X DEMOLITION KEY NOTES

1 DEMO EXISTING FIXTURE AND ASSOCIATED GREASE WASTE & VENT PIPING BACK TO GREASE WASTE AND VENT MAIN. NO DEAD END PIPING TO REMAIN AFTER DEMOLITION.

2 DEMO EXISTING VENT PIPING BACK TO GREASE/SANITARY WASTE AND VENT MAIN. NO DEAD END PIPING TO REMAIN AFTER DEMOLITION.

3 REFER TO CIVIL PLAN FOR CONTINUATION.

4 DEMO EXISTING EXTERIOR CLEANOUTS.

5 REMOVE EXISTING 4" GREASE LINE AT THIS LOCATION. SEE P101 SHEET FOR NEW DESIGN. REFER TO CIVIL PLAN FOR FURTHER INFORMATION.

6 DISCONNECT EXISTING GAS WATER HEATER AND REMOVE UTILITY CONNECTIONS FOR NEW GAS WATER HEATER CONNECTIONS. SEE P-201 FOR FURTHER INSTRUCTIONS.

7 DEMO EXISTING PLUMBING FIXTURE AND PREPARE FOR NEW SANITARY LINE CONNECTION.

8 DISCONNECT AND REMOVE EXISTING 4" GREASE WASTE MAIN BELOW SLAB AND PREPARE FOR NEW CONNECTION. CONTRACTOR TO FIELD VERIFY DIRECTION, FLOW & INVERTS PRIOR TO COMMENCEMENT OF WORK.

9 REMOVE ALL WATER PIPING CONNECTION ASSOCIATED WITH PLUMBING FIXTURES IN THE RESTROOM AREAS AND PREPARE FOR NEW FIXTURE CONNECTION.

10 EXISTING PORTABLE AIR COMPRESSOR TO REMAIN.

11 EXISTING SANITARY LINE AND WATER LINES SERVING RESTROOMS TO REMAIN.

12 CUT EXISTING 2" MAIN WATER LINE AT LOCATION SHOWN AND PREPARE FOR NEW CONNECTION.

13 LOCATE AND CUT EXISTING SANITARY LINE AT LOCATION SHOWN AND PREPARE FOR NEW CONNECTION.

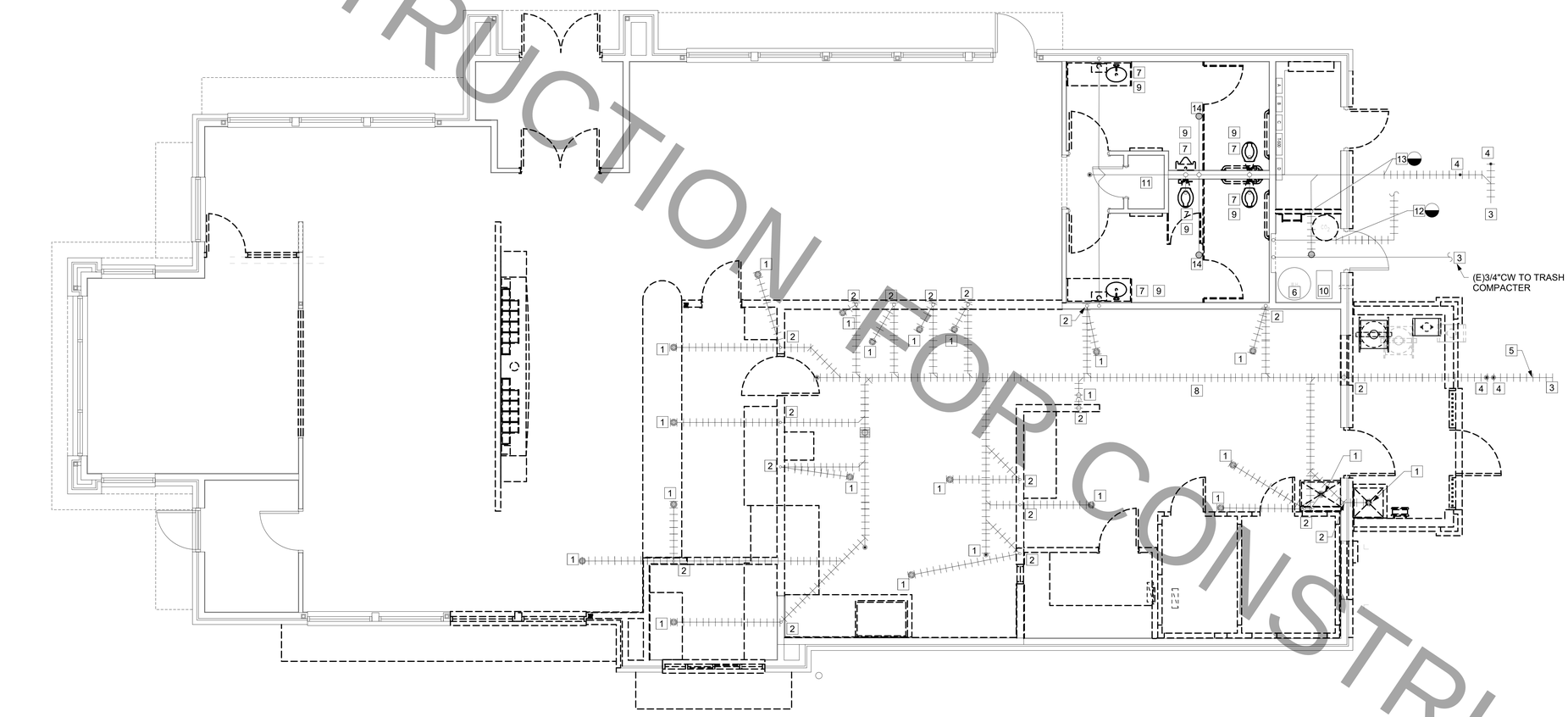
14 EXISTING FLOOR DRAINS TO REMAIN. INSPECT FOR DAMAGES AND REPLACE AS NEEDED.

DEMOLITION PIPE LEGEND

EXISTING PIPE TO BE REMOVED

EXISTING PIPE TO REMAIN

POINT OF DISCONNECTION



1 BELOW SLAB PLUMBING DEMOLITION PLAN
1/4" = 1'-0"

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

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Plans Prepared By:
CPH Design, Inc.
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED PROFESSIONAL ENGINEER
No. 40421-E
PROFESSIONAL
JAMES RAY HOLLIS
SIGNATURE FRED SHELTON

CHICK-FIL-A
CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 ALL LRG
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

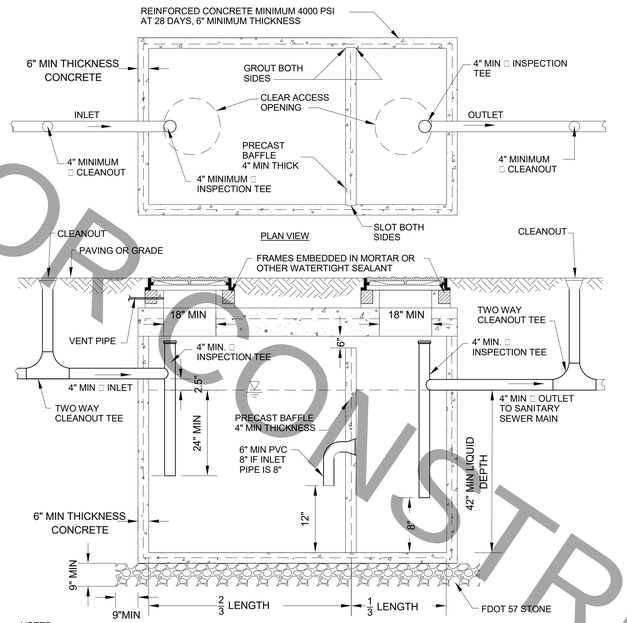
CONSULTANT PROJECT #	C29119
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DATE	10-10-21
DRAWN BY	JRH

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SHEET
BELOW SLAB PLUMBING DEMOLITION PLAN

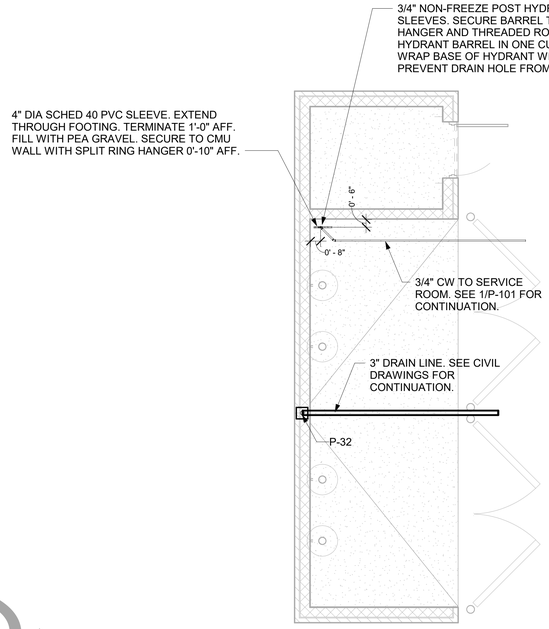
SHEET NUMBER
P-100

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40-01530-P-100-BELOW SLAB PLUMBING DEMOLITION PLAN



NOTES:
1. SPECIFIC DESIGN DETAILS MUST IN ALL ASPECTS MEET APPLICABLE AHJ PLUMBING AND ADMINISTRATIVE CODE.
2. SIZE GREASE INTERCEPTOR PER UTILITY PLAN, SHEET PS-1.0.
3. INTERCEPTORS SHALL BE WATER AND GAS TIGHT.
4. ALL FIXTURES LOCATED IN FOOD AND BEVERAGE PREPARATION AREAS SHALL BE ROUTED THOUGH GREASE INTERCEPTOR. RESTROOM WASTE SHALL NOT BE ROUTED THROUGH INTERCEPTOR.
5. BAFFLE REQUIRED; ALTERNATIVE DESIGNS ARE ACCEPTABLE. DESIGN MUST MEET APPLICABLE AHJ PLUMBING AND ADMINISTRATIVE CODE.
6. LOADS: H-20 TRUCK WHEELS WITH 30% IMPACT PER AASHTO. TRAFFIC BEARING FRAME AND COVER TO MEET FDOT STANDARDS IF APPLICABLE.
7. PROVIDE AN APPROVED, ACCESSIBLE SAMPLING PORT DOWNSTREAM OF GREASE INTERCEPTOR.

(3) GREASE INTERCEPTOR DETAIL
1 1/2" = 1'-0"



(2) REFUSE PAD PLUMBING PLAN
1/4" = 1'-0"

5. SHEET NOTES

1. COORDINATE INSTALLATION OF SANITARY PIPING WITH FOOTINGS IN THE FIELD. SLEEVE PENETRATIONS IN FOOTINGS WITH PVC.
2. COMBINATION WASTE AND VENT SYSTEM SHOWN HERE. WHERE REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION, PROVIDE SAFE-WASTE SYSTEM OR DEDICATED VENT SYSTEM AS OUTLINED IN STATE AND LOCAL CODE AMENDMENTS.
3. ALL WATER PIPING INSTALLED WITHIN EXTERIOR WALLS SHALL BE LOCATED ON THE INTERIOR SIDE OF THE INSULATION.
4. ALL VENT PIPING TO BE 2" DIAMETER MIN U.N.O. SEE 1/P-301 FOR VENT LAYOUT.

(X) RENOVATION KEY NOTES

1 EXISTING INCOMING 2"CW TO REROUTED AS SHOW. 3/4" CW TO REFUSE TO REMAIN UNLESS NOTIFIED OTHERWISE. SEE CIVIL UTILITY FOR FURTHER INFORMATION.

2 NEW VENT PIPING ROUTED TO ABOVE CEILING. ROUTE AND CONNECT NEW VENT PIPING TO EXISTING VENT SYSTEM. REFER TO RISER DIAGRAM FOR ROUTING INFORMATION.

3 INSTALL NEW PLUMBING FIXTURE IN LOCATION SHOWN. CONNECT NEW FIXTURE TO EXISTING SANITARY & VENT PIPING REMAINING FROM DEMOLITION.

4 CONNECT NEW SANITARY PIPING TO EXISTING SANITARY MAIN BELOW SLAB. CONTRACTOR TO FIELD VERIFY DIRECTION, FLOW & INVERTS PRIOR TO COMMENCEMENT OF WORK.

5 PROVIDE TRAP SEAL PROTECTOR P-26A.

6 INSTALL NEW TWO WAY EXTERIOR CLEANOUT IN LOCATION SHOWN.

7 3" VENT PIPING FROM NEW GREASE TRAP TO BE ROUTED UP ABOVE CEILING & CONNECTED TO EXISTING VENT SYSTEM. REFER TO RISER FOR ROUTING INFORMATION.

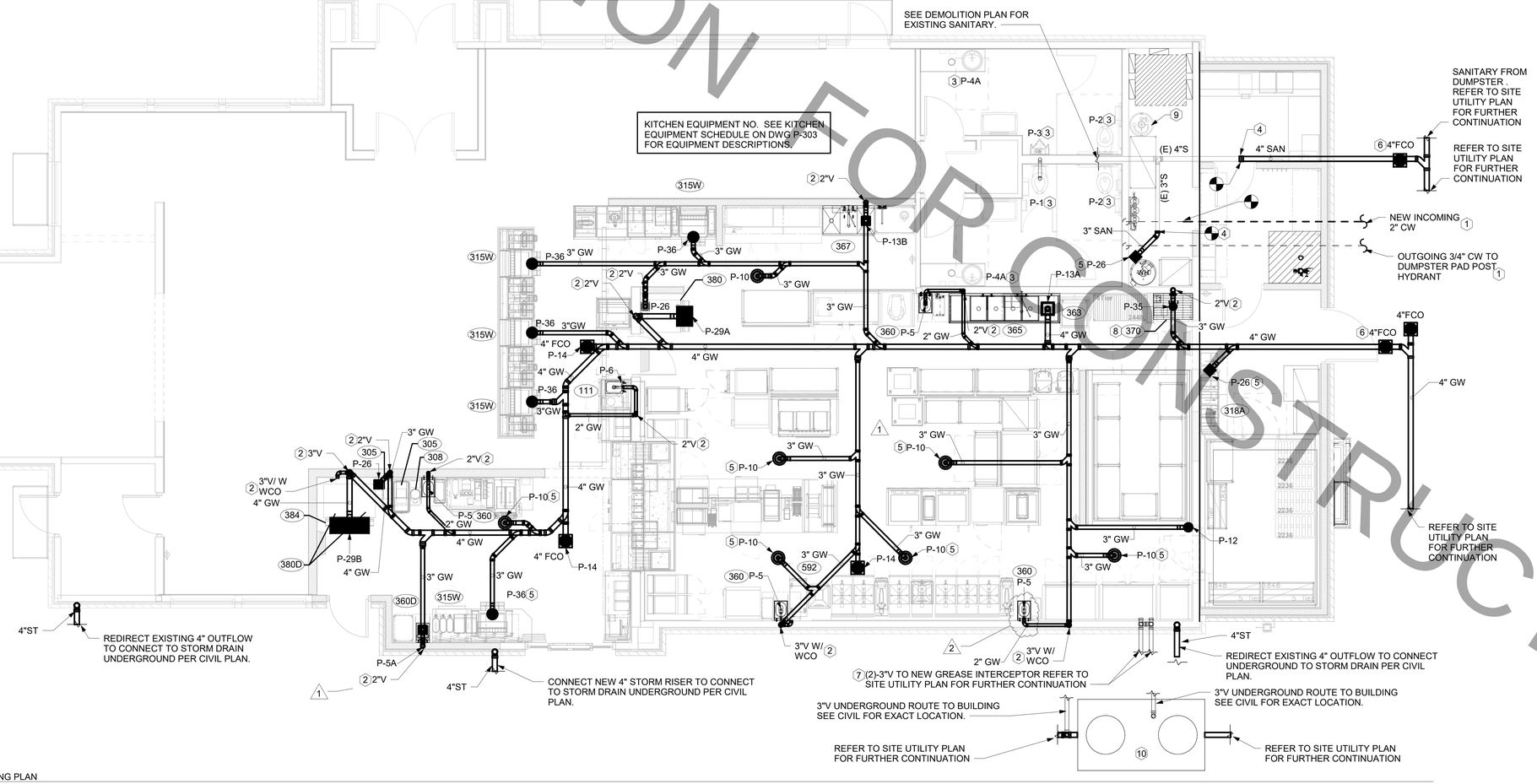
8 INSTALL P-35 FLOOR DRAIN WITH TOP OF DRAIN 0'-7" BFF. COORDINATE WITH GENERAL CONTRACTOR. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

9 NEW CO2 SYSTEM RELOCATED AS SHOWN ON PLAN. REFER TO SHEETS P-201 AND P-211 FOR FURTHER INFORMATION.

10 GREASE TRAP - REFER TO DETAIL 2/P-101, REFER TO SITE UTILITY PLAN SHEET FOR EXACT LOCATION.

POINT OF CONNECTION, EXISTING TO NEW
EXISTING PIPE (E)
NEW CONSTRUCTION PIPE

SANITARY/GREASE PIPE SYSTEM LEGEND



(1) BELOW SLAB PLUMBING PLAN
1/4" = 1'-0"

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Landscape No. N/A

ALABAMA LICENSED ENGINEER
No. 40421-E PROFESSIONAL
ENGINEER
CERTIFICATE FRED STILLWELL

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 ALL LRG
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
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2	03-22-2022	CONSTRUCTION REVISION #1

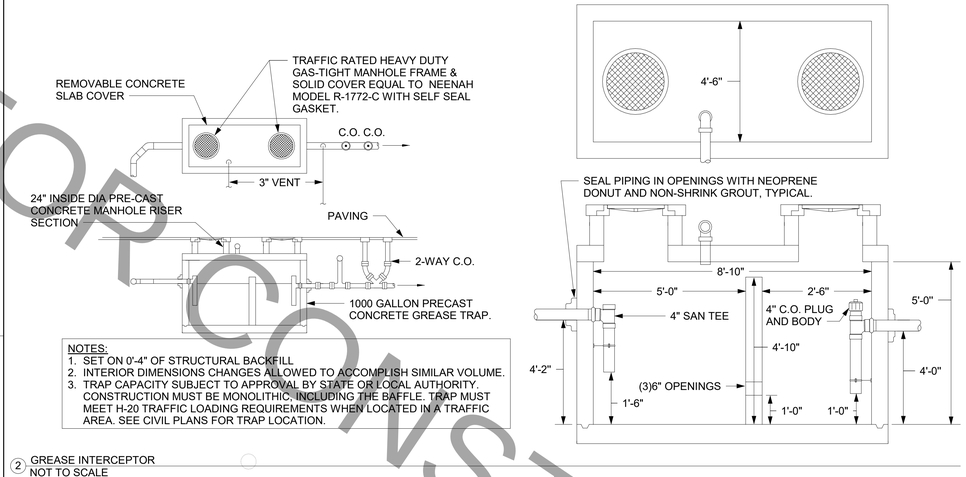
CONSULTANT PROJECT #	C29119
PRINTED FOR	PERMIT
DATE	10-10-21
DRAWN BY	JPM

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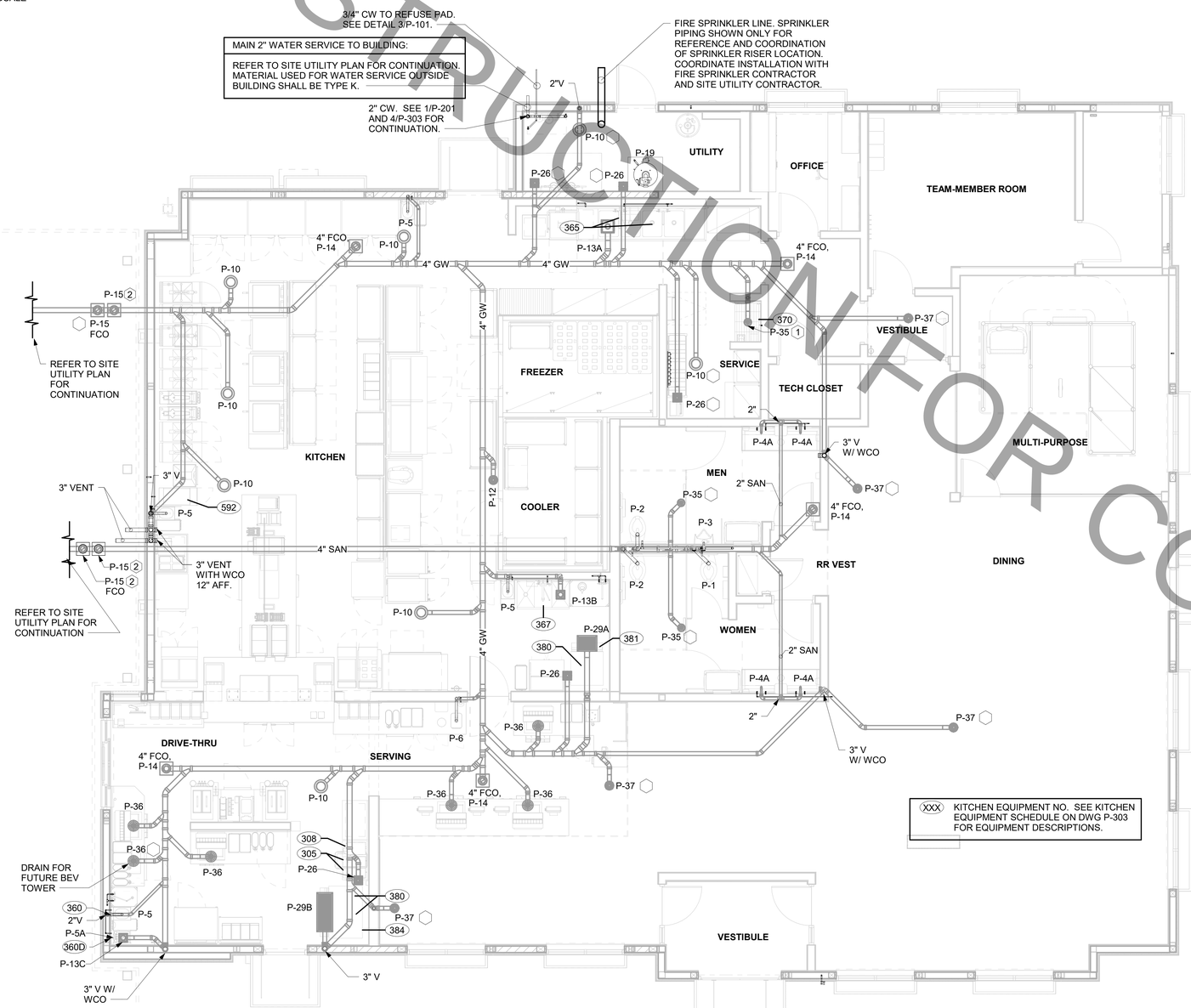
SHEET
BELOW SLAB PLUMBING PLAN

SHEET NUMBER
P-101

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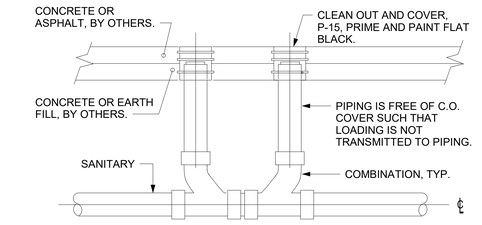
2 GREASE INTERCEPTOR
NOT TO SCALE



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

5. SHEET NOTES

1. COORDINATE INSTALLATION OF SANITARY PIPING WITH FOOTINGS IN THE FIELD. SLEEVE PENETRATIONS IN FOOTINGS WITH PVC.
2. COMBINATION WASTE AND VENT SYSTEM SHOWN HERE. WHERE REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION, PROVIDE SAFE-WASTE SYSTEM OR DEDICATED VENT SYSTEM AS OUTLINED IN STATE AND LOCAL CODE AMENDMENTS.
3. ALL WATER PIPING INSTALLED WITHIN EXTERIOR WALLS SHALL BE LOCATED ON THE INTERIOR SIDE OF THE INSULATION.
4. ALL VENT PIPING TO BE 2" DIAMETER MIN U.N.O. SEE 1/P-301 FOR VENT LAYOUT.

