

**1 BELOW SLAB PLUMBING PLAN**  
SCALE: 1/4"=1'-0"

**PLUMBING KEY NOTES**

- 1 CONNECT TO EXISTING WASTE LINE AS INDICATED, VERIFY FALL, FLOW DIRECTION AND CONNECTING INVERTS.
- 2 PROVIDE NEW 2" VENT IN WALL. MAKE FINAL PLUMBING MODIFICATIONS.

**2. SHEET NOTES**

- 1 COORDINATE INSTALLATION OF SANITARY PIPING WITH FOOTINGS IN THE FIELD. SLEEVE PENETRATIONS IN FOOTINGS WITH PVC.
- 2 WHERE REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION, PROVIDE SAFE-WASTE SYSTEM AS OUTLINED IN STATE AND LOCAL CODE AMENDMENTS.
- 3 ALL VENT PIPING TO BE 1/2" DIAMETER UNQ. SEE (F5) FOR VENT LAYOUT.

**LEGEND**

- ⊕ EXISTING
- ⊖ NEW
- ⊙ RELOCATED
- ⊘ DEMOLISHED
- FS FLOOR SINK
- HS HAND SINK
- FD FLOOR DRAIN
- HD HLB DRAIN
- ▨ PIPING TO BE REMOVED
- POINT OF DISCONNECTION
- ⊕ POINT OF CONNECTION
- ⊗ KITCHEN EQUIPMENT TAG

**FIELD VERIFY ALL CONDITIONS**

NOTE: AS NOTED IN THE SPECIFICATIONS, ALL WIRING LAYOUTS, PIPING LAYOUTS AND DUCT LAYOUTS ARE SCHEMATIC. EXACT LOCATIONS SHALL BE DETERMINED BY THE CONSTRUCTION AND STRUCTURE OF THE BUILDING AND SHALL BE VERIFIED AND COORDINATED IN THE FIELD. EACH TRADE CONTRACTOR SHALL VERIFY WITH THE GENERAL CONTRACTOR THAT HE HAS THOROUGHLY REVIEWED AND COORDINATED ALL LOCATIONS AND ROUTINGS WITH ALL OTHER TRADES PRIOR TO FABRICATION OF CONDUITS, DUCTS, OR PIPING, AND START OF INSTALLATION OF SAME (INCLUDING SPRINKLER PIPING WHEN PRESENT ON JOB). ANY INSTALLATION OR CONSTRUCTION CONFLICTS WHICH OCCUR IN THE FIELD SHALL BE RESOLVED BY THE TRADE CONTRACTOR TO THE SATISFACTION OF THE OWNER AND ARCHITECT AND AT NO EXPENSE TO THE OWNER, ARCHITECT AND/OR GENERAL CONTRACTOR.

THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BE IMPLEMENTED AT CONTRACTORS COST.

BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES. THE PLANS AND SPECIFICATIONS NOT WITHSTANDING, THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.



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

TAN VU  
ARCHITECT

220 E. CENTRAL PKWY, STE 4000  
ALTIMONTE SPRINGS, FL 32701  
407.645.5008

SEAL:



**CHICK-FIL-A**  
**HATTIESBURG**

**6099 US HIGHWAY 98**  
**HATTIESBURG, MS 39402**

**FSU#01613**

BUILDING TYPE / SIZE: S04-152

RELEASE: PRINTED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
2	08/07/23	COORDINATION REVISIONS

CONSULTANT PROJECT #	2022.1062
DATE	MAY 2023
DRAWN BY	AE
CHECKED BY	DAK

Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from the project manager.

SHEET  
**BELOW SLAB PLUMBING PLAN**  
SHEET NUMBER

**P1.1**

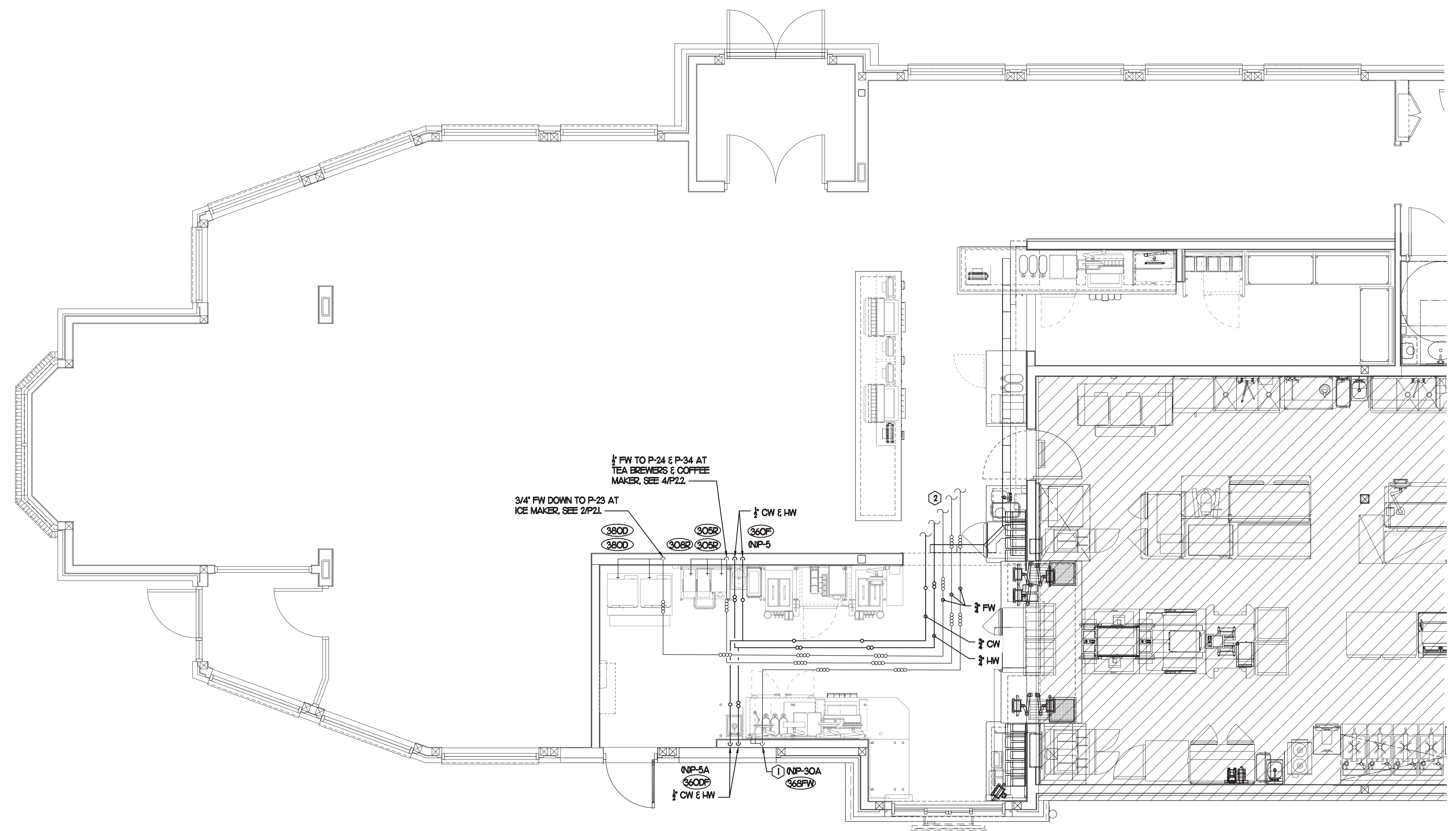


**Chick-fil-A**  
 Chick-fil-A  
 5200 Buffington Road  
 Atlanta, Georgia  
 30349-2998

TAN VU  
 ARCHITECT

220 E. CENTRAL PKWY, STE 4000  
 ALTAMONTE SPRINGS, FL 32701  
 407.645.5008

SEAL:



**1 WATER PIPING PLAN**  
 SCALE: 1/4" = 1'-0"

**KEY NOTES**

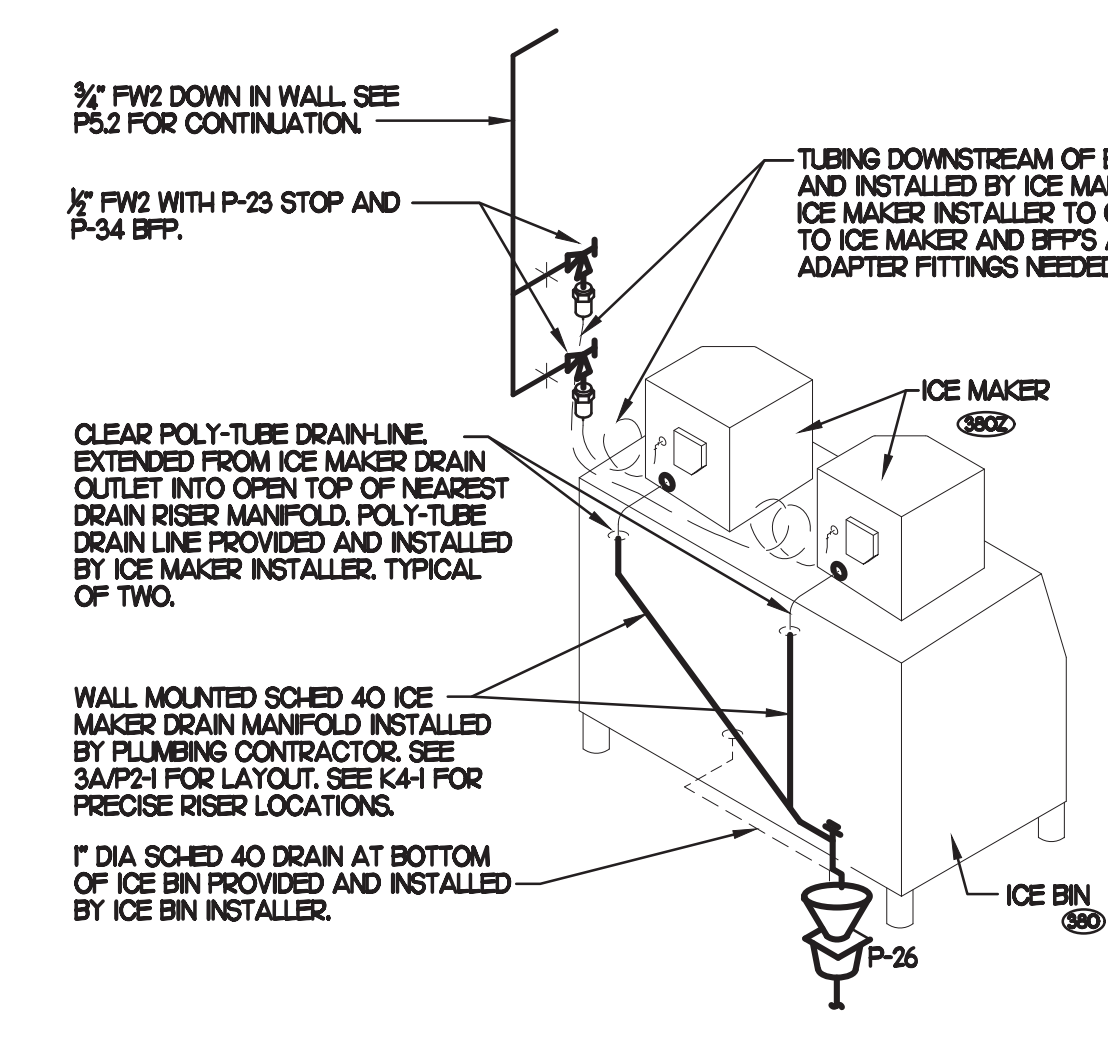
- ① 3/4" FW DROP TO TWO-HANDLE FAUCET, P-30. MOUNT FAUCET ON WALL. SEE K-SHEETS FOR EXACT LOCATION. PIPE 1/2" FW TO EACH FAUCET INLET WITH 6" SPREAD. PROVIDE BALL VALVE ABOVE CEILING.
- ② CONNECT TO EXISTING WATER LINE AS INDICATED.

**3. SHEET NOTES**

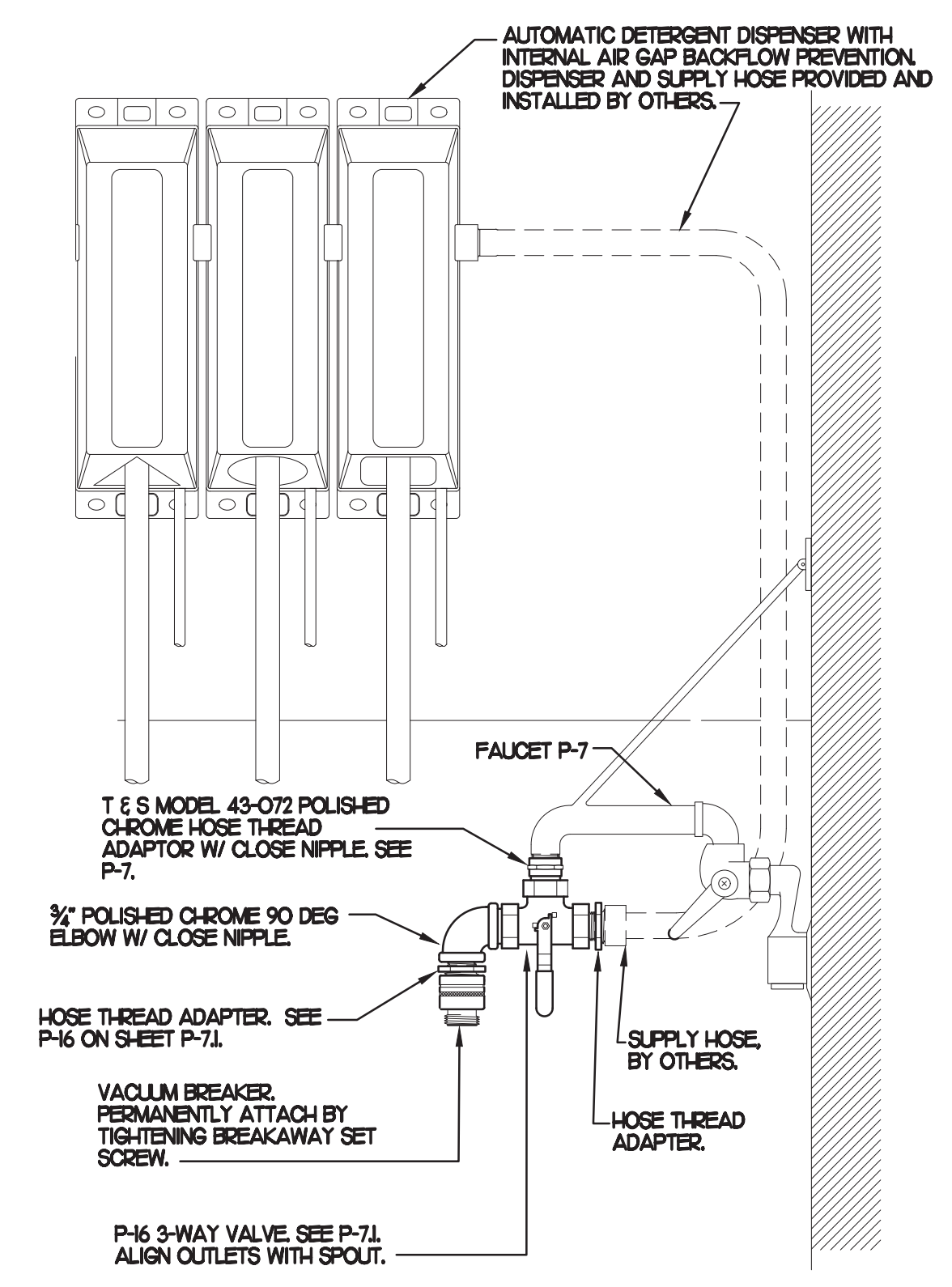
- 1. HOLD ALL PIPING ABOVE THE CEILING TIGHT TO STRUCTURE. DUCT LOCATIONS TAKE PRIORITY. SEE DRAWING MJ FOR DUCT LAYOUT. COORDINATE CONFLICTS WITH GC.
- 2. SEE K-SHEET ELEVATIONS FOR KITCHEN EQUIPMENT LOCATIONS.
- 3. SEE SHEET P-22 FOR BEVERAGE CONDUIT PIPING.
- 4. SEE RISER DIAGRAM I/PSJ FOR VENT PIPING.
- 5. 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 PLUMBER'S CONTRACTOR'S EXPENSE IF PIPING OBSTRUCTS THE M-SHEET DUCT LAYOUT AS SHOWN OR PREVENTS ACCESS TO GREASE DUCT CLEANOUT OPENINGS.

**LEGEND**

Ⓧ	EXISTING		PIPING TO BE REMOVED
(N)	NEW		
(R)	RELOCATED		
(D)	DEMOLISHED		
FS	FLOOR SINK		POINT OF DISCONNECTION
HS	HAND SINK		POINT OF CONNECTION
FD	FLOOR DRAIN		KITCHEN EQUIPMENT TAG
HD	HUB DRAIN		



**2 ICE MACHINE PIPING**  
 NO SCALE



**3 3-WAY VALVE AT MOP SINK**  
 NO SCALE

**CHICK-FIL-A**  
 HATTIESBURG  
 6099 US HIGHWAY 98  
 HATTIESBURG, MS 39402

**FSU#01613**

BUILDING TYPE / SIZE: S04-152

RELEASE: PRINTED FOR CONSTRUCTION

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

CONSULTANT PROJECT # 2022.1062  
 DATE MAY 2023  
 DRAWN BY AE  
 CHECKED BY DAK

Information contained on this drawing and in all digital files provided for above named project may not be reproduced in any manner without express written or verbal consent from the project owner.

