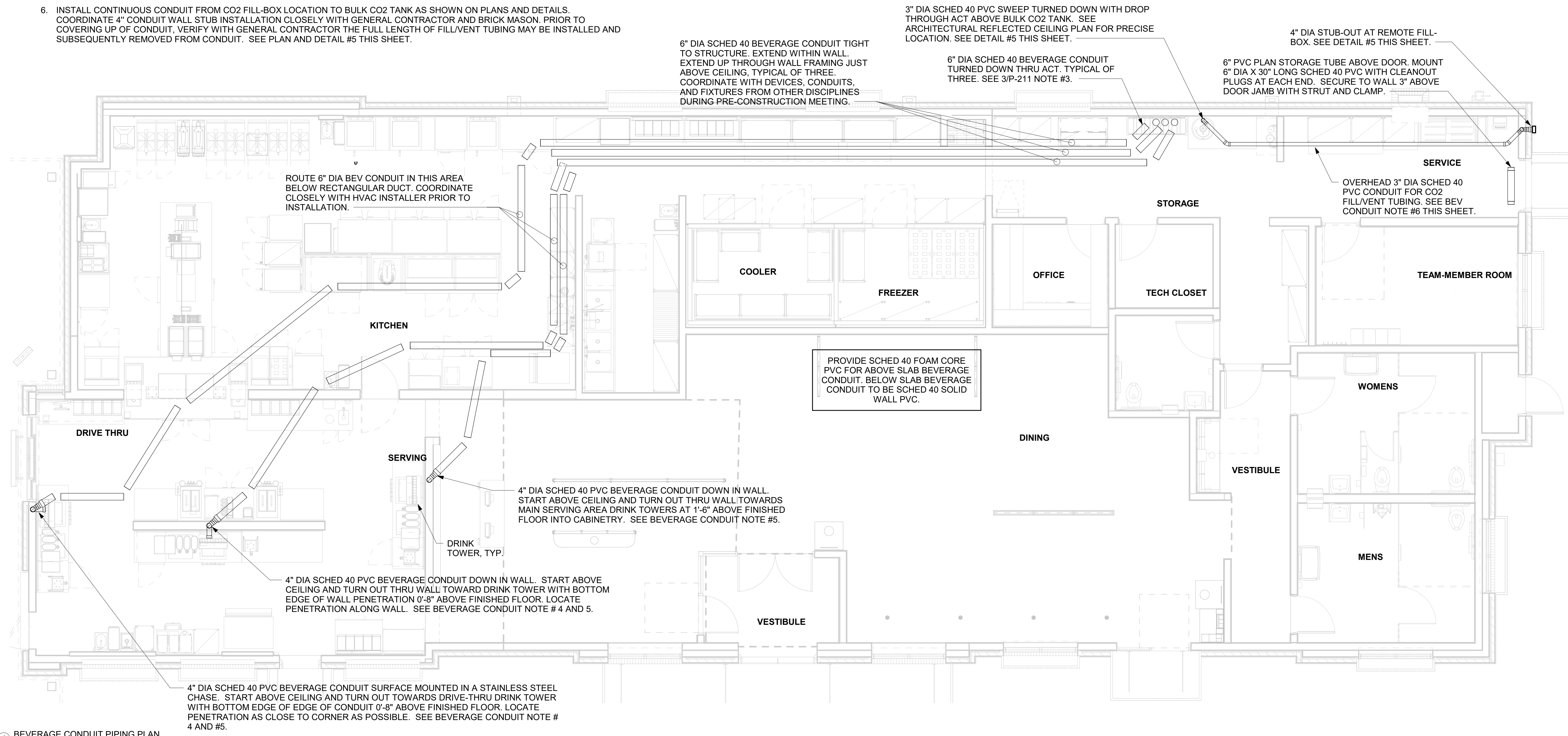
ITEM NO.	DESCRIPTION OF EQUIPMENT	VOLTS	PH	KW	AMPS	NEMA-RATING	COMMENTS AND REMARKS	WIRE/CONDUIT SEE SHEET E-502	NOTES
180	ORDER REGISTER	120	1		0.70	5-20P		1-G	
182	RECEIPT PRINTER	other	1		1.80	5-20P	PROVIDED BY CFA IT WITH 120V/24V POWER SUPPLY ADAPTER FOR USE WITH 120V IG OUTLET	1-G	
182L	LABEL PRINTER	other	1		1.70	5-20P	PROVIDED WITH 120V/24V POWER SUPPLY ADAPTER FOR USE WITH 120V IG OUTLET	1-G	
183	ORDER MONITOR	120	1		0.125	5-20P	PROVIDED BY CFA IT	1	NOTE 5
184	IPAD	120	1	0.120	1.00	5-20P	PROVIDED BY CONNECTION	1	NOTE 2/5
184T	ITIMER	120	1	0.120	1.00	5-20P	PROVIDED BY CLARK	1	NOTE 2
190	DRIVE-THRU VIDEO MONITOR	120	1		0.8	5-20P		1	NOTE 5
211B	FLY SYSTEM	120	1	0.017		5-15P	CLOCK STYLE RECEPTACLE REQUIRED	1	
211C	FLY SYSTEM	120	1	.03	.25	5-15P	RE: ARCHITECTURAL SHEETS FOR MOUNTING DETAILS	1	
269	FIRE SUPPRESSION SYSTEM	120	1			VERIFY DIRECT CONNECTION	REMOTE CABINET - REFER TO SHOP DRAWINGS - FED FROM CFA-T500 PANEL	1	
270	FIRE SUPPRESSION SYSTEM	120	1			VERIFY DIRECT CONNECTION	LOCATED ABOVE HOOD - BEHIND CLOSURE PANEL - REFER TO SHOP DRAWINGS - FED FROM CFA-T500 PANEL	1	
300a	MILKSHAKE BASE DISPENSER	120	1		4.00	5-20P	MOUNTED ON ITEM #300b	1	NOTE 2
300X	DOUBLE BARREL ICE CREAM MACHINE	208	3	19.00/15.00		15-30P/15-20P	PROVIDED WITH HUBBELL HBL8432C & HBL8421C ANGLE PLUGS	9,3	
305	TEA BREWER	120	1	1.650	13.80		PROVIDE QUICK DISCONNECT HOSES	1	
308	SINGLE COFFEE MAKER	208	1	4.000	19.20	L14-30P	QUICK DISCONNECT HOSES PROVIDED BY CFA WAREHOUSE	8	
310	DOUBLE LEMONADE BUBBLER	120	1		8.50	5-15P	ORDER (1) #3CRA016 BOWL KIT AND (1) #3CRA018 BASE PER BUBBLER AND ORDER TOTAL OF (1) #3CRA021 SET OF (2) 2.4 GAL BOWLS	1	
315W	10-HEAD BEVERAGE DISPENSER WITH ICE BIN	115	1		10.00	5-15P/5-15P	PROVIDED WITH (2) CORDS AND PLUGS PER TOWER	1	
320	TURBO CARBONATOR	115	1		6.2	5-20P	ORDER (6) #44231, (2) #44233, (6) DR. PEPPER PUMPS, & (2) #C77004	1	
363H	HIGH-TEMP UPRIGHT DISHWASHER	208	3		53.68	DIRECT CONNECTION	INCLUDES 6 FT BRAIDED HOSE AND INTEGRATED DRAIN WATER TEMPERING SYSTEM - ORDER WITH ASR-LEFT-AM16 ACCESSORY	19	
380	ICE MACHINE	115	1	0.600	5.00	5-15P	INSTALLED ON TOP OF ICE BIN - PROVIDED WITH 6 FT CORD AND 35 FT LINE SETS	1	NOTE 5
380a	ICE BIN SANITATION SYSTEM	120	1	0.0096		5-15P	INSTALLED ON WALL ABOVE ICE BIN - SHARES DUPLEX WITH (1) ICE MACHINE	1	
380C	ICE MACHINE REMOTE CONDENSING UNIT	208	3	3.100	14.20	DIRECT CONNECTION	AIR COOLED UNIT - GC SHALL PLACE AND INSTALL CONDENSER ON ROOF - NOT SHOWN ON DRAWINGS	6	
380CD	ICE MACHINE REMOTE CONDENSING UNIT	208	3	3.600	15.70	DIRECT CONNECTION	AIR COOLED UNIT - GC SHALL PLACE AND INSTALL CONDENSER ON ROOF - NOT SHOWN ON DRAWINGS	6	
380D	ICE MACHINE	115	1	0.368	5.00	5-15P	INSTALLED ON TOP OF ICE BIN - PROVIDED WITH 6 FT CORD AND 35 FT LINE SETS	1	
400L	SINGLE UPRIGHT FREEZER (30" WIDE)	115	1	1.100	9.40	5-15P	HINGE LEFT - PROVIDE FINISHED BACK - ORDER ON 4 5/8 IN CASTERS	1	
404	UNDERCOUNTER FREEZER (27")	115	1		8.00	5-15P	HINGE RIGHT - ORDER ON 4 IN CASTERS	1	
410	WALK-IN FREEZER	120	1		3.3	DIRECT CONNECTION	ORDER WITHOUT FLOOR - REFER TO LIGHTING PLAN	1	NOTE 7
410a	WALK-IN FREEZER CONDENSER	208	3	16.30	16.30	DIRECT CONNECTION	GC SHALL INSTALL CONDENSER ON ROOF - NOT SHOWN ON DRAWINGS	9	NOTE 7
410b	WALK-IN FREEZER EVAPORATOR	208	1		1.50	DIRECT CONNECTION	POWER FED FROM CONDENSER	-	
420	SINGLE UNDERCOUNTER REFRIGERATOR	115	1	0.564	4.70	5-20P	HINGE RIGHT - ORDER ON 4 IN CASTERS	1	
420L	SINGLE UNDERCOUNTER REFRIGERATOR	115	1	0.564	4.70	5-20P	HINGE LEFT - ORDER ON 4 IN CASTERS	1	
421	DOUBLE UNDERCOUNTER REFRIGERATOR	115	1	0.756	6.30	5-15P	ORDER ON 4 IN CASTERS	1	NOTE 2
422T	REFRIGERATED EQUIPMENT STAND (48")	115	1	0.80	6.70	L5-15P	EC TO CHANGE PLUG TO TWIST LOCK - PROVIDED W/6' CORD - ORDER ON 4" CASTERS	1	NOTE 2
431	DOUBLE REFRIGERATED WORK TABLE	115	1	0.756	6.30	5-15P	ORDER ON 6 IN CASTERS WITH BACKSPLASH TOP	1	NOTE 2
439L	40" COLD RAIL	115	1	0.800	7.10	5-15P	COMPRESSOR ON LEFT - SUPPLIED WITH 9 FT CORD AND PLUG	1	
440C	ICE BATH BREADING TABLE	120	1		1.00	5-15P	10 FT CORD AND PLUG - LEAF INCLUDED WITH TABLE - INSTALL IF SHOWN ON PLANS	1	
441T	SALAD PREP TABLE	115	1		9.0	L5-15P	PROVIDE WITH TWIST LOCK PLUG; ORDER ON 4" CASTERS WITH PAN PKG.; SESC TO PROVIDE PAN PKG.	1	
442WC	SINGLE UPRIGHT REFRIGERATOR (30" WIDE)	115	1		7	5-15P	HINGE RIGHT - PROVIDE FINISHED BACK - ORDER ON 6 IN CASTERS	1	
443GLT	SINGLE UPRIGHT REFRIGERATOR (24" WIDE)	115	1		8.00	L5-15P (BY EC)	HINGE LEFT - HALF HEIGHT GLASS DOORS - PROVIDE FINISHED BACK - ORDER ON 6 IN CASTERS - EC TO CHANGE PLUG TO TWIST LOCK	1	
444D	DOUBLE THAWING CABINET (52" WIDE)	115	1		16.00	DIRECT CONNECTION	HINGE STANDARD - GC TO INSTALL LIQUID TIGHT FLEX CONDUIT - ORDER ON 6 IN CASTERS	1	
449	WALK-IN COOLER	120	1		2.4	DIRECT CONNECTION	ORDER WITHOUT FLOOR - REFER TO LIGHTING PLAN	1	
449a	WALK-IN COOLER CONDENSER	208	3		9.50	DIRECT CONNECTION	GC SHALL INSTALL CONDENSER ON ROOF - NOT SHOWN ON DRAWINGS	3	NOTE 7
449b	WALK-IN COOLER EVAPORATOR	208	1	0.110	1.00	DIRECT CONNECTION	POWER FED FROM CONDENSER	-	NOTE 7
500A	VERTICAL CONTACT TOASTER	120	1	1.80	15.00	5-15P		1	
500B	RADIANT TOASTER	208	1	5.50	24.00	L6-30P	PROVIDED WITH TWIST LOCK PLUG	8	
503T	EGG STATION	208	1	2.50	12.50	L6-20P	PROVIDED W/6' CORD & TWIST LOCK PLUG	2	
505VLT	VECTOR OVEN	208	3	7.90	22.00	L15-30P (BY EC)	HINGE LEFT - EC TO CHANGE PLUG TO TWIST LOCK	9	
522	SINGLE OPEN FRYER	208	3	22.000	62.00	PIN & SLEEVE	PIN & SLEEVE PROVIDED WITH EQUIPMENT AND RECEPTACLE BOX PROVIDED WITH HALTON ITEMS - (1) POWER CONNECTION PER WELL	24	
522A	DOUBLE OPEN FRYER	208	3	22/22	62/62	PIN & SLEEVE	PIN & SLEEVE PROVIDED WITH EQUIPMENT AND RECEPTACLE BOX PROVIDED WITH HALTON ITEMS - (1) POWER CONNECTION PER WELL	24,24	
523	PRESSURE FRYER	208	3	13.500	38.00	15-50P	PROVIDED WITH 6 FT CORD AND PLUG	16	
524	DUAL SIDE CLAMSHELL GRILL	208	3	9	24.1/28.2/23.1	15-50P	PROVIDED WITH 5' CORD & PLUG	16,16,16	NOTE 3
560	FRY HOLDING STATION	120	1	1.90	15.4	5-20P		1	
562A	HIGH DENSITY HOT HOLDING TOWER	120	1	1.80	16.00	5-20P	PROVIDED WITH 8 FT CORD AND PLUG	1	
563D	DOUBLE TIER SANDWICH SLIDE	120	1	1.09	9.13	5-15P	CORD EXITS RIGHT - 6' CORD AND PLUG	1	NOTE 5
563SL	SINGLE TIER SANDWICH SLIDE	120	1	0.548	4.56	5-15P	CORD EXITS LEFT - 6' CORD AND PLUG	1	NOTE 5
564BD	VISUAL HOT HOLDING CABINET (2x2 LANDSCAPE)	120	1	0.660	5.50	5-15P	DUAL-SIDED DISPLAY - ORDER WITH LIDS/TRAY SEALS, AMBER PANS, AND FALSE BOTTOMS	1	
565C	FOOD COOKER/WARMER	115	1	1.200	12.50	5-15P	ORDER WITH (1) 3VOL042, (2) 3VOL043, (8) 3VOL051, AND (8) 3VOL061	1	
580H	VISUAL HOT HOLDING CABINET (5x2)	120	1	1.920	16.00	5-20P	ORDER WITH LIDS/TRAY SEALS	1	
592	RETHEMALIZER	208	3	8.000	22.00	15-30P	PROVIDED WITH 6' CORD AND ANGLE PLUG - WATER SUPPLY TO BE S/S BRAIDED HOSE WITH MALE QUICK CONNECT ADAPTER	9	NOTE 5
600T	MIXER	120	1		8.00	L5-20P (BY EC)	EC TO CHANGE PLUG TO TWIST LOCK - ORDER WITH (1) 3HOB051, (1) 3HOB061, (2) 3HOB318, (2) 3HOB319, AND (1) 3HOB058	1	NOTE 2
607	COUNTERTOP LEMON JUICER	115	1			5-15P		1	
669	OFFICE SAFE	120	1				INSTALL SAFE PER MANUFACTURE'S WRITTEN INSTRUCTIONS	1	NOTE 2
672	DIGITAL MENU BOARD	120	1			5-15P	PROVIDED BY COATES	1	

NOTE 1: ALL CORD LENGTHS SHALL BE MEASURED FROM REAR OF THE EQUIPMENT TO THE END OF THE CORD.
 NOTE 2: CONTRACTOR SHALL PROVIDE GROUND-FAULT PROTECTION RECEPTACLES PER 2017 NEC - IN KITCHEN/FOOD PREPARATION AREAS. GROUND-FAULT PROTECTION SHALL BE PROVIDED AT THE RECEPTACLE AS A GFCI TYPE RECEPTACLE UNLESS NOTED OTHERWISE ON THE PLANS WHERE A GFCI TYPE BREAKER IS INDICATED.
 NOTE 3: A RECESSED PIN & SLEEVE BOX IS PROVIDED WITH THE EXHAUST HOOD PACKAGE AND INSTALLED BY THE CONTRACTOR. THE P&S BOX INCLUDES THE "SLEEVE" RECEPTACLES FOR THE OPEN FRYERS. THE OPEN FRYER SUPPLIER WILL PROVIDE PRE-WIRED CORDSET WITH A "PIN" DEVICE INTEGRAL WITH THE OPEN FRYER TO PLUG INTO THE "SLEEVE" RECEPTACLE.
 NOTE 4: WIRE NUMBER INDICATED DOES NOT INCLUDE THE REQUIRED GREEN EQUIPMENT GROUND CONDUCTOR OR, WHEN APPLICABLE, THE STRIPED IG CONDUCTOR.
 NOTE 5: PROVIDE GFCI TYPE BRANCH BREAKER FOR KITCHEN/FOOD PREPARATION AREA RECEPTACLES THAT ARE TWIST-LOCK, CLOCK STYLE, OR IG (ISOLATED GROUND) TYPE.
 NOTE 6: REFER TO THE CONDUIT AND CONDUCTOR SCHEDULE FOR THE WIRE/CONDUIT MARK NUMBER AND THE MINIMUM WIRE AND CONDUIT SIZE FOR EACH EQUIPMENT ITEM.
 NOTE 7: CONTRACTOR SHALL VERIFY ELECTRICAL REQUIREMENTS/WIRING WITH CONSTRUCTION MANAGER PRIOR TO ROUGH-IN.
 NOTE 8: CONTRACTOR SHALL COORDINATE W/ CONSTRUCTION MANAGER ON OPTION WALLBOARD DIGITAL DISPLAY LOCATION AND REQUIREMENTS.

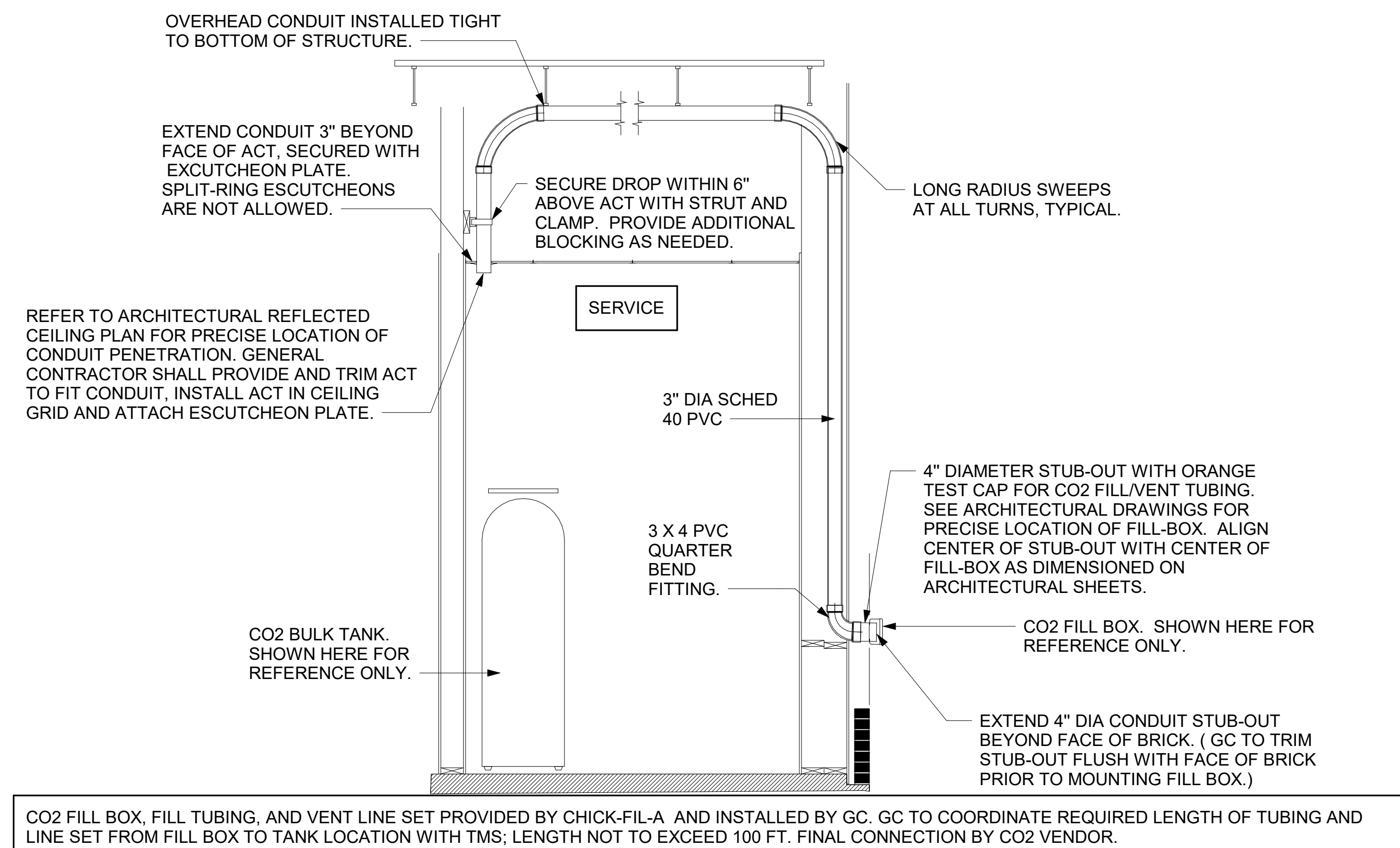


2. BEVERAGE CONDUIT NOTES

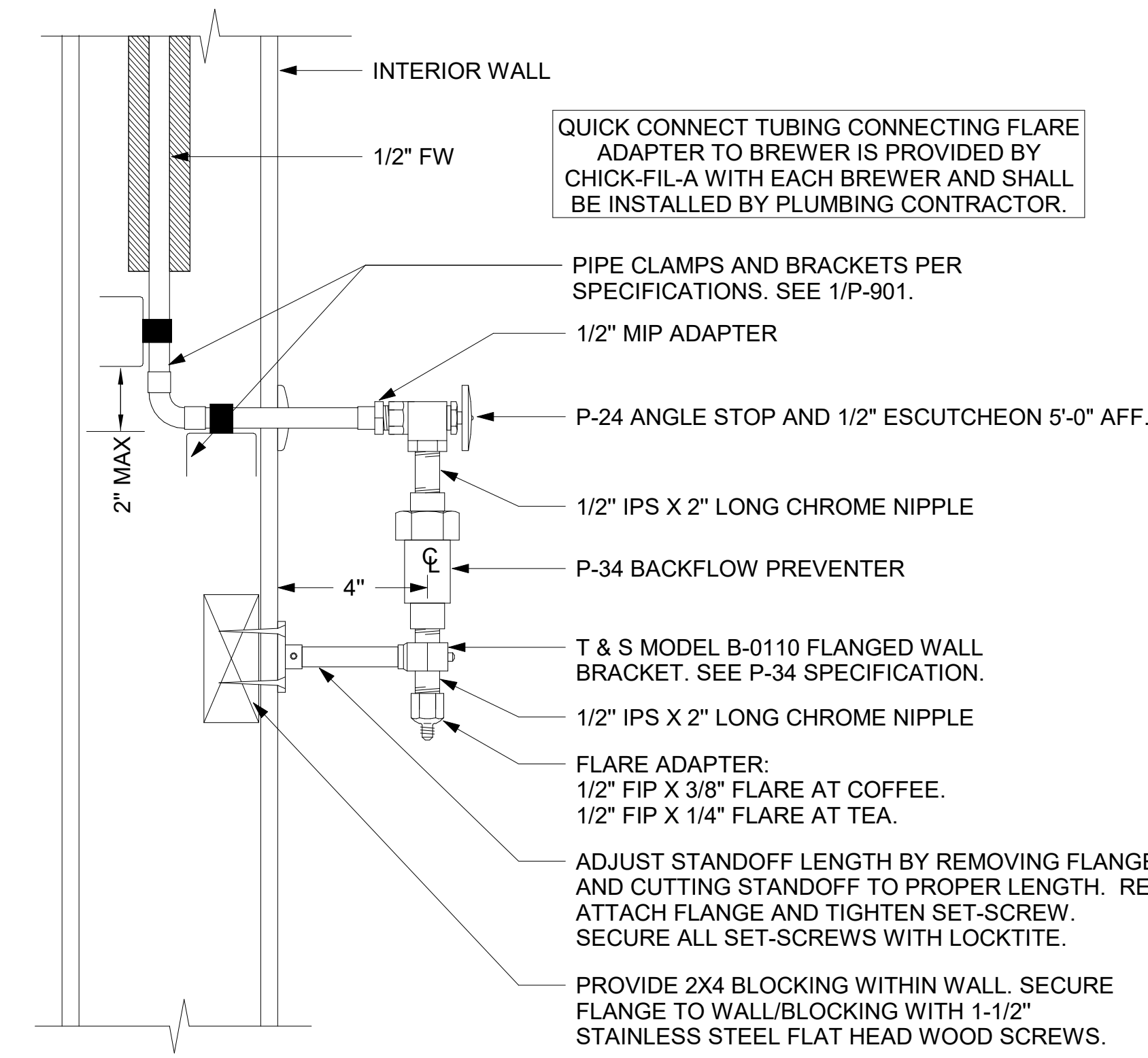
- ROUTE BEVERAGE SYSTEM PIPING OVERHEAD FROM THE BEVERAGE RACK TO DRINK TOWERS IN FOUR (4)-6" DIA SCH 40 PVC DWV CONDUITS. ALL CONDUIT SHALL BE HELD TIGHT TO STRUCTURE AND SUPPORTED WITH THREADED ROD AND CLEVIS HANGERS AT INTERVALS SHOWN IN SPECIFICATIONS FOR HORIZONTAL OVERHEAD PIPING. COORDINATE ROUTING WITH THE GENERAL CONTRACTOR TO AVOID MECHANICAL AND ELECTRICAL SYSTEMS. SEE 1/P-101 AND 1/P-221 FOR BELOW-SLAB BEVERAGE CONDUIT.
- COORDINATE ROUTING OF ALL CONDUITS WITH HVAC DUCT IN KITCHEN. SEE SHEET M-201 FOR LOCATION OF AC UNITS AND DUCT ROUTING.
- TURN THE 6" DIA CONDUIT DOWN THROUGH THE CEILING AT THE BEVERAGE RACK AND PROVIDE CHROMED ESCUTCHEONS AT CEILING PENETRATIONS. TERMINATE OPPOSITE END ABOVE CEILING WHERE SHOWN ON PLANS.
- AT 4" DIA CONDUIT DROP IN WALL, PROVIDE 1/8TH BEND FITTING WITH SHORT PIPE STUB AT BASE OF DROP. CUT STUB AND FITTING FLUSH WITH FINISHED WALL.
- FOR BEVERAGE CONDUIT DROPS AT WALLS WITH SHEATHING EXTENDED ABOVE THE CEILING, PROVIDE APPROPRIATE FITTING AT UPPER END OF CONDUIT DROP TO EXTEND CONDUIT THROUGH SHEATHING.
- INSTALL CONTINUOUS CONDUIT FROM CO2 FILL-BOX LOCATION TO BULK CO2 TANK AS SHOWN ON PLANS AND DETAILS. COORDINATE 4" CONDUIT WALL STUB INSTALLATION CLOSELY WITH GENERAL CONTRACTOR AND BRICK MASON. PRIOR TO COVERING UP OF CONDUIT, VERIFY WITH GENERAL CONTRACTOR THE FULL LENGTH OF FILL/VENT TUBING MAY BE INSTALLED AND SUBSEQUENTLY REMOVED FROM CONDUIT. SEE PLAN AND DETAIL #5 THIS SHEET.



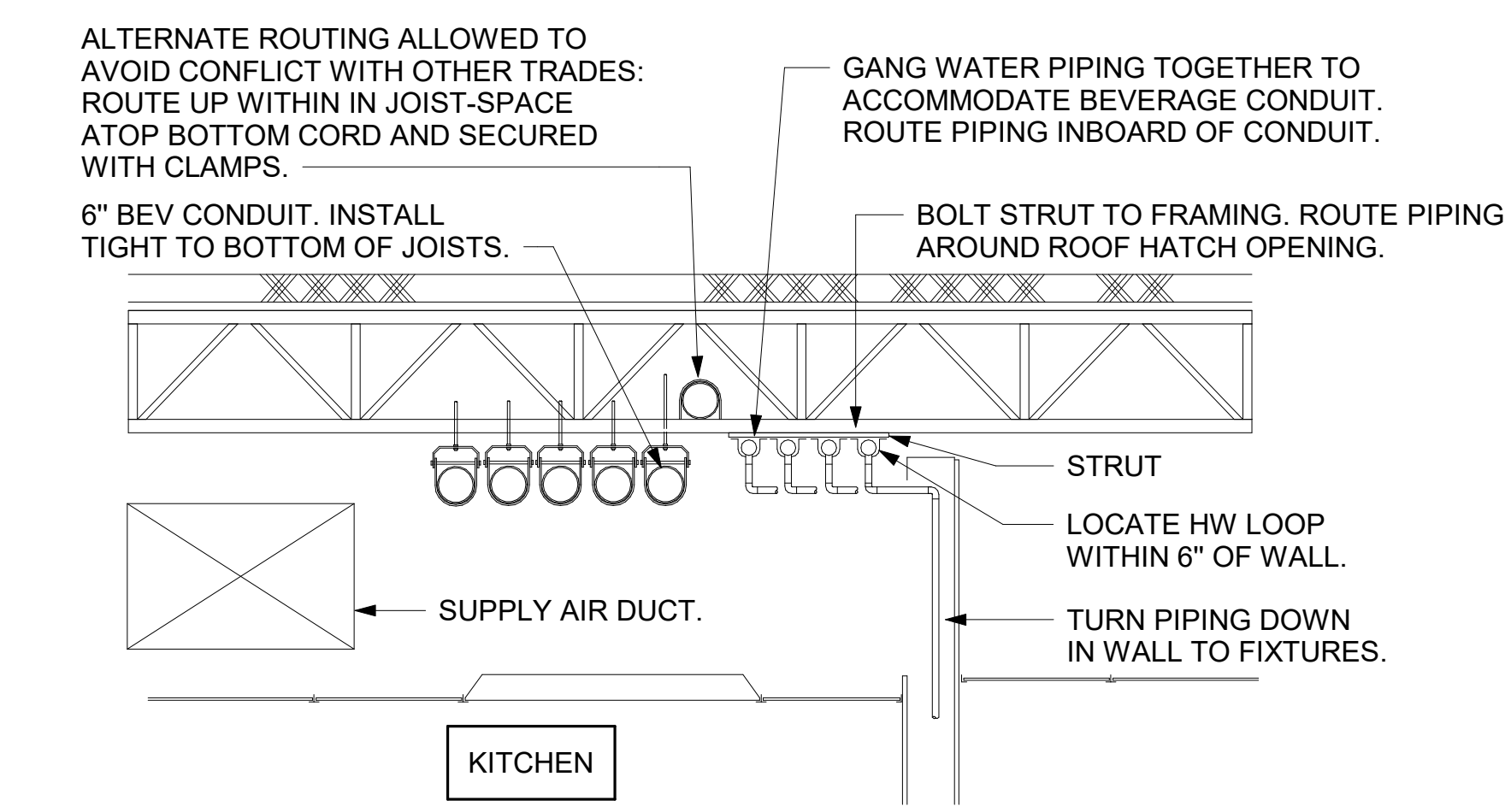
1 BEVERAGE CONDUIT PIPING PLAN
1/4" = 1'-0"



5 CO2 FILL/VENT CONDUIT AND FILL-BOX INSTALLATION
NOT TO SCALE



4 COFFEE & TEA BREWER STOP & BFP
1/4" = 1'-0"



3 SECTION AT WET WALL
NOT TO SCALE



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CHICK-FIL-A
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FLINT TOWNSHIP, MI 48503

FSR#05198

BUILDING TYPE / SIZE: P14 LE LRG
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SHEET BEVERAGE CONDUIT PLAN

SHEET NUMBER

P-211

1. SECTION C15100 - PLUMBING SPECIFICATIONS

PART I - PRODUCTS (C15100)

1.01 GENERAL REQUIREMENTS

A. THE FOLLOWING SPECIFICATIONS ARE THE MINIMUM REQUIREMENT. WHERE FEDERAL, STATE OR LOCAL REQUIREMENTS DIFFER FROM THIS SPECIFICATION, THE MORE STRINGENT OF THE TWO SHALL BE FOLLOWED.

1.02 SCOPE

A. HOT AND COLD POTABLE WATER PIPING ABOVE SLAB SHALL BE TYPE 'L' HARD DRAWN COPPER OR FLOWGUARD GOLD CPVC AS MANUFACTURED BY NIBCO OR CHARLOTTE PIPE & FOUNDRY AND MEETING ASTM D-2846. FILTERED WATER PIPING SHALL BE FLOWGUARD GOLD CPVC. HOT AND COLD PIPING WITHIN WALLS BEHIND KITCHEN HOODS SHALL BE COPPER.

B. POTABLE WATER PIPING BELOW SLAB AND OUTSIDE BELOW GRADE SHALL BE TYPE "K" SOFT ANNEALED SEAMLESS. NO JOINTS SHALL BE ALLOWED BELOW SLAB. POTABLE WATER PIPING BELOW GRADE SHALL BE SLEEVED FOR ITS ENTIRE LENGTH WITH POLY SLEEVE AS MADE BY IPS WATER-TITE. ALL SLAB PENETRATIONS SHALL BE SLEEVED WITH POLY SLEEVE TO PROTECT PIPING FROM CORROSION BY CONCRETE.

C. COPPER PIPE FITTINGS SHALL BE WROUGHT COPPER SWEEP PATTERN FITTINGS SOLDERED USING 95-5 LEAD-FREE SOLDER MEETING ASTM B-32 OR BRAZED WITH SIL-FOS. SOLDER FLUXES SHALL MEET ASTM B-813 AND SHALL BE LEAD FREE. BRAZING FLUXES SHALL MEET AWS FB3-A OR FB3-C.

D. WATER PIPING DOWNSTREAM OF SOFT DRINK CARBONATORS SHALL BE PROVIDED AND INSTALLED BY LOCAL SOFT DRINK VENDOR.

E. CPVC FITTINGS FOR PIPING SHALL BE SOLVENT WELD TYPE MEETING ASTM D-2846 WITH CEMENTS MEETING ASTM F-493 AND PRIMER MEETING ASTM F-656. CURE TIME MUST COMPLY WITH MANUFACTURER'S RECOMMENDATIONS. FOR CPVC PIPING INSTALLATION, WALL STUBS AT FIXTURES AND EQUIPMENT SHALL BE COPPER AND SHALL BE SERIES 630-C. CPVC-TO-COPPER STUB OUT ELBOWS BY SIOUX CHIEF.

F. NIPPLES, ELBOWS, AND OTHER ACCESSORY FITTINGS REQUIRED TO COMPLETE ANY WATER PIPING CONNECTION SHALL BE BRASS OR OF SIMILAR TYPE METAL AS THE FITTING TO WHICH IT IS CONNECTED. GALVANIZED FITTINGS ARE PROHIBITED. (EXCEPTION: GALVANIZED HEAT TRAP WATER HEATER NIPPLES IF INTERNALLY PROTECTED WITH TEFLON OR POLYMER CORROSION-RESISTANT COATING.)

G. ALL HVAC CONDENSATE PIPING SHALL BE SCHEDULE 40 PVC DWV AS MANUFACTURED BY CHARLOTTE PIPE AND MEETING ASTM D-1784, D-1785 AND D-2665.

H. U.N.O., ALL SANITARY WASTE, VENT, STORM DRAINAGE PIPING AND FITTINGS INSIDE THE BUILDING, ABOVE AND BELOW GRADE, AND FOR ROOFTOP CONDENSATE, SHALL BE SOLID WALL SCHEDULE 40 PVC DWV AS MANUFACTURED BY CHARLOTTE PIPE AND MEETING ASTM D-2665 AND D-2949. FOAM CORE AND/OR CELLULAR CORE PVC PIPING SHALL NOT BE ALLOWED. PVC PIPING OUTSIDE THE BUILDING, BELOW GRADE, SHALL BE TYPE SDR-35 MEETING ASTM D-3034, U.N.O.

I. DWV PIPE AND FITTINGS WITHIN WALLS BEHIND KITCHEN HOODS SHALL BE SERVICE WEIGHT HUBLESS CAST IRON WITH SLEEVE, SHIELD, AND DRAWBAND JOINTS MEETING ASTM A-888 AND ASTM C-564.

J. PVC-DWV FITTINGS FOR PIPING SHALL BE SOLVENT WELD TYPE INSIDE AND UNDERSLAB MEETING ASTM D-2665, D-3311 AND F-186. CEMENTS SHALL MEET ASTM D-2564 AND PRIMER MEETING ASTM F-656. CURE TIME MUST COMPLY WITH MANUFACTURER'S RECOMMENDATIONS. EXTERIOR PIPING JOINTS SHALL BE NEOPRENE PUSH-ON TYPE.

K. PROVIDE 1" THICK PIPE INSULATION FOR ALL ABOVE SLAB HOT AND TEMPERED WATER PIPING. PROVIDE 1/2" THICK INSULATION FOR ALL ABOVE SLAB COLD WATER, FILTERED WATER, CONDENSATE PIPING, AND HORIZONTAL RAIN WATER CONDUCTORS INSIDE THE BUILDING. PIPING INSULATION SHALL BE KNAUF 1000F 25/50 FIBERGLASS PIPE COVERING, WHITE KRAFT PAPER VAPOR BARRIER (.02 PERMS) BONDED TO ALUMINUM FOIL AND REINFORCED WITH GLASS FIBERS. MAXIMUM THERMAL CONDUCTIVITY OF 0.23 AT 75F. LONGITUDINAL LAP SHALL BE SELF SEALING. INSULATION FOR WALK-IN COOLER/FREEZER CONDENSATE PIPING SHALL BE ARMACEL A/P ARMAFLEX WITH MINIMUM 3/4" WALL THICKNESS.

L. PIPE INSULATION AND COVERINGS SHALL HAVE A RATING OF NOT GREATER THAN 25 FLAME SPREAD, NO HIGHER THAN 50 SMOKE DEVELOPED, AND NO MORE THAN 50 FUEL CONTRIBUTED. THE ONLY EXCEPTION SHALL BE ARMAFLEX AP, WHEN SPECIFIED, WHICH SHALL NOT EXCEED 100 SMOKE DEVELOPED.

M. A PVC 25/50 PRE-FORMED COVER SHALL BE PROVIDED AT ALL INSULATED PIPING FITTINGS EQUAL TO PROTO PVC CORP LOSMOKE, 800-875-7768.

N. ALL ABOVE GRADE NATURAL GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL MEETING ASTM A53 WITH SCREWED OR WELDED FITTINGS AND GASKET TYPE UNIONS AND FLANGES. FOR SCREWED PIPING, PIPING SHALL BE JOINED WITH BLACK 150 POUND MALLEABLE IRON SCREWED FITTINGS AS ALLOWED BY LOCAL AUTHORITY. CONTRACTOR SHALL VERIFY THE NEED FOR WELDED PIPING AS REQUIRED BY THE LOCAL GAS CODE AND/OR APPLICABLE LOCAL ORDINANCES AND AMENDMENTS.

O. ALL BELOW GRADE NATURAL GAS PIPING SHALL BE MEDIUM DENSITY POLYETHYLENE (PE) MEETING ASTM D2513 AS MANUFACTURED BY GASTITTE WITH JOINING SYSTEM AS MANUFACTURED BY CON-STAB. TRANSDUCTIONS FROM ABOVE GRADE RIDGID PIPING TO PE BELOW GRADE PIPING SHALL BE MADE WITH ANODE-LESS RISER ASSEMBLY AS MANUFACTURED BY CON-STAB.

P. EXPOSED SUPPORTS AND ATTACHMENTS SHALL BE STAINLESS STEEL, CHROME OR CHROME PLATED. GALVANIZED ATTACHMENTS WILL NOT BE ACCEPTED.

Q. USE MATERIALS SPECIFIED ON THESE PLANS. SUBSTITUTIONS ARE ALLOWED ONLY IF SPECIFIED MATERIALS ARE UNAVAILABLE. PRODUCT SUBSTITUTIONS WILL NOT BE ACCEPTED WITHOUT PRIOR APPROVAL. ALL WATER PIPING, FITTINGS, FIXTURES AND ACCESSORIES SHALL BE CERTIFIED LEAD FREE AS DEFINED IN, AND PER THE INTENT OF, THE "REDUCTION IN LEAD IN DRINKING WATER ACT".

PART II - EXECUTION (C15100)

2.01 TRENCHING (C15100)

A. EXCAVATION, BACKFILLING, AND TRENCH WORK SHALL BE DONE IN ACCORDANCE WITH LATEST O.S.H.A. AND APPLICABLE SAFETY STANDARDS.

B. PROVIDE NECESSARY SHORING AND CLEANING TO KEEP TRENCHES IN GOOD WORKING CONDITION, INCLUDING PUMPING OUT WATER.

C. IN MOSTLY ROCK MATERIAL, TRENCHES SHALL BE EXCAVATED TO 6" BELOW THE ELEVATION OF THE BOTTOM OF THE PIPES. AFTER EXCAVATION, TRENCH SHALL THEN BE FILLED TO THE PROPER ELEVATION WITH CRUSHED LIMESTONE GRAVEL SHALL BE REMOVED FROM UNDER PIPE BELLS SO THE PIPE RESTS FIRMLY ON THE TRENCH BOTTOM.

D. IN MOSTLY EARTH OR SAND MATERIAL, TRENCHES SHALL BE EXCAVATED TO 6" BELOW THE ELEVATION OF THE BOTTOM OF THE PIPES. AFTER EXCAVATION, TRENCH SHALL THEN BE FILLED TO THE PROPER ELEVATION WITH FINE SAND OR GRAVEL. TRENCH BOTTOM SHALL BE REMOVED AT PIPE BELLS SO THE PIPE RESTS FIRMLY ON THE TRENCH BOTTOM.

E. BACKFILLING AND TAMPING SHALL BE CAREFULLY DONE BY HAND SIMULTANEOUSLY ALONG BOTH SIDES OF THE PIPE USING ROCK FREE EARTH, CRUSHED STONE OR SAND UNTIL THE PIPE IS COVERED TO A DEPTH OF AT LEAST 12". BACKFILL SHALL BE ACCOMPLISHED IN SUCCESSIVE 6" LAYERS. THE REST OF THE FILL-UP TO THE TOPSOIL LAYER MAY BE GRAVEL OR ROCK FREE EARTH.

F. ACCEPTABLE SOIL MATERIALS FOR BACKFILL AND FILL SHALL BE FREE OF CLAY, ROCK OR GRAVEL LARGER THAN 2" IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS AND OTHER DELETERIOUS MATTER HAVING A PLASTICITY INDEX LESS THAN 30. BACKFILL SHALL BE ACCOMPLISHED IN LAYERS OF NOT MORE THAN 6" AND EACH LAYER SHALL BE COMPACTED. THE LAST 12" OF BACKFILL SHALL BE ROCK FREE TOPSOIL.

G. SURFACE SHALL BE RESTORED TO ITS ORIGINAL CONDITION.

2.02 INSTALLATION (C15100)

A. WATER PIPING IN EXTERIOR WALL SHALL BE INSTALLED ON THE HEATED SIDE OF WALL INSULATION.

B. EXPOSED HOT AND COLD WATER TRIM FITTINGS AND ACCESSORIES IN FINISHED AREAS SHALL BE CHROME FINISHED.

C. ACCEPTABLE METHODS OF PIPE SUPPORT WITHIN WALLS SHALL BE THE SUMNER SYSTEM, POSIFIX, STAKFIX, PIPEFIX, HOLDRITE OR CHANNEL.

D. PROVIDE J.R. SMITH OR APPROVED EQUAL SHOCK ABSORBERS #5005 THRU 5050 SIZE AS RECOMMENDED BY MANUFACTURER INSTALLED ON HOT AND COLD WATER BRANCH LINES CONTAINING SINGLE LEVER FAUCETS, FLUSH VALVES OR EQUIPMENT WITH QUICK CLOSING VALVES BETWEEN THE LAST TWO FIXTURES AS SHOWN ON THE CONTRACT DRAWINGS. SHOCK ABSORBERS SERVICING FIXTURES WITH FLUSH VALVES SHALL BE SECURELY ANCHORED IN THEIR VERTICAL POSITION.

E. SANITARY WASTE LINES SHALL BE UNIFORMLY GRADED TO ELEVATIONS SHOWN. IF NO ELEVATIONS ARE GIVEN, SEWERS SHALL BE PITCHED NOT LESS THAN 1/4" PER FOOT FOR ALL PIPING 2-1/2" IN DIAMETER AND SMALLER AND 1/8" PER FOOT FOR ALL PIPING 3" IN DIAMETER AND LARGER.

F. STORM PIPING SHALL BE SLOPED AT 1/4" PER FT (2%) UNLESS NOTED OTHERWISE ON PLANS.

G. SUPPORT HORIZONTAL PIPING ACCORDING TO LOCAL PLUMBING CODE. HANGER RODS SHALL BE SIZED AS FOLLOWS:

Table with 2 columns: NOMINAL PIPE SIZE (IN) and MINIMUM HANGER DIAMETER (IN). Rows include 1/2", 3/4 TO 1-1/2", 2 TO 2-1/2", and 3 TO 6.

H. HANGERS FOR PIPING GREATER THAN 1" SHALL PASS OVER THE INSULATION. PROVIDE SADDLES FOR INSULATED PIPING.

I. INSULATION SHALL BE APPLIED WITH JOINTS TIGHTLY BUTTED. OPEN CRACKS, VOIDS AND DEPRESSIONS SHALL BE FILLED WITH HYDRAULIC SETTING CEMENT, LAPPING MATCHING THE FINISH SHALL BE PASTED NEATLY OVER JOINTS. FITTINGS AND VALVES SHALL BE INSULATED WITH THE SAME TYPE.

J. PROVIDE AND INSTALL A CUT-OFF VALVE, UNION AND FULL SIZE DIRT LEG AT CONNECTION TO EACH GAS-FIRED PIECE OF EQUIPMENT. INSTALL PIPING AT AND AROUND EQUIPMENT SO AS TO NO WAY OBSTRUCT EQUIPMENT ACCESS PANELS AND/OR ACCESS DOORS.

K. COORDINATE ABOVE-CEILING PIPING LOCATIONS AND ROUTING WITH HVAC CONTRACTOR AND M-SHEETS PRIOR TO INSTALLATION. ALL MAIN DUCT TRUNK LOCATIONS SHALL TAKE PRIORITY. PIPING MAY REQUIRE REMOVAL AND REINSTALLATION AT PLUMBING CONTRACTOR'S EXPENSE IF PIPING OBSTRUCTS THE M-SHEET DUCT LAYOUT AS SHOWN OR PREVENTS ACCESS TO GREASE DUCT CLEANOUT OPENINGS.

L. ALL GAS PIPING ABOVE ROOF SHALL BE CLEANED FREE OF RUST AND PAINTED WITH COAT OF ZINC RUST PRIMER AND ONE COAT OF ALUMINUM BASE PAINT. METER AND GAS RISER SHALL BE PRIMED AND PAINTED TO MATCH BUILDING.

2.03 TESTING (C15100)

A. POTABLE WATER PIPING SHALL BE PRESSURE TESTED IN ACCORDANCE WITH APPLICABLE CODE REQUIREMENTS AND MANUFACTURERS RECOMMENDATIONS.

B. THE POTABLE WATER SYSTEM SHALL BE FLUSHED OUT PROGRESSIVELY BY OPENING OUTLETS AND FLOWING WATER UNTIL IT RUNS CLEAR. AFTER PIPE CLEANING IS COMPLETED, THE STRAINERS SHALL BE REMOVED, CLEANED, AND REPLACED. THEN THE ENTIRE POTABLE WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION.

C. THE SANITARY WASTE SYSTEM SHALL BE FLUSHED OUT PROGRESSIVELY WITH FLOWING WATER UNTIL IT RUNS CLEAR.

D. THE ENTIRE SANITARY WASTE SYSTEM AND STORM DRAINAGE SYSTEM SHALL BE PRESSURE TESTED IN ACCORDANCE WITH APPLICABLE CODE REQUIREMENTS AND MANUFACTURERS RECOMMENDATIONS.

E. NATURAL GAS PIPING SHALL BE LEAK TESTED IN ACCORDANCE WITH APPLICABLE CODE REQUIREMENTS AND MANUFACTURERS RECOMMENDATIONS.

PART III - MANUFACTURERS

3.01 PRODUCTS - PIPING SYSTEMS, ETC (C15100)

A. HYDRANTS, CARRIERS, DRAINS, AND SHOCK ABSORBERS: ZURN. ACCEPTABLE ALTERNATES: JAY R. SMITH, JONES STEPHENS CORP, WATTS, OR JOSAM.

B. ALTERNATES TO ZURN (ZRN) FIXTURES: ONLY AS SHOWN ON PLANS. APPROVED JAY R. SMITH (JRS), WATTS (WTS), MODEL NUMBERS LISTED ON FIXTURE SCHEDULE, THIS SHEET.

3.02 PRODUCTS - RESTROOM FIXTURES PORCELAIN & VALVES (C15405)

A. PREFERRED FIXTURES: TOTO. NO EXCEPTION.

B. ALTERNATE FIXTURES: ONLY AS SHOWN ON PLANS.

C. FITTINGS: AS SPECIFIED ON THE PLANS. NO SUBSTITUTIONS ALLOWED.

D. FLUSH VALVES AND LAVATORY FAUCETS: TOTO MANUFACTURING. NO SUBSTITUTIONS ALLOWED.

E. PREFERRED TOILET SEATS: TOTO. ALTERNATE TOILET SEATS: CHURCH, BEMIS, AND BENEKE.

F. FLOOR SINKS: ZURN WITH ALUMINUM SEDIMENT BUCKETS. NO SUBSTITUTIONS ALLOWED.

NATIONAL ACCOUNTS

Table with 1 column: NATIONAL ACCOUNTS. Row 1: TOTO VALVES AND FIXTURES (NO SUBSTITUTIONS). HAINES, JONES & CADDURY LLC. (HJC DISTRIBUTORS). PLEASE CONTACT HJC-CFA CUSTOMER SERVICE REPRESENTATIVE AT (800) 459-7099 OR VIA E-MAIL AT: CF@HJCINC.COM FOR NATIONAL ACCOUNT PRICING AND DELIVERY FOR ALL ITEMS ON PLUMBING FIXTURE SCHEDULE.