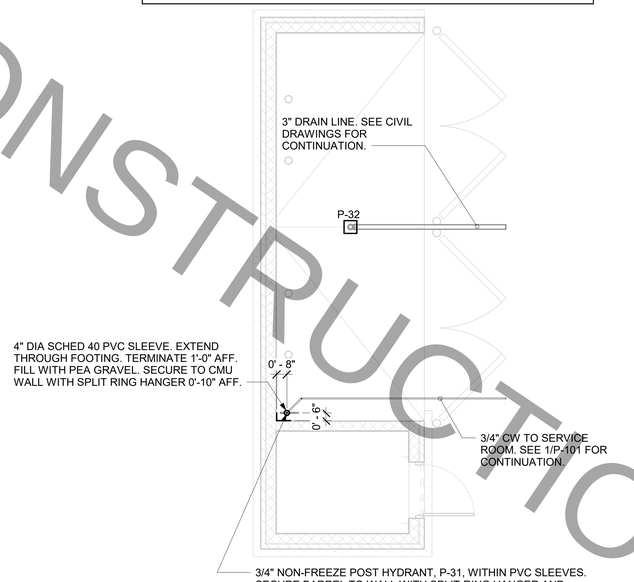


4 SAN. C.O. OUTSIDE BUILDING
NOT TO SCALE

KEY NOTES

1 INSTALL FLOOR DRAIN P-35 AT MOP SINK DEPRESSION WITH TOP OF STRAINER 0'-7" BFF.

METHOD OF DRAINAGE AT REFUSE PAD -
WHEN AREA DRAIN IS SHOWN ON CIVIL PLANS, SEE FIXTURE P-32 SPECIFICATION ON DRAWING P-901 FOR MAKE AND MODEL OF DRAIN. DRAIN AND PIPING PROVIDED AND INSTALLED BY CHICK-FIL-A SITE CONTRACTOR. WHEN AREA DRAIN IS NOT SHOWN, REFER TO ARCHITECTURAL DRAWINGS FOR DESIGN OPTION SHOWING DRAINAGE THROUGH BACK OF DUMPSTER ENCLOSURE.



3 REFUSE PAD PLUMBING PLAN
1/4" = 1'-0"

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5200 Buffington Road
Atlanta, Georgia
30349-2998

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Plans Prepared By:
CPH Consulting, LLC
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED No. 40421-E PROFESSIONAL ENGINEER JAMES FRED SISTRUNK

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35033

FSR#01530

BUILDING TYPE / SIZE: P13 SE LRG
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

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CONSULTANT PROJECT # C29119
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DATE 03/27/2023
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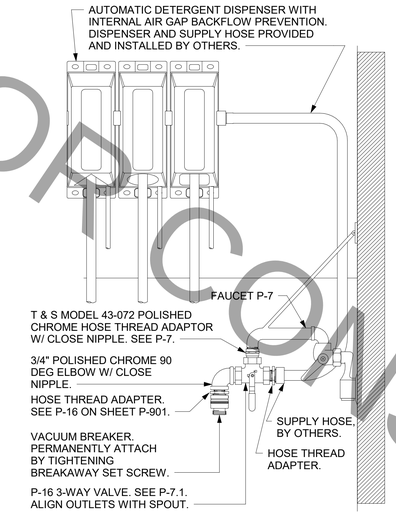
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SHEET
BELOW SLAB PLUMBING PLAN

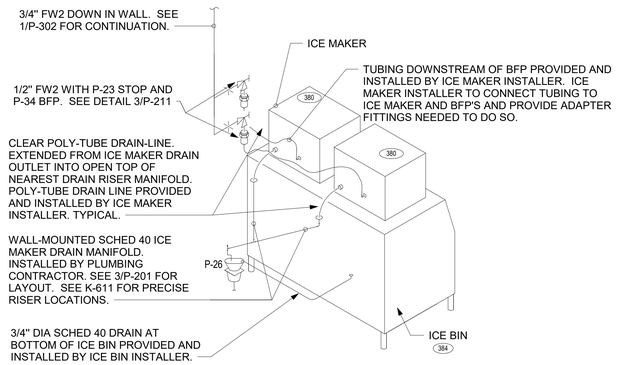
SHEET NUMBER
P-101

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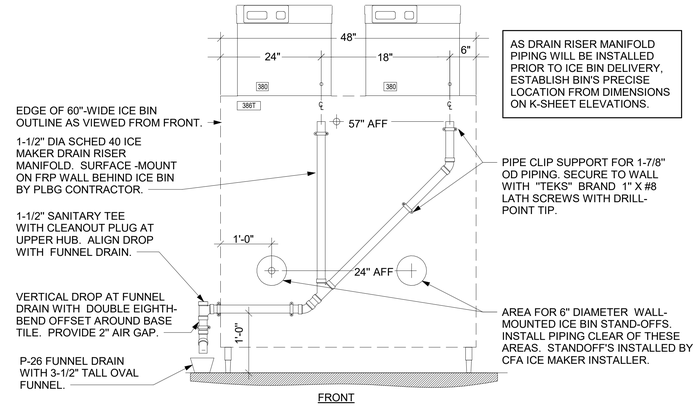


4 3-WAY VALVE AT MOP SINK
NOT TO SCALE



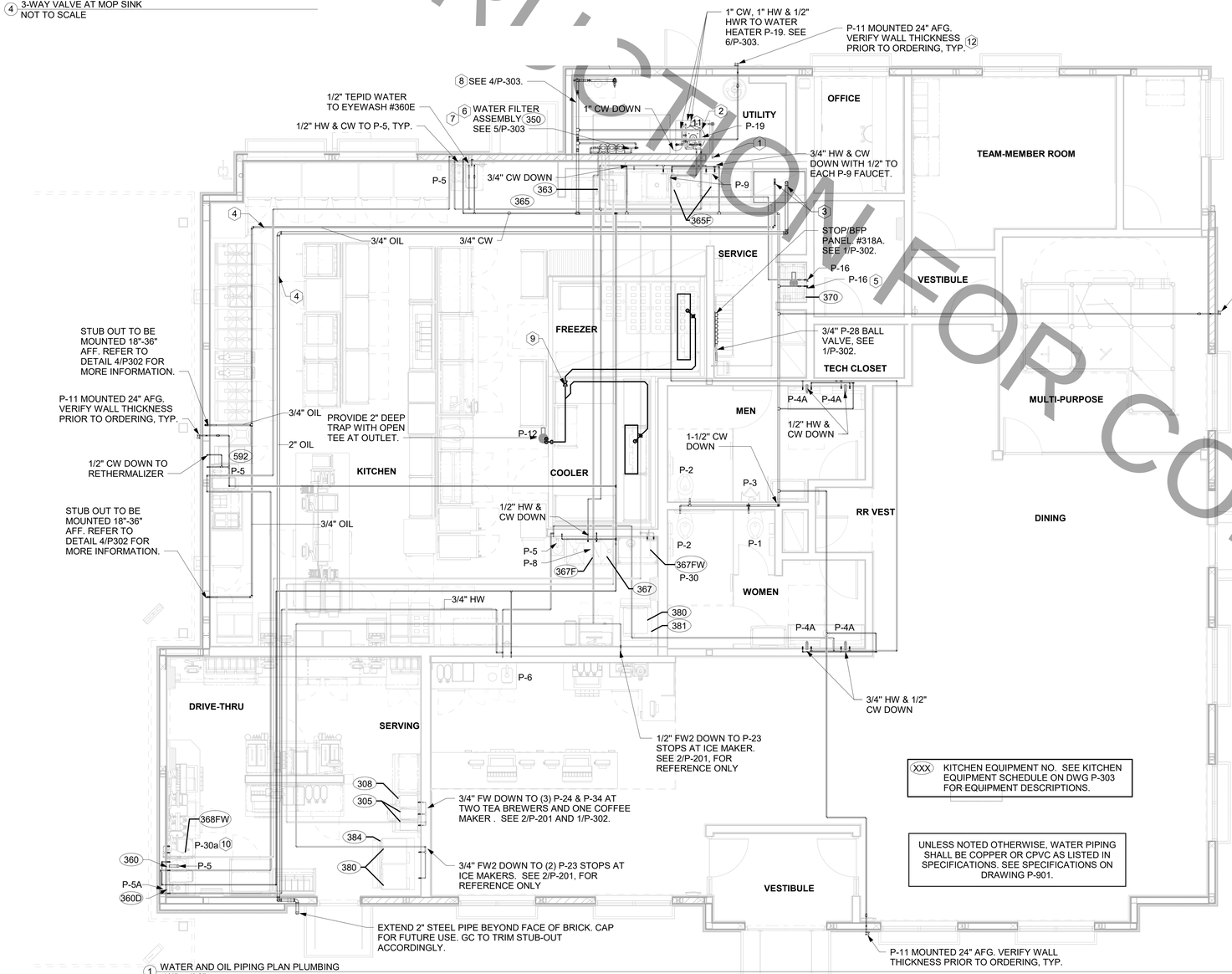
2 ICE MACHINE PIPING
NOT TO SCALE

DRAIN RISER LOCATIONS MEASURED FROM EDGE OF ICE BIN. VERIFY ICE BIN WIDTH AND PRECISE LOCATION FROM DIMENSIONS ON K-SHEET ELEVATIONS.



AS DRAIN RISER MANIFOLD PIPING WILL BE INSTALLED PRIOR TO ICE BIN DELIVERY, ESTABLISH BIN'S PRECISE LOCATION FROM DIMENSIONS ON K-SHEET ELEVATIONS.

3 ICE MAKER DRAIN ON WALL
NOT TO SCALE



1 WATER AND OIL PIPING PLAN PLUMBING
1/4" = 1'-0"

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

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

KEY NOTES

1 1" GAS DOWN FROM ROOF FOR P-19. SEE 6/P-303 FOR CONTINUATION. OFFSET DROP WITHIN WALL ABOVE MECH ROOM CEILING.
2 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.
3 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.
4 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.
5 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.
6 FW AND FW2 FROM WATER FILTERS. SEE DETAIL 5/P-303.
7 OWNER PROVIDED, PLUMBER INSTALLED WATER FILTERS. SEE DETAIL 5/P-303.
8 2" CW. SEE 4/P-303 FOR EXACT ROUTING LOCATIONS OF CW PIPING IN THIS AREA.
9 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.
10 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. SEE RISER DIAGRAM 2/P-102.
11 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.
12 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.

P-11 MOUNTED 24" AFG.
VERIFY WALL THICKNESS
PRIOR TO ORDERING, TYP.

3. SHEET NOTES

1. COORDINATE VENT TERMINAL LOCATIONS WITH FRESH AIR HOODS ON ROOFTOP EQUIPMENT SO AS TO MAINTAIN MINIMUM 15'-0" CLEARANCE.
2. HOLD ALL PIPING ABOVE THE CEILING TIGHT TO STRUCTURE. DUCT LOCATIONS TAKE PRIORITY. SEE DRAWING M-201 FOR DUCT LAYOUT. COORDINATE CONFLICTS WITH GC.
3. SEE K-SHEET ELEVATIONS FOR KITCHEN EQUIPMENT WATER PIPING ROUGH-IN LOCATIONS.
4. SEE SHEET P-211 FOR BEVERAGE CONDUIT PIPING.
5. SEE RISER DIAGRAM 1/P-301 FOR VENT PIPING. SEE ROOF PLAN 1/P-250 FOR VENT THRU ROOF (VTR) LOCATION.
6. VERIFY WALL TYPE AND WALL THICKNESS AT EXTERIOR HOSE BIBBS PRIOR TO ORDERING EQUIPMENT.
7. WATER HEATER PIPING IS SHOWN FOR STATE/A.O. SMITH MODELS WITH SIDE INLET/OUTLET CONNECTIONS. ADJUST PIPING AS NEEDED TO ACCOMODATE OTHER CONNECTION POINTS WHEN ALTERNATE MODELS ARE PROVIDED.
8. 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.

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.

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5200 Buffington Road
Atlanta, Georgia
30349-2998

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Plans Prepared By:
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Landscape No. N/A

ALABAMA LICENSED PROFESSIONAL ENGINEER No. 40421-E SIGNED SEALED DATED

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35033

FSR#01530

BUILDING TYPE / SIZE: P13 SE LRG
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

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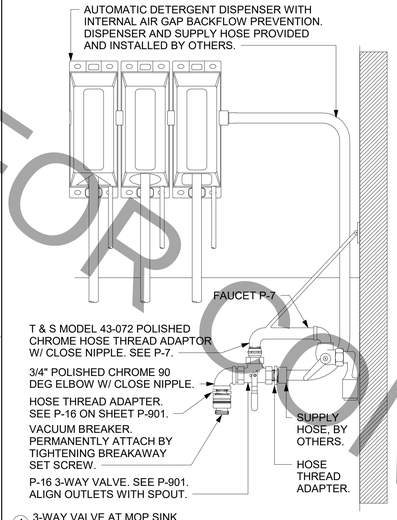
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DATE 03/27/2023
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SHEET
WATER AND OIL PIPING PLAN

SHEET NUMBER
P-201

Autodesk Docs://AL_01530_Cullman_2021.2_FSR01530_Cullman_PLB.rvt
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40-SE-01530-P-201-WATER AND OIL PIPING PLAN



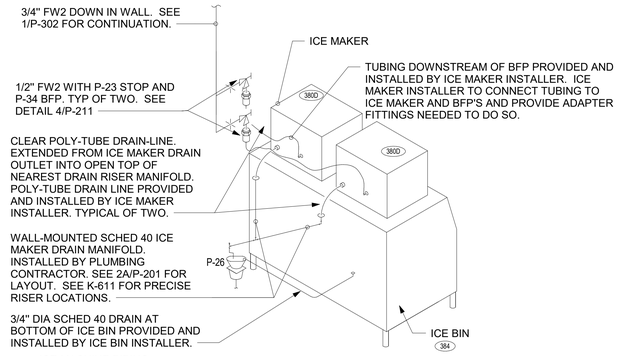
4 3-WAY VALVE AT MOP SINK
NOT TO SCALE

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.

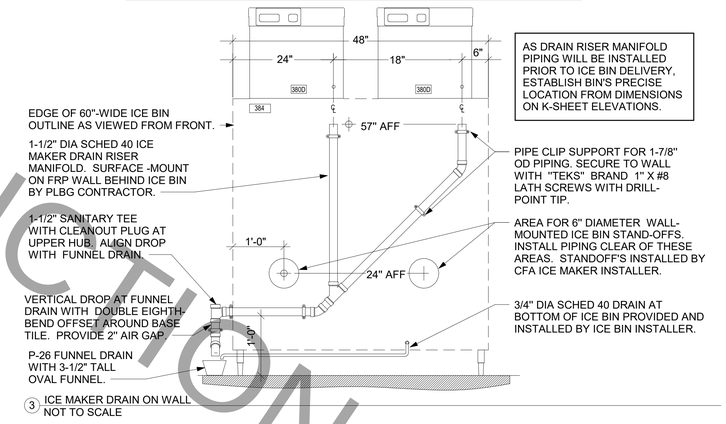
NOTE TO WATER HEATER INSTALLER:

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2 ICE MACHINE PIPING
NOT TO SCALE

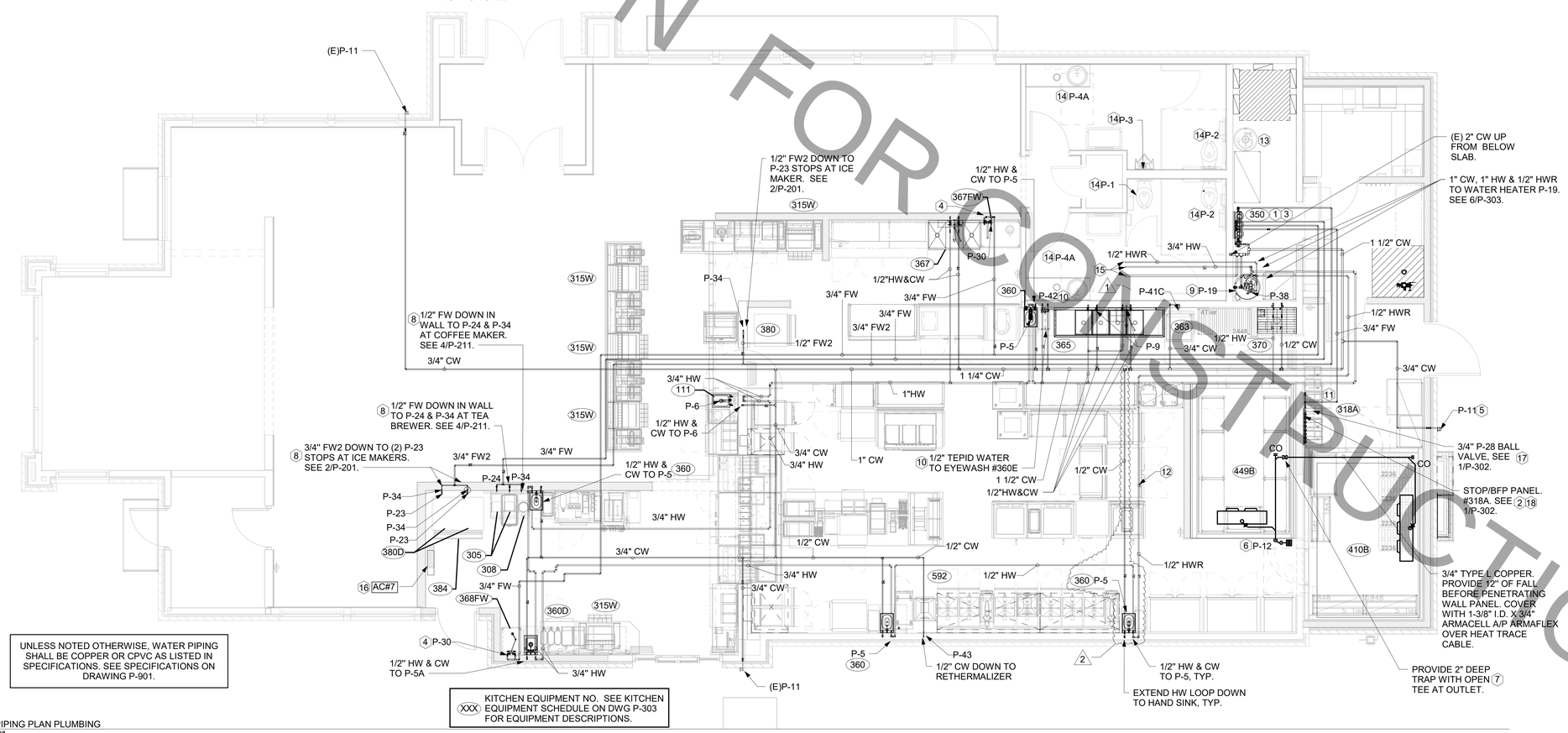
DRAIN RISER LOCATIONS MEASURED FROM EDGE OF ICE BIN. VERIFY ICE BIN WIDTH AND PRECISE LOCATION FROM DIMENSIONS ON K-SHEET ELEVATIONS.