SHEET WATER PIPING PLAN & DETAILS  
 SHEET NUMBER



**Chick-fil-A**  
Chick-fil-A

5200 Buffington Road  
Atlanta, Georgia  
30349-2998

TAN VU  
ARCHITECT

220 E. CENTRAL PKWY, STE 4000  
ALTIMONTE SPRINGS, FL 32701  
407.645.5008

SEAL:



**CHICK-FIL-A**  
HATTIESBURG

6099 US HIGHWAY 98  
HATTIESBURG, MS 39402

**FSU#01613**

BUILDING TYPE / SIZE: S04-152

RELEASE:

PRINTED FOR

CONSTRUCTION

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

CONSULTANT PROJECT # 2022-1062

DATE MAY 2023

DRAWN BY AE

CHECKED BY DAK

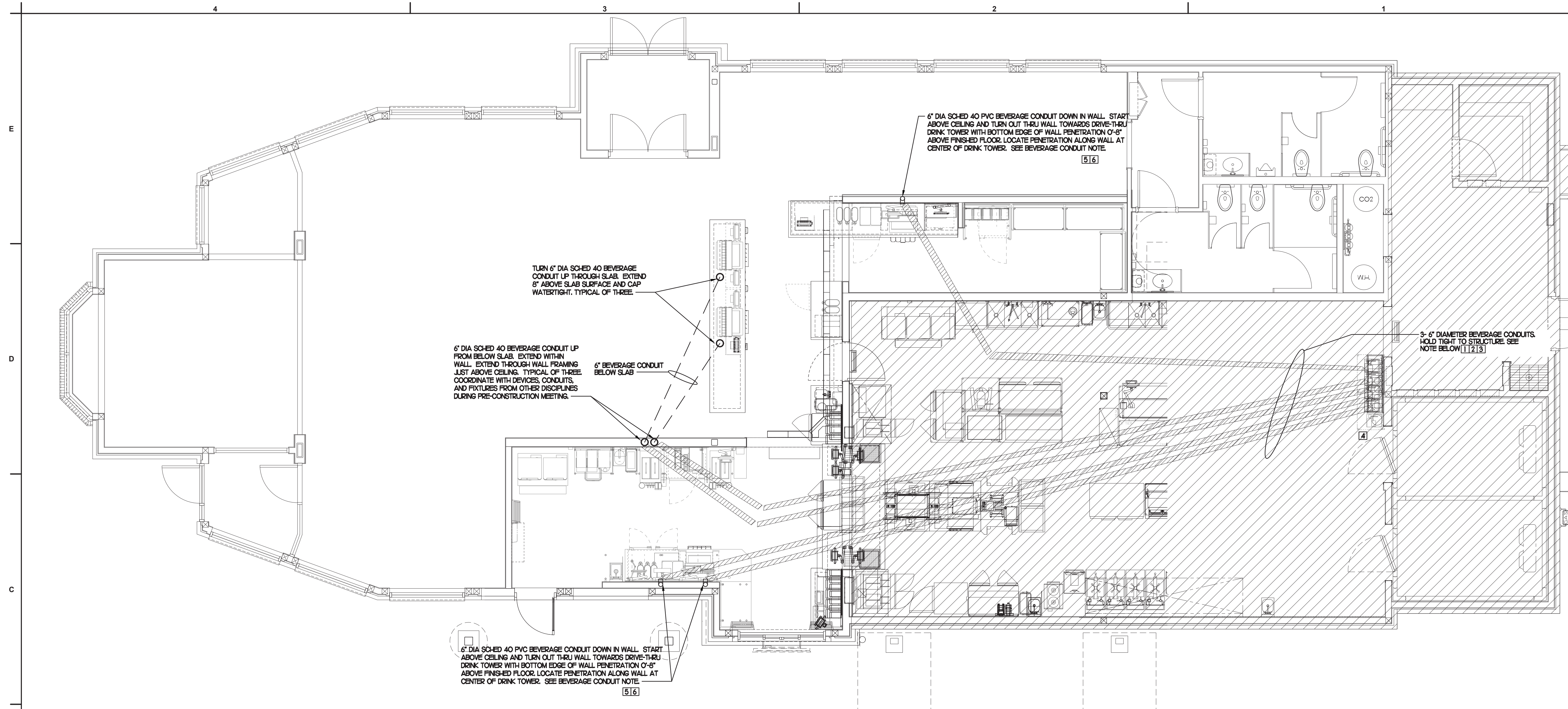
Information contained on this drawing and in all digital files provided for above named project may not be reproduced in any manner without express written or verbal consent from the project professional.

SHEET

PLUMBING DETAILS & BEVERAGE CONDUIT

SHEET NUMBER

**P2.2**

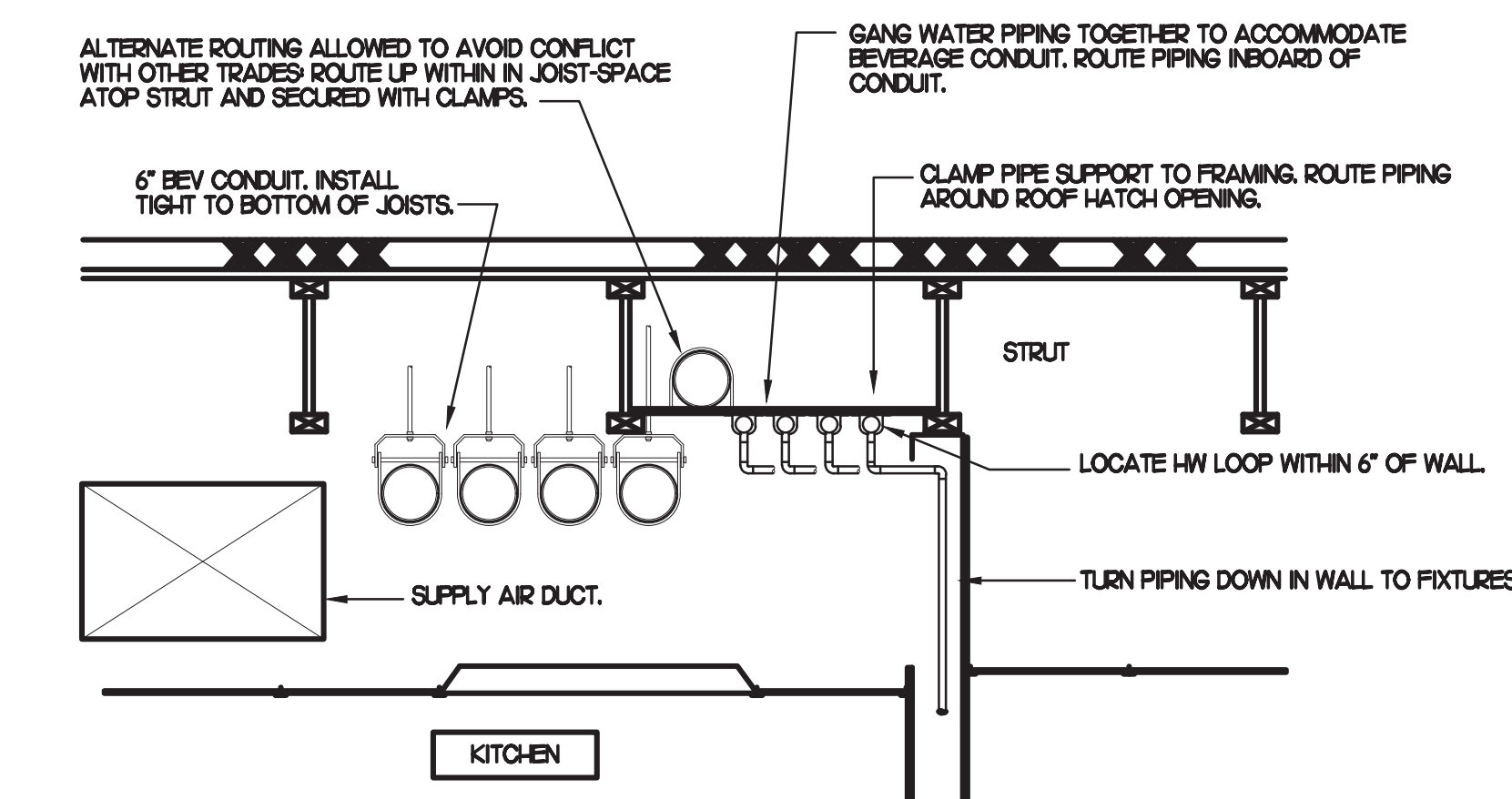


**1 BEVERAGE CONDUIT PLAN**  
1/4"=1'-0"

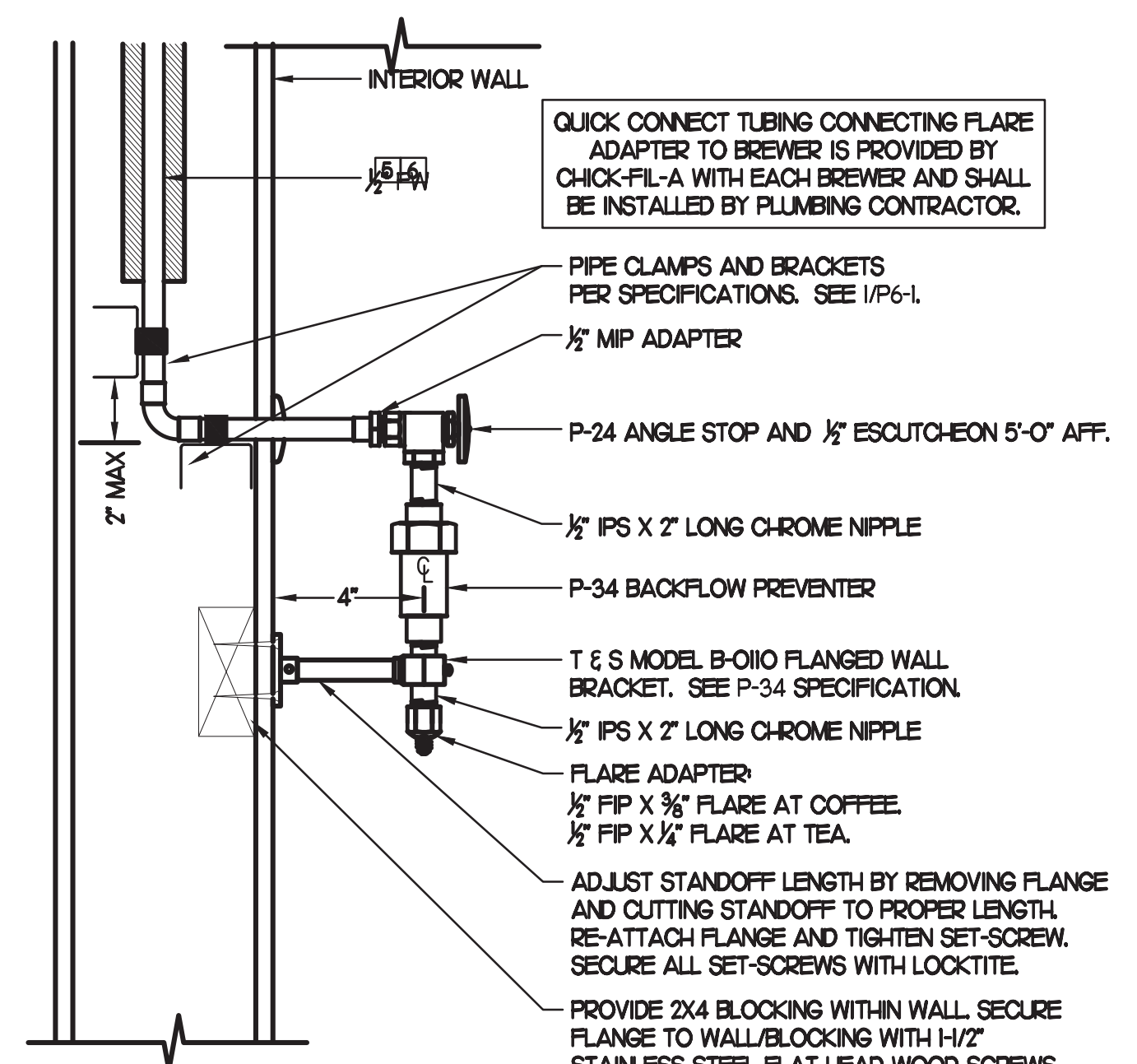
**BEVERAGE CONDUIT NOTES**

- ROUTE BEVERAGE SYSTEM PIPING OVERHEAD FROM THE BEVERAGE RACK TO DRINK TOWERS IN 6" DIA. SCH. 40 PVC CONDUITS. ALL CONDUIT SHALL BE HELD TIGHT TO STRUCTURE AND SUPPORTED WITH THREADED ROD AND CLEVIS HANGERS AT INTERVALS SHOWN IN SPECIFICATIONS FOR HORIZONTAL OVER-HEAD PIPING. COORDINATE ROUTING WITH THE GENERAL CONTRACTOR TO AVOID MECHANICAL AND ELECTRICAL SYSTEMS.
- COORDINATE ROUTING OF ALL CONDUITS WITH HVAC DUCT IN KITCHEN.
- 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.
- EXISTING BIB RACK WITH CARBONATORS AND PUMPS.
- AT CONDUIT DROPS IN DRIVE-THRU AND SERVING AREA, PROVIDE 1/8TH BEND FITTINGS WITH SHORT PIPE STUB AT BASE OF DROP. CUT STUB AND FITTING FLUSH WITH FINISHED WALL.
- FOR BEVERAGE CONDUIT DROPS AT WALLS WITH SHEATHING, PROVIDE APPROPRIATE FITTING TO EXTEND TOP OF PIPE DROP BEYOND FACE OF SHEATHING.

**NOTE**  
ALL BEVERAGE CONDUIT LAYOUTS ARE SCHEMATIC. EXACT LOCATIONS SHALL BE DETERMINED BY THE CONSTRUCTION AND STRUCTURE OF THE BUILDING AND SHALL BE VERIFIED AND COORDINATED IN THE FIELD TO REVIEW ALL NEW & EXISTING EQUIPMENTS. EACH TRADE CONTRACTOR SHALL VERIFY WITH THE GENERAL CONTRACTOR THAT HAS THOROUGHLY REVIEWED AND COORDINATED ALL LOCATIONS AND ROUTINGS WITH ALL OTHER TRADES PRIOR TO INSTALLATION & FABRICATION OF CONDUITS, DUCTS, OR PIPING. RUN BEVERAGE CONDUITS AS STRAIGHT AS POSSIBLE AVOIDING EXISTING STRUCTURE, PIPING, DUCTS, & ALL EQUIPMENTS. ANY INSTALLATION OR CONSTRUCTION CONFLICTS WHICH OCCUR IN THE FIELD SHALL BE RESOLVED BY THE TRADE CONTRACTOR TO THE SATISFACTION OF THE OWNER AND ARCHITECT AND AT NO EXPENSE TO THE OWNER, ARCHITECT AND/OR GENERAL CONTRACTOR.



**3 SECTION AT WET WALL**  
SCALE: NONE



**2 COFFEE & TEA BREWER STOP & BFP**  
SCALE: NONE



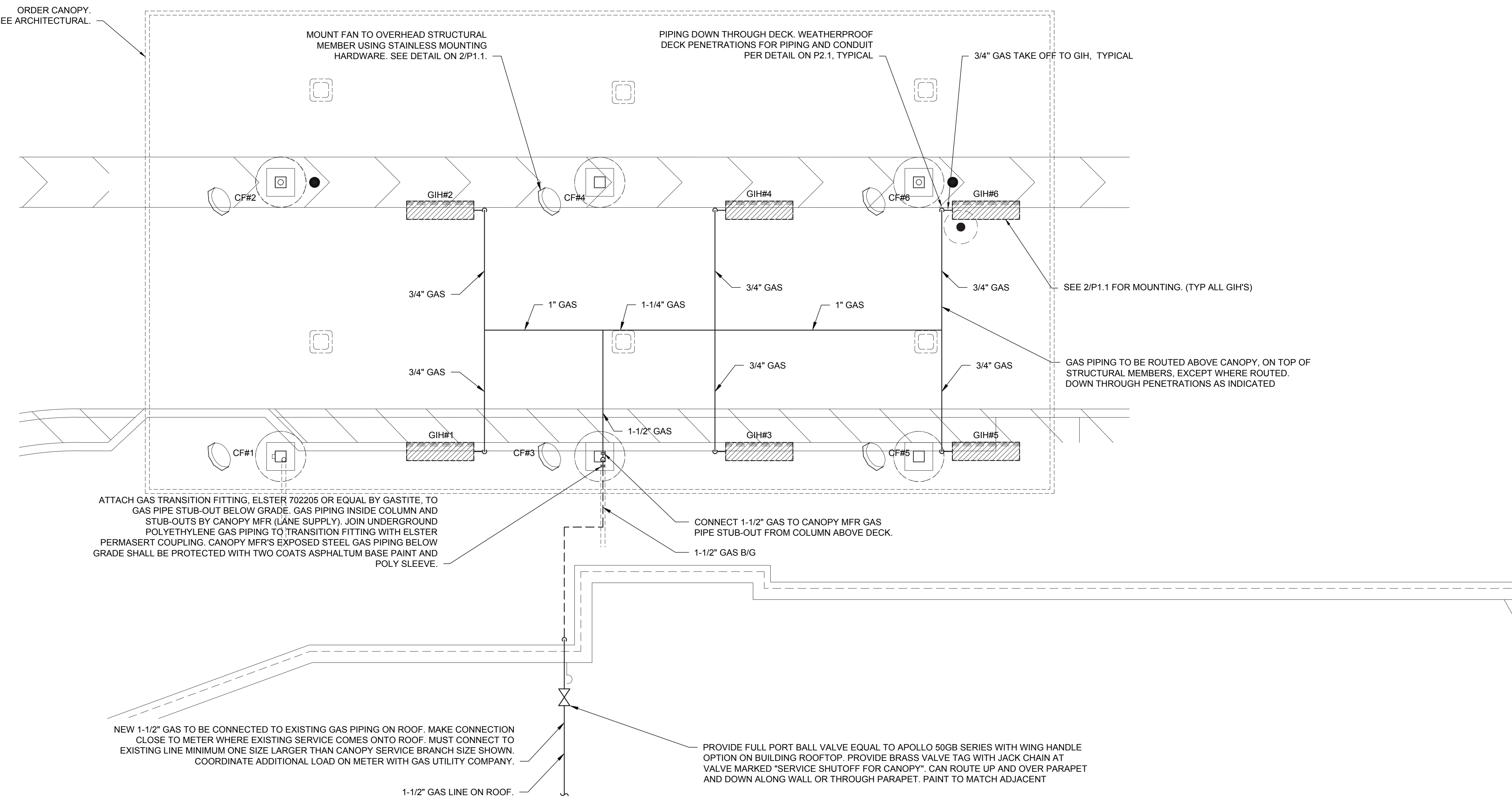
**Chick-fil-A**  
Chick-fil-A

5200 Buffington Road  
Atlanta, Georgia  
30349-2998

TAN VU  
ARCHITECT

220 E. CENTRAL PKWY, STE 4000  
ALBANY, MISSISSIPPI 38001  
407.645.5008

SEAL:



**1 GAS PLAN - F2F CANOPY**  
1/4" = 1'-0"

IF REQUIRED BY AHJ, PROVIDE A SIGN STATING "EMERGENCY GAS SHUTOFF ON ROOF", AND LOCATE PER AHJ'S DIRECTION

**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. USE ANTI-CORROSIVE PAINT AND COORDINATE WITH CFA CONSTRUCTION MANAGER.