2. PLUMBING FIXTURES

RESTROOM FIXTURES (C15405) AND PLUMBING (15100)

P-1 WATER CLOSET: TOTO MODEL CT705UN#01 BOWL WITH 1.28 GPF TET1LA32#CP ECO-POWER FLUSH VALVE AND SC534 SEAT (ALL PROVIDED BY HJC). NO SUBSTITUTIONS. WHITE FLOOR MOUNTED. FLUSH VALVE TYPE, VITREOUS CHINA, 1-1/2" TOP SPUD. ELONGATED BOWL. ELECTRONIC SENSOR OPERATED. HANDS-FREE FLUSH VALVE, WHITE OPEN FRONT SEAT WITH CHECK HINGE. CHICK-FIL-A HAS NATIONAL ACCOUNTS WITH TOTO. PLEASE SEE NATIONAL ACCOUNT INFORMATION ON THIS SHEET FOR PRICING OF TOTO FIXTURES.

P-2 WATER CLOSET (ADA): TOTO MODEL CT705ULN#01 BOWL WITH 1.28 GPF TET1LA32#CP ECO-POWER FLUSH VALVE AND SC534 SEAT (ALL PROVIDED BY HJC). NO SUBSTITUTIONS. H.C. ACCESSIBLE. WHITE, FLOOR MOUNTED, 17-1/2" HIGH, FLUSH VALVE TYPE, VITREOUS CHINA. 1-1/2" TOP SPUD, ELONGATED BOWL, ELECTRONIC SENSOR OPERATED HANDS-FREE FLUSH VALVE, WHITE OPEN FRONT SEAT WITH CHECK HINGE, AND NO OFFSET TOILET FLANGES. CHICK-FIL-A HAS NATIONAL ACCOUNTS WITH TOTO. PLEASE SEE NATIONAL ACCOUNT INFORMATION ON THIS SHEET FOR PRICING OF TOTO FIXTURES.

P-3 URINAL: TOTO MODEL UT445U#01 URINAL WITH TEU1U1A12#CP. 0.125 GPF SELF SUSTAINED HYDROPOWER SELF-GENERATING ELECTRONIC SENSOR-OPERATED FLUSH VALVE (BOTH PROVIDED BY HJC). NO SUBSTITUTIONS. VITREOUS CHINA, 3/4" TOP SPUD, SENSOR OPERATED WITH MANUAL OVERRIDE BUTTON, INTERNAL VALVE FILTER PROTECTION, PLEASE SEE NATIONAL ACCOUNT INFORMATION ON THIS SHEET FOR PRICING OF TOTO PRODUCTS.

P-4A LAVATORY FAUCET: (BUILT-IN COUNTERTOP LAVATORY PROVIDED BY OWNER) TOTO MODEL TEL 155-D10E#CP ECO-POWER SENSOR HOT/COLD FAUCET WITH THERMOSTATICALLY CONTROLLED ASSE 1070 MIXING VALVE FAUCET. NO SUBSTITUTIONS. PROVIDE MCGUIRE LF175 SUPPLY WITH STOP, MCGUIRE 155-WC GRID DRAIN WITH OFFSET TAILPIECE, MCGUIRE 8872C POLISHED CHROME P-TRAP. P-TRAP SHALL BE PARALLEL WITH BACK WALL. TRUEBRO INC. HANDI LAV-GUARD INSULATION KITS MODELS 101EZ AND 105EZ. (ALL PROVIDED BY HJC). CHICK-FIL-A HAS NATIONAL ACCOUNTS WITH TOTO. PLEASE SEE NATIONAL ACCOUNT INFORMATION ON THIS SHEET FOR PRICING OF TOTO FIXTURES.

P-4B LAVATORY: TOTO MODEL LT307 LAVATORY FAUCET: ECO-POWER SENSOR HOT/COLD FAUCET MODEL TEL105-D10E#CP WITH THERMOSTATICALLY CONTROLLED ASSE 1070 MIXING VALVE FAUCET. 0.09 GALLONS PER CYCLE. PRO-SET FLOOR MOUNTED SUPPORT WITH CONCEALED ARMS. NO SUBSTITUTIONS. MCGUIRE LF175 SUPPLY WITH STOP, MCGUIRE 155-WC GRID DRAIN WITH OFFSET TAILPIECE, MCGUIRE 8872C POLISHED CHROME P-TRAP. P-TRAP SHALL BE PARALLEL WITH BACK WALL. TRUEBRO INC. HANDI LAV-GUARD INSULATION KITS MODELS 101EZ AND 105EZ. (ALL PROVIDED BY HJC). CHICK-FIL-A HAS NATIONAL ACCOUNTS WITH TOTO. PLEASE SEE NATIONAL ACCOUNT INFORMATION ON THIS SHEET FOR PRICING OF TOTO FIXTURES.

P-5 KITCHEN HAND SINK ROUGH IN: SINK BY TMS; FAUCET: TOTO MODEL #TEL165-C20E#CP - PROVIDED BY HJC WITH THP3094 NOZZLE. CONTRACTOR SHALL INSTALL WALL HUNG, STAINLESS STEEL SINK AND FAUCET SET AND MAKE FINAL CONNECTIONS. MCGUIRE LF175 SUPPLIES WITH STOPS AND A MCGUIRE 8912C POLISHED CHROME P-TRAP (PROVIDED BY HJC). ADJUST FAUCET OUTLET TEMPERATURE TO 110 DEGREES F (OR HIGHER AS REQUIRED BY LOCAL JURISDICTION).

P-5A KITCHEN DUMP SINK ROUGH IN: (SINK BY TMS; FAUCET: T&S MODEL #1410XFA#01 - PROVIDED BY HJC WITH THP3094 NOZZLE) CONTRACTOR SHALL INSTALL WALL HUNG, STAINLESS STEEL SINK AND FAUCET SET AND MAKE FINAL CONNECTIONS. MCGUIRE LF175 SUPPLIES WITH STOPS (PROVIDED BY HJC).

P-6 SERVING COUNTER DROP IN SINK ROUGH IN: (SINK PROVIDED BY CLAYTON FIXTURE; FAUCET-T&S EC-3100-7XF1THG WITH 1.0 GPM AERATOR PROVIDED BY HJC) CONTRACTOR SHALL INSTALL SINK AND FAUCET SET AND MAKE FINAL CONNECTIONS. MCGUIRE 8912C POLISHED CHROME P-TRAP AND MCGUIRE LF175R20 STOPS WITH 20" CHROME PLATED 3/8" COPPER RISERS (PROVIDED BY HJC). ADJUST FAUCET OUTLET TEMPERATURE TO 110 DEGREES F (OR HIGHER AS REQUIRED BY LOCAL JURISDICTION).

P-7 MOP SINK FAUCET: (MOP SINK BASIN BUILT BY GENERAL CONTRACTOR) PROVIDE T&S BRASS MODEL B-2945 FAUCET WITH CERAMIC SPRING CHECK VALVE. CARTRIDGES, HOSE THRED SPROUT OUTLET, TOP BRACE, ADJUSTABLE INLET SPREAD FROM 3" TOP 8". INCLUDE T&S BRASS MODEL 43-072 HOSE THREAD X 3/4" FEMALE NPT CHROME ADAPTOR (ALL PROVIDED BY HJC). NO SUBSTITUTIONS. SEE ALSO P-16.

P-8 VEGETABLE PREP SINK ROUGH-IN: (SINK PROVIDED BY TMS; FAUCET T&S B-0152-14-CRBCBT WITH 1.0 GPM SPRAY HEAD BY HJC) CONTRACTOR SHALL INSTALL SINK AND MAKE FINAL CONNECTIONS. MCGUIRE LFST08 STOPS AND BRASSCRAFT 36" CHROME PLATED 1/2" OD COPPER RISERS MODEL 3-36AC (PROVIDED BY HJC). ASSEMBLE AND MOUNT TWO HANDLE FAUCET WITH PRE-RINSE SPRAY ARM AND ADD ON FAUCET AT BASE OF PRE-RINSE RISER. ASSEMBLE AND MOUNT ONE TWO-HANDLE FAUCET WITH DOUBLE JOINT SPOUT ON OPPOSITE SIDE. SEE K-SHEET ELEVATIONS FOR FAUCET LOCATIONS. PROVIDE 1-1/2" SCHED 80 PVC (PIPE AND FITTINGS) INDIRECT WASTE LINES FROM SINK BASINS TO FLOOR SINK P-13B. NO P-TRAPS REQUIRED. HJC TO PROVIDE FISHER #22209 DRAINS WITH FLAT STRAINERS.

P-9 FOUR COMPARTMENT POT SINK ROUGH-IN: (SINK PROVIDED BY TMS; FAUCETS: T&S B-0152-14CRBCBT & B2299-CR WITH 1.0 GPM SPRAY HEAD PROVIDED BY HJC) CONTRACTOR SHALL INSTALL SINK, ASSEMBLE & MOUNT TWO FAUCETS, AND MAKE FINAL CONNECTIONS. MCGUIRE LFST08 STOPS AND BRASSCRAFT 36" CHROME PLATED 1/2" OD COPPER RISERS MODEL 3-36AC (PROVIDED BY HJC). ASSEMBLE AND MOUNT ONE TWO-HANDLE FAUCET WITH PRE-RINSE SPRAY ARM AND ADD ON FAUCET AT BASE OF PRE-RINSE RISER. ASSEMBLE AND MOUNT ONE TWO-HANDLE FAUCET WITH DOUBLE JOINT SPOUT ON OPPOSITE SIDE. SEE K-SHEET ELEVATIONS FOR FAUCET LOCATIONS. PROVIDE 1-1/2" SCHED 80 PVC (PIPE AND FITTINGS) INDIRECT WASTE LINES FROM EACH SINK BASIN TO FLOOR SINK P-13A, NO P-TRAPS REQUIRED. HJC TO PROVIDE FISHER #22209 DRAINS WITH FLAT STRAINERS.

P-10 FLOOR DRAIN (3"): ZURN E21-PV3-R6 PVC BODY, BRONZE SPUD WITH 6" DIAMETER NICKEL BRONZE STRAINER (PROVIDED BY HJC). ALT: JONES STEPHENS CORP D53-144.

P-11 WALL HYDRANT (NON-FREEZE); WOODFORD MODEL 67C AUTOMATIC DRAINING WALL HYDRANT WITH DUAL CHECK BFP, ASSE 1052 APPROVED, WALL CLAMP, POLISHED BRASS FINISH (PROVIDED BY HJC). "C" STYLE INLET, SEE WALL HYDRANT NOTES ON YIP-201 FOR WALL THICKNESS AT WALL HYDRANTS. ALT: (WTS) HY-42.

P-12 FUNNEL DRAIN (3"): ZURN MODEL ZN415E-SC-NL FLOOR DRAIN W/FUNNEL, INDIRECT WASTE RECEIVER WITH NICKEL BRONZE STRAINER AND FUNNEL. PROVIDE 6" SQUARE STRAINER WITH 4" ROUND FUNNEL AT ICE MACHINE & WALK-IN COOLER (PROVIDED BY HJC). 4" ROUND FUNNEL (ZURN) ZN328-4.

P-13A FLOOR SINK (VEGETABLE SINK): ZURN MODEL Z1901-4NL-1-23-KC CAST IRON INDIRECT WASTE RECEIVER WITH 12" SQUARE BODY, FLASHING CLAMP, 8" DEEP, ALUMINUM SEDIMENT BUCKET, AND NO GRATE. NO SUBSTITUTIONS (PROVIDED BY HJC).

P-13B FLOOR SINK (VEGETABLE SINK): ZURN MODEL Z1910-KC-3NL-1-23 CAST IRON INDIRECT WASTE RECEIVER WITH FLASHING CLAMP, 8" SQ. BODY, ALUMINUM SEDIMENT BUCKET, AND NO GRATE (PROVIDED BY HJC). NO SUBSTITUTIONS.

P-13C FLOOR SINK (DUMP SINK): ZURN MODEL Z1910-NL-KC-2-23 CAST IRON BODY WITH INDIRECT WASTE RECEIVER, NEO-LOC OUTLET, ANCHOR FLANGE WITH SEEPAGE HOLES AND CLAMP COLLAR, WITH HALF GRATE, AND ALUMINUM BUCKET. (PROVIDE BY HJC) NO SUBSTITUTIONS.

P-14 CLEANOUTS INSIDE BUILDING: (SEE PLAN FOR CONNECTION SIZE) ZURN ZN1400-XNL-T-8P CLEANOUT WITH 6" SQUARE NICKEL BRONZE TOP AND TAPER THREAD BRONZE PLUG. SEE PLAN FOR SIZE. (X=PIPE DIA) (PROVIDED BY HJC).

P-15 CLEANOUTS OUTSIDE BUILDING:(SEE PLAN FOR CONNECTION SIZE) ZURN Z1474-NX EXTRA HEAVY DUTY CAST IRON CLEANOUT. "C.O." CAST IN COVER, ABS PLUG, NEO-LOOK OUTLET. (X=PIPE DIA) (PROVIDED BY HJC). ALT: (ZURN) Z1474-X-N.

P-16 3-WAY DIVERTER VALVE ASSEMBLY: WATTS MODEL LFB 6780 ROUGH BRASS LEAD-FREE DIVERTER BALL VALVE WITH 3/4" FIP INLET AND OUTLETS AND QUARTER TURN LEVER HANDLE. PROVIDE WITH TWO (2) FORGED BRASS 3/4" MIP X 3/4" MALE GARDEN HOSE THREAD ADAPTERS (PLUMBEST MODEL G20-103 OR EQUAL). PROVIDE WITH ONE ASSE 1011 APPROVED CHROME PLATED VACUUM BREAKER (WOODFORD MODEL 34H-CH OR EQUAL) (ALL PROVIDED BY HJC). FOR INSTALLATION AT MOP SINK: MCGUIRE LF175 SUPPLY WITH STOP, MCGUIRE 155-WC GRID DRAIN WITH OFFSET TAILPIECE, MCGUIRE 8872C POLISHED CHROME P-TRAP. P-TRAP SHALL BE PARALLEL WITH BACK WALL. TRUEBRO INC. HANDI LAV-GUARD INSULATION KITS MODELS 101EZ AND 105EZ. (ALL PROVIDED BY HJC). CHICK-FIL-A HAS NATIONAL ACCOUNTS WITH TOTO. PLEASE SEE NATIONAL ACCOUNT INFORMATION ON THIS SHEET FOR PRICING OF TOTO FIXTURES.

P-17 VACUUM RELIEF VALVE: WATTS MODEL #LFN36M1, 3/4" CW CONNECTION. (PROVIDED BY HJC).

P-18 EXPANSION TANK: AO SMITH MODEL TW12-5, ACCEPTANCE 2.19 GALLONS (PROVIDED BY HJC) AT 40 PSI PRECHARGE, 3/4" CW CONNECTION, ALTERNATE MODELS SIZED PER WATER HEATER MANUFACTURER RECOMMENDATIONS ARE ACCEPTABLE.

P-19 WATER HEATER: BRADFORD-WHITE EF-60T-125E-3N STORAGE TYPE GAS FIRED 60 GALLON WATER HEATER, 125MBH INPUT, 145 GPH RECOVERY AT 100F RISE, DIRECT VENT, BLOWER POWERED, CONDENSING TYPE WITH THREE-YEAR WARRANTY (PROVIDED BY HJC). CONTRACTOR TO PROVIDE DIELECTRIC HEAT TRAP NIPPLES, STATE INDUSTRIES SUF-100-199-NE, RHEEM GHE80-130, AND BRADFORD-WHITE EF-60T-199-3N MODELS ARE ACCEPTABLE SUBSTITUTES. (ANY SUBSTITUTIONS PROVIDED ON REQUEST FROM HJC.)

P-20 THERMOMETER: 1/2" HW CONNECTION. PROVIDE TRECIRE MODEL B83404 - 04 3" DIAL TYPE THERMOMETER WITH BOTTOM 1/2" N.P.T. CONNECTION, 4" STEM AND 0 DEG F TO 200 DEG F RANGE. LEAD FREE. (PROVIDED BY HJC.)

P-21 BACKFLOW PREVENTERS: 1-1/2" CW CONNECTION. COORDINATE LOCATION WITH CIVIL SITE UTILITY PLAN. BACKFLOW PREVENTER TYPE AND MODEL IS DETERMINED BY CIVIL ENGINEER IF LOCATED OUTSIDE THE BUILDING.

DOUBLE CHECK TYPE: WATTS NO. LFU007MIQT 1-1/2" DUAL CHECK MODULAR TYPE BACKFLOW PREVENTER MEETING ASSE 1015 AND AWWA C510-92. WHERE REQUIRED BY LOCAL AUTHORITY, USE THE RPZ TYPE BFP SHOWN BELOW. ALT: (ZRN) 112-350XL. (ANY AND ALL PROVIDED BY HJC.)

REDUCED PRESSURE ZONE (RPZ) TYPE: WATTS NO. LFU009M2 1-1/2" MODULAR TYPE WITH TEST PORTS AND INTERMEDIATE RELIEF VALVE MEETING ASSE 1013 AND AWWA C511-89. PROVIDE WATTS NO. 909-AG-C AIR GAP DEVICE. ALT: (ZRN) 112-957XL2U.

P-22 MOP SINK CHECK VALVES: 1/2" CW AND 1/2" HW CONNECTION. T&S BRASS 1/2" MODEL B-CV1-1-2 BALL CHECK. (PROVIDED BY HJC)

P-23 UTILITY CONNECTION (ICEMAKER): 1/2" FW2 CONNECTION. PROVIDE A MCGUIRE MODEL LFHST065S LEAD-FREE CHROME WHEEL ANGLE STOP, 1/2" NPT INLET AND OUTLET (PROVIDED BY HJC). PROVIDE CHROME WALL ESCUTCHEON. INSTALL WITH BFP P-34. SEE DETAIL 3/P-201 FOR PIPING AT ICE MAKERS.

P-24 UTILITY CONNECTION (COFFEE & TEA BREWERS): 1/2" FW CONNECTION. PROVIDE A MCGUIRE MODEL LFHST065S LEAD-FREE CHROME WHEEL ANGLE STOP, 1/2" FIP INLET AND OUTLET (PROVIDED BY HJC). PROVIDE CHROME WALL ESCUTCHEON. INSTALL WITH BFP P-34.

P-25 SHOCK ABSORBER: 1/2" FW, 1/2" & 3/4" FW2, 1/2" CW, AND 1/2" HW CONNECTION. ZURN Z1700-100 THRU Z1700-300 AS NEEDED. SIZE AS RECOMMENDED BY MANUFACTURER (PROVIDED BY HJC). ALT: (WTS) SSA + SSB; (JRS) 5005 THROUGH 5050)

P-26 FUNNEL DRAIN (3" WASTE CONNECTION); ZURN ZN415-3NL-8S-OF FLOOR DRAIN W/FUNNEL. INDIRECT WASTE RECEIVER WITH NICKEL BRONZE STRAINER AND FUNNEL. PROVIDE 6" SQUARE STRAINER WITH 4" ROUND FUNNEL (PROVIDED BY HJC) AND STRAINER (PROVIDED BY HJC). ALT: (JRS) 3510L03-F22NB.

P-26A TRAP SEAL PROTECTOR: 3" WASTE CONNECTION. PREVENT TRAP GUARD MODEL TG3H 3" TRAP SEAL INSERT FOR INTERIOR INSTALLATION AND REPLACEMENT ACCESS THROUGH STRAINER. PROVIDE AT P-35 FLOOR DRAINS IN RESTROOMS, P-37 FLOOR DRAINS IN DINING ROOM, AND P-10/P-26 DRAINS IN SERVICE ROOM. PROVIDE PROSET MODEL TG33-ZURN WHEN USING ZURN FLOOR FIXTURES.

P-27 WATER PRESSURE GAUGE: 1/4" CW CONNECTION. TRECIRE MODEL 800B, 2-1/2" ROUND, BOTTOM OUTLET WITH 1/4" N.P.T. CONNECTION AND 0 TO 100 PSI RANGE. (PROVIDED BY HJC.)

P-28 ISOLATION BALL VALVE (8-STOP WATER MANIFOLD PANEL): 3/4" FW CONNECTION. NIBCO MODEL 4660-T, 3/4", WITH IPS INLET AND OUTLET. (PROVIDED BY HJC.)

P-29 ICE MACHINE TRENCH DRAIN: ZURN/STAINLESS DRAINS TR12-CFA-XX STAINLESS STEEL TRENCH DRAIN, 14.5" X XX", STAINLESS STEEL SEDIMENT CUP AND STAINLESS STEEL SERRATED LADDER GRATE (XX=DRAIN WIDTH, 18"/36"/48") (PROVIDED BY HJC). NO SUBSTITUTIONS.

P-30a FILTERED WATER FAUCETS: (FAUCETS: T&S B-0236 PROVIDED BY HJC) TWO-HANDLE WALL MOUNT FAUCET WITH SWING SPOUT. MOUNT ON WALL AS SHOWN ON K-SHEETS. PIPE FILTERED WATER TO BOTH SIDES OF FAUCET. CONNECT TO SUPPLY PIPING WITH BRASS OR CHROME NIPPLES; GALVANIZED NOT ALLOWED.

P-31 DUMPSTER POST HYDRANT (NON-FREEZE); WOODFORD MODEL Y2 LEVER TYPE POST HYDRANT, 3/4 HOSE CONNECTION, LOCKABLE LEVER HANDLE, BRASS CASING, BRASS OPERATING ROD, ASSE 1052 APPROVED AND 24" DEPTH OF BURY (PROVIDED BY HJC.)

P-32 DUMPSTER PAD DRAIN: J.R. SMITH FIGURE NO. 2280C03 3" FLOOR DRAIN WITH 7-1/2" HINGED CAST IRON SLOTTED GRATE AND SEDIMENT BUCKET (PROVIDED BY HJC.) INSTALLED BY SITE CONTRACTOR. ALT: (ZRN) Z415C-3NL-Y.

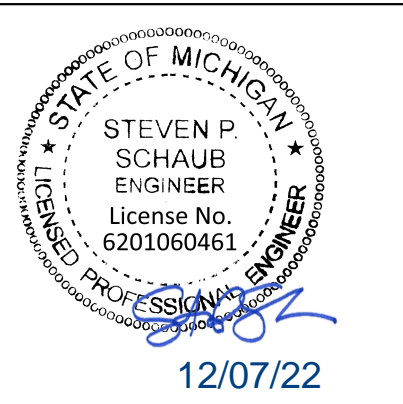
P-33 TRAP PRIMER (MECHANICAL TYPE): DO NOT USE UNLESS REQUIRED BY LOCAL AUTHORITY. PRECISION PRODUCTS PR-500. PROVIDE DISTRIBUTION UNIT WHERE SERVING MULTIPLE DRAINS. PROVIDE SCREWDRIVER STOP AT PRIMER INLET. ALT: (WTS) TP-300A-DR.

P-34 DISPENSER BACKFLOW PREVENTER: WATTS MODEL #LF7RU2-2 ASSE 1024 RATED WITH 1/2" FIP INLET AND OUTLET, DUAL CHECK TYPE. PROVIDE 1/2" DIA X 2" LONG CHROME NIPPLE AT BFP INLET AND OUTLET. PROVIDE T&S BRASS MODEL B-0110 CHROME WALL BRACKET. (ALL PROVIDED BY HJC.)

P-35 FLOOR DRAIN (3"): ZURN E21-PV3-R6 PVC BODY, BRONZE SPUD WITH 6" DIAMETER NICKEL BRONZE STRAINER (PROVIDED BY HJC). ALT: JONES STEPHENS CORP D50-064



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I-75 & MILLER ROAD
3140 MILLER ROAD
FLINT TOWNSHIP, MI 48503

FSR#05198
BUILDING TYPE / SIZE: P14 LE 50
RELEASE: 22.08
PRINTED FOR
ISSUED FOR CONSTRUCTION

REVISION SCHEDULE
NO. DATE DESCRIPTION

CONSULTANT PROJECT # 202223.23
DATE 12/07/22

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SHEET PANEL SCHEDULES

SHEET NUMBER E-501b

Branch Panel: D1
LOCATION: SUPPLY FROM: MDP; MOUNTING: FLUSH; ENCLOSURE: NEMA 1
VOLTS: 120/208 Wye; PHASES: 3; WIRES: 4
A.I.C. SERIES RATING: 65K/10K; MAINS TYPE: MLO; MAINS RATING: 250 A

NT	CKT	LOAD DESCRIPTION	TRIP	POLE	A	B	C	POLE	TRIP	LOAD DESCRIPTION	CKT	NT	
I	1	PRESSURE FRYER (523)	50 A	3	4.563	2.892		3	50 A	CHARGRILL COOKER (524)	2	I	
--	3	--	--	--	4.563	3.384		--	--	--	4	--	
--	5	--	--	--			4.563	2.772	--	--	6	--	
I	7	PRESSURE FRYER (523)	50 A	3	4.563	2.892		3	50 A	CHARGRILL COOKER (524)	8	I	
--	9	--	--	--	4.563	3.384		--	--	--	10	--	
--	11	--	--	--			4.563	2.772	--	--	12	--	
I	13	PRESSURE FRYER (523)	50 A	3	4.563	--		1	--	SPACE	14	--	
--	15	--	--	--	4.563	--		1	--	SPACE	16	--	
--	17	--	--	--			4.563	--	1	--	SPACE	18	--
--	19	SPACE	--	1	--	--		1	--	SPACE	20	--	
--	21	SPACE	--	1	--	--		1	--	SPACE	22	--	
--	23	SPACE	--	1	--	--		1	--	SPACE	24	--	
--	25	SPACE	--	1	--	--		1	--	SPACE	26	--	
--	27	SPACE	--	1	--	--		1	--	SPACE	28	--	
--	29	SPACE	--	1	--	--		1	--	SPACE	30	--	
		Total Load:	19.47 kVA		20.46 kVA		19.23 kVA						
		Total Amps:	162.6 A		170.8 A		160.3 A						

Load Classification: KITCHEN EQUIPMENT (100% DEMAND)
Connected Load: 59167 VA
Demand Factor: 100.00%
Estimated Demand: 59167 VA
Panel Totals: Total Conn. Load: 59.2 kVA, Total Est. Demand: 59.2 kVA, Total Conn.: 164.2 A, Total Est. Demand: 164.2 A

Branch Panel: D2
LOCATION: SUPPLY FROM: MDP; MOUNTING: FLUSH; ENCLOSURE: NEMA 1
VOLTS: 120/208 Wye; PHASES: 3; WIRES: 4
A.I.C. SERIES RATING: 65K/10K; MAINS TYPE: MLO; MAINS RATING: 250 A

NT	CKT	LOAD DESCRIPTION	TRIP	POLE	A	B	C	POLE	TRIP	LOAD DESCRIPTION	CKT	NT	
SB	1	OPEN FRYER (522)	80 A	3	7.446	4.563		3	50 A	PRESSURE FRYER (523)	2	I	
--	3	--	--	--	7.446	4.563		--	--	--	4	--	
--	5	--	--	--			7.446	4.563	--	--	6	--	
SB	7	OPEN FRYER (522A)	80 A	3	7.446	--		1	--	SPACE	8	--	
--	9	--	--	--	7.446	--		1	--	SPACE	10	--	
--	11	--	--	--			7.446	--	1	--	SPACE	12	--
I	13	FUTURE FRYER (F523)	50 A	3	4.560	--		1	--	SPACE	14	--	
--	15	--	--	--	4.560	--		1	--	SPACE	16	--	
--	17	--	--	--			4.560	--	1	--	SPACE	18	--
--	19	SPACE	--	1	--	--		1	--	SPACE	20	--	
--	21	SPACE	--	1	--	--		1	--	SPACE	22	--	
--	23	SPACE	--	1	--	--		1	--	SPACE	24	--	
--	25	SPACE	--	1	--	--		1	--	SPACE	26	--	
--	27	SPACE	--	1	--	--		1	--	SPACE	28	--	
--	29	SPACE	--	1	--	--		1	--	SPACE	30	--	
		Total Load:	24.01 kVA		24.01 kVA		24.01 kVA						
		Total Amps:	200.1 A		200.1 A		200.1 A						

Load Classification: KITCHEN EQUIPMENT (100% DEMAND)
Connected Load: 72043 VA
Demand Factor: 100.00%
Estimated Demand: 72043 VA
Panel Totals: Total Conn. Load: 72.0 kVA, Total Est. Demand: 72.0 kVA, Total Conn.: 200.0 A, Total Est. Demand: 200.0 A

Branch Panel: D3
LOCATION: SUPPLY FROM: MDP; MOUNTING: FLUSH; ENCLOSURE: NEMA 1
VOLTS: 120/208 Wye; PHASES: 3; WIRES: 4
A.I.C. SERIES RATING: 65K/10K; MAINS TYPE: MLO; MAINS RATING: 250 A

NT	CKT	LOAD DESCRIPTION	TRIP	POLE	A	B	C	POLE	TRIP	LOAD DESCRIPTION	CKT	NT
I	1	FUTURE FRYER (F523)	50 A	3	4.560	4.563		3	50 A	PRESSURE FRYER (523)	2	I
--	3	--	--	--	4.560	4.563		--	--	--	4	--
--	5	--	--	--			4.560	4.563	--	--	6	--
SB	7	OPEN FRYER (522)	80 A	3	7.446	7.446		3	80 A	OPEN FRYER (522A)	8	SB
--	9	--	--	--	7.446	7.446		--	--	--	10	--
--	11	--	--	--			7.446	7.446	--	--	12	--
--	13	SPACE	--	1	--	--		1	--	SPACE	14	--
--	15	SPACE	--	1	--	--		1	--	SPACE	16	--
--	17	SPACE	--	1	--	--		1	--	SPACE	18	--
--	19	SPACE	--	1	--	--		1	--	SPACE	20	--
--	21	SPACE	--	1	--	--		1	--	SPACE	22	--
--	23	SPACE	--	1	--	--		1	--	SPACE	24	--
--	25	SPACE	--	1	--	--		1	--	SPACE	26	--
--	27	SPACE	--	1	--	--		1	--	SPACE	28	--
--	29	SPACE	--	1	--	--		1	--	SPACE	30	--
		Total Load:	24.01 kVA		24.01 kVA		24.01 kVA					
		Total Amps:	200.1 A		200.1 A		200.1 A					

Load Classification: KITCHEN EQUIPMENT (100% DEMAND)
Connected Load: 72043 VA
Demand Factor: 100.00%
Estimated Demand: 72043 VA
Panel Totals: Total Conn. Load: 72.0 kVA, Total Est. Demand: 72.0 kVA, Total Conn.: 200.0 A, Total Est. Demand: 200.0 A

GFCI REQUIREMENTS PER 2020 NEC:
THE CONTRACTOR SHALL PROVIDE GROUND FAULT PROTECTION FOR ALL RECEPTACLE OUTLET BRANCH CIRCUITS IN THE KITCHEN / FOOD PREPARATION AREAS IN ACCORDANCE WITH THE 2020 EDITION OF THE NEC.

- PANELBOARD NOTES
- (A) CONTROLLED BY RELAY IN CONTROL PANEL CFA-T500 AND STORE-OPEN EXHAUST FAN SWITCH. PANELBOARD SUPPLIER TO PROVIDE NOTATION ON CIRCUIT THAT THE CFA-T500 ALSO HAS AN INTEGRAL BREAKER ON THE FAN CIRCUITS FOR THE DISCONNECTION OF POWER AT THE CONTROLLER PER THE NEC. SEE CFA-T500 CONTROL PANEL CONNECTION DIAGRAM ON E-001.
 - (B) CONTROLLED BY EXTERIOR SIGN RELAY IN CONTROL PANEL CFA-T500.
 - (C) CONTROLLED BY EXTERIOR LIGHTING RELAY IN CONTROL PANEL CFA-T500.
 - (D) CONTROLLED BY EXTERIOR LIGHTING RELAY - DUSK TO DAWN ZONE.
 - (E) CONTROLLED BY PARKING LOT LIGHTING CONTROL SWITCH.
 - (F) GFCI TYPE BREAKER TO BE 30MA TYPE BREAKER.
 - (H) THE CONTRACTOR SHALL PROVIDE GROUND FAULT TYPE RECEPTACLES FOR ALL 120 VOLT, 15 AND 20 AMP, RECEPTACLES IN THE KITCHEN/FOOD PREPARATION AREA UNLESS NOTED OTHERWISE. (NOTE THAT THE RECEPTACLES FOR THE OEP BOXES, THE KITCHEN/SERVING AREA, SERVING EQUIPMENT, AND THE CIRCUIT FOR THE FLY SYSTEM SHALL BE PROTECTED BY GROUND FAULT TYPE CIRCUIT BREAKERS RATHER THAN GROUND FAULT TYPE RECEPTACLES SINCE ISOLATED GROUNDING TYPE RECEPTACLES, AND CLOCK TYPE RECEPTACLES ARE NOT AVAILABLE AS GROUND FAULT TYPE.) GFCI BREAKERS REQUIRE A DEDICATED NEUTRAL (NOT SHARED) TO OPERATE PROPERLY.
 - (I) GFCI TYPE BREAKER TO BE 5MA TYPE BREAKER.
 - (IG) ISOLATED GROUND.
 - (J) CONTROLLED BY INTERIOR LIGHTING RELAYS IN CONTROL PANEL T-500. LIGHTS SHALL TURN ON WHEN STORE IS OCCUPIED.
 - (L) LOCK-ON.
 - (LO) LOCK-OFF FOR MAINTENANCE.
 - (M) HIGH MAG LOAD.
 - (SB) THRU (1) SB6100-020-0 GFCI PROTECTION DEVICE IN SB6000 PANEL ENCLOSURE OR (1) SB6100-021-0 GFCI PROTECTION DEVICE SURFACE MOUNTED ENCLOSURE FOR 80 AMP FRYERS; OR (1) SB5060-021-0 GFCI PROTECTION DEVICE SURFACE MOUNTED ENCLOSURE FOR 60 AMP DISHWASHER.
 - (ST) SHUNT TRIP. INTERLOCK W/ FIRE SUPPRESSION SYSTEM VIA T-500 PANEL.
 - (S) SURGE PROTECTION FOR INDIVIDUAL CIRCUIT. MOUNT SINGLE CIRCUIT SURGE PROTECTION DEVICE (SQUARE D) SDSA1175T TO FACEPLATE MOUNTED ON JUNCTION BOX DIRECTLY ABOVE PANELBOARD SERVING LOAD.

12/6/2022 9:35:35 AM Autodesk Docs://MI_05198_I75 & Miller Road (MI) FSR#05198_I75 & Miller Road (MI) FSU_ELE.rvt 50-LE-05198-E-501b-PANEL SCHEDULES

12/7/2022 2:39:09 PM Autodesk Docs://MI_05198_175 & Miller Road (MI) FSU_PLB.rvt 40-LE-05198-P-250-ROOF PLAN AND DETAILS

INSTALL AND MOUNT ROOFTOP UNITS "ALT-AC" PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE EXACT LOCATION IN FIELD WITH OTHER TRADES AND MAINTAIN MANUFACTURER'S RECOMMENDED SERVICE CLEARANCES. CONFIRM THAT THE ROOFTOP UNITS OUTSIDE AIR INTAKE IS AT LEAST 10 FT AWAY FROM ANY FLUE VENT. SIZE CONDENSATE AND GAS PIPING BASED ON TRANE UNIT CAPACITY. REFER TO ROOF PIPING PLAN 1/P-250 FOR FINAL CONNECTIONS TO MAIN LINES. TYPICAL OF THREE.

PROVIDE FULL PORT BALL VALVE EQUAL TO APOLLO 50GB SERIES WITH WING HANDLE OPTION ABOVE GRADE AT THE METER. PROVIDE BRASS VALVE TAG WITH JACK CHAIN AT VALVE MARKED "SERVICE SHUTOFF FOR CANOPY HEATERS."

ROUTE POLYETHYLENE GAS B/G FROM THE METER. FOR TRANSITION FROM POLYETHYLENE PIPING B/G TO STEEL AT THE METER, INSTALL ANODELESS RISER WITH INTEGRAL CONSTAB PE-TO-IPS TRANSITION FITTING BY CONTINENTAL INDUSTRIES OR EQUAL BY ELSTER.

1" GAS DOWN THRU ROOF TO WATER HEATER. SEE 2/P-201 FOR CONTINUATION. SEE DETAIL 6/P-250 FOR PIPING AT PENETRATION.

1-1/2" GAS B/G TO ORDER CANOPY, SEE 1/P-251.

PROPOSED GAS METER LOCATION

TURN 3" GAS UP WITHIN WALL, THRU PARAPET AND ONTO ROOF.

ROUTE 4" VENT UP THROUGH ROOF 3'-0" FROM PARAPET.

WHEN CONTRACTOR OPTS TO PROVIDE BRADFORD-WHITE 199,000 BTU ALTERNATE WATER HEATER, INCREASE PIPE SIZE TO 1-1/4" DIA.

ROUTE WATER HEATER FLUE UP THROUGH ROOF PER MANUFACTURER'S RECOMMENDATIONS.

ROUTE WATER HEATER COMBUSTION AIR DUCT UP THROUGH ROOF PER MANUFACTURER'S RECOMMENDATIONS.

INSTALL MAIN GAS SUPPLY LINE NO CLOSER THAN 3'-6" FROM AC UNIT CURB, TYPICAL.

SEE DETAIL 3/P-250 FOR GAS PIPING AT RTU, TYPICAL.

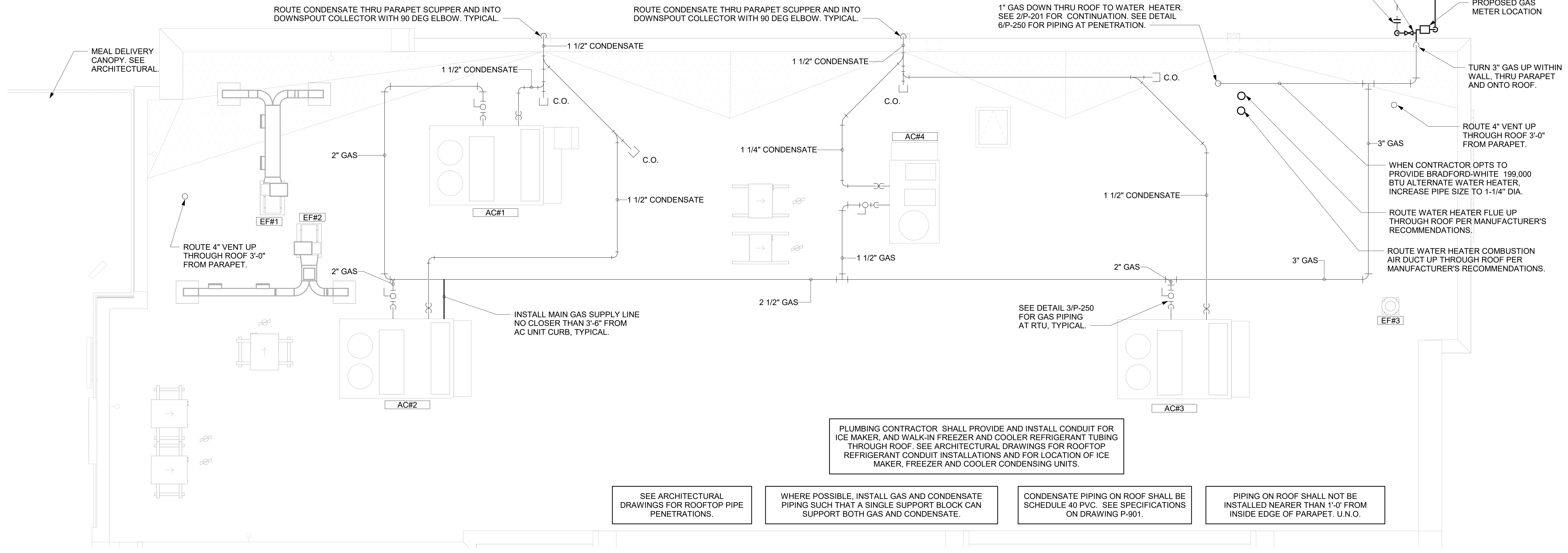
PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL CONDUIT FOR ICE MAKER, AND WALK-IN FREEZER AND COOLER REFRIGERANT TUBING THROUGH ROOF. SEE ARCHITECTURAL DRAWINGS FOR ROOFTOP REFRIGERANT CONDUIT INSTALLATIONS AND FOR LOCATION OF ICE MAKER, FREEZER AND COOLER CONDENSING UNITS.

SEE ARCHITECTURAL DRAWINGS FOR ROOFTOP PIPE PENETRATIONS.

WHERE POSSIBLE, INSTALL GAS AND CONDENSATE PIPING SUCH THAT A SINGLE SUPPORT BLOCK CAN SUPPORT BOTH GAS AND CONDENSATE.

CONDENSATE PIPING ON ROOF SHALL BE SCHEDULE 40 PVC. SEE SPECIFICATIONS ON DRAWING P-901.

PIPING ON ROOF SHALL NOT BE INSTALLED NEARER THAN 1'-0" FROM INSIDE EDGE OF PARAPET. U.N.O.



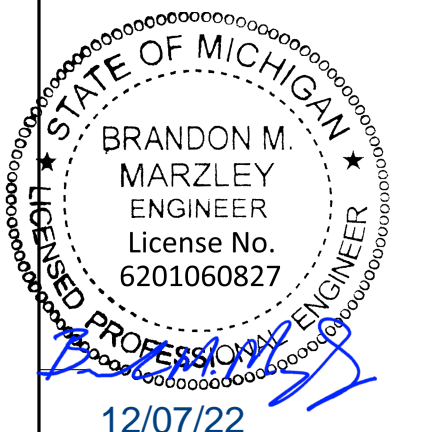
1 ALTERNATE ROOF PIPING PLAN - TRANE
1/4" = 1'-0"

5. GAS CONNECTION SCHEDULE

EQUIPMENT	GAS LOAD
ALT - AC#1	250,000 BTUS
ALT - AC#2	250,000 BTUS
ALT - AC#3	320,000 BTUS
ALT - AC#4	150,000 BTUS
GIH (2 @ 50,000 BTU EA.)	100,000 BTUS
WATER HEATER	120,000 BTUS
TOTAL CONNECTED LOAD	1,190,000 BTUS
REMARKS:	1) EQUIVALENT TO 1,390.0 CFH 2) 7" W.C. DELIVERY PRESSURE 3) DEVELOPED LENGTH: 150 FT (METER TO GIH)



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FLINT TOWNSHIP, MI 48503

FSR#05198

BUILDING TYPE / SIZE: P14 LE LRG
RELEASE: 22.08

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REVISION SCHEDULE
NO. DATE DESCRIPTION

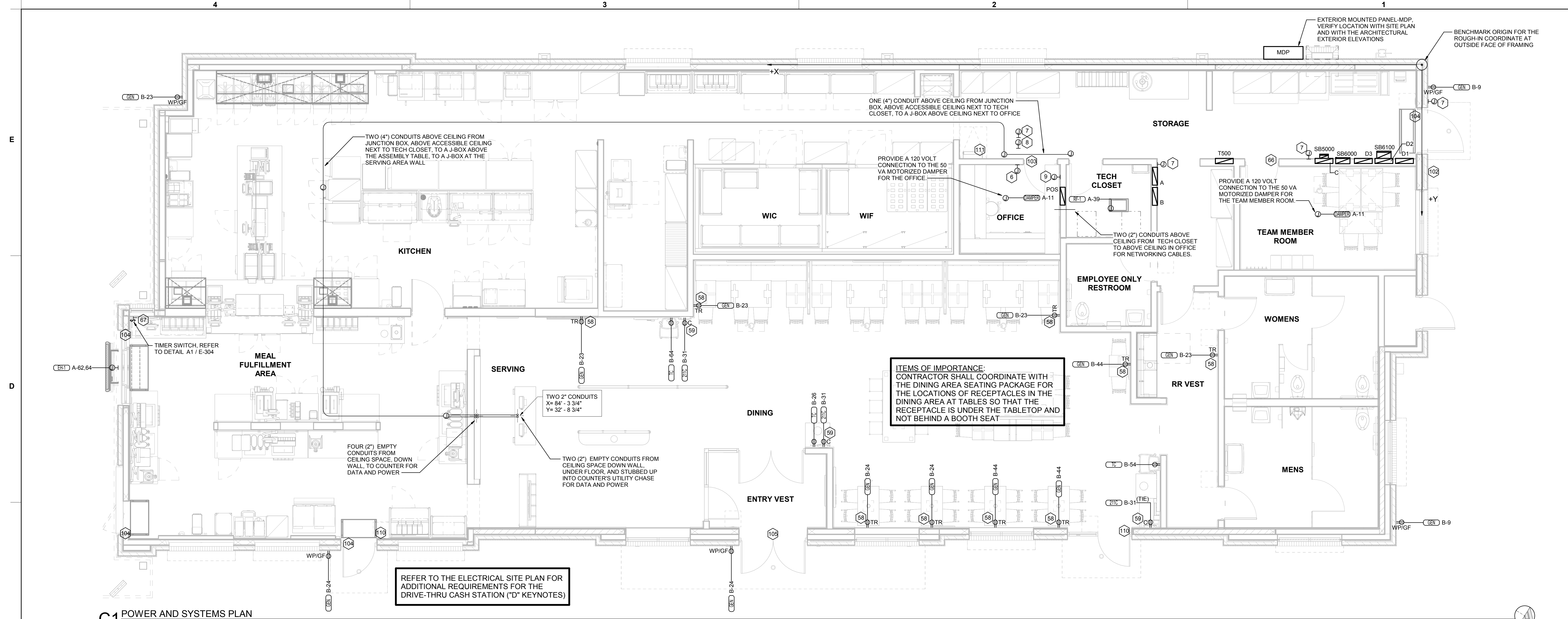
CONSULTANT PROJECT # 202223.23
DATE 12/07/22

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SHEET
ROOF PLAN AND DETAILS

SHEET NUMBER
P-250

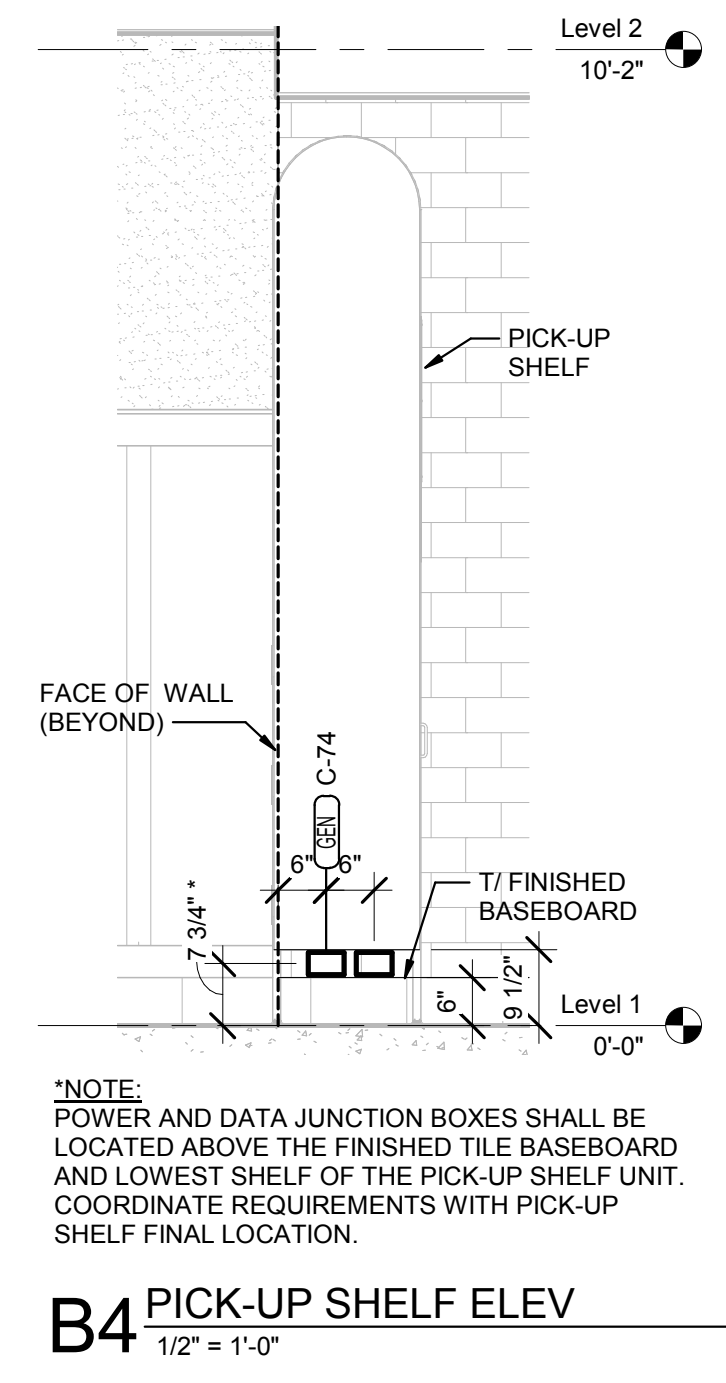
12/16/2022 9:34:48 AM 50-LE-05198-E-221-POWER AND SYSTEMS PLAN



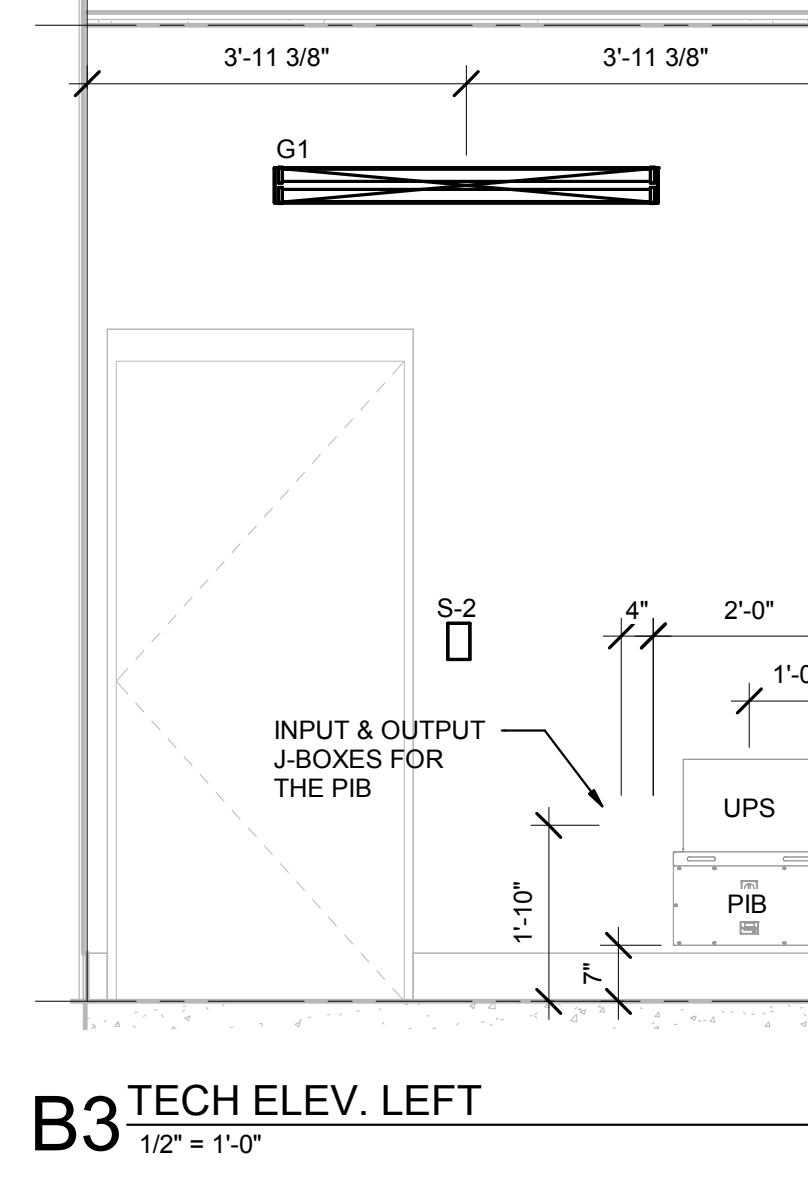
C1 POWER AND SYSTEMS PLAN
1/4" = 1'-0"

- POWER PLAN GENERAL NOTES**
- A. ALL SECURITY, POS, MUSIC, COMMUNICATIONS, AND POWER ROUGH-IN SHALL BE INSTALLED DURING THE FRAMING/ROUGH-IN PHASE OF CONSTRUCTION.
 - B. REFER TO KITCHEN EQUIPMENT SHEETS FOR EQUIPMENT ELECTRICAL ROUGH-IN ELEVATIONS ABOVE FINISHED FLOOR.
 - C. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH PULL STRING.
 - D. PROVIDE INSULATED BUSHING AT TERMINATION POINTS OF ALL CONDUITS FOR LOW VOLTAGE WIRING.
 - E. THE ELECTRICAL INSTALLER SHALL COORDINATE THE ROUTING OF ALL CONDUIT IN THE BUILDING WITH OTHER TRADES (SPECIFICALLY THE DUCTWORK INSTALLATION) TO AVOID CONFLICTS OF SPACE REQUIREMENTS IN WALLS AND CEILING SPACES.
- ELECTRICAL KEYNOTES**
- 6 CO2 CENTRAL CONTROL UNIT - PROVIDE SINGLE-GANG BACKBOX AT 60" AFF WITH 3/4" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING SPACE
 - 7 CO2 ANNUNCIATOR UNIT - PROVIDE SINGLE-GANG BACKBOX AT 60" AFF WITH 3/4" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING SPACE
 - 8 CO2 SENSOR UNIT - PROVIDE SINGLE-GANG BACKBOX AT 12" AFF WITH 3/4" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING SPACE
 - 9 CO2 POWER SUPPLY - PROVIDE SINGLE-GANG BACKBOX AT 18" BELOW CEILING WITH 3/4" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING SPACE. PROVIDE DUPLEX OUTLET, AND CONNECT TO A LOCAL GENERAL OUTLET CIRCUIT. FIELD VERIFY EXACT LOCATION WITH STRONG SYSTEMS 800-500-5566
 - 58 TAMPER RESISTANT (TR) DUPLEX RECEPTACLE (IN DINING AREAS) WITH USB CHARGER SHALL BE COOPER/ARROW HART #TR786-B (BROWN) WITH MATCHING COLOR 'DECOR' STYLE PLATE. VERIFY COLOR WITH OWNER.
 - 59 PROVIDE DUPLEX RECEPTACLE (SEE ELEVATIONS FOR MTG HT) IN AN ARLINGTON #DVR2W DOUBLE-GANG RECESSED BOX FOR THE FLY SYSTEM ITEMS. DO NOT CUT THE CORDSET FURNISHED WITH THE UNIT, BUT COIL THE CORD ON THE BACK OF THE UNIT AND TUCK INTO THE BACKBOX.
 - 64 PROVIDE TWO 6"H X 6"W X 4"D J-BOXES (ONE FOR TELEPHONE AND ONE FOR ISP) AT 6'-6" AFF AND EXTEND A 2" CONDUIT WITH PULL STRING IN THE WALL FROM EACH J-BOX INTO THE ACCESSIBLE CEILING SPACE. PROVIDE A 36" X 36" X 3/4" PLYWOOD BACKBOARD ON THE WALL ABOVE THE J-BOXES AT THE CEILING FOR USE BY THE ISP. PROVIDE A COPPER GROUND BAR (EQUAL TO ERICO TGBA24L14P) AT THE BOTTOM OF THE BACKBOARD WITH A #6 AWG INSULATED CU GROUNDING CONDUCTOR IN A 3/4" FROM THE GROUND BAR TO THE INTER SYSTEM BONDING TERMINATION NEXT TO THE SERVICE ENTRANCE. THE GROUND BAR SHALL HAVE TAPS FOR USE BY THE TELEPHONE AND ISP UTILITY COMPANIES AND FOR THE #6 COMMUNICATIONS GROUNDING CONDUCTOR TO THE GES. PROVIDE A 15 AMP ISOLATED GROUND (IG) ORANGE-FACED DUPLEX RECEPTACLE IN THE WALL BESIDE THE BACKBOARD AND LABEL THE RECEPTACLE "FOR FIBER TO CABLE MODEM USE ONLY". BOND NETWORK RACKS TO GROUND BAR.
 - 66 THE STORE OPEN-CLOSE UNIT SWITCH IS FURNISHED WITH THE CFA-T500 CONTROL PANEL AND FACTORY INSTALLED IN THE DOOR OF THE CFA-T500 CABINET.
 - 67 TIMER SWITCH FOR OUTSIDE ELECTRIC HEATER. REFER TO E304 FOR DETAILS AND WIRING SCHEMATIC.