3 ICE MAKER DRAIN ON WALL
NOT TO SCALE

RENOVATION KEY NOTES

1. REPLACE EXISTING WATER FILTERS WITH NEW T1 WATER FILTRATIONS SYSTEM.
2. NEW STOP/BFP PANEL. SEE KITCHEN DRAWINGS FOR EXACT LOCATION.
3. NEW FILTERED WATER PIPING ROUTED ABOVE CEILING FROM NEW WATER FILTERS TO NEW LOCATIONS SHOWN. SEE DETAIL ON SHEET P-303.
4. 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. SEE RISER DIAGRAM.
5. 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.
6. TURN 3/4" CONDENSATE PIPING OUT OF COOLER AND EXTEND OUTLET TO HUB DRAIN. SECURE PIPING TO COOLER 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.
7. 3/4" TYPE L COPPER. PROVIDE 12" OF FALL BEFORE PENETRATING WALL PANEL. COVER WITH 1-3/8" I.D. X 3/4" ARMACELL A/P ARMAFLEX OVER HEAT TRACE CABLE.
8. 1/2" FW TO P-24 & P-34 AT COFFEE MAKER AND TEA BREWER. SEE DETAIL 4 ON SHEET P-211. PROVIDE 2" DEEP TRAP WITH OPEN TEE AT OUTLET.
9. 1"CW DOWN TO AND 1" HW UP FROM WATER HEATER. SEE DETAIL ON SHEET P-303 FOR WATER HEATER PIPING INFORMATION.
10. ROUTE 1/2" HOT WATER & 1/2" COLD WATER LINE WITHIN WALL FROM HAND SINK OVER TO EYEWASH STATION. PROVIDE POINT OF USE MIXING VALVE P-42 TO ENSURE EYEWASH STATION RECEIVES TEPID WATER CONNECTION.
11. 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.
12. INSTALL CIRCUIT SETTER IN HOT WATER RETURN LINE FOR BALANCING BUILDING HOT WATER RETURN PIPING.
13. NEW CO2 SYSTEM RELOCATED IN MECHANICAL ROOM.
14. INSTALL NEW PLUMBING FIXTURE AND CONNECT TO EXISTING WATER AND SANITARY CONNECTIONS.
15. EXISTING RESTROOM PIPING TO REMAIN IN PLACE. DISCONNECT WATER MAINS TO RESTROOMS AND PREPARE FOR NEW CONNECTION. RECONNECT EXISTING HOT AND COLD WATER PIPING FOR RESTROOMS TO NEW 3/4" HOT AND 1-1/2" COLD WATER PIPING AS NEEDED.
16. INDIRECT CONNECT CONDENSATE FROM MINI-SPLIT SYSTEM DOWN ALONG WALL TO NEAREST DRAIN.
17. 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.
18. OWNER PROVIDED, PREFABRICATED STOP/BACKFLOW PREVENTER PANEL. MOUNTED ON WALL BY PLUMBER. EIGHT (8) ASSE 1022 RATED BFP'S. PIPING FROM BFPS TO CARBONATORS SHALL BE BY THE LOCAL SOFT DRINK VENDOR.



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.

1 WATER PIPING PLAN PLUMBING
1/4" = 1'-0"

FOR CONSTRUCTION
PERMIT

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

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Plans Prepared By:
CPH Design, Inc.
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED ENGINEER No. 40421-E PROFESSIONAL CHRISTOPHER FRED STELTENPOHL

CHICK-FIL-A
CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 ALL LRG ALL
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	10-26-2021	PERMIT REV#1
2	03-22-2022	CONSTRUCTION REVISION #1

CONSULTANT PROJECT #	C29119
PRINTED FOR	PERMIT
DATE	10-10-21
DRAWN BY	JPM

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SHEET
WATER PIPING PLAN

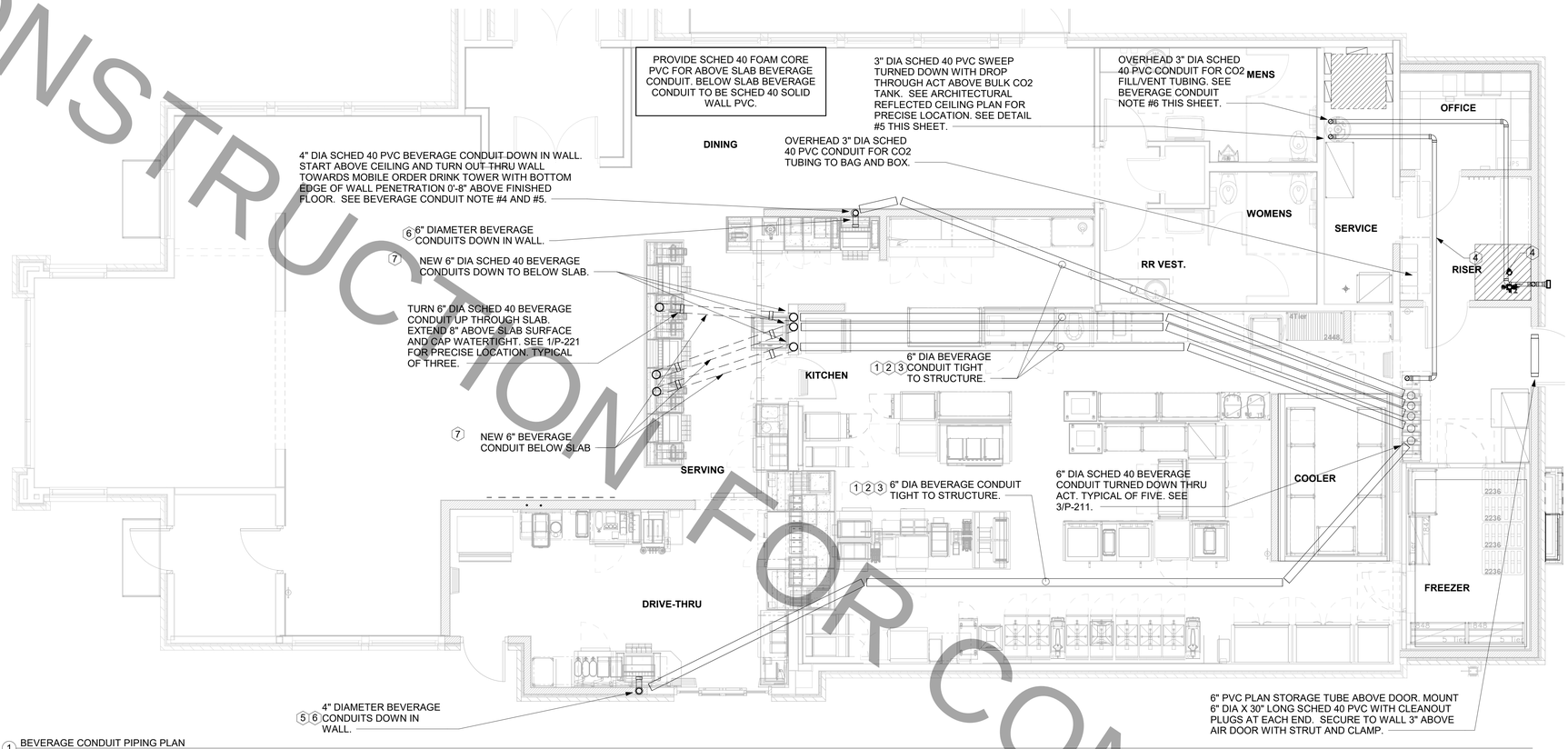
SHEET NUMBER
P-201

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3/23/2022 2:55:59 PM
40-01530-P-201-WATER PIPING PLAN

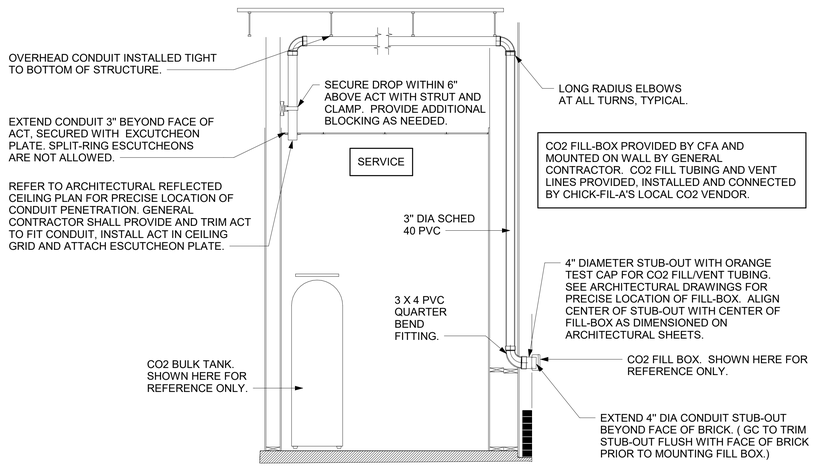
⑱ BEVERAGE CONDUIT NOTES

1. ROUTE BEVERAGE SYSTEM PIPING OVERHEAD FROM THE BEVERAGE RACK TO DRINK TOWERS IN FIVE (5)-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.
2. COORDINATE ROUTING OF ALL CONDUITS WITH HVAC DUCT IN KITCHEN. SEE SHEET M-101 FOR LOCATION OF AC UNITS AND DUCT ROUTING.
3. 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.
4. COORDINATE ROUTING OF REMOTE FILL LINE AND LOCATION OF EXTERIOR WALL MOUNTED FILL-BOX WITH COMPRESSED GAS VENDOR DURING CONSTRUCTION.
5. AT 6"Ø CONDUIT DROP IN DRIVE-THRU, PROVIDE 1/8TH BEND FITTING WITH SHORT PIPE STUB AT BASE OF DROP. CUT STUB AND FITTING FLUSH WITH FINISHED WALL.
6. FOR BEVERAGE CONDUIT DROPS AT WALLS WITH SHEATHING EXTENDED ABOVE THE CEILING, PROVIDE APPROPRIATE FITTING TO AT UPPER END OF CONDUIT DROP TO EXTEND CONDUIT THROUGH SHEATHING.
7. ROUTE NEW BEVERAGE CONDUIT DOWN WITHIN WALL TO BELOW SLAB. COORDINATE SAW CUT AND ROUTING WITH EXISTING BELOW SLAB CONDITIONS.

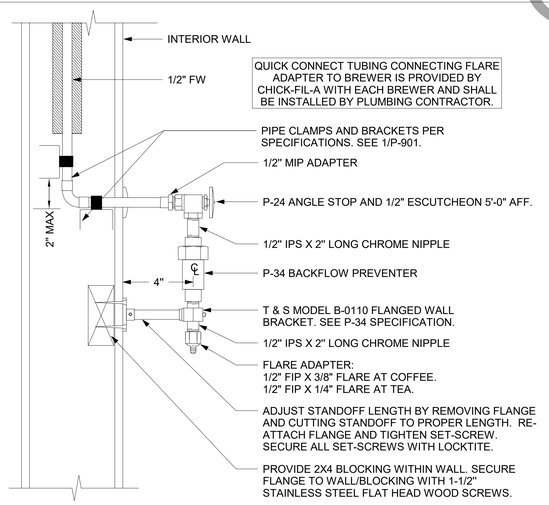
NOTE:
ALL BEVERAGE CONDUIT LAYOUTS ARE SCHEMATIC. EXACT LOCATIONS SHALL BE DETERMINED BY THE CONSTRUCTION AND STRUCTURE OF THE BUILDING AND SHALL BE VERIFIED AND COORDINATED IN THE FIELD TO REVIEW ALL NEW & EXISTING EQUIPMENTS. EACH TRADE CONTRACTOR SHALL VERIFY WITH THE GENERAL CONTRACTOR THAT HAS THOROUGHLY 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.



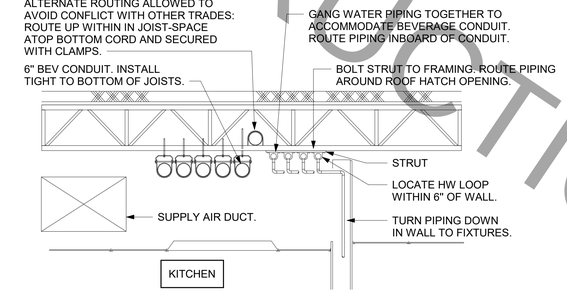
1 BEVERAGE CONDUIT PIPING PLAN
1/4" = 1'-0"



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

FOR CONSTRUCTION
NOT FOR CONSTRUCTION

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5200 Buffington Road
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Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED
No. 40421-E
PROFESSIONAL
ENGINEER
CHRISTOPHER FRED SHELTON

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 ALL LRG ALL
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

CONSULTANT PROJECT #	C29119
PRINTED FOR	PERMIT
DATE	10-10-21
DRAWN BY	JPM

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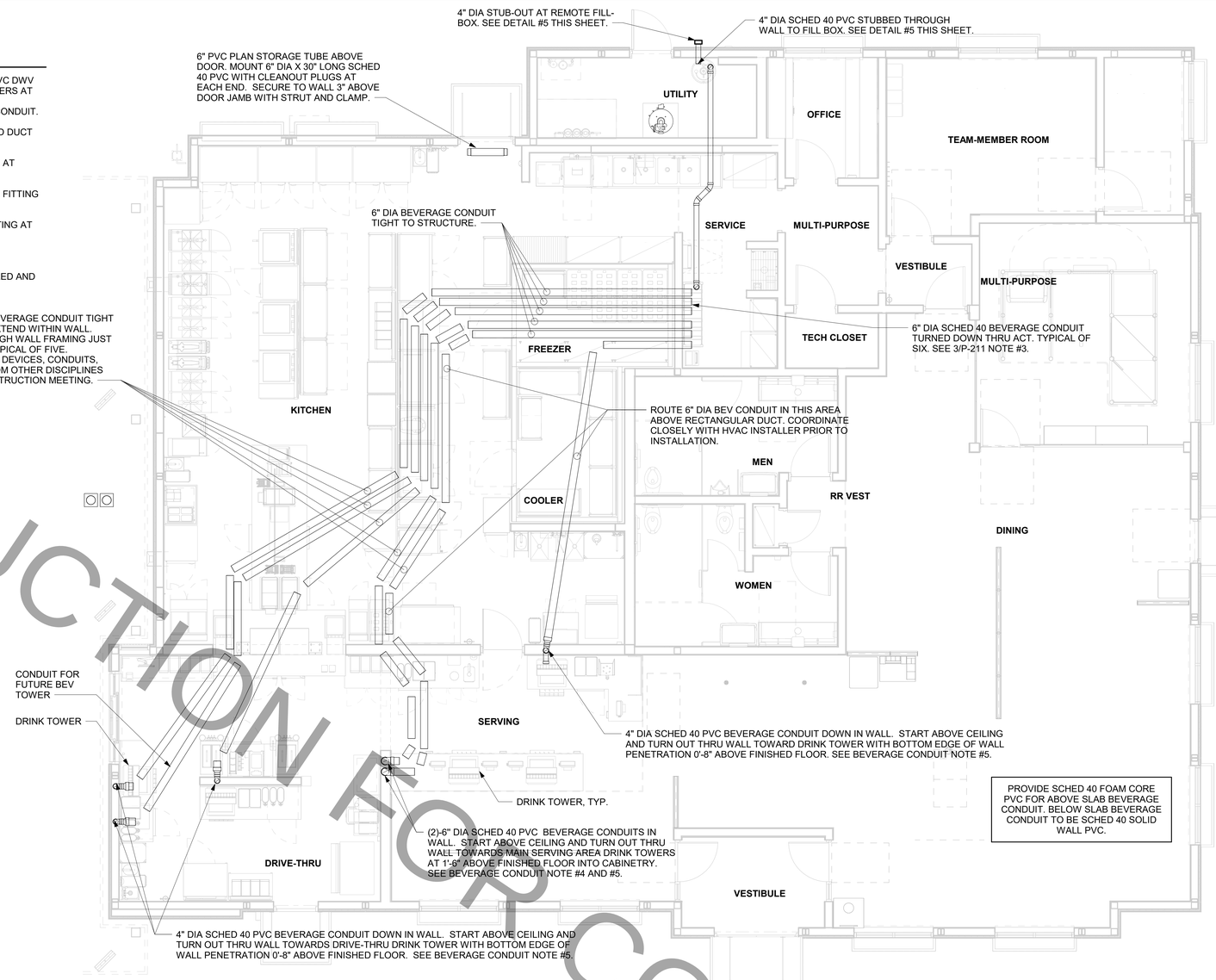
SHEET
BEVERAGE CONDUIT PLAN

SHEET NUMBER
P-211

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3/23/2022 2:56:00 PM
40-01530-P-211-BEVERAGE CONDUIT PLAN

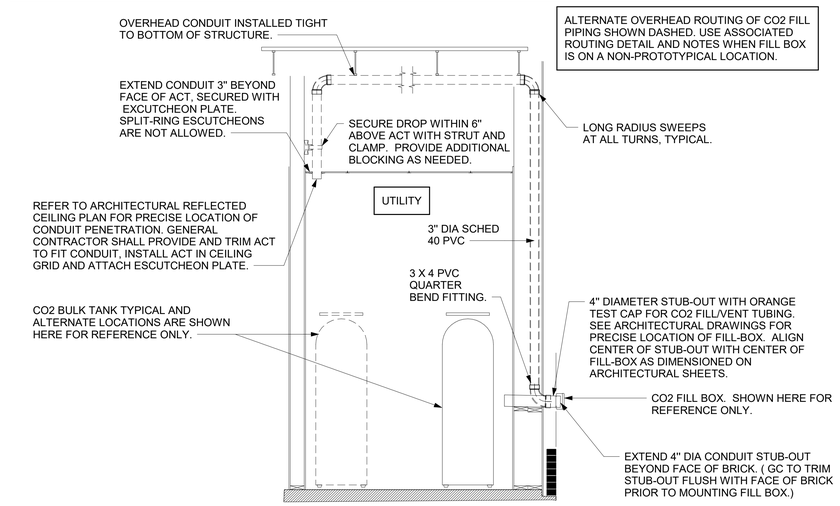
2. BEVERAGE CONDUIT NOTES

1. 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.
2. COORDINATE ROUTING OF ALL CONDUITS WITH HVAC DUCT IN KITCHEN. SEE SHEET M-201 FOR LOCATION OF AC UNITS AND DUCT ROUTING.
3. 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.
4. AT 6" 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.
5. 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.
6. 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.

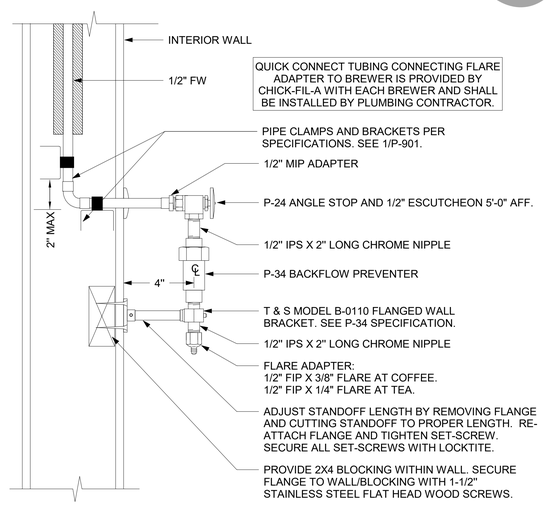


1 BEVERAGE CONDUIT PIPING PLAN
1/4" = 1'-0"

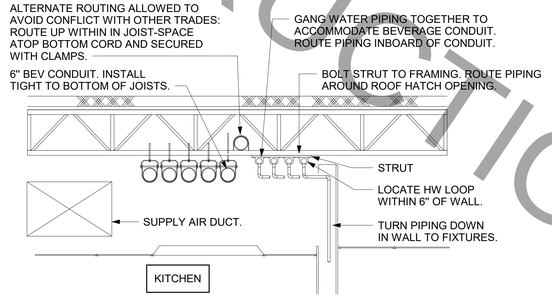
CO2 FILL BOX, FILL TUBING, AND VENT LINE SET PROVIDED BY CHICK-FIL-A AND INSTALLED BY GC. GC TO COORDINATE REQUIRED LENGTH OF TUBING AND LINE SET FROM FILL BOX TO TANK LOCATION WITH TMS; LENGTH NOT TO EXCEED 100 FT. FINAL CONNECTION BY CO2 VENDOR.