**FIELD VERIFY ALL CONDITIONS**

NOTE! AS NOTED IN THE SPECIFICATIONS, ALL WIRING LAYOUTS, PIPING LAYOUTS AND DUCT LAYOUTS ARE SCHEMATIC. EXACT LOCATIONS SHALL BE DETERMINED BY THE CONSTRUCTION AND STRUCTURE OF THE BUILDING AND SHALL BE VERIFIED AND COORDINATED IN THE FIELD. EACH TRADE CONTRACTOR SHALL VERIFY WITH THE GENERAL CONTRACTOR THAT HE HAS THOROUGHLY REVIEWED AND COORDINATED ALL LOCATIONS AND ROUTINGS WITH ALL OTHER TRADES PRIOR TO FABRICATION OF CONDUITS, DUCTS, OR PIPING, AND START OF INSTALLATION OF SAME (INCLUDING SPRINKLER PIPING WHEN PRESENT ON JOB). ANY INSTALLATION OR CONSTRUCTION CONFLICTS WHICH OCCUR IN THE FIELD SHALL BE RESOLVED BY THE TRADE CONTRACTOR TO THE SATISFACTION OF THE OWNER AND ARCHITECT AND AT NO EXPENSE TO THE OWNER, ARCHITECT AND/OR GENERAL CONTRACTOR.

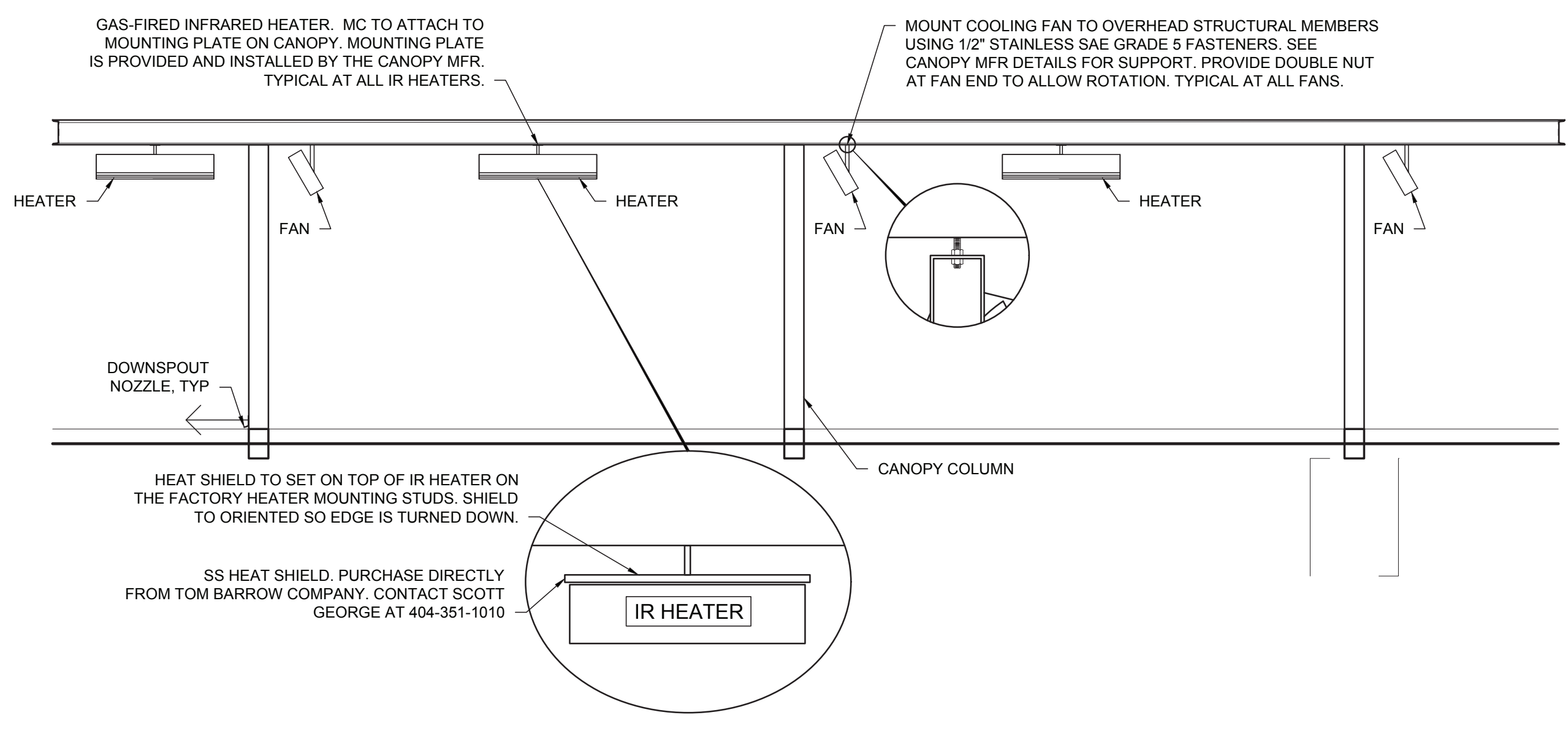
THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BE IMPLEMENTED AT CONTRACTOR'S COST.

BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES. THE PLANS AND SPECIFICATIONS NOT WITHSTANDING, THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

**NATIONAL ACCOUNTS**

- SCHWANK INFRARED HEATER PACKAGE - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE HEATER PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. HEATERS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
- COOK FAN PACKAGE - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. FANS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

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



**2 HEATER FAN SECTION**  
NO SCALE

**CHICK-FIL-A**  
HATTIESBURG  
6099 US HIGHWAY 98  
HATTIESBURG, MS 39402

**FSU#01613**

BUILDING TYPE / SIZE:	S04-152	
RELEASE:		
PRINTED FOR:	CONSTRUCTION	
REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

CONSULTANT PROJECT #	2022.1062
DATE	MAY 2023
DRAWN BY	AE
CHECKED BY	DAK
Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from the project manager.	
SHEET PLUMBING PLAN	
SHEET NUMBER	

**P4.2**

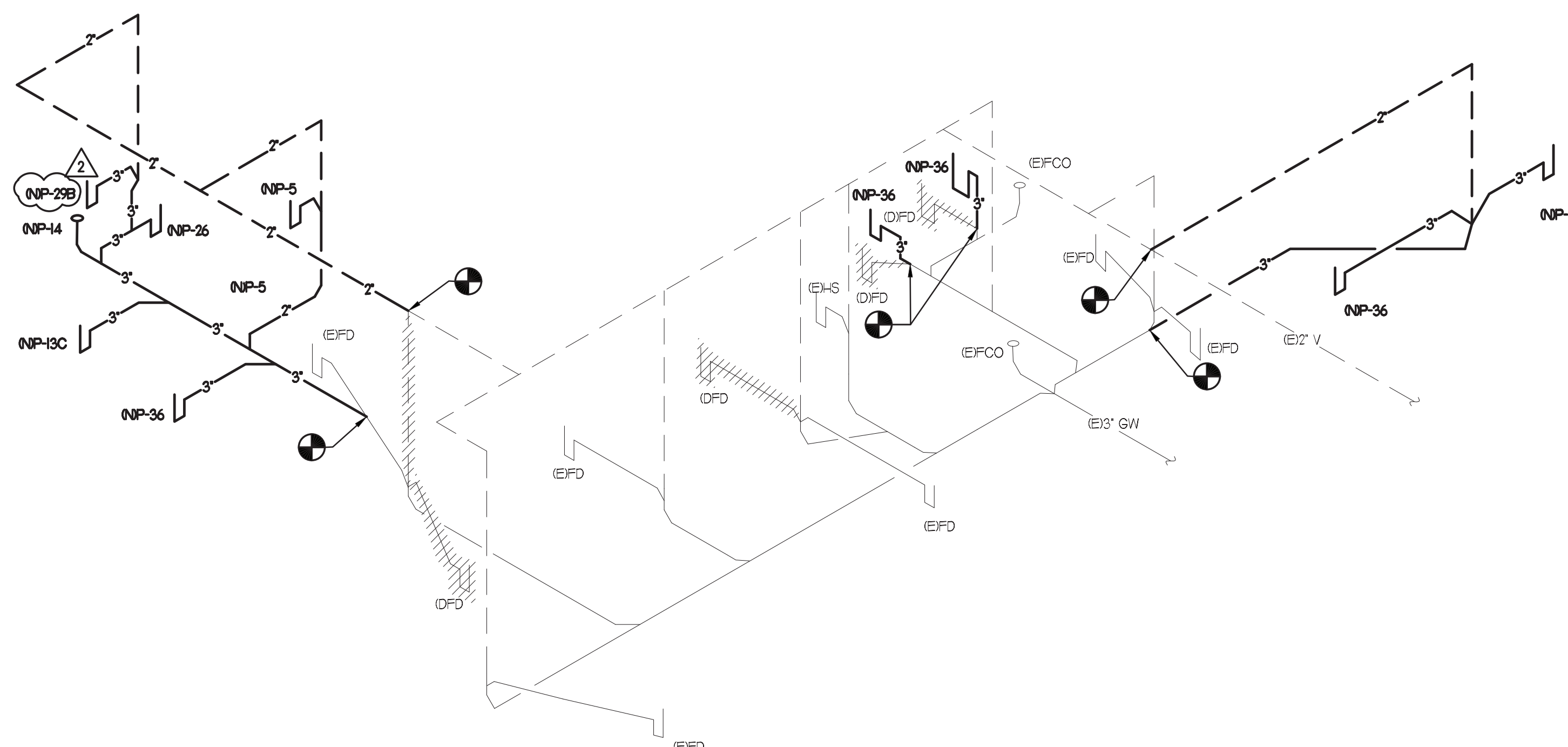


PIPING LEGEND	
EXISTING BELOW SLAB PIPING	---
VENT	- - - - -
SANITARY, GREASE WASTE	---

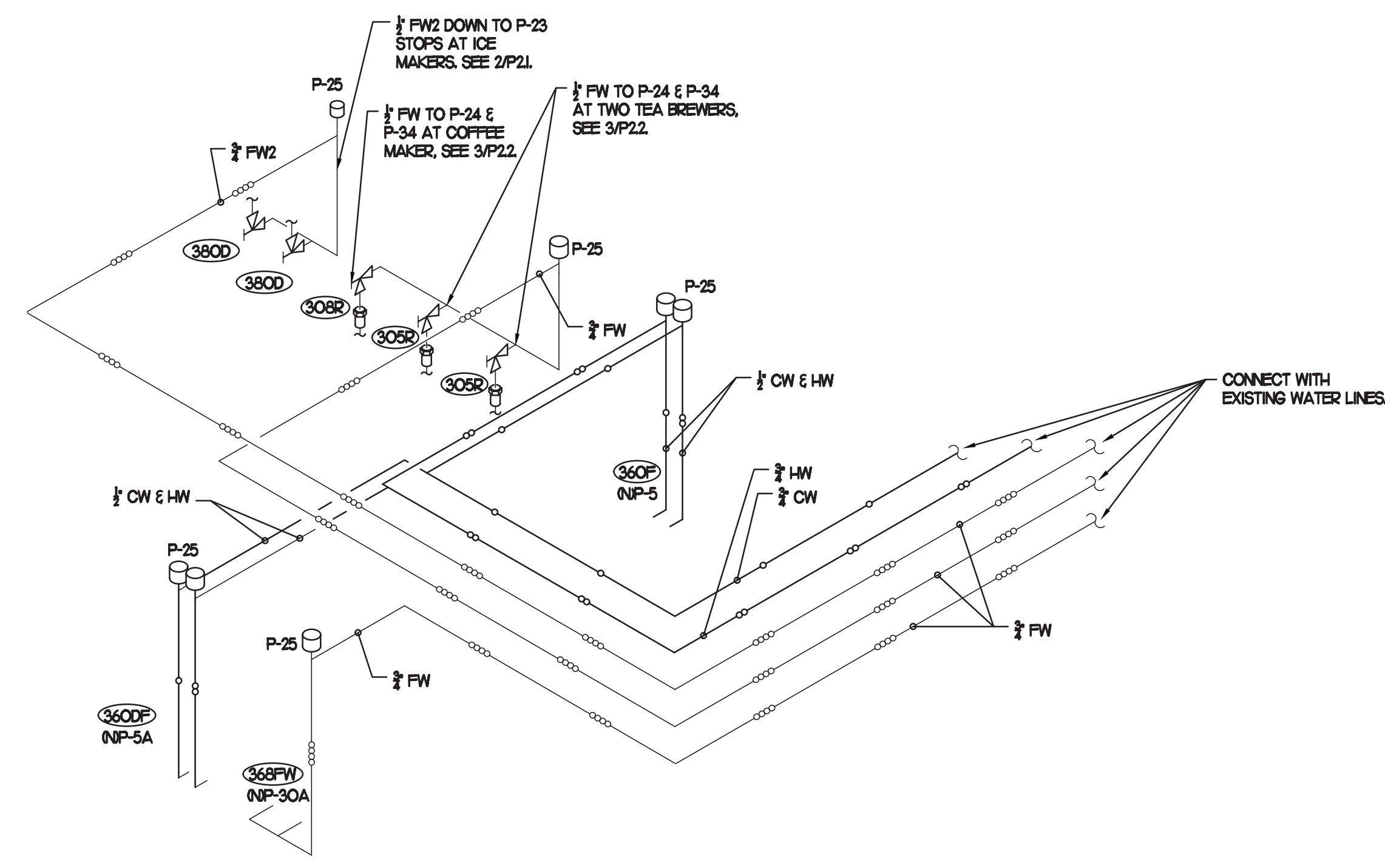
⊗ KITCHEN EQUIPMENT NO. SEE KITCHEN EQUIPMENT SCHEDULE FOR EQUIPMENT DESCRIPTIONS.

PIPING LEGEND	
CW - COLD WATER	—○—
HW - HOT WATER	—●—
TW - TEMPERED WATER	—○—
FW - FILTERED WATER, TO P-30, CARBONATORS, COFFEE, AND TEA	—○—
EXISTING PIPING	---

⊗ KITCHEN EQUIPMENT NO. SEE KITCHEN EQUIPMENT SCHEDULE FOR EQUIPMENT DESCRIPTIONS.



**1 WASTE RISER DIAGRAM**  
NO SCALE



**2 WATER RISER DIAGRAM**  
NO SCALE



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

TAN VU  
ARCHITECT

220 E. CENTRAL PKWY, STE 4000  
ALTIMONTE SPRINGS, FL 32701  
407.645.5008

SEAL:



**CHICK-FIL-A**  
HATTIESBURG

6099 US HIGHWAY 98  
HATTIESBURG, MS 39402

**FSU#01613**  
S04-152

RELEASE: PRINTED FOR CONSTRUCTION

REVISION SCHEDULE		
NO.	DATE	DESCRIPTION
2	08/07/23	COORDINATION REVISIONS

CONSULTANT PROJECT # 2022.1062  
DATE MAY 2023  
DRAWN BY AE  
CHECKED BY DAK

Information contained on this drawing and in all digital files provided for above named project may not be reproduced in any manner without express written or verbal consent from the project owner.  
PLUMBING RISERS