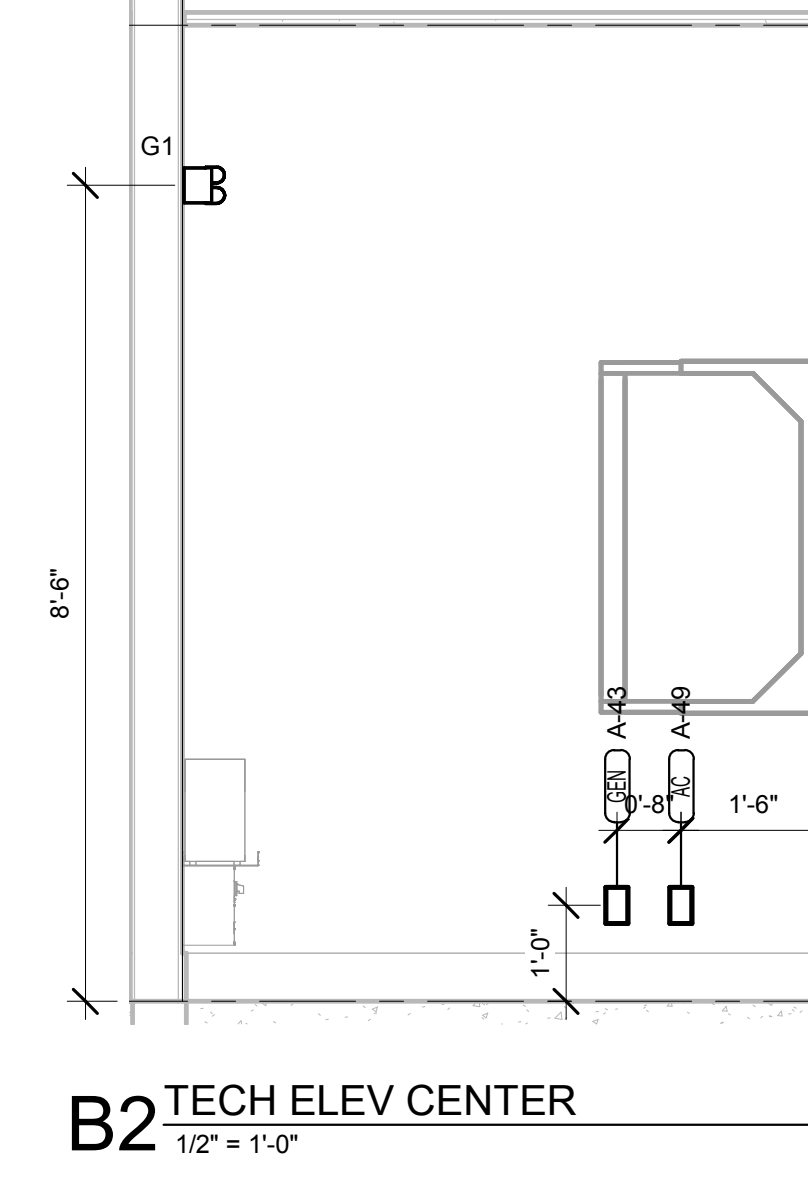
- ELECTRICAL KEYNOTES**
- 102 PROVIDE A 1/2" CONDUIT THRU THE EXTERIOR WALL AND STUBBED INTO THE ACCESSIBLE CEILING SPACE FOR THE EXTERIOR WALL MOUNTED AUDIO-VISUAL ALARM NOTIFICATION DEVICE. VERIFY LOCATION WITH THE EXTERIOR ELEVATIONS AND WITH THE SECURITY INSTALLER - TYPICALLY TO BE LOCATED NEAR THE FIRE PROTECTION SYSTEM'S EXTERIOR ALARM UNIT AND VISIBLE FROM THE STREET.
 - 103 EXTEND 1/2" RIGID CONDUIT FROM TOP OF STRIKE-SIDE DOOR FRAME CHANNEL TO ABOVE ACCESSIBLE CEILING.
 - 104 EXTEND 3/4" RIGID CONDUIT FROM TOP OF STRIKE-SIDE DOOR FRAME CHANNEL TO ABOVE ACCESSIBLE CEILING.
 - 105 EXTEND 1/2" CONDUIT FROM A POINT 3" WITHIN EITHER HINGE-SIDE DOOR VERTICAL FRAME MULLION TO ABOVE ACCESSIBLE CEILING.
 - 110 EXTEND 1/2" CONDUIT FROM A POINT 3" INSIDE THE STRIKE-SIDE DOOR FRAME MULLION TO ABOVE ACCESSIBLE CEILING.
 - 111 PROVIDE JUNCTION BOX ON THE LATCH SIDE OF THE ROOF ACCESS HATCH WITH 1/2" CONDUIT ABOVE THE CEILING TO AN ACCESSIBLE CEILING SPACE FOR A DOOR CONTACT.



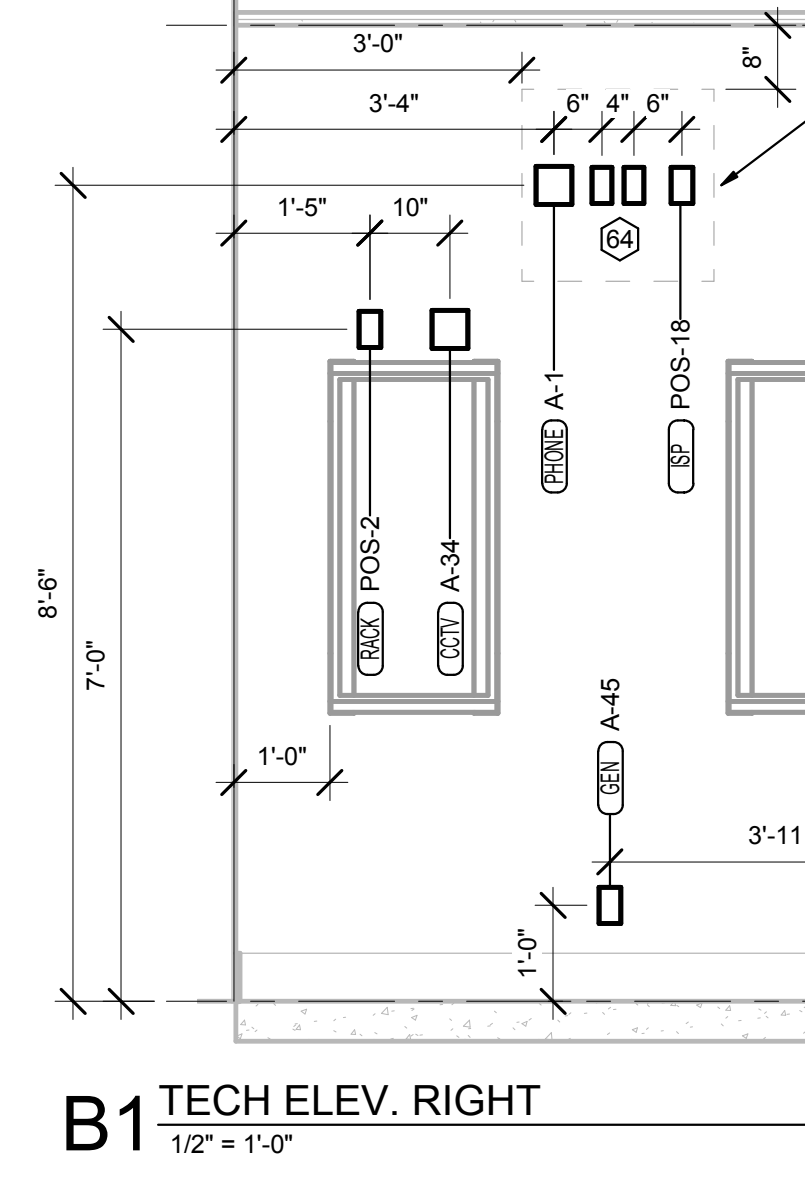
B4 PICK-UP SHELF ELEV
1/2" = 1'-0"



B3 TECH ELEV. LEFT
1/2" = 1'-0"



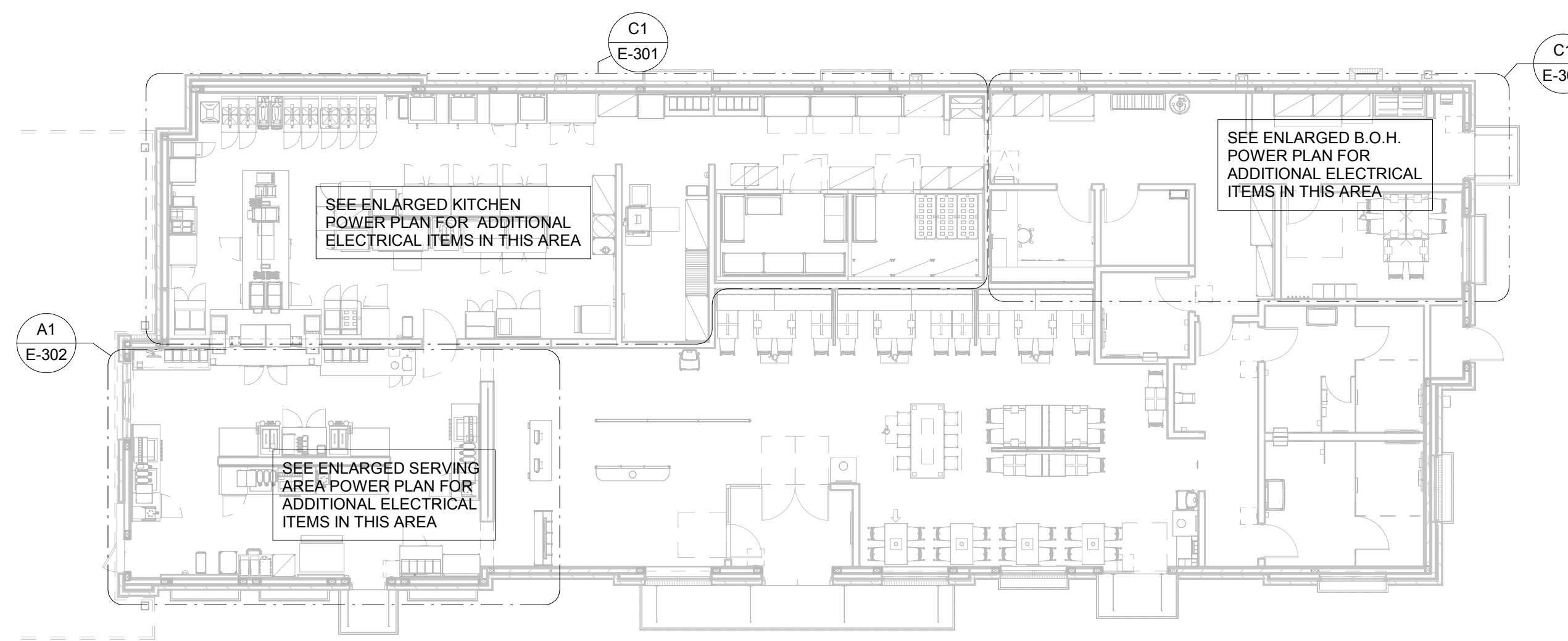
B2 TECH ELEV. CENTER
1/2" = 1'-0"



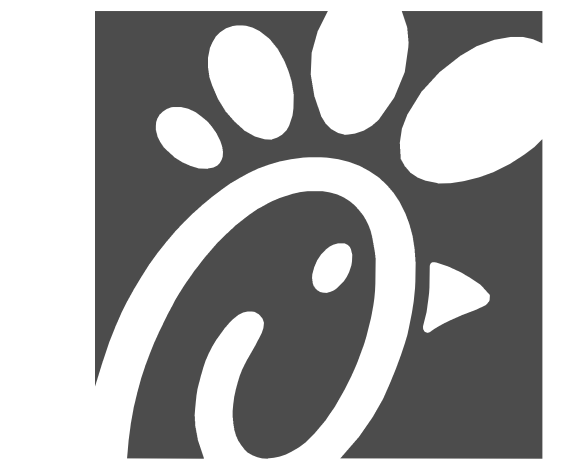
B1 TECH ELEV. RIGHT
1/2" = 1'-0"

ITEMS OF IMPORTANCE:
CONTRACTOR SHALL COORDINATE WITH THE DINING AREA SEATING PACKAGE FOR THE LOCATIONS OF RECEPTACLES IN THE DINING AREA AT TABLES SO THAT THE RECEPTACLE IS UNDER THE TABLETOP AND NOT BEHIND A BOOTH SEAT

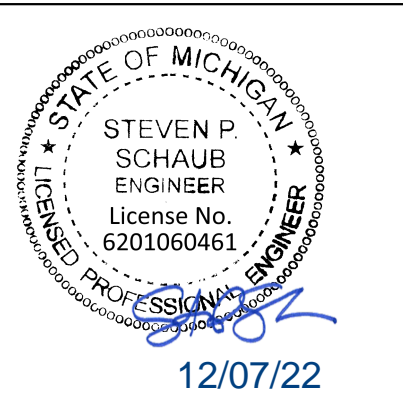
REFER TO THE ELECTRICAL SITE PLAN FOR ADDITIONAL REQUIREMENTS FOR THE DRIVE-THRU CASH STATION ("D" KEYNOTES)



A1 ELECTRICAL KEY PLAN
N.T.S.



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5200 Buffington Road
Atlanta, Georgia
30349-2998



CHICK-FIL-A
I-75 & MILLER ROAD
3140 MILLER ROAD
FLINT TOWNSHIP, MI 48503

FSR#05198
BUILDING TYPE / SIZE: P14 LE LRG
RELEASE: 22-08
PRINTED FOR:
ISSUED FOR CONSTRUCTION

REVISION SCHEDULE	
NO.	DESCRIPTION

CONSULTANT PROJECT #	202223.23
DATE	12/07/22
DRAWN BY	JPW
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POWER AND SYSTEMS PLAN	
SHEET NUMBER	

E-221

ELECTRICAL SITE PLAN KEYNOTES

(APPLIES TO THE ELECTRICAL SITE PLAN ONLY)

- PROPOSED LOCATION OF SECONDARY UNDERGROUND ELECTRICAL UTILITY LINES.
- PROPOSED LOCATION OF PAD MOUNTED TRANSFORMER FURNISHED BY THE ELECTRICAL UTILITY COMPANY. THE ELECTRICAL CONTRACTOR SHALL PROVIDE:
 - PROVIDE THREE 4", SCH. 40 PVC CONDUIT TO UTILITY SOURCE, AT MINIMUM 30" BELOW FINISHED GRADE AND IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS. COORDINATE ALL REQUIREMENTS WITH THE UTILITY COMPANY PRIOR TO BID.
 - SECONDARY SERVICE LATERAL FROM UTILITY TRANSFORMER TO PANEL 'MDP' VIA THE CURRENT TRANSFORMER CABINET. SEE SHEET E-502, "SINGLE-LINE DIAGRAM". REFER TO "ELECTRICAL SERVICE LATERAL CONDUIT DETAIL", SHEET E-101, FOR ADDITIONAL INFORMATION.
 - CONCRETE PAD FOR UTILITY TRANSFORMER IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS.
 - METERING CONDUIT. SEE NOTE-14.
- LOCATION OF TERMINATION OF SECONDARY SERVICE LATERAL AT PANEL 'MDP'. REFER TO "SINGLE-LINE
- PROVIDE TWO 2" SCH. 40 PVC CONDUIT (ONE IS A SPARE), MINIMUM 24" BELOW FINISHED GRADE, FOR TELEPHONE SERVICE FROM TELEPHONE UTILITY SOURCE TO JUNCTION BOX INSIDE THE BUILDING. REFER TO SHEET E-221 FOR LOCATION OF JUNCTION BOX IN SERVICE AREA. REFER TO "TELEPHONE SERVICE CONDUIT DETAIL", SHEET E-101, FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION OF UTILITY SOURCE WITH TELEPHONE UTILITY. TERMINATE CONDUITS AT UTILITY SOURCE AS REQUIRED BY THE UTILITY COMPANY.
- PROVIDE ONE 3" SCH. 40 PVC CONDUIT, MINIMUM 24" BELOW FINISHED GRADE, FOR ISP SERVICE FROM UTILITY SOURCE TO JUNCTION BOX INSIDE THE BUILDING. REFER TO SHEET E-221 FOR LOCATION OF JUNCTION BOX IN BUILDING. REFER TO "TELEPHONE SERVICE CONDUIT DETAIL", SHEET E-101, FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION OF UTILITY SOURCE WITH SERVICE SUPPLY COMPANY. TERMINATE CONDUITS AT AS REQUIRED BY THE UTILITY COMPANY.
- LOCATION OF DUMPSTER. REFER TO "REFUSE ENCLOSURE PLAN - ELECTRICAL", SHEET E-303 FOR ELECTRICAL REQUIREMENTS IN THIS AREA.
- REFER TO SHEET E-303 FOR ELECTRICAL REQUIREMENTS AT MENU BOARD, DRIVE-THRU CANOPY, AND PRESELL MENU BOARD.
- REFER TO SHEETS E-901, & E-902 FOR ELECTRICAL SPECIFICATIONS PERTAINING TO ELECTRICAL WORK DESCRIBED ON THIS SHEET.
- REFER TO SHEET E-211 FOR LIGHTING FIXTURE SCHEDULE.
- PROVIDE UNDERGROUND CONDUIT TO JUNCTION BOX IN OFFICE FOR POLE MOUNTED SECURITY CAMERA. REFER TO SHEET E-302 FOR LOCATION OF JUNCTION BOX IN OFFICE AND REQUIRED SIZE OF CONDUIT. COORDINATE EXACT CAMERA LOCATION WITH CHICK-FIL-A SECURITY SYSTEM REPRESENTATIVE PRIOR TO ROUGH-IN.
- CONNECT SITE LIGHTING CIRCUITS TO TERMINAL BLOCKS LOCATED IN THE "CFA-T500" CONTROL PANEL (TYPICAL). SEE PANEL SCHEDULES ON SHEET E-501.
- CONNECT SITE SIGNAGE CIRCUITS TO TERMINAL BLOCKS LOCATED IN THE "CFA-T500" CONTROL PANEL (TYPICAL). SEE PANEL SCHEDULES ON SHEET E-501. COORDINATE LOCATIONS OF ALL SIGNS WITH CHICK-FIL-A REPRESENTATIVE PRIOR TO BID AND PRIOR TO CONDUIT INSTALLATION.
- PROVIDE GFCI TYPE WEATHERPROOF RECEPTACLE MOUNTED ON MAIN SIGN SUPPORT +14" AFG. THIS RECEPTACLE SHALL NOT BE SWITCHED. (BYPASS THE CONTACTOR AND SIGN'S DISCONNECT SWITCH.)
- PROVIDE WEATHERPROOF 20A SPST TOGGLE SWITCH 18" AFG AND CONNECTION TO MAINTENANCE DISCONNECT SWITCH FOR MAIN I.D. SIGN.
- PROPOSED LOCATION OF BUILDING MOUNTED ELECTRICAL UTILITY METER. METER BASE WILL BE FURNISHED BY THE UTILITY COMPANY AND INSTALLED BY THE CONTRACTOR. THE CURRENT TRANSFORMER CABINET SHALL BE FURNISHED AND INSTALLED ON THE BUILDING BY THE CONTRACTOR. THE CONTRACTOR SHALL ALSO FURNISH AND INSTALL A 1.1/4" RIGID GALVANIZED CONDUIT BETWEEN METER BASE AND CURRENT TRANSFORMER CABINET. COORDINATE LOCATIONS AND REQUIREMENTS WITH ELECTRIC UTILITY COMPANY PRIOR TO BID.

GENERAL ELECTRICAL SITE PLAN NOTES

(APPLIES TO THE ELECTRICAL SITE PLAN ONLY)

- VERIFY WITH LOCAL AUTHORITIES AND UTILITIES THAT OWNER'S SIGNS, POLES, AND THEIR APPURTENANCES ARE NOT LOCATED ON OR OVER ANY EASEMENT OR MUNICIPAL RIGHT OF WAY.
- SITE WORK, UTILITY, AND ROADWAY INFORMATION ARE TAKEN FROM BOUNDARY AND TOPO SURVEY SITE PLANS. REFER TO C-DRAWINGS.
- MINIMUM CONDUIT SIZE SHALL BE 3/4" C. MINIMUM CONDUCTOR SIZE SHALL BE #10AWG COPPER UNLESS OTHERWISE NOTED.
- REFER TO BUILDING ELECTRICAL DRAWINGS FOR EXTERIOR LIGHTING CONTROL.
- FOR WORK UNDER THIS DIVISION, ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ONLY NEW AND U.L. LABELED ELECTRICAL EQUIPMENT, UNLESS INDICATED OTHERWISE BY THE CONTRACT DOCUMENTS.
- FOR WORK UNDER THIS DIVISION, ELECTRICAL CONTRACTOR SHALL CONTACT ALL UTILITIES FOR VERIFICATION AND IDENTIFICATION OF ALL UNDERGROUND RUNS, PRIOR TO SITE TRENCHING ("CALL BEFORE YOU DIG").
- FOR WORK UNDER THIS DIVISION, ELECTRICAL CONTRACTOR SHALL PERFORM ALL WORK IN STRICT ACCORDANCE WITH THE CURRENT EDITION OF THE NATIONAL ELECTRIC CODE (NFPA 70), AND THE LIFE SAFETY CODE (NFPA 101), AS ADOPTED AND/OR AMENDED BY STATE AND LOCAL AUTHORITIES HAVING JURISDICTION.
- FOR WORK UNDER THIS DIVISION, ELECTRICAL CONTRACTOR SHALL COORDINATE AND FIELD VERIFY LOCATIONS OF ALL UTILITY SERVICE RUNS, ORIGINATIONS, TERMINATIONS AND ANY INSTALLATION REQUIREMENTS (i.e. ELECTRICAL, TELEPHONE, WATER, GAS, SEWAGE, ETC.), AS RELATED TO THIS JOB, OR THEREBY EFFECTED.

POWER/TELEPHONE UTILITIES:

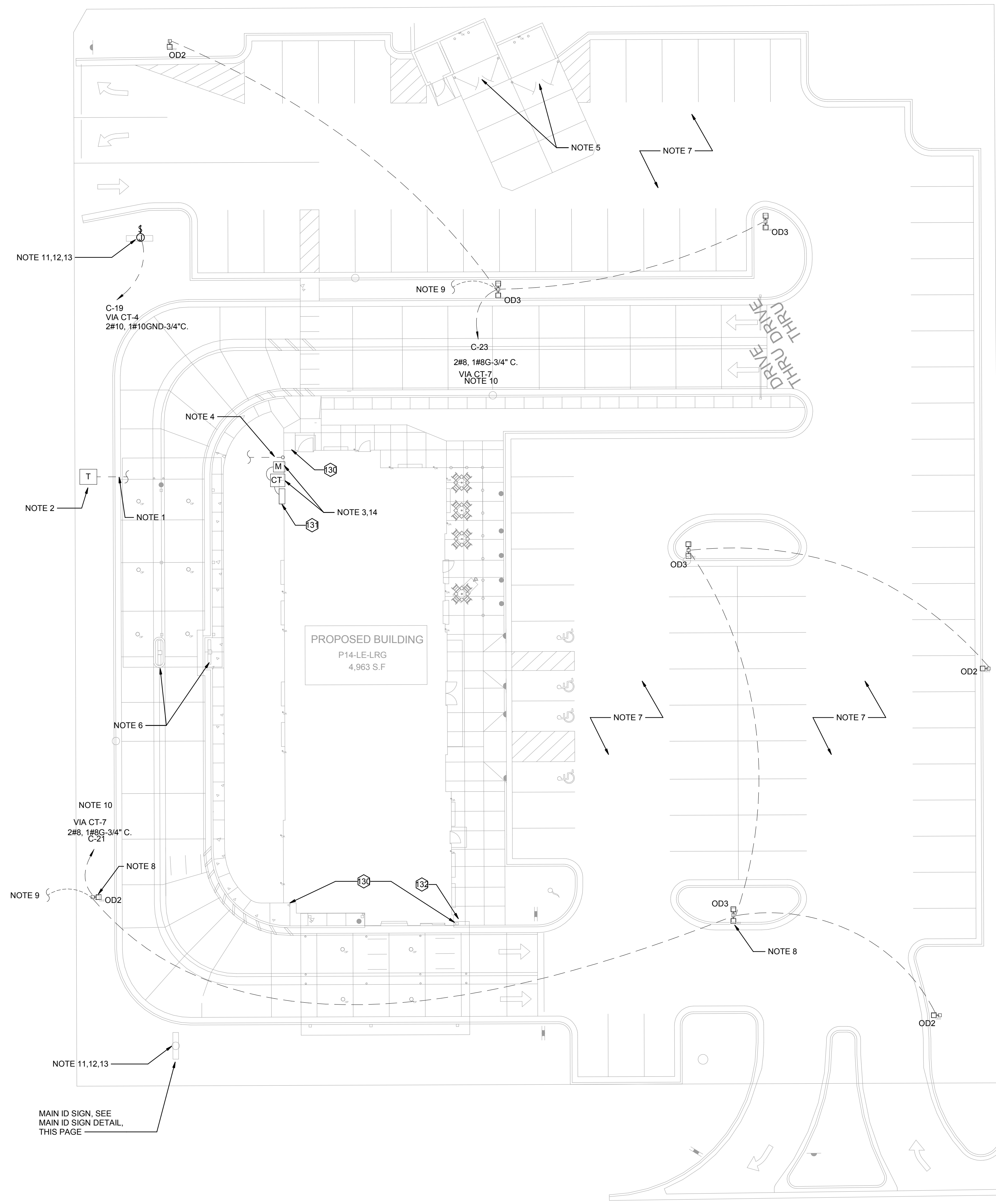
COORDINATE AND COMPLY WITH ALL TELEPHONE AND ELECTRICAL UTILITY REQUIREMENTS. THE FOLLOWING PERSONS SHALL BE CONTACTED FOR SPECIFIC UTILITY COMPANY REQUIREMENTS:

ELECTRICAL UTILITY: UTILITY CONTACT (TBD)
CONSUMERS ENERGY
800-477-5050 (CALL CENTER)
844-314-9537 (ENERGY REQUEST)
CONSUMERSENERGYBUSINESSOLUTIONS@CMSENERGY.COM

TELEPHONE UTILITY: STEVE SCHMITZ
ATT
810-755-0119
EMAIL ADDRESS (TBD)

ELECTRICAL SITE PLAN SYMBOLS

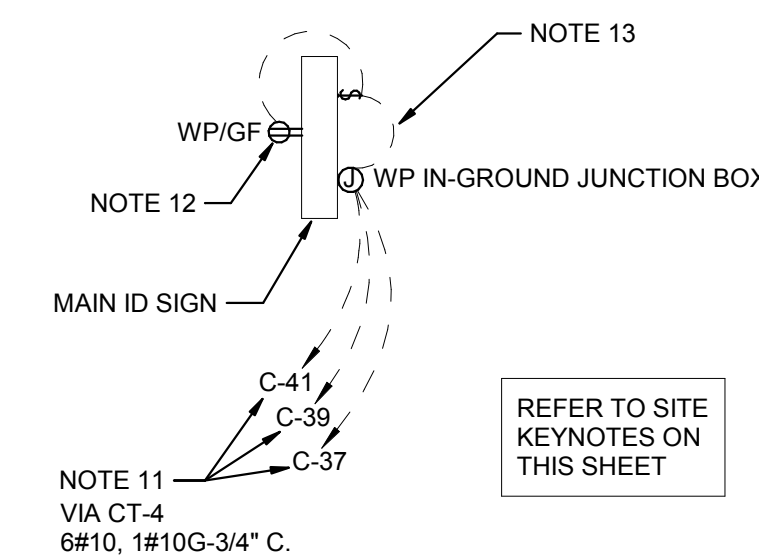
SYMBOL	DESCRIPTION (UNLESS OTHERWISE NOTED ON PLANS)
	UTILITY COMPANY TRANSFORMER (208 VOLT, 3 PHASE, 4 WIRE SECONDARY)
	S.P.S.T. LIGHT SWITCH (600V AC QUIET TYPE)
	GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE
	CONDUIT HOMERUN TO PANEL
	JUNCTION BOX (SINGLE GANG STEEL WHERE WALL MOUNTED, 4" SQ. STEEL WHERE CEILING MOUNTED, UNLESS NOTED OTHERWISE)
	CONDUIT BURIED BELOW GRADE
	POLE MOUNTED SITE LIGHTING FIXTURE.



C1 ELECTRICAL SITE PLAN
1/16" = 1'-0"

ELECTRICAL KEYNOTES

- LOCATION OF A 360 DEGREE BUILDING MOUNTED EXTERIOR CAMERA (BY OTHERS). PROVIDE A 3/4" CONDUIT AT 9'-4" AFF TO AN EXTERIOR WALL MOUNTED WP JUNCTION BOX WITH THE CONDUIT ABOVE THE INTERIOR CEILING AND EXTENDED TO AN ACCESSIBLE CEILING AREA FOR CAMERA CABLES BY OTHERS.
- PROVIDE AN EXTERIOR DUPLEX 120V, 20A RECEPTACLE AT 18" AFF WITH 'IN-USE' STYLE LOCKABLE WP COVER AND CONNECT TO A GENERAL PURPOSE 120V RECEPTACLE CIRCUIT.
- PROVIDE A JUNCTION BOX ON THE INSIDE PARAPET WALL ABOVE THE ROOF WITH A 3/4" CONDUIT STUBBED DOWN INTO AN ACCESSIBLE CEILING SPACE AREA BELOW FOR THE OWNER PROVIDED WI-FI EXTERIOR ANTENNAE.



A1 MAIN ID SIGN DETAIL
N.T.S.



Chick-fil-A

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998



GPD GROUP
Professional Corporation
205 S. MAIN STREET, SUITE 201
AKRON, OH 44311



CHICK-FIL-A
I-75 & MILLER ROAD
3140 MILLER ROAD
FLINT TOWNSHIP, MI 48503

FSR#05198

BUILDING TYPE / SIZE: P14 LE ALL
RELEASE: 22/08

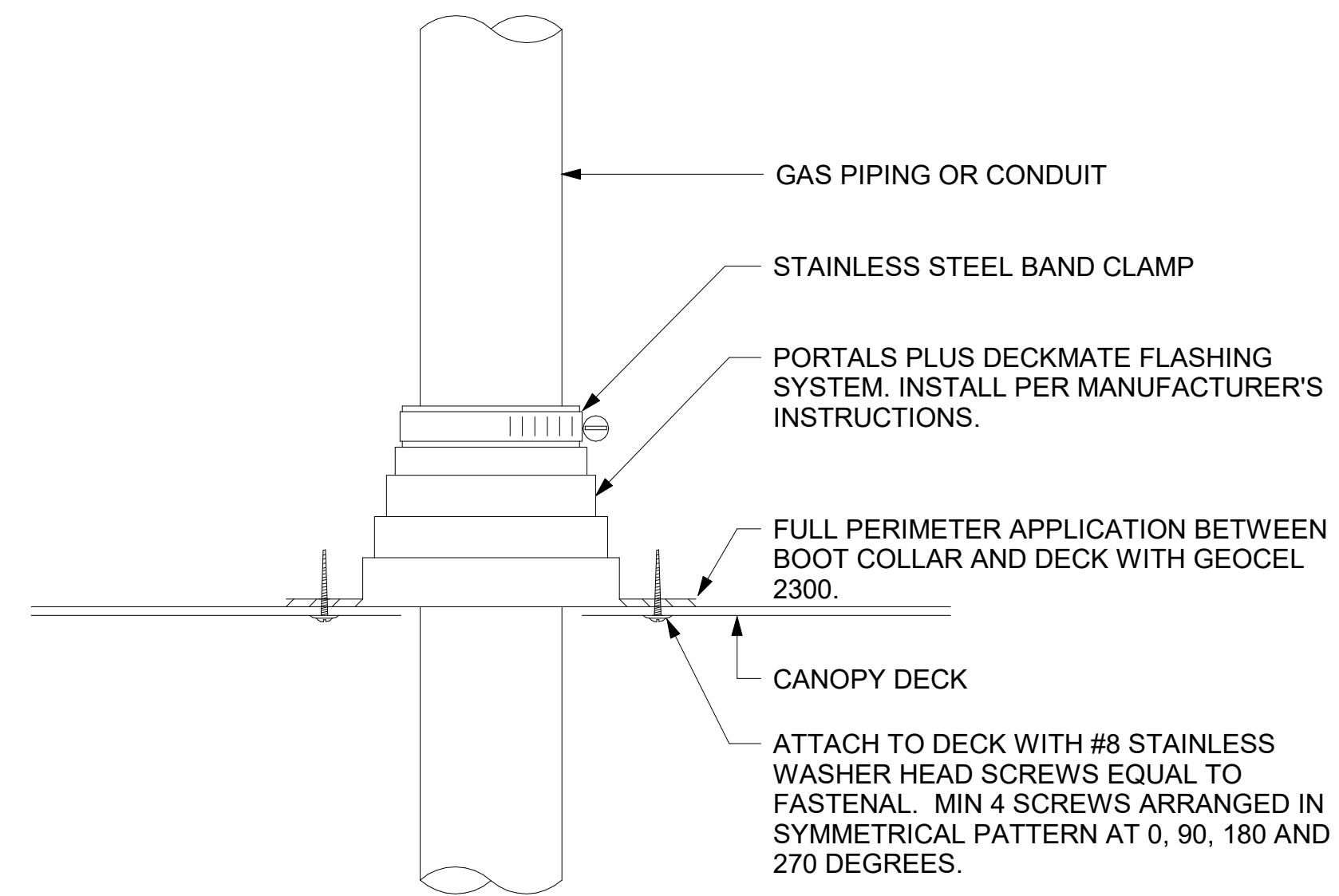
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REVISION SCHEDULE
NO. DATE DESCRIPTION

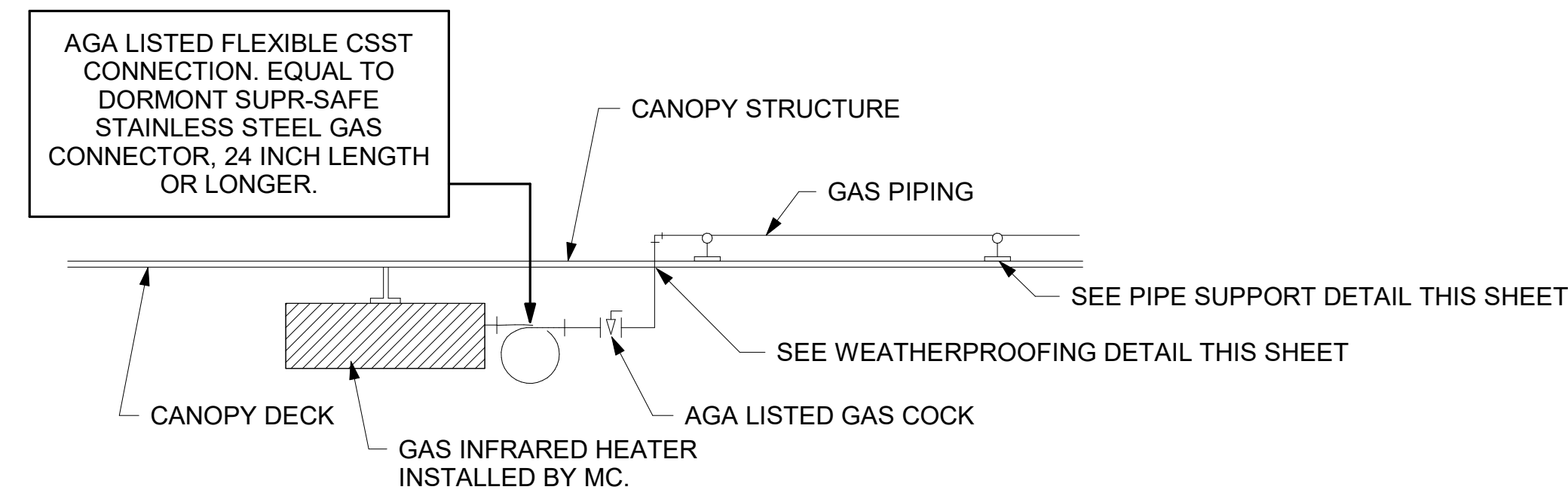
CONSULTANT PROJECT # 202223.23
DATE 12/07/22

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SHEET
ELECTRICAL SITE PLAN

SHEET NUMBER
E-100



② WEATHERPROOFING AT CANOPY PENETRATION
NOT TO SCALE

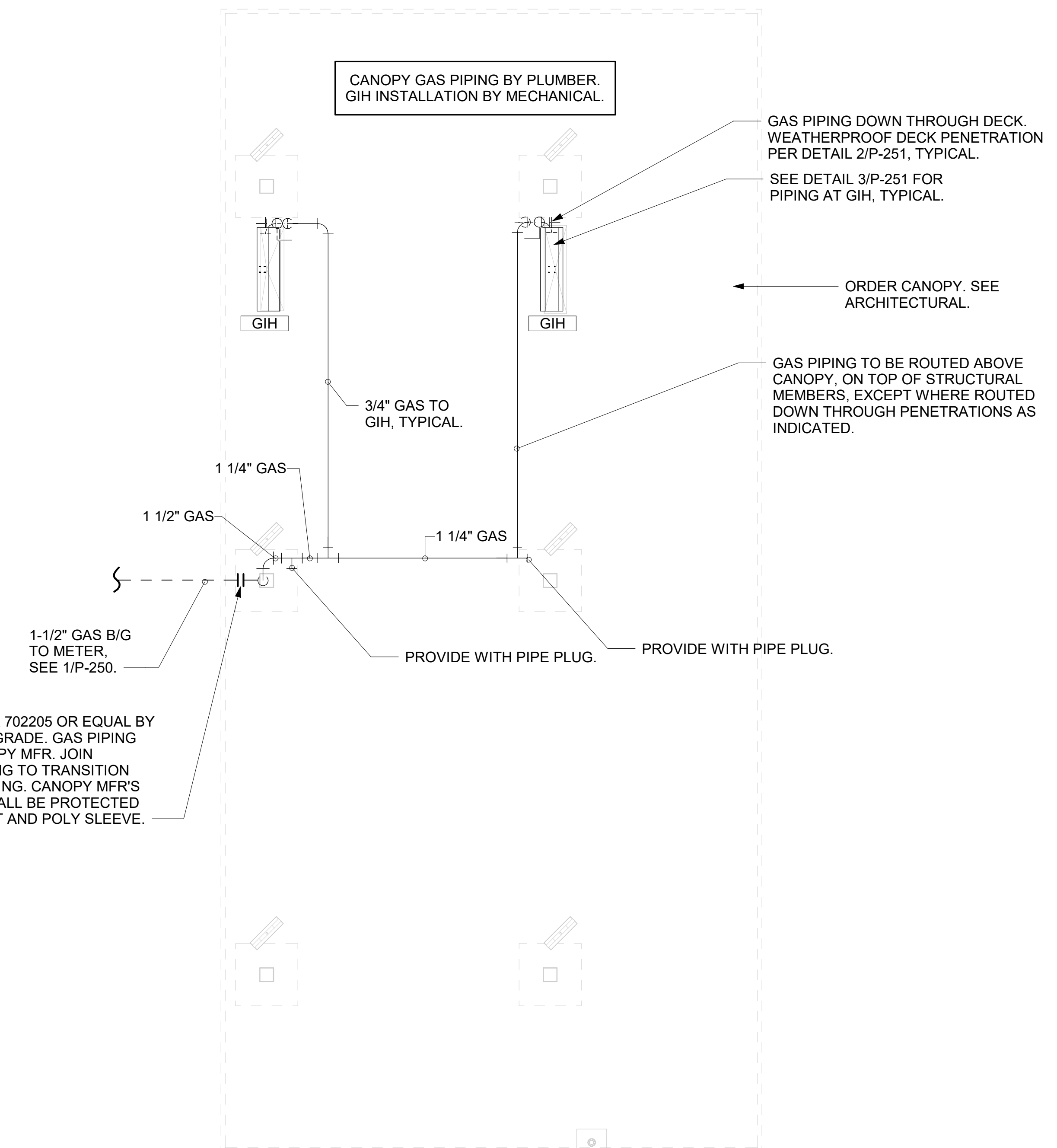


③ GAS CONNECTION AT APPLIANCE
NOT TO SCALE

LEGEND			
GIH#1	GAS INFRARED HEATER #1 (TYP.)	B/G	BELOW GRADE
---	NEW GAS PIPING ABOVE GRADE	EC	ELECTRICAL CONTRACTOR
---	NEW GAS PIPING BELOW GRADE	MC	MECHANICAL CONTRACTOR

CANOPY GENERAL NOTES

- COORDINATE NEW WORK WITH EXISTING CONDUIT, STRUCTURE, AND PIPING. FIELD VERIFY EXISTING CONDITIONS PRIOR TO START OF WORK.
- COORDINATE LOCATION AND RESPONSIBILITIES FOR UNDERGROUND PIPING AND ASSOCIATED TRENCHING WITH GENERAL CONTRACTOR PRIOR TO START OF WORK.
- EXPOSED GAS PIPING SHALL BE PAINTED BY GENERAL CONTRACTOR.
- ACTUAL NUMBER OF GAS INFRARED HEATERS WILL BE DETERMINED BY SITE-SPECIFIC CANOPY LAYOUT AND EQUIPMENT LOCATIONS, AS INDICATED ON ARCHITECTURAL PLANS.



ATTACH GAS TRANSITION FITTING, ELSTER 702205 OR EQUAL BY GASTITE, TO GAS PIPE STUB-OUT BELOW GRADE. GAS PIPING INSIDE COLUMN AND STUB-OUTS BY CANOPY MFR. JOIN UNDERGROUND POLYETHYLENE GAS PIPING TO TRANSITION FITTING WITH ELSTER PERMASERT COUPLING. CANOPY MFR'S EXPOSED STEEL PIPING BELOW GRADE SHALL BE PROTECTED WITH TWO COATS ASPHALTUM BASE PAINT AND POLY SLEEVE.

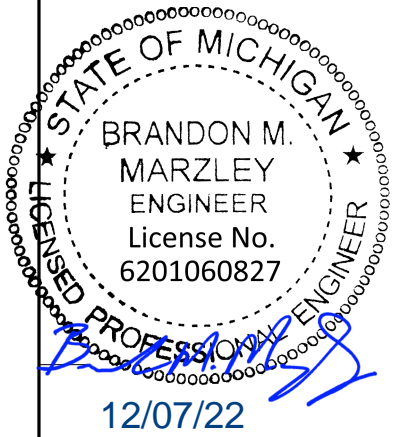
① ORDER CANOPY PIPING PLAN
1/4" = 1'-0"



Chick-fil-A
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GPD GROUP
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305 S. MAIN STREET, SUITE 201
AKRON, OH 44311



CHICK-FIL-A
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3140 MILLER ROAD
FLINT TOWNSHIP, MI 48503

FSR#05198

BUILDING TYPE / SIZE: P14 LE LRG
RELEASE: 22.08

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REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

CONSULTANT PROJECT # 202223.23
DATE 12/07/22

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SHEET
CANOPY PLAN AND DETAILS

SHEET NUMBER
P-251

SECTION C16100
ELECTRICAL GENERAL PROVISIONS

PART 1 - GENERAL

- 1.01 WORK INCLUDED
 - A. Provide all materials, labor and equipment required to furnish and install a complete electrical system as indicated on drawings and as specified herein.
- 1.02 REGULATORY REQUIREMENTS
 - A. Equipment furnished shall be UL listed where such label is available. Installation shall conform to UL standards where applicable.
 - B. Electrical work shall be installed in accordance with drawings and specifications, NEC and NFPA codes in effect at project location, state and local electrical and building codes and special codes having jurisdiction over specific portions within complete installation.
 - C. Obtain permits and certificates of approval from all authorities having jurisdiction over the installation and pay all fees required.
- 1.03 SUBMITTALS
 - A. Submit list of materials and equipment prior to manufacture, order or installation and within twenty days after award of contract for approval. Include each item of material and equipment whether or not shop drawings are also required. List shall include name of manufacturer, catalog number and other complete identification as well as dimensions and detailed data. Submittals shall be included for the following:
 - 1. Lighting Fixtures
 - 2. Panelboards/Breakers
 - 3. Wiring Devices and Device Plates
 - 4. Enclosed Switches
 - B. Certified shop drawings and submittals shall bear stamp of approval of contractor as evidence that drawings have been checked. Drawings submitted without this stamp of approval will not be considered and will be returned for proper resubmission.
 - C. If submittals show variances or substitutions from requirements of contract, contractor shall make specific mention of such variation in his letter of transmittal in order that, if acceptable, suitable action may be taken for proper adjustment. Otherwise contractor shall not be relieved of responsibility for executing work in accordance with contract even though such submittals have been approved.
- 1.04 SITE VISIT
 - A. Visit job site prior to bid date to determine actual conditions under which work shall be done, to familiarize oneself with project and to verify total scope of work required. Failure to do so shall not constitute a reason for an extra charge.

SECTION C16101
BASIC MATERIALS AND METHODS

PART 1 - GENERAL

- 1.01 COORDINATION
 - A. Obtain and review shop drawings, product data, and manufacturer's instructions for equipment furnished under other sections to determine connection locations and requirements.
 - B. Sequence rough-in of electrical connections to coordinate with installation and start-up of equipment furnished under other sections.
- PART 2 - PRODUCTS
- 2.01 SUBSTITUTIONS
 - A. Where specifications list one or more manufacturers and do not include "or approved equal", furnish materials made by one of manufacturers listed. Where "or approved equal" is included, contractor may substitute equal products by another manufacturer subject to approval by engineer and owner.
- PART 3 - EXECUTION
- 3.01 INSTALLATION
 - A. Make electrical connections to utilization equipment in accordance with equipment manufacturer's instructions.
 - B. Drawings are diagrammatic and shall not be scaled for exact sizes or locations, they are not intended to disclose absolute or unconditional knowledge of actual field conditions.
 - C. Protect work and materials from damage by weather, entrance of water and dirt. Cap conduit during installation. Avoid damage to materials and equipment in place.
 - D. Satisfactorily repair or remove and replace damaged work with new materials. Deliver equipment and materials to job site in original, unopened, labeled containers. Store ferrous materials to prevent rusting. Store finished materials and equipment to prevent staining and discoloring.
 - E. Trenches shall be excavated 6" below elevation of bottom of conduit.
 - F. Failure to route conduit through building without interfering with other equipment and construction shall not constitute a reason for an extra charge. Equipment, conduit and fixtures shall fit into available spaces in building and shall not be introduced into building at such times and manner as to cause damage to structure. Equipment requiring service shall be readily accessible.
- 3.02 TESTING AND EQUIPMENT SERVICING
 - A. Make test to ensure that entire system is in proper operating condition, and that adjustments and apparatus setting of circuit breakers, fuses, control equipment and apparatus have been made. Correct defects discovered during tests.