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

FOR CONSTRUCTION
FOR CONSTRUCTION

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5200 Buffington Road
Atlanta, Georgia
30349-2998

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Plans Prepared By:
CPH Consulting, LLC
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED No. 40421-E PROFESSIONAL ENGINEER JAMES FRED SISTRUNK

CHICK-FIL-A
CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35033

FSR#01530

BUILDING TYPE / SIZE: P13 SE LRG
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

CONSULTANT PROJECT #	C29119
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DATE	03/27/2023
DRAWN BY	AUTHOR

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SHEET
BEVERAGE CONDUIT PLAN

SHEET NUMBER
P-211

Autodesk Docs://AL_01530_Cullman_2021.2_FSR/01530_Cullman_PLB.rvt
4/3/2023 10:57:32 AM
40-SE-01530-P-211-BEVERAGE CONDUIT PLAN

NOTE OF SPECIAL IMPORTANCE:

BELOW-SLAB BEVERAGE CONDUIT SHALL BE 6" DIAMETER SCHED 40 DWV SOLID WALL, NO FOAM CORE ALLOWED. USE LONG RADIUS ELBOWS (A.K.A. SWEEPS) ON ALL BEVERAGE CONDUIT. PLEASE NOTE BEVERAGE CONDUIT ROUGH-IN LOCATIONS ARE MEASURED TO THE FRACTION OF AN INCH. CARE MUST BE TAKEN WHEN INSTALLING 6" DIAMETER CONDUIT LOCATED WITHIN A 2X8 WALL. THE MARGIN FOR ERROR IS ONLY 1/16TH INCH.

IMPORTANT NOTE TO INSTALLER

EXERCISE CAUTION WHEN LOCATING ROUGH-INS AT:
- -DRIVE THRU AREA
- -CUSTOMER WAIT AREA

DO NOT PULL TAPE FROM THE SLAB EDGE AT THESE AREAS WITHOUT COMPENSATING FOR DIFFERENCE IN OFFSETS. NOTE OFFSET AT BACK CORNER OF BUILDING.

MOP SINK NOTE

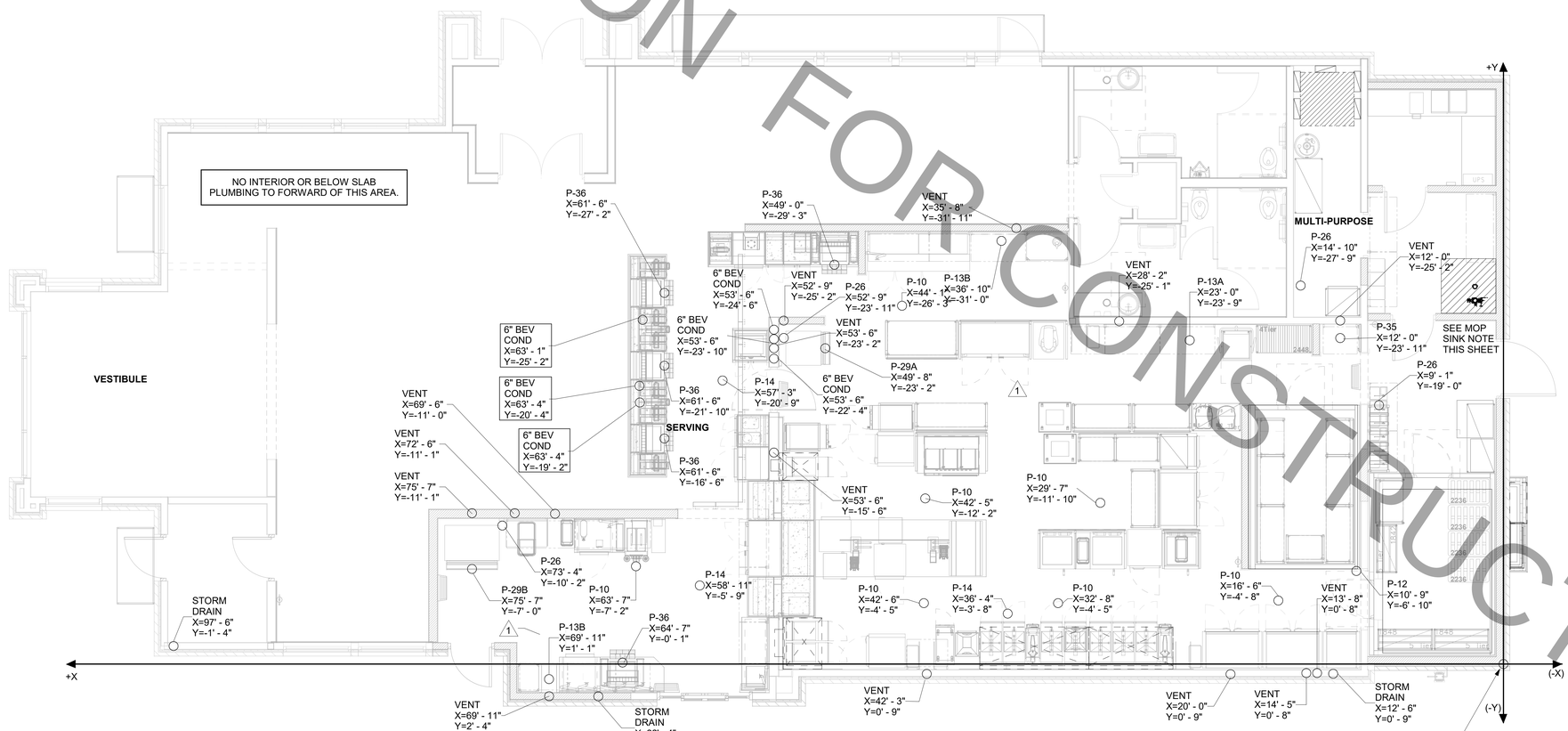
IMPORTANT: INSTALL FLOOR DRAIN WITH TOP OF DRAIN 0'-7" BFF. COORDINATE WITH GENERAL CONTRACTOR. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

COORDINATE LEGEND

TYPE	EXAMPLE	PIPE COORDINATES
#1	CW X=43'8" Y=14'7"	APPLIES TO WATER PIPING ROUGH-IN PENETRATION ONLY. SEE P-101 FOR CONTINUATION.
#2	VENT X=43'8" Y=14'7"	APPLIES TO DWV PENETRATION ONLY.
#3	6" BEV COND X=43'8" Y=27'3"	APPLIES TO 6" BEVERAGE CONDUIT PENETRATION ONLY.

NOTES ABOUT (0,0) BENCHMARK ORIGIN

1. THE (X=0, Y=0) BENCHMARK ORIGIN IS LOCATED AT THE OUTSIDE FACE OF FRAMING FOR THE EXTERIOR WALL AT THE CORNER WHERE SHOWN ON THE ADJACENT PLAN.
2. IT IS EXTREMELY IMPORTANT FOR THE PLUMBING INSTALLER TO BECOME COMPLETELY FAMILIAR WITH THE FACE-OF-FRAMING POSITION AND ITS RELATION TO THE FLOOR SLAB CONSTRUCTION PRIOR TO BEGINNING THE UNDERSLAB PLUMBING ROUGH-IN..
3. PLUMBING CONTRACTOR SHALL REVIEW STRUCTURAL DETAIL "TYPICAL SECTION @ EXTERIOR WALL" FOR PRECISE LOCATION OF FACE-OF-FRAMING WITH RESPECT TO THE SLAB INSTALLATION PRIOR TO LOCATING SLAB ROUGH-INS.



1 SLAB ROUGH-IN PLAN
1/4" = 1'-0"

FOR CONSTRUCTION REVIEW

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

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Plans Prepared By:
CPH Design, Inc.
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED No. 40421-E PROFESSIONAL ENGINEER CHRISTOPHER FRED STELTENPOHL

CHICK-FIL-A
CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 ALL LRG ALL
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	10-26-2021	PERMIT REV#1

PERMIT

CONSULTANT PROJECT #	C29119
PRINTED FOR	PERMIT
DATE	10-10-21
DRAWN BY	JPM

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SHEET
SLAB ROUGH-IN PLAN

SHEET NUMBER
P-221

BIM 360://AL_01530_Cullman_2021.2_FSR/01530_Cullman_Remodel_PLB.rvt
3/23/2022 2:56:01 PM
40-01530-P-221-SLAB ROUGH-IN PLAN

NOTE OF SPECIAL IMPORTANCE:

BELOW-SLAB BEVERAGE CONDUIT SHALL BE 6" DIAMETER SCHED 40 DWV SOLID WALL, NO FOAM CORE ALLOWED. USE LONG RADIUS ELBOWS (A.K.A. SWEEPS) ON ALL BEVERAGE CONDUIT. PLEASE NOTE BEVERAGE CONDUIT ROUGH-IN LOCATIONS ARE MEASURED TO THE FRACTION OF AN INCH. CARE MUST BE TAKEN WHEN INSTALLING 6" DIAMETER CONDUIT LOCATED WITHIN A 2X8 WALL. THE MARGIN FOR ERROR IS ONLY 1/16TH INCH.

IMPORTANT NOTE TO INSTALLER

EXERCISE CAUTION WHEN LOCATING ROUGH-INS AT:
-DRIVE THRU AREA
-CUSTOMER WAIT AREA
DO NOT PULL TAPE FROM THE SLAB EDGE AT THESE AREAS WITHOUT COMPENSATING FOR DIFFERENCE IN OFFSETS. NOTE OFFSET AT BACK CORNER OF BUILDING.

MOP SINK NOTE

IMPORTANT: INSTALL P-35 FLOOR DRAIN WITH TOP OF DRAIN 0'-7" BFF. COORDINATE WITH GENERAL CONTRACTOR. SEE ARCHITECTURAL AND STRUCTURAL PLANS.

COORDINATE LEGEND

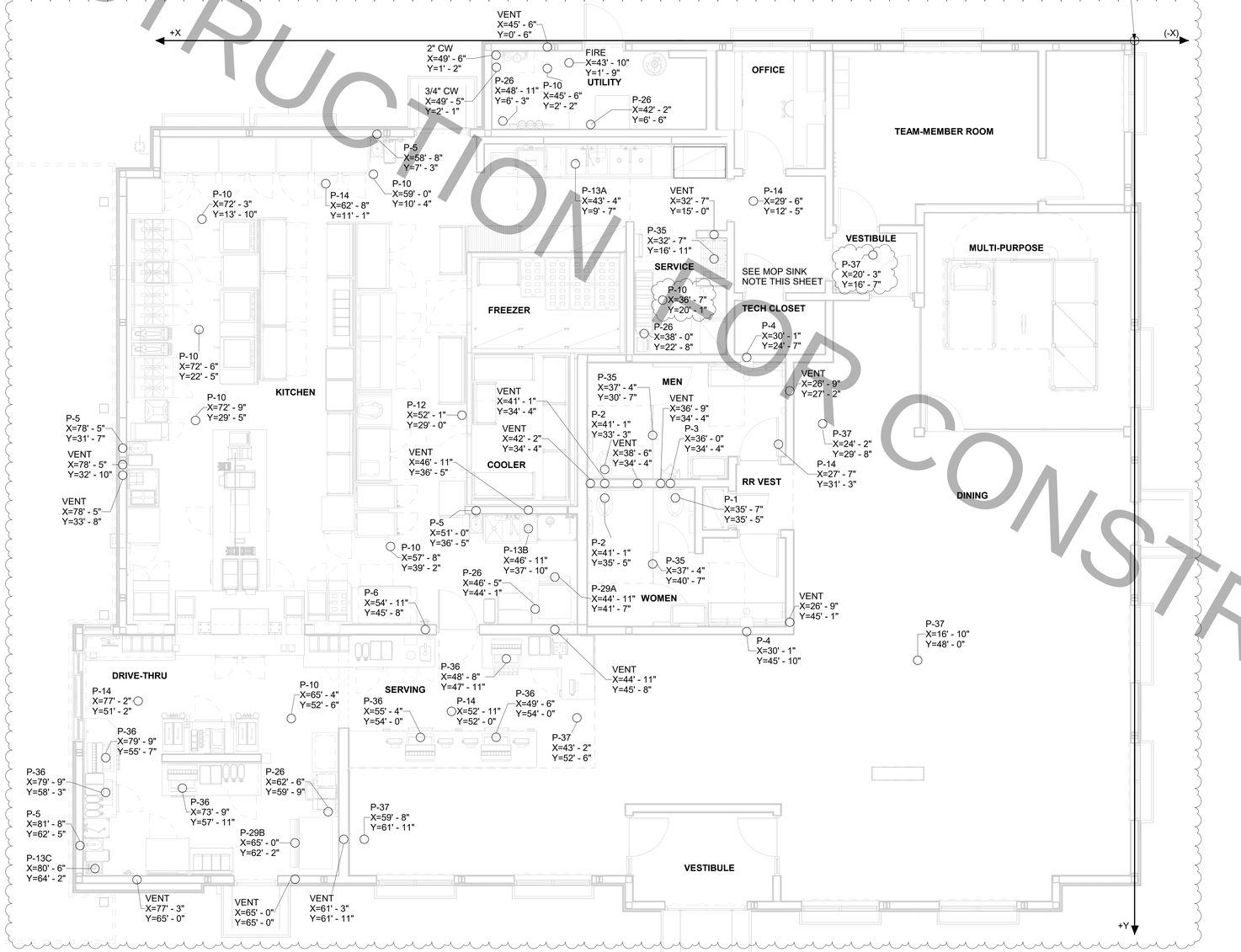
TYPE	EXAMPLE	PIPE COORDINATES
#1	CW X=43'8" Y=14'7"	APPLIES TO WATER PIPING ROUGH-IN PENETRATION ONLY. SEE P-101 FOR CONTINUATION.
#2	VENT X=43'8" Y=14'7"	APPLIES TO DWV PENETRATION ONLY.
#3	6" BEV COND X=43'8" Y=27'3"	APPLIES TO 6" BEVERAGE CONDUIT PENETRATION ONLY.

NOTE: TRAP PRIMER PIPING NOT SHOWN ON THIS PLAN. SEE 1/P-101 FOR TRAP PRIMER LOCATIONS.

NOTES ABOUT (0,0) BENCHMARK ORIGIN

1. THE (X=0, Y=0) BENCHMARK ORIGIN IS LOCATED AT THE OUTSIDE FACE OF SLAB EDGE FOR THE EXTERIOR WALL AT THE CORNER WHERE SHOWN ON THE ADJACENT PLAN. 3
2. IT IS EXTREMELY IMPORTANT FOR THE PLUMBING INSTALLER TO BECOME COMPLETELY FAMILIAR WITH THE FACE-OF-SLAB EDGE POSITION AND ITS RELATION TO THE FLOOR SLAB CONSTRUCTION PRIOR TO BEGINNING THE UNDERSLAB PLUMBING ROUGH-IN.. 3
3. PLUMBING CONTRACTOR SHALL REVIEW STRUCTURAL DETAIL "TYPICAL SECTION @ EXTERIOR WALL" FOR PRECISE LOCATION OF FACE-OF-SLAB EDGE WITH RESPECT TO THE SLAB INSTALLATION PRIOR TO LOCATING SLAB ROUGH-INS. 3

3 BENCHMARK ORIGIN FOR ROUGH-IN COORDINATES IS LOCATED AT OUTSIDE FACE OF SLAB EDGE. SEE NOTES ON BENCHMARK ORIGIN THIS SHEET. 3



1 SLAB ROUGH-IN PLAN
1/4" = 1'-0"

FOR CONSTRUCTION

FOR CONSTRUCTION

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

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Plans Prepared By:
CPH Consulting, LLC
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED No. 40421-E PROFESSIONAL ENGINEER REGISTERED

CHICK-FIL-A CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35033

FSR#01530

BUILDING TYPE / SIZE: P13 SE LRG
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
3	08/07/2023	CONSTR REV 3

PERMIT

CONSULTANT PROJECT # C29119
PRINTED FOR PERMIT
DATE 03/27/2023
DRAWN BY AUTHOR

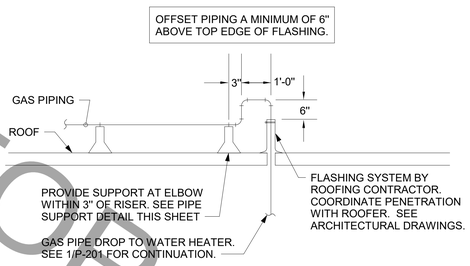
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SHEET
SLAB ROUGH-IN PLAN

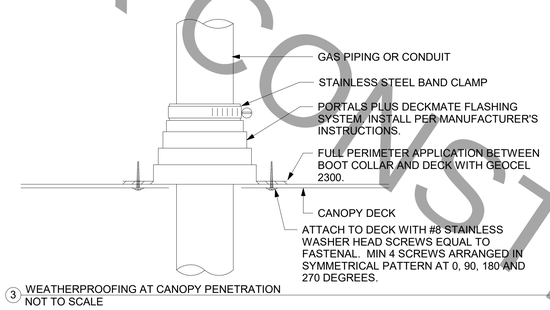
SHEET NUMBER
P-221

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8/2/2023 1:37:08 PM
40-SE-01530-P-221-SLAB ROUGH-IN PLAN

FOR CONSTRUCTION



7 GAS PIPE DROP TO WATER HEATER
NOT TO SCALE



3 WEATHERPROOFING AT CANOPY PENETRATION
NOT TO SCALE

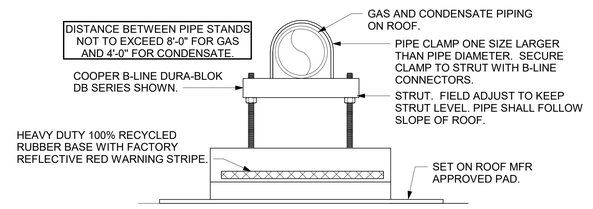
POINT OF CONNECTION, EXISTING TO NEW

CONNECTION LEGEND

LEGEND

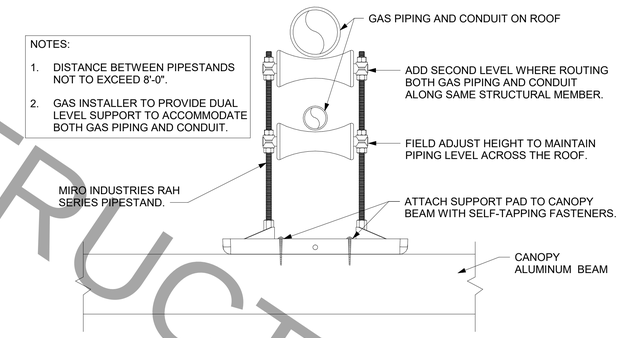
GIH#1	GAS INFRARED HEATER #1 (TYP.)	B/G	BELOW GRADE
———	NEW GAS PIPING ABOVE GRADE	EC	ELECTRICAL CONTRACTOR
– – –	NEW GAS PIPING BELOW GRADE	MC	MECHANICAL CONTRACTOR

NOTES:
1. NON ADJUSTABLE MODEL DB610 PIPE STAND TO BE USED FOR NON-ELEVATED PIPING INSTALLED FLAT ON ROOF DECK.
2. PROVIDE MODEL DBE 10-8 OR DBE 10-12 OR DBE 10-16 AS NEEDED FOR ELEVATING CONDENSATE PIPING TO MAINTAIN PROPER SLOPE AND FOR GAS PIPING CROSSING OVER CONDENSATE PIPING.
3. ENSURE GAS AND CONDENSATE PIPING DO NOT OBSTRUCT ROOFTOP EQUIPMENT ACCESS OPENINGS. RE-PIPING OF SYSTEMS DUE TO CONFLICTS WITH EQUIPMENT ACCESS OPENINGS SHALL BE DONE AT PLUMBING CONTRACTOR'S EXPENSE.



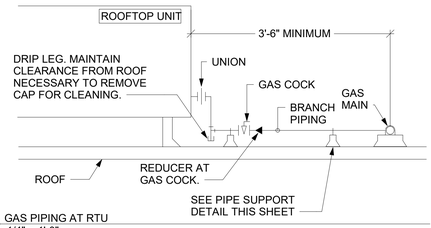
9 PIPING SUPPORT ON ROOF
NOT TO SCALE

NOTES:
1. DISTANCE BETWEEN PIPESTANDS NOT TO EXCEED 8'-0".
2. GAS INSTALLER TO PROVIDE DUAL LEVEL SUPPORT TO ACCOMMODATE BOTH GAS PIPING AND CONDUIT.