SHEET NUMBER

**P5.1**



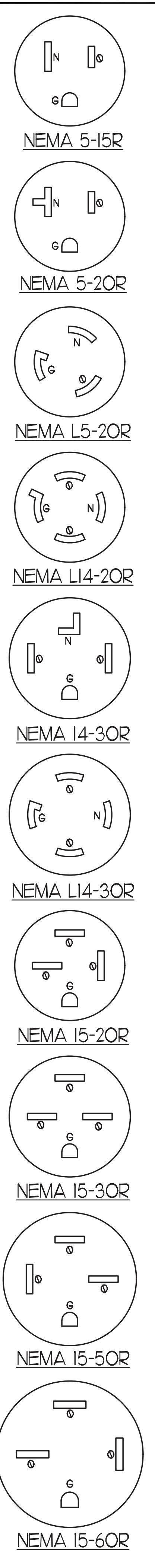
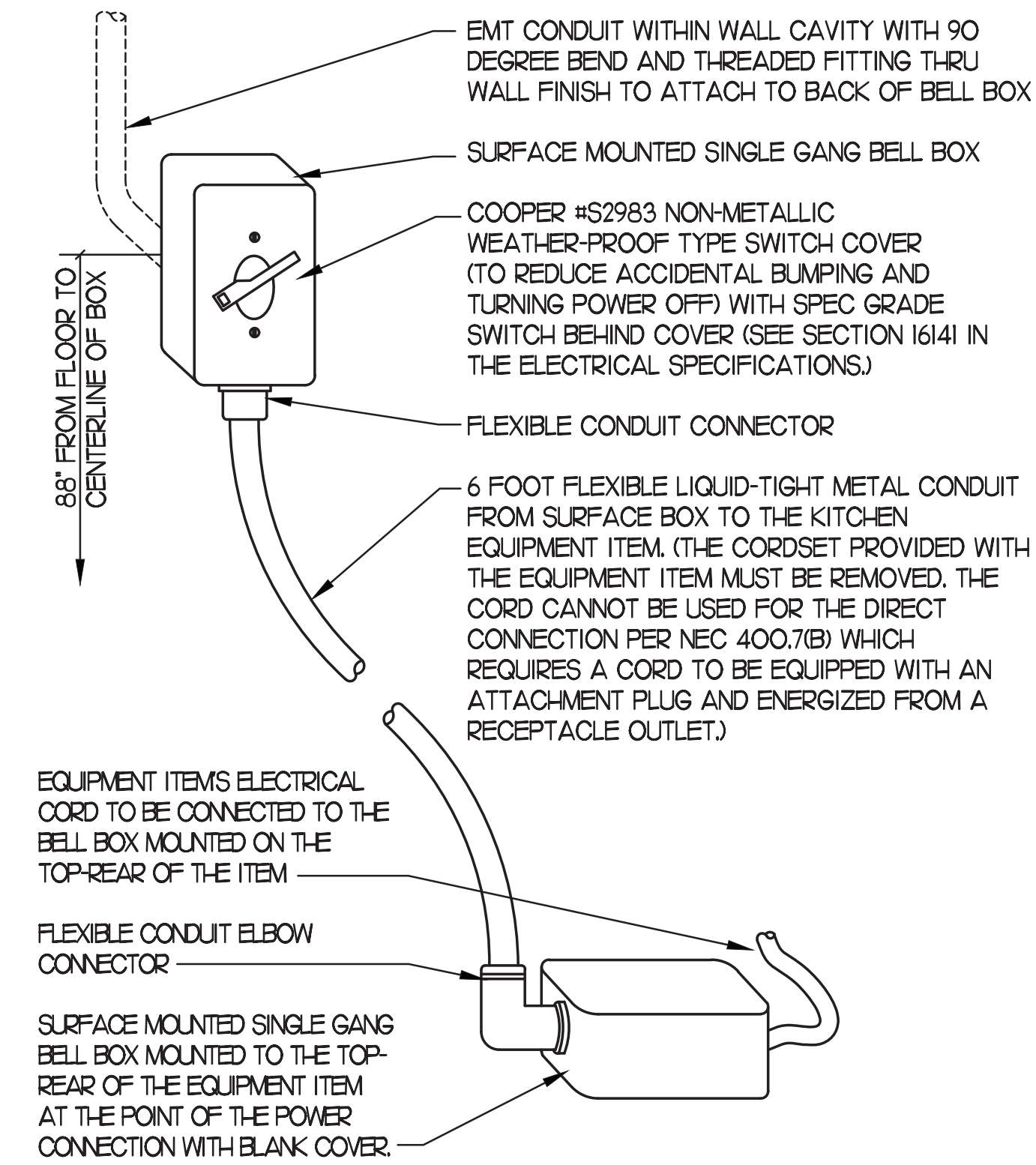






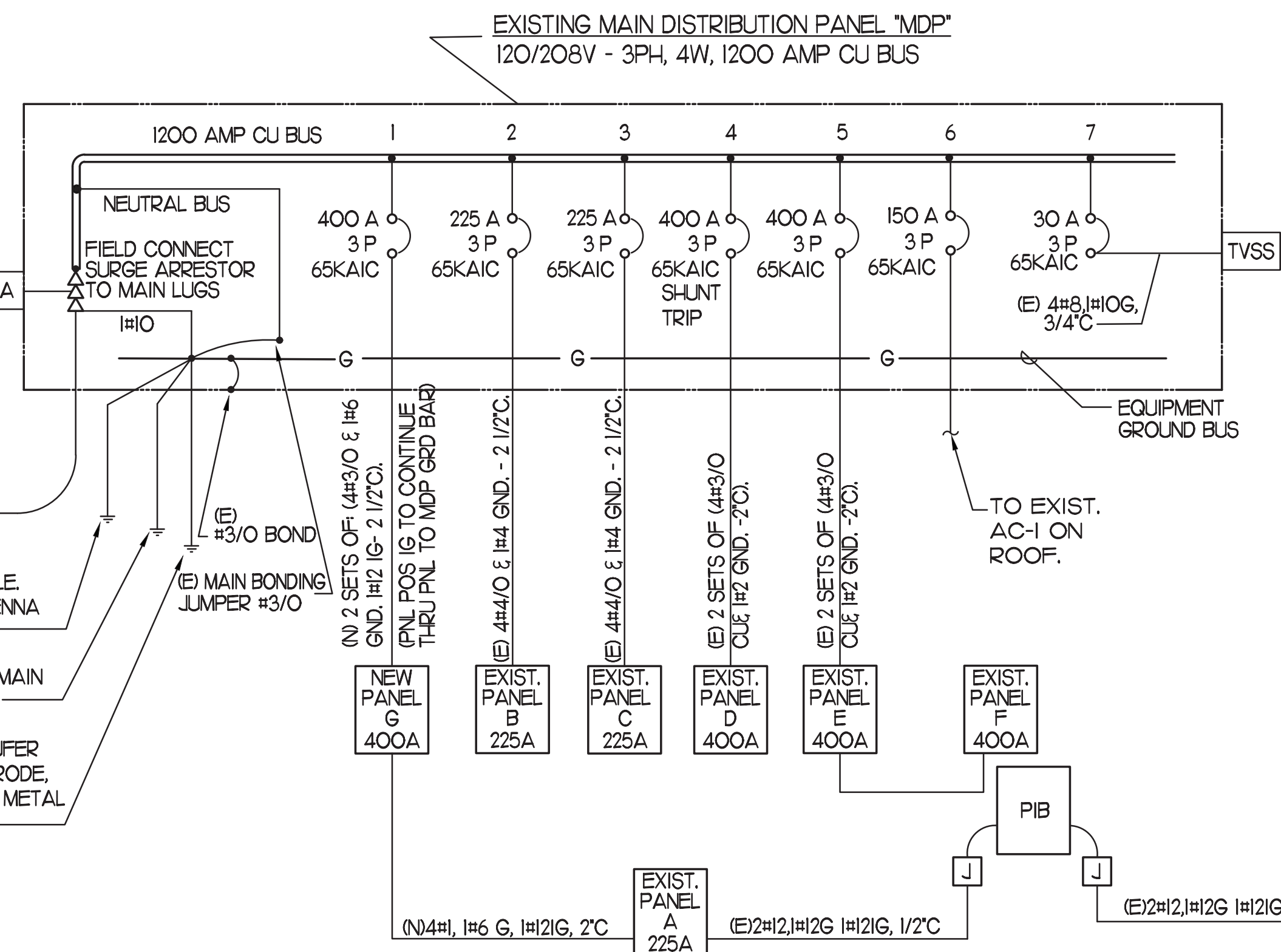
# 1 KITCHEN EQUIPMENT SCHEDULE - CHICK-FIL-A 508-V8.2 EDITION

REQ UIR ES IG/ GF WIRI NG	ITEM NO.	EQUIPMENT	MANUFACTURER	ELECTRICAL					NEMA CONFIG	COOPER/ARR OW HART (UON) RECEPT CAT. NO.	Wire/Conduit MARK NO.	(ALL ITEMS BY CHICK-FIL-A UNLESS OTHERWISE NOTED)
				VOLT	PH	WI RES	KW	AMP				
	180R	ORDER REGISTER	EQUIPMENT TO BE REUSED/RELOCATED						VERIFY			
	182LR	LABEL PRINTER	EQUIPMENT TO BE REUSED/RELOCATED						VERIFY			
	182R	RECEIPT PRINTER	EQUIPMENT TO BE REUSED/RELOCATED						VERIFY			
	183R	ORDER MONITOR	EQUIPMENT TO BE REUSED/RELOCATED						VERIFY			
	190R	DRIVE-THRU VIDEO MONITOR	EQUIPMENT TO BE REUSED/RELOCATED						VERIFY			
	300AR	MILKSHAKE BASE DISPENSER	EQUIPMENT TO BE REUSED/RELOCATED						VERIFY			
	315WR	10-HEAD BVG. DISPENSER W/ ICE BIN	EQUIPMENT TO BE REUSED/RELOCATED						VERIFY			
	305R	TEA BREWER	EQUIPMENT TO BE REUSED/RELOCATED						VERIFY			
	308R	SINGLE COFFEE MAKER	EQUIPMENT TO BE REUSED/RELOCATED						VERIFY			
	310R	DOUBLE LEMONADE BUBBLER	EQUIPMENT TO BE REUSED/RELOCATED						VERIFY			
	300XR	DOUBLE BARREL ICE CREAM MACHINE	EQUIPMENT TO BE REUSED/RELOCATED						VERIFY			
	421R	DOUBLE UNDERCOUNTER REFRIGERATOR	EQUIPMENT TO BE REUSED/RELOCATED						VERIFY			
	211BR	FLY SYSTEM	EQUIPMENT TO BE REUSED/RELOCATED						VERIFY			
	182L	LABEL PRINTER	EPSON MODEL #TM-L90	24	1	1		1.7	5-20P			
	310	DOUBLE LEMONADE BUBBLER	CRATHCO MODEL #CS-2D-16	120	1	1		8.5				
	380D	ICE MACHINE	FOLLETT MODEL #HMF1810RBT	115	1	1	0.368	5				
	420L	SINGLE UNDERCOUNTER REFRIGERATOR	TRAUlsen MODEL #UHT27-ZCF	115	1	1	0.564	4.7	5-20P			
	404	UNDERCOUNTER FREEZER (27")	TRAUlsen MODEL #ULT27-ZCF-R	115	1	1		8				
	300X	DOUBLE BARREL ICE CREAM M.	TAYLOR MODEL #079333BWDC (AIR COOLED)	208	3	3		19/ 15	15-30P/ 15-20P			
	F180	FUTURE ORDER REGISTER	NCR MODEL #P1230	120	1	1		0.7	5-20P			
	F182	FUTURE RECEIPT PRINTER	EPSON MODEL #TM-T88IV	24	1	1		1.8	5-20P			



## 5 SINGLE LINE DIAGRAM NOTES

- GROUND ALL EQUIPMENT AND SERVICES IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE, LOCAL APPLICABLE CODES, AND ALSO AS INDICATED ON DRAWINGS.
- 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.
  - CONDUCTORS #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 BLACK-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 UL 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, EMT, OR RIGID. FLEXIBLE CONDUIT MAY ONLY BE USE FOR FINAL CONNECTIONS AND WITH GREEN EQUIPMENT GROUNDING CONDUCTOR.

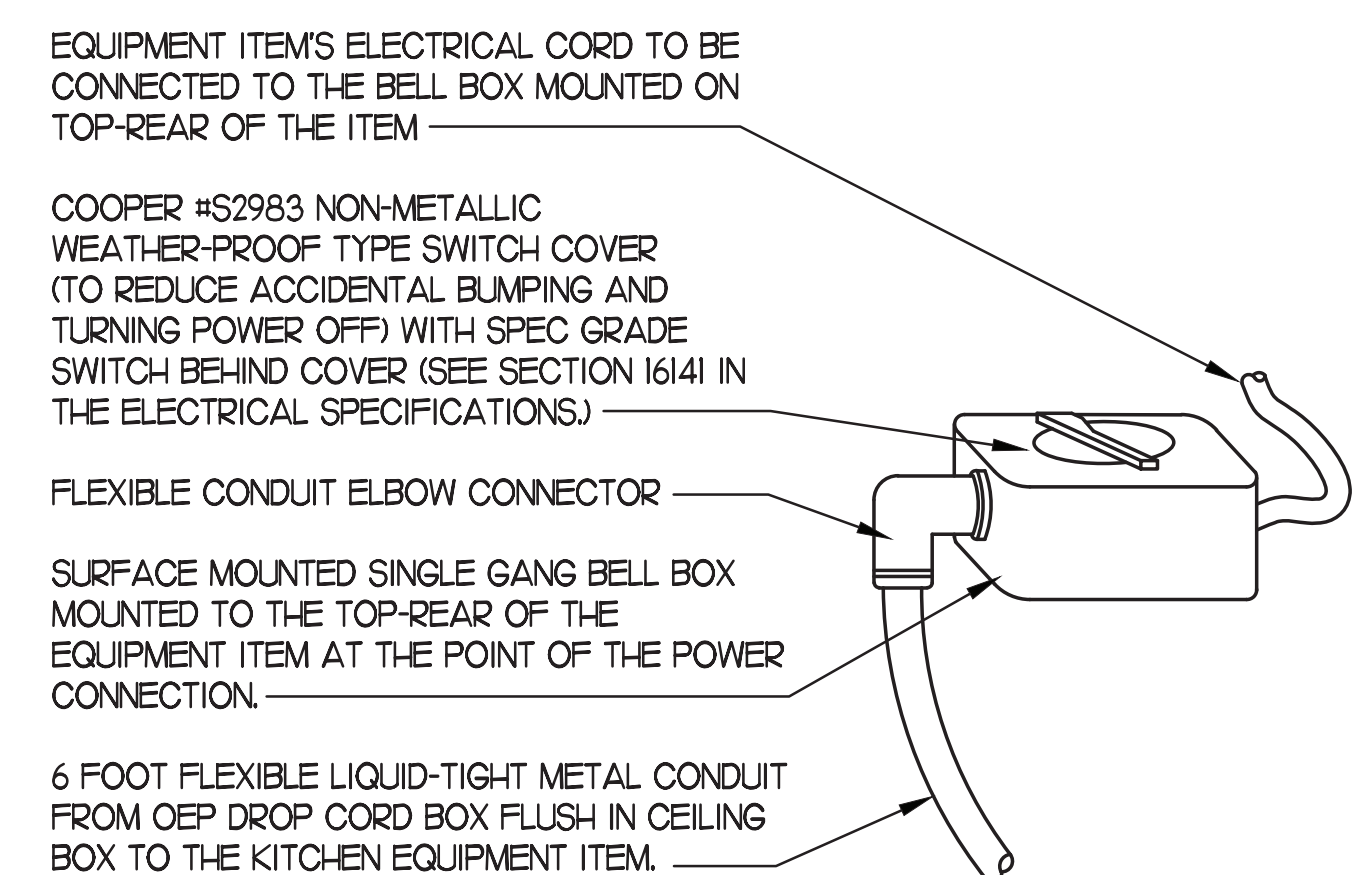


## 6 SINGLE LINE DIAGRAM

NOT TO SCALE

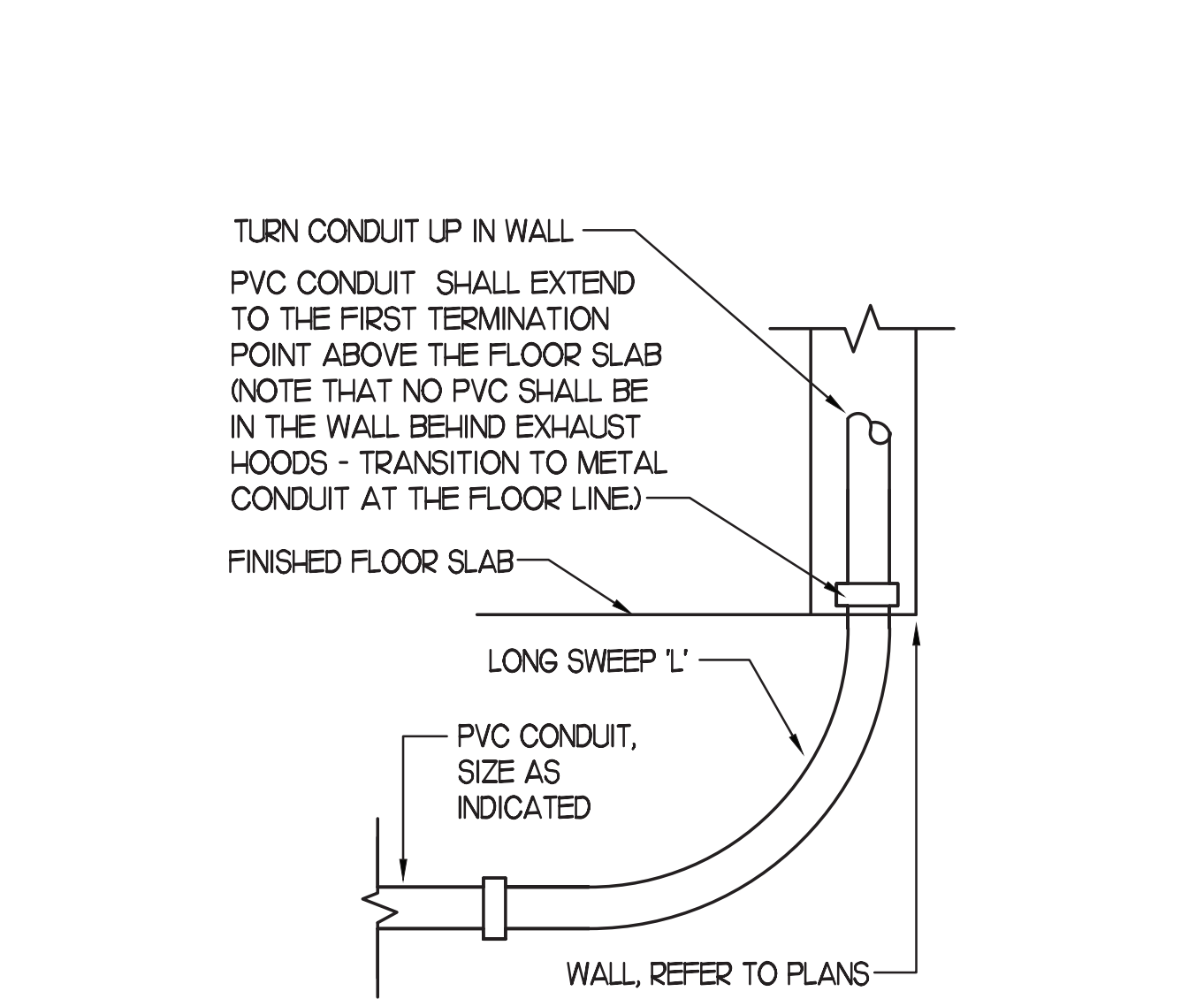
## 2 KITCHEN EQUIP DIRECT CONNECTION

NOT TO SCALE WALL MOUNT CONDITION



## 3 KITCHEN EQUIP DIRECT CONNECTION

NOT TO SCALE DROP CORD - ISLAND MOUNT CONDITION



## 4 INTERIOR PVC CONDUIT DETAIL

NOT TO SCALE



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

TAN VU ARCHITECT  
220 E. CENTRAL PKWY, STE 4000  
ALTA MONTÉ SPRINGS, FL 32701  
407.645.5008  
SEAL: STACY TREVOR HANSON  
LICENSED PROFESSIONAL  
ENGINEER  
27651  
STATE OF MISSISSIPPI

**CHICK-FIL-A**  
HATTIESBURG  
6099 US HIGHWAY 98  
HATTIESBURG, MS 39402

**FSU#01613**  
BUILDING TYPE / SIZE: S04-152  
RELEASE: PRINTED FOR  
CONSTRUCTION  
REVISION SCHEDULE  
NO. DATE DESCRIPTION  
CONSULTANT PROJECT # 2022-1062  
DATE MAY 2023  
DRAWN BY RZ  
CHECKED BY MI  
Information contained on this drawing and in all digital files provided for above named project may not be reproduced in any manner without express written or verbal consent from SHEET  
EQUIP SCHEDULE AND DETAILS  
SHEET NUMBER

### 6 KEY NOTES (APPLY TO THIS SHEET ONLY)

- 1 CLEAN, RELAMP AND RELEASE ANY RELOCATED / EXISTING LIGHT FIXTURES TO LIKE NEW CONDITION, RECONNECT TO EXISTING AREA LIGHTING CIRCUIT AND CONTROL.
- 2 ASSUMED LOCATION OF EXISTING BATTERY BACKUP FIXTURE E.C. EXISTING FIXTURE IS EQUIPPED WITH A BATTERY BACK-UP AND REPORT ANY DISCREPANCIES TO ENGINEER PRIOR TO BID AND PROVIDE NEW AS NEEDED.
- 3 CONNECT FIXTURE TO LOCAL LIGHTING CIRCUIT AHEAD OF ALL SWITCHING AND CONTROLS. THIS FIXTURE SHALL NOT BE SWITCHED.
- 4 CONNECT FIXTURE SO THAT FIXTURE AND BATTERY BACK-UP ARE NOT SWITCHED. 'N' ADJACENT TO FIXTURE INDICATES THAT FIXTURE SHALL BE ON 24 HOURS.