- 3.03 REMOVAL OF DEBRIS
 - A. Remove surplus materials and debris caused by, or incidental to, electrical work. Remove such debris at frequent intervals. Keep job clean during construction.
- 3.04 IDENTIFICATION OF EQUIPMENT
 - A. Identify electrical distribution equipment, disconnects, and contactors with black laminated plastic name-plates, attached with two screws, engraved with 1/4" high, white letters.
- 3.05 TEMPORARY LIGHTING AND POWER IN AREAS OF CONSTRUCTION
 - A. Provide, maintain and remove after construction is completed, temporary lighting adequate for workman safety and temporary power for all trades including any 3 phase power required.
 - B. Provide and maintain barricade lighting where required to adequately protect owner against liability for damage to public or personnel. All lamps used in barricade shall be 60 watt red, installed in weatherproof socket with wire guard. All wiring shall be approved for weatherproof installation.
- 3.06 GUARANTEE-WARRANTY
 - A. Guarantee work to be free from defects of materials and workmanship for a period of one year from date of final acceptance of building. Repair and replace defective work and other work damaged thereby which becomes defective during term of guarantee-warranty. Furnish owner with three written copies of guarantee-warranty.

SECTION C16120
RACEWAYS AND CONDUIT SYSTEMS

PART 1 - PRODUCTS

- 1.01 ACCEPTABLE MANUFACTURERS
 - A. Rigid IMC, and EMT conduit shall be hot-dipped, galvanized, or electro-galvanized steel by Allied, Republic, Triangle, Wheatland, or approved equal.
 - B. PVC conduit shall be Carlon, schedule 40, 90 degrees C, rated, unless otherwise noted.
 - C. MC cable shall be manufactured by AFC Cable Systems or approved equal. Type "AC-90" is not allowed. All MC Cables shall have a green equipment ground conductor and an additional isolated ground (green + yellow stripe) conductor for isolated ground circuits (POS system). Fittings used for connecting MC cable to boxes, cabinets, or other equipment shall be listed and identified for such use.
 - D. Associated couplings, connectors and fittings shall be steel as manufactured by Raco or equivalent. Catalog numbers used below are those of Raco.
 - E. Erickson Couplings, Series 1502, shall be used where neither length of conduit can be rotated.
 - F. Insulated bushings shall be series 1402.
 - G. EMT box connectors shall be compression or set-screw fittings.
 - H. Conduit, connectors, couplings and fittings shall be UL listed and labeled.
- 1.02 ELECTRICAL METALLIC TUBING (EMT)
 - A. Use Electrical Metallic Tubing (EMT) where drawings call for conduit to be:
 - 1. Concealed in walls.
 - 2. Installed above suspended ceilings.
 - 3. Installed exposed, above 6 feet.
 - 4. Installed for panelboard feeders above slab.
- 1.03 INTERMEDIATE METAL CONDUIT (IMC)
 - A. Use Intermediate Metal Conduit (IMC) where drawings call for conduit to be:
 - 1. Installed for panelboard feeders ran below ground.
 - 2. Installed in wet locations (interior and exterior).
 - 3. Installed exposed below 6 feet.
- 1.04 POLYVINYL CHLORIDE (PVC) RACEWAY
 - A. Use PVC raceway for:
 - 1. Underground service entrance conduits for telephone and power.
 - 2. Exterior branch circuits installed underground.
 - 3. Interior branch circuit conduits installed in or under concrete slab on ground floor.
- 1.05 RIGID STEEL CONDUIT (RSC)
 - A. Use Rigid Steel Conduit for:
 - 1. Install underground for power Service Entrance elbows penetrating floor slab.
 - 2. Exposed to physical damage.
- 1.06 FLEXIBLE METAL CONDUIT
 - A. Provide flexible metal conduit for termination at equipment subject to motion and vibration.
 - B. Length shall not exceed 6 feet in accessible ceiling areas.
 - C. Shall not be concealed in walls.
 - D. Where exposed to continuous or intermittent moisture, conduit shall be UL Type EF liquidtight or type as indicated.
 - E. For connection to ceiling mounted lighting fixtures from outlet boxes.
- 1.07 MC (METAL-CLAD) CABLE
 - A. MC Cable shall be UL listed per standard 1569, color coded copper conductors (type THHN), the sheathing shall be constructed of interlocking galvanized steel, and shall conform to the requirements of Article 330 of the National Electrical Code.
 - B. MC Cable with an isolated grounding conductor shall be used, concealed above ceiling and in walls, for the connection of the Point Of Sales (POS) system equipment from the isolated ground receptacles to the panelboard serving the POS loads when allowed by local codes and Article 330 of the National Electrical Code.
 - C. MC Cable may be used when allowed by local codes and Article 330 of the National Electrical Code for branch circuits (except the main homerun to the panelboard which shall be conduit with conductors) for the following:
 - 1. Lighting
 - 2. Dining area receptacles
 - 3. Fly Lights
 - 4. Building mounted signage
 - 5. Office area receptacles
 - D. MC Cable shall not be used for branch circuits serving Kitchen Equipment Items and similar circuits in the Kitchen, the Drive-Thru area, and the Serving area's back counter.

PART 2 - EXECUTION

- 2.01 INSTALLATION
 - A. Minimum size of conduits shall be 1/2 inch.
 - B. Run concealed conduits in direct line with long sweep bends or offsets. Run exposed conduits parallel to and at right angles to building lines. Group multiple conduit runs in banks.
 - C. Cap ends of conduits to prevent entrance of water and other foreign material during construction.
 - D. Provide No. 12 AWG copper pull wires or nylon cord in all empty conduits. Steel wire not acceptable as pull wire.
 - E. Where IMC enters a cabinet, junction box, or pull box conductors shall be protected by an insulated bushing. Locknuts shall be installed on conduit outside and inside enclosure.
 - F. In areas where enclosed and gasketed fixtures and weatherproof devices are specified, where Rigid Conduit enters a sheet metal enclosure, junction box and outlet box, and not terminated in a threaded hub, a steel, or malleable iron nylon insulated hub, complete with recessed sealing "O"ring or sealing locknut shall be used.
 - G. Provide seal-off fitting in all conduits entering a cold temperature area such as freezers and dry refrigerators.
 - H. In concrete slabs, block up conduit from forms and securely fasten in place. all conduits in slabs shall have a minimum of 4" inches concrete coverage above.
 - I. Failure to route conduit through building without interfering with other equipment, and construction shall not constitute a reason for an extra charge. Equipment, conduit, and fixtures shall fit into available spaces in building and shall not be introduced into building at such times and manner as to cause damage to structure or equipment. Equipment requiring servicing shall be readily accessible.
- 2.02 EMT (ELECTRICAL METALLIC TUBING) RACEWAY
 - A. Do not use Electrical Metallic Tubing in cinder concrete or cinder fill or where conduit system is in contact with dissimilar metals or in wet locations.
- 2.03 PVC RACEWAY
 - A. Use threaded fittings for all connectors and adapters.
 - B. Provide 1/4-inch nylon pull rope in all primary power and incoming telephone service entrance conduits.
 - C. PVC conduit shall convert to galvanized rigid metal per detail on drawings.
- 2.04 FLEXIBLE METAL CONDUIT
 - A. Where fittings for liquid tight flexible conduit are brought into an enclosure with a knock-out, a gasket assembly, consisting of one piece "O" ring, with Buna-N sealing material, series 3400, shall be installed on outside of box. Fittings shall be made of either steel or malleable iron only, and shall have insulated throats or insulated bushings.
 - B. In dry locations, where final connections to motors and other equipment may be made with Flexible Metal Conduit, fittings shall be of steel or malleable iron only with insulated throats or insulated bushings, and shall be of wedge and screw type having an angular wedge fitting between convolutions of conduit.
- 2.05 MC CABLE
 - A. MC Cable may be used for branch circuits as noted in Part 1 above and where the local code allows use of MC Cable. The installation shall conform to Article 330 of the National Electrical Code and shall be concealed in walls and above ceilings. (Exposed MC Cable will not be acceptable.)
 - B. MC Cables shall be secured and supported by the building structure per the National Electrical Code and any local code requirements. MC Cable shall not lay on ceilings.

SECTION C16121
CONDUCTORS

PART 1 - PRODUCTS

- 1.01 CONDUCTORS
 - A. Provide 98% conductivity copper conductors with 600-volt insulation. For conductors No. 12 AWG and No. 10 AWG, provide solid type. For all conductors No. 8 AWG and larger, provide stranded type. All conductors shall have THHN/THWN insulation unless noted otherwise.
 - B. Conductors shall be manufactured by Triangle, American, Rome, Southwire or approved equal.
 - C. Provide No. 14 AWG type THHN fixture conductors, for conductors entering lighting fixtures.
 - D. Branch circuit conductors shall be minimum #12 AWG, copper.
- PART 2 - EXECUTION
- 2.01 INSTALLATION
 - A. Install pull boxes in circuits or feeders over 100 feet long.
 - B. Make all splices or connections only at outlet, pull or junction boxes.
 - C. All conductors and connections shall test free of grounds, shorts, and opens prior to energizing circuit.
 - D. Provide No. 10 wire in lieu of No. 12 wire for any branch circuit in excess of 100 feet linear length to prevent excessive voltage drop.
 - E. Use Ideal wing nuts, Scotchlok Type Y, R, G, or B, or approved equivalent connectors for fixture connections at outlet boxes.
- 2.02 MAKE FEEDER TAPS AND JOINTS
 - F. Make feeder taps and joints with OZ Type T, PT, PM or PTS, or approved equivalent clamp connectors as manufactured by Kupler, or with approved compression sleeves. Wrap connectors with No. 10 Electro-Seal or approved equivalent plastic filler and vinyl tape.
 - G. Leave a minimum of 8" slack wire in every outlet box.
 - H. Provide color coded wire and with a different color for each phase and neutral and ground as follows: Phase A, B, C: Black, Red and Blue respectively; Neutral: White; Isolated Ground: Green with Yellow Stripes. Approved color tape is acceptable for feeders using larger than #6 conductors.
 - I. All conductors shall be continuous from origin to panel or equipment termination without splices where possible. Where splices and taps are necessary or are required, they shall be made in splice boxes with suitable connectors.
 - J. Tighten all electrical connectors and terminals, including screws and bolts, in accordance with manufacturer's published torque tightening values. Where manufacturer's torquing requirements are not indicated, tighten connectors and terminals to comply with tightening torques specified in UL486A and UL486B.

SECTION C16122
OUTLET AND JUNCTION BOXES

PART 1 - GENERAL

- 1.01 PROJECT CONDITIONS
 - A. Verify field measurements are as shown on drawings.
 - B. Verify locations of floor boxes and outlets in work areas prior to rough-in.
- PART 2 - PRODUCTS
- 2.01 OUTLET BOXES
 - A. Sheet metal outlet boxes: galvanized steel.
 - B. Cast boxes: type FS, cast fer alloy. Provide gasketed cover by box manufacturer.
 - C. Manufacturers: National, Appleton, General Electric, RACO, or Steel City.
 - D. Provide boxes for fixtures with fixture studs in center.
 - E. Outlet boxes for lighting, switches and receptacles in interior areas with exposed conduit shall be pressed steel and in exterior areas with exposed conduit shall be cast metal with threaded hubs, "FS" type. Use galvanized steel for concealed boxes. Boxes shall be 1-1/2" deep minimum.
- 2.02 PULL AND JUNCTION BOXES
 - A. Sheet metal boxes: galvanized steel.
 - B. Surface-mounted cast metal box: type 4; flat-flanged, surface-mounted junction box.
 - 1. Material: galvanized cast iron.
 - 2. Cover: furnish with ground flange, neoprene gasket, and stainless steel cover screws.
 - C. In-ground cast metal box: inside flanged, recessed cover box for flush mounting.
 - 1. Material: galvanized cast iron.
 - 2. Cover: nonskid cover with neoprene gasket and stainless steel cover screws.
 - 3. Cover legend: electric.
 - D. Manufacturers: National, Appleton, General Electric, RACO, Oz-Gedney or Steel City.
- PART 3 - EXECUTION
- 3.01 INSTALLATION
 - A. Install electrical boxes as shown on drawings, and as required for splices, taps, wire pulling, equipment connections and compliance with regulatory requirements.
 - B. Install pull boxes and junction boxes above accessible ceilings.
 - C. Inaccessible ceiling areas: Install outlet and junction boxes no more than 6 inches from ceiling access panel or from removable recessed light fixture.
 - D. Use flush mounting outlet boxes in finished areas.
 - E. Use stamped steel bridges to fasten flush mounting outlet box between studs.
 - F. Install flush mounted box without damaging wall insulation or reducing its effectiveness.
 - G. Use adjustable steel channel fasteners for hung ceiling outlet box.
 - H. Do not fasten boxes to ceiling support wires.
 - I. Support boxes independently of conduit, except cast box that is connected to two Rigid Metal Conduits both supported within 12 inches of box.
 - J. Use gang box where more than one device is mounted together. Do not use sectional box.
 - K. Use gang box with plaster ring for single device outlets.

- L. Use cast outlet box in exterior locations and wet locations.
- 3.02 OUTLET BOXES
 - A. Select boxes according to intended use and type of outlet. Ceiling outlet boxes shall be 4" octagon and 1-1/2" deep. Use 2-1/8" deep octagon boxes or 4" square boxes required. All ceiling outlet boxes shall have a fixture stud of no bolt self-locking type installed if required to hang the fixture specified at the outlet.
- 3.03 JUNCTION BOXES
 - A. Junction boxes shall be sized according to number of conductors in box or type of service to be provided. Minimum junction box size 4-11/16" square and 2-1/8" deep. Provide screw covers for junction boxes.
 - B. Use code gauge steel with screw covers for pull boxes with prime coat and provide with screw cover. Size pull boxes according to the NEC.
 - C. Provide pull box every 100 feet of conduit run or where excessive number of bends necessitates a box for ease of wire installation.

SECTION C16123
GROUNDING AND BONDING

PART 1 - PRODUCTS

- 1.01 ROD ELECTRODES
 - A. Material: copper-clad steel.
 - B. Diameter: 3/4 inch.
 - C. Length: 10 feet.
- 1.02 MECHANICAL CONNECTORS
 - A. Material: bronze.
- 1.03 GROUNDING CONDUCTOR (WIRE)
 - A. Material: stranded copper, sized to meet NFPA 70, Article 250 requirements.
- PART 2 - EXECUTION
- 2.01 INSTALLATION
 - A. Install rod electrodes at locations indicated. Install additional rod electrodes as required to achieve resistance to ground of less than 25 ohms.
 - B. Provide grounding electrode conductor and connect to reinforcing steel in foundation footing.
 - C. Provide bonding to meet regulatory requirements.
 - D. Bond together each metallic raceway, pipe, duct and other metal objects.
 - E. Provide isolated grounding conductor for circuits supplying all isolated ground outlets. Insulation shall be green with yellow stripe. Size per NEC Table 250.66. This isolated grounding conductor shall run in addition to equipment grounding conductor and along with the branch circuit conductors.

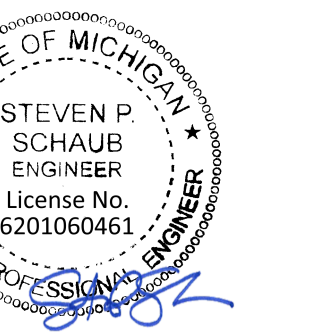
- 2.02 GROUNDING
 - A. Ground electrical system in accordance with NEC Article 250 and local authorities having jurisdiction.
 - B. Install a #3/0 bare copper wire bond across the water meter attached to ground clamps on water line on each side of meter. Arrangements shall be made to do this work at the time the water meter is installed.
 - C. From the point of entrance of the water main into the building and on the meter side of the main inside water valve and union install a stranded copper cable #3/0 in 1-1/4" conduit to the main distribution panel. Connect the cable to the equipment ground bus.
 - D. Install a green equipment grounding conductor in each raceway, sized per NEC Table 250-122. Terminate on equipment ground bus within panelboard serving load.
 - E. Install #6 awg copper grounding conductor from ground bar in main telephone box to inter system bonding termination to grounded neutral bus in main distribution panel.
 - F. All separate grounding electrode conductors shall be bonded together to limit potential differences between them and between their associated wiring systems. This includes the power system, telephone system, etc.
- 2.03 FIELD QUALITY CONTROL
 - A. Inspect grounding and bonding system conductors and connections for tightness and proper installation.



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CHICK-FIL-A
I-75 & MILLER ROAD

3140 MILLER ROAD
FLINT TOWNSHIP, MI 48503

FSR#05198

BUILDING TYPE / SIZE: P14 LE ALL
RELEASE: 22.08

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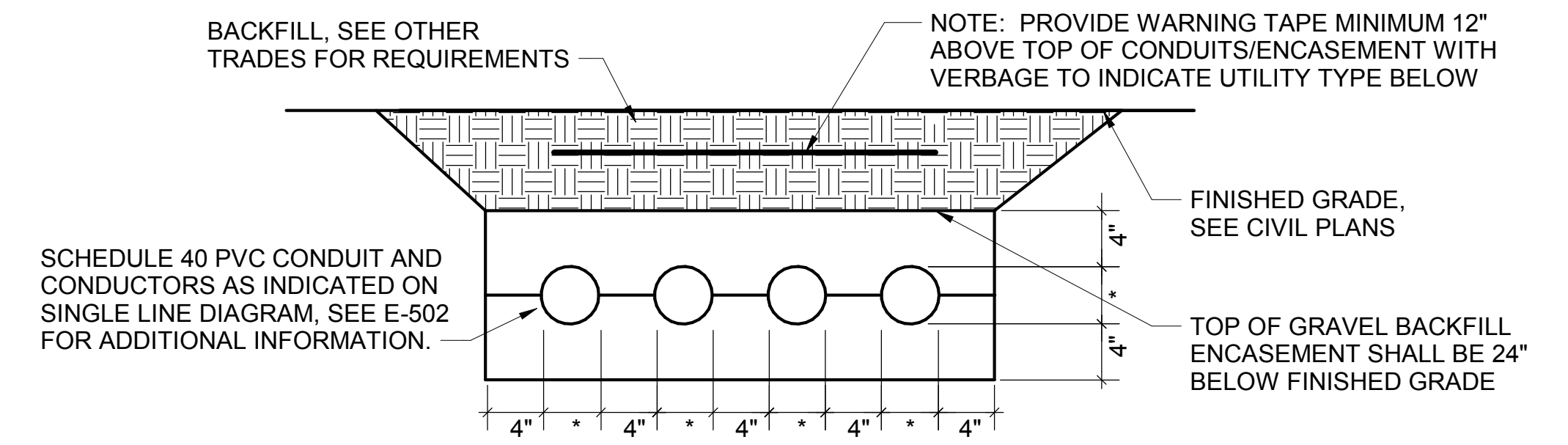
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ELECTRICAL SPECIFICATIONS

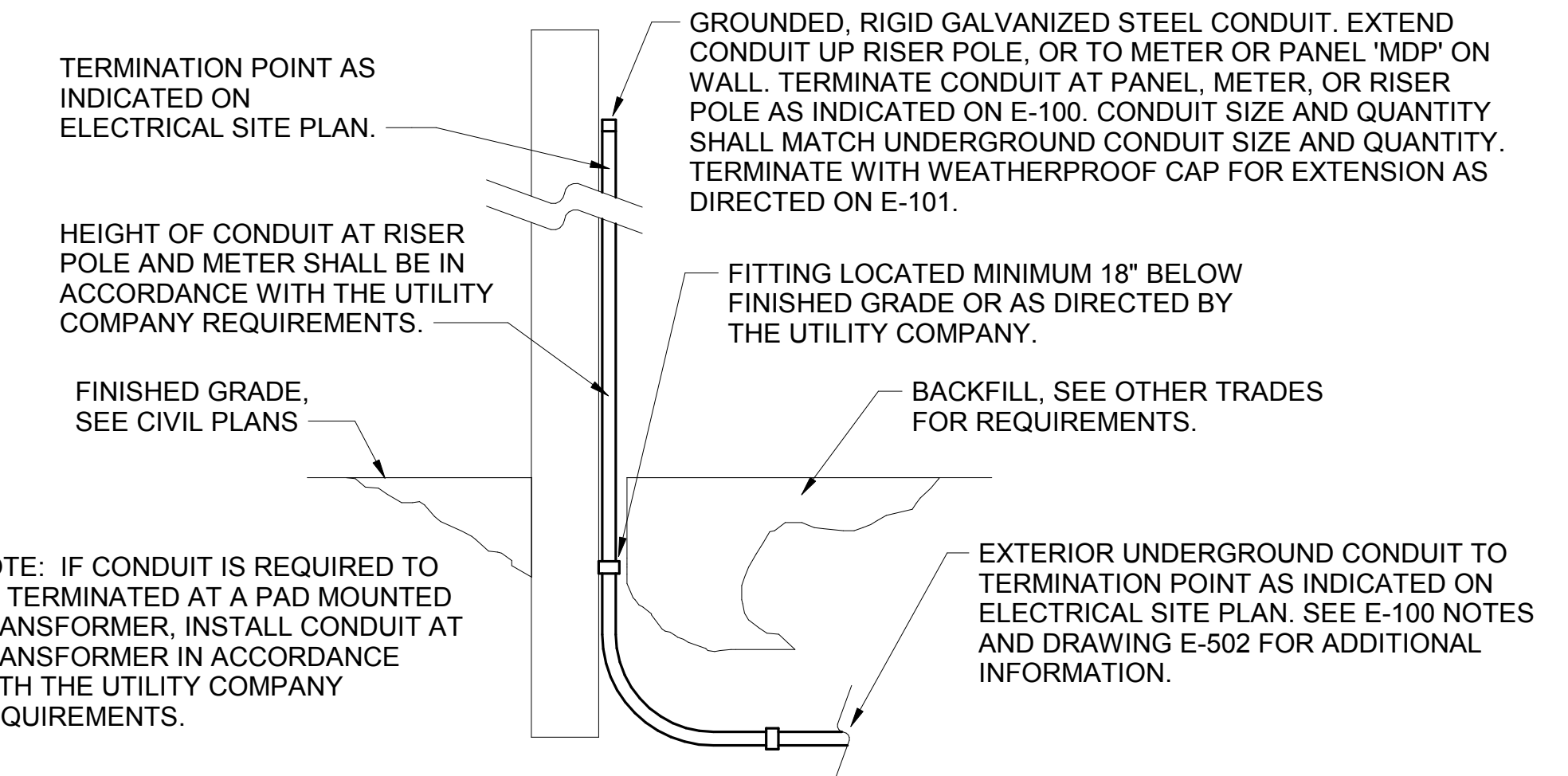
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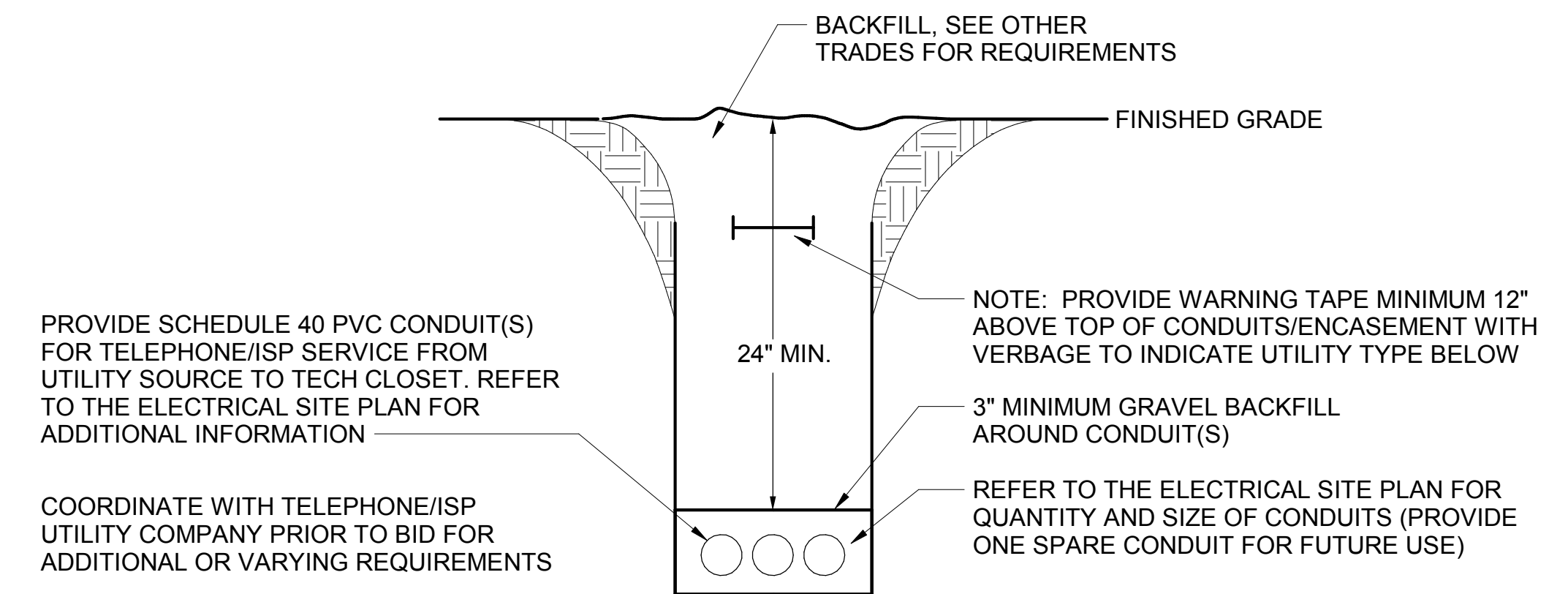
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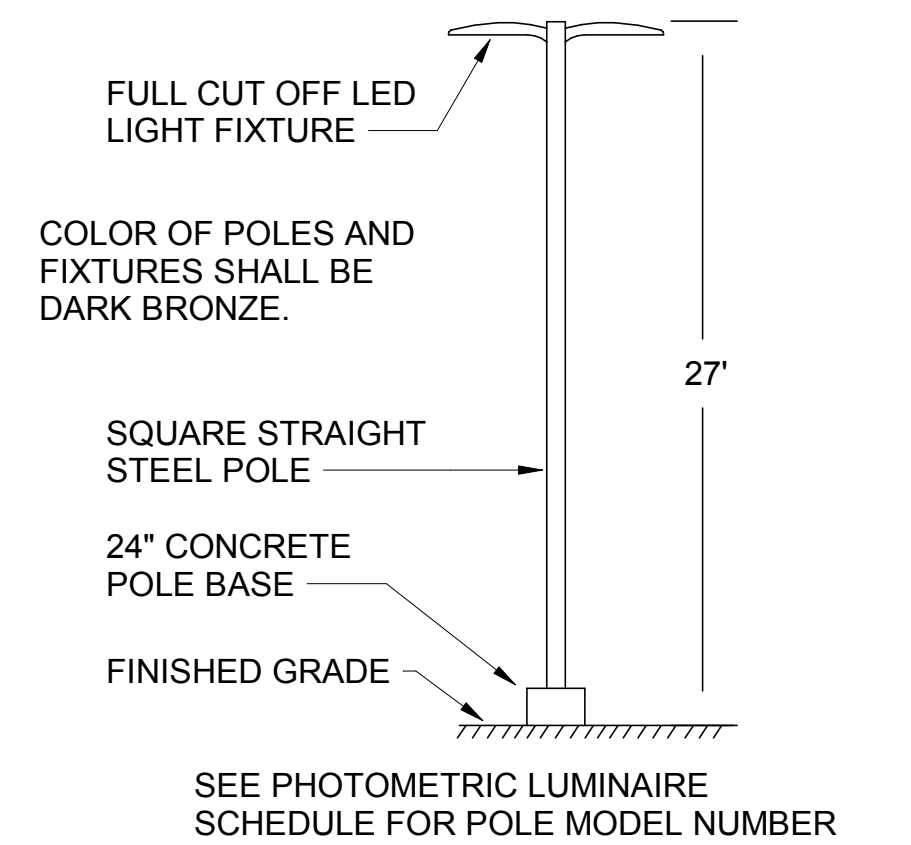
E1 ELECTRICAL SERVICE LATERAL CONDUIT DETAIL
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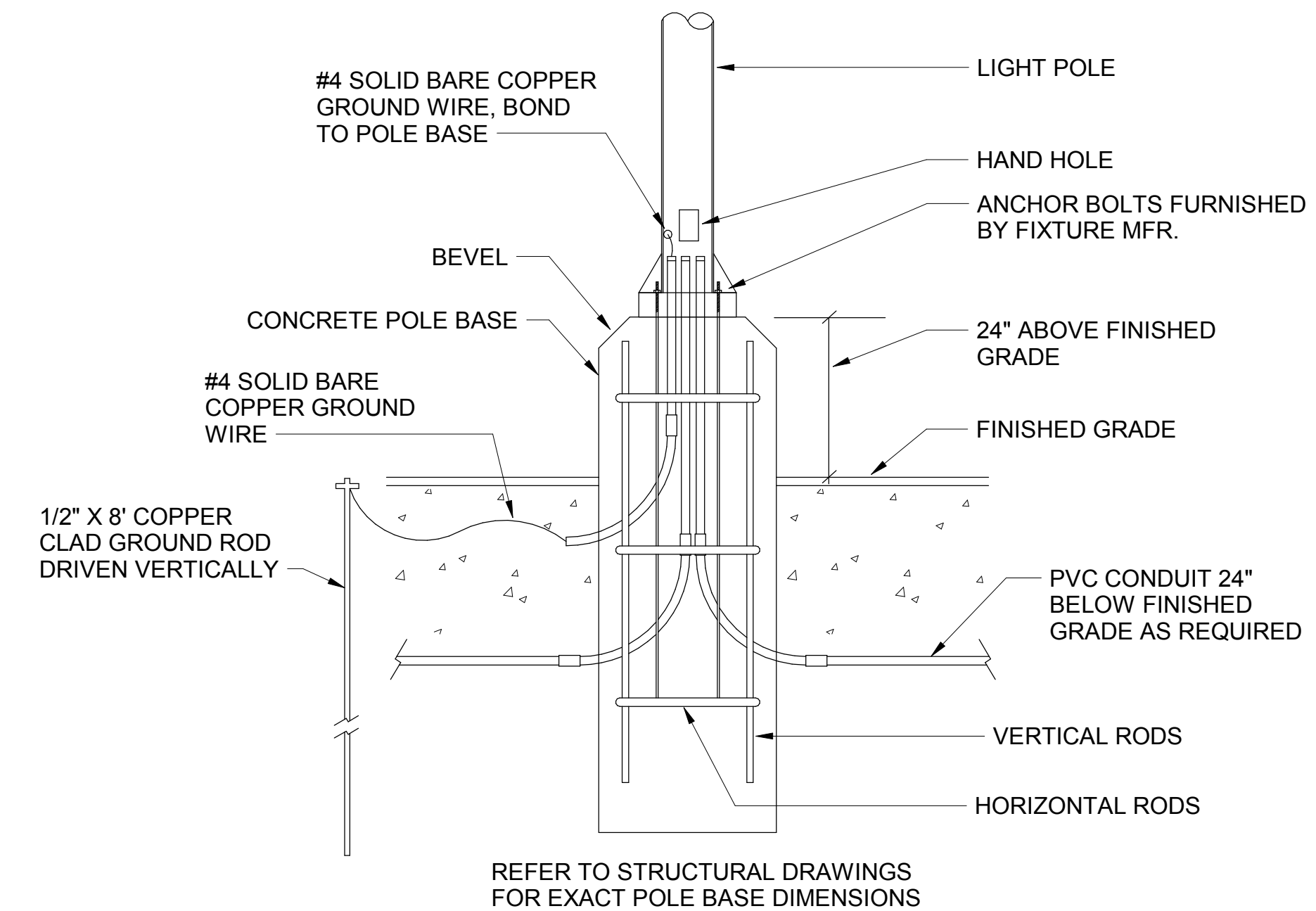
C1 EXTERIOR CONDUIT TURN UP DETAIL
 N.T.S.



B1 TELEPHONE SERVICE CONDUIT DETAIL
 N.T.S.



A3 SITE LIGHTING POLE DETAIL
 N.T.S.



A1 TYPICAL LIGHT POLE BASE DETAIL
 N.T.S.



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SHEET ELECTRICAL SITE DETAILS

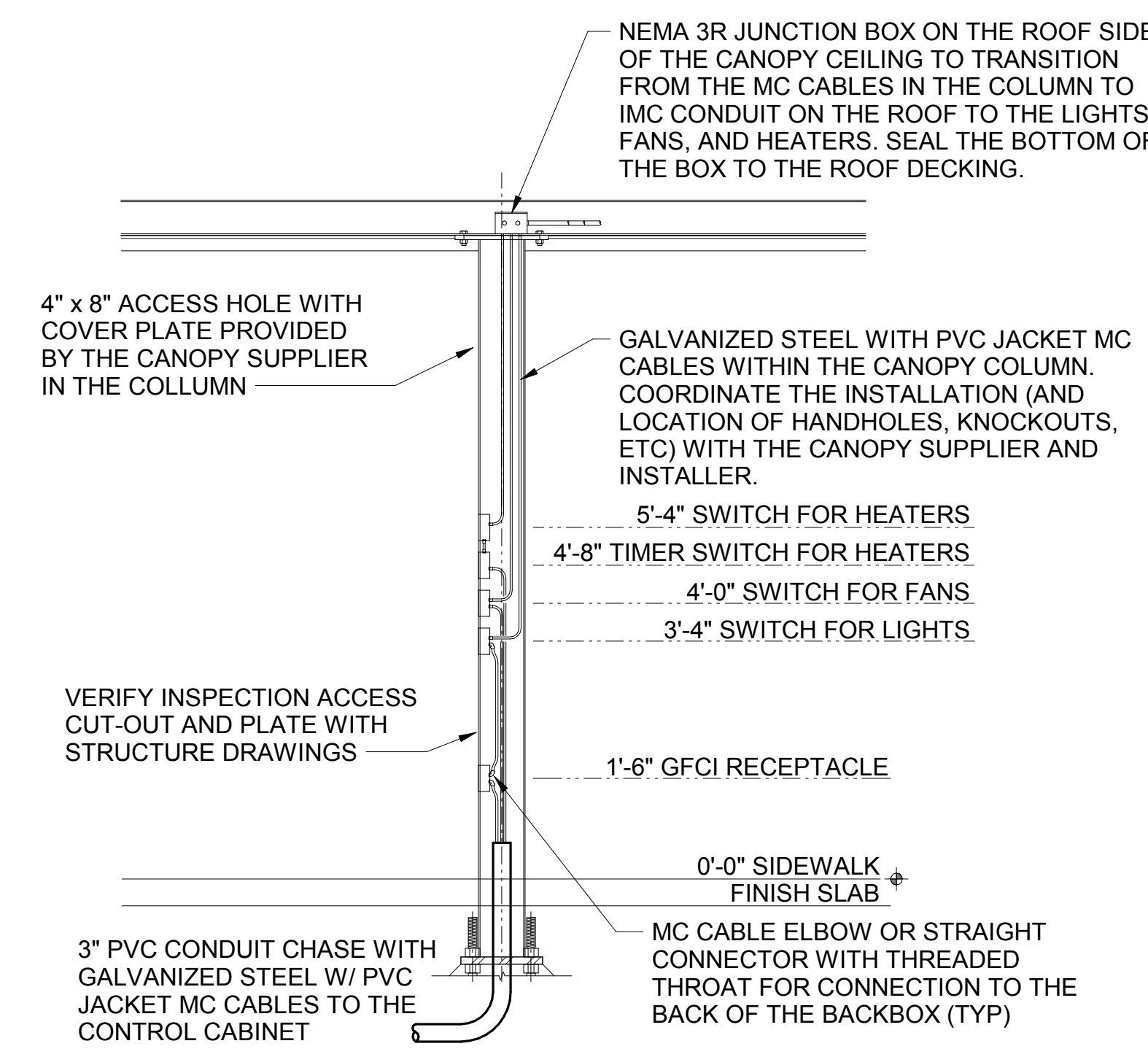
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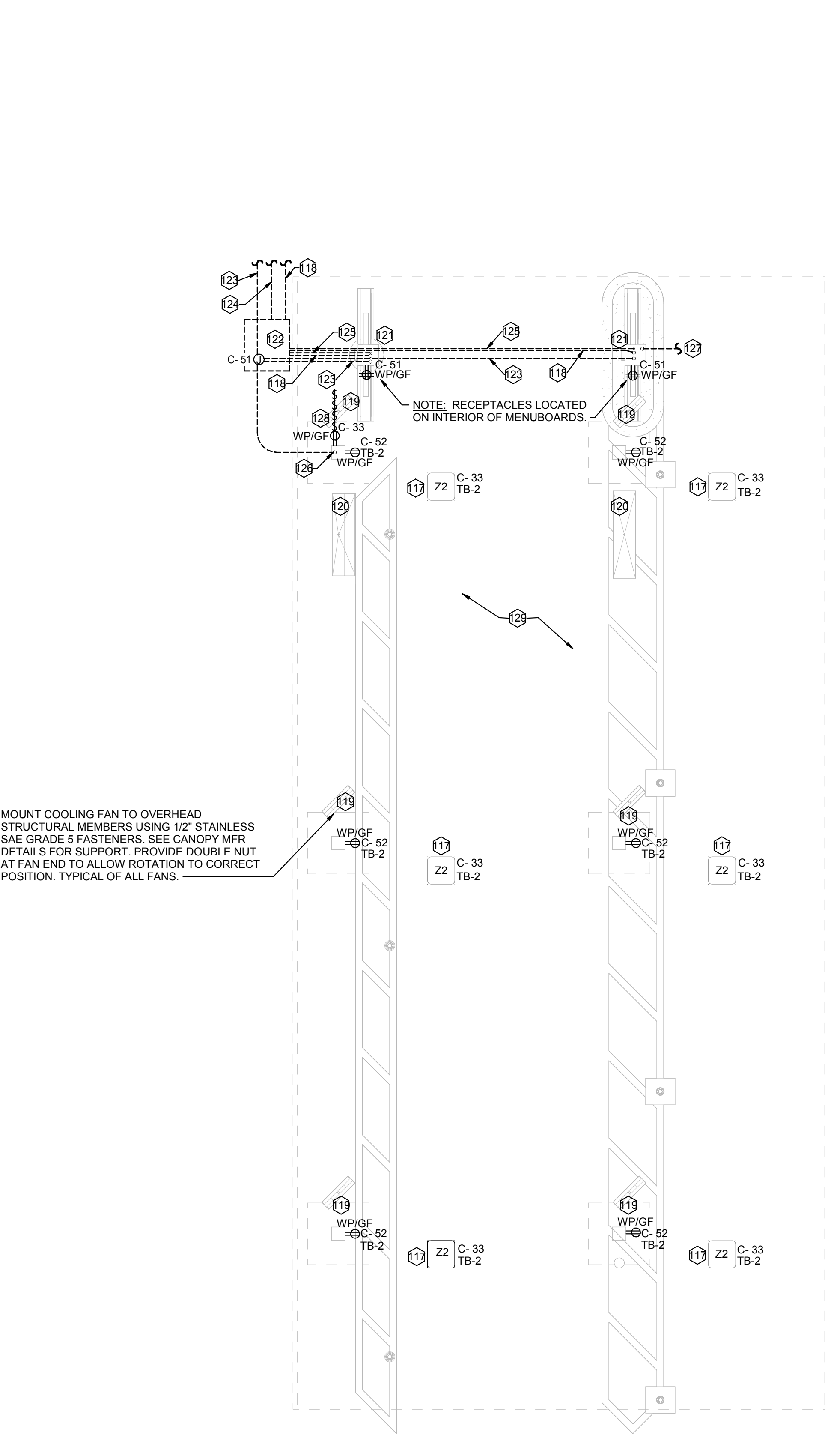
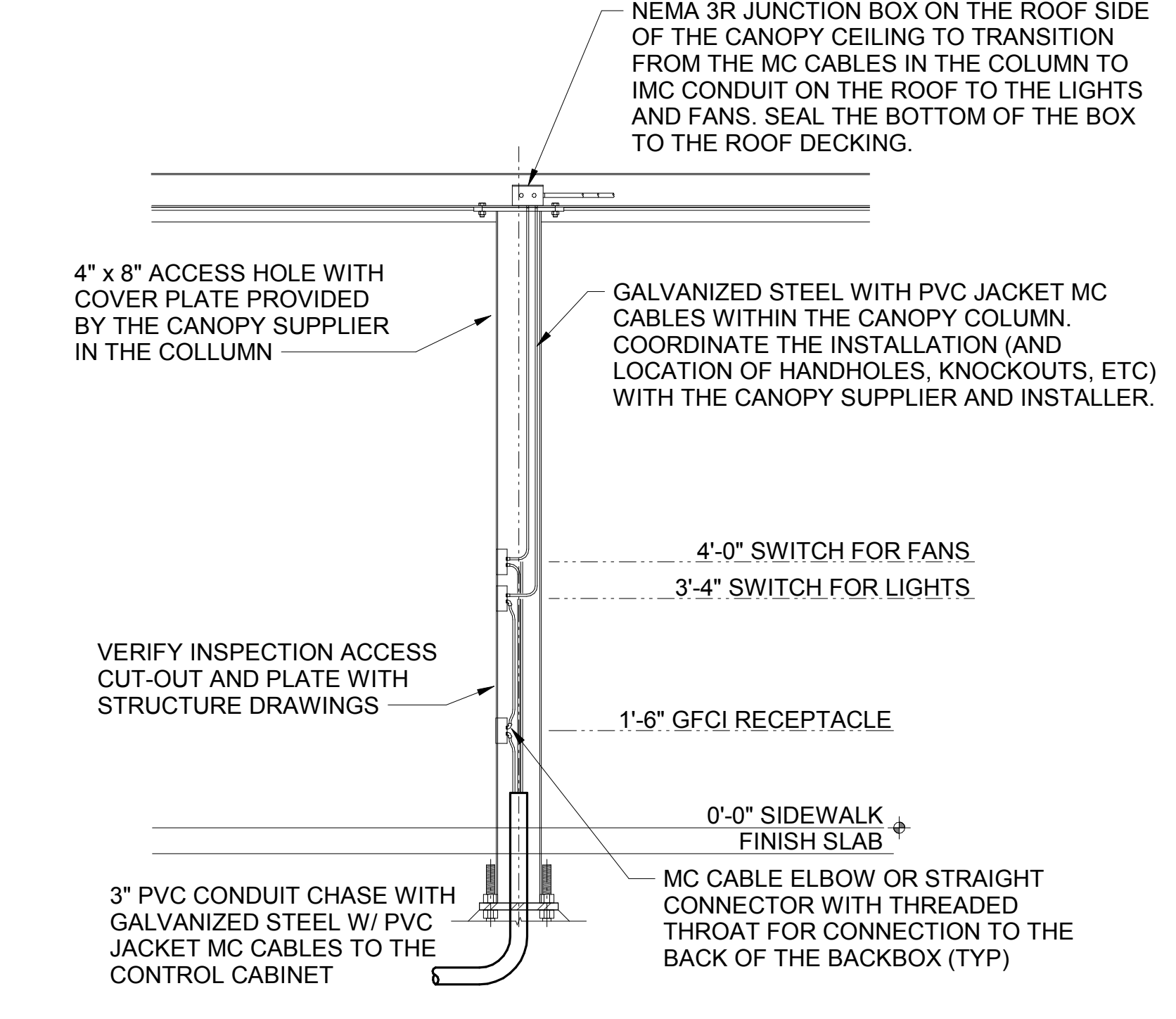
ELECTRICAL KEYNOTES

- 117 CEILING LIGHT PROVIDED BY CANOPY SUPPLIER AND INSTALLED BY E.C.
- 118 CEILING LIGHT PROVIDED BY CANOPY SUPPLIER AND INSTALLED BY E.C.
- 119 AIR CIRCULATING FAN (WITH INTEGRAL ON-OFF SWITCH) PROVIDED BY OTHERS. PROVIDE A DUPLEX OUTLET (WITH IN-USE COVER PLATE) FLUSH MOUNTED IN CUT-OUT AT TOP OF COLUMN FOR FANS PLUG AND CORD. OUTLET TO BE ON DOWNSTREAM SIDE OF COLUMN AND AWAY FROM ONCOMING VEHICLES' VIEW.
- 120 INFRARED GAS HEATER WITH INTEGRAL ON-OFF SWITCH PROVIDED BY OTHERS.
- 121 MENUBOARD PROVIDED BY OTHERS.
- 122 PROVIDE IN-GROUND QUARTZITE PULLBOX FOR MLOP DATA CABLES WITH POWER NEMA 3R JUNCTION BOX MOUNTED INSIDE THE PULLBOX.
- 123 2" UNDERGROUND SCH40 PVC CONDUIT WITH POWER CIRCUITS, SEE WIRING SCHEMATIC.
- 124 2" EMPTY UNDERGROUND SCH40 PVC CONDUIT FOR OWNER'S DETECTOR LOOP CABLES. EXTEND CONDUITS UP INTO ACCESSIBLE CEILING SPACE ABOVE THE HME BOX IN THE DRIVE THRU AREA.
- 125 1" EMPTY UNDERGROUND SCH40 PVC CONDUIT FOR OWNER'S AUDIO SYSTEM/DETECTOR LOOP CABLES.
- 126 INSTALL UNDERGROUND 3" SCH40 PVC CONDUIT UP INTO THE CANOPY COLUMN WITH TYPE MC CABLE (GALVANIZED STEEL WITH PVC JACKET) RUN WITHIN FOR THE 120V POWER FOR LIGHTS, 120 VOLT POWER FOR FANS, AND 24 VOLT POWER FOR THE INFRARED GAS HEATERS.
- 127 2" CONDUIT FROM DRIVE-THRU MENU BOARD TO DUMPSTER ENCLOSURE ROOM FOR WIFI AND CAMERA CABLES.
- 128 PROVIDE ONE DUPLEX GFCI (WITH IN-USE WP COVER PLATE), TWO 120V SINGLE-POLE SWITCHES (EACH WITH HUBBELL #RW51550 WP COVER PLATE), AND ONE DUPLEX SINGLE-POLE SWITCH (WITH HUBBELL #RW51470 WP COVER PLATE) MOUNTED ON THE COLUMN IN B12 PLATES TO BE FIELD PAINTED MATTE BLACK.
- 129 ALL CONDUIT AND BOXES SHALL BE CONCEALED FROM NORMAL VIEW; UNDERGROUND, IN COLUMNS, OR ABOVE THE CANOPY (ON THE ROOF). MC CABLE (GALVANIZED STEEL WITH PVC JACKET) TO BE USED INSIDE THE COLUMNS, BUT MUST CONVERT BACK TO IMC ABOVE THE ROOF. REFER TO THE MECHANICAL DRAWINGS FOR LOCATIONS OF GAS PIPING ABOVE THE ROOF AND INSTALL CONDUIT ALONG THE SAME LOCATIONS USING THE SAME PIPE STAND FOR PIPING AND CONDUIT. ALL EXPOSED ELECTRICAL BOXES TO BE NEMA 3R CAST-METAL.

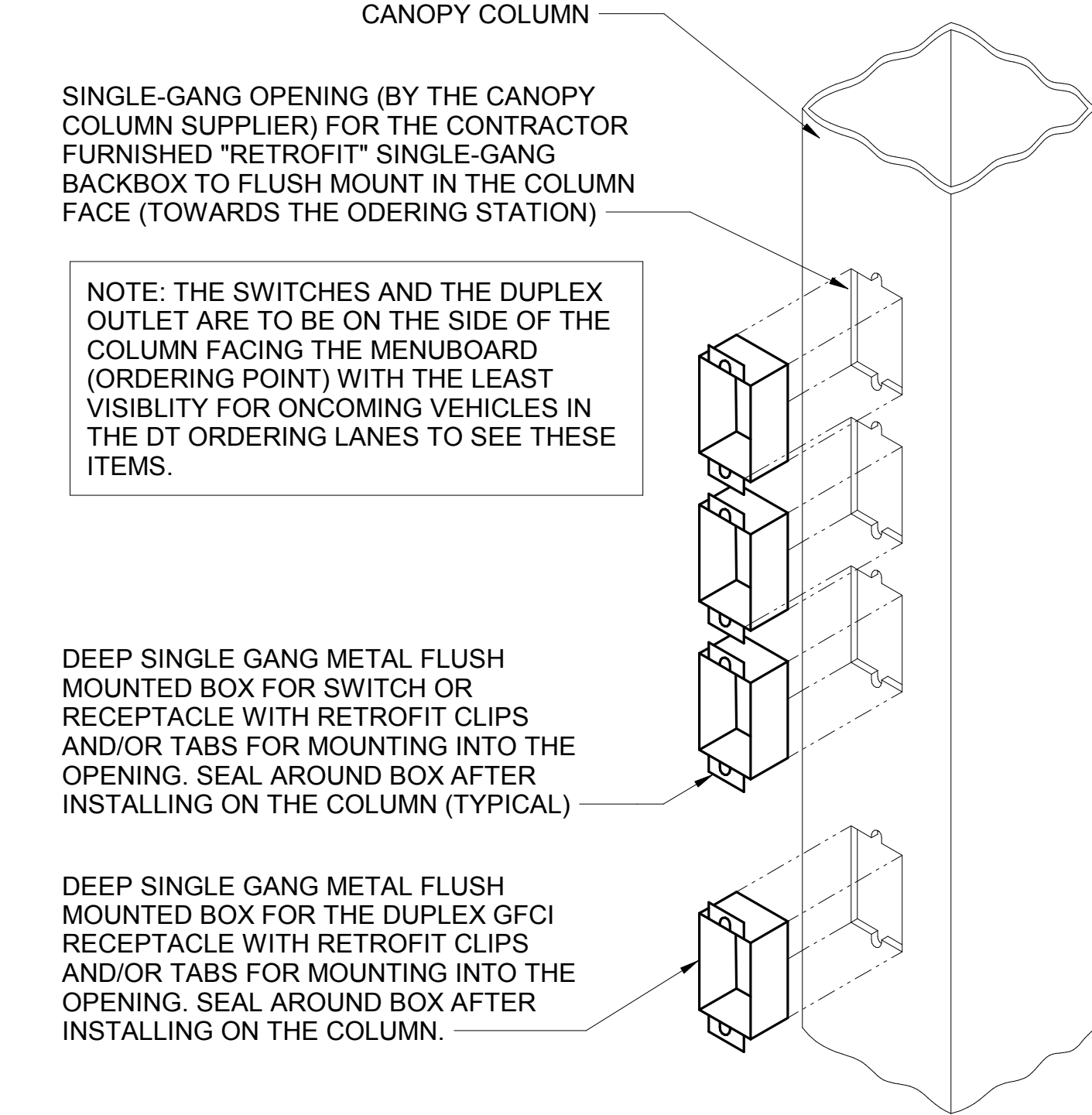
D2 MLOP ORDER CANOPY COLUMN SECTION
N.T.S.