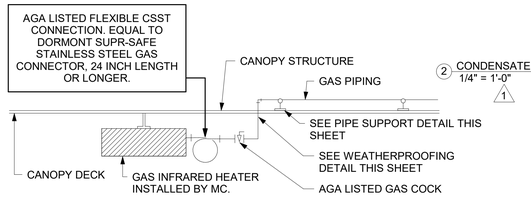


8 PIPING SUPPORT ON CANOPY
NOT TO SCALE

NOTES:
1. INSTALL GAS PIPING SUCH THAT HVAC EQUIPMENT ACCESS PANELS AND/OR DOORS ARE IN NO WAY OBSTRUCTED BY PIPING, VALVES, OR SUPPORTS.
2. TO AVOID CONFLICT WITH AC UNIT ACCESS DORRS, INSTALL GAS PIPING NO CLOSER THAN 3'-6" FROM AC UNIT. (EXCEPT FOR BRANCH LINE CONNECTED TO AC UNIT.)
3. ROUTE BRANCH TAKE-OFF DIRECTLY FROM MAIN TO ROOFTOP UNIT AS SHOWN ON PLAN AND DETAILS WITHOUT LATERAL OFFSETS WHICH MAY OBSTRUCT UNIT ACCESS DOORS.



6 GAS PIPING AT RTU
1/4" = 1'-0"



5 GAS CONNECTION AT APPLIANCE
NOT TO SCALE

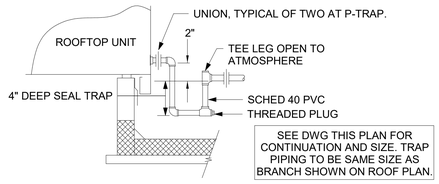
CANOPY GENERAL NOTES

1. COORDINATE NEW WORK WITH EXISTING CONDUIT, STRUCTURE, AND PIPING. FIELD VERIFY EXISTING CONDITIONS PRIOR TO START OF WORK.
2. COORDINATE LOCATION AND RESPONSIBILITIES FOR UNDERGROUND PIPING AND ASSOCIATED TRENCHING WITH GENERAL CONTRACTOR PRIOR TO START OF WORK.

5. GAS CONNECTION SCHEDULE

EQUIPMENT	GAS LOAD
AC# 1	480,000 BTUS
AC# 2	235,000 BTUS
AC# 3	235,000 BTUS
AC# 4	235,000 BTUS
AC# 5	125,000 BTUS
AC# 6	100,000 BTUS
GIH (7 @ 50,000 BTU EA.)	350,000 BTUS
WATER HEATER	75,000 BTUS
TOTAL CONNECTED LOAD	1,835,000 BTUS
REMARKS:	1) EQUIVALENT TO 1,835.0 CFH 2) 7" W.C. DELIVERY PRESSURE 3) DEVELOPED LENGTH: 175 FT (METER TO CANOPY)

4 GAS CONNECTION SCHEDULE - LS LARGE/MEDIUM
NOT TO SCALE

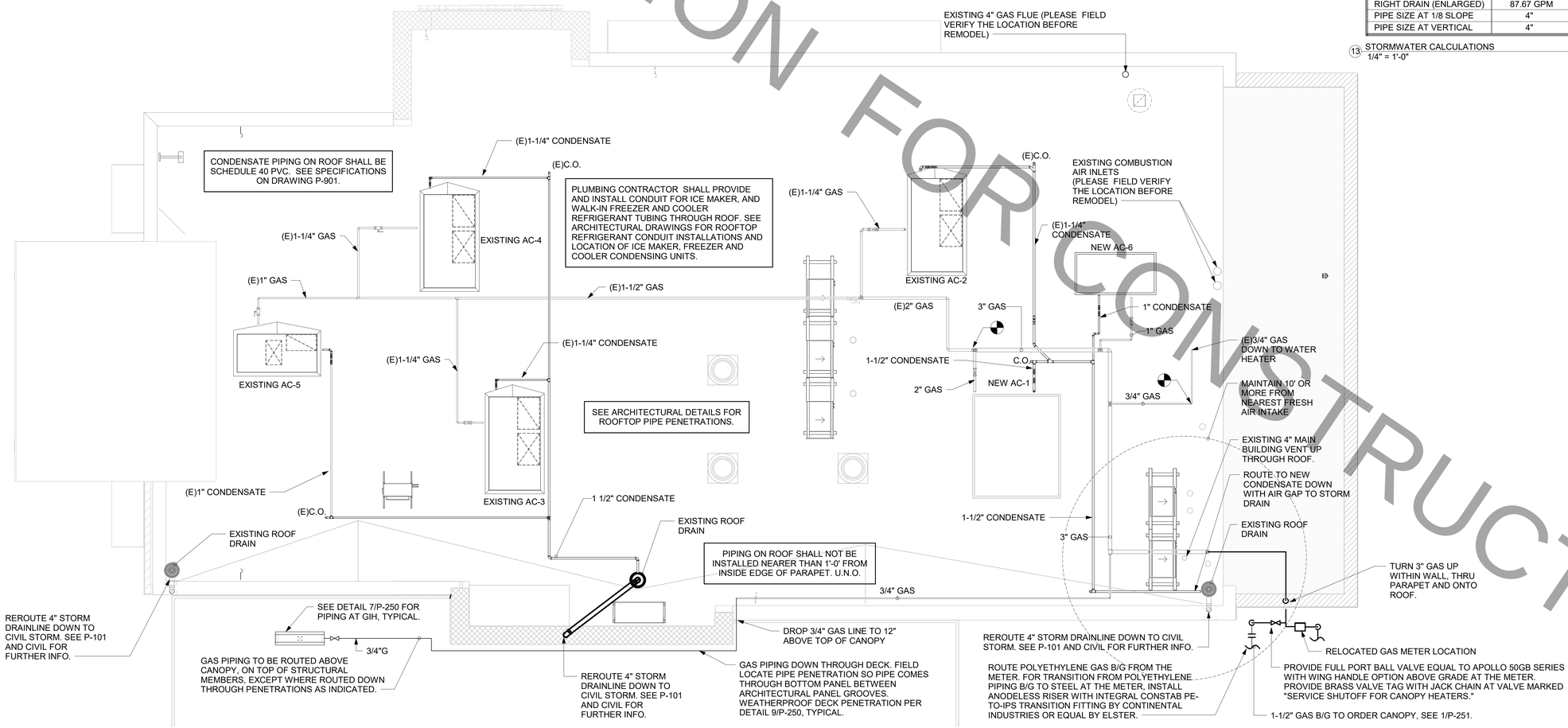


2 CONDENSATE DRAIN PIPING
1/4" = 1'-0"

STORM WATER CALCULATIONS

RAINFALL RATE	4.5 IN/HR	
ROOF AREA	4,782 SQFT	
VERTICAL AREA	1,690 SQFT	
HALF VERTICAL AREA	845 SQFT	
TOTAL ROOF GPM	263 GPM	
LEFT DRAIN	87.67 GPM	
PIPE SIZE AT 1/8 SLOPE	4"	
PIPE SIZE AT VERTICAL	4"	
MIDDLE DRAIN	87.67 GPM	
PIPE SIZE AT 1/8 SLOPE	4"	
PIPE SIZE AT VERTICAL	4"	
RIGHT DRAIN (ENLARGED)	87.67 GPM	
PIPE SIZE AT 1/8 SLOPE	4"	
PIPE SIZE AT VERTICAL	4"	

13 STORMWATER CALCULATIONS
1/4" = 1'-0"



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

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

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Plans Prepared By:
CPH Design, Inc.
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED ENGINEER No. 40421-E PROFESSIONAL CHRISTOPHER FRED STRICKLAND

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 ALL LRG ALL
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	10-26-2021	PERMIT REV#1

PERMIT

CONSULTANT PROJECT #	C29119
PRINTED FOR	PERMIT
DATE	10-10-21
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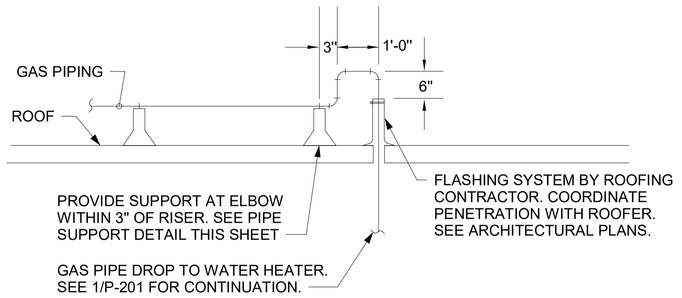
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SHEET
ROOF PLAN AND DETAILS

SHEET NUMBER
P-250

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OFFSET PIPING A MINIMUM OF 6" ABOVE TOP EDGE OF FLASHING.



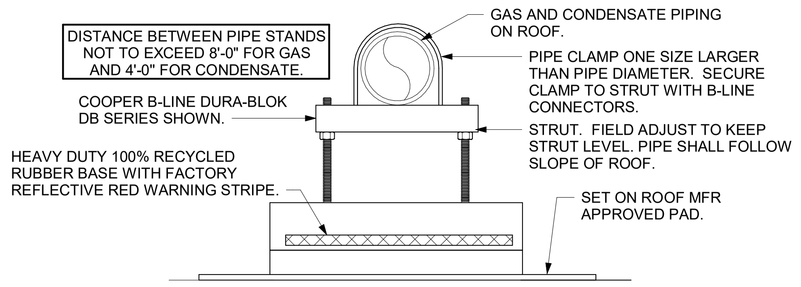
6 GAS PIPE DROP TO WATER HEATER
NOT TO SCALE

STORM WATER CALCULATIONS

RAINFALL RATE	3.5 IN/HR		3.5 IN/HR
ROOF AREA	3,856 SQFT		3,856 SQFT
VERTICAL AREA	1,116 SQFT		1,116 SQFT
HALF VERTICAL AREA	558 SQFT		558 SQFT
TOTAL ROOF GPM	198 GPM		198 GPM
NORTH DRAIN	83 GPM	OVERFLOW DRAIN	83 GPM
ROOF SLOPE AT 1/4" PER FT	4"		4"
PIPE SIZE AT VERTICAL	4"		4"
SOUTH DRAIN	115 GPM	OVERFLOW DRAIN	115 GPM
ROOF SLOPE AT 1/4" PER FT	4"		4"
PIPE SIZE AT VERTICAL	4"		4"

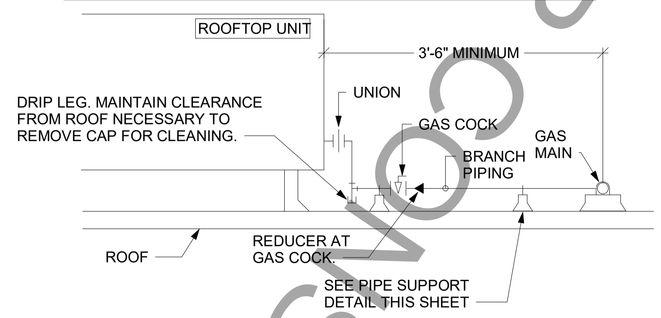
7 STORM WATER CALCULATIONS
1/4" = 1'-0"

NOTES:
1. NON ADJUSTABLE MODEL DB610 PIPE STAND TO BE USED FOR NON-ELEVATED PIPING INSTALLED FLAT ON ROOF DECK.
2. PROVIDE MODEL DBE 10-8 OR DBE 10-12 OR DBE 10-16 AS NEEDED FOR ELEVATING CONDENSATE PIPING TO MAINTAIN PROPER SLOPE AND FOR GAS PIPING CROSSING OVER CONDENSATE PIPING.
3. ENSURE GAS AND CONDENSATE PIPING DO NOT OBSTRUCT ROOFTOP EQUIPMENT ACCESS OPENINGS. RE-PIPING OF SYSTEMS DUE TO CONFLICTS WITH EQUIPMENT ACCESS OPENINGS SHALL BE DONE AT PLUMBING CONTRACTOR'S EXPENSE.



4 PIPING SUPPORT ON ROOF
NOT TO SCALE

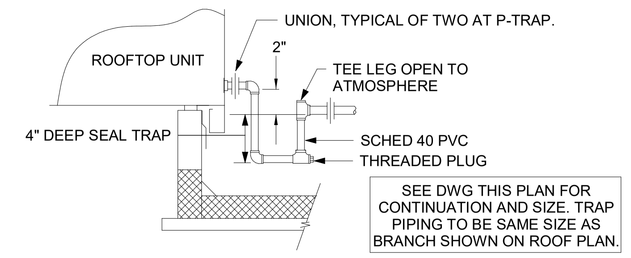
NOTES:
1. INSTALL GAS PIPING SUCH THAT HVAC EQUIPMENT ACCESS PANELS AND/OR DOORS ARE IN NO WAY OBSTRUCTED BY PIPING, VALVES, OR SUPPORTS.
2. TO AVOID CONFLICT WITH AC UNIT ACCESS DORRS, INSTALL GAS PIPING NO CLOSER THAN 3'-6" FROM AC UNIT. (EXCEPT FOR BRANCH LINE CONNECTED TO AC UNIT.)
3. ROUTE BRANCH TAKE-OFF DIRECTLY FROM MAIN TO ROOFTOP UNIT AS SHOWN ON PLAN AND DETAILS WITHOUT LATERAL OFFSETS WHICH MAY OBSTRUCT UNIT ACCESS DOORS.



3 GAS PIPING AT RTU
NOT TO SCALE

5. GAS CONNECTION SCHEDULE

EQUIPMENT	GAS LOAD
AC#1	480,000 BTUS
AC#2	360,000 BTUS
AC#3	480,000 BTUS
GIH (6 @ 50,000 BTU EA.)	300,000 BTUS
WATER HEATER	125,000 BTUS
TOTAL CONNECTED LOAD	1,745,000 BTUS
REMARKS:	1) EQUIVALENT TO 1,745.0 CFH 2) 7" W.C. DELIVERY PRESSURE 3) DEVELOPED LENGTH: 175 FT, (METER TO AC#3.)



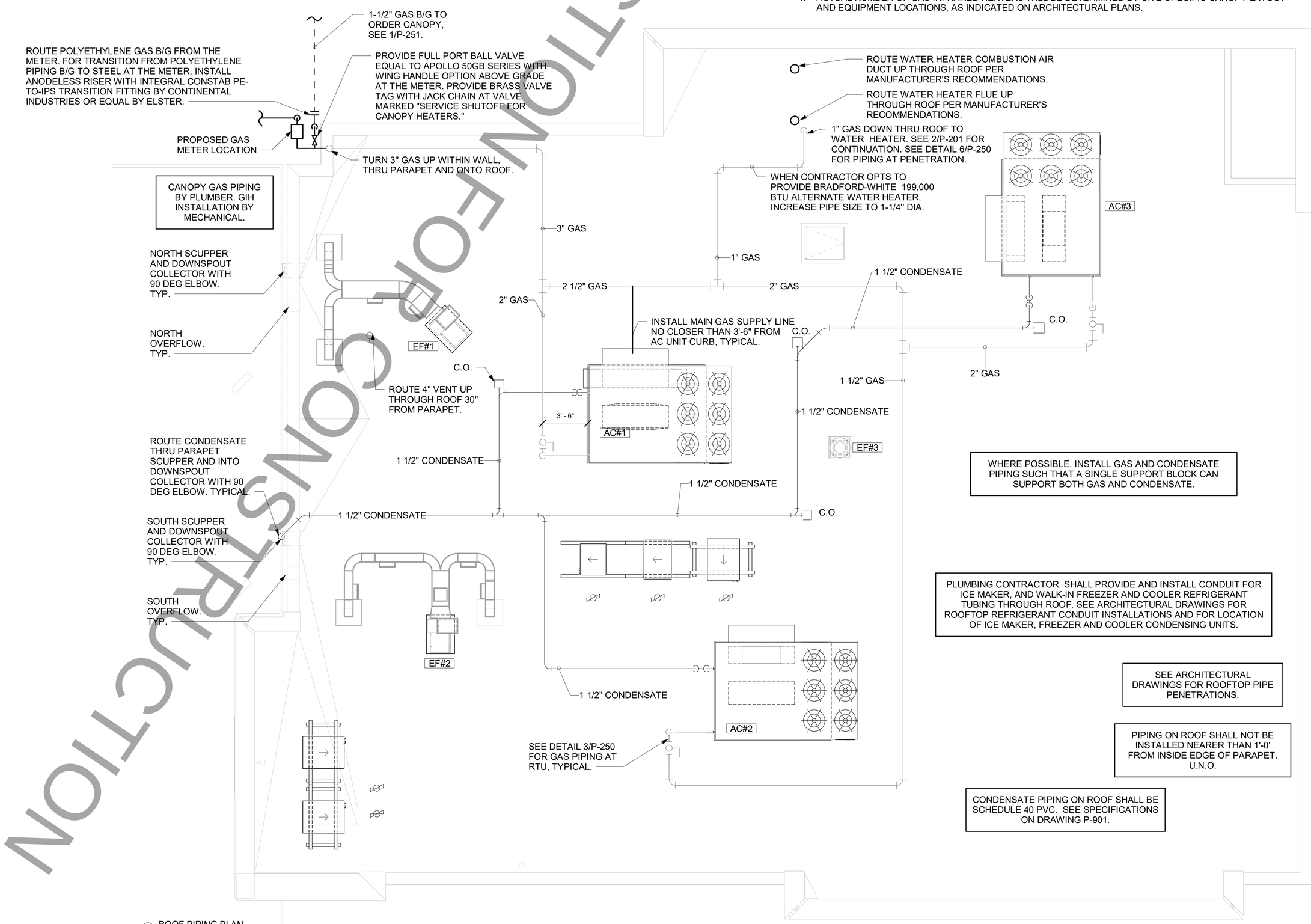
2 CONDENSATE DRAIN PIPING
NOT TO SCALE

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

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



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

FOR CONSTRUCTION

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

cph
www.cphcorp.com
A Full Service
A & E Firm

Plans Prepared By:
CPH Consulting, LLC
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED No. 40421-E PROFESSIONAL ENGINEER

CHICK-FIL-A
CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35033

FSR#01530

BUILDING TYPE / SIZE: P13 SE LRG
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

CONSULTANT PROJECT # C29119
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SHEET
ROOF PLAN AND DETAILS

SHEET NUMBER
P-250

Autodesk Docs://AL_01530_Cullman_2021.2_FSR01530_Cullman_PLB.rvt
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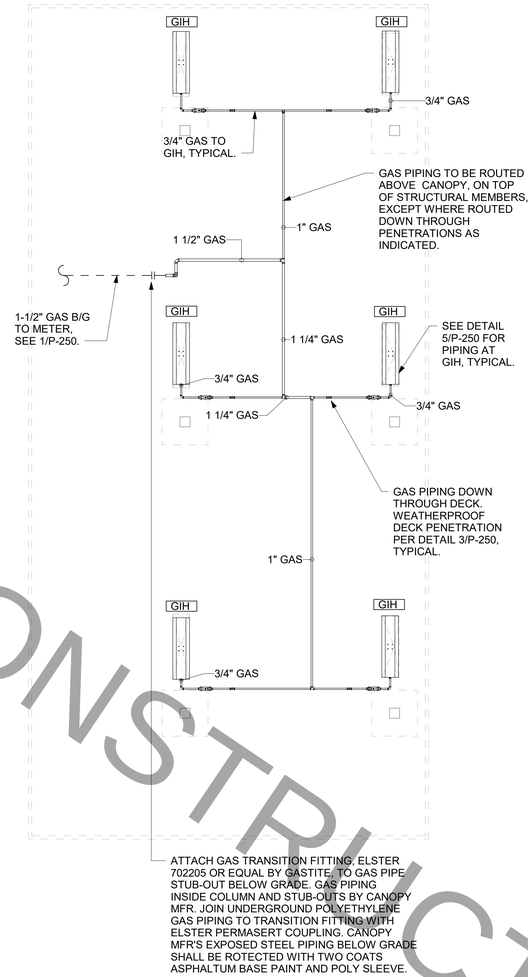
FOR CONSTRUCTION

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

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

CANOPY GAS PIPING BY PLUMBER.
GIH INSTALLATION BY MECHANICAL.