### 3 KEY NOTES - SECURITY:

- S1 PROVIDE SINGLE GANG JUNCTION BOX AND STAINLESS STEEL COVER PLATE WITH 7/8" HOLE IN CENTER. EXTEND 1' E.C. UP IN THE WALL ABOVE ACCESSIBLE CEILING.
- S11 EXTEND 1/2" RIGID CONDUIT FROM A POINT 3" WITHIN STRIKE-SIDE WINDOW FRAME MULLION TO ABOVE ACCESSIBLE CEILING.
- S17A EXTEND 3/4" RIGID CONDUIT FROM TOP OF STRIKE-SIDE DOOR FRAME CHANNEL TO ABOVE ACCESSIBLE CEILING.

### 4 KEY NOTES - POS SYSTEM:

- R22 PROVIDE JUNCTION BOX FOR TERMINATION OF 1" CONDUIT. PROVIDE 1" CONDUIT EXTENDING FROM CEILING AND TERMINATED AT JUNCTION BOX ON THE SERVING AREA SIDE OF THE WALL. COVER PLATE PROVIDED BY OWNER'S POS SYSTEM VENDOR.
- R23 PROVIDE A 2" CONDUIT FROM FACE OF WALL AND EXTEND CONDUIT TO JUNCTION BOX IN CEILING SPACE ABOVE SERVING AREA. CONDUIT SHALL TERMINATE FLUSH WITH FACE OF WALL BELOW COUNTER. CUSTOM STAINLESS STEEL COVER PLATE IN WALL WITH GROMMET ON 2" DIAMETER HOLE AT CONDUIT TERMINATION IN WALL.
- R25 PROVIDE JUNCTION BOX FOR TERMINATION OF 1" CONDUIT. PROVIDE 1" CONDUIT EXTENDING FROM CEILING AND TERMINATED AT JUNCTION BOX ON THE SERVING AREA SIDE OF THE WALL. POS SYSTEM SUPPLIER WILL PROVIDE COVER PLATE ON BOX.
- R26 PROVIDE SINGLE GANG EXTRA DEEP JUNCTION BOX MOUNTED ON THE MOUNTING PLATE WITHIN THE FRONT SERVING COUNTER CASEWORK.
- C2 PROVIDE JUNCTION BOX, LESS COVER PLATE, AND EXTEND 3/4" E.C. UP IN WALL TO ABOVE CEILING FOR INSTALLATION OF WIRELESS COMMUNICATION CONTROL UNIT.

### 5 KEY NOTES - POWER:

- 1 JUNCTION BOX WITH 3/4" CONDUIT STUB-UP INTO THE CEILING SPACE FOR OWNER'S AIRPHONE INTERCOM FOR THE MLOP ORDERING CONTROL STATION. PROVIDE BLANK PLATE IF BLDG IS SINGLE LANE DRIVE-THRU.
- 2 TIMER FOR HEATER ABOVE DT DOOR ONLY NEEDED WHEN DT ORDER CANOPY IS PRESENT

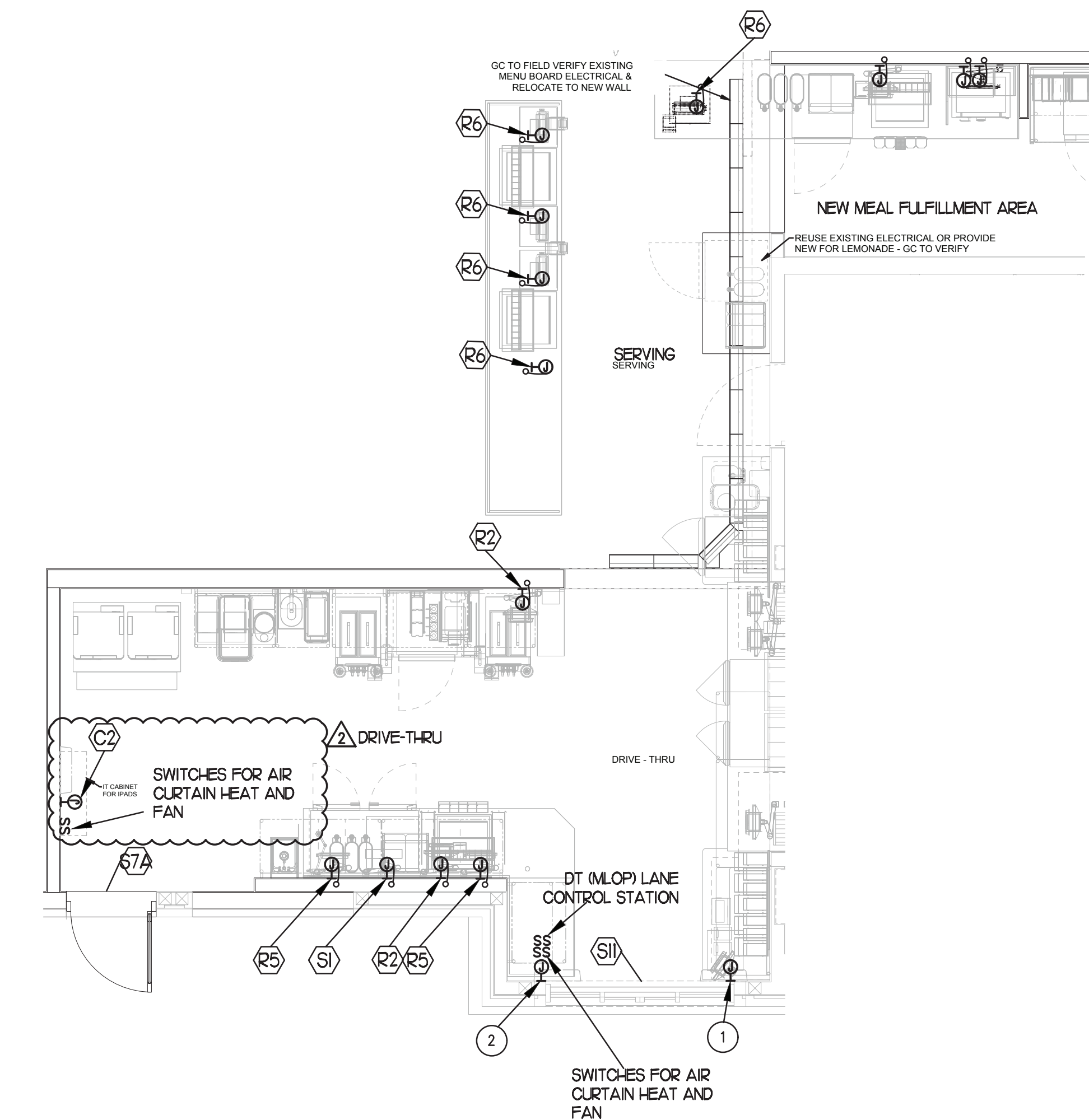
### 1 LIGHTING PLAN

SCALE: 1/4"=1'-0"



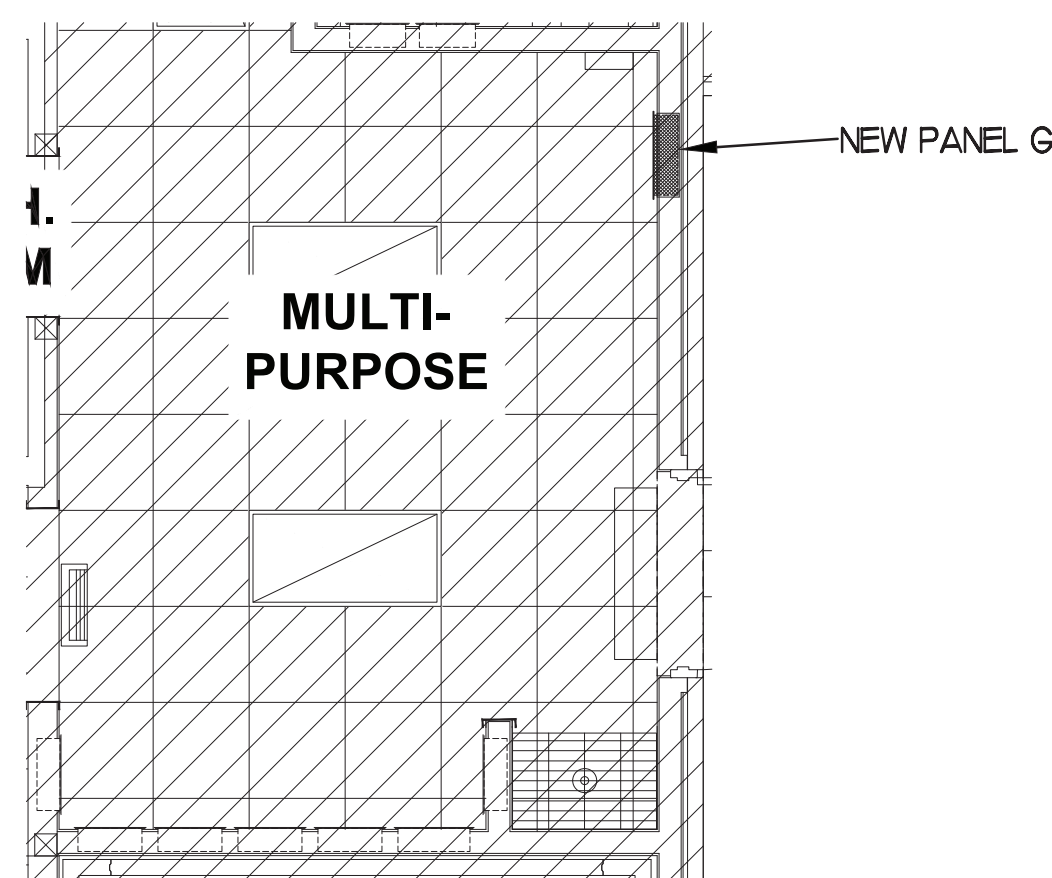
### 2 POWER & SYSTEM PLAN

SCALE: 1/4"= 1'-0"



### 7 PANEL LOCATION

SCALE: 1/4"=1'-0"



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

TAN VU  
ARCHITECT

220 E. CENTRAL PKWY, STE 4000  
ALTAMONTE SPRINGS, FL 32701  
407.645.5008

SEAL:



**CHICK-FIL-A**  
**HATTIESBURG**

6099 US HIGHWAY 98  
HATTIESBURG, MS 39402

**FSU#01613**

BUILDING TYPE / SIZE: S04-152

RELEASE:

PRINTED FOR

**CONSTRUCTION**

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

CONSULTANT PROJECT # 2022-1062

DATE MAY 2023

DRAWN BY RZ

CHECKED BY MI

Information contained on this drawing and in all digital files provided for above named project may not be reproduced in any manner without express written or verbal consent from the project owner.

SHEET LIGHTING, POWER AND SYSTEM PLAN

SHEET NUMBER

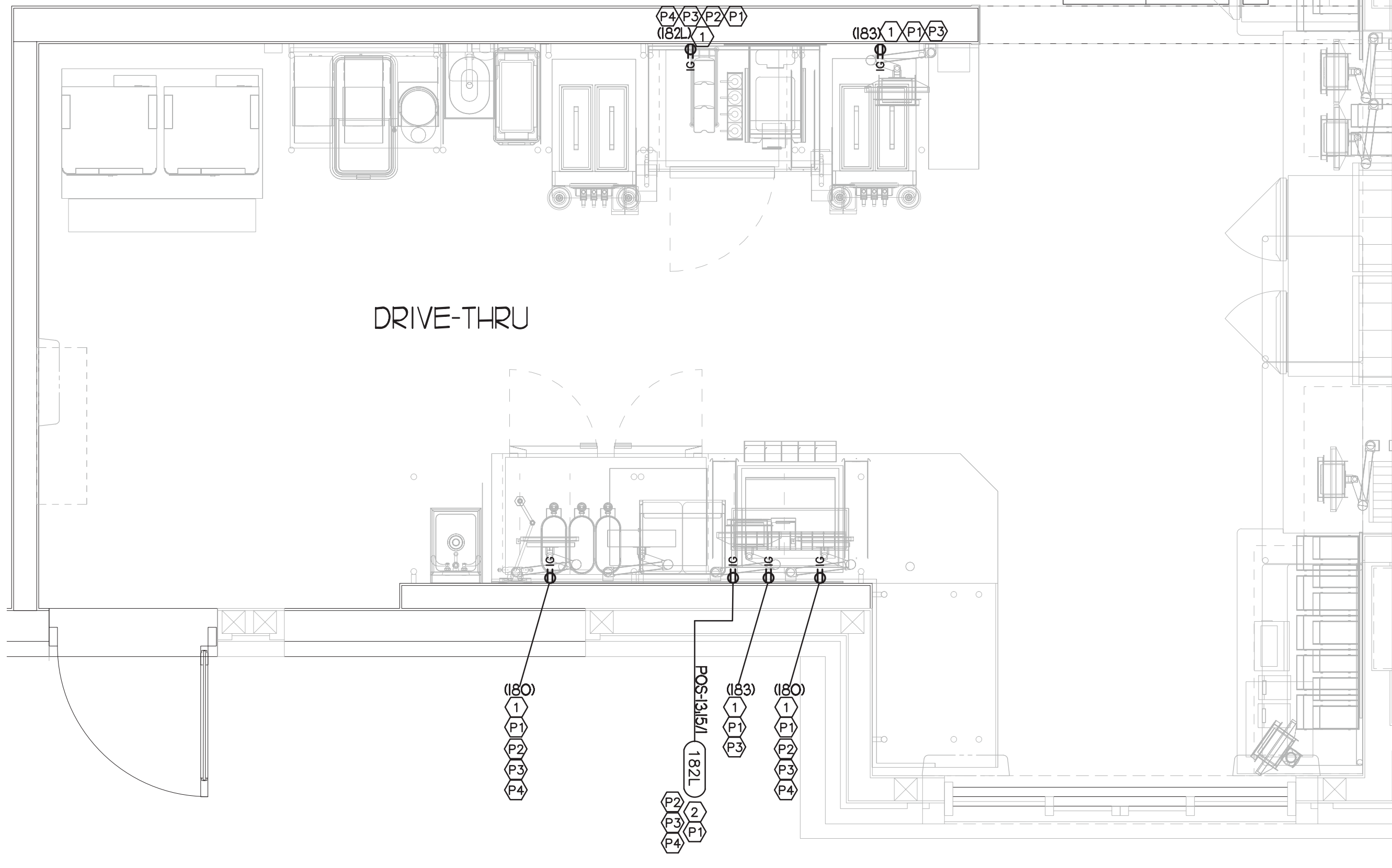
**E2.1**



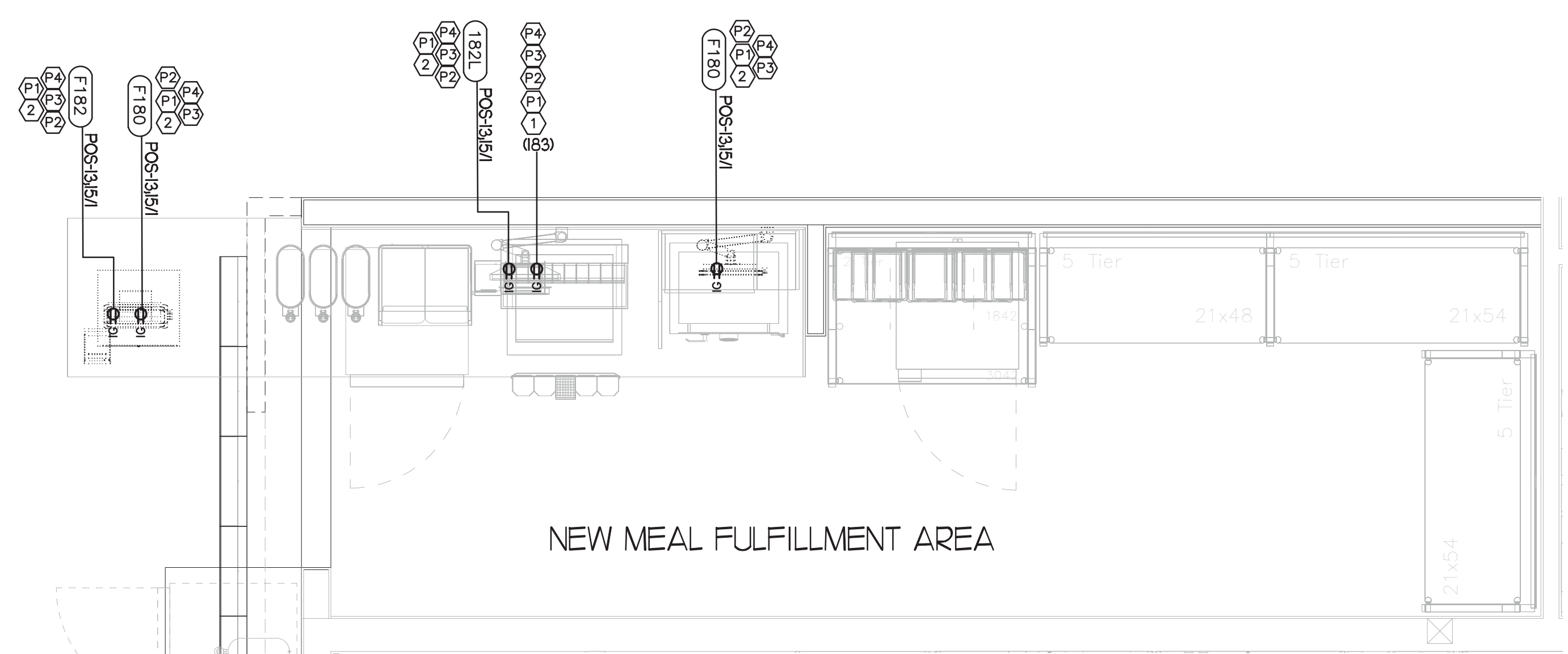
**2 CONDUIT AND CONDUCTORS SCHEDULE (Based on 2005, 2008, 2011 AND 2017 NEC)**