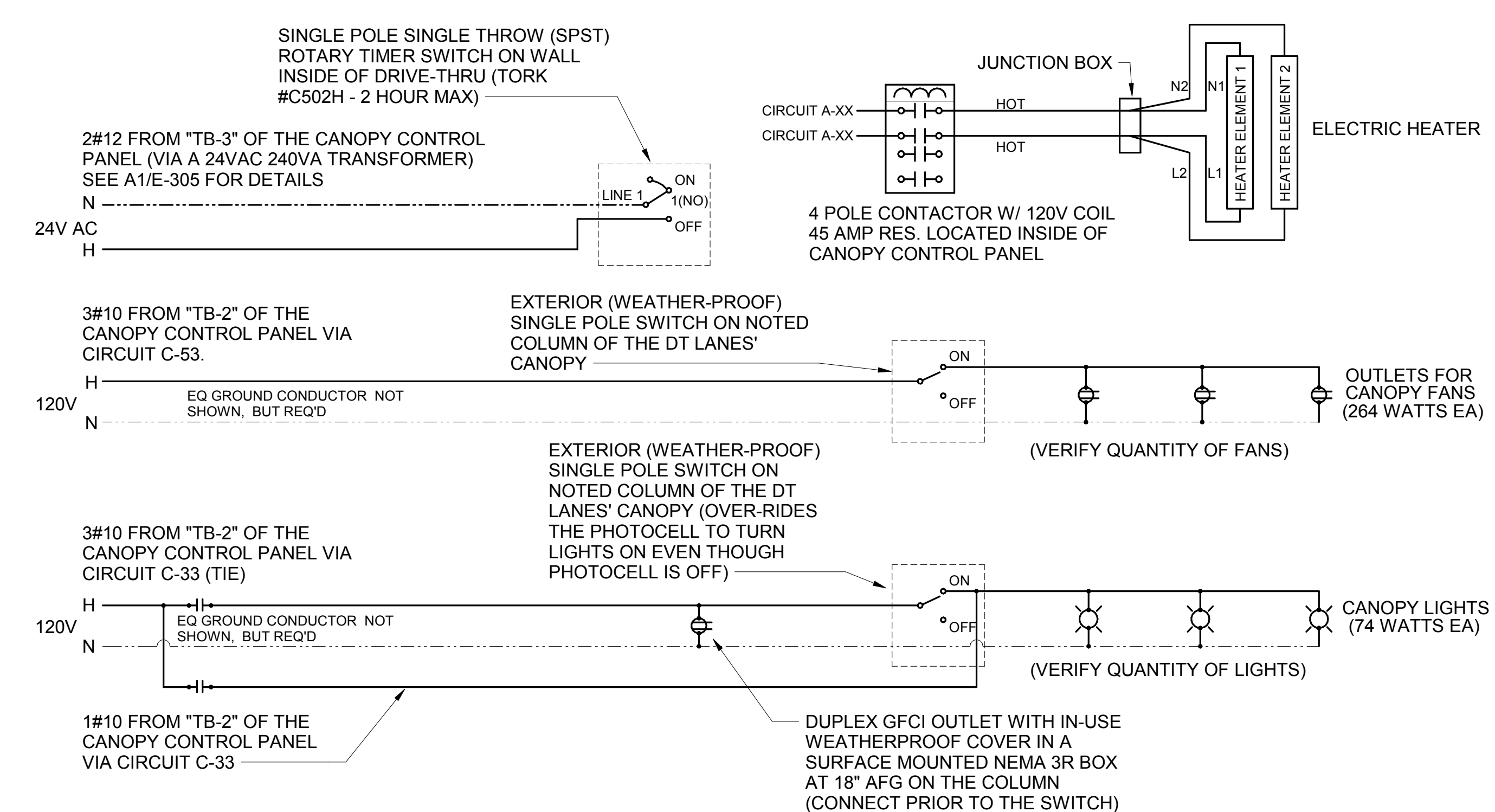
D1 MEAL DELIVERY CANOPY COLUMN SECTION
N.T.S.



B4 MLOP ORDER CANOPY POWER PLAN
1/4" = 1'-0"



C3 CANOPY COLUMN ISOMETRIC
N.T.S.



A1 MEAL DELIVERY CANOPY POWER WIRING SCHEMATIC
N.T.S.



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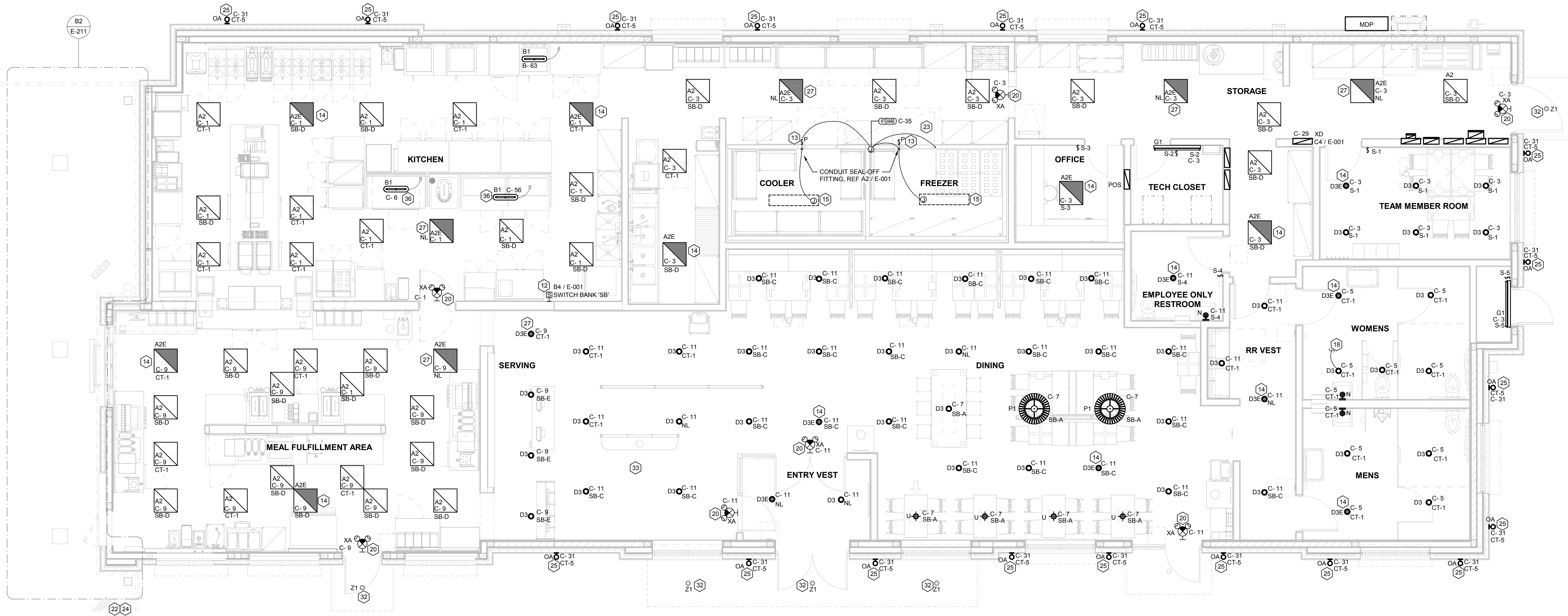
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ORDER CANOPY PLAN AND DETAILS
SHEET NUMBER

E-304

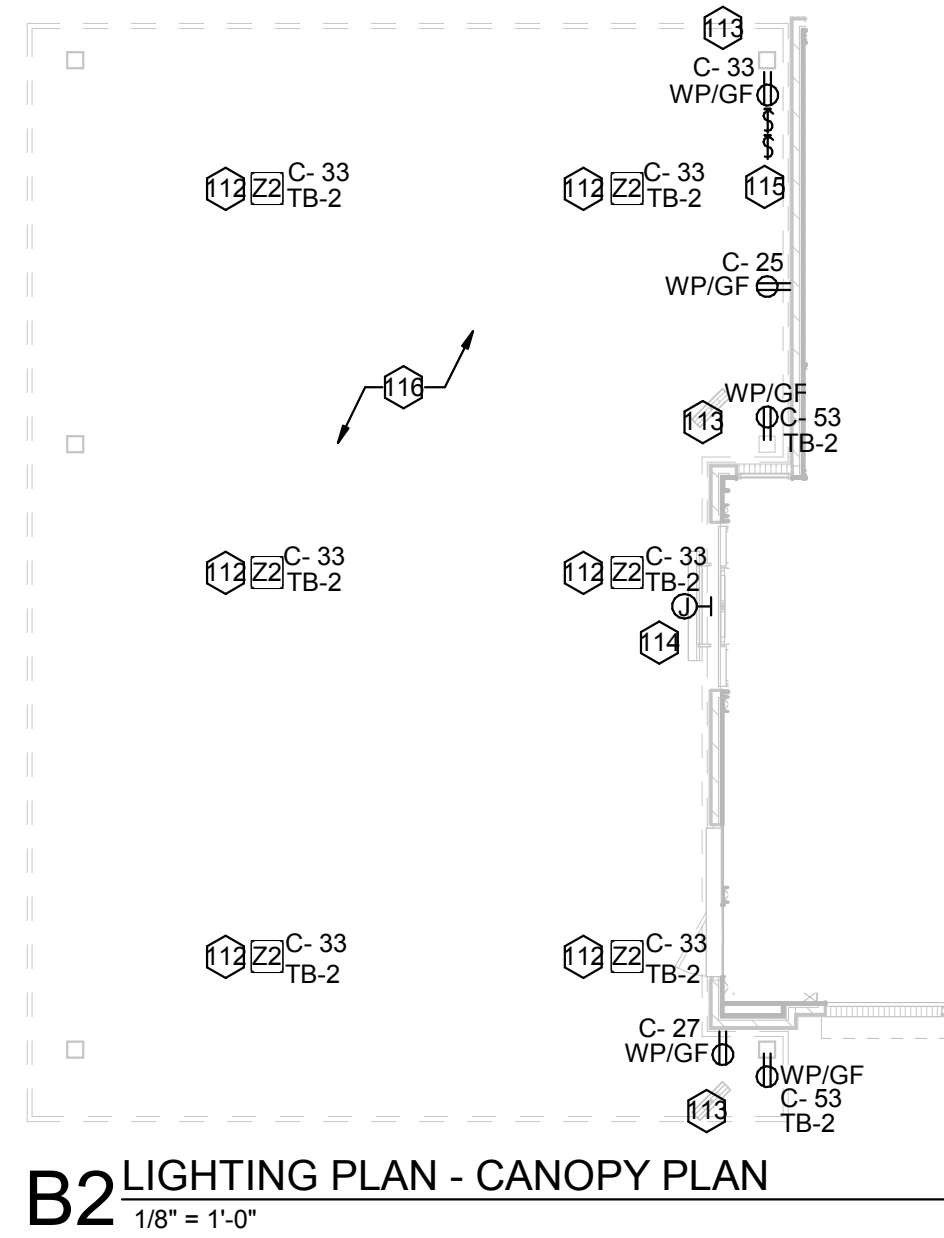
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50-LE-05198-E-304-ORDER CANOPY PLAN AND DETAILS



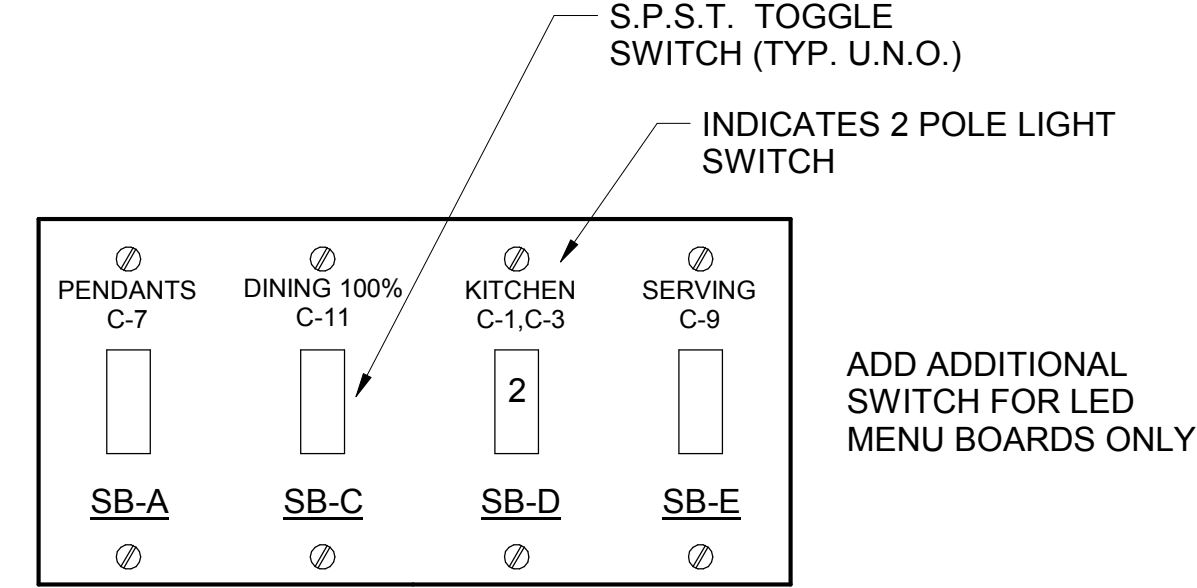
C1 LIGHTING PLAN
1/4" = 1'-0"

ELECTRICAL KEYNOTES

- 12 FOR SIGNAGE BY OTHERS; CONNECT AS REQUIRED. GROUND ALL LOCATIONS IN ACCORDANCE WITH NEC AND MANUFACTURER'S REQUIREMENTS. SIGN IS FURNISHED WITH AN INTEGRAL PRE-WIRED DISCONNECTING MEANS.
- 13 FOR CONTROL OF LIGHTING FIXTURE IN WALK-IN COOLER AND FREEZER. SWITCH FURNISHED WITH EQUIPMENT, INSTALLED BY ELECTRICAL CONTRACTOR.
- 14 CONNECT FIXTURE SO THAT BATTERY PACK IS NOT SWITCHED WITH LIGHTS, BUT ALL LAMPS ARE SWITCHED.
- 15 FOR CONNECTION TO LIGHTING FIXTURE IN THE WALK-IN COOLER AND FREEZER WHICH IS FURNISHED WITH EQUIPMENT. CONTRACTOR SHALL ROUGH-IN AND CONNECT ALL FIXTURES AS REQUIRED BY THE EQUIPMENT MANUFACTURER.
- 18 TO THE TOILET EXHAUST FAN ON ROOF. SEE SHEET E-250, ROOF ELECTRICAL PLAN.
- 20 THIS FIXTURE SHALL NOT BE SWITCHED. CONNECT TO CIRCUIT AHEAD OF ALL SWITCHING AND CONTROLS.
- 22 SEE THE ROOF ELECTRICAL PLAN FOR LOCATION OF TYPE 'OC' ROOF MOUNTED FLAG POLE LIGHT. FIXTURE TO BE CONNECTED TO CIRCUIT C-29 THRU THE CFA-T500 CONTROL PANEL CONTACTOR #9 (AHEAD OF THE INVERTER, NOT THRU THE INVERTER.)
- 23 TO WALK-IN FREEZER DOOR FRAME HEATER AND AIR RELIEF ASSEMBLY (PRESSURE REDUCTION VALVE - PRV), THRU SEAL-OFF FITTING. VERIFY ROUGH-IN AND FINAL CONNECTION WITH EQUIPMENT.
- 24 SEE THE SITE ELECTRICAL PLAN FOR LOCATION OF TYPE 'OC' GROUND MOUNTED FLAG POLE LIGHT. FIXTURE TO BE CONNECTED TO CIRCUIT C-29 THRU THE CFA-T500 CONTROL PANEL CONTACTOR #9 (AHEAD OF THE INVERTER, NOT THRU THE INVERTER.)
- 25 ROUTE THROUGH CONTROL PANEL CFA-T500 AND CONTROLLED BY OCCUPIED SWITCH AND PHOTOCELL.
- 27 CONNECT LIGHTING FIXTURE SO THAT LAMP BALLAST OR DRIVER AND EMERGENCY BATTERY PACK ARE NOT SWITCHED. 'NL' ADJACENT TO FIXTURE INDICATES THAT FIXTURE SHALL BE ON 24 HOURS.
- 32 CANOPY LIGHTS PROVIDED BY THE CANOPY SUPPLIER INTEGRAL WITH THE CANOPY. ELECTRICAL CONTRACTOR SHALL PROVIDE ROUGH-IN CONDUIT CHASE AT CL OF AWNING AND AT 10'-0" AFF (VERIFY) AND CONNECT THE 120V CIRCUIT TO THE 'XD' INVERTER UNIT. COORDINATE LOCATIONS OF LIGHTS AND ROUGH-IN REQUIREMENTS WITH THE CANOPY SUPPLIER. LIGHTS WILL COME ON AT DUSK, TURN OFF AT DAWN, AND BE ENERGIZED WHENEVER THERE IS A POWER OUTAGE.
- 33 REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR LOCATIONS OF PENDANTS, DOWNLIGHTS, ACCENTS LIGHTS, AND OTHER CEILING MOUNTED LIGHT FIXTURES.
- 36 PROVIDE A TYPE B1 SHELF MOUNTED TASK LIGHT FIXTURE. MOUNT LIGHT TO THE UNDERSIDE OF THE WIRE SHELVING. PROVIDE A CORD FROM THE FIXTURE(S) TO A SWITCH IN AN FS BOX MOUNTED TO THE SHELF. FROM FS BOX PROVIDE AN SO CORD WITH PLUG AND CONNECT TO THE GEN RECEPTACLE (WALL OR DROP CORD). SEE ENLARGED POWER PLAN FOR FURTHER INFORMATION.
- 112 CEILING LIGHT FIXTURE PROVIDED BY THE CANOPY SUPPLIER AND INSTALLED BY ELECTRICAL CONTRACTOR.
- 113 AIR CIRCULATING FAN (WITH INTEGRAL ON-OFF SWITCH) PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR. PROVIDE A DUPLEX RECEPTACLE OUTLET (WITH IN-USE WP COVER PLATE) AT THE TOP OF THE COLUMN FLUSH MOUNTED IN THE CUT-OUT FOR THE FAN'S PLUG AND CORD CONNECTION.
- 114 ELECTRICAL HEATER TO PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR.
- 115 PROVIDE ONE DUPLEX GFCI (WITH IN-USE WP COVER PLATE) AND TWO 120V SINGLE-POLE SWITCHES (EACH WITH HUBBELL #RW51550 WP COVER PLATE) AND ONE DUPLEX SINGLE-POLE SWITCH (WITH HUBBELL #RW51470 WP COVER PLATE) MOUNTED IN THE COLUMN IN FLUSH MOUNTED METAL SINGLE-GANG BOXES FOR LOCAL ON-OFF CONTROL OF THE FANS, HEATERS, AND CANOPY LIGHTS. SEE WIRING SCHEMATIC FOR FURTHER INFORMATION. ALL SURFACE (OR VISIBLE) ITEMS AND COVERPLATES TO BE FIELD PAINTED MATTE BLACK.
- 116 ALL CONDUIT AND BOXES SHALL BE CONCEALED FROM NORMAL VIEW; IN WALLS OR ABOVE THE CANOPY (ON THE ROOF); MC CABLE (GALVANIZED STEEL WITH PVC JACKET) MAY BE USED INSIDE THE WALL FOR THE DEVICES, BUT MUST CONVERT TO IMC ABOVE THE CANOPY ROOF. (PROVIDE A NEMA 3R JUNCTION BOX ON THE ROOF SIDE OF THE CANOPY TO TRANSITION FROM IMC CABLES IN WALL TO IMC CONDUIT ON THE ROOF.) ALL EXPOSED BOXES AND FITTINGS TO BE CAST-METAL NEMA 3R. REFER TO THE MECHANICAL SHEETS FOR CONDUIT MOUNTING DETAILS ON THE ROOF.



B2 LIGHTING PLAN - CANOPY PLAN
1/8" = 1'-0"



NOTE: LOCATE JUNCTION BOXES IN CEILING SPACE ABOVE THE LOCATION OF THE SWITCHBANK FOR SPLICING OF LINE, LOAD, AND SWITCHED CONDUCTORS. PROVIDE GANGED BACKBOX FOR SWITCHES AS REQUIRED AND LABEL ALL CONDUCTORS SO AS TO INDICATE THEIR USE (LINE, LOAD, SWITCH), THE LOAD SERVED, AND THE CIRCUIT NUMBER.

B1 SWITCH BANK 'SB' DETAIL
NO SCALE

LIGHTING FIXTURE (LUMINAIRE) SCHEDULE - CHICK-FIL-A P14 EDITION

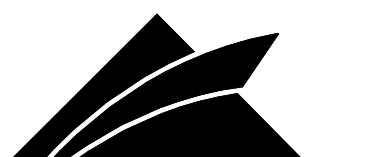
MARK	MANUFACTURER	CATALOG NUMBER	NO. LAMPS/TYPE	WATTS	VOLTS	MOUNTING	REMARKS
A2	COOPER/METALUX	22FP4240C	INTEGRAL WITH FIXTURE	39 VA	120 V	RECESSED	2X2 LED FLAT PANEL
A2E	COOPER/METALUX	22FP4240C	INTEGRAL WITH FIXTURE	39 VA	120 V	RECESSED	2X2 EMERGENCY LED FLAT PANEL
B1	COOPER/METALUX	2V13-LD5-4-G-120V-L840-CD1-SSL-U	INTEGRAL WITH FIXTURE	32 VA	120 V	SURFACE	MOUNT LIGHT TO BTM OF OVERHEAD WIRE SHELVING WITH CORD & PLUG
D3	COOPER/HALO	P06-20-D010B-PDM8B-830-61VC	INTEGRAL WITH FIXTURE	21 VA	120 V	RECESSED	LED DOWNLIGHT WITH CLEAR REFLECTOR & TRIM RATED 2000 LUMENS, 3000K COLOR TEMP
D3E	COOPER/HALO	P06-20-D010B-EM-PDM8B-830-61VEMC	INTEGRAL WITH FIXTURE	21 VA	120 V	RECESSED	SAME AS D3 EXCEPT WITH EMERGENCY BATTERY PACK/INTEGRAL TEST SWITCH
G1	COOPER/METALUX	48LS174040DD-JNV	INTEGRAL WITH FIXTURE	44 VA	120 V	SURFACE	4780 LUMEN 4 FOOT LENSED LED STRIPLIGHT, MTD ABOVE DOOR FRAME
N	MINKA	4531-267B	1-LED11A19827D	11 VA	120 V	WALL	LAVATORY WALL SCONCE SHADE POINTED DOWN W/ LED LAMP & CL ON LAVATORY
OA	PROGRESS LIGHTING	P875-31 WITH P8799 TOP COVER LENS	2-GEILED12P30RW830255ECO	24 VA	120 V	WALL	5" DIAMETER, 14" HEIGHT, WET LOCATION, UP/DOWN CYLINDER W/ 12 WATT PAR30 3K NFL LED LAMPS
OC	HUBBELL	FL-42L-95-4K7-N-U-K-DB (SEE NOTE 4)	INTEGRAL WITH FIXTURE	97 VA	120 V	PIPE	FLOODLIGHT MTD ON ROOF ON 2" PIPE SUPPORT (BY OTHERS) AND AIMED AT FLAG AFTER DARK
OD2	COOPER/LUMARK	LUMINAIRE: PRV-A60D-JNV--SA-B2 (DISTRIBUTION TYPES TO BE DETERMINED BY THE REGIONAL TEAM SPECIFIC TO THE SITE); POLE: SSP25-4-0-7-BRZ-DM10-BC (SINGLE LUMINAIRE)	INTEGRAL WITH FIXTURE	153 VA	120 V	POLE W/CONCRETE BASE	COORDINATE WITH THE SPECIFIC SITE CONDITIONS FOR THE TYPE OF POLES REQUIRED, THE HEIGHT, AND THE CONFIGURATION. CONTACT VENDOR IF HIGHER THAN 100 MPH WIND LOADING REQUIRED.
OD3	COOPER/LUMARK	LUMINAIRE: PRV-A60D-JNV--SA-B2 (DISTRIBUTION TYPES TO BE DETERMINED BY THE REGIONAL TEAM SPECIFIC TO THE SITE); POLE: SSP25-4-0-7-BRZ-DM2180-BC (TWO LUMINAIRES AT 180 DEGREE)	INTEGRAL WITH FIXTURE	306 VA	120 V	POLE W/CONCRETE BASE	COORDINATE WITH THE SPECIFIC SITE CONDITIONS FOR THE TYPE OF POLES REQUIRED, THE HEIGHT, AND THE CONFIGURATION. CONTACT VENDOR IF HIGHER THAN 100 MPH WIND LOADING REQUIRED.
OK	HUBBELL	LNC-SLU-3K-3-1	INTEGRAL WITH FIXTURE	13 VA	120 V	WALL	LED WALLPACK W/ CENTERLINE OF FIXTURE AT 8'0" AFF (FINISH FLOOR LINE)
P1	MEYDA	142776	2-LED11A19827D	22 VA	120 V	PENDANT	31" DIA PEACH BASKET PENDANT WITH BTM AT 6'-8" AFF ABV TABLE, 8'-0" OTHERWISE
U	BESA LIGHTING	BE500288-060	FURNISHED	8 VA	120 V	PENDANT	RED FRIT GLASS, BRONZE CABLE & CANOPY, 6'-8" AFF
XA	COOPER/SURE-LITES	APCH7R	INTEGRAL WITH FIXTURE	4 VA	120 V	WALL	EXIT SIGN WITH BATTERY PACK AND TWO INTEGRAL ADJUSTABLE LAMPHEADS
XD	MULE LIGHTING	SPS-220250-120277	NONE	250 VA	120 V	WALL	INVERTER UNIT FOR EXTERIOR EGRESS LTG. ON AT DUSK, OFF AT DAWN, ON DURING PWR OUTAGE
Z1	COOPER/HALO	SLDM08930WH	INTEGRAL WITH FIXTURE	12 VA	120 V	SURFACE	LED DOWNLIGHT PROVIDED BY CANOPY SUPPLIER INSTALLED BY CANOPY SUPPLIER, CONNECTION BY ELECTRICAL CONTRACTOR
Z2	LSI	CRUS-SC-LED-LW30-UE-WHT	INTEGRAL WITH FIXTURE	74 VA	120 V	RECESSED	CANOPY LIGHT PROVIDED BY CANOPY SUPPLIER AND INSTALLED BY ELECTRICAL CONTRACTOR

- NOTES:
- LUMINAIRES UTILIZING DOUBLE-ENDED LAMPS AND CONTAIN BALLASTS THAT CAN BE SERVICED IN PLACE SHALL HAVE A DISCONNECTING MEANS EITHER INTERNAL OF EXTERNAL TO EACH LUMINAIRE PER NEC 410.130(G).
 - THE LIGHTING FIXTURE PACKAGE IS AVAILABLE THROUGH A NATIONAL ACCOUNT PROGRAM. REFER TO THE ELECTRICAL SPECIFICATIONS SHEET, SECTION C18500 FOR VENDOR INFORMATION.
 - THE ASTERISK (*) BESIDE THE FIXTURE MARK IN THE ABOVE SCHEDULE INDICATES THE FIXTURE IS A NON-PROTOTYPICAL LIGHT FIXTURE PER THE CFA NATIONAL P14 PROTOTYPE.
 - IF TYPE OC IS GROUND MOUNTED IN LIEU OF ROOF MOUNTED, PROVIDE EITHER THE FL-VISOR-DB (VISOR) OR THE FL-LOUVER-BL (LOUVER) FOR GLARE CONTROL.

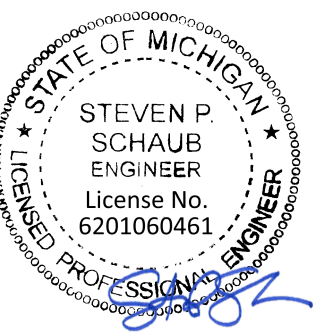


Chick-fil-A

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998



GPD GROUP
Professional Corporation
205 S. MAIN STREET, SUITE 201
ARRON, OH 44411



12/07/22

CHICK-FIL-A
I-75 & MILLER ROAD

3140 MILLER ROAD
FLINT TOWNSHIP, MI 48503

FSR#05198

BUILDING TYPE / SIZE: P14 LE LRG

RELEASE: 22-08

PRINTED FOR: ISSUED FOR CONSTRUCTION

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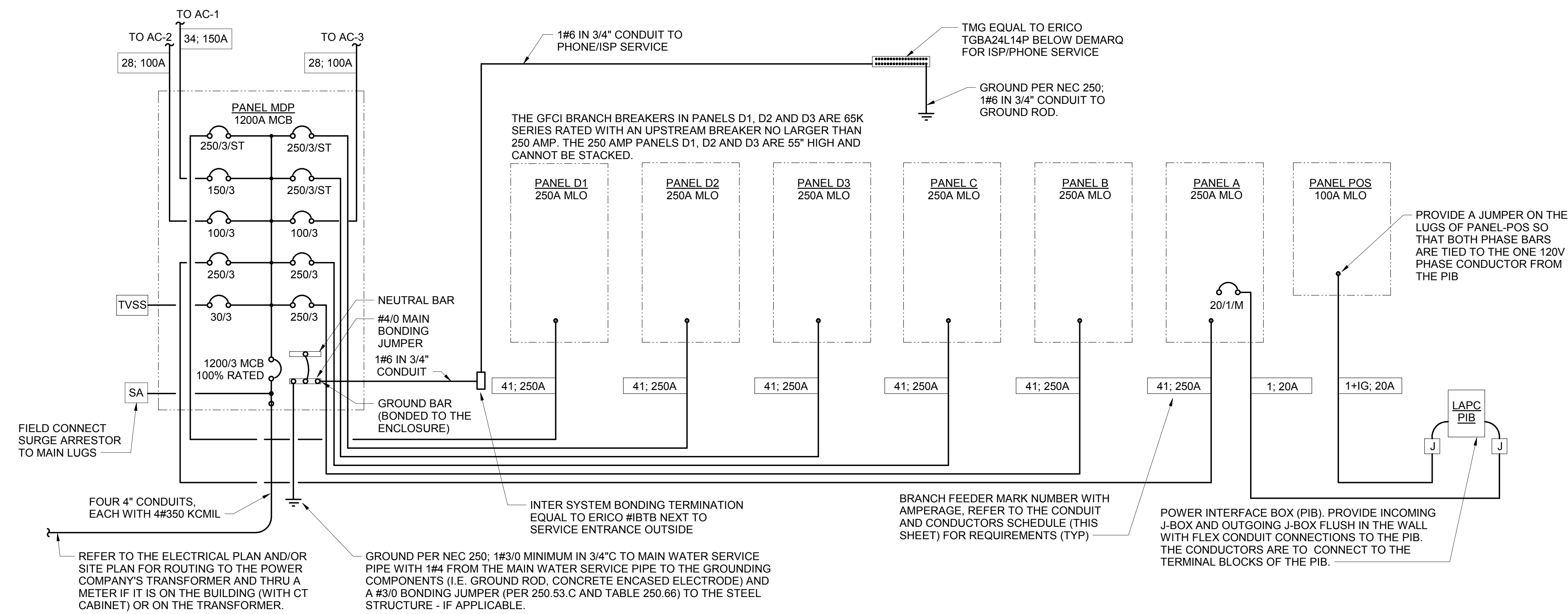
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LIGHTING PLAN

SHEET NUMBER

E-211



SINGLE-LINE DIAGRAM NOTES

- VERIFY SERVICE LOCATIONS AND CONFORM TO THE REQUIREMENTS OF THE POWER COMPANY AND/OR DEVELOPER. POWER COMPANY AND/OR DEVELOPER SHALL BE CONTACTED PRIOR TO BEGINNING CONSTRUCTION TO ARRANGE AND VERIFY FOR THE INSTALLATION OF THE POWER COMPANY SERVICE, METER, AND OTHER ITEMS.
- GROUND ALL EQUIPMENT AND SERVICES IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE, LOCAL APPLICABLE CODES, AND ALSO AS INDICATED ON DRAWINGS.
- MAKE NECESSARY INSPECTIONS OF EXISTING SITE AND SERVICE LOCATIONS AS REQUIRED FOR THIS WORK AND MAKE ALLOWANCE FOR EXISTING CONDITIONS BEFORE SUBMITTING BID. VERIFY WORK REQUIRED WITH POWER COMPANY AND TELEPHONE COMPANY.
- CUT AND PATCH THE CONSTRUCTION WORK AS REQUIRED FOR PROPER INSTALLATION OF THE ELECTRICAL WORK. ALL PATCHING SHALL MATCH THE SURROUNDING WORK TO THE SATISFACTION OF THE ARCHITECT. ALL CONDUIT SHALL BE INSTALLED CONCEALED UNLESS SPECIFICALLY APPROVED BY THE ARCHITECT. COORDINATE SAW CUTTING WITH LANDLORD'S OR OWNER'S REPRESENTATIVE.
- WIRE AND CABLE:
 - CONDUCTORS SHALL BE COPPER, #12 AWG, MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE.
 - CONDUCTOR #10 AWG AND SMALLER SHALL BE SOLID AND #8 AWG AND LARGER SHALL BE STRANDED. INSULATION SHALL BE 600 VOLT, THHN/THWN.
- PROVIDE ENGRAVED LAMINATED PHENOLIC BLOCK-ON-WHITE (UNLESS NOTED OTHERWISE) NAMEPLATES SECURED TO EQUIPMENT WITH ADHESIVE AND SCREWS FOR PANELBOARDS, RELAY CABINETS, TRANSFORMERS, DISTRIBUTION BOARDS, AND MAIN PANELBOARD - IDENTIFYING EQUIPMENT DESIGNATION (CORRESPONDING WITH DESIGNATION USED ON DRAWINGS) AND EQUIPMENT VOLTAGE. LETTERING SHALL BE 1/4" HIGH. PROVIDE LABELS FOR CIRCUIT BREAKERS, FUSIBLE SWITCHES AND STARTERS IN PANELBOARDS AND DISTRIBUTION BOARDS FOR EACH DEVICE. IDENTIFYING EQUIPMENT CONTROLLED. LETTERING SHALL BE 1/8" HIGH.
- ALL DEVICES SHALL HAVE AN INTERRUPTING CAPACITY NOT LESS THAN THE POWER COMPANY AVAILABLE FAULT CURRENT, OR AS INDICATED ON THE DRAWINGS.
- 120/208 VOLT BRANCH CIRCUIT PANELBOARD BREAKERS SHALL HAVE A MINIMUM U.L. SERIES RATING OF 65 KAIC WITH UP-STREAM FEEDER BREAKERS AS NOTED.
- AVAILABLE SPACE FOR MAIN PANELBOARD IS LIMITED. PANELBOARD MUST FIT IN ALLOCATED SPACE. COORDINATE WITH CONSTRUCTION AS REQUIRED.
- ALL WIRING SHALL BE IN CONDUIT, E.M.T OR RIGID. FLEXIBLE CONDUIT MAY ONLY BE USED FOR FINAL CONNECTIONS AND WITH GREEN EQUIPMENT GROUNDING CONDUCTORS.

SWITCHGEAR AND CONTROL EQUIPMENT NOTES

- PURCHASE PANELBOARDS, SURGE ARRESTOR, AND TVSS FROM AN APPROVED NATIONAL ACCOUNTS VENDOR (SEE SHEET E-902 SECTION C16440, PANELBOARDS) PROVIDING SQUARE-D EQUIPMENT. NO SUBSTITUTIONS ALLOWED.
- PURCHASE CONTROL PANEL 'CFA-T500' FROM SUNCOAST ENVIRONMENTAL, INC. (NO SUBSTITUTIONS ALLOWED). ALL EQUIPMENT IN THE CONTROL PANEL SHALL BE INSTALLED, WIRED AND CONNECTED AT THE FACTORY, INCLUDING AUTOMATIC LIGHTING CONTROL SYSTEM, LIGHTING RELAYS, HVAC STARTERS, POWER SUPPLIES, MISCELLANEOUS RELAYS AND CONTROLS, AND THERMOSTATS.
- CONTRACTOR SHALL PROVIDE PANEL FEEDERS A, B, C, D1, D2, D3, AND POS, BRANCH CIRCUIT CONDUIT AND WIRE, AND INSTALL ALL EQUIPMENT AS REQUIRED.
- ALL BREAKERS AND PANELS SHALL BE SQUARE-D.
- TVSS AND SURGE ARRESTOR UNITS SHALL BE MOUNTED DIRECTLY ADJACENT TO THE SIDE OF THE MAIN DISTRIBUTION PANEL IN NEMA 3R ENCLOSURES. CLOSE NIPPLE THE UNITS TO THE SIDE OF THE PANEL. PROVIDE CONNECTION OF TVSS UNIT TO BREAKER IN PANEL. CONNECT SURGE ARRESTOR TO MAIN INCOMING LUGS OF THE PANEL. CONNECT USING MINIMUM LENGTH OF WIRE WITHOUT SHARP BENDS IN THE WIRE AND SHALL NOT BE LENGTHENED FROM WIRE LENGTH PROVIDED WITH THE TVSS OR SURGE SUPPRESSOR DEVICE.

B1 CONDUIT AND CONDUCTORS SCHEDULE

Mark No.	OCP Device (Amp/Poles)	Conductors Total Amps 60d C 75d C	Conductors			Raceway Size (Nominal Inches)										
			Phase & Neutral Qty	Size	Type	Min Eq Qty/Set	Grd Size	No. Sets	Phase, Neutral & Equip Grd EMT	IMC	RIGID	PVC	With IG EMT	IMC	PVC	
1	20/1	20	-	2	12	THHN	1	12	One	0.75	0.75	0.75	0.75	0.75	0.75	0.75
2	20/2	20	-	3	12	THHN	1	12	One	0.75	0.75	0.75	0.75	0.75	0.75	0.75
3	20/3	20	-	4	12	THHN	1	12	One	0.75	0.75	0.75	0.75	0.75	0.75	0.75
4	25/1	30	-	2	10	THHN	1	10	One	0.75	0.75	0.75	0.75	0.75	0.75	0.75
5	25/2	30	-	3	10	THHN	1	10	One	0.75	0.75	0.75	0.75	0.75	0.75	0.75
6	25/3	30	-	4	10	THHN	1	10	One	0.75	0.75	0.75	0.75	0.75	0.75	0.75
7	30/1	30	-	2	10	THHN	1	10	One	0.75	0.75	0.75	0.75	0.75	0.75	0.75
8	30/2	30	-	3	10	THHN	1	10	One	0.75	0.75	0.75	0.75	0.75	0.75	0.75
9	30/3	30	-	4	10	THHN	1	10	One	0.75	0.75	0.75	0.75	0.75	0.75	0.75
10	40/1	40	-	2	8	THHN	1	10	One	0.75	0.75	0.75	0.75	0.75	0.75	0.75
11	40/2	40	-	3	8	THHN	1	10	One	0.75	0.75	0.75	0.75	0.75	0.75	0.75
12	40/3	40	-	4	8	THHN	1	10	One	0.75	0.75	0.75	0.75	0.75	0.75	1.00
13	45/3	55	-	4	6	THHN	1	10	One	1.00	1.00	1.00	1.00	1.00	1.00	1.00
14	50/1	55	-	2	6	THHN	1	10	One	0.75	0.75	0.75	0.75	0.75	0.75	0.75
15	50/2	55	-	3	6	THHN	1	10	One	0.75	0.75	0.75	0.75	0.75	0.75	1.00
16	50/3	55	-	4	6	THHN	1	10	One	1.00	1.00	1.00	1.00	1.00	1.00	1.00
17	60/1	70	-	2	4	THW	1	8	One	1.00	1.00	1.00	1.00	1.25	1.00	1.25
18	60/2	70	-	3	4	THW	1	8	One	1.25	1.00	1.25	1.25	1.25	1.25	1.25
19	60/3	70	-	4	4	THW	1	8	One	1.25	1.25	1.25	1.25	1.25	1.25	1.25
20	70/1	70	-	2	4	THW	1	8	One	1.00	1.00	1.00	1.00	1.25	1.00	1.25
21	70/2	70	-	3	4	THW	1	8	One	1.25	1.00	1.25	1.25	1.25	1.25	1.25
22	70/3	70	-	4	4	THW	1	8	One	1.25	1.25	1.25	1.25	1.25	1.25	1.25
23	80/2	85	-	3	3	THW	1	8	One	1.25	1.25	1.25	1.25	1.25	1.25	1.25
24	80/3	85	-	4	3	THW	1	8	One	1.25	1.25	1.25	1.25	1.50	1.25	1.50
25	90/2	95	-	3	2	THW	1	8	One	1.25	1.25	1.25	1.25	1.50	1.25	1.50
26	90/3	95	-	4	2	THW	1	8	One	1.50	1.25	1.50	1.50	1.50	1.50	1.50
27	100/2	110	-	3	1	THW	1	6	One	1.50	1.50	1.50	1.50	2.00	2.00	2.00
28	100/3	110	-	4	1	THW	1	6	One	2.00	2.00	2.00	2.00	2.00	2.00	2.00
29	110/2	-	150	3	1/0	THW	1	6	One	1.25	1.25	1.25	1.25	1.50	1.25	1.50
30	110/3	-	150	4	1/0	THW	1	6	One	1.50	1.25	1.50	1.50	1.50	1.50	1.50
31	125/2	-	150	3	1/0	THW	1	6	One	1.50	1.50	1.50	1.50	2.00	2.00	2.00
32	125/3	-	150	4	1/0	THW	1	6	One	2.00	2.00	2.00	2.00	2.00	2.00	2.00
33	150/2	-	150	3	1/0	THW	1	6	One	2.00	1.50	2.00	2.00	2.00	2.00	2.00
34	150/3	-	150	4	1/0	THW	1	6	One	2.00	2.00	2.00	2.00	2.00	2.00	2.00
35	175/2	-	175	3	2/0	THW	1	6	One	2.00	2.00	2.00	2.00	2.50	2.50	2.50
36	175/3	-	175	4	2/0	THW	1	6	One	2.00	2.00	2.00	2.00	2.50	2.50	2.50
37	200/2	-	200	3	3/0	THW	1	6	One	2.00	2.00	2.00	2.00	2.50	2.50	2.50
38	200/3	-	200	4	3/0	THW	1	6	One	2.50	2.50	2.50	2.50	2.50	2.50	2.50
39	225/2	-	230	3	4/0	THW	1	4	One	2.50	2.00	2.50	2.50	2.50	2.50	2.50
40	225/3	-	230	4	4/0	THW	1	4	One	2.50	2.50	2.50	2.50	2.50	3.00	3.00
41	250/3	-	255	4	250	THW	1	4	One	2.50	3.00	3.00	3.00	3.00	3.00	3.00
42A	300/3	-	285	4	300	THW	1	4	One	3.00	3.00	3.00	3.00	3.00	3.00	3.00
42B	300/3	-	310	4	350	THW	1	4	One	3.00	3.00	3.00	3.00	3.00	3.00	3.00
43A	350/3	-	335	4	400	THW	1	4	One	3.00	3.50	3.50	3.50	3.50	3.50	3.50
43B	350/3	-	380	4	500	THW	1	4	One	3.50	3.50	3.50	3.50	3.50	3.50	3.50
44A	400/3	-	380	4	500	THW	1	3	One	3.50	3.50	3.50	3.50	3.50	3.50	3.50
44B	400/3	-	400	4	3/0	THW	1	3	Two	2.50	2.50	2.50	2.50	2.50	2.50	2.50
45A	600/3	-	570	4	300	THW	1	1	Two	3.00	3.00	3.00	3.00	3.00	3.00	3.00
45B	600/3	-	620	4	350	THW	1	1	Two	3.00	3.00	3.00	3.00	3.00	3.00	3.50
46A	800/3	-	760	4	500	THW	1	1/0	Two	3.50	3.50	3.50	3.50	3.50	3.50	3.50
46B	800/3	-	820	4	600	THW	1	1/0	Two	4.00	4.00	4.00	4.00	4.00	4.00	4.00
47	1000/3	-	1005	4	400	THW	1	2/0	Three	3.50	3.50	3.50	3.50	3.50	3.50	3.50
48	1200/3	-	1240	4	350	THW	1	3/0	Four	3.50	3.50	3.50	3.50	3.50	3.50	4.00
49	1600/3	-	1675	4	400	THW	1	4/0	Five	4.00	4.00	4.00	4.00	4.00	4.00	4.00

Notes:
Conductors are rated at 600 volt or below and are to be copper.

NEC Table 310.15(B)(16) - formerly Table 310.16 - is used for the basis of the conductor ampacities, which is not more than three current carrying conductors in a raceway at an ambient temperature of 30 deg C with 60 deg C rated conductors and connectors per 110.14-C-1 for up to 100 amp rated and up to #1 AWG conductors for equipment terminations and 75 deg C rated conductors and termination connectors for larger than 100 amp or above #1 AWG conductors.

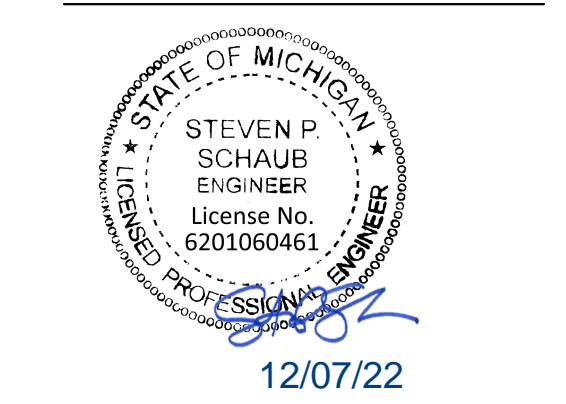
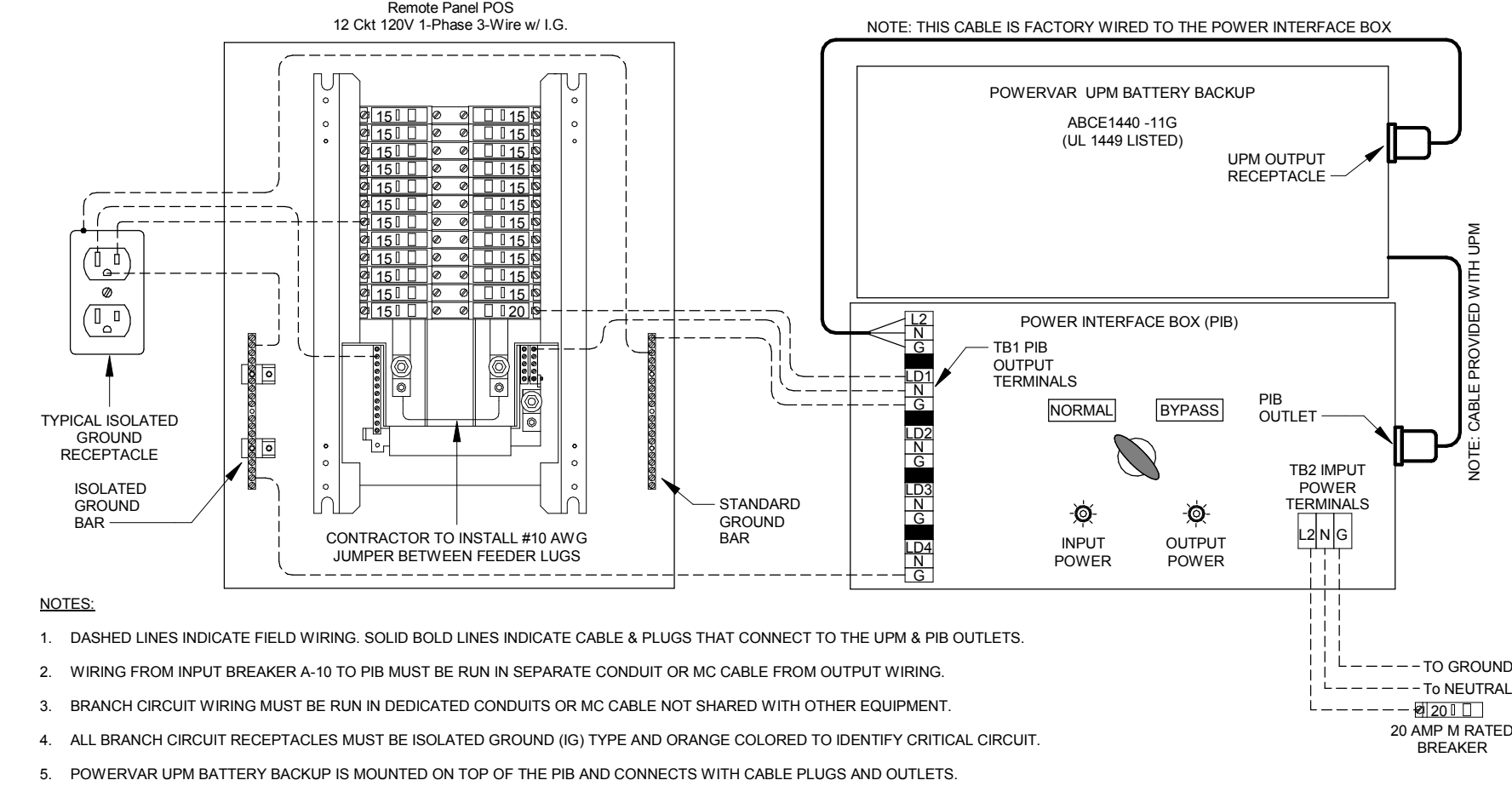
NEC Tables 4, 5, and Appendix C is used for the basis of the conduit sizes. Table C1 for EMT, Table C4 for IMC, Table C8 for Rigid, and Table C10 for PVC (Sch 40).

All Branch Feeders and Branch Circuits shall include a green Equipment Grounding Conductor.

Omit Grounding conductor on Service Entrance Feeders.

Omit Neutral conductor on all Delta primary transformer feeders or single-phase 2 pole loads and 3 phase loads not requiring a neutral.