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

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

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Plans Prepared By:
CPH Design, Inc.
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED No. 40421-E PROFESSIONAL ENGINEER JOSEPH FRED STRICKLAND

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 ALL LRG ALL
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

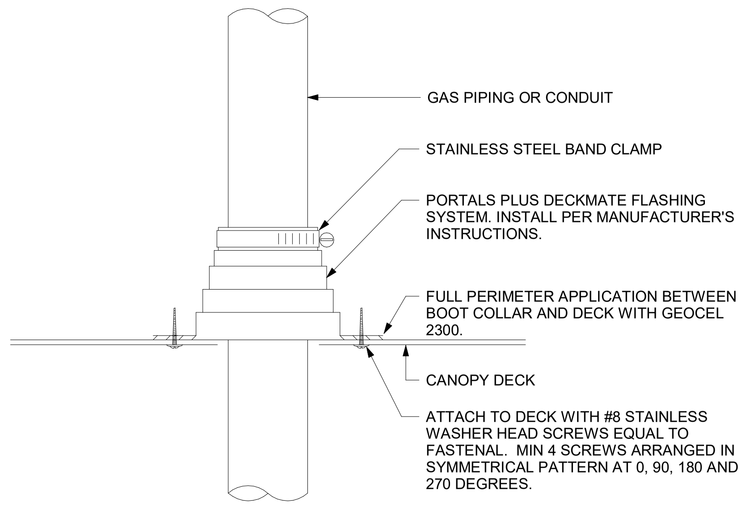
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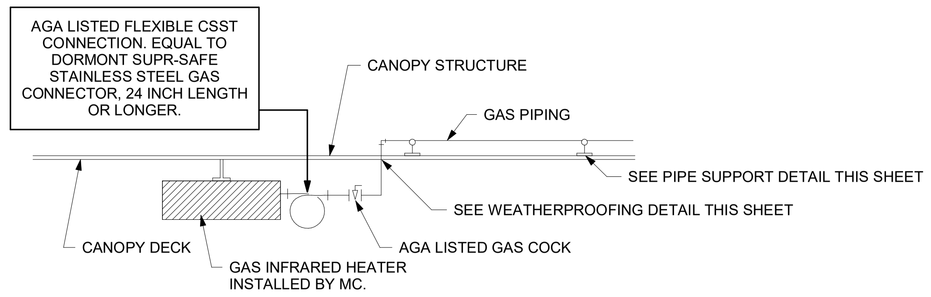
SHEET:
CANOPY PLAN AND DETAILS

SHEET NUMBER
P-251

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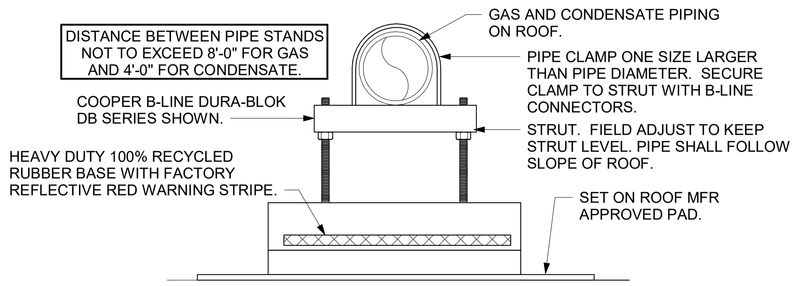


2 WEATHERPROOFING AT CANOPY PENETRATION
NOT TO SCALE



3 GAS CONNECTION AT APPLIANCE
NOT TO SCALE

NOTES:
1. NON ADJUSTABLE MODEL DB610 PIPE STAND TO BE USED FOR NON-ELEVATED PIPING INSTALLED FLAT ON ROOF DECK.
2. PROVIDE MODEL DBE 10-8 OR DBE 10-12 OR DBE 10-16 AS NEEDED FOR ELEVATING CONDENSATE PIPING TO MAINTAIN PROPER SLOPE AND FOR GAS PIPING CROSSING OVER CONDENSATE PIPING.
3. ENSURE GAS AND CONDENSATE PIPING DO NOT OBSTRUCT ROOFTOP EQUIPMENT ACCESS OPENINGS. RE-PIPING OF SYSTEMS DUE TO CONFLICTS WITH EQUIPMENT ACCESS OPENINGS SHALL BE DONE AT PLUMBING CONTRACTOR'S EXPENSE.

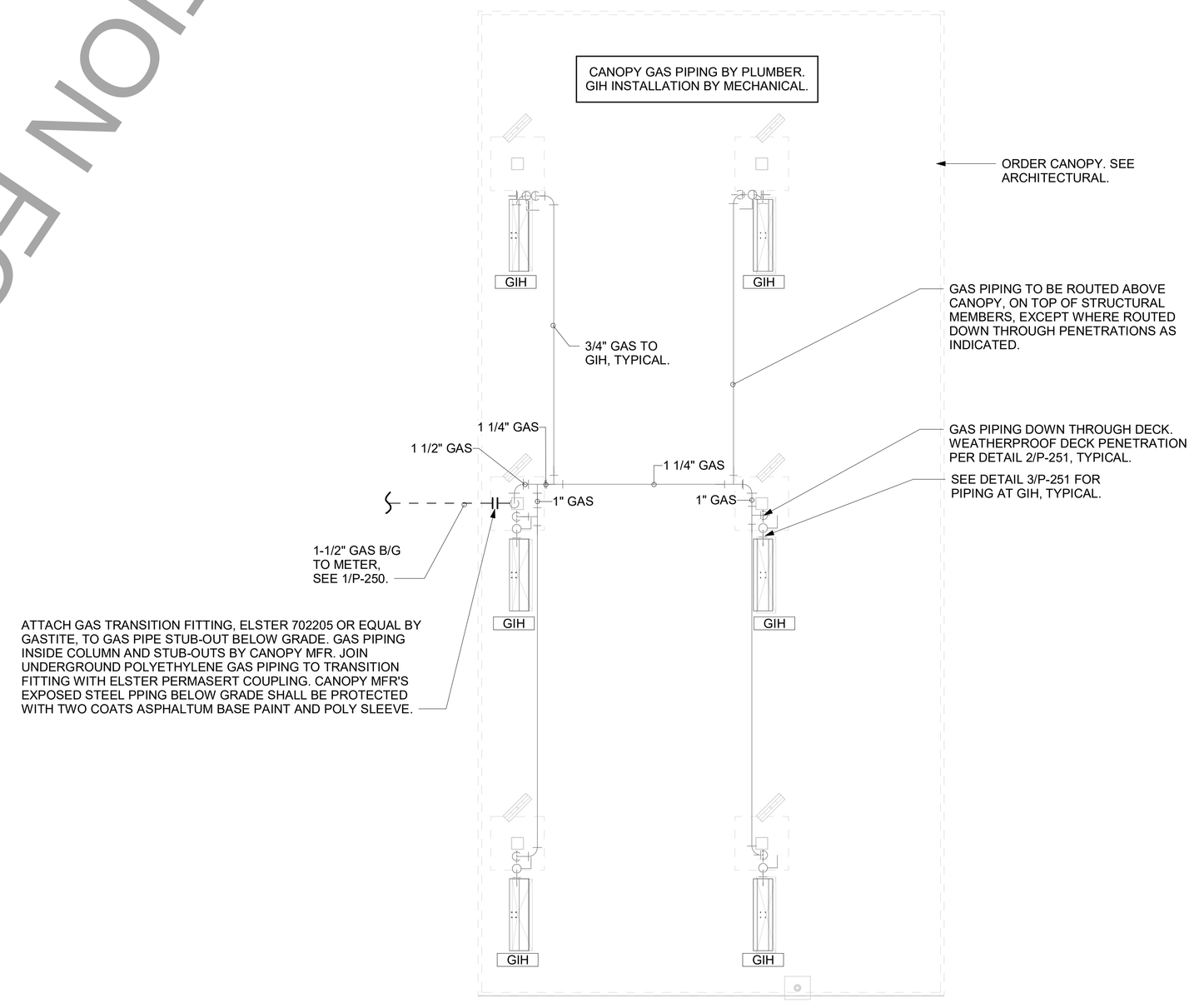


4 PIPING SUPPORT FOR CANOPY
NOT TO SCALE

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

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



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

FOR CONSTRUCTION

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

www.cphcorp.com
A Full Service
A & E Firm

Plans Prepared By:
CPH Consulting, LLC
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED No. 40421-E PROFESSIONAL ENGINEER ANDREW FRED SIGLER

CHICK-FIL-A
CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35033

FSR#01530

BUILDING TYPE / SIZE: P13 SE LRG
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

CONSULTANT PROJECT # C29119
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SHEET
CANOPY PLAN AND DETAILS

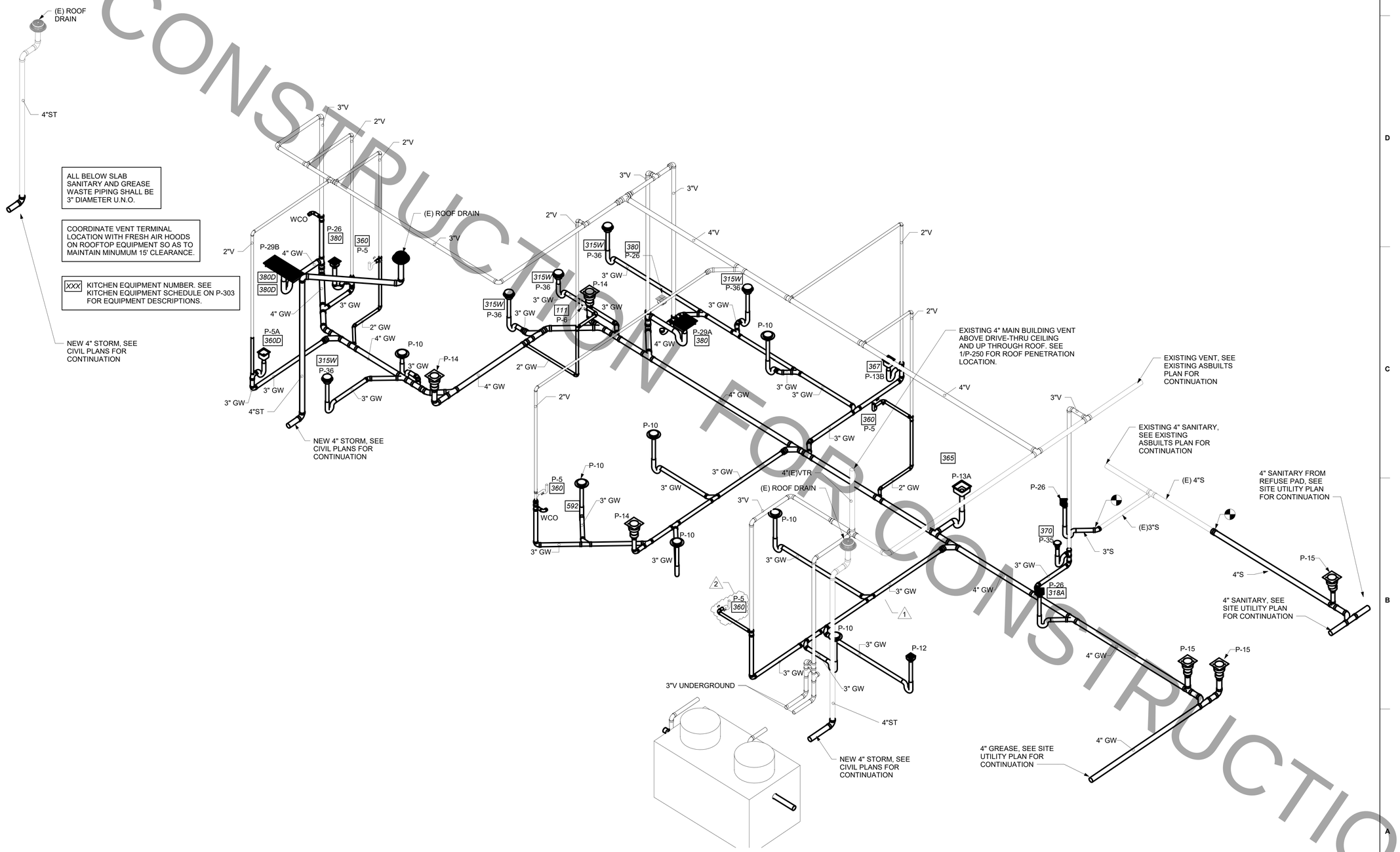
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P-251

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40-SE-01530-P-251-CANOPY PLAN AND DETAILS

FOR CONSTRUCTION

SANITARY/GREASE PIPE SYSTEM LEGEND

- EXISTING PIPE
- NEW CONSTRUCTION PIPE
- CONNECTION SYMBOL



1 WASTE RISER DIAGRAM

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5200 Buffington Road
Atlanta, Georgia
30349-2998

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A & E Firm

Plans Prepared By:
CPH Design, Inc.
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED
No. 40421-E
PROFESSIONAL
ENGINEER
CHRISTOPHER FRED SHELTON

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 ALL LRG ALL
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	10-26-2021	PERMIT REV#1
2	03-22-2022	CONSTRUCTION REVISION #1

PERMIT

CONSULTANT PROJECT # C29119
PRINTED FOR PERMIT
DATE 10-10-21
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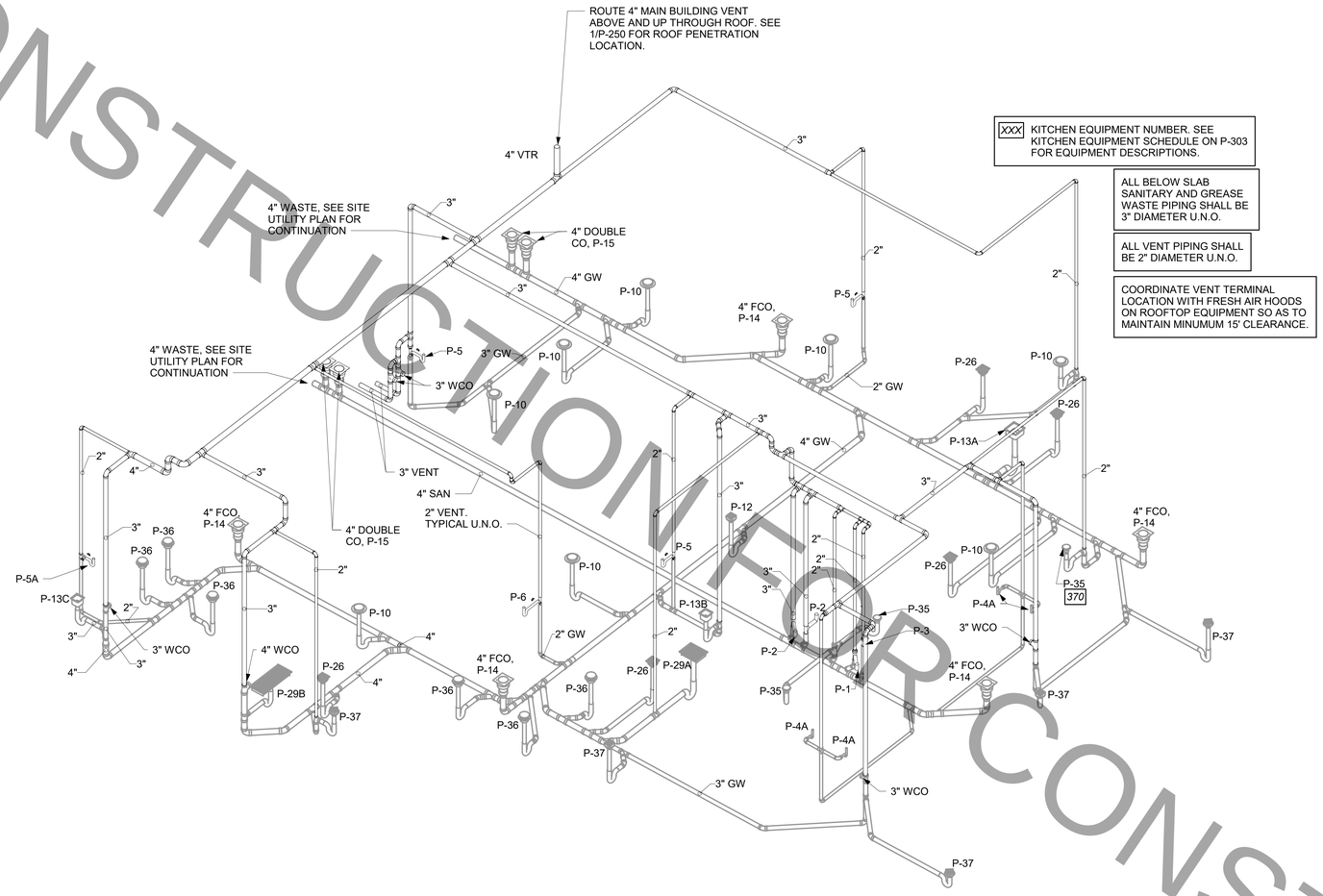
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SHEET #
DWV RISER DIAGRAM

SHEET NUMBER
P-301

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3/23/2022 2:56:05 PM
40-01530-P-301-DWV RISER DIAGRAM

FOR CONSTRUCTION



1 WASTE RISER DIAGRAM

Chick-fil-A
5200 Buffington Road
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30349-2998

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Plans Prepared By:
CPH Consulting, LLC
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED No. 40421-E PROFESSIONAL ENGINEER ANDREW FRED SICILIANO

CHICK-FIL-A
CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35033

FSR#01530

BUILDING TYPE / SIZE: P13 SE LRG
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

CONSULTANT PROJECT #	C29119
PRINTED FOR	PERMIT
DATE	03/27/2023
DRAWN BY	AUTHOR

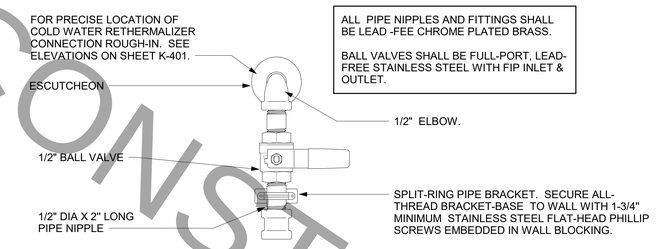
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SHEET
DWV RISER DIAGRAM

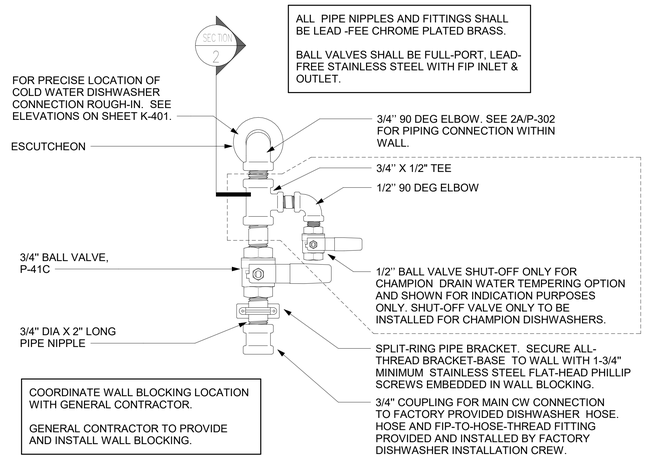
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P-301

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40-SE-01530-P-301-DWV RISER DIAGRAM

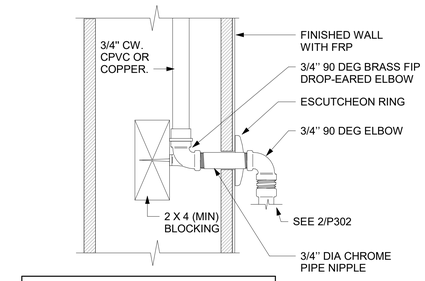
FOR CONSTRUCTION



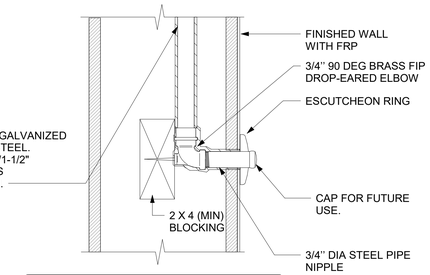
3 RETHERMALIZER SUPPLY VALVE
NOT TO SCALE



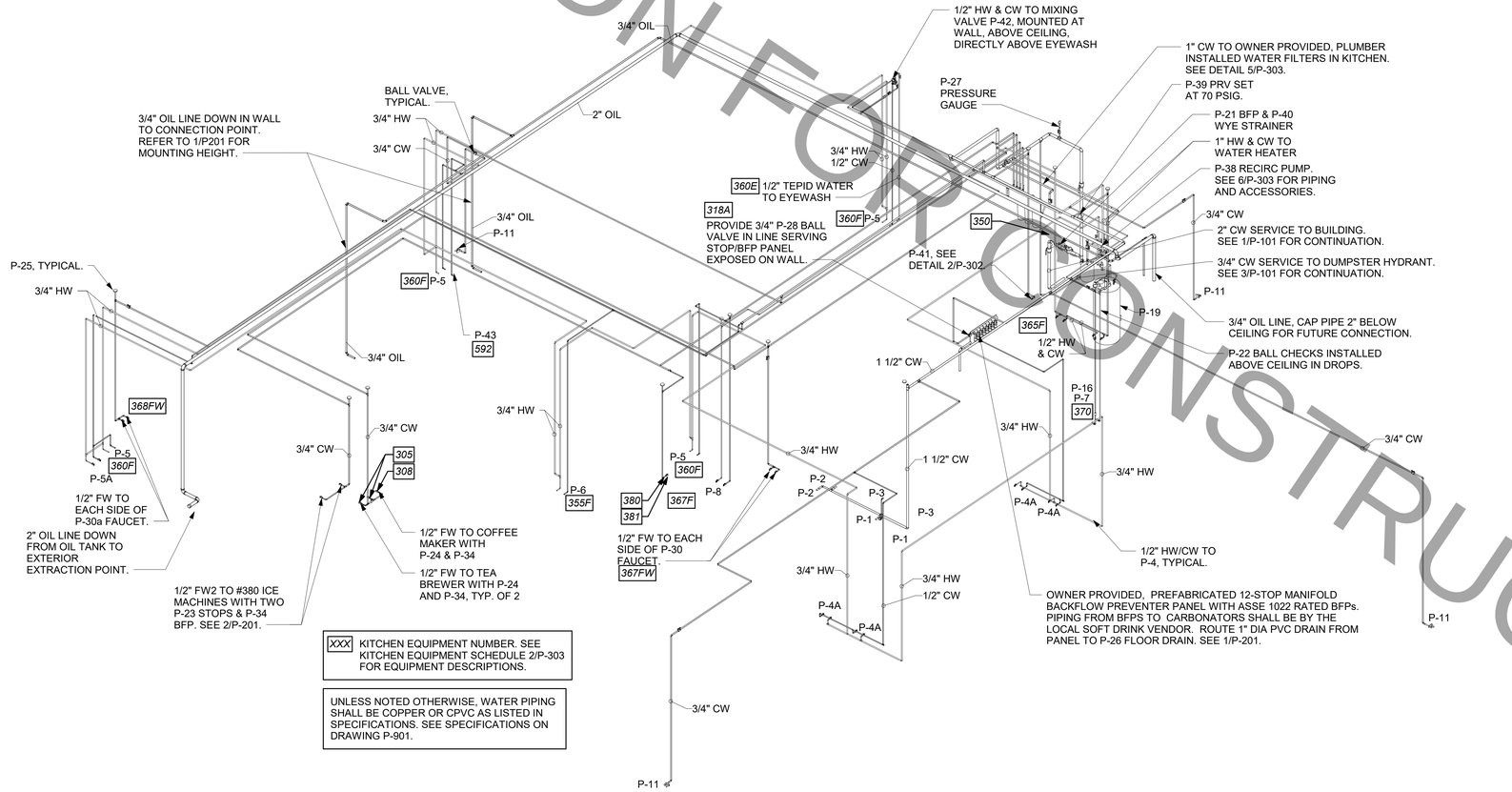
2 DISHWASHER SUPPLY VALVE ASSEMBLY
NOT TO SCALE