Mark	OCF	Conductors		Conductors		Raceway Size (nominal inches)									
		60d C	75d C	Qty	Type	Min Eq Grd	No.	Phase	Neutral	& Equip Grd	With Isolated Ground				
No.	(Amp)							EMT	IMC	RIGID	PVC	EMT	IMC	PVC	
1	20	20	-	2	12	THHN	1	12	One	0.75	0.75	0.75	0.75	0.75	0.75
2	20	20	-	3	12	THHN	1	12	One	0.75	0.75	0.75	0.75	0.75	0.75
3	20	20	-	4	12	THHN	1	12	One	0.75	0.75	0.75	0.75	0.75	0.75
7	30	30	-	2	10	THHN	1	10	One	0.75	0.75	0.75	0.75	0.75	0.75
8	30	30	-	3	10	THHN	1	10	One	0.75	0.75	0.75	0.75	0.75	0.75
9	30	30	-	4	10	THHN	1	10	One	0.75	0.75	0.75	0.75	0.75	0.75
10	40	40	-	2	8	THHN	1	10	One	0.75	0.75	0.75	0.75	0.75	0.75
11	40	40	-	3	8	THHN	1	10	One	0.75	0.75	0.75	0.75	0.75	0.75
12	40	40	-	4	8	THHN	1	10	One	0.75	0.75	0.75	0.75	0.75	1.00
13	50	55	-	2	6	THHN	1	10	One	0.75	0.75	0.75	0.75	0.75	0.75
14	50	55	-	3	6	THHN	1	10	One	0.75	0.75	0.75	0.75	1.00	1.00
15	50	55	-	4	6	THHN	1	10	One	1.00	1.00	1.00	1.00	1.00	1.00
30	125	-	130	3	1	THW	1	6	One	1.50	1.50	1.50	1.50	2.00	2.00
31	125	-	130	4	1	THW	1	6	One	2.00	2.00	2.00	2.00	2.00	2.00
36	200	-	200	3	3/0	THW	1	6	One	2.00	2.00	2.00	2.00	2.50	2.50
37	200	-	200	4	3/0	THW	1	6	One	2.50	2.50	2.50	2.50	2.50	2.50
38	225	-	230	3	4/0	THW	1	4	One	2.50	2.00	2.50	2.50	2.50	2.50
39	225	-	230	4	4/0	THW	1	4	One	2.50	2.50	2.50	2.50	2.50	3.00
43A	400	-	380	4	500	THW	1	3	One	3.50	3.50	3.50	3.50	3.50	3.50
43B	400	-	400	4	3/0	THW	2	3	Two	2.50	2.50	2.50	2.50	2.50	2.50
44A	600	-	570	4	300	THW	2	1	Two	3.00	3.00	3.00	3.00	3.00	3.00
44B	600	-	620	4	350	THW	2	1	Two	3.00	3.00	3.00	3.00	3.00	3.50

Notes:  
 Conductors are rated at 600 volt or below and are to be copper.  
 NEC Table 310.16 (310.15(B)(16) in 2017) 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 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.



**IA LARGE SCALE POS POWER PLAN - SERVING AREA**  
 SCALE: 1/2" = 1'-0"



**3 KEY NOTES - POS:**

- (P1) PROVIDE ORANGE ISOLATED GROUND (IG) DUPLEX RECEPTACLE.
- (P2) PROVIDE GROUND FAULT PROTECTION FOR THESE DEVICES VIA A GROUND FAULT CIRCUIT BREAKER IF LOCAL CODE DEFINES THIS A FOOD PREPARATION AREA.
- (P3) USE TYPE MC CABLE FOR THE ISOLATED GROUND CIRCUIT: #12 HOT, NEUTRAL, GREEN GROUND, STRIPED ISO GRD. EACH 15A HOMERUN SHALL BE DEDICATED TO A CIRCUIT BREAKER VIA DEDICATED CONDUCTORS WITHIN A CABLE ASSEMBLY. ALL MC CABLES SHALL BE RUN OVER-HEAD ABOVE THE CEILING AND RACKED TOGETHER ON J-HOOKS. NO SPLICES IN ANY HOMERUN CABLES FROM FIRST RECEPTACLE TO BREAKER.
- (P4) 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.

**4 KEY NOTES - POWER:**

- (1) CONNECT RELOCATED EQUIPMENT TO EXISTING CIRCUIT IN EXISTING PANELS EXTEND EXISTING WIRES AND CONDUIT AS NEEDED COORDINATE LOCATION WITH INTERIOR ELEVATION FIELD VERIFY LOCATION AND EXISTING CIRCUITS PRIOR TO BID.
- (2) PROVIDE ONE (1) 15A/1P CIRCUIT FOR EQUIPMENT 182, F180 AND F182. CONNECT TO NEXT AVAILABLE SPARE/SPACE IN PANEL POS. LOAD ON CIRCUIT NOT TO EXCEED 18 KW. FIELD VERIFY NUMBER OF SPARES/SPACES PRIOR TO BID. REPORT ANY DISCREPANCIES TO ENGINEER PRIOR TO CONSTRUCTION.

UPDATED: 5/30/2023 10:19 pm  
 ISSUED FOR: APPROVAL

		LOCATION: MULTI PURPOSE				MAIN: 100A MLO				CONN. LOAD: 3.1 KVA									
		VOLTAGE: 120/208V				SYSTEM: 1φ, 3W				FEED: TOP									
		TRIM: FLUSH				BUS RATING: 100A				GROUND BUS: YES									
CKT	LOAD SERVED	COND	PHASE	NEUT	QID	BKR	DMD	L1	L2	L3	DMD	BKR	COND	PHASE	NEUT	QID	LOAD SERVED	CKT	
1	COUNTER POS STATION	1/2"	#12	#12	#12	15/1	R	270				R	15/1	1/2"	#12	#12	#12	5 POS MONITORS	2
3	COUNTER POS STATION	1/2"	#12	#12	#12	15/1	R	210				R	15/1	1/2"	#12	#12	#12	NETWORK CABINET	4
5	DT POS STATION	1/2"	#12	#12	#12	15/1	R	30				R	15/1	1/2"	#12	#12	#12	OFFICE RECEPTACLE	6
7	MLOP POS STATION	1/2"	#12	#12	#12	15/1	R	180				R	15/1	1/2"	#12	#12	#12	4 CL TABLE MONITORS	8
9	MLOP MONITORS	1/2"	#12	#12	#12	15/1	R	64				R	15/1	1/2"	#12	#12	#12	ISP	10
11	182-ORDER MONITOR	1/2"	#12	#12	#12	15/1	R	180				R	15/1	1/2"	#12	#12	#12	IT	12
13	POS RECEPTACLES	1/2"	#12	#12	#12	15/1	R	293				R	15/1	1/2"	#12	#12	#12	FUTURE EQUIPMENT	14
15	SPARE	-	-	-	-	15/1	-	-				-	15/1	-	-	-	-	SPARE	16
17	SPARE	-	-	-	-	15/1	-	-				-	15/1	-	-	-	-	SPARE	18
19	SPARE	-	-	-	-	15/1	-	-				-	15/1	-	-	-	-	SPARE	20
21	SPARE	-	-	-	-	15/1	-	-				-	15/1	-	-	-	-	SPARE	22
23	SPARE	-	-	-	-	15/1	-	-				-	20/1	-	-	-	-	BACKFED MAIN BREAKER	24

INTERRUPT RATING: EXISTING      1597    1478      FROM: FED FROM A 20A BREAKER IN EXIST. PANEL A

LOADS (IN VA)	CONNECTED	DEMAND FACTOR	MINIMUM FEEDER	LOADS	CONNECTED	DEMAND FACTOR	MINIMUM FEEDER	REMAINING CONTINUOUS LOADS	REMAINING NON-CONTINUOUS LOADS	MISC. DEMAND LOADS	TOTAL CONNECTED LOAD	TOTAL DEMAND LOAD
LIGHTING	0	1.25	0	NON-SEASONAL MOTORS	0	1.0	0	0	0	0	3.1 KVA	14.8 AMPS
RECEPTS TO 10 KVA	3075	1.0	3075	LARGEST MOTOR	0	0.25	0	0	0	0	3.1 KVA	14.8 AMPS
RECEPTS REMAINING	0	0.5	0	WATER HEATING	0	1.0	0	0	0	0		
SPACE HEATING	0	0.0	0	KITCHEN EQUIP.	0	1.0	0	0	0	0		
AIR CONDITIONING	0	1.0	0									

B. GFCI TYPE BREAKER TO BE 5MA TYPE BREAKER.



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

TAN VU  
 ARCHITECT

220 E. CENTRAL PKWY, STE 4000  
 ALTAMONTE SPRINGS, FL 32701  
 407.645.5008



**CHICK-FIL-A**  
**HATTIESBURG**  
 6099 US HIGHWAY 98  
 HATTIESBURG, MS 39402

**FSU#01613**  
 BUILDING TYPE: SITE      S04-152

RELEASE:  
 PRINTED FOR:  
**CONSTRUCTION**

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
01	05/30/2023	BUILDING COMMENTS

CONSULTANT PROJECT #      2022.1062  
 DATE      MAY 2023  
 DRAWN BY      RZ  
 CHECKED BY      MI

Information contained on this drawing and in all digital files produced for above named project may not be reproduced or in any manner without express written or verbal consent from the original project participants.