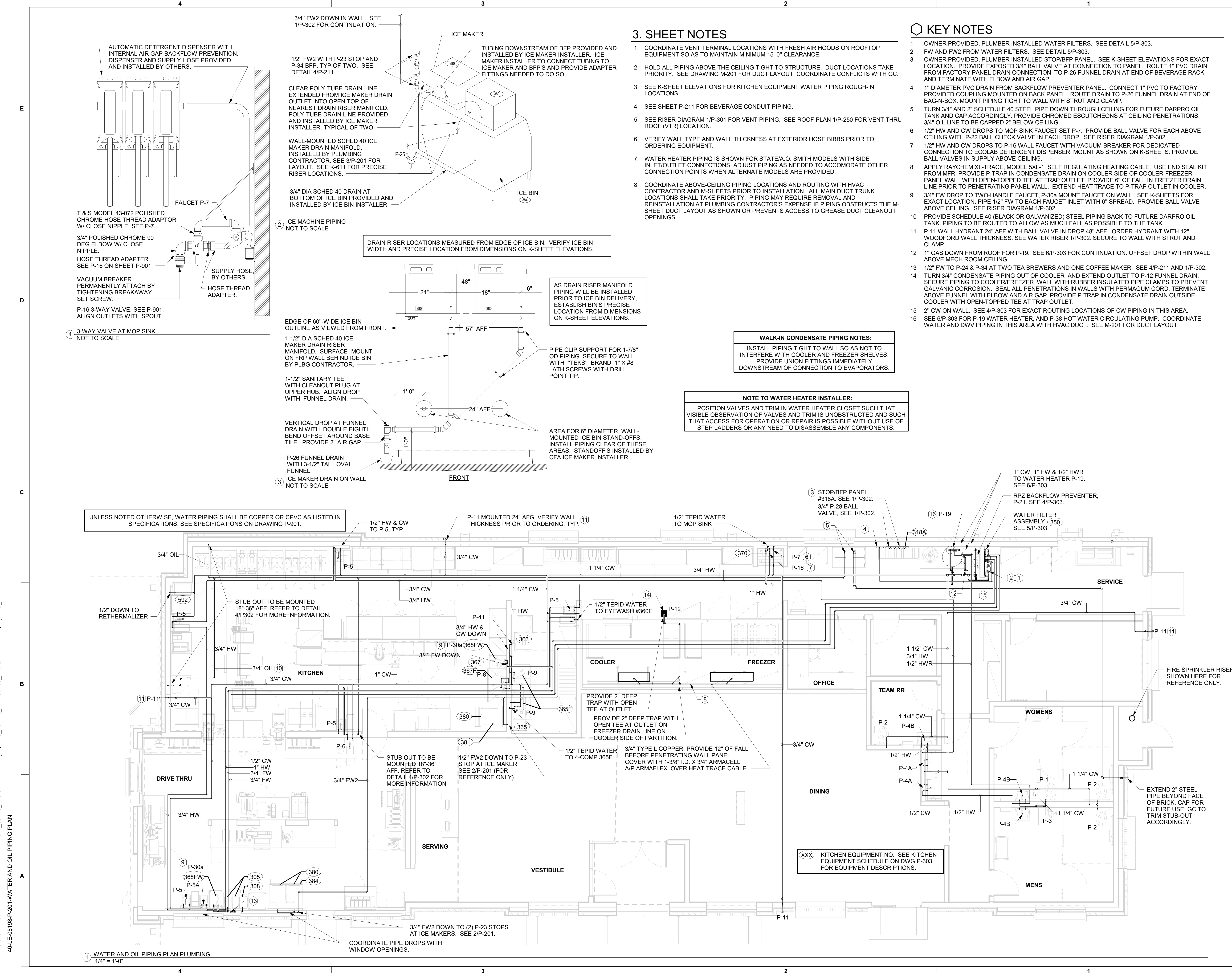
The above conductors are not calculated for Voltage Drop. Any circuits that exceed 100 feet shall be calculated by the Installer to have less than a three percent voltage drop on feeders and five percent on branch circuits per the NEC.



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FSR#05198
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PRINTED FOR ISSUED FOR CONSTRUCTION
REVISION SCHEDULE
NO. DATE DESCRIPTION
CONSULTANT PROJECT # 202223.23
DATE 12/07/22
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SHEET SINGLE LINE DIAGRAM AND NOTES
SHEET NUMBER E-502

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 40-LE-05198-P-201-WATER AND OIL PIPING PLAN



3. SHEET NOTES

- COORDINATE VENT TERMINAL LOCATIONS WITH FRESH AIR HOODS ON ROOFTOP EQUIPMENT SO AS TO MAINTAIN MINIMUM 15'-0" CLEARANCE.
- HOLD ALL PIPING ABOVE THE CEILING TIGHT TO STRUCTURE. DUCT LOCATIONS TAKE PRIORITY. SEE DRAWING M-201 FOR DUCT LAYOUT. COORDINATE CONFLICTS WITH GC.
- SEE K-SHEET ELEVATIONS FOR KITCHEN EQUIPMENT WATER PIPING ROUGH-IN LOCATIONS.
- SEE SHEET P-211 FOR BEVERAGE CONDUIT PIPING.
- SEE RISER DIAGRAM 1/P-301 FOR VENT PIPING. SEE ROOF PLAN 1/P-250 FOR VENT THRU ROOF (VTR) LOCATION.
- VERIFY WALL TYPE AND WALL THICKNESS AT EXTERIOR HOSE BIBBS PRIOR TO ORDERING EQUIPMENT.
- WATER HEATER PIPING IS SHOWN FOR STATE/A.O. SMITH MODELS WITH SIDE INLET/OUTLET CONNECTIONS. ADJUST PIPING AS NEEDED TO ACCOMMODATE OTHER CONNECTION POINTS WHEN ALTERNATE MODELS ARE PROVIDED.
- COORDINATE ABOVE-CEILING PIPING LOCATIONS AND ROUTING WITH HVAC CONTRACTOR AND M-SHEETS PRIOR TO INSTALLATION. ALL MAIN DUCT TRUNK LOCATIONS SHALL TAKE PRIORITY. PIPING MAY REQUIRE REMOVAL AND REINSTALLATION AT PLUMBING CONTRACTOR'S EXPENSE IF PIPING OBSTRUCTS THE M-SHEET DUCT LAYOUT AS SHOWN OR PREVENTS ACCESS TO GREASE DUCT CLEANOUT OPENINGS.

KEY NOTES

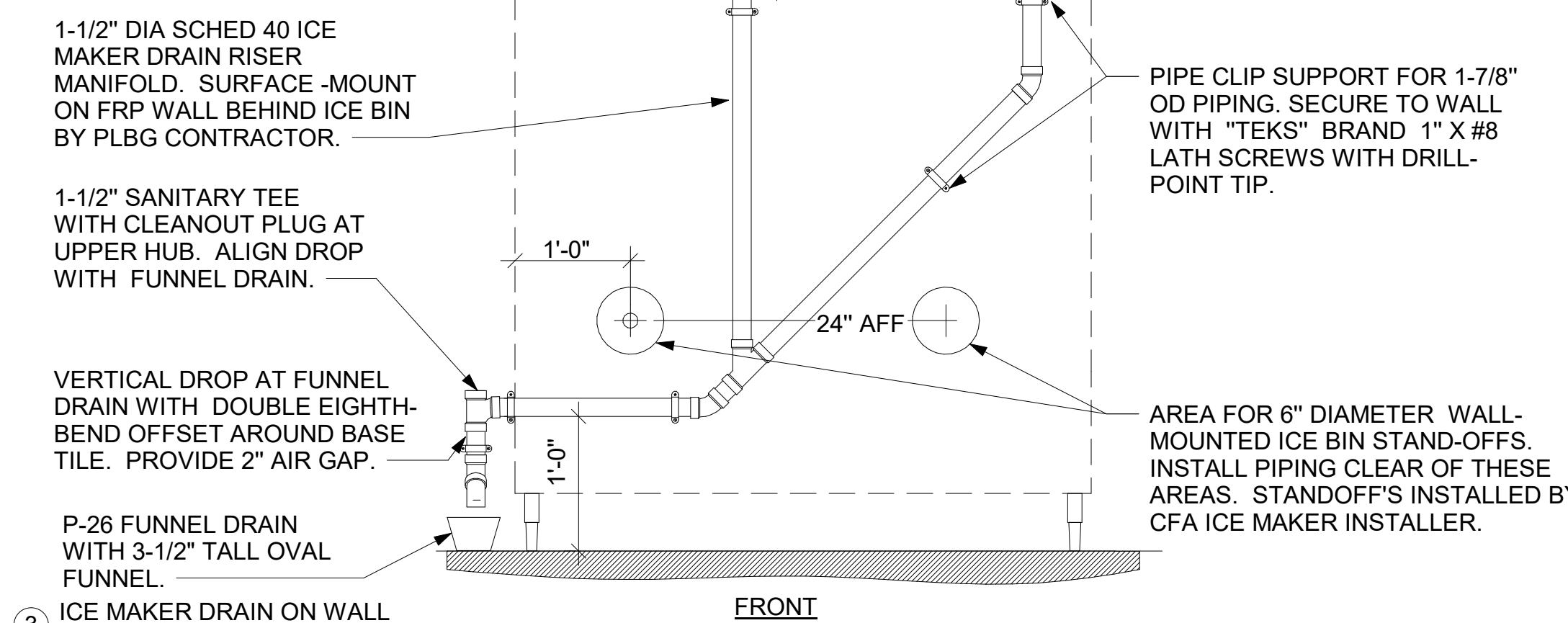
- OWNER PROVIDED. PLUMBER INSTALLED WATER FILTERS. SEE DETAIL 5/P-303.
- FW AND FW2 FROM WATER FILTERS. SEE DETAIL 5/P-303.
- OWNER PROVIDED. PLUMBER INSTALLED STOP/BFP PANEL. SEE K-SHEET ELEVATIONS FOR EXACT LOCATION. PROVIDE EXPOSED 3/4" BALL VALVE AT CONNECTION TO PANEL. ROUTE 1" PVC DRAIN FROM FACTORY PANEL DRAIN CONNECTION TO P-26 FUNNEL DRAIN AT END OF BEVERAGE RACK AND TERMINATE WITH ELBOW AND AIR GAP.
- 1" DIAMETER PVC DRAIN FROM BACKFLOW PREVENTER PANEL. CONNECT 1" PVC TO FACTORY PROVIDED COUPLING MOUNTED ON BACK PANEL. ROUTE DRAIN TO P-26 FUNNEL DRAIN AT END OF BAG-N-BOX. MOUNT PIPING TIGHT TO WALL WITH STRUT AND CLAMP.
- TURN 3/4" AND 2" SCHEDULE 40 STEEL PIPE DOWN THROUGH CEILING FOR FUTURE DARPRO OIL TANK AND CAP ACCORDINGLY. PROVIDE CHROMED ESCUTCHEONS AT CEILING PENETRATIONS. 3/4" OIL LINE TO BE CAPPED 2" BELOW CEILING.
- 1/2" HW AND CW DROPS TO MOP SINK FAUCET SET P-7. PROVIDE BALL VALVE FOR EACH ABOVE CEILING WITH P-22 BALL CHECK VALVE IN EACH DROP. SEE RISER DIAGRAM 1/P-302.
- 1/2" HW AND CW DROPS TO P-16 WALL FAUCET WITH VACUUM BREAKER FOR DEDICATED CONNECTION TO ECOLAB DETERGENT DISPENSER. MOUNT AS SHOWN ON K-SHEETS. PROVIDE BALL VALVES IN SUPPLY ABOVE CEILING.
- APPLY RAYCHEM XL-TRACE, MODEL 5XL-1, SELF REGULATING HEATING CABLE. USE END SEAL KIT FROM MFR. PROVIDE P-TRAP IN CONDENSATE DRAIN ON COOLER SIDE OF COOLER-FREEZER PANEL WALL WITH OPEN-TOPPED TEE AT TRAP OUTLET. PROVIDE 6" OF FALL IN FREEZER DRAIN LINE PRIOR TO PENETRATING PANEL WALL. EXTEND HEAT TRACE TO P-TRAP OUTLET IN COOLER.
- 3/4" FW DROP TO TWO-HANDLE FAUCET, P-30a MOUNT FAUCET ON WALL. SEE K-SHEETS FOR EXACT LOCATION. PIPE 1/2" FW TO EACH FAUCET INLET WITH 6" SPREAD. PROVIDE BALL VALVE ABOVE CEILING. SEE RISER DIAGRAM 1/P-302.
- PROVIDE SCHEDULE 40 (BLACK OR GALVANIZED) STEEL PIPING BACK TO FUTURE DARPRO OIL TANK. PIPING TO BE ROUTED TO ALLOW AS MUCH FALL AS POSSIBLE TO THE TANK.
- P-11 WALL HYDRANT 24" AFF WITH BALL VALVE IN DROP 48" AFF. ORDER HYDRANT WITH 12" WOODFORD WALL THICKNESS. SEE WATER RISER 1/P-302. SECURE TO WALL WITH STRUT AND CLAMP.
- 1" GAS DOWN FROM ROOF FOR P-19. SEE 6/P-303 FOR CONTINUATION. OFFSET DROP WITHIN WALL ABOVE MECH ROOM CEILING.
- 1/2" FW TO P-24 & P-34 AT TWO TEA BREWERS AND ONE COFFEE MAKER. SEE 4/P-211 AND 1/P-302.
- TURN 3/4" CONDENSATE PIPING OUT OF COOLER. AND EXTEND OUTLET TO P-12 FUNNEL DRAIN. SECURE PIPING TO COOLER/FREEZER WALL WITH RUBBER INSULATED PIPE CLAMPS TO PREVENT GALVANIC CORROSION. SEAL ALL PENETRATIONS IN WALLS WITH PERMAGUM CORD. TERMINATE ABOVE FUNNEL WITH ELBOW AND AIR GAP. PROVIDE P-TRAP IN CONDENSATE DRAIN OUTSIDE COOLER WITH OPEN-TOPPED TEE AT TRAP OUTLET.
- 2" CW ON WALL. SEE 4/P-303 FOR EXACT ROUTING LOCATIONS OF CW PIPING IN THIS AREA.
- SEE 6/P-303 FOR P-19 WATER HEATER, AND P-38 HOT WATER CIRCULATING PUMP. COORDINATE WATER AND DWV PIPING IN THIS AREA WITH HVAC DUCT. SEE M-201 FOR DUCT LAYOUT.

WALK-IN CONDENSATE PIPING NOTES:
 INSTALL PIPING TIGHT TO WALL SO AS NOT TO INTERFERE WITH COOLER AND FREEZER SHELVES. PROVIDE UNION FITTINGS IMMEDIATELY DOWNSTREAM OF CONNECTION TO EVAPORATORS.

NOTE TO WATER HEATER INSTALLER:
 POSITION VALVES AND TRIM IN WATER HEATER CLOSET SUCH THAT VISIBLE OBSERVATION OF VALVES AND TRIM IS UNOBSTRUCTED AND SUCH THAT ACCESS FOR OPERATION OR REPAIR IS POSSIBLE WITHOUT USE OF STEP LADDERS OR ANY NEED TO DISASSEMBLE ANY COMPONENTS.

ICE MACHINE PIPING NOT TO SCALE

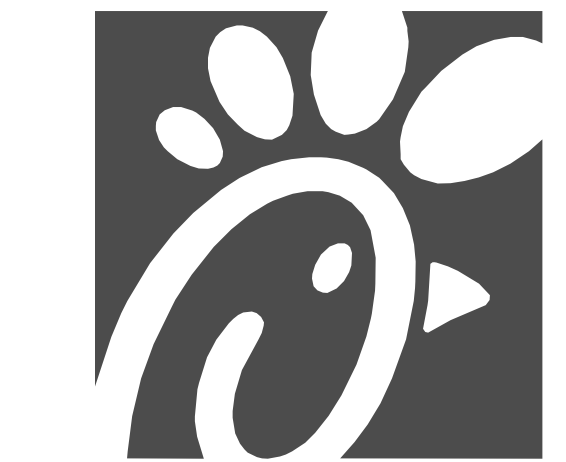
ICE MAKER DRAIN ON WALL NOT TO SCALE



NOTE TO WATER HEATER INSTALLER:
 POSITION VALVES AND TRIM IN WATER HEATER CLOSET SUCH THAT VISIBLE OBSERVATION OF VALVES AND TRIM IS UNOBSTRUCTED AND SUCH THAT ACCESS FOR OPERATION OR REPAIR IS POSSIBLE WITHOUT USE OF STEP LADDERS OR ANY NEED TO DISASSEMBLE ANY COMPONENTS.

UNLESS NOTED OTHERWISE, WATER PIPING SHALL BE COPPER OR CPVC AS LISTED IN SPECIFICATIONS. SEE SPECIFICATIONS ON DRAWING P-901.

XXX KITCHEN EQUIPMENT NO. SEE KITCHEN EQUIPMENT SCHEDULE ON DWG P-303 FOR EQUIPMENT DESCRIPTIONS.



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 Atlanta, Georgia
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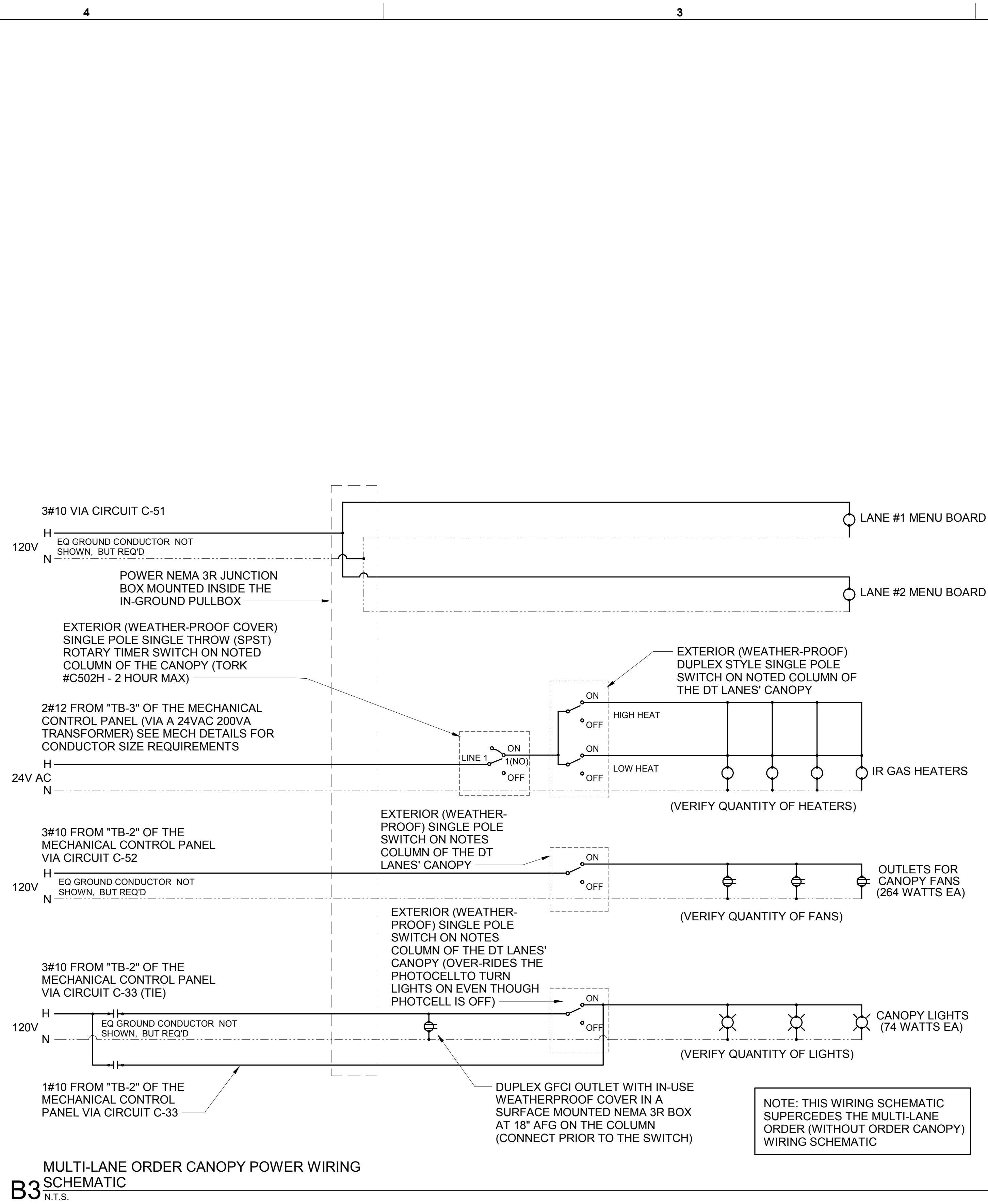
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NO.	DATE	DESCRIPTION

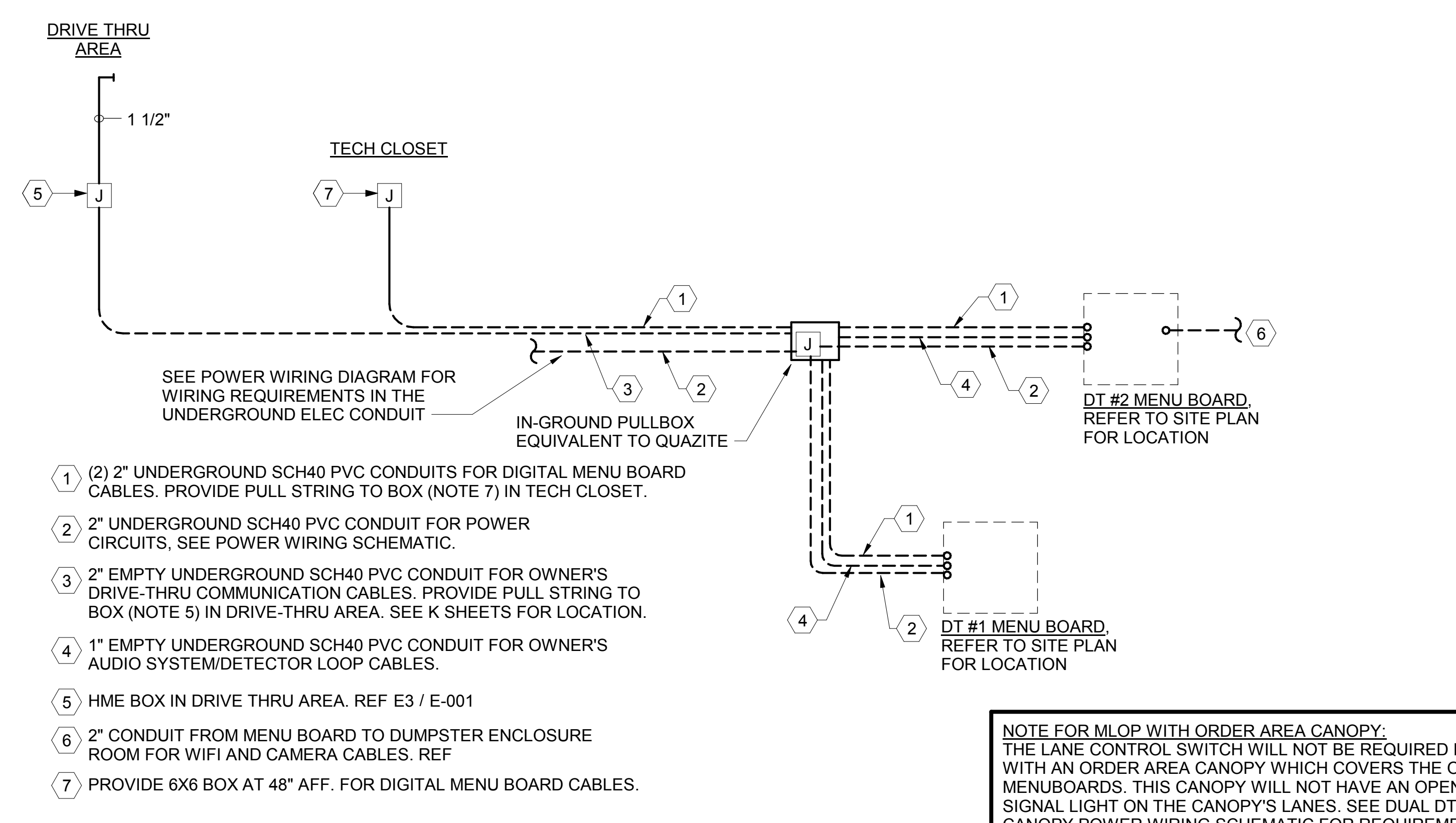
CONSULTANT PROJECT # 202223.23
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WATER AND OIL PIPING PLAN
 SHEET NUMBER

P-201

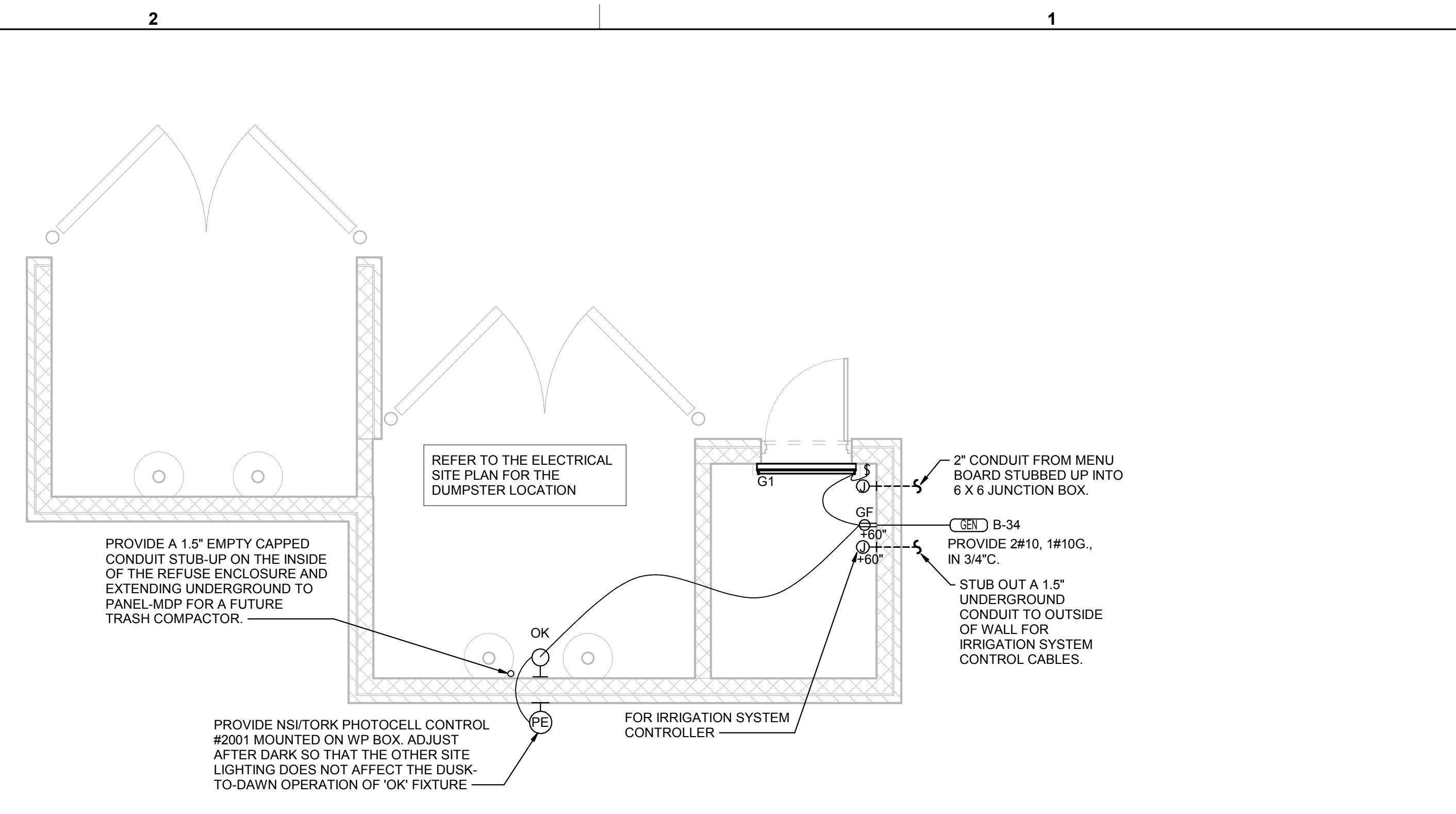
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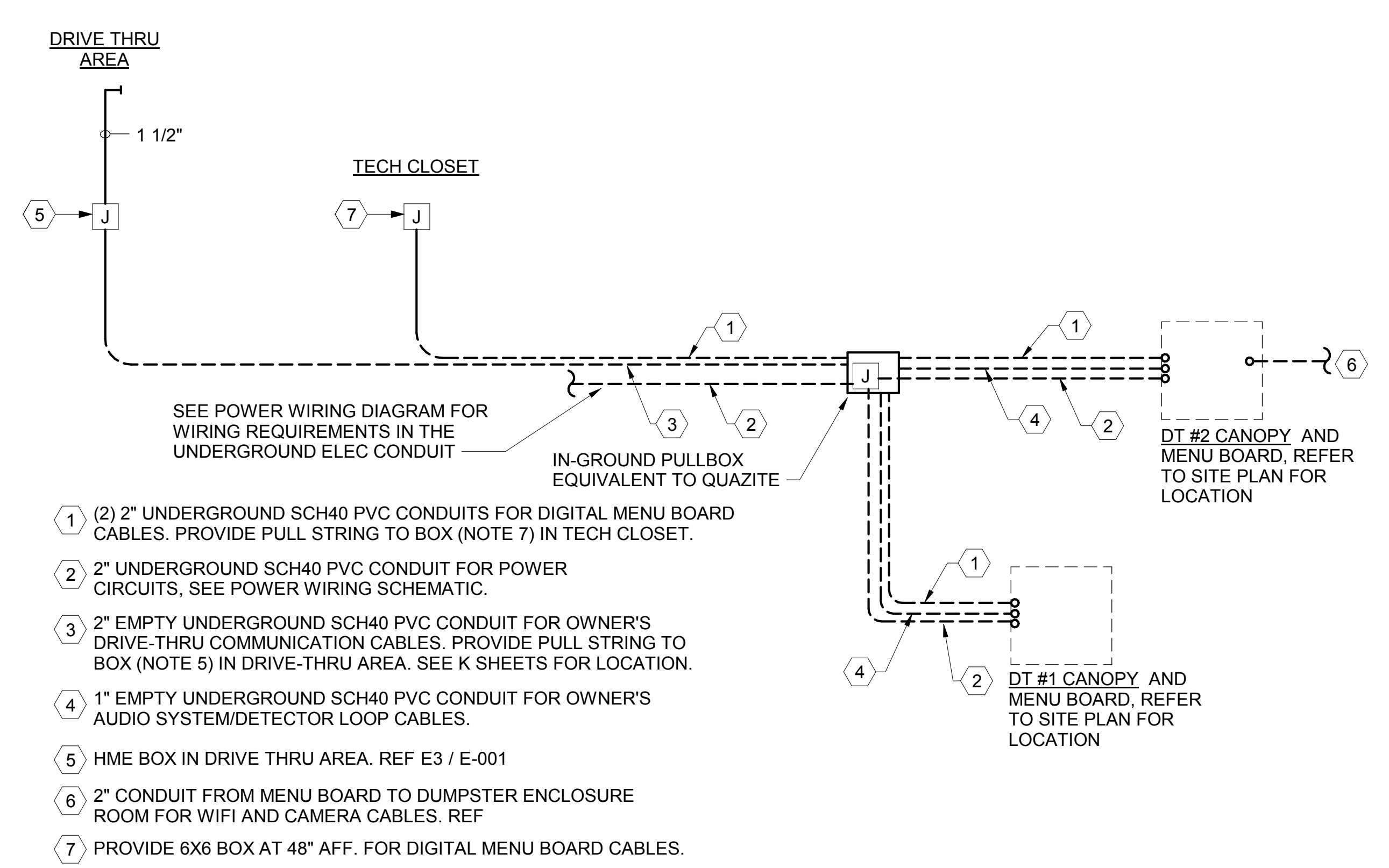
B3 MULTI-LANE ORDER CANOPY POWER WIRING SCHEMATIC
N.T.S.



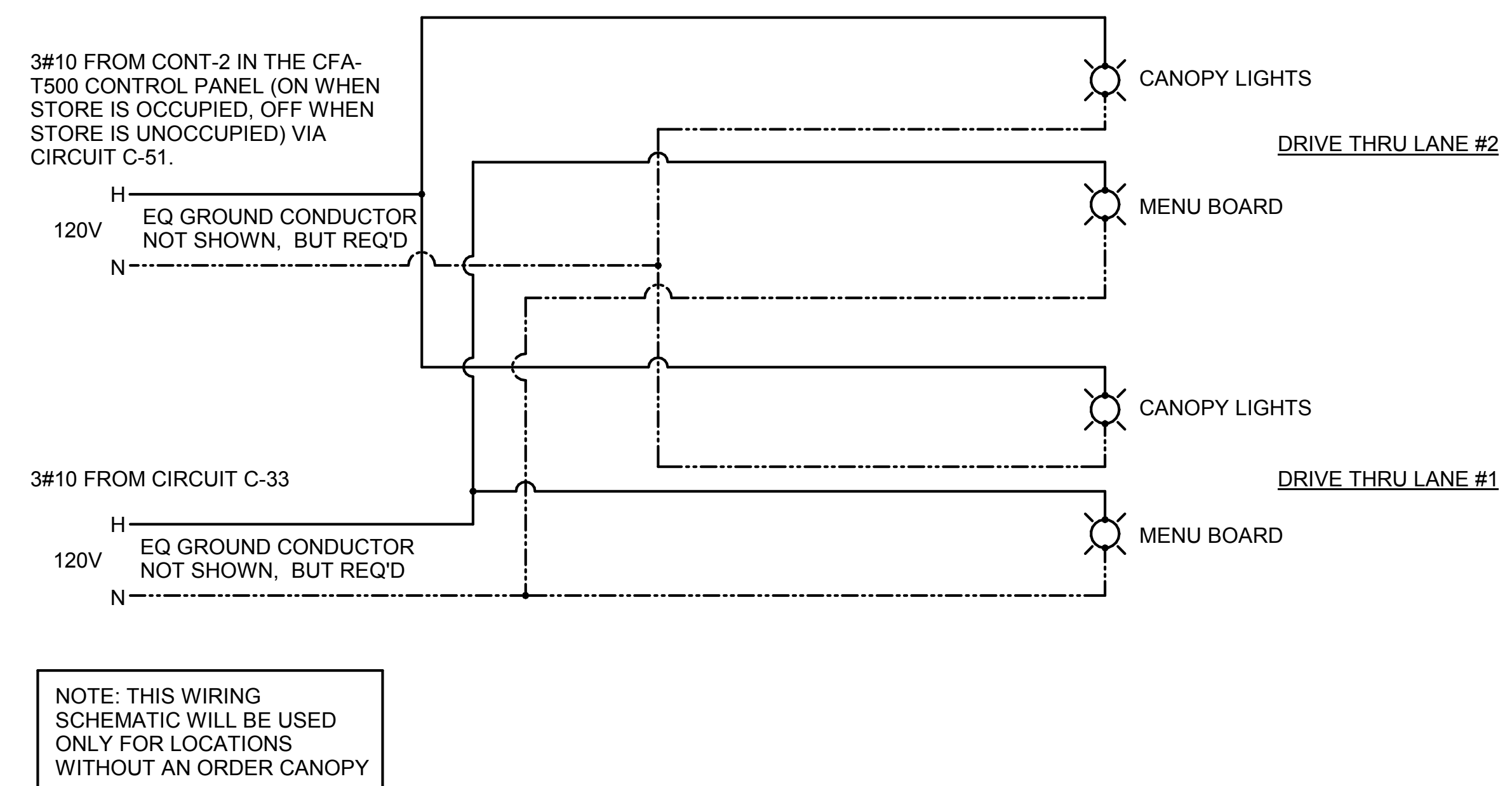
A3 MLOP DT REQUIREMENTS - WITH ORDER AREA F2F CANOPY
NO SCALE



D1 REFUSE ENCLOSURE ELECTRICAL PLAN
1/4\"/>



MULTI-LANE DRIVE-THRU ORDER AREA CONDUIT REQUIREMENTS

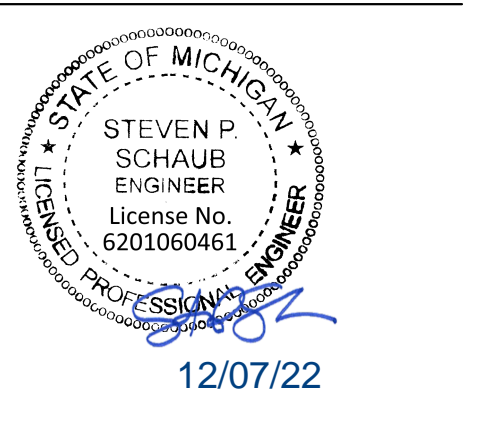


MULTI-LANE DRIVE-THRU ORDER AREA POWER WIRING SCHEMATIC

A1 MLOP DT REQUIREMENTS - NO ORDER AREA F2F CANOPY
NO SCALE



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Atlanta, Georgia
30349-2998



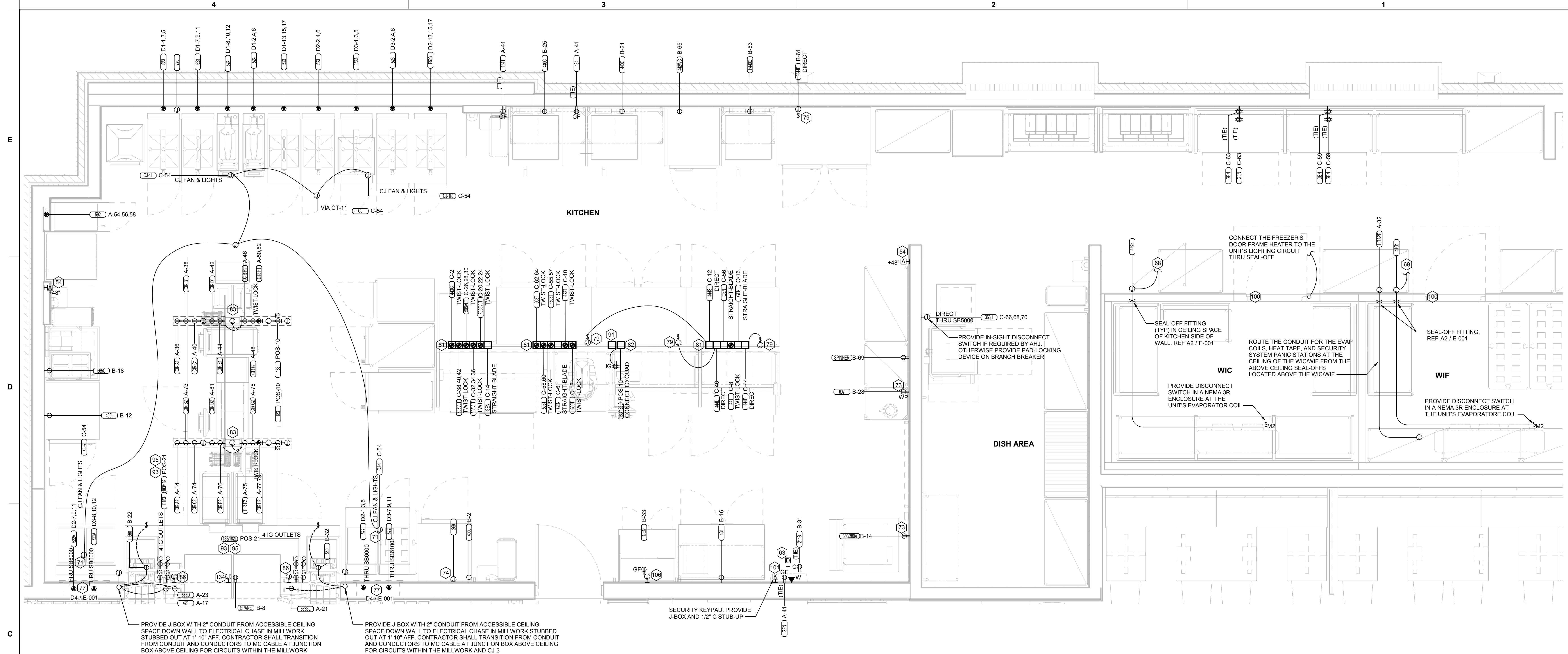
CHICK-FIL-A
I-75 & MILLER ROAD
3140 MILLER ROAD
FLINT TOWNSHIP, MI 48503

FSR#05198
BUILDING TYPE / SIZE: P14 LE ALL
RELEASE: 22.08
ISSUED FOR CONSTRUCTION

REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

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SHEET DT ORDERING AREA DETAILS & REFUSE ENCLOSURE PLAN
SHEET NUMBER

E-303



C1 ENLARGED KITCHEN POWER PLAN
1/2" = 1'-0"

POWER PLAN GENERAL NOTES

- A. ALL SECURITY, POS, MUSIC, COMMUNICATIONS, AND POWER ROUGH-IN SHALL BE INSTALLED DURING THE FRAMING/ROUGH-IN PHASE OF CONSTRUCTION.
- B. REFER TO KITCHEN EQUIPMENT SHEETS FOR EQUIPMENT ELECTRICAL ROUGH-IN ELEVATIONS ABOVE FINISHED FLOOR.
- C. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH PULL STRING.
- D. PROVIDE INSULATED BUSHING AT TERMINATION POINTS OF ALL CONDUITS FOR LOW VOLTAGE WIRING.
- E. THE ELECTRICAL INSTALLER SHALL COORDINATE THE ROUTING OF ALL CONDUIT IN THE BUILDING WITH OTHER TRADES (SPECIFICALLY THE DUCTWORK INSTALLATION) TO AVOID CONFLICTS OF SPACE REQUIREMENTS IN WALLS AND CEILING SPACES.

ELECTRICAL KEYNOTES

- 54 PROVIDE TWO-GANG DEEP BOX (2" MIN.) FOR FS PULL STATION. EXTEND 1/2" CONDUIT FROM BOX, STUBBED ABOVE CEILING.
- 63 PROVIDE 2 GANG DEEP BOX (2" MIN.) FOR EACH DUCT SMOKE DETECTOR INDICATED ON THE MECHANICAL DRAWINGS. FOR INSTALLATION OF DUCT DETECTOR REMOTE ANNUNCIATORS BY MECHANICAL. THE DUCT SMOKE REMOTE ANNUNCIATORS ARE PROVIDED TO THE ELECTRICIAN WITH THE SUNCOAST ELECTRONICS PACKAGE OF GEAR AND CONTROLS. EXTEND 1/2" CONDUIT FROM EACH BOX AND STUB ABOVE CEILING.
- 68 CONNECT EVAPORATOR UNIT IN FREEZER TO FREEZER CONDENSING UNIT CONTROLS LOCATED ON ROOF. SEE THE ROOF ELECTRICAL PLAN.
- 69 CONNECT EVAPORATOR UNIT IN COOLER TO COOLER CONDENSING UNIT CONTROLS LOCATED ON ROOF. SEE THE ROOF ELECTRICAL PLAN.
- 71 CONNECT AS REQUIRED TO CJ FAN VIA THE HOOD SUPPLIED SPEED CONTROLLER. CONNECT HOMERUN VIA A RELAY IN THE CFA-T500 CONTROL SECTION.
- 73 SEE THE ROOF ELECTRICAL PLAN FOR THE LOCATION OF THE ICE MAKER CONDENSERS AND ANY ADDITIONAL REQUIREMENTS.
- 74 PROVIDE 3#12 IN 1/2" CONDUIT BETWEEN THE CFA-T500 CONTROL PANEL AND THE FS SYSTEM PANEL(S). SEE FS SYSTEM WIRING DIAGRAM DETAIL ON SHEET E-002 FOR ADDITIONAL INFORMATION.
- 77 THE RECESSED PIN AND SLEEVE BOX WITH THE 'SLEEVE' RECEPTACLE FOR THE OPEN FRYERS (ITEMS #522 AND 522A) ARE FURNISHED BY THE EXHAUST HOOD SUPPLIER AND INSTALLED BY THE CONTRACTOR. THE OPEN FRYER SUPPLIER PROVIDES PREWIRED CORDSET WITH A PIN DEVICE INTEGRAL WITH THE OPEN FRYER TO PLUG INTO THE SLEEVE RECEPTACLE.
- 79 SINGLE POLE SWITCH SHALL SERVE AS THE LOCAL "IN-SIGHT" MEANS OF DISCONNECT FOR EQUIPMENT ITEM AS NOTED. SEE DIRECT CONNECTION DETAILS ON SHEET E-002 FOR FURTHER INFORMATION.

ELECTRICAL KEYNOTES

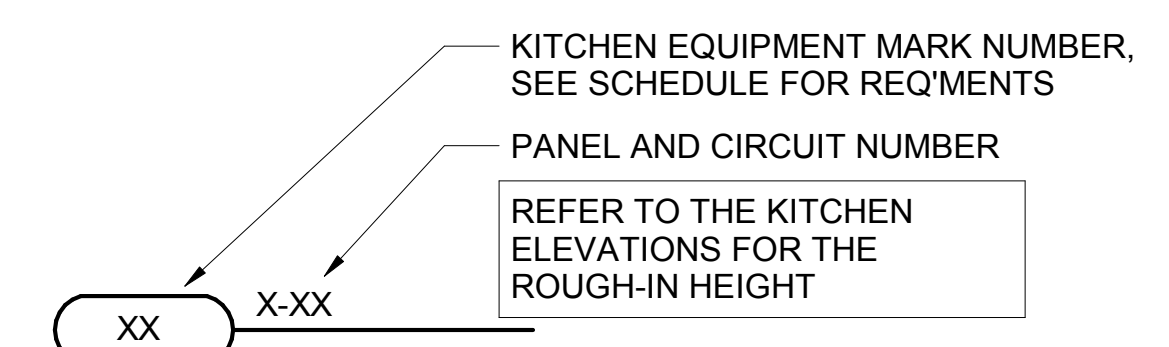
- 81 OVERHEAD EQUIPMENT POWER (OEP) DROP CORD RECEPTACLES FROM A FLUSH MOUNTED CEILING OEP BOX (MAXIMUM OF SIX PER ASSEMBLY.) PROVIDE A-C-S OEP ASSEMBLY #12360-1000. ASSEMBLY WILL CONSIST OF A FLUSH CEILING OUTLET BOX, TWIST-LOCK PENDANT RECEPTACLES, STRAIGHT BLADE PENDANT RECEPTACLES, CORDS, STRAIN RELIEF, AND TWIST-LOCK PLUGS AS NOTED ON PLAN. CONTACT BRIDGD DEFRACTION@ELECTRICAL.BRIDGD1985@GMAIL.COM (800-639-7584) TO PURCHASE OEP BOX AND DROP CORD/RECEPTACLES. PROVIDE LIQUID-TIGHT CONDUIT WITH CONDUCTORS FOR DIRECT CONNECTED EQUIPMENT. CONDUIT SHALL NOT TOUCH THE FLOOR WHEN EQUIPMENT IS IN PLACE. USE SUPPORT GRIPS W/ SUPPORT HOOK ATTACHED TO SHELVING ABOVE AS NEEDED. PASS & SEYMOUR MODEL #FS075-U-GH5 OR EQUIVALENT.
- 82 PROVIDE A DOUBLE-GANG BOX FLUSH MOUNTED IN THE CEILING WITH A BLANK PLATE WITH HOLE FOR A DROP CORD. PROVIDE THE #12 DROP CORD (WITH STRAIN RELIEF AT THE BOX AND AT THE OUTLET BACKBOX) AND CONNECT THE CORD TO AN OUTLET BOX CONTAINING TWO 15 AMP IC (ORANGE) DUPLEX OUTLETS. OUTLET BOX TO BE MOUNTED TO THE OVERHEAD SHELVING AT THE PRINTER AND MONITOR MOUNTING BRACKET.
- 83 COORDINATE WITH THE EQUIPMENT SUPPLIER FOR THE CHASE LOCATIONS. ROUTE ONE SET OF CIRCUIT 'A' THRU 'H' AND POS CIRCUIT TO EACH JUNCTION BOX PROVIDED ABOVE CEILING. CONNECT TO PREWIRED LABELED CIRCUITS. ENSURE CIRCUITS ARE LABELED CORRECTLY FOR EACH PREWIRED OUTLET PROVIDED IN EACH CHASE.
- 86 PROVIDE SINGLE-GANG JUNCTION BOX WITH A 1" CONDUIT EXTENDING UP INTO THE CEILING SPACE FOR POS MONITOR(S). COVER PLATE PROVIDED BY OWNER'S POS SYSTEM VENDOR.
- 91 PROVIDE A SINGLE GANG BOX FLUSH MOUNTED IN THE CEILING FOR THE POS DATA PLATE (BY OTHERS) FOR THE SALAD PREP AREA POS MONITOR AND PRINTER.
- 93 PROVIDE ORANGE ISOLATED GROUND (IG) DUPLEX RECEPTACLE.
- 95 USE TYPE MC CABLE FOR THE ISOLATED GROUND CIRCUIT: #12 HOT, NEUTRAL, GREEN GROUND, STRIPED ISOLATED GROUND. EACH 15 AMP HOMERUN SHALL BE DEDICATED TO A CIRCUIT BREAKER VIA DEDICATED CONDUCTORS WITHIN A CABLE ASSEMBLY. ALL MC CABLES SHALL BE RUN OVERHEAD ABOVE THE CEILING AND RACKED TOGETHER ON J-HOOKS. NO SPLICES IN ANY HOMERUN CABLES FROM FIRST RECEPTACLE TO BREAKER.
- 100 PROVIDE TWO GANG WEATHERPROOF JUNCTION BOX AND STAINLESS STEEL PLATE WITH 7/8" HOLE IN CENTER FOR PANIC BUTTON. LOCATE AT 48" AFF AND EXTEND 1/2" CONDUIT UP TO ABOVE ACCESSIBLE CEILING WITH CONDUIT SEAL FITTING. SEAL CONDUIT PENETRATION AT WIC/WIF CEILING.
- 101 PROVIDE SINGLE GANG BOX WITHOUT COVER PLATE. EXTEND 1/2" CONDUIT UP IN WALL TO ABOVE ACCESSIBLE CEILING.
- 106 PROVIDE SINGLE GANG JUNCTION BOX WITHOUT COVERPLATE. EXTEND 1/2" CONDUIT UP IN WALL TO ABOVE ACCESSIBLE CEILING.
- 134 PROVIDE A JUNCTION BOX WITH A 1" CONDUIT FOR DATA AND/OR SYSTEMS STUBBED UP INTO CEILING SPACE FOR APPROVED OPERATOR OPTIONAL EQUIPMENT.

NOTE FOR GF TYPE RECEPTACLES IN KITCHEN/FOOD PREP AREAS:
THE CONTRACTOR SHALL PROVIDE GROUND FAULT CIRCUIT INTERRUPTER PROTECTION FOR PERSONNEL FOR ALL 125V - 250V RECEPTACLES SUPPLIED BY 120V SINGLE-PHASE BRANCH CIRCUITS 50 AMPS OR LESS, 208V SINGLE-PHASE BRANCH CIRCUITS 50 AMPS OR LESS, AND 208V THREE-PHASE BRANCH CIRCUITS 100 AMPS OR LESS. SEE FLOOR PLANS FOR ADDITIONAL INFORMATION.

GROUND FAULT PROTECTION SHALL BE PROVIDED AT THE BRANCH BREAKER VIA A GROUND FAULT TYPE BREAKER FOR ALL 50 AMP AND LESS RECEPTACLE CIRCUITS UNLESS ALREADY NOTED TO BE PROVIDED WITH AN ACCESSIBLE GFCI TYPE RECEPTACLE. (NOTE THAT SQUARE-D DOES NOT HAVE ANY GFCI TYPE BRANCH BREAKERS ABOVE 50 AMP AVAILABLE AT THIS TIME. HOWEVER, GFCI PROTECTION IS REQUIRED.)

NOTE FOR POS GF IN KITCHEN:
THE CONTRACTOR SHALL PROVIDE GROUND FAULT PROTECTION FOR ALL 120 VOLT, 15 AND 20 AMP ISOLATED GROUND RECEPTACLE OUTLET BRANCH CIRCUITS IN THE KITCHEN/FOOD PREPARATION AREAS. GROUND FAULT PROTECTION SHALL BE PROVIDED AT THE BREAKER VIA A GROUND FAULT TYPE BRANCH BREAKER. (GFCI TYPE ISOLATED GROUND RECEPTACLES ARE NOT AVAILABLE.)

NOTE:
RECEPTACLES FOR THE POS EQUIPMENT SHALL BE THE ONLY ITEMS THAT CONNECT TO PANEL-POS. THERE SHALL BE NO OTHER LOADS CONNECTED TO THIS ISOLATED GROUND PANEL AND, IF SO, SHALL BE REMOVED AND RECONNECTED TO ANOTHER PANELBOARD AT THE EXPENSE OF THE CONTRACTOR.