2A SECTION AT PIPNG WITHIN WALL
NOT TO SCALE



4 DARPRO OIL PIPING SECTION WITHIN WALL
NOT TO SCALE



1 WATER AND OIL RISER DIAGRAM

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

cph
www.cphcorp.com
A Full Service A & E Firm
Plans Prepared By:
CPH Consulting, LLC
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED No. 40421-E PROFESSIONAL ENGINEER

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35033

FSR#01530

BUILDING TYPE / SIZE: P13 SE LRG
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

CONSULTANT PROJECT #	C29119
PRINTED FOR	PERMIT
DATE	03/27/2023
DRAWN BY	AUTHOR

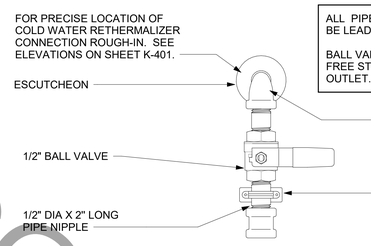
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SHEET
WATER AND OIL RISER DIAGRAM

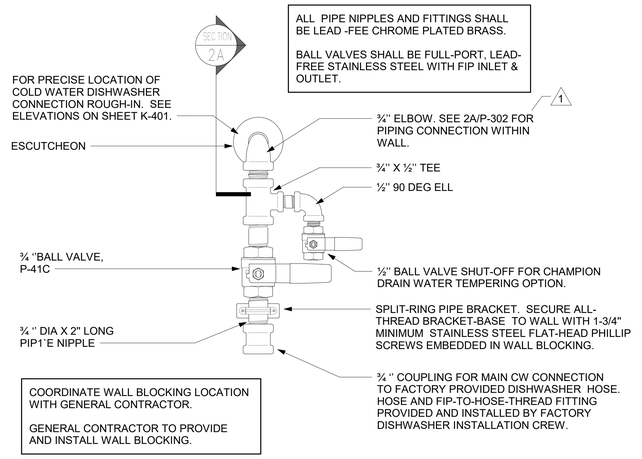
SHEET NUMBER
P-302

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40-SE-01530-P-302-WATER AND OIL RISER DIAGRAM

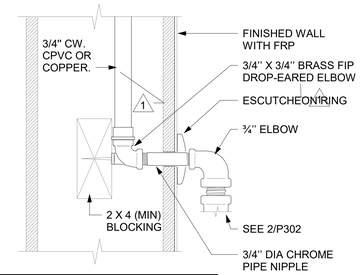
FOR CONSTRUCTION



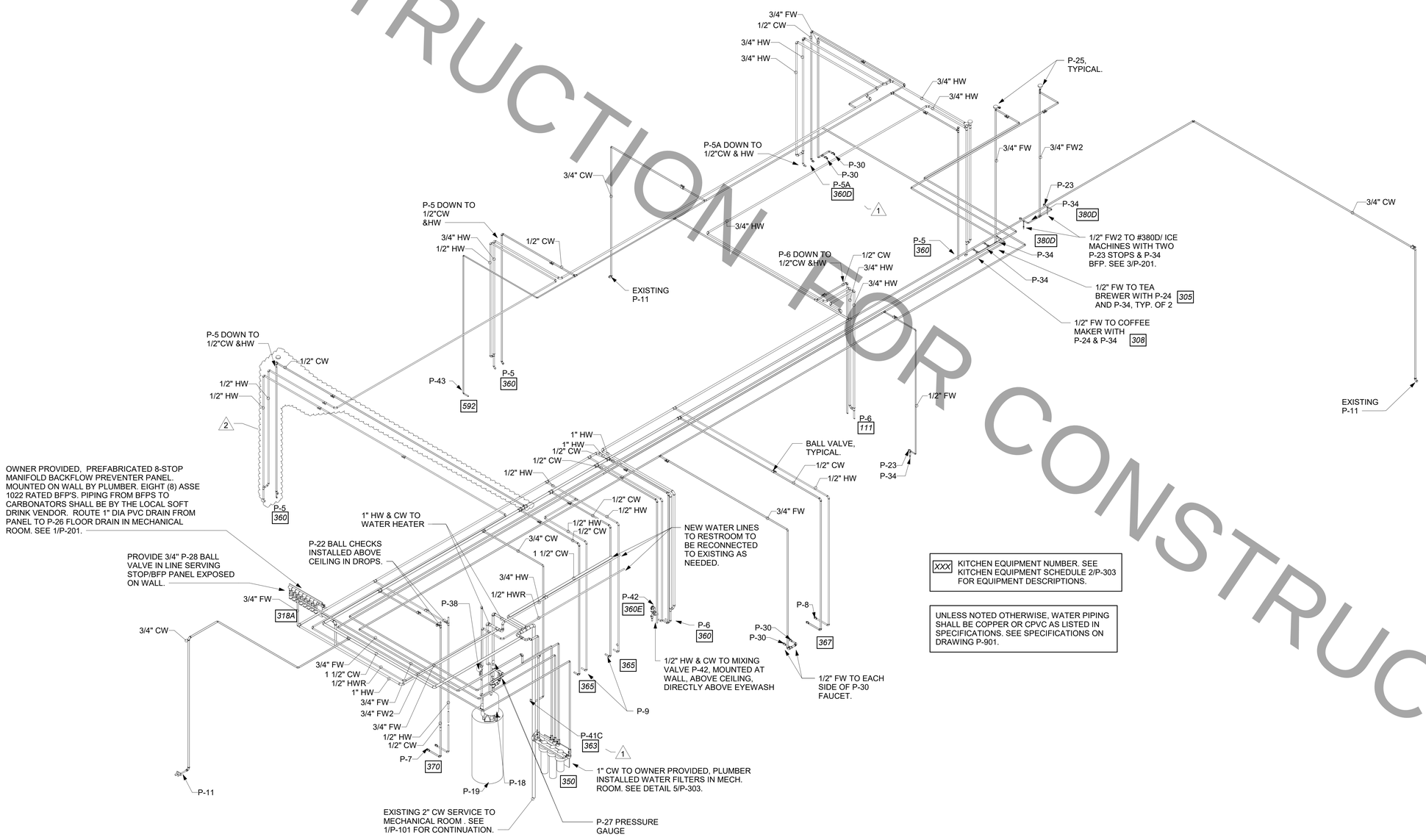
3 RETHERMALIZER SUPPLY VALVE
NOT TO SCALE



2 DISHWASHER SUPPLY VALVE ASSEMBLY-CHAMPION
NOT TO SCALE



2A SECTION AT PIPNG WITHIN WALL
NOT TO SCALE



1 WATER RISER DIAGRAM

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

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A Full Service
A & E Firm

Plans Prepared By:
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State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED No. 40421-E PROFESSIONAL ENGINEER CHRISTOPHER FRED STILLWELL

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 ALL LRG ALL
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	10-26-2021	PERMIT REV#1
2	03-22-2022	CONSTRUCTION REVISION #1

PERMIT

CONSULTANT PROJECT # C29119
PRINTED FOR PERMIT
DATE 10-10-21
DRAWN BY JPM

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SHEET
WATER RISER DIAGRAM

SHEET NUMBER
P-302

BIM 360://AL_01530_Cullman_2021.2_FSR/01530_Cullman_Remodel_PLB.rvt
3/23/2022 2:56:07 PM
40-01530-P-302-WATER RISER DIAGRAM

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	

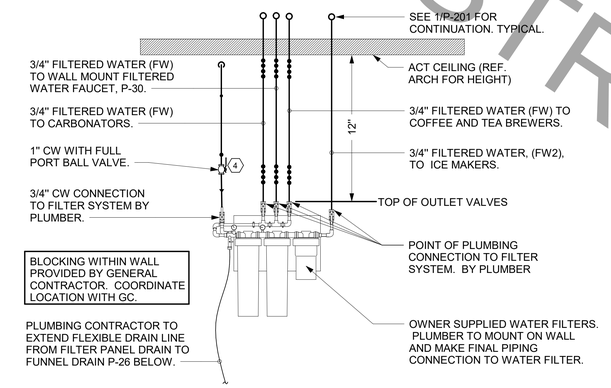
LAMINATE VALVE TAG LEGEND AND MOUNT PERMANENTLY WHERE SHOWN ON WATER HEATER DETAIL IN AN ALUMINUM FRAME EQUAL TO SETON #68624.

VALVE TAG



(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

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
(315)	10 HEAD BEVERAGE DISP.	1/2"	X	X	X	INDIRECT	P-36
(318A)	CARBONATOR BFP PANEL	3/4"	X	X	X	X	P-28, SEE K-611
(350)	WATER FILTER PANEL	(3) 3/4"	3/4"	3/4"	X	X	SEE DET 5/P-303
(360)	HAND SINK	X	X	1/2"	1/2"	X	SEE K-611 & P-201
(360D)	HAND SINK	X	X	1/2"	1/2"	X	SEE K-611 & P-201
(360E)	EMERGENCY EYEWASH STATION	X	X (1)	1/2"*	1/2"*	X	*1/2" TEPID WATER FROM P-42, SEE K-611 & 1/P-201 (1)
(363)	DISHWASHER	X	X	3/4"	X	INDIRECT TO P13A	P-41C, 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
(367R)	VEGETABLE PREP SINK	X	X	1/2"	1/2"	INDIRECT	#367F FAUCET, P-8 SEE K-611
(367FW)	FILTERED WATER FAUCET	(2) 1/2"	X	X	X	X	P-30 48" AFF.
(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	(3) 1/2"	X	X	INDIRECT	P-23 SEE K-611 & 3/P-201
(380D)	ICE MAKER	X	(3) 1/2"	X	X	INDIRECT	P-23 SEE K-611 & 3/P-201
(381)	ICE BIN (1 HEAD)	X	X	X	X	INDIRECT	SEE DET 3/P-201
(384)	ICE BIN (2 HEAD)	X	X	X	X	INDIRECT	SEE DET 3/P-201
(410B)	FREEZER EVAPORATOR	X	X	X	3/4"	INDIRECT	SEE P-201
(449B)	COOLER EVAPORATOR	X	X	X	3/4"	INDIRECT	SEE P-201
(592)	RETHERMALIZER	X	X	1/2"	X	INDIRECT	SEE DET 3/P-302

(2) KITCHEN EQUIPMENT SCHEDULE
NOT TO SCALE

1. FIXTURE CONNECTION SCHEDULE

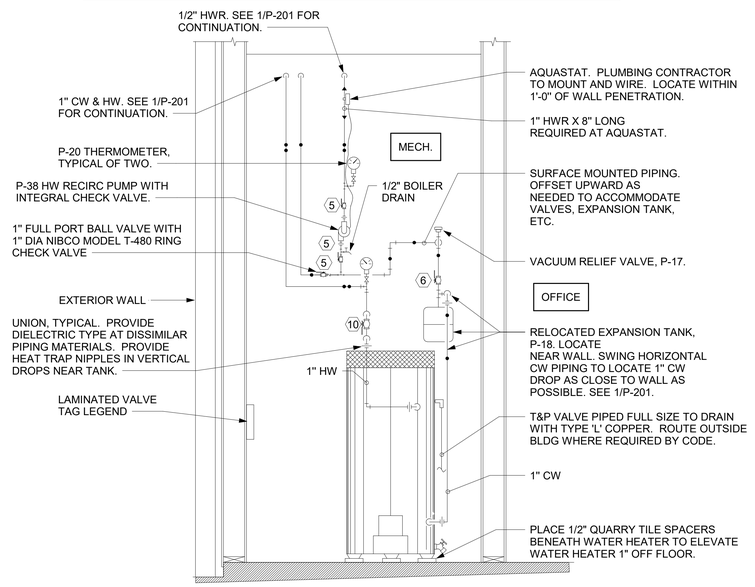
MARK	FIXTURE	FW	FW2	CW	HW	WASTE
P-1	WATER CLOSET - FLOOR MOUNT (1.28 GPF)	X	X	1"	X	3"
P-2	WATER CLOSET - ADA FLOOR MOUNT (1.28 GPF)	X	X	1"	X	3"
P-3	URINAL - ADA WALL HUNG (0.125 GPF)	X	X	3/4"	X	2"
P-4A	LAVATORY - ADA COUNTERTOP (0.50 GPM)	X	X	1/2"	1/2"	1-1/4"
P-5	KITCHEN HAND SINK - WALL HUNG (1.0 GPM)	X	X	1/2"	1/2"	1-1/2" (1)
P-5A	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 (0.65 GPM SPRAYER)	X	X	1/2"	1/2"	(2) 1-1/2"
P-10	FLOOR DRAIN (ROUND TOP)	X	X	X	X	3"
P-11	WALL HYDRANT (NON-FREEZE): WOODFORD MODEL 67C	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-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	EXISTING GAS WATER HEATER TO REMAIN	X	X	1"	1"	X
P-20	THERMOMETER	X	X	X	1/2"	X
P-21	EXISTING 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-29A	ICE MACHINE TRENCH DRAIN	X	X	X	X	4"
P-29B	ICE MACHINE TRENCH DRAIN	X	X	X	X	4"
P-30	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-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	EXISTING PRESSURE REDUCING VALVE	X	X	2"	X	X
P-41C	DISHWASHER SUPPLY VALVES - CHAMPION	X	X	3/4"	X	X
P-42	EMERGENCY EYEWASH MIXING VALVE	X	X	1/2"	1/2"	X
P-43	RETHERMALIZER SUPPLY VALVE	X	X	3/4"	X	X
P-44	ZURN ROOF DRAIN	X	X	X	X	4"

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.

NOTES TO WATER HEATER INSTALLER:

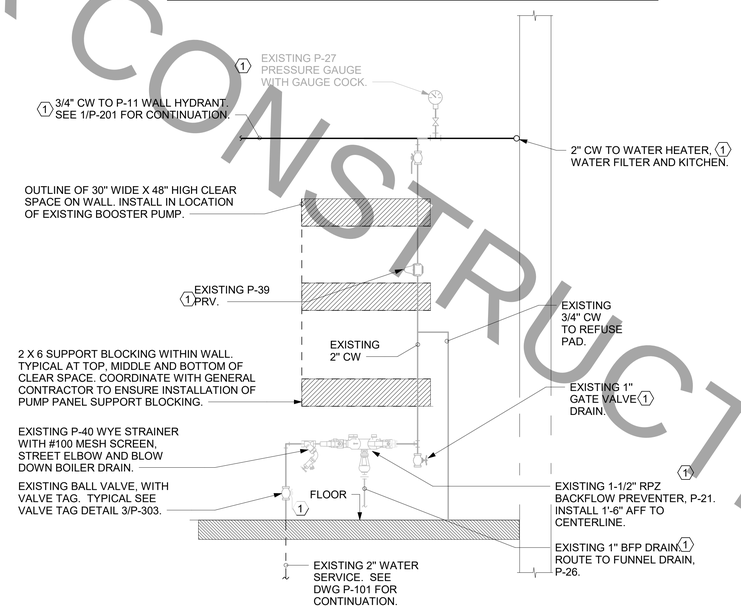
1. POSITION VALVES AND TRIM IN MECH ROOM SUCH THAT VALVES AND TRIM ARE UNOBSTRUCTED TO VIEW AND SO THAT ACCESS FOR OPERATION OR REPAIR IS POSSIBLE WITHOUT USE OF STEP LADDERS OR NEED TO DISASSEMBLE ANY COMPONENTS.
2. VENT HEATER UP THRU MECH ROOM ROOF AND PROVIDE FRESH AIR PIPING PER MANUFACTURER'S RECOMMENDATIONS.



(6) PIPING AT WATER HEATER
NOT TO SCALE

NOTE OF SPECIAL IMPORTANCE :

1. EXSTING WATER MAIN AND SERVICE INCOMING LOCATION IN WALL. SEE EXISTING ASBUILTS FOR LOCATION AND VERIFY BEFORE REMODEL.



(4) PIPING AT WATER SERVICE ENTRANCE IN MECHANICAL ROOM
NOT TO SCALE

FOR CONSTRUCTION

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

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Plans Prepared By:
CPH Design, Inc.
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED PROFESSIONAL ENGINEER
No. 40421-E
PROFESSIONAL
CHRISTOPHER FRED STILLWELL

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 ALL LRG ALL
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	10-26-2021	PERMIT REV#1

PERMIT

CONSULTANT PROJECT #	C29119
PRINTED FOR	PERMIT
DATE	10-10-21
DRAWN BY	JPM

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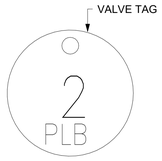
SHEET
DETAILS AND SCHEDULES

SHEET NUMBER
P-303

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3/23/2022 2:56:07 PM
40-01530-P-303-DETAILS AND SCHEDULES

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

2. KITCHEN EQUIPMENT SCHEDULE

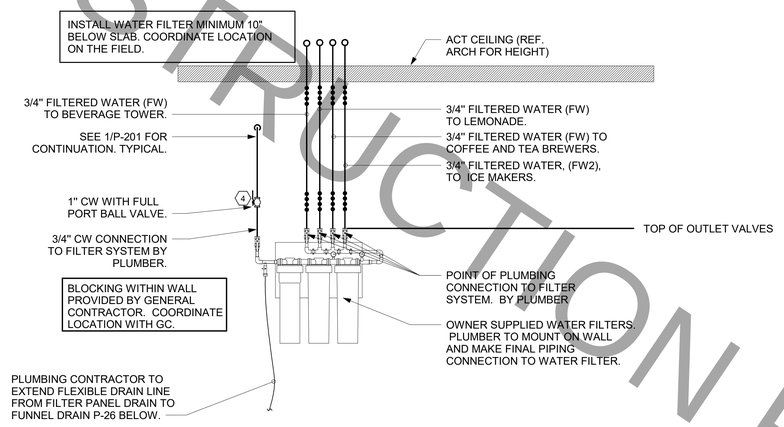
TAG	DESCRIPTION	FW	FW2	CW	HW	WASTE	ROUGH-IN
305	TEA BREWER	1/2"	X	X	X	X	P-24, SEE K-611 & 6/P-211
308	COFFEE MAKER	1/2"	X	X	X	X	P-24, SEE K-611 & 6/P-211
318A	CARBONATOR BFP PANEL	3/4"	X	X	X	X	P-28, SEE K-611
350	WATER FILTER PANEL	(3) 3/4"	3/4"	3/4"	X	X	SEE DET 5/P-303
360D	HAND SINK	X	X	1/2"	1/2"	INDIRECT TO P-13C	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
367FW	FILTERED WATER FAUCET	(2) 1/2"	X	X	X	X	P-30 48" AFF.
368FW	FILTERED WATER FAUCET	(2) 1/2"	X	X	X	X	P-30a 48" AFF.
370	MOP SINK	X	X	1/2"	1/2"	3" P-35	P-7 SEE K-611
380	ICE MAKER (BIN MOUNTED)	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	RETHERMALIZER	X	X	1/2"	X	INDIRECT	P-43 SEE DET 3/P-302

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-5	KITCHEN HAND SINK - WALL HUNG (0.5 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-29A	ICE MACHINE TRENCH DRAIN	X	X	X	X	3"
P-29B	ICE MACHINE TRENCH DRAIN	X	X	X	X	3"
P-30	FILTERED WATER FAUCET	(2) 1/2"	X	X	X	X
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	RETHERMALIZER SUPPLY VALVE	X	X	1/2"	X	X

NOTES: 1 REFER TO FOOD SERVICE DRAWINGS FOR KITCHEN EQUIPMENT INSTALLATION AND HOOK-UP RESPONSIBILITIES.