ENLARGED POS POWER PLAN

SHEET NUMBER

4	3	2	1
<p><b>SECTION C16100</b> <b>ELECTRICAL GENERAL PROVISIONS</b></p> <p><b>PART 1 - GENERAL</b></p> <p>1.01 <b>WORK INCLUDED</b> A. Provide all materials, labor and equipment required to furnish and install a complete electrical system as indicated on drawings and as specified herein.</p> <p>1.02 <b>REGULATORY REQUIREMENTS</b> A. Equipment furnished shall be UL listed where such label is available. Installation shall conform to UL standards where applicable.</p> <p>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.</p> <p>C. Obtain permits and certificates of approval from all authorities having jurisdiction over the installation and pay all fees required.</p> <p>1.03 <b>SUBMITTALS</b> 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 include for the following: 1. Lighting Fixtures 2. Panelboards/Breakers 3. Wiring Devices and Device Plates 4. Enclosed Switches</p> <p>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.</p> <p>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.</p> <p>1.04 <b>SITE VISIT</b> 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.</p>	<p>3.02 <b>TESTING AND EQUIPMENT SERVICING</b> 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.</p> <p>3.03 <b>REMOVAL OF DEBRIS</b> A. Remove surplus materials and debris caused by, or incidental to, electrical work. Remove such debris at frequent intervals. Keep job clean during construction.</p> <p>3.04 <b>IDENTIFICATION OF EQUIPMENT</b> 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.</p> <p>3.05 <b>TEMPORARY LIGHTING AND POWER IN AREAS OF CONSTRUCTION</b> 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.</p> <p>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.</p> <p>3.06 <b>GUARANTEE-WARRANTY</b> 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.</p> <p><b>SECTION C16120</b> <b>RACEWAYS AND CONDUIT SYSTEMS</b></p> <p><b>PART 1 - PRODUCTS</b></p> <p>1.01 <b>ACCEPTABLE MANUFACTURERS</b> A. Rigid IMC, and EMT conduit shall be hot-dipped, galvanized, or electro-galvanized steel by Allied, Republic, Triangle, Wheatland, or approved equal.</p> <p>B. PVC conduit shall be Carlon, schedule 40, 90 degrees C. rated, unless otherwise noted.</p> <p>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 isolated ground (green + yellow stripe) conductor. Cables for data systems power circuits shall be as specified on plans.</p> <p>D. Associated couplings, connectors and fittings shall be steel as manufactured by Raco or equivalent. Catalog numbers used below are those of Raco.</p> <p>E. Erickson Couplings, Series 1502, shall be used where neither length of conduit can be rotated.</p> <p>F. Insulated bushings shall be series 1402.</p> <p>G. EMT box connectors shall be compression fittings.</p> <p>H. Conduit, connectors, couplings and fittings shall be UL listed and labeled.</p> <p>1.02 <b>ELECTRICAL METALLIC TUBING (EMT)</b> 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.</p> <p>1.03 <b>INTERMEDIATE METAL CONDUIT (IMC)</b> A. Use Intermediate Metal Conduit (IMC) where drawings call for conduit to be: 1. Installed for panelboard feeders. 2. Installed in wet locations (interior and exterior). 3. Installed exposed below 6 feet.</p> <p>1.04 <b>POLYVINYL CHLORIDE (PVC) RACEWAY</b> 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.</p> <p>1.05 <b>RIGID STEEL CONDUIT (RSC)</b> A. Use Rigid Steel Conduit for: 1. Install underground for power Service Entrance elbows penetrating floor slab. 2. Exposed to physical damage.</p> <p>1.06 <b>FLEXIBLE METAL CONDUIT</b> A. Provide flexible metal conduit for termination at equipment subject to motion and vibration.</p> <p>B. Length shall not exceed 6 feet in accessible ceiling areas.</p> <p>C. Shall not be concealed in walls.</p> <p>D. Where exposed to continuous or intermittent moisture, conduit shall be UL Type EF liquidtight or type as indicated.</p> <p>E. For connection to ceiling mounted lighting fixtures from outlet boxes.</p>	<p>1.07 <b>MC (METAL-CLAD) CABLE</b> A. MC Cable may be used, concealed above ceiling and in walls, when allowed by local codes and article 330 of the national electrical code for the connection of the Point Of Sales (POS) system equipment only.</p> <p><b>PART 2 - EXECUTION</b></p> <p>2.01 <b>INSTALLATION</b> A. Minimum size of conduits shall be 1/2 inch.</p> <p>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.</p> <p>C. Cap ends of conduits to prevent entrance of water and other foreign material during construction.</p> <p>D. Provide No. 12 AWG copper pull wires or nylon cord in all empty conduits. Steel wire not acceptable as pull wire.</p> <p>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.</p> <p>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.</p> <p>G. Provide seal-off fitting in all conduits entering a cold temperature area such as freezers and dry refrigerators.</p> <p>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.</p> <p>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.</p> <p>2.02 <b>EMT (ELECTRICAL METALLIC TUBING) RACEWAY</b> 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.</p> <p>2.03 <b>PVC RACEWAY</b> A. Use threaded fittings for all connectors and adapters.</p> <p>B. Provide 1/4-inch nylon pull rope in all primary power and incoming telephone service entrance conduits.</p> <p>C. PVC conduit shall convert to galvanized rigid metal per detail on drawings.</p> <p>2.04 <b>FLEXIBLE METAL CONDUIT</b> 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.</p> <p>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.</p> <p><b>SECTION C16121</b> <b>CONDUCTORS</b></p> <p><b>PART 1 - PRODUCTS</b></p> <p>1.01 <b>CONDUCTORS</b> 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.</p> <p>B. Conductors shall be manufactured by Triangle, American, Rome, Southwire or approved equal.</p> <p>C. Provide No. 14 AWG type THHN fixture conductors, for conductors entering lighting fixtures.</p> <p>D. Branch circuit conductors shall be minimum #12 AWG, copper.</p> <p><b>PART 2 - EXECUTION</b></p> <p>2.01 <b>INSTALLATION</b> A. Install pull boxes in circuits or feeders over 100 feet long.</p> <p>B. Make all splices or connections only at outlet, pull or junction boxes.</p> <p>C. All conductors and connections shall test free of grounds, shorts, and opens prior to energizing circuit.</p> <p>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.</p> <p>E. Use Ideal wing nuts, Scotchlok Type Y, R, G, or B, or approved equivalent connectors for fixture connections at outlet boxes.</p>	<p>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.</p> <p>G. Leave a minimum of 8" slack wire in every outlet box.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p><b>SECTION C16122</b> <b>OUTLET AND JUNCTION BOXES</b></p> <p><b>PART 1 - GENERAL</b></p> <p>1.01 <b>PROJECT CONDITIONS</b> A. Verify field measurements are as shown on drawings.</p> <p>B. Verify locations of floor boxes and outlets in work areas prior to rough-in.</p> <p><b>PART 2 - PRODUCTS</b></p> <p>2.01 <b>OUTLET BOXES</b> A. Sheet metal outlet boxes: galvanized steel.</p> <p>B. Cast boxes: type FS, cast fer alloy. Provide gasketed cover by box manufacturer.</p> <p>C. Manufacturers: National, Appleton, General Electric, RACO, OR Steel City.</p> <p>D. Provide boxes for fixtures with fixture studs in center.</p> <p>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.</p> <p>2.02 <b>PULL AND JUNCTION BOXES</b> A. Sheet metal boxes: galvanized steel.</p> <p>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.</p> <p>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.</p> <p>D. Manufacturers: National, Appleton, General Electric, RACO, Oz-Gedney or Steel City.</p> <p><b>PART 3 - EXECUTION</b></p> <p>3.01 <b>INSTALLATION</b> A. Install electrical boxes as shown on drawings, and as required for splices, taps, wire pulling, equipment connections and compliance with regulatory requirements.</p> <p>B. Install pull boxes and junction boxes above accessible ceilings.</p> <p>C. Inaccessible ceiling areas: Install outlet and junction boxes no more than 6 inches from ceiling access panel or from removable recessed light fixture.</p> <p>D. Use flush mounting outlet boxes in finished areas.</p> <p>E. Use stamped steel bridges to fasten flush mounting outlet box between studs.</p> <p>F. Install flush mounted box without damaging wall insulation or reducing its effectiveness.</p> <p>G. Use adjustable steel channel fasteners for hung ceiling outlet box.</p> <p>H. Do not fasten boxes to ceiling support wires.</p> <p>I. Support boxes independently of conduit, except cast box that is connected to two Rigid Metal Conduits both supported within 12 inches of box.</p> <p>J. Use gang box where more than one device is mounted together. Do not use sectional box.</p> <p>K. Use gang box with plaster ring for single device outlets.</p> <p>L. Use cast outlet box in exterior locations and wet locations.</p> <p>3.02 <b>OUTLET BOXES</b> 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.</p> <p>3.03 <b>JUNCTION BOXES</b> 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.</p> <p>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.</p> <p>C. Provide pull box every 100 feet of conduit run or where excessive number of bends necessitates a box for ease of wire installation.</p>
<p><b>SECTION C16101</b> <b>BASIC MATERIALS AND METHODS</b></p> <p><b>PART 1 - GENERAL</b></p> <p>1.01 <b>COORDINATION</b> A. Obtain and review shop drawings, product data, and manufacturer's instructions for equipment furnished under other sections to determine connection locations and requirements.</p> <p>B. Sequence rough-in of electrical connections to coordinate with installation and start-up of equipment furnished under other sections.</p> <p><b>PART 2 - PRODUCTS</b></p> <p>2.01 <b>SUBSTITUTIONS</b> 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.</p> <p><b>PART 3 - EXECUTION</b></p> <p>3.01 <b>INSTALLATION</b> A. Make electrical connections to utilization equipment in accordance with equipment manufacturer's instructions.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>E. Trenches shall be excavated 6" below elevation of bottom of conduit.</p> <p>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.</p>	<p><b>SECTION C16123</b> <b>GROUNDING AND BONDING</b></p> <p><b>PART 1 - PRODUCTS</b></p> <p>1.01 <b>ROD ELECTRODES</b> A. Material: copper-clad steel.</p> <p>B. Diameter: 3/4 inch.</p> <p>C. Length: 10 feet.</p> <p>1.02 <b>MECHANICAL CONNECTORS</b> A. Material: bronze.</p> <p>1.03 <b>GROUNDING CONDUCTOR (WIRE)</b> A. Material: stranded copper, sized to meet NFPA 70, Article 250 requirements.</p> <p><b>PART 2 - EXECUTION</b></p> <p>2.01 <b>INSTALLATION</b> A. Install rod electrodes at locations indicated. Install additional rod electrodes as required to achieve resistance to ground of less than 25 ohms.</p> <p>B. Provide grounding electrode conductor and connect to reinforcing steel in foundation footing.</p> <p>C. Provide bonding to meet regulatory requirements.</p> <p>D. Bond together each metallic raceway, pipe, duct and other metal objects.</p> <p>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.</p> <p>2.02 <b>GROUNDING</b> A. Ground electrical system in accordance with NEC Article 250 and local authorities having jurisdiction.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>E. Install #6 awg copper grounding conductor from ground bar in main telephone box to grounded neutral bus in main distribution panel.</p> <p>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.</p> <p>2.03 <b>FIELD QUALITY CONTROL</b> A. Inspect grounding and bonding system conductors and connections for tightness and proper installation.</p>	<p><b>SECTION C16123</b> <b>GROUNDING AND BONDING</b></p> <p><b>PART 1 - PRODUCTS</b></p> <p>1.01 <b>PROJECT CONDITIONS</b> A. Verify field measurements are as shown on drawings.</p> <p>B. Verify locations of floor boxes and outlets in work areas prior to rough-in.</p> <p><b>PART 2 - PRODUCTS</b></p> <p>2.01 <b>OUTLET BOXES</b> A. Sheet metal outlet boxes: galvanized steel.</p> <p>B. Cast boxes: type FS, cast fer alloy. Provide gasketed cover by box manufacturer.</p> <p>C. Manufacturers: National, Appleton, General Electric, RACO, OR Steel City.</p> <p>D. Provide boxes for fixtures with fixture studs in center.</p> <p>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.</p> <p>2.02 <b>PULL AND JUNCTION BOXES</b> A. Sheet metal boxes: galvanized steel.</p> <p>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.</p> <p>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.</p> <p>D. Manufacturers: National, Appleton, General Electric, RACO, Oz-Gedney or Steel City.</p> <p><b>PART 3 - EXECUTION</b></p> <p>3.01 <b>INSTALLATION</b> A. Install electrical boxes as shown on drawings, and as required for splices, taps, wire pulling, equipment connections and compliance with regulatory requirements.</p> <p>B. Install pull boxes and junction boxes above accessible ceilings.</p> <p>C. Inaccessible ceiling areas: Install outlet and junction boxes no more than 6 inches from ceiling access panel or from removable recessed light fixture.</p> <p>D. Use flush mounting outlet boxes in finished areas.</p> <p>E. Use stamped steel bridges to fasten flush mounting outlet box between studs.</p> <p>F. Install flush mounted box without damaging wall insulation or reducing its effectiveness.</p> <p>G. Use adjustable steel channel fasteners for hung ceiling outlet box.</p> <p>H. Do not fasten boxes to ceiling support wires.</p> <p>I. Support boxes independently of conduit, except cast box that is connected to two Rigid Metal Conduits both supported within 12 inches of box.</p> <p>J. Use gang box where more than one device is mounted together. Do not use sectional box.</p> <p>K. Use gang box with plaster ring for single device outlets.</p>	<p>L. Use cast outlet box in exterior locations and wet locations.</p> <p>3.02 <b>OUTLET BOXES</b> 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.</p> <p>3.03 <b>JUNCTION BOXES</b> 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.</p> <p>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.</p> <p>C. Provide pull box every 100 feet of conduit run or where excessive number of bends necessitates a box for ease of wire installation.</p> <p><b>SECTION C16123</b> <b>GROUNDING AND BONDING</b></p> <p><b>PART 1 - PRODUCTS</b></p> <p>1.01 <b>ROD ELECTRODES</b> A. Material: copper-clad steel.</p> <p>B. Diameter: 3/4 inch.</p> <p>C. Length: 10 feet.</p> <p>1.02 <b>MECHANICAL CONNECTORS</b> A. Material: bronze.</p> <p>1.03 <b>GROUNDING CONDUCTOR (WIRE)</b> A. Material: stranded copper, sized to meet NFPA 70, Article 250 requirements.</p> <p><b>PART 2 - EXECUTION</b></p> <p>2.01 <b>INSTALLATION</b> A. Install rod electrodes at locations indicated. Install additional rod electrodes as required to achieve resistance to ground of less than 25 ohms.</p> <p>B. Provide grounding electrode conductor and connect to reinforcing steel in foundation footing.</p> <p>C. Provide bonding to meet regulatory requirements.</p> <p>D. Bond together each metallic raceway, pipe, duct and other metal objects.</p> <p>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.</p> <p>2.02 <b>GROUNDING</b> A. Ground electrical system in accordance with NEC Article 250 and local authorities having jurisdiction.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>E. Install #6 awg copper grounding conductor from ground bar in main telephone box to grounded neutral bus in main distribution panel.</p> <p>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.</p> <p>2.03 <b>FIELD QUALITY CONTROL</b> A. Inspect grounding and bonding system conductors and connections for tightness and proper installation.</p>



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

TAN VU  
ARCHITECT

220 E. CENTRAL PKWY, STE 4000  
ALTA MONTE SPRINGS, FL 32701  
407.645.5008

SEAL:



**CHICK-FIL-A**  
**HATTIESBURG**  
6099 US HIGHWAY 98  
HATTIESBURG, MS 39402

**FSU#01613**

BUILDING TYPE / SIZE: S04-152

RELEASE: -

PRINTED FOR: -

**CONSTRUCTION**

**REVISION SCHEDULE**

NO.	DATE	DESCRIPTION

CONSULTANT PROJECT # 2022.1062

DATE MAY 2023

DRAWN BY RZ

CHECKED BY MI

Information contained on this drawing and in all digital files produced by above named project may not be reproduced in any manner without express written or verbal consent from the project responsibilities.