A1 KITCHEN EQUIP NOMENCLATURE
NO SCALE



Chick-fil-A

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998



GPD GROUP
Professional Corporation
205 S. MAIN STREET, SUITE 201
AKRON, OH 44311



CHICK-FIL-A
I-75 & MILLER ROAD
3140 MILLER ROAD
FLINT TOWNSHIP, MI 48503

FSR#05198

BUILDING TYPE / SIZE: P14 LE ALL
RELEASE: 22-08

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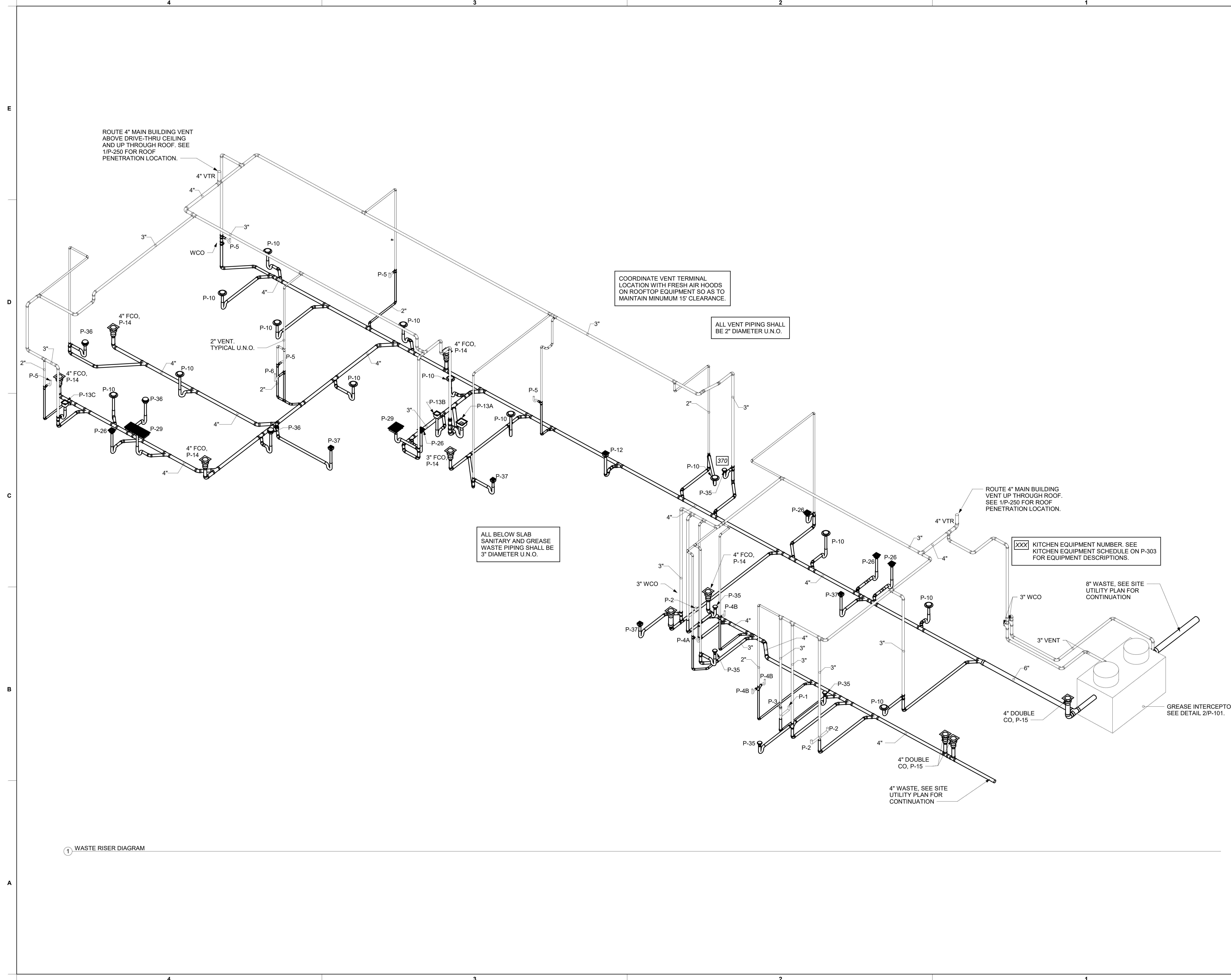
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SHEET ENLARGED KITCHEN POWER PLAN

SHEET NUMBER E-301



1 WASTE RISER DIAGRAM



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 30349-2998



12/07/22

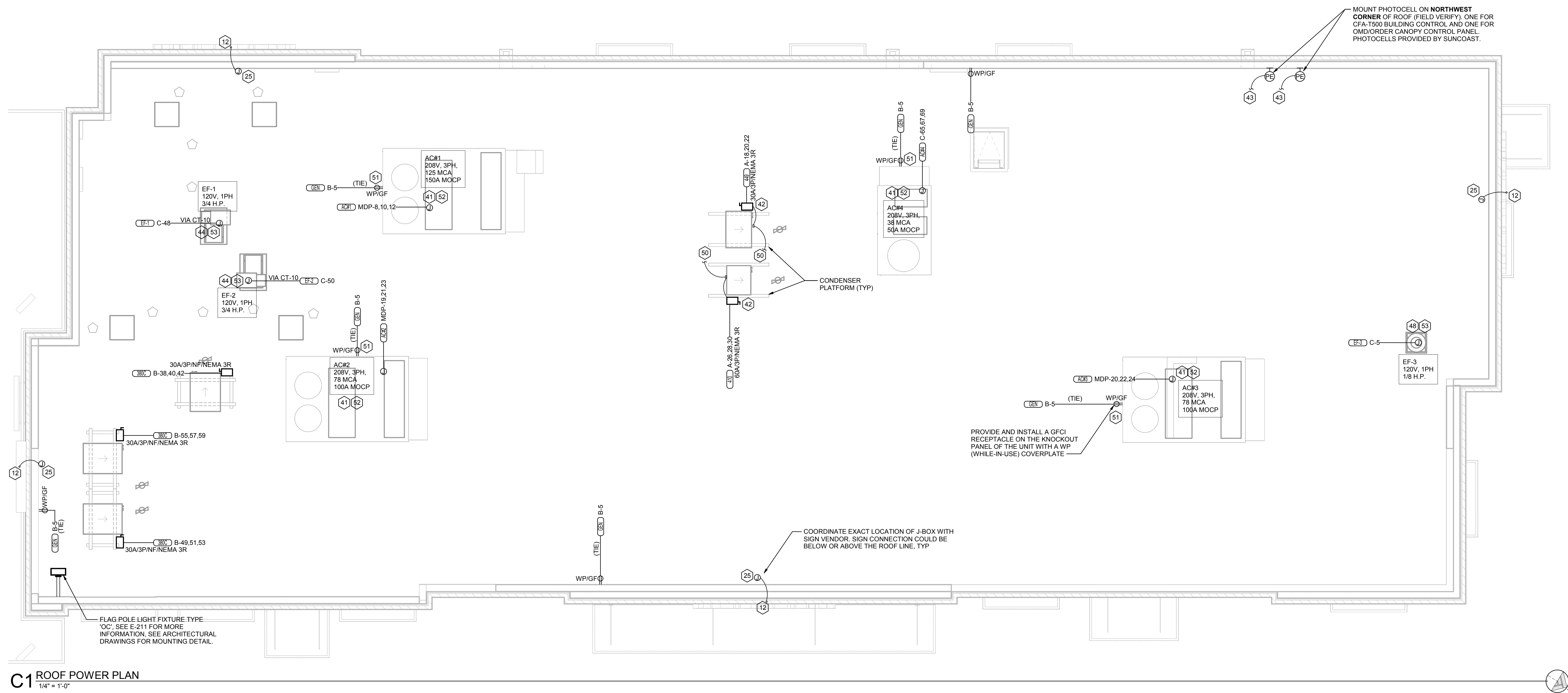
CHICK-FIL-A
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 3140 MILLER ROAD
 FLINT TOWNSHIP, MI 48503

FSR#05198
 BUILDING TYPE / SIZE: P14 LE LRG
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DWV RISER DIAGRAM

SHEET NUMBER
P-301



ELECTRICAL KEYNOTES

- 12 FOR SIGNAGE BY OTHERS, CONNECT AS REQUIRED. GROUND ALL LOCATIONS IN ACCORDANCE WITH NEC AND MANUFACTURER'S REQUIREMENTS. SIGN IS FURNISHED WITH AN INTEGRAL PRE-WIRED DISCONNECTING MEANS.
- 25 ROUTE THROUGH CONTROL PANEL CFA-T500 AND CONTROLLED BY OCCUPIED SWITCH AND PHOTOCELL.
- 41 ROUTE ELECTRICAL CONDUITS TO UNIT CONNECTIONS THROUGH WEATHERPROOF RACEWAY FURNISHED WITH UNIT. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATIONS.
- 42 MOUNT WEATHER-PROOF FUSED DISCONNECT SWITCHES FOR WIC AND WIF CONDENSERS ON UNISTRUT WITH CONDUIT DOWN INTO CEILING SPACE BELOW THRU ROOF PENETRATION DEVICE (NOT THRU ROOF). SEE THE ARCHITECTURAL ROOF PENETRATION DETAIL(S) FOR FURTHER INFORMATION. PROVIDE FUSE SIZE PER MANUFACTURER REQUIREMENTS.
- 43 CONNECT ONE PHOTOCELL ON ROOF TO THE CFA-T500 CONTROL PANEL TERMINALS AND ONE PHOTOCELL ON ROOF TO THE ORDER/OMD CANOPY CONTROL PANEL AS DIRECTED BY SUNCOAST ENVIRONMENTAL INC WIRING DIAGRAMS. PHOTOCELLS ON THE ROOF FURNISHED WITH CONTROL PANELS ORDER (SUNCOAST) AND INSTALLED BY CONTRACTOR.
- 44 COORDINATE EXACT LOCATION OF CONDUIT AND DISCONNECT AT EXHAUST FAN. CONDUIT SHALL BE INSTALLED THROUGH ROOF ON OUTSIDE OF FAN CURB. CONDUIT SHALL BE LOCATED AT FAN HINGE SUCH THAT THE FAN HOOD CAN BE FULLY HINGED OPEN AND NOT TOUCH THE CONDUIT. PROVIDE 1/4" DIAMETER LOOP IN THE FLEXIBLE CONDUIT BETWEEN THE ROOF AND THE FAN ELECTRICAL CONNECTION.
- 48 COORDINATE EXACT LOCATION OF CONDUIT AND DISCONNECT AT EXHAUST FAN. CONDUIT SHALL BE ROUTED WITH DUCTWORK WITHIN FAN ROOF CURB AND TO THE FAN WIREWAY. PROVIDE SEALTIGHT FITTINGS AS THE CONDUIT ENTERS AND LEAVES THE DUCTWORK. INTERLOCK WITH LIGHTING CIRCUIT IN RESTROOM. REFER TO THE LIGHTING PLAN FOR CONTINUATION.
- 50 CONNECT POWER FROM EACH CONDENSING UNIT'S COMPRESSOR CONTACTOR TO THE EVAPORATOR COIL UNIT'S JUNCTION BOX BELOW. REFER TO ENLARGED KITCHEN POWER PLAN FOR LOCATION.
- 51 CONTRACTOR SHALL PROVIDE A 120V GFCI TYPE 20 AMP CONVENIENCE RECEPTACLE WITH WP (WHILE-IN-USE) COVERPLATE MOUNTED TO THE KNOCKOUT PANEL OF THE UNIT AC UNIT.
- 52 A/C UNIT DISCONNECT IS FURNISHED WITH A/C UNIT AND SHALL BE CONNECTED BY THE CONTRACTOR.
- 53 EXHAUST FAN IS FURNISHED WITH A PREWIRED DISCONNECT.

POWER PLAN GENERAL NOTES

- A. ALL SECURITY, POS, MUSIC, COMMUNICATIONS, AND POWER ROUGH-IN SHALL BE INSTALLED DURING THE FRAMING/ROUGH-IN PHASE OF CONSTRUCTION.
- B. REFER TO KITCHEN EQUIPMENT SHEETS FOR EQUIPMENT ELECTRICAL ROUGH-IN ELEVATIONS ABOVE FINISHED FLOOR.
- C. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH PULL STRING.
- D. PROVIDE INSULATED BUSHING AT TERMINATION POINTS OF ALL CONDUITS FOR LOW VOLTAGE WIRING.
- E. THE ELECTRICAL INSTALLER SHALL COORDINATE THE ROUTING OF ALL CONDUIT IN THE BUILDING WITH OTHER TRADES (SPECIFICALLY THE DUCTWORK INSTALLATION) TO AVOID CONFLICTS OF SPACE REQUIREMENTS IN WALLS AND CEILING SPACES.

NOTE: REFER TO MECHANICAL DRAWINGS FOR ROOFTOP PACKAGED AC UNIT SCHEDULE. ALL UNITS ARE FURNISHED WITH FACTORY INSTALLED DISCONNECT SWITCH. REFER TO SAME SCHEDULE FOR INDICATION OF UNITS FURNISHED WITH FACTORY RECEPTACLE FOR COMPLIANCE WITH NEC 210-63.

ELECTRICAL ROOFTOP UNIT EQUIPMENT SCHEDULE

DESIGNATION	VOLTAGE	PHASE	MCA	MOCP	LOAD (VA)	MARK NO.*
AC#1	208 V	3	125 A	150 A	45,032	34
AC#2	208 V	3	78 A	100 A	28,100	22
AC#3	208 V	3	78 A	100 A	28,100	22
AC#4	208 V	3	38 A	50 A	13,690	13

*REFER TO TABLE B1 - CONDUIT AND CONDUCTORS SCHEDULE LOCATED ON SHEET E-502 FOR CONDUCTOR AND CONDUIT SIZE.



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Chick-fil-A
5200 Buffington Road
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12/07/22

CHICK-FIL-A
I-75 & MILLER ROAD

3140 MILLER ROAD
FLINT TOWNSHIP, MI 48503

FSR#05198

BUILDING TYPE / SIZE: P14 LE LRG
RELEASE: 22-08

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ROOF POWER PLAN

SHEET NUMBER

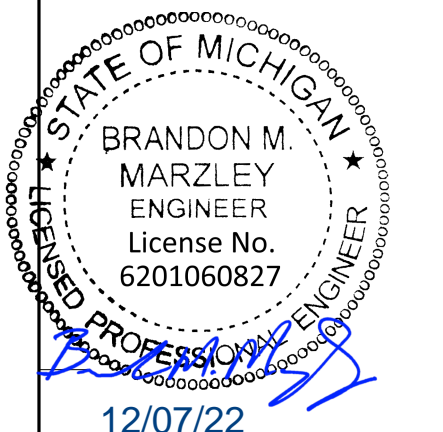
E-250



Chick-fil-A
 5200 Buffington Road
 Atlanta, Georgia
 30349-2998



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 Professional Corporation
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 SHEET
DETAILS AND SCHEDULES

SHEET NUMBER
P-303

1. FIXTURE CONNECTION SCHEDULE

MARK	FIXTURE	FW	FW2	CW	HW	WASTE
P-1	WATER CLOSET - FLOOR MOUNT (1.28 GPF)	X	X	1"	X	3"
P-2	WATER CLOSET - ADA FLOOR MOUNT (1.28 GPF)	X	X	1"	X	3"
P-3	URINAL - ADA WALL HUNG (0.125 GPF)	X	X	3/4"	X	2"
P-4A	LAVATORY - ADA COUNTERTOP (0.50 GPM)	X	X	1/2"	1/2"	1-1/4"
P-4B	LAVATORY - ADA WALL-MOUNTED (0.50 GPM)	X	X	1/2"	1/2"	1-1/4"
P-5	KITCHEN HAND SINK - WALL HUNG (0.50 GPM)	X	X	1/2"	1/2"	1-1/2"
P-5A	KITCHEN DUMP SINK - WALL HUNG (1.0 GPM)	X	X	1/2"	1/2"	1-1/2"
P-6	SINGLE COMP SINK - COUNTERTOP (1.0 GPM)	X	X	1/2"	1/2"	1-1/2"
P-7	MOP SINK	X	X	1/2"	1/2"	3"
P-8	VEGETABLE PREP SINK (1.0 GPM SPRAYER)	X	X	1/2"	1/2"	(2) 1-1/2"
P-9	POT SINK (1.0 GPM SPRAYER)	X	X	(2) 1/2"	(2) 1/2"	(4) 1-1/2"
P-10	FLOOR DRAIN (ROUND TOP)	X	X	X	X	3"
P-11	WALL HYDRANT (NON FREEZE)	X	X	3/4"	X	X
P-12	FUNNEL DRAIN (3")	X	X	X	X	3"
P-13A	FLOOR SINK (4") 12" TOP	X	X	X	X	4"
P-13B	FLOOR SINK (3") 8" TOP	X	X	X	X	3"
P-13C	FLOOR SINK (3") 8" TOP	X	X	X	X	3"
P-14	CLEANOUT INSIDE BUILDING	X	X	X	X	SEE PLAN
P-15	CLEANOUT OUTSIDE BUILDING	X	X	X	X	SEE PLAN
P-16	3-WAY VALVE/ VACUUM BREAKER	X	X	3/4"	3/4"	X
P-17	VACUUM RELIEF VALVE	X	X	3/4"	X	X
P-18	EXPANSION TANK	X	X	3/4"	X	X
P-19	WATER HEATER	X	X	1"	1"	X
P-20	THERMOMETER	X	X	X	1/2"	X
P-21	BACKFLOW PREVENTER	X	X	1-1/2"	X	X
P-22	MOP SINK CHECK VALVES	X	X	1/2"	1/2"	X
P-23	UTILITY CONNECTION (ICE MAKER)	X	1/2"	X	X	X
P-24	UTILITY CONNECTION (COFFEE & TEA)	1/2"	X	X	X	X
P-25	SHOCK ABSORBER	1/2"	1/2" & 3/4"	1/2"	1/2"	X
P-26	FUNNEL DRAIN	X	X	X	X	3"
P-26A	TRAP SEAL PROTECTOR	X	X	X	X	3"
P-27	WATER PRESSURE GAUGE	X	X	1/4"	X	X
P-28	BALL VALVE-CARBONATOR STOP/BFP PANEL	3/4"	X	X	X	X
P-29	ICE MACHINE TRENCH DRAIN	X	X	X	X	3"
P-30a	FILTERED WATER FAUCET	(2) 1/2"	X	X	X	X
P-31	DUMPSTER POST HYDRANT	X	X	3/4"	X	X
P-32	DUMPSTER DRAIN	X	X	X	X	3"
P-33	TRAP PRIMER (MECHANICAL TYPE)	X	X	1/2"	X	X
P-34	DISPENSER BACKFLOW PREVENTER	1/2"	X	X	X	X
P-35	FLOOR DRAIN	X	X	X	X	3"
P-36	BEVERAGE TOWER INDIRECT RECEIVER	X	X	X	X	3"
P-37	FLOOR DRAIN (SQUARE TOP)	X	X	X	X	3"
P-38	HOT WATER CIRCULATING PUMP	X	X	X	1/2"	X
P-39	PRESSURE REDUCING VALVE	X	X	2"	X	X
P-40	WYE STRAINER	X	X	2"	X	X
P-41	DISHWASHER SUPPLY VALVES	X	X	3/4"	X	X
P-42	EMERGENCY EYEWASH MIXING VALVE	X	X	1/2"	1/2"	X
P-43	RE THERMALIZER SUPPLY VALVE	X	X	1/2"	X	X

NOTES: ① REFER TO FOOD SERVICE DRAWINGS FOR KITCHEN EQUIPMENT INSTALLATION AND HOOK-UP RESPONSIBILITIES.
 ② DO NOT MANIFOLD POT OR PREP SINK DRAINS TOGETHER UNLESS ALLOWED BY LOCAL AUTHORITY.

2. KITCHEN EQUIPMENT SCHEDULE

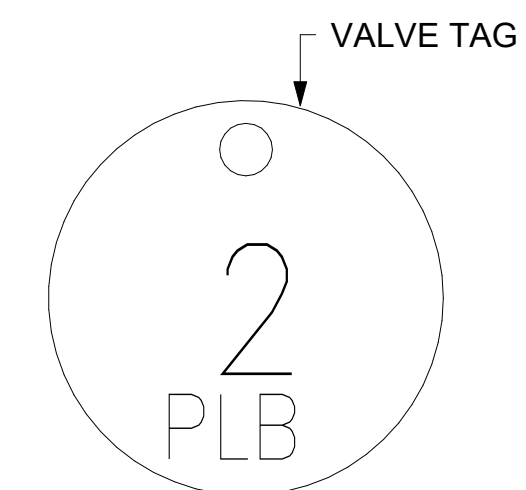
TAG	DESCRIPTION	FW	FW2	CW	HW	WASTE	ROUGH-IN
305	TEA BREWER	1/2"	X	X	X	X	P-24, SEE K-611 & 6/P-211
308	COFFEE MAKER	1/2"	X	X	X	X	P-24, SEE K-611 & 6/P-211
318A	CARBONATOR BFP PANEL	3/4"	X	X	X	X	P-28, SEE K-611
350	WATER FILTER PANEL	(3) 3/4"	3/4"	X	X	X	SEE DET 5/P-303
360E	EMERGENCY EYEWASH STATION	X	X	1/2"	1/2"	X	1/2" TEPID WATER FROM P-42, SEE K-611 & 1/P-201
363	DISHWASHER	X	X	3/4"	X	INDIRECT TO P-13A	P-41, SEE K-611 & 1/P-201
365	POT SINK	X	X	(2) 1/2"	(2) 1/2"	INDIRECT	TWO #365F FAUCETS, P-9 SEE K-611
367	VEGETABLE PREP SINK	X	X	1/2"	1/2"	INDIRECT	#367F FAUCET, P-8 SEE K-611
368FW	FILTERED WATER FAUCET	(2) 1/2"	X	X	X	X	P-30 48" AFF.
370	MOP SINK	X	X	1/2"	1/2"	3" P-35	P-7 SEE K-611
380	ICE MAKER	X	(2) 1/2"	X	X	INDIRECT	P-23 SEE K-611 & 3/P-201
381	ICE BIN (1 HEAD)	X	1/2"	X	X	INDIRECT	P-23 SEE K-611 & 3/P-201
384	ICE BIN (2 HEAD)	X	1/2"	X	X	INDIRECT	P-23 SEE K-611 & 3/P-201
592	RE THERMALIZER	X	X	1/2"	X	INDIRECT	SEE DET 3/P-302

VALVE TAG LEGEND

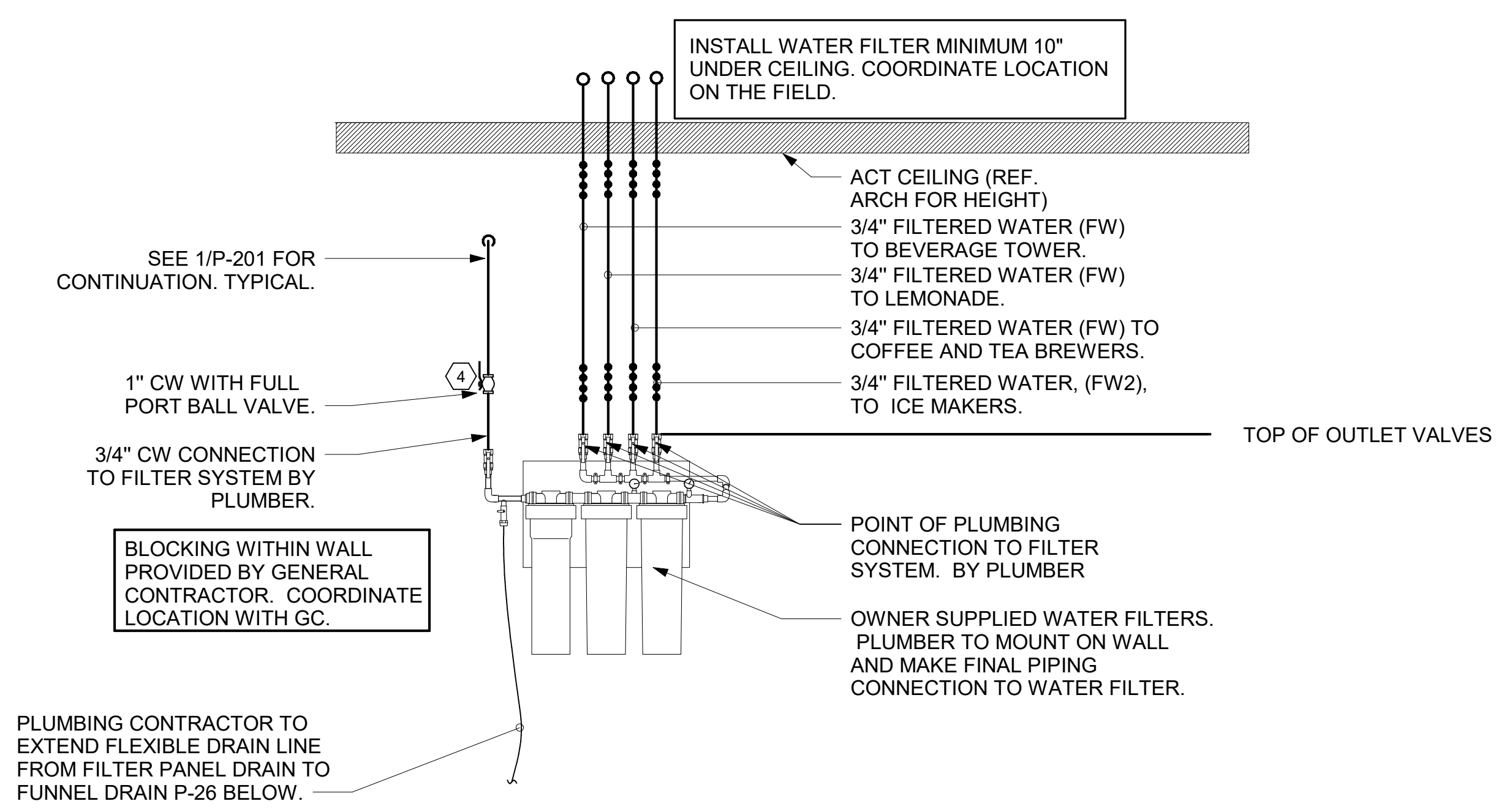
VALVE	VALVE POSITION
① MAIN WATER SHUT-OFF	NORMALLY OPEN
② MAIN DRAIN	NORMALLY CLOSED
③ ACCESSORY SHUT-OFF	NORMALLY OPEN
④ WATER FILTER INLET	NORMALLY OPEN
⑤ RECIRC PUMP ISOLATION VALVE	NORMALLY OPEN
⑥ WATER HEATER INLET	NORMALLY OPEN
⑦ RESTROOM & KITCHEN COLD WATER	NORMALLY OPEN
⑧ POST HYDRANT COLD WATER	NORMALLY OPEN
⑨ GAS TO WATER HEATER	NORMALLY OPEN
⑩ WATER HEATER OUTLET	NORMALLY OPEN

NOTE: HANDLE IN-LINE WITH PIPING = VALVE OPEN

LAMINATE VALVE TAG LEGEND AND MOUNT PERMANENTLY WHERE SHOWN ON WATER HEATER DETAIL IN AN ALUMINUM FRAME EQUAL TO SETON #68624.



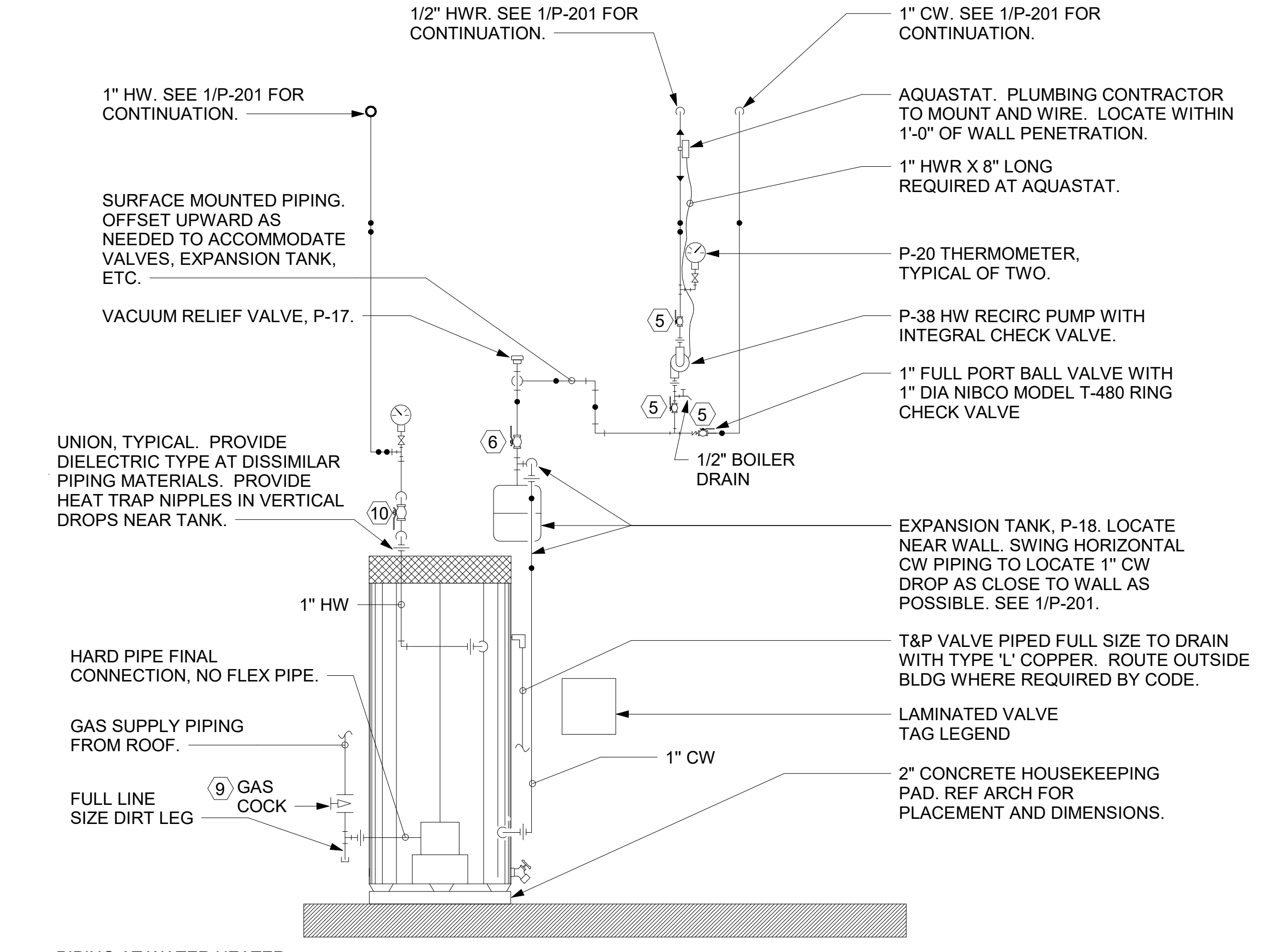
- ② VALVE TAG SYMBOL AS SHOWN ON DETAIL 6/P-303. PROVIDE 1-1/2" ROUND BRASS VALVE TAG WITH 1/2" HIGH BLACK FILLED LETTERING. EACH TAG SHALL INDICATE VALVE NUMBER AND WILL ALSO HAVE "PLBG" STAMPED ON THE TAG IN 1/4" HIGH BLACK FILLED LETTERING EQUAL TO SETON #M4506. HANG WITH BRASS JACK CHAIN ON VALVE HANDLE.
- ③ VALVE TAGS AND LEGEND NOT TO SCALE



⑤ PIPING AT WATER FILTER NOT TO SCALE

NOTES TO WATER HEATER INSTALLER:

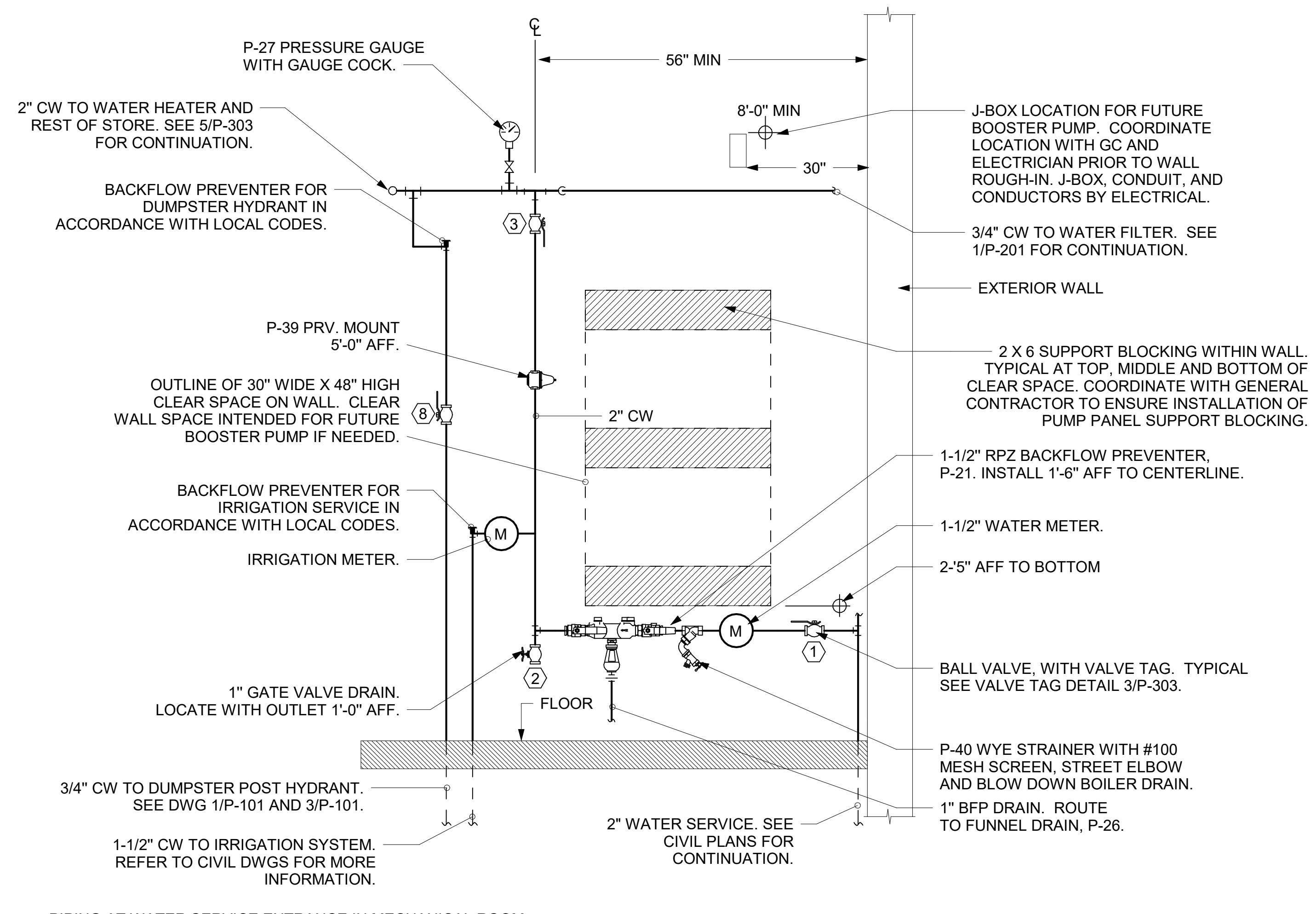
- POSITION VALVES AND TRIM SUCH THAT VALVES AND TRIM ARE UNOBSTRUCTED TO VIEW AND SO THAT ACCESS FOR OPERATION OR REPAIR IS POSSIBLE WITHOUT USE OF STEP LADDERS OR NEED TO DISASSEMBLE ANY COMPONENTS.
- VENT HEATER UP THRU ROOF AND PROVIDE FRESH AIR PIPING PER MANUFACTURER'S RECOMMENDATIONS.



⑥ PIPING AT WATER HEATER NOT TO SCALE

NOTE OF SPECIAL IMPORTANCE

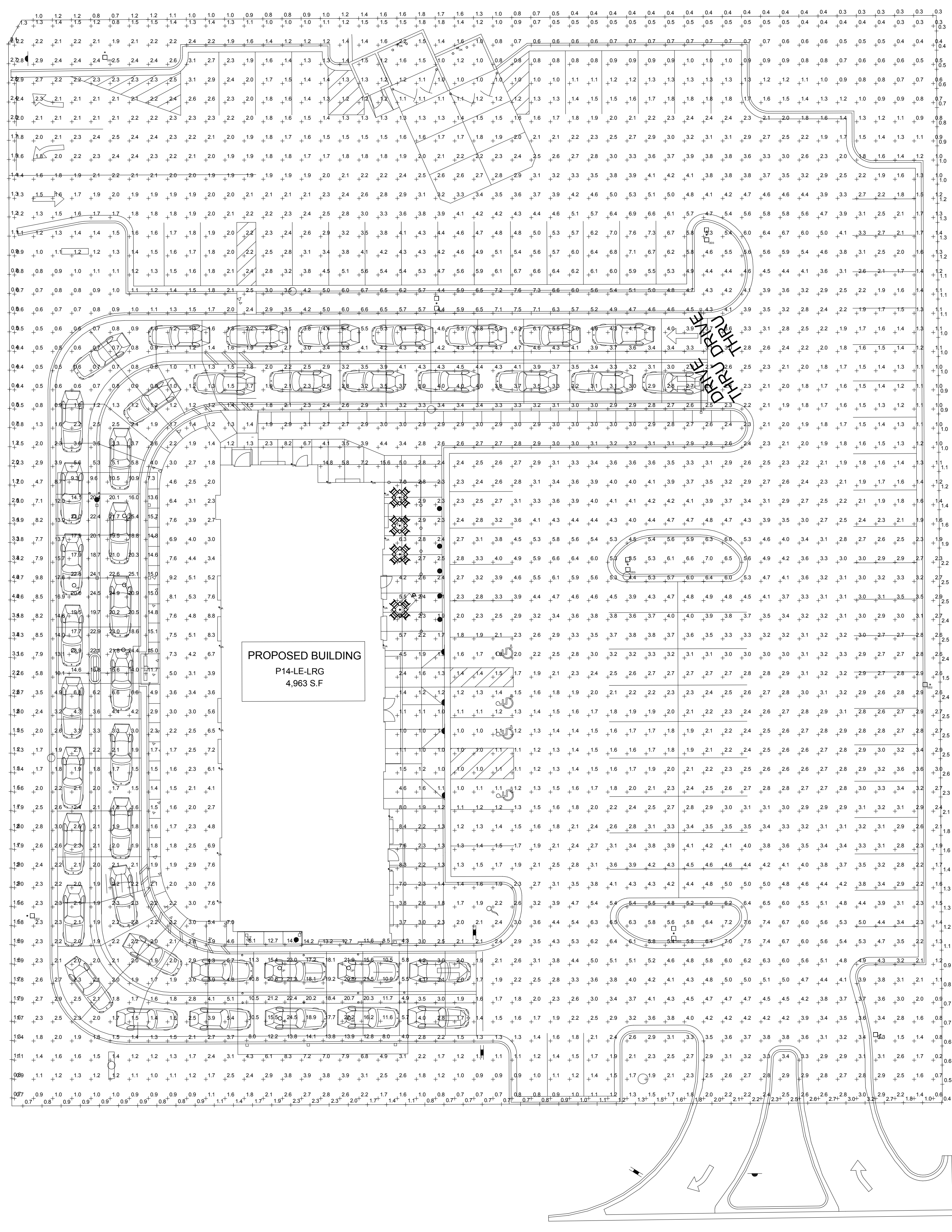
- LOCATIONS OF 2" CW RISER AND CLEAR SPACE ARE DIMENSIONED BECAUSE THEY ARE CRITICAL FOR THE FUTURE PUMP PANEL INSTALLATION.
- GENERAL CONTRACTOR SHALL ENSURE OTHER TRADES SHALL NOT INSTALL ANY OTHER BUILDING COMPONENT WITHIN CLEAR SPACE OR WITHIN 10" OF EDGES.



① PIPING AT WATER SERVICE ENTRANCE IN MECHANICAL ROOM NOT TO SCALE

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 40-LE-05198-P-303-DETAILS AND SCHEDULES

E
D
C
B
A



1 ELEC SITE PLAN KEYNOTES
1/16" = 1'-0"

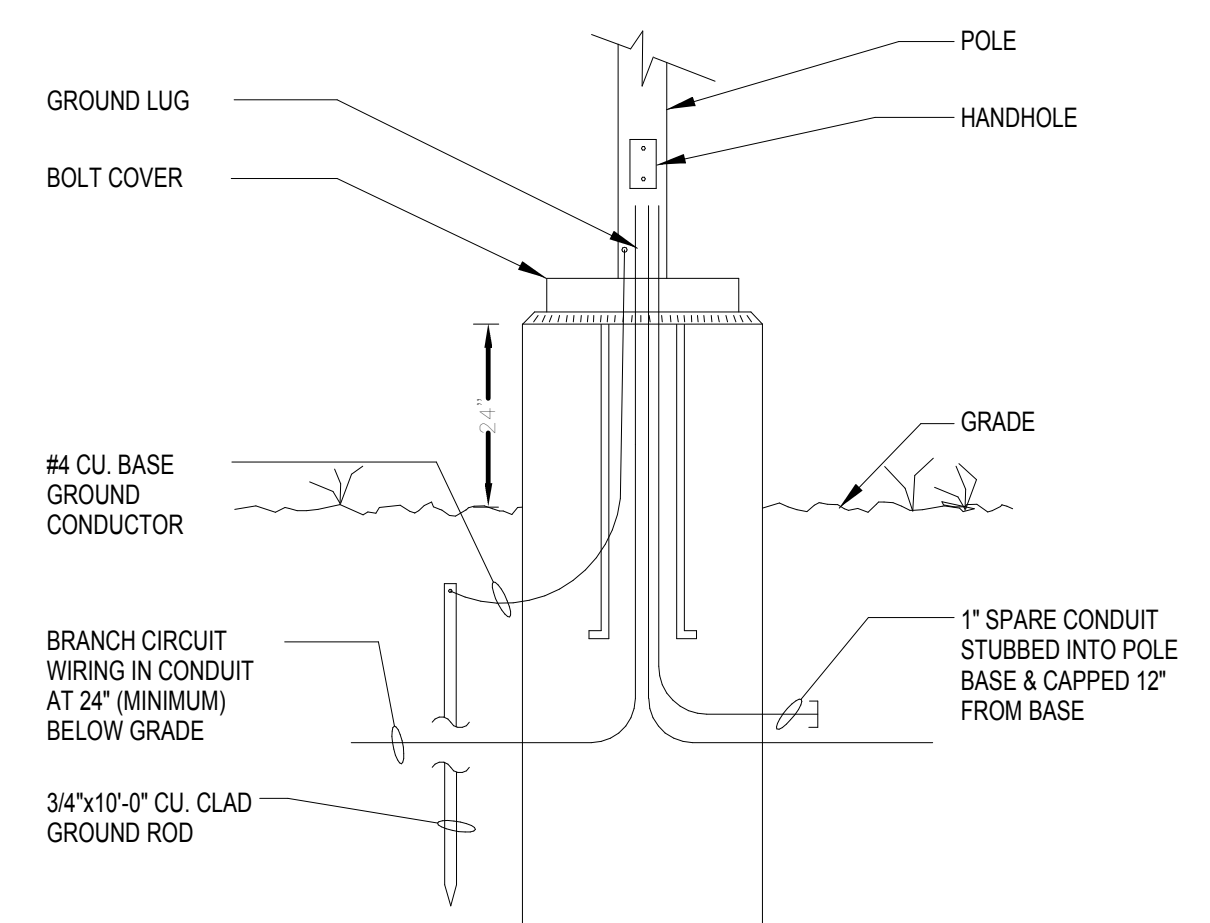
PHOTOMETRIC NOTES
1. ALL FIXTURES UTILIZED IN THIS SITE PHOTOMETRIC ARE FULL CUTOFF.
2. MOUNT AREA LUMINAIRE 'OD' SERIES AT 25' AFG (INCLUDING POLE BASE) UNLESS OTHERWISE NOTED.
3. COLOR TEMPERATURES OF FIXTURES SHALL BE PER LIGHT FIXTURE SCHEDULE.