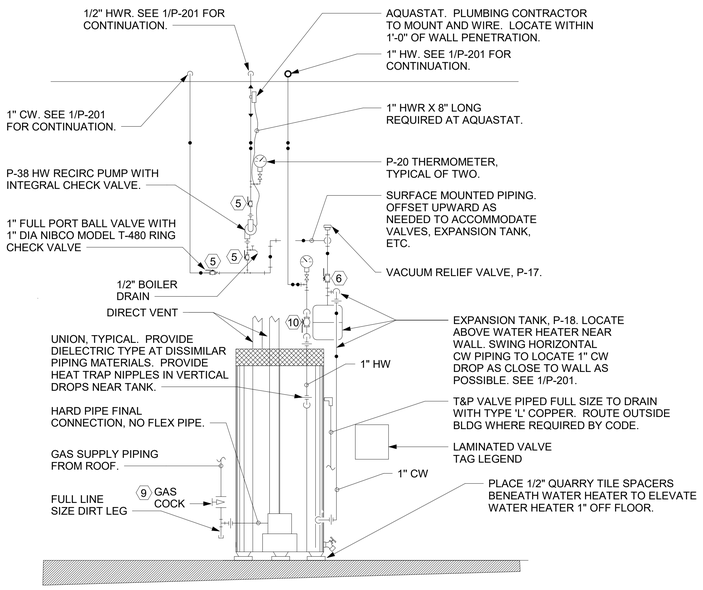
2 DO NOT MANIFOLD POT OR PREP SINK DRAINS TOGETHER UNLESS ALLOWED BY LOCAL AUTHORITY.



5 PIPING AT WATER FILTER
NOT TO SCALE

NOTES TO WATER HEATER INSTALLER:

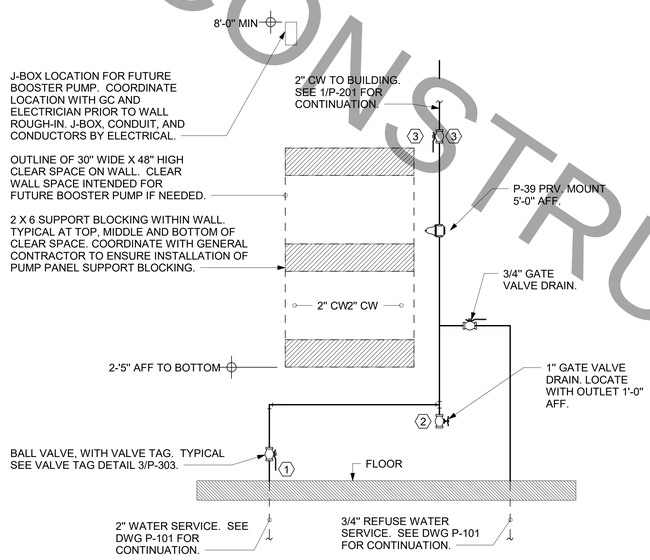
1. POSITION VALVES AND TRIM SUCH THAT VALVES AND TRIM ARE UNOBSTRUCTED TO VIEW AND SO THAT ACCESS FOR OPERATION OR REPAIR IS POSSIBLE WITHOUT USE OF STEP LADDERS OR NEED TO DISASSEMBLE ANY COMPONENTS.
2. VENT HEATER UP THRU ROOF AND PROVIDE FRESH AIR PIPING PER MANUFACTURER'S RECOMMENDATIONS.



6 PIPING AT WATER HEATER
NOT TO SCALE

NOTE OF SPECIAL IMPORTANCE :

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



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

FOR CONSTRUCTION

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40-SE-01530-P-303-DETAILS AND SCHEDULES

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Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED No. 40421-E PROFESSIONAL ENGINEER JAMES FRED SISTRUNK

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35033

FSR#01530

BUILDING TYPE / SIZE: P13 SE LRG
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

CONSULTANT PROJECT #	C29119
PRINTED FOR	PERMIT
DATE	03/27/2023
DRAWN BY	AUTHOR

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SHEET
DETAILS AND SCHEDULES

SHEET NUMBER
P-303

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 ARMACELL 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 GASTITE WITH JOINING SYSTEM AS MANUFACTURED BY CON-STAB. TRANSITIONS 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. SHOCK ABSORBERS SERVICING FIXTURES WITH FLUSH VALVES SHALL BE SECURELY ANCHORED IN THEIR VERTICAL POSITION. CONFORM TO ASSE 1010.

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:

NOMINAL PIPE SIZE (IN)	MINIMUM HANGER DIAMETER (IN)
1/2	3/8
3/4 TO 1-1/2	3/8
2 TO 2-1/2	3/8
3 TO 6	1/2

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

1.	TOTO VALVES AND FIXTURES (NO SUBSTITUTIONS). HAINES, JONES & CADBURY 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. 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 TEU1UA12#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 TEL105-D10ET#CP ECO-POWER SENSOR HOT/COLD FAUCET WITH THERMOSTATICALLY CONTROLLED ASSE 1070 MIXING VALVE FAUCET. 0.09 GALLONS PER CYCLE. 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).

1

P-5A KITCHEN DUMP SINK ROUGH IN: (SINK BY TMS; FAUCET: T&S MODEL #B-1146-CFA-VF05 - 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-2345 FAUCET WITH CERAMA SPRING CHECK VALVE CARTRIDGES, HOSE THREAD SPOUT 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 AND FAUCET WITH 0.65 GPM SPRAY HEAD PROVIDED BY TMS) 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. INSTALL ADD-ON FAUCET WITH 15" SPOUT AT BASE OF PRE-RINSE RISER. SEE K-SHEET ELEVATIONS. 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.

1

P-10 FLOOR DRAIN (3"): ZURN EZ1-PV3-R8 PVC BODY, BRONZE SPUD WITH 8" 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 1/P-201 FOR WALL THICKNESS AT WALL HYDRANTS. ALT: (WTS) HY-42.

P-12 FUNNEL DRAIN (3"): ZURN MODEL ZN415-3NL-6S-4 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). ALT: (WTS) FD103P-A6-F4-1; (JRS) 3510L03.

P-13A FLOOR SINK (POT 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-14 CLEANOUTS INSIDE BUILDING: ZURN ZN1400-XNL-T-BP CLEANOUT WITH 6" SQUARE NICKEL BRONZE TOP AND TAPER THREAD BRONZE PLUG. SEE PLAN FOR SIZE. (X=PIPE DIA) (PROVIDED BY HJC). ALT: (WTS) CO-20XP-S; (JRS) 4053L.

P-15 CLEANOUTS OUTSIDE BUILDING: ZURN Z1474-NX EXTRA HEAVY DUTY CAST IRON CLEANOUT, "C.O." CAST IN COVER, ABS PLUG, NEO-LOOCK OUTLET. (X=PIPE DIA) (PROVIDED BY HJC) ALT: (WTS) CO-X00-MF + CO-38X; (ZRN) Z1474-X-N (JRS) 4261L.

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. SEE 4/P-201. PROVIDE ALSO TWO 3/4" CLOSE CHROME PLATED BRASS NIPPLE AND 3/4" POLISHED CHROME 90 DEGREE ELBOW.

P-17 VACUUM RELIEF VALVE: WATTS MODEL #LFN36M1, 3/4" 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" CONNECTION. ALTERNATE MODELS SIZED PER WATER HEATER MANUFACTURER RECOMMENDATIONS ARE ACCEPTABLE.

P-19 WATER HEATER: EXISTING GAS WATER HEATER TO REMAIN

P-20 THERMOMETER: PROVIDE TRERICE 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 EXISTING BACKFLOW PREVENTERS:

P-22 MOP SINK CHECK VALVES: T&S BRASS 1/2" MODEL B-CVV1-2 BALL CHECK. (PROVIDED BY HJC)

P-23 UTILITY CONNECTION (ICEMAKER): PROVIDE A MCGUIRE MODEL LFHST06SB LEAD-FREE CHROME WHEEL ANGLE STOP, 1/2" FIP 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): PROVIDE A MCGUIRE MODEL LFHST06SB 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: 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"): ZURN ZN415-3NL-8S-OF FLOOR DRAIN W/FUNNEL. INDIRECT WASTE RECEIVER WITH NICKEL BRONZE STRAINER AND FUNNEL. PROVIDE 8" ROUND STRAINER WITH 3.25"X 8.25" OBLONG FUNNEL (DRAIN AND STRAINER PROVIDED BY HJC). ALT: (WTS) FD-103P-A8-G-1; (JRS) SMITH 3510L03.

P-26A TRAP SEAL PROTECTOR: PROVENT TRAP GUARD MODEL TG3H 3" TRAP SEAL INSERT FOR INTERIOR INSTALLATION AND REPLACEMENT ACCESS THROUGH STRAINER (PROVIDED BY HJC). PROVIDE AT P-35 FLOOR DRAINS IN RESTROOMS, P-37 FLOOR DRAINS DINING ROOM, AND P-26 FUNNEL DRAINS IN MECH ROOM. PROVIDE PROSET MODEL TG33-ZURN WHEN USING ZURN FLOOR FIXTURES (PROVIDED BY HJC).

P-27 WATER PRESSURE GAUGE: TRERICE 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): NIBCO MODEL 4660-T, 3/4", WITH IPS INLET AND OUTLET. (PROVIDED BY HJC.)

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

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

P-30 FILTERED WATER FAUCET: (FAUCETS: T&S B-02326-CR-063X 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.

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 AND INSTALLED BY SITE CONTRACTOR. ALT: (ZRN) Z560-3NL-Y-C.

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.)

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P-35 FLOOR DRAIN (3"): ZURN EZ1-PV3-R6 PVC BODY, BRONZE SPUD WITH 6" DIAMETER NICKEL BRONZE STRAINER (PROVIDED BY HJC). ALT: JONES STEPHENS CORP D50-064.

P-36 BEVERAGE TOWER INDIRECT RECEIVER (3"): ZURN EZ1-PV3-R8 PVC BODY, BRONZE SPUD WITH 8" DIAMETER NICKEL BRONZE STRAINER (PROVIDED BY HJC). ALT: JONES STEPHENS CORP D53-144.

P-37 FLOOR DRAIN (3"): ZURN EZ1-PV3-S6 PVC BODY, BRONZE SPUD WITH 6" SQUARE NICKEL BRONZE STRAINER (PROVIDED BY HJC). ALT: JONES STEPHENS CORP D50-077.

P-38 HOT WATER CIRCULATING PUMP: TACO MODEL 006-SC7-IFC. 1/2" UNION CONNECTIONS, INTEGRAL FLOW CHECK. ELECTRICIAN TO PROVIDE AND WIRE PLUG AND CORD, 1/40 HP, 3 GPM AT 7 FT TOTAL DYNAMIC HEAD. PROVIDE CONTROL WIRING AND HONEYWELL MODEL L6006C1018 110 VAC AQUA-STAT, WITH ADJUSTABLE SETPOINT, MOUNTED DIRECTLY ON PIPE (ALL PROVIDED BY HJC). SET SHUT-OFF TEMPERATURE AT 130 DEG F.

P-39 (EXISTING)2" PRESSURE REDUCING VALVE: WATTS NO. #LF223-SB WITH BUILT-IN BYPASS FEATURE (PROVIDED BY HJC). SET NO FLOW CONDITION AT 70 PSI. ALT: (ZRN) SERIES 500XLYSBR.

P-41C DISHWASHER SUPPLY VALVES (CHAMPION): FULL-PORT LEAD-FREE STAINLESS STEEL BALL VALVES (PROVIDED BY HJC) WITH SPLIT-RING BRACKET, CHROME FITTINGS, PIPE NIPPLES AND ESCUTCHEON AS DETAILED ON 2/P-302.

P-42 EMERGENCY THERMOSTATIC MIXING VALVE (EMERGENCY EYEWASH): BRADLEY MODEL S19-2000 EFX8 THERMOSTATIC TEMPERING VALVE (PROVIDED BY HJC). ANSI Z358.1 CERTIFIED FOR EMERGENCY FIXTURES, ASSE 1071 COMPLIANT, WITH DIAL THERMOMETER, INLET CHECK STOPS, ADJUSTABLE SETPOINT, ACCURATE WITHIN +/- 3 DEG F. INCLUDES INTEGRAL COLD WATER BYPASS WITH POSITIVE HOT WATER SHUT-OFF WHEN COLD WATER SUPPLY IS LOST.

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 ARMACELL 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 GASTITE WITH JOINING SYSTEM AS MANUFACTURED BY CON-STAB. TRANSITIONS 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:

NOMINAL PIPE SIZE (IN)	MINIMUM HANGER DIAMETER (IN)
1/2	3/8
3/4 TO 1-1/2	3/8
2 TO 2-1/2	3/8
3 TO 6	1/2

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

1. TOTO VALVES AND FIXTURES (NO SUBSTITUTIONS). HAINES, JONES & CADBURY 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 TEU1UA12#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 T24S51ET#CP ECO-POWER SENSOR HOT/COLD FAUCET WITH THERMOSTATICALLY CONTROLLED ASSE 1070 MIXING VALVE FAUCET. 0.09 GALLONS PER CYCLE. NO SUBSTITUTIONS. PROVIDE MCGUIRE LF175 SUPPLY WITH STOP, MCGUIRE 155-WC GRID DRAIN WITH OFFSET TAILPIECE. MCGUIRE 8872 POLISHED CHROME P-TRAP. P-TRAP SHALL BE PARALLEL WITH BACK WALL. PROVIDE A TRUEBRO INC., HANDI LAV-GUARD INSULATION KITS MODELS 101E-Z AND 105E-Z. 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 #TEL165-32E#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 #B-1146-CFA-VF05 - 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 TOTO T24S51ET#CP 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-2345 FAUCET WITH CERAMA SPRING CHECK VALVE CARTRIDGES, HOSE THREAD SPOUT 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-CRBCT WITH 0.65 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. INSTALL ADD-ON FAUCET WITH SPOUT AT BASE OF PRE-RINSE RISER. SEE K-SHEET ELEVATIONS. 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-0152-14CRBCT & B2299-CR WITH 0.65 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. INSTALL ADD-ON FAUCET WITH SPOUT 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 EZ1-PV3-R8 PVC BODY, BRONZE SPUD WITH 8" 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 1/P-201 FOR WALL THICKNESS AT WALL HYDRANTS. ALT: (WTS) HY-42.

P-12 FUNNEL DRAIN (3"): ZURN MODEL ZN415-3NL-8S-4 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). ALT: 4" ROUND FUNNEL (ZURN) ZN328-4.

P-13A FLOOR SINK (POT 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-KC-NL-2-23 CAST IRON INDIRECT WASTE RECEIVER, NEO-LOC OUTLET, ANCHOR FLANGE WITH SEEPAGE HOLES AND CLAMP COLLAR, WITH HALF GRATE. AND ALUMINUM BUCKET (PROVIDED BY HJC). NO SUBSTITUTIONS.

P-14 CLEANOUTS INSIDE BUILDING: ZURN ZN1400-XNL-T-BP 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: ZURN Z1474-NX EXTRA HEAVY DUTY CAST IRON CLEANOUT, "C.O." CAST IN COVER, ABS PLUG, NEO-LOOCK 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. SEE 4/P-201. PROVIDE ALSO TWO 3/4" CLOSE CHROME PLATED BRASS NIPPLE AND 3/4" POLISHED CHROME 90 DEGREE ELBOW.

P-17 VACUUM RELIEF VALVE: WATTS MODEL #LFN36M1, 3/4" 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" 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: PROVIDE TRERICE 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: 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. LFU007M1QT 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.

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) 112-975XLT2U.
(ANY AND ALL PROVIDED BY HJC.)

P-22 MOP SINK CHECK VALVES: T&S BRASS 1/2" MODEL B-CVV1-2 BALL CHECK. (PROVIDED BY HJC)

P-23 UTILITY CONNECTION (ICEMAKER): PROVIDE A MCGUIRE MODEL LFHST06SB LEAD-FREE CHROME WHEEL ANGLE STOP, 1/2" FIP 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): PROVIDE A MCGUIRE MODEL LFHST06SB 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: 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"): ZURN ZN415-3NL-8S-OF FLOOR DRAIN W/FUNNEL. INDIRECT WASTE RECEIVER WITH NICKEL BRONZE STRAINER AND FUNNEL. PROVIDE 8"X8" SQUARE STRAINER WITH 3.25"X 8.25" OBLONG FUNNEL (DRAIN AND STRAINER PROVIDED BY HJC). ALT: (JRS) 3510L03-F22NB.

P-26A TRAP SEAL PROTECTOR: PROVENT TRAP GUARD MODEL TG3H 3" TRAP SEAL INSERT FOR INTERIOR INSTALLATION AND REPLACEMENT ACCESS THROUGH STRAINER (PROVIDED BY HJC). PROVIDE AT P-35 FLOOR DRAINS IN RESTROOMS, P-37 FLOOR DRAINS DINING ROOM, AND P-26/P-10 DRAINS IN MECH ROOM. PROVIDE PROSET MODEL TG33-ZURN WHEN USING ZURN FLOOR FIXTURES (PROVIDED BY HJC).

P-27 WATER PRESSURE GAUGE: TRERICE 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): NIBCO MODEL 4660-T, 3/4", WITH IPS INLET AND OUTLET. (PROVIDED BY HJC.)

P-29A 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.

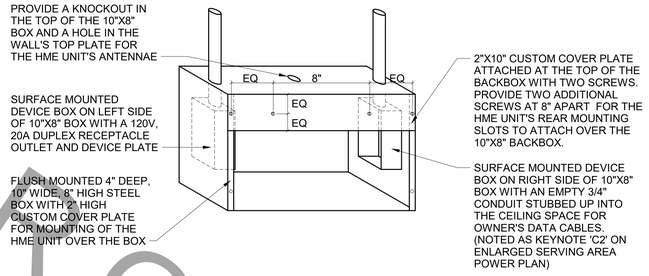
P-29B ICE MACHINE TRENCH DRAIN: ZURN/STAINLESS DRAINS TR12-CFA-36 STAINLESS STEEL TRENCH DRAIN, 14.5" X 36", STAINLESS STEEL SEDIMENT CUP AND STAINLESS STEEL SERRATED LADDER GRATE (XX=DRAIN WIDTH, 18"/36"/48") (PROVIDED BY HJC). NO SUBSTITUTIONS.

P-30 FILTERED WATER FAUCET: (FAUCETS: T&S B-02326-CR-063X 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.

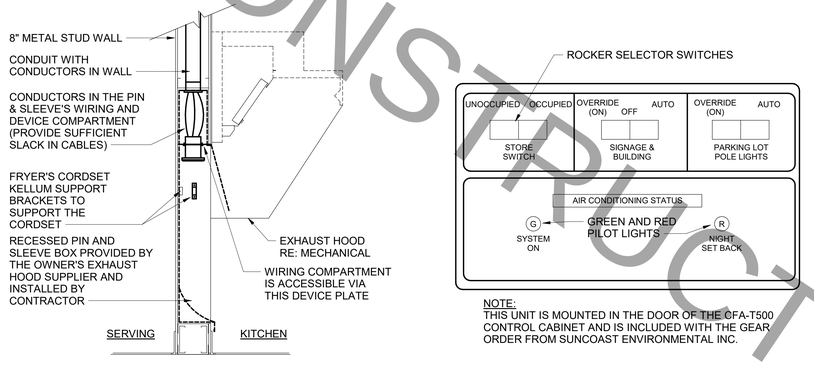
P-30a FILTERED WATER FAUCET: (FAUCETS: T&S B-0599-CR PROVIDED BY HJC) TWO-HANDLE WALL MOUNT FAUCET WITH SWING SPOUT. MOUNT ON WALL AS SHOWN ON K-SHEETS. PIPE FILTERED WATER TO BOTH SIDES OF FAUCET. CONNECT TO SUPPLY PIPING WITH BRASS OR CHROME NIPPLES; GALVANIZED NOT ALLOWED.

P-31

FOR CONSTRUCTION



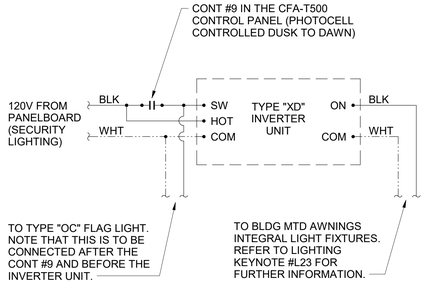
E3 DETAIL - HME UNIT POWER & DATA BOX DETAIL
NO SCALE



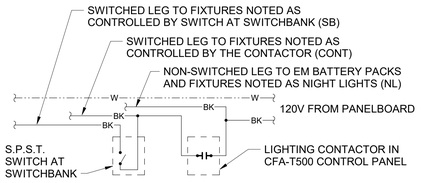
D4 PIN & SLEEVE BOX DETAIL
NO SCALE

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.

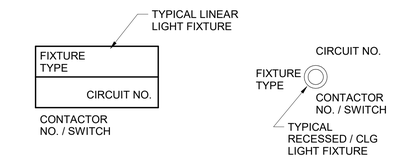
D3 OPEN-CLOSED CONTROL SWITCH
NO SCALE