**ELECTRICAL SPECIFICATIONS**

SHEET NUMBER

**E4.1**

<p><b>SECTION C16124</b> <b>SUPPORTING DEVICES AND HANGERS</b></p> <p>PART 1 - PRODUCTS</p> <p>1.01 ACCEPTABLE MANUFACTURERS</p> <p>A. Supporting devices and hangers shall be manufactured by RACO Fasteners, or approved equivalent.</p> <p>PART 2 - EXECUTION</p> <p>2.01 INSTALLATION</p> <p>A. Secure conduits to within 3' of each outlet box, junction box, cabinet, fitting, etc., and at intervals not to exceed ten feet (10') and in accordance with the National Electric Code. In seismic zones, support conduits 1" and under at 6' intervals.</p> <p>B. Install clamps secured to structure for feeder and other conduits routed against the structure. Use drop rods and hangers or racks to support conduits run apart from the structure.</p> <p>C. Provide and install suitable angle iron, channel iron or steel metal framing with accessories to support or brace electrical equipment including safety switches, fixtures, panelboards, etc.</p> <p>D. Use of chains, perforated iron, baling wire, or tie wire for supporting conduit runs is not permitted.</p> <p>E. For support of low voltage wiring not required to be in conduit, bundle cables together in a neat manner using approved nylon tie wraps. Bundled cables shall be supported with "J" hooks on telephone type bridle rings, a minimum of 6 feet on centers. Clearly identify all differing types of cables being run and tag with tape tags regarding telephone, POS System, music/communication, security, etc. for various system utilizing said cable. Identification tape shall be provided at minimum intervals of 25 feet on center and within each building space.</p> <p>F. Provide a system of supporting devices and hangers to insure secure support or bracing for conduit, electrical equipment, including safety switches, fixtures, panelboards, outlet boxes, junction boxes, cabinets, etc.</p>	<p>A. Mounting</p> <ol style="list-style-type: none"> <li>Mount switches and receptacles at height above finished floor as indicated on plans, and legend.</li> <li>Mount switches on strike side of door maximum 8" from door frame. Outlet box for switch shall be located clear of door frame. Coordinate with architectural plans prior to rough-in.</li> <li>Install switches with off position down.</li> <li>Do not use the feed thru feature for the GF Type receptacle, unless required by the plans.</li> <li>Use jumbo sized plates for outlets installed in masonry walls.</li> <li>Each receptacle shall be provided with a #12 green grounding jumper between the ground terminal of the receptacle and the outlet box.</li> <li>The grounding conductor to each receptacle shall be installed such that the removal of the device will not interfere with the continuity of the ground.</li> </ol> <p>B. Testing</p> <ol style="list-style-type: none"> <li>Test each switch and verify proper operation with energized circuit.</li> <li>Test each receptacle for proper polarity on energized circuit.</li> <li>Test each GF receptacle with a GF receptacle tester and verify circuit is opened by GF device at milli-ampere ranges established by the manufacturer.</li> </ol>	<p>A. Square D.</p> <p>B. General Electric.</p> <p>C. Siemens</p> <p>1.02 ENCLOSED SWITCHES</p> <p>A. Nonfusable switch assemblies: NEMA KS 1, General Duty Type for 208 volt load interrupter enclosed knife switch with externally operable handle interlocked to prevent opening front cover with switch in on position. Handle lockable in off position. Provide equipment ground lug in each switch.</p> <p>B. Enclosures: NEMA KS 1.</p> <ol style="list-style-type: none"> <li>Interior dry locations: Type 1.</li> <li>Exterior locations: Type 3R.</li> </ol>	<p>C. Provide energy-saving Instant or Rapid Start lamps for all fluorescent fixtures.</p> <p>D. All lamps and ballasts shall meet or exceed the requirements of the National Energy Policy Act of 1992 and any other applicable Codes or Criteria.</p> <p>E. All components of recessed fixtures shall be accessible without disturbing fixture in or on ceiling.</p> <p>F. Energy saving ballasts and energy saving lamps provided shall be compatible for operation together.</p> <p>G. Exterior fixtures and poles shall be suitable for exterior use, shall be UL Listed, and shall be a standard design for exterior application.</p> <p>H. Exterior poles for fixtures with luminaires installed shall be designed for maximum constant velocity wind load with luminaires installed, applicable to the geographic area.</p>	<p>PART 3 - EXECUTION</p> <p>3.01 INSTALLATION</p> <p>A. Furnish and install conduits, junction boxes, outlet boxes, and plates.</p> <p>B. Provide one #10 equivalent nylon pull wire in each system empty conduit.</p> <p>C. Provide a complete raceway system in accordance with interior system vendor requirements. Interior system vendor shall review the drawings. Contractor shall provide for any additional or varying requirements.</p> <p>D. Final connections and testing of systems will be provided by the system vendor. Contractor shall contact the owner's vendor and schedule the work so as to complete system installation and testing prior to occupancy of the facility.</p> <p>E. Terminate each conduit stub-up or termination with nylon insulated bushing.</p>
<p><b>SECTION C16140</b> <b>WIRING DEVICES AND PLATES</b></p> <p>PART 1 - PRODUCTS</p> <p>1.01 WALL SWITCHES</p> <p>a. Shall be purchased from the <u>National Accounts Vendor</u> indicated on the plans.</p> <p>B. Ratings: 20 amps, 120/277 volts a.c. or as identified on drawings.</p> <p>C. Devices: (Cooper/Arrow Hart catalog numbers are listed unless noted otherwise):</p> <ol style="list-style-type: none"> <li>Single pole toggle switches: <ul style="list-style-type: none"> <li>20 AMP device - #AH1221-GY (Kitchen) or #AH1221-B (Dining)</li> <li>20 AMP Pilot lights illuminated with load on - #AH1221-PL</li> </ul> </li> <li>Double pole toggle switches: <ul style="list-style-type: none"> <li>20 AMP device - #AH1222-GY (Kitchen) or #AH1222-B (Dining)</li> </ul> </li> </ol> <p>1.02 RECEPTACLES</p> <p>A. Shall be purchased from the <u>National Accounts Vendor</u> indicated on the plans.</p> <p>B. Devices: (Cooper/Arrow Hart catalog numbers are listed unless otherwise noted):</p> <ol style="list-style-type: none"> <li>Specification grade devices (grey device color in Kitchen, brown device color in Dining, and orange for IG type) to be 20 amp, 125 volts, a.c. receptacles: <ul style="list-style-type: none"> <li>Single (simplex) device: #1877-GY (Kitchen) or #1877-B (Dining)</li> <li>Duplex device: #CR20-GY (Kitchen) or #CR20-B (Dining)</li> <li>Tamper Resistant duplex: #TR8200-B (Vestibules &amp; Play Area)</li> <li>Tamper Resistant USB Charger duplex: #TR7746-B (Dining)</li> <li>GF (ground-fault circuit interrupter) duplex device: #VGF20-GY (Kitchen) or #VGF20-B (Dining)</li> <li>IG (isolated ground) duplex device: #IG5362-RN (orange face)</li> </ul> </li> </ol> <p>1.03 SPECIAL DEVICES</p> <p>A. Manual motor starter switch: SQ. D Class 2510, Type F, for use on motors up to 3/4 horsepower. Provide NEMA 1 enclosure in dry locations; provide NEMA 3R enclosure in wet or exterior locations.</p> <p>1.04 WALL PLATES</p> <p>A. Provide Cooper/Arrow Hart, or approved equal, smooth satin stainless steel 302-SS series for switches and receptacles in the Kitchen areas. All other areas shall be brown Nylon plastic.</p> <p>B. Provide blank plates on all outlet boxes for future outlets, or outlets without devices. Plate style shall match device plates.</p> <p>C. Provide non-metallic weatherproof covers for duplex GF receptacles located outside or in wet locations that feature 'while-in-use' cover equivalent to Arrow Hart #WIU-1.</p> <p>D. Where devices installed in exposed boxes or conduit fittings; provide properly designed plates and covers equal to Arrow Hart RS-Series exposed work covers.</p> <p>E. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface mounted boxes.</p>	<p><b>SECTION C16440</b> <b>PANELBOARDS</b></p> <p>PART 1 - PRODUCTS</p> <p>1.01 MANUFACTURER (via Chick-fil-A National Accounts Program)</p> <p>A. Siemens (West, Midwest, and Southwest Regions): from Suncoast Environmental Controls (SEC), Scott Dyer (877) 544-6679.</p> <p>B. Square-D (Northeast, Atlantic, and Southeast Regions): from Accu-Serv, Bob Harpring (502) 961-0096.</p> <p>1.02 PANELBOARD FEATURES</p> <p>A. Panelboards shall have a minimum symmetrical interrupting rating to meet or exceed the available symmetrical interrupting fault current at the device intended to interrupt current.</p> <p>B. Bus bars shall be copper or tin plated aluminum.</p> <p>C. Provide factory-installed copper ground bus in each panelboard with lugs or connectors on bar.</p> <p>D. Provide electrically isolated, factory installed, neutral bus in each 3 phase, 4 wire or 1 phase 3 wire panelboard.</p> <p>E. In addition to the ground bus required by paragraph 1.02D (above), provide factory installed, electrically isolated, copper ground bus in each panelboard serving isolated ground receptacles.</p> <p>F. Main lugs and main circuit breaker lugs shall be UL Listed for use with both aluminum and copper conductors.</p> <p>G. Provide panelboard doors with chrome-plated locks and catches. All locks shall be keyed alike. Provide two keys for each lock.</p> <p>H. Provide thermal-magnetic circuit breakers which are rated for 40 degrees C ambient temperature. Breakers shall be quick-make, quick-break type trip with trip indication shown by handle position other than on or off. Multi-pole breakers shall have a common trip handle. Tandem type circuit breakers shall not be permitted.</p> <p>I. Provide typed directory card with clear holder for each panelboard.</p>	<p><b>SECTION C16442</b> <b>UTILITY SERVICE ENTRANCE AND DISTRIBUTION SYSTEM</b></p> <p>PART 1 - GENERAL</p> <p>1.01 SYSTEM DESCRIPTION</p> <p>A. The underground electrical system service characteristics shall be 208Y/120 volts, Three Phase, Four Wire service and shall extend from utility company transformer secondary.</p> <p>B. Metering of electrical usage shall be located as required by local electrical utility company. Coordinate requirements with local utility company.</p> <p>C. Distribution system originates at secondary of utility transformer and includes service entrance conduit and conductors, distribution equipment, lighting panelboards, utilization equipment, overcurrent devices, disconnecting means, controls, branch and feeder circuits, etc.</p> <p>PART 2 - PRODUCTS</p> <p>2.01 MATERIALS</p> <p>A. Furnish service entrance conduit, cable, and miscellaneous hardware as required by plans and specifications for electrical service entrance and system grounding at main electrical service.</p> <p>PART 3 - EXECUTION</p> <p>3.01 EXAMINATION AND PREPARATION</p> <p>A. Coordinate exact locations of electrical service utility transformer, metering equipment, service lateral, etc. prior to commencement of installation. Contact engineer with conflicts prior to bid.</p> <p>B. Ensure pad mounted transformer is not located within roadway or sidewalk.</p> <p>C. Coordinate with local electrical utility for all utility company requirements and provide for the following items and any others required by the utility: <ol style="list-style-type: none"> <li>Concrete pad for utility transformer with required dimensions and details.</li> <li>Primary underground conduit, excavation, and backfill requirements.</li> <li>Pay for all fees associated with establishment of electrical service.</li> <li>Furnish list of loads to the electrical utility company serving the facility.</li> <li>Verify that utility company clearances are provided on all sides of utility equipment.</li> </ol> </p> <p>D. Ensure proper access to utility equipment is maintained.</p> <p>E. Provide pull rope, excavation in accordance with electrical utility company requirements, backfill and concrete envelope for primary in accordance with electrical utility company requirements. Turn conduits up riser pole as required. cap spare conduits 12 inches above grade with plumbers pipe cap.</p> <p>F. Provide secondary lugs on utility transformer and perform drilling and installation of lugs in accordance with utility requirements. Type of lugs shall be in accordance with electrical utility company requirements. Connect service conductor to transformer secondary lugs as directed by electrical utility.</p>	<p>1.03 CONTROLS</p> <p>A. Lighting contactors shall be Square-D, General Electric, Cutler-Hammer or Siemens of types and quantity shown on drawings, except those furnished with the switchgear as part of the <u>National Account Program</u> by Suncoast Environmental Controls (SEC).</p> <p>1.04 EMERGENCY LIGHTING UNITS</p> <p>A. BATTERIES shall supply emergency power for lighting with minimum operating time of 1-1/2 hours.</p> <p>B. Emergency lighting shall be automatically operational upon normal utility power failure.</p> <p>PART 3 - EXECUTION</p> <p>3.01 INSTALLATION</p> <p>A. Lighting fixtures shall be structurally supported. Fluorescent fixtures mounted in suspended ceilings shall be supported by and attached to ceiling system as required by NEC Article 410. In addition, fluorescent troffers shall be supported at two opposite corners to building structure.</p> <p>B. Recessed fixtures in dropped ceiling areas shall be connected to power source using flexible conduit. Flexible conduit shall contain a separate insulated green No. 12 copper ground wire. Flexible conduit shall be connected to junction box and fixture. Green ground wire shall provide ground continuity between conduit system and fixture. Grounding conductors shall be permanently and mechanically connected between fixture and conduit system so as to be electrically continuous.</p> <p>C. Fixtures surface mounted on exposed tee bar ceilings shall use grip clamps on tee bars to support fixtures.</p> <p>D. Wire shall be continuous from splice in outlet box of building wiring system to lamp socket or ballast terminals.</p> <p>E. Maintain the integrity of enclosures on enclosed and gasketed fixtures. Minimize the number of enclosure penetrations and make such penetrations water and dust tight with appropriate gaskets and fittings.</p> <p>F. Concrete bases shall be provided for all exterior ground mounted or pole mounted fixtures.</p> <p>G. Install accessories furnished with each fixture.</p> <p>H. Wiring from pole bases to pole mounted luminaire shall be No. 12 with fuse protection provided by a 30 amp, 600 volt waterproof fuseholder with Bussman 'Limitron' fuse of ampere rating 3 times the load current.</p> <p>I. Surface and recessed fixtures on or in plastered or drywall ceilings shall be supported by support channels. Support channels shall span across main support channels and shall not depend upon ceilings for support.</p> <p>3.02 FIELD QUALITY CONTROL</p> <p>A. Relamp fixtures that have failed lamps at substantial completion.</p>	<p><b>SECTION C16597</b> <b>TELEPHONE SERVICE</b></p> <p>PART 1 - GENERAL</p> <p>1.01 WORK INCLUDED</p> <p>A. Furnish and install telephone system consisting of empty conduits, junction boxes, outlet boxes, device plates, etc., as specified and shown on owner selected vendor wiring schematics. Cable, equipment, and installation of the interior system will be provided by the owner's system vendor.</p> <p>B. Provide underground PVC, Schedule 40, service conduit as required by plans.</p> <p>C. Telephone Utility Company will provide service entrance cable.</p> <p>D. Interior telephone system will be furnished by owner's vendor.</p> <p>E. Special backboxes (unless otherwise noted) and faceplates will be furnished by the owner's vendor.</p> <p>PART 2 - PRODUCTS</p> <p>2.01 MATERIALS</p> <p>A. Provide 4-11/16" square boxes, with plaster rings. Provide device plates for telephone outlets to match those specified in wiring device section. Provide separate conduit to nearest accessible ceiling space from each outlet.</p> <p>B. Minimum conduit size shall be 3/4".</p> <p>C. Provide lightning arrester for telephone service entrance at main telephone backboard in accordance with UL96A paragraph 11.2 and NFPA 780.</p> <p>D. Cable shall be in conduit where installed in walls or above inaccessible ceiling spaces.</p> <p>PART 3 - EXECUTION</p> <p>3.01 INSTALLATION</p> <p>A. Provide one #10 equivalent nylon pull wire in each empty telephone conduit.</p> <p>B. Provide trenching, backfilling, etc., for installation of service entrance conduit in accordance with other divisions, plans, and telephone utility requirements. Provide pull wire in empty conduit.</p> <p>C. Coordinate with the local utility for point of service and type of service required. Pay for any utility company charges and fees for establishment of service.</p> <p>D. Provide a complete raceway system in accordance with telephone utility company and interior system vendor/utility requirements. Telephone utility company and interior system vendor shall review the drawings. Contractor shall provide for any additional or varying requirements.</p> <p>E. Terminate each conduit stub-up or termination with nylon insulated bushings.</p> <p>F. Final connections and testing of system will be provided by the system vendor. Contractor shall contact the owner and vendor and schedule the work.</p>
<p><b>SECTION C16596</b> <b>SPECIAL SYSTEMS</b></p> <p>PART 1 - GENERAL</p> <p>1.01 ACCEPTABLE MANUFACTURERS AND VENDORS</p> <p>A. Lighting fixtures indicated on lighting fixture schedule are to be purchased from the <u>National Account Vendor</u> for the region of the project (verify region designation with Owner's Representative):</p> <ol style="list-style-type: none"> <li>Accu-Serv Lighting - Atlantic region, Northeast region and Southeast region. Contact at Accu-Serv: Bob Harpring at 877-707-7378, fax - 502-961-0357, email - bharpring@accu-serv.com</li> <li>Villa Lighting - Midwest region, Southwest region, and West region. Contact at Villa Lighting: Dave Christianell at 800-325-0963, fax- 314-531-8720, email - davec@villalighting.com</li> </ol> <p>B. Ballasts to be electronic ballast provided with lighting fixture by the manufacturer.</p> <p>C. Lamps to be Osram-Sylvania and will typically be provided with the luminaire by the lighting manufacturer.</p> <p>PART 2 - PRODUCTS</p> <p>1.02 FIXTURE REQUIREMENTS</p> <p>A. Provide regulating, HPF ballasts in all HID lighting fixtures. HID lamp types shall be as indicated on the drawings.</p> <p>B. Recessed fluorescent lighting fixture ballasts shall be provided with integral thermal protection.</p>	<p><b>SECTION C16441</b> <b>ENCLOSED SWITCHES</b></p> <p>PART 1 - PRODUCTS</p> <p>1.01 MANUFACTURERS</p>	<p><b>SECTION C16596</b> <b>SPECIAL SYSTEMS</b></p> <p>PART 1 - GENERAL</p> <p>1.01 WORK INCLUDED</p> <p>A. Furnish and install raceway system for music/communications security, CCTV, POS, and other owner-furnished systems, consisting of empty conduits, junction boxes, outlet boxes, and device plates, etc., as specified and shown on owner selected vendor wiring schematics. Cable, equipment, and installation of the interior system will be provided by the owner's system vendor.</p> <p>B. Interior system equipment will be furnished by Owner's Vendor.</p> <p>C. Install special backboxes furnished by Owner's Vendor. Coordinate with the Vendor for the installation. Coordinate with the Vendor if backboxes are to be contractor provided in order to provide and install the appropriate item for the Vendor.</p>	<p><b>SECTION C16596</b> <b>SPECIAL SYSTEMS</b></p> <p>PART 1 - GENERAL</p> <p>1.01 WORK INCLUDED</p> <p>A. Furnish and install raceway system for music/communications security, CCTV, POS, and other owner-furnished systems, consisting of empty conduits, junction boxes, outlet boxes, and device plates, etc., as specified and shown on owner selected vendor wiring schematics. Cable, equipment, and installation of the interior system will be provided by the owner's system vendor.</p> <p>B. Interior system equipment will be furnished by Owner's Vendor.</p> <p>C. Install special backboxes furnished by Owner's Vendor. Coordinate with the Vendor for the installation. Coordinate with the Vendor if backboxes are to be contractor provided in order to provide and install the appropriate item for the Vendor.</p>	<p><b>SECTION C16596</b> <b>SPECIAL SYSTEMS</b></p> <p>PART 1 - GENERAL</p> <p>1.01 WORK INCLUDED</p> <p>A. Furnish and install raceway system for music/communications security, CCTV, POS, and other owner-furnished systems, consisting of empty conduits, junction boxes, outlet boxes, and device plates, etc., as specified and shown on owner selected vendor wiring schematics. Cable, equipment, and installation of the interior system will be provided by the owner's system vendor.</p> <p>B. Interior system equipment will be furnished by Owner's Vendor.</p> <p>C. Install special backboxes furnished by Owner's Vendor. Coordinate with the Vendor for the installation. Coordinate with the Vendor if backboxes are to be contractor provided in order to provide and install the appropriate item for the Vendor.</p>
<p><b>SECTION C16597</b> <b>TELEPHONE SERVICE</b></p> <p>PART 1 - GENERAL</p> <p>1.01 WORK INCLUDED</p> <p>A. Furnish and install telephone system consisting of empty conduits, junction boxes, outlet boxes, device plates, etc., as specified and shown on owner selected vendor wiring schematics. Cable, equipment, and installation of the interior system will be provided by the owner's system vendor.</p> <p>B. Interior system equipment will be furnished by Owner's Vendor.</p> <p>C. Install special backboxes furnished by Owner's Vendor. Coordinate with the Vendor for the installation. Coordinate with the Vendor if backboxes are to be contractor provided in order to provide and install the appropriate item for the Vendor.</p>	<p><b>SECTION C16597</b> <b>TELEPHONE SERVICE</b></p> <p>PART 1 - GENERAL</p> <p>1.01 WORK INCLUDED</p> <p>A. Furnish and install telephone system consisting of empty conduits, junction boxes, outlet boxes, device plates, etc., as specified and shown on owner selected vendor wiring schematics. Cable, equipment, and installation of the interior system will be provided by the owner's system vendor.</p> <p>B. Interior system equipment will be furnished by Owner's Vendor.</p> <p>C. Install special backboxes furnished by Owner's Vendor. Coordinate with the Vendor for the installation. Coordinate with the Vendor if backboxes are to be contractor provided in order to provide and install the appropriate item for the Vendor.</p>	<p><b>SECTION C16597</b> <b>TELEPHONE SERVICE</b></p> <p>PART 1 - GENERAL</p> <p>1.01 WORK INCLUDED</p> <p>A. Furnish and install telephone system consisting of empty conduits, junction boxes, outlet boxes, device plates, etc., as specified and shown on owner selected vendor wiring schematics. Cable, equipment, and installation of the interior system will be provided by the owner's system vendor.</p> <p>B. Interior system equipment will be furnished by Owner's Vendor.</p> <p>C. Install special backboxes furnished by Owner's Vendor. Coordinate with the Vendor for the installation. Coordinate with the Vendor if backboxes are to be contractor provided in order to provide and install the appropriate item for the Vendor.</p>	<p><b>SECTION C16597</b> <b>TELEPHONE SERVICE</b></p> <p>PART 1 - GENERAL</p> <p>1.01 WORK INCLUDED</p> <p>A. Furnish and install telephone system consisting of empty conduits, junction boxes, outlet boxes, device plates, etc., as specified and shown on owner selected vendor wiring schematics. Cable, equipment, and installation of the interior system will be provided by the owner's system vendor.</p> <p>B. Interior system equipment will be furnished by Owner's Vendor.</p> <p>C. Install special backboxes furnished by Owner's Vendor. Coordinate with the Vendor for the installation. Coordinate with the Vendor if backboxes are to be contractor provided in order to provide and install the appropriate item for the Vendor.</p>	<p><b>SECTION C16597</b> <b>TELEPHONE SERVICE</b></p> <p>PART 1 - GENERAL</p> <p>1.01 WORK INCLUDED</p> <p>A. Furnish and install telephone system consisting of empty conduits, junction boxes, outlet boxes, device plates, etc., as specified and shown on owner selected vendor wiring schematics. Cable, equipment, and installation of the interior system will be provided by the owner's system vendor.</p> <p>B. Interior system equipment will be furnished by Owner's Vendor.</p> <p>C. Install special backboxes furnished by Owner's Vendor. Coordinate with the Vendor for the installation. Coordinate with the Vendor if backboxes are to be contractor provided in order to provide and install the appropriate item for the Vendor.</p>
<p>PART 2 - EXECUTION</p> <p>2.01 INSTALLATION</p>	<p>PART 1 - PRODUCTS</p> <p>1.01 MANUFACTURERS</p>	<p>PART 1 - GENERAL</p> <p>1.01 WORK INCLUDED</p> <p>A. Furnish and install raceway system for music/communications security, CCTV, POS, and other owner-furnished systems, consisting of empty conduits, junction boxes, outlet boxes, and device plates, etc., as specified and shown on owner selected vendor wiring schematics. Cable, equipment, and installation of the interior system will be provided by the owner's system vendor.</p> <p>B. Interior system equipment will be furnished by Owner's Vendor.</p> <p>C. Install special backboxes furnished by Owner's Vendor. Coordinate with the Vendor for the installation. Coordinate with the Vendor if backboxes are to be contractor provided in order to provide and install the appropriate item for the Vendor.</p>	<p>PART 1 - GENERAL</p> <p>1.01 WORK INCLUDED</p> <p>A. Furnish and install raceway system for music/communications security, CCTV, POS, and other owner-furnished systems, consisting of empty conduits, junction boxes, outlet boxes, and device plates, etc., as specified and shown on owner selected vendor wiring schematics. Cable, equipment, and installation of the interior system will be provided by the owner's system vendor.</p> <p>B. Interior system equipment will be furnished by Owner's Vendor.</p> <p>C. Install special backboxes furnished by Owner's Vendor. Coordinate with the Vendor for the installation. Coordinate with the Vendor if backboxes are to be contractor provided in order to provide and install the appropriate item for the Vendor.</p>	<p><b>SECTION C16597</b> <b>TELEPHONE SERVICE</b></p> <p>PART 1 - GENERAL</p> <p>1.01 WORK INCLUDED</p> <p>A. Furnish and install telephone system consisting of empty conduits, junction boxes, outlet boxes, device plates, etc., as specified and shown on owner selected vendor wiring schematics. Cable, equipment, and installation of the interior system will be provided by the owner's system vendor.</p> <p>B. Interior system equipment will be furnished by Owner's Vendor.</p> <p>C. Install special backboxes furnished by Owner's Vendor. Coordinate with the Vendor for the installation. Coordinate with the Vendor if backboxes are to be contractor provided in order to provide and install the appropriate item for the Vendor.</p>



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

TAN VU  
ARCHITECT

220 E. CENTRAL PKWY, STE 4000  
ALTIMONTE SPRINGS, FL 32701  
407.645.5008

SEAL:



**CHICK-FIL-A**  
**HATTIESBURG**  
6099 US HIGHWAY 98  
HATTIESBURG, MS 39402

**FSU#01613**

BUILDING TYPE / SIZE:	S04-152	
RELEASE:		
PRINTED FOR:		
<b>CONSTRUCTION</b>		
<b>REVISION SCHEDULE</b>		
NO.	DATE	DESCRIPTION
CONSULTANT PROJECT #	2022_1062	
DATE	MAY 2023	
DRAWN BY	RZ	
CHECKED BY	MI	
Information contained on this drawing and in all digital files provided for above named project may not be reproduced in any manner without express written or verbal consent from the project professional.		
SHEET		
ELECTRICAL SPECIFICATIONS		
SHEET NUMBER		

**E4.2**