PHOTOMETRIC STATISTIC

DESCRIPTION	SYMBOL	AVG	MAX	MIN	MAXMIN	AVGMIN
CFA HARDSCAPE	x	2.9%	7.6%	0.6%	12.7:1	4.8:1
PROPERTY LINE	+	1.4%	4.0%	0.3%	13.3:1	4.7:1
SIDEWALK	x	3.4%	15.8%	1.0%	15.8:1	3.4:1
OVERALL SITE	+	2.9%	17.6%	0.2%	88.0:1	14.5:1

LIGHTING FIXTURE SCHEDULE

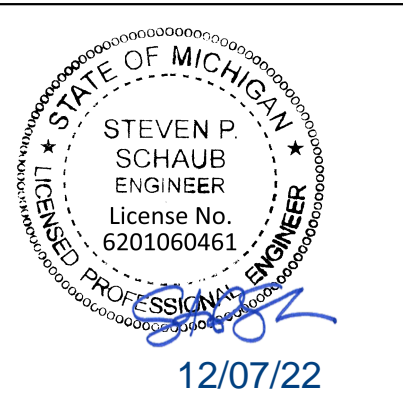
SYMBOL	LABEL	QTY	CATALOG NUMBER	MANUFACTURER	DESCRIPTION	LAMP	WATTS	VOLTS	MOUNTING
●	OA	15	P8675-31 WITH P8799 TOP COVER LENS	PROGRESS LIGHTING	5" DIAMETER, 14" HEIGHT, WET LOCATION, UPOWDOWN CYLINDER W/ 12 WATT PAR30 3K NFL LED LAMPS	2-GEJLED12P30RW83025	24	120	WALL
■	OD3	4	LUMINAIRE: PRV-C40-D-UNV-T3-BZ -MS/DIM-L40W POLE: SSP25-4.0-7-BRZ-DM2180-BC (TWO LUMINAIRES AT 180 DEGREES) ANCHOR BOLT SET: ABS55-S	COOPERLUMARK KW INDUSTRIES	DRILL MOUNT THE ARMS/BRAKETS FOR THE LUMINAIRES TO THE POLES. LUMINAIRES, BRACKETS, AND POLES TO HAVE DARK BRONZE FINISH. TYPE 3 MEDIUM DISTRIBUTION PROVIDE SINGLE POLE FUSE HOLDER AND 3A FUSES IN HAND HOLE OF POLE.	LED FURNISHED WITH FIXTURE	262	120	25'
●	OD2	4	LUMINAIRE: PRV-C40-D-UNV-T4-BZ-HSS -MS/DIM-L40W POLE: SSP25-4.0-7-BRZ-DM10-BC (SINGLE LUMINAIRE) ANCHOR BOLT SET: ABS55-S	COOPERLUMARK KW INDUSTRIES	DRILL MOUNT THE ARMS/BRAKETS FOR THE LUMINAIRES TO THE POLES. LUMINAIRES, BRACKETS, AND POLES TO HAVE DARK BRONZE FINISH. TYPE 4 MEDIUM DISTRIBUTION WITH HOUSE SIDE SHIELD PROVIDE SINGLE POLE FUSE HOLDER AND 3A FUSES IN HAND HOLE OF POLE.	LED FURNISHED WITH FIXTURE	131	120	25'
○	OK	2	LNC-5LU-3K-3-1	HUBBELL	LED WALLPACK W/ CENTERLINE OF FIXTURE AT 8'-0" AOV (7'-0" FINISH FLOOR LINE)	FURNISHED	12.9	120	WALL
□	OP	10	C-CP-A-SQ-79L-50K-WH	C-LITE	CEILING LIGHT FIXTURE PROVIDED BY THE CANOPY SUPPLIER AND INSTALLED BY THE ELECTRICAL CONTRACTOR.	FURNISHED	88	120	9.5'



2 LIGHT POLE DETAIL
N.T.S.



Chick-fil-A
2500 Buffington Road
Atlanta, Georgia
30349-2998



CHICK-FIL-A
I-75 & MILLER ROAD
3140 MILLER ROAD
FLINT TOWNSHIP, MI 48503

FSR#05198
BUILDING TYPE / SIZE: P14 LE ALL
RELEASE: 22-08
PRINTED FOR:
ISSUED FOR CONSTRUCTION

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
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CONSULTANT PROJECT # 202223.23
DATE 12/07/22
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SITE PHOTOMETRIC PLAN
SHEET NUMBER

ELECTRICAL KEYNOTES

- 2 PROVIDE JUNCTION BOX, LESS COVER PLATE, AND EXTEND 1-1/2" CONDUIT UP IN WALL TO ABOVE CEILING FOR INSTALLATION OF WIRELESS COMMUNICATION CONTROL UNIT.
- 4 PROVIDE SINGLE-GANG JUNCTION BOX WITH A 1" EMPTY CONDUIT STUBBED UP INTO THE ACCESSIBLE CEILING SPACE FOR OWNER'S VOIP PHONE JACK AND CABLES.
- 5 PROVIDE SINGLE-GANG JUNCTION BOX WITH A 3/4" EMPTY CONDUIT STUBBED UP INTO THE ACCESSIBLE CEILING SPACE FOR FUTURE MENU BOARD CABLES.
- 37 PROVIDE JUNCTION BOX WITH STAINLESS STEEL COVER PLATE AND 3/4" HOLE IN PLATE WITH GROMMET ON HOLE IN PLATE. EXTEND 3/4" CONDUIT UP IN WALL TO ABOVE CEILING FOR MUSIC SYSTEM.
- 39 THREE SINGLE GANG EXTRA DEEP J-BOXES STACKED WITH A 1/2" CONDUIT FROM EACH TO THE TOP J-BOX BOX AND A 1" CONDUIT STUBBED INTO THE CEILING SPACE FOR MUSIC SYSTEM VOLUME CONTROLS PROVIDED BY OWNER'S VENDOR.
- 40 PROVIDE A SINGLE GANG EXTRA DEEP JUNCTION BOX AT 74" AFF WITH 1/2" CONDUIT STUBBED INTO THE CEILING SPACE FOR MUSIC SYSTEM VOLUME CONTROLS.
- 55 PROVIDE EDWARDS #340-4N5 VIBRATING 4" DIAMETER BELL. THE BELL SHALL BE RATED AT 120 VOLTS.
- 56 PROVIDE A 120 VOLT WEATHERPROOF DOORBELL PUSHBUTTON AT DOOR. PUSHBUTTON SHALL BE FLUSH MOUNTED. PROVIDE DORTRONICS SYSTEMS #W5286-P25 CLEAR ANODIZED ALUMINUM PUSHBUTTON WITH SINGLE GANG SWITCHPLATE.
- 57 TWO 2" TELEPHONE SERVICE ENTRANCE CONDUIT(S). EXTEND WITH PULL STRING FROM TELEPHONE SERVICE J-BOX TO THE UTILITY SOURCE. REFER TO THE ELECTRICAL SITE PLAN FOR ADDITIONAL INFORMATION.
- 59 PROVIDE DUPLEX RECEPTACLE (SEE ELEVATIONS FOR MTG HT) IN AN ARLINGTON #DVFR2W DOUBLE-GANG RECESSED BOX FOR THE FLY SYSTEM ITEMS. DO NOT CUT THE CORDSET FURNISHED WITH THE UNIT, BUT COIL THE CORD ON THE BACK OF THE UNIT AND TUCK INTO THE BACKBOX.
- 61 SB6000 PANEL ENCLOSURE WITH 3 LITTLEFUSE SHOCKBLOCK GFCI PROTECTION DEVICES, SB6100 SHOCK BLOCK GFCI PROTECTION DEVICE, AND SB5000 SHOCK BLOCK GFCI PROTECTION DEVICE. ENSURE CONDUITS ARE INSTALLED FOR LINE AND LOAD WIRES TO BE INSTALLED WITH PROPER WIRE BENDING SPACE. LABEL EACH SHOCK BLOCK WITH PANEL AND CIRCUIT NUMBER IT CONTROLS.
- 62 ONE 3" ISP SERVICE CONDUIT. EXTEND WITH PULL STRING FROM J-BOX TO SUPPLIER'S SOURCE. REFER TO ELECTRICAL SITE PLAN FOR ADDITIONAL INFORMATION.
- 64 PROVIDE TWO 6" H X 6" W X 4" D J-BOXES (ONE FOR TELEPHONE AND ONE FOR ISP) AT 6'-6" AFF AND EXTEND A 2" CONDUIT WITH PULL STRING IN THE WALL FROM EACH J-BOX INTO THE ACCESSIBLE CEILING SPACE. PROVIDE A 36" X 36" X 3/4" PLYWOOD BACKBOARD ON THE WALL ABOVE THE J-BOXES (AT THE CEILING) FOR USE BY THE ISP. PROVIDE A COPPER GROUND BAR (EQUAL TO ERICO T8624L14P) AT THE BOTTOM OF THE BACKBOARD WITH A #6 AWG INSULATED CU GROUNDING CONDUCTOR IN A 3/4" FROM THE GROUND BAR TO THE INTER SYSTEM BONDING TERMINATION NEXT TO THE SERVICE ENTRANCE. THE GROUND BAR SHALL HAVE TAPS FOR USE BY THE TELEPHONE AND ISP UTILITY COMPANIES AND FOR THE #6 COMMUNICATIONS GROUNDING CONDUCTOR TO THE GES. PROVIDE A 15 AMP ISOLATED GROUND (IG) ORANGE-FACED DUPLEX RECEPTACLE IN THE WALL BESIDE THE BACKBOARD AND LABEL THE RECEPTACLE "FOR FIBER TO CABLE MODEM USE ONLY". BOND NETWORK RACKS TO GROUND BAR.
- 65 PROVIDE JUNCTION BOX AT 8'-0" AFF WITH CONDUIT AND CONDUCTORS TO PANELBOARD FOR FUTURE CONNECTION TO BOOSTER PUMP. REFER TO THE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
- 73 SEE THE ROOF ELECTRICAL PLAN FOR THE LOCATION OF THE ICE MAKER CONDENSERS AND ANY ADDITIONAL REQUIREMENTS.
- 75 PROVIDE GROUND FAULT CIRCUIT INTERRUPTER (GFCI) TYPE RECEPTACLE IN COMPLIANCE WITH THE NEC REQUIREMENT FOR KITCHEN/FOOD PREP AREAS. IF THE RECEPTACLE OUTLET IS NOT NOTED AS GFCI, THEN THE BREAKER IS TO BE GFCI TYPE.
- 80 JUNCTION BOX ABOVE CEILING FOR AIR CURTAIN.
- 85 PROVIDE A 'RETROFIT' SINGLE GANG RING (CARLON #SC100RR) FOR OWNER'S DEVICE PLATE WITH A 1" EMPTY CONDUIT AT THE OPENING STUBBED UP INTO THE CEILING SPACE FOR OWNER'S DATA CABLES.
- 86 PROVIDE SINGLE-GANG JUNCTION BOX WITH A 1" CONDUIT EXTENDING UP INTO THE CEILING SPACE FOR POS MONITOR(S). COVER PLATE PROVIDED BY OWNER'S POS SYSTEM VENDOR.
- 88 PROVIDE A 'RETROFIT' SINGLE GANG RING (CARLON #SC100RR) FOR OWNER'S DEVICE PLATE WITH A 1" EMPTY CONDUIT AT THE OPENING STUBBED UP INTO THE CEILING SPACE FOR OWNER'S DATA CABLES.
- 89 PROVIDE SINGLE-GANG JUNCTION BOX WITH A 1" CONDUIT EXTENDING UP INTO THE CEILING SPACE FOR POS TERMINAL. POS SYSTEM SUPPLIER WILL PROVIDE COVER PLATE ON BOX.
- 90 PROVIDE SINGLE-GANG EXTRA DEEP JUNCTION BOX MOUNTED ON THE MOUNTING PLATE WITHIN THE FRONT SERVING COUNTER CASEWORK. MOUNT BOX ADJACENT TO THE RECEPTACLE FOR EQUIPMENT 180. DO NOT MOUNT BOX BETWEEN EQUIPMENT 180 AND EQUIPMENT 182 RECEPTACLES.
- 93 PROVIDE ORANGE ISOLATED GROUND (IG) DUPLEX RECEPTACLE.
- 94 PROVIDE GROUND FAULT PROTECTION FOR THESE DEVICES VIA A GROUND FAULT CIRCUIT BREAKER IF LOCAL CODE DEFINES THIS A FOOD PREPARATION AREA.
- 95 USE TYPE MC CABLE FOR THE ISOLATED GROUND CIRCUIT: #12 HOT, NEUTRAL, GREEN GROUND, STRIPED ISOLATED GROUND. EACH 15 AMP HOMERUN SHALL BE DEDICATED TO A CIRCUIT BREAKER VIA DEDICATED CONDUCTORS WITHIN A CABLE ASSEMBLY. ALL MC CABLES SHALL BE RUN OVERHEAD ABOVE THE CEILING AND RACKED TOGETHER ON J-HOOKS. NO SPLICES IN ANY HOMERUN CABLES FROM FIRST RECEPTACLE TO BREAKER.
- 96 THE RECEPTACLE BACKBOX AND SYSTEM CABLE JUNCTION BOX FOR ITEMS 180 AND 182 SHALL BE TURNED HORIZONTAL. REFER TO THE KITCHEN EQUIPMENT ROUGH-IN ELEVATIONS FOR ADDITIONAL INFORMATION.
- 97 PROVIDE SINGLE GANG JUNCTION BOX AND STAINLESS STEEL COVER PLATE WITH 7/8" HOLE IN CENTER. EXTEND 1" CONDUIT UP IN WALL TO ABOVE ACCESSIBLE CEILING.
- 98 PROVIDE 4" W X 4" H X 3" D FLUSH JUNCTION BOX WITHOUT A COVERPLATE. EXTEND 2" CONDUIT UP TO ABOVE ACCESSIBLE OFFICE CEILING AREA AND PROVIDE BUSHING ON CONDUIT.
- 99 PROVIDE 4" W X 4" H X 3" D JUNCTION BOX WITHOUT COVERPLATE AND EXTEND A 2" CONDUIT DOWN THROUGH SLAB AND BELOW GRADE TO EACH OF THE SITE'S POLE MOUNTED CAMERA LOCATIONS (SEE ELECTRICAL SITE PLAN FOR CONTINUATION) AND A 2" CONDUIT UP INTO THE ACCESSIBLE CEILING SPACE WITH A BUSHING ON THE CONDUIT END. PROVIDE A SINGLE-GANG JUNCTION BOX ADJACENT TO THE DOUBLE-GANG BOX WITH A 1.5" CONDUIT DOWN TO A SECOND SINGLE-GANG JUNCTION BOX AT THE CCTV MONITOR LOCATION.
- 101 PROVIDE SINGLE GANG BOX WITHOUT COVER PLATE. EXTEND 1/2" CONDUIT UP IN WALL TO ABOVE ACCESSIBLE CEILING.
- 104 EXTEND 3/4" RIGID CONDUIT FROM TOP OF STRIKE-SIDE DOOR FRAME CHANNEL TO ABOVE ACCESSIBLE CEILING.
- 107 PROVIDE SINGLE GANG JUNCTION BOX WITH STAINLESS STEEL COVER PLATE MOUNTED ABOVE THE CEILING SPACE AND ABOVE THE INTERIOR SIDE OF THE REAR DOOR. ROUTE 1" CONDUIT FROM THE BOX TO THE "109" BOX NOTED BELOW.
- 109 PROVIDE SINGLE GANG, WEATHER-PROOF JUNCTION BOX WITH STAINLESS STEEL COVER PLATE MOUNTED ABOVE THE REAR DOOR ON THE EXTERIOR WALL. ROUTE 1" CONDUIT FROM THE BOX AND INTO THE BUILDING AND TERMINATE CONDUIT IN THE BOX NOTED IN "S10" ABOVE.

C1 ENLARGED BOH POWER PLAN
1/2" = 1'-0"

POWER PLAN GENERAL NOTES

- A. ALL SECURITY, POS, MUSIC, COMMUNICATIONS, AND POWER ROUGH-IN SHALL BE INSTALLED DURING THE FRAMING/ROUGH-IN PHASE OF CONSTRUCTION.
- B. REFER TO KITCHEN EQUIPMENT SHEETS FOR EQUIPMENT ELECTRICAL ROUGH-IN ELEVATIONS ABOVE FINISHED FLOOR.
- C. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH PULL STRING.
- D. PROVIDE INSULATED BUSHING AT TERMINATION POINTS OF ALL CONDUITS FOR LOW VOLTAGE WIRING.
- E. THE ELECTRICAL INSTALLER SHALL COORDINATE THE ROUTING OF ALL CONDUIT IN THE BUILDING WITH OTHER TRADES (SPECIFICALLY THE DUCTWORK INSTALLATION) TO AVOID CONFLICTS OF SPACE REQUIREMENTS IN WALLS AND CEILING SPACES.

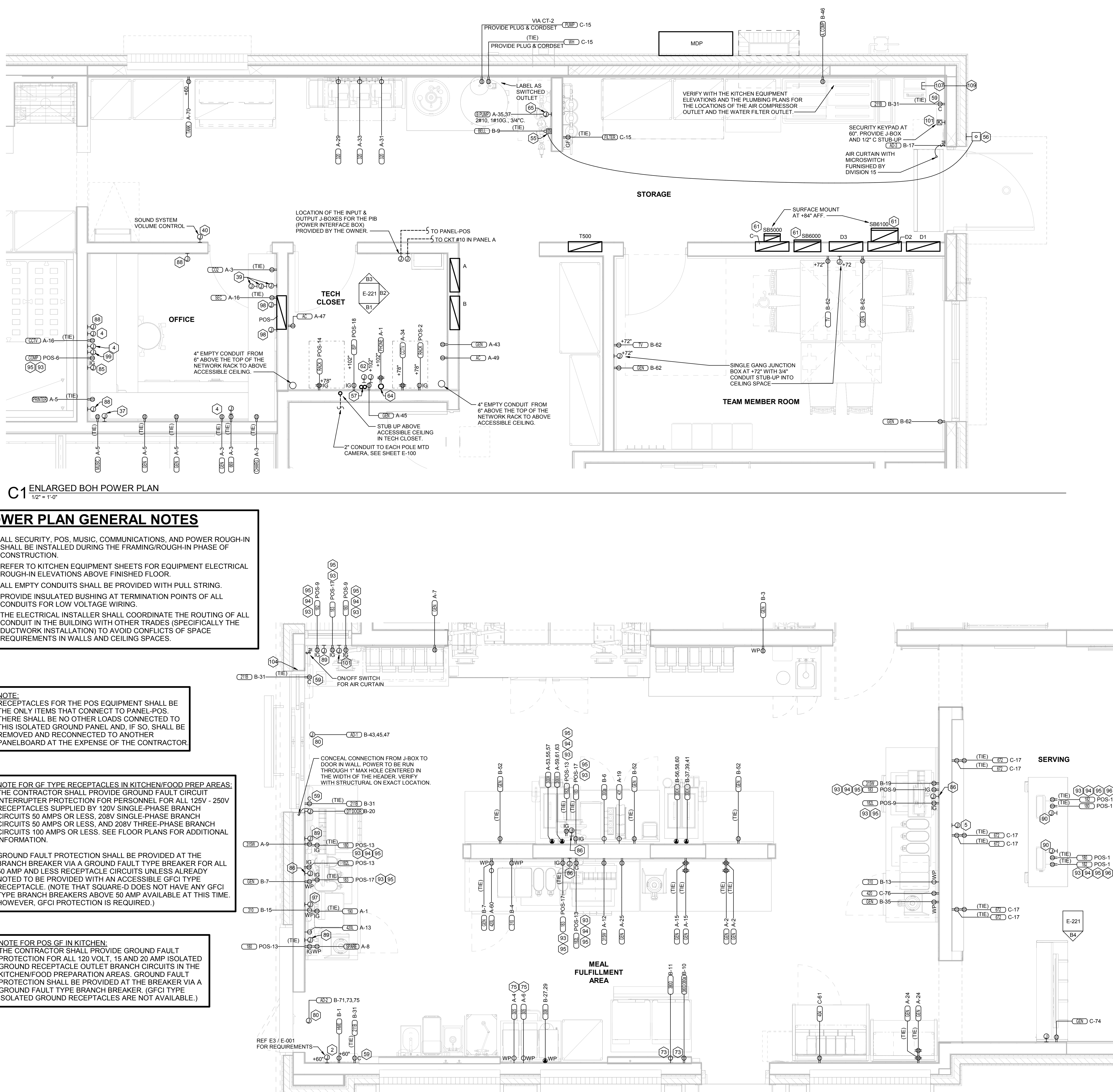
NOTE:
RECEPTACLES FOR THE POS EQUIPMENT SHALL BE THE ONLY ITEMS THAT CONNECT TO PANEL-POS. THERE SHALL BE NO OTHER LOADS CONNECTED TO THIS ISOLATED GROUND PANEL AND, IF SO, SHALL BE REMOVED AND RECONNECTED TO ANOTHER PANELBOARD AT THE EXPENSE OF THE CONTRACTOR.

NOTE FOR GF TYPE RECEPTACLES IN KITCHEN/FOOD PREP AREAS:
THE CONTRACTOR SHALL PROVIDE GROUND FAULT CIRCUIT INTERRUPTER PROTECTION FOR PERSONNEL FOR ALL 125V - 250V RECEPTACLES SUPPLIED BY 120V SINGLE-PHASE BRANCH CIRCUITS 50 AMPS OR LESS, 208V SINGLE-PHASE BRANCH CIRCUITS 50 AMPS OR LESS, AND 208V THREE-PHASE BRANCH CIRCUITS 100 AMPS OR LESS. SEE FLOOR PLANS FOR ADDITIONAL INFORMATION.

GROUND FAULT PROTECTION SHALL BE PROVIDED AT THE BRANCH BREAKER VIA A GROUND FAULT TYPE BREAKER FOR ALL 50 AMP AND LESS RECEPTACLE CIRCUITS UNLESS ALREADY NOTED TO BE PROVIDED WITH AN ACCESSIBLE GFCI TYPE RECEPTACLE. (NOTE THAT SQUARE-D DOES NOT HAVE ANY GFCI TYPE BRANCH BREAKERS ABOVE 50 AMP AVAILABLE AT THIS TIME. HOWEVER, GFCI PROTECTION IS REQUIRED.)

NOTE FOR POS GF IN KITCHEN:
THE CONTRACTOR SHALL PROVIDE GROUND FAULT PROTECTION FOR ALL 120 VOLT, 15 AND 20 AMP ISOLATED GROUND RECEPTACLE OUTLET BRANCH CIRCUITS IN THE KITCHEN/FOOD PREPARATION AREAS. GROUND FAULT PROTECTION SHALL BE PROVIDED AT THE BREAKER VIA A GROUND FAULT TYPE BRANCH BREAKER. (GFCI TYPE ISOLATED GROUND RECEPTACLES ARE NOT AVAILABLE.)

A1 ENLARGED SERVING AREA POWER PLAN
1/2" = 1'-0"



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50-LE-05198-E-302-ENLARGED SERVING AND BOH POWER PLAN



Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998



GPD GROUP
Professional Corporation
200 S. MAIN STREET, SUITE 201
AKRON, OH 44311



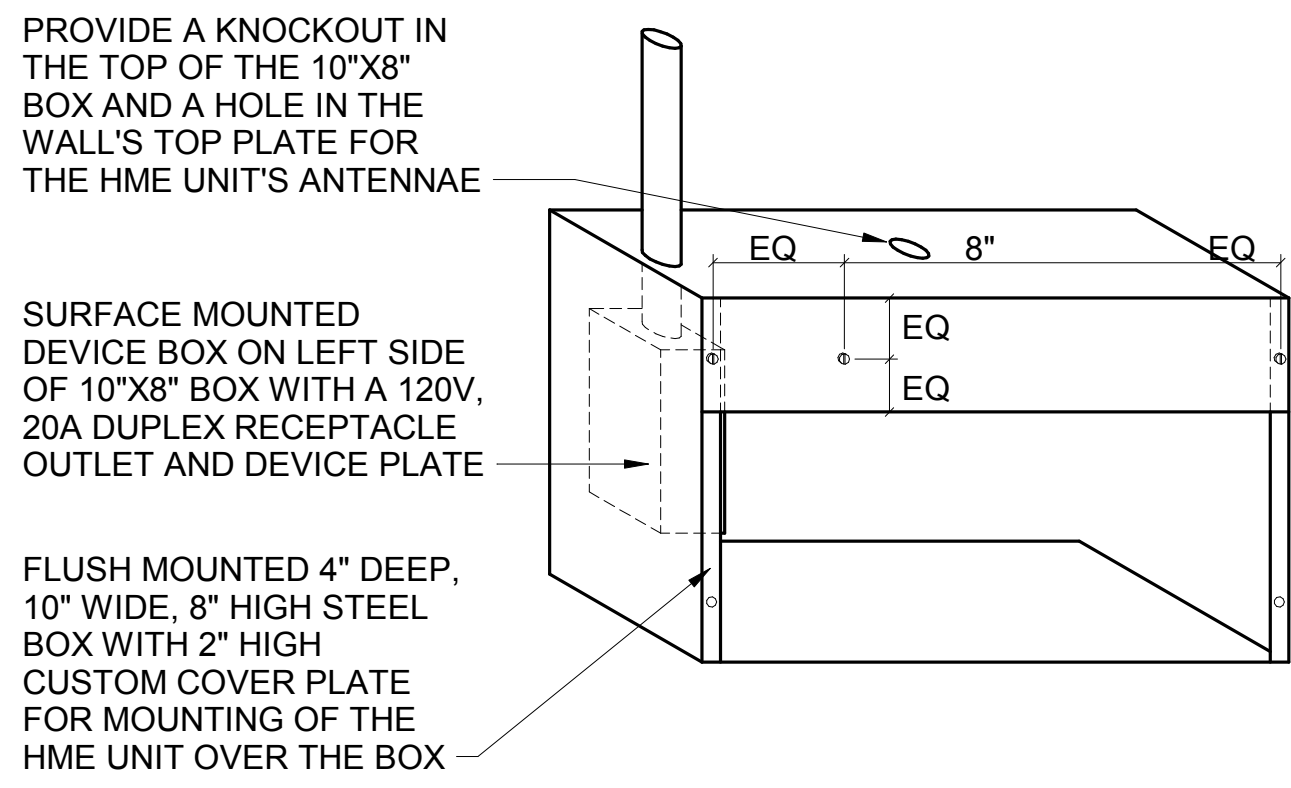
CHICK-FIL-A
I-75 & MILLER ROAD
3140 MILLER ROAD
FLINT TOWNSHIP, MI 48503

FSR#05198
BUILDING TYPE / SIZE: P14 LE ALL
RELEASE: 22.08

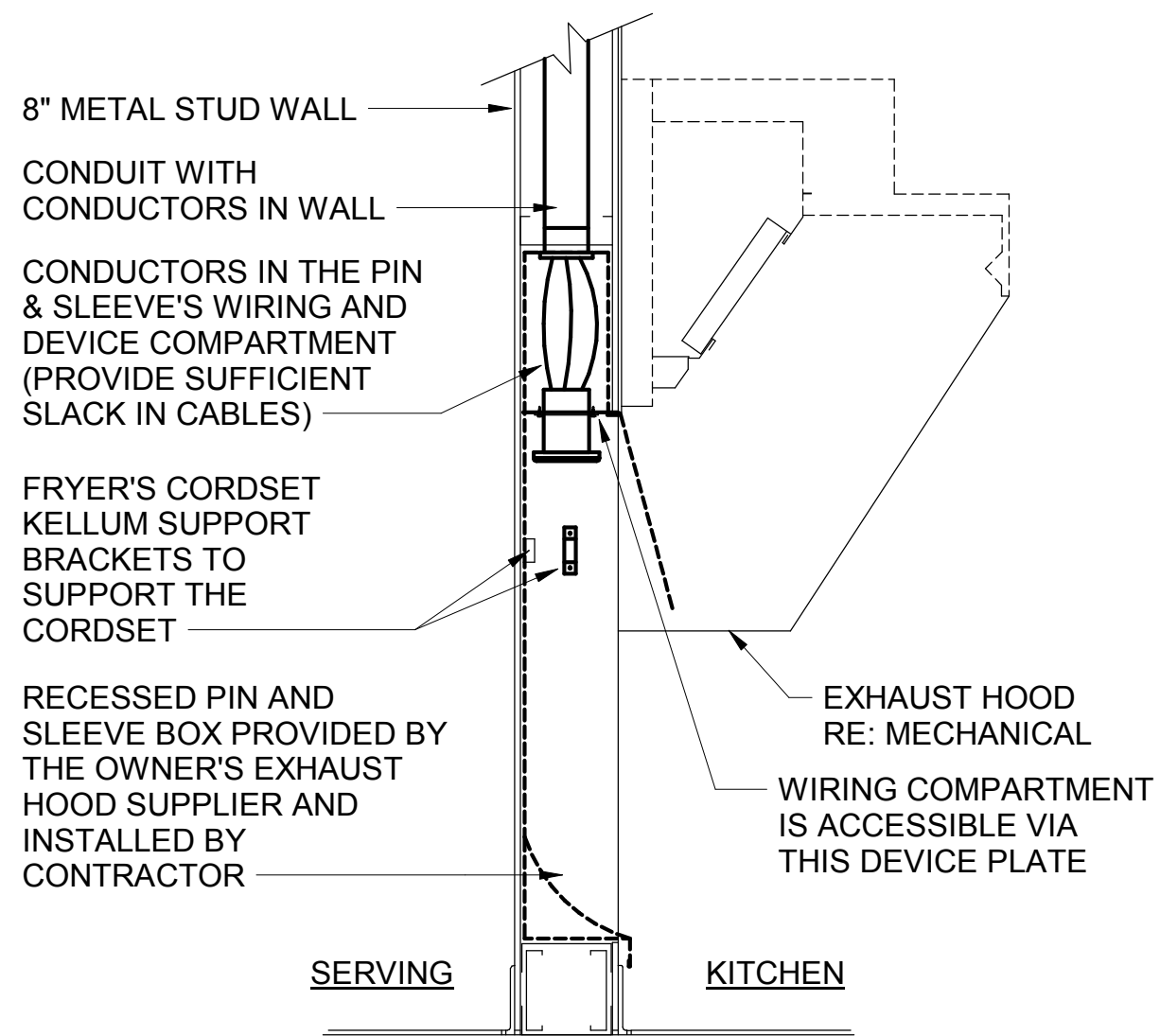
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NO.	DATE	DESCRIPTION

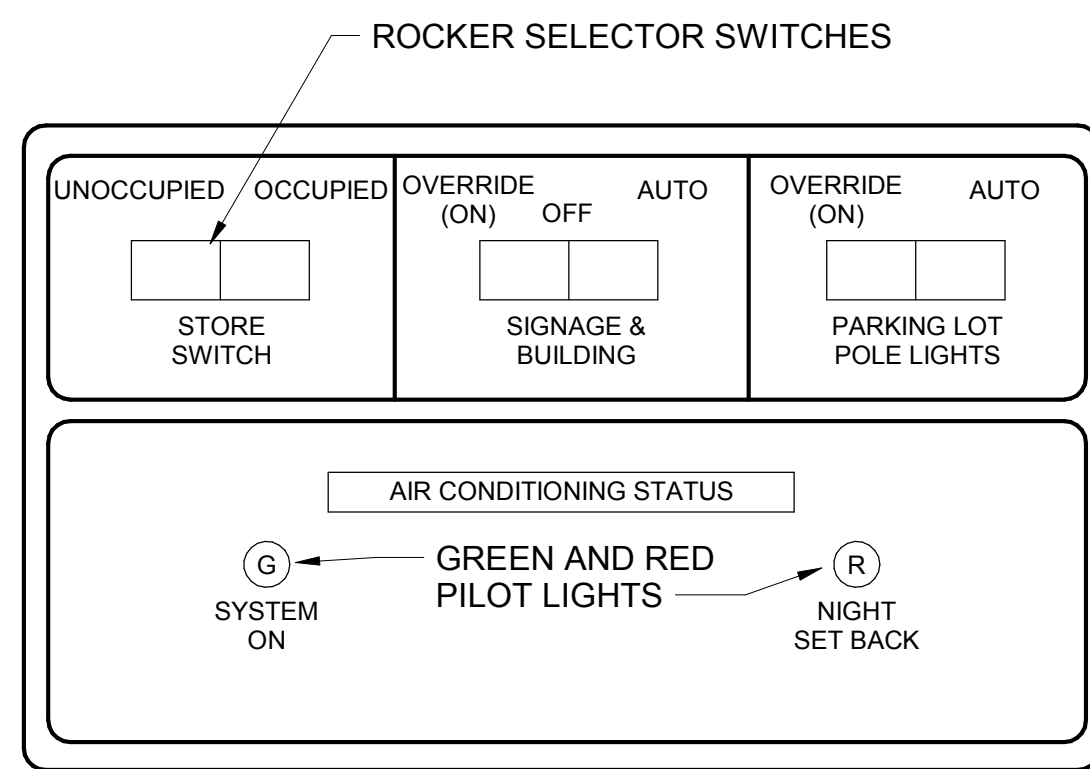
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DATE 12/07/22
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ENLARGED SERVING AND BOH POWER PLAN
SHEET NUMBER
E-302



E3 HME UNIT POWER & DATA BOX DETAIL
NO SCALE



D4 PIN & SLEEVE BOX DETAIL
NO SCALE



D3 OPEN-CLOSED CONTROL SWITCH
NO SCALE

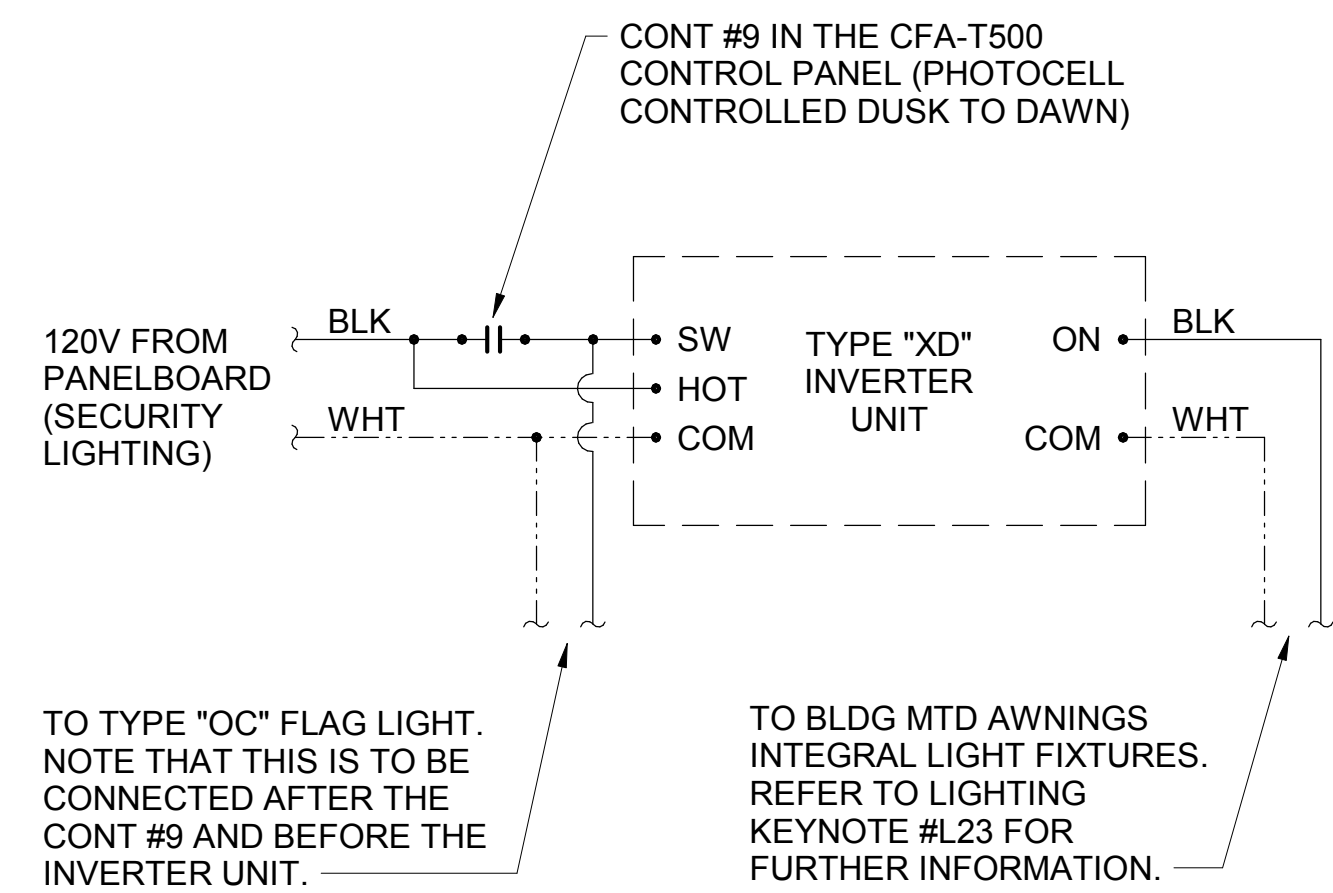
NOTE: THIS UNIT IS MOUNTED IN THE DOOR OF THE CFA-T500 CONTROL CABINET AND IS INCLUDED WITH THE GEAR ORDER FROM SUNCOAST ENVIRONMENTAL INC.

CIR C-1	30A 4-POLE	CONTACTOR-1	KITCHEN LTG
CIR C-3	120 VOLT COIL		KITCHEN LTG
CIR C-5	120 VOLT COIL (STORE SWITCH ON AND OFF)		RESTROOM LTG / EF-3
CIR C-11			DINING LTG
CIR C-7	30A 4-POLE	CONTACTOR-2	DINING LTG
CIR C-9	120 VOLT COIL		SERV AREA LTG
CIR C-15	120 VOLT COIL (STORE SWITCH ON AND OFF)		WATER RECIRC PUMP
SPARE			SPARE
CIR C-43	30A 4-POLE	CONTACTOR-3	BLDG. SIGNAGE
CIR C-45	120 VOLT COIL		BLDG. SIGNAGE
CIR C-47	120 VOLT COIL (P'CELL ON AND SWITCH OFF)		BLDG. SIGNAGE
CIR C-49			BLDG. SIGNAGE
CIR C-19	30A 4-POLE	CONTACTOR-4	DIRECTIONAL SIGNS
CIR C-37	120 VOLT COIL		MAIN ID SIGN
CIR C-39	120 VOLT COIL (P'CELL ON AND SWITCH OFF)		MAIN ID SIGN
CIR C-41			MAIN ID SIGN
SPARE	30A 4-POLE	CONTACTOR-5	SPARE
CIR C-31	120 VOLT COIL		BLDG LIGHTING
SPARE	120 VOLT COIL (P'CELL ON AND SWITCH OFF)		SPARE
SPARE			SPARE
SPARE	30A 4-POLE	CONTACTOR-6	SPARE
SPARE	120 VOLT COIL		SPARE
SPARE	120 VOLT COIL (P'CELL ON AND SWITCH OFF)		SPARE
SPARE			SPARE
CIR C-21	30A 4-POLE	CONTACTOR-7	PARKING LOT LTG
CIR C-23	120 VOLT COIL		PARKING LOT LTG
SPARE	120 VOLT COIL (P'CELL ON AND SWITCH OFF)		SPARE
SPARE			SPARE
SPARE	30A 4-POLE	CONTACTOR-8	SPARE
SPARE	120 VOLT COIL		SPARE
SPARE	120 VOLT COIL (STORE SWITCH ON AND OFF)		SPARE
SPARE			SPARE
CIR C-29	30A 4-POLE	CONTACTOR-9	SECURITY/FLAG LTG
SPARE	120 VOLT COIL		SPARE
SPARE	120 VOLT COIL (PHOTOCELL ON AND OFF)		SPARE
SPARE			SPARE
CIR C-48	30A 4-POLE	CONTACTOR-10	EXHAUST FAN EF-1
CIR C-50	120 VOLT COIL		EXHAUST FAN EF-2
SPARE	120 VOLT COIL (SWITCH ON & OFF, FS ON)		SPARE
SPARE			SPARE
CIR C-54	30A 4-POLE	CONTACTOR-11	HOOD CJ FAN/LIGHTS
SPARE	120 VOLT COIL		SPARE
SPARE	120 VOLT COIL (SWITCH ON & OFF, FS ON)		SPARE
SPARE			SPARE

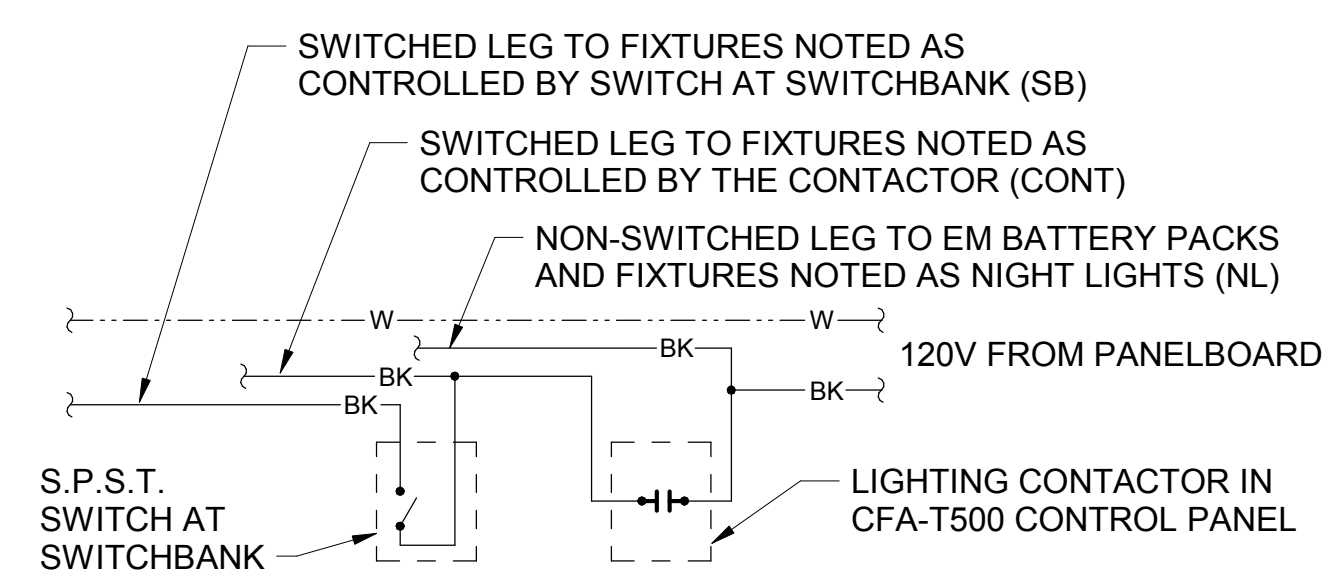
NOTE: LOCATIONS WITH TWO MAIN ID SIGNS WILL USE THIS CONTACTOR FOR THE SECOND SIGN.

NOTES:
1) VERIFY WITH SUNCOAST ENVIRONMENTAL CONTROLS' SHOP DRAWINGS.
2) ONLY THE 'HOT' CONDUCTOR OF EACH CIRCUIT SHALL BE RUN THRU THE CONTACTOR.
3) ANY TAPS OR WIRING CONNECTIONS OTHER THAN TO THE TERMINALS SHALL BE DONE IN A JUNCTION BOX OUTSIDE OF THIS CABINET.
4) VERIFY WITH THE LOCAL CODE IF CONTACTORS #10 AND #11 WILL BE ON OR OFF WHEN THE FS SYSTEM IS INITIATED.
5) CIRCUITS C-49, C-25, AND C-27 WILL BE SPARES IF NOT NEEDED.

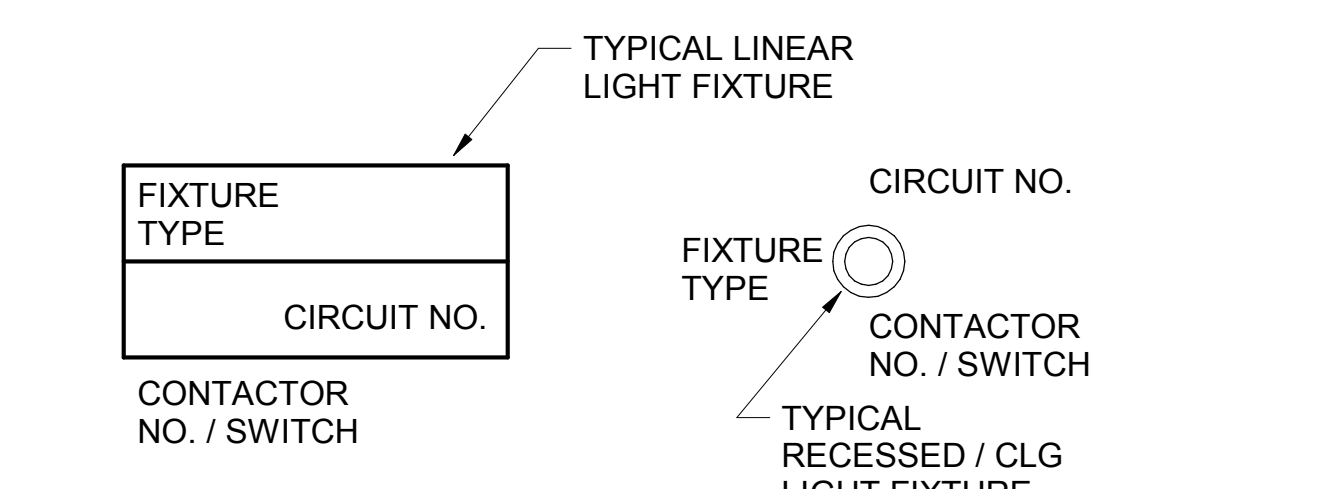
C2 CFA-T500 CONTROL PANEL DIAGRAM
NO SCALE



C4 INVERTER XD WIRING DIAGRAM
NO SCALE

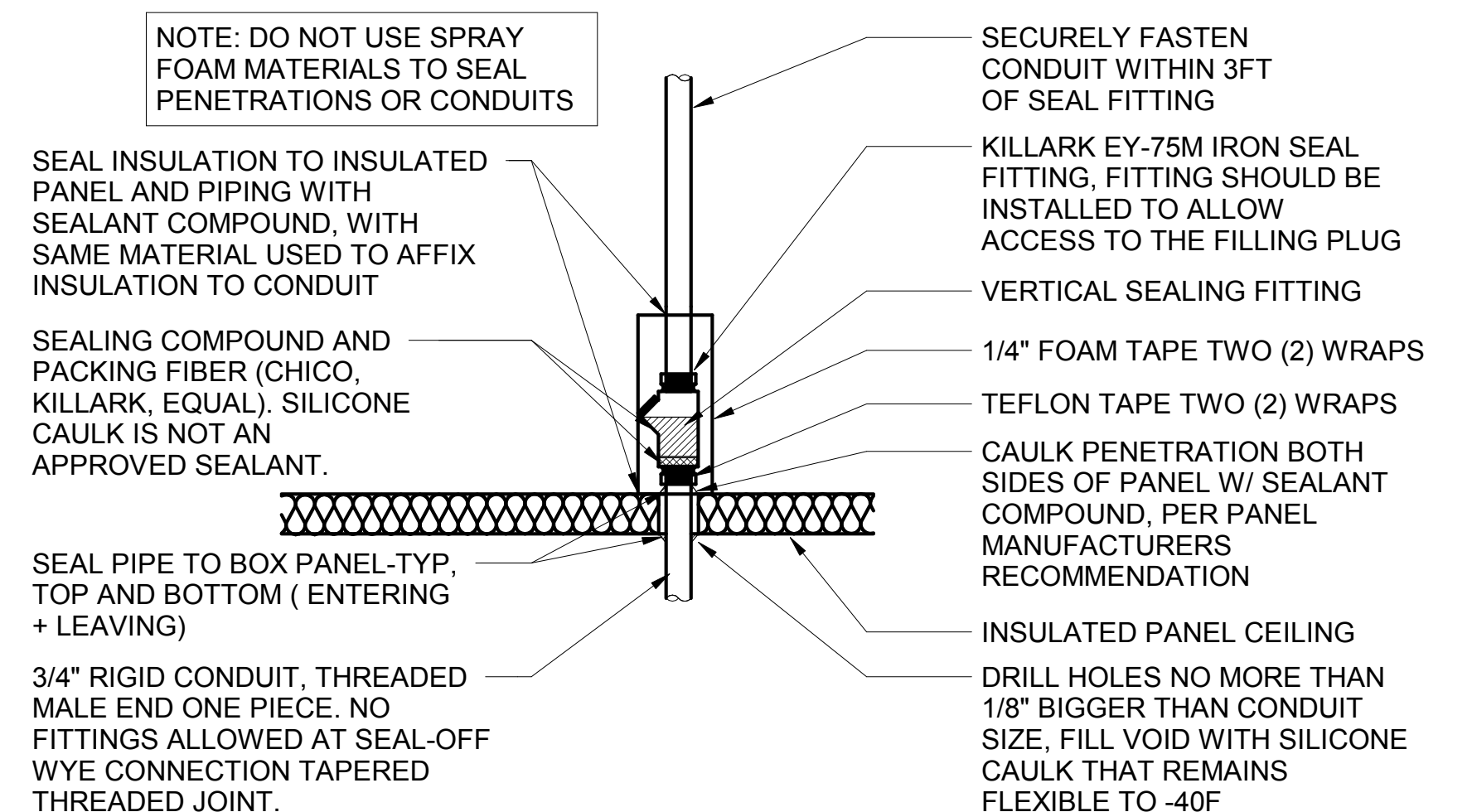


B4 LIGHTING CONTROL DIAGRAM
NO SCALE



A4 LIGHT FIXTURE NOMECLATURE
NO SCALE

SIGNAGE NOTE
THE ELECTRICAL SUBCONTRACTOR SHALL INCLUDE THE ELECTRICAL ROUGH-IN AND FINAL CONNECTIONS OF ALL SIGNAGE (BUILDING MOUNTED AND GROUND MOUNTED ON THE SITE) IN HIS SCOPE OF WORK AND UNDER HIS LOCAL CODE PERMITTING PROCESS. PROVIDE A COPY OF THE PERMIT (WHICH SPECIFICALLY INCLUDES THE SIGNAGE) TO THE SIGN VENDOR IN ORDER TO EXPEDITE THE SIGN VENDOR'S PERMIT PROCESS.



A2 WIC/WIF SEAL-OFF DETAIL
NO SCALE

SYMBOL		DESCRIPTION	MTG HT AFF TO CL	SYMBOL	DESCRIPTION	MTG HT AFF TO CL
LIGHTING FIXTURES						
□		SURFACE MOUNTED LIGHTING FIXTURE		⊕	GROUND	
⊞		RECESSED LED TROFFER LIGHTING FIXTURE		Ⓜ	MOTOR	
○		SURFACE MOUNTED LED LIGHTING FIXTURE		⊞	EXHAUST FAN MOTOR	
⊞		RECESSED LED LIGHTING FIXTURE		Ⓜ	JUNCTION BOX	
⊞		WALL MOUNTED LIGHTING FIXTURE. SEE LIGHTING FIXTURE SCHEDULE	AS NOTED	Ⓜ	CONDUIT AND WIRE "MARK" NUMBER, REFER TO CONDUCTORS AND CONDUIT SCHEDULE FOR SIZE	
⊞		WALL MOUNTED EXIT SIGN. SHADE INDICATES FACES, PROVIDE CHEVRON DIRECTIONALS WHEN NEEDED	6" FROM CEILING TO TOP	Ⓜ	KITCHEN EQUIPMENT "MARK" NUMBER, REFER TO KITCHEN EQUIPMENT SCHEDULE FOR REQUIREMENTS	
⊞		CEILING MTD EXIT SIGN. SHADING INDICATES FACES. PROVIDE W/ CHEVRON DIRECTIONALS WHEN NEEDED		Ⓜ	NOTE NUMBER	
⊞		COMBO EXIT WITH TWO LAMPHEADS		Ⓜ	HOOD EXTINGUISHING FS PULL STATION	
⊞		WALL MTD EMERGENCY BATTERY PACK LIGHTING FIXTURE	AS NOTED	Ⓜ	SMOKE DETECTORS REMOTE STATUS INDICATOR W/ 1/2" C STUB-UP	
⊞		CEILING MTD EMERGENCY BATTERY PACK LIGHTING FIXTURE		Ⓜ	PUSHBUTTON	
⊞		FLUORESCENT STRIP LIGHTING FIXTURE		Ⓜ	BELL, TYPE AS NOTED ON PLANS	
⊞		WALLWASHER TYPE RECESSED DOWNLIGHT, AIM LIGHT TOWARD WALL		Ⓜ	PHOTO-ELECTRIC CELL	
⊞		RECESSED LIGHTING FIXTURE W/ EMERGENCY BATTERY PACK		Ⓜ	TRANSFORMER / DRIVER	
⊞		PENDANT LIGHTING FIXTURE	AS NOTED	Ⓜ	LOCKABLE SINGLE POLE SWITCH	
⊞		LIGHTING TRACK WITH TRACK HEADS		ABBREVIATIONS		
WIRING DEVICES						
⊞		120 VOLT DUPLEX RECEPTACLE, 20 AMPS U.O.N.	14" UON	AFB	ABOVE FINISHED FLOOR	
⊞		120 VOLT QUADRUPLEX RECEPTACLE, 20 AMPS U.O.N.	14" UON	AFG	ABOVE FINISHED GRADE	
⊞		120 VOLT SIMPLEX RECEPTACLE, 20 AMPS U.O.N.	14" UON	AHU	AIR HANDLING UNIT	
⊞		SINGLE SPECIAL PURPOSE RECEPT W/ VOLTS, AMPS, & PHASE AS NOTED, NEMA CONFIGURATION AS REQUIRED BY EQUIP.	14" UON	C	CONDUIT	
⊞		RECEPTACLE MOUNTED ON DROP CORD, 120 VOLT, 20 AMP, UON, OUTLET BOX FLUSH WITH CEILING		CL	CENTER-LINE	
⊞		SINGLE POLE TOGGLE SWITCH	48"	CT	CONTACTOR	
⊞		DOUBLE POLE TOGGLE SWITCH	48"	EF	EXHAUST FAN	
⊞		THREE WAY TOGGLE SWITCH	48"	FLA	FULL LOAD AMPS	
⊞		SWITCH WITH TIMER	48"	GF/GFI	GROUND FAULT CIRCUIT INTERRUPTER	
⊞		MANUAL MOTOR STARTER SWITCH (WP=NEMA 3R)	48"	GND/GRD	GROUND	
⊞		SWITCH WITH PILOT LIGHT (ON WHEN SWITCH IS ON)	48"	HT	HEIGHT	
⊞		KEY OPERATED SWITCH	48"	IG	ISOLATED GRD, PROVIDE ORANGE DEVICE WHEN ADJACENT TO WIRING DEVICE	
CONDUIT/RACEWAYS						
—		CONDUIT CONCEALED ABOVE CEILING OR IN WALL		MOCP	MAXIMUM OVER-CURRENT PROTECTION	
—		CIRCUIT HOMERUN TO PANELBOARD W/ MIN 2#12, 1#12G, 3/4" C		MUA	MAKE UP AIR UNIT	
—		CONDUIT TURNING UP		NEC	LOCALLY ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA 70)	
—		CONDUIT TURNING DOWN		NL	NIGHT LIGHT (ON 24 HOURS)	
—		CONDUIT CONCEALED IN OR BELOW SLAB (OR UNDERGROUND)		OC	ON CENTER	
—		FLEXIBLE LIGHT FIXTURE WHIP; SIX FOOT MAXIMUM LENGTH		POS	POINT OF SALE EQUIPMENT	
—		METAL CLAD CABLE ASSEMBLY - ONLY WHERE INDICATED ON DWGS OR SPECS		RTU	ROOF TOP UNIT	
DISTRIBUTION EQUIPMENT						
⊞		NON-FUSIBLE SAFETY SWITCH, SIZE AND TYPE AS NOTED ON PLANS (AMP/POLES/ENCLOSURE) OR ON SCHEDULE. NEMA 1 ENCLOSURE UNLESS NOTED WP FOR NEMA 3R ENCLOSURE.	6'-6" *	TB	TERMINAL BLOCK	
⊞		FUSIBLE SAFETY SWITCH, SIZE & TYPE AS NOTED ON PLANS (AMP/POLES/FUSE AMPS/ENCLOSURE) OR ON SCHEDULE. NEMA 1 ENCLOSURE UNLESS NOTED WP FOR NEMA 3R.	6'-6" *	TL	TWIST-LOCK TYPE DEVICE	
⊞		FLUSH MOUNTED LIGHTING PANELBOARD	6'-6" *	TR	TAMPER-RESISTANT	
⊞		SURFACE MOUNTED LIGHTING PANELBOARD	6'-6" *	UON	UNLESS OTHERWISE NOTED	
* 6'-6" DISTANCE IS TO TOP-MOST DISCONNECTING DEVICE OR HIGHEST POSITION OF OPERATING HANDLE OF DISCONNECTING DEVICE						
TELEPHONE						
⊞		TELEPHONE OUTLET	18" UON	⊞	TELEPHONE OUTLET AT SPECIAL MOUNTING HEIGHT	60" UON
NOTE: EACH TELEPHONE OUTLET (FLOOR OR WALL MOUNTED) SHALL BE PROVIDED WITH A 3/4" EMPTY CONDUIT, WITH PULL WIRE, TO ACCESSIBLE CEILING SPACE.						
CCTV / SECURITY SYSTEM						
⊞		SECURITY ALARM KEYPAD				
⊞		SECURITY SYSTEM KEY NOTE				



Chick-fil-A

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CHICK-FIL-A
I-75 & MILLER ROAD
3140 MILLER ROAD
FLINT TOWNSHIP, MI 48503

FSR#05198

BUILDING TYPE / SIZE: P14 LE ALL
RELEASE: 22.08
PRINTED FOR
ISSUED FOR CONSTRUCTION

REVISION	SCHEDULE	NO.	DATE	DESCRIPTION

CONSULTANT PROJECT # 202223.23
DATE 12/07/22
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ELECTRICAL SCHEDULES AND DETAILS
SHEET NO. 1
SHEET NUMBER

E-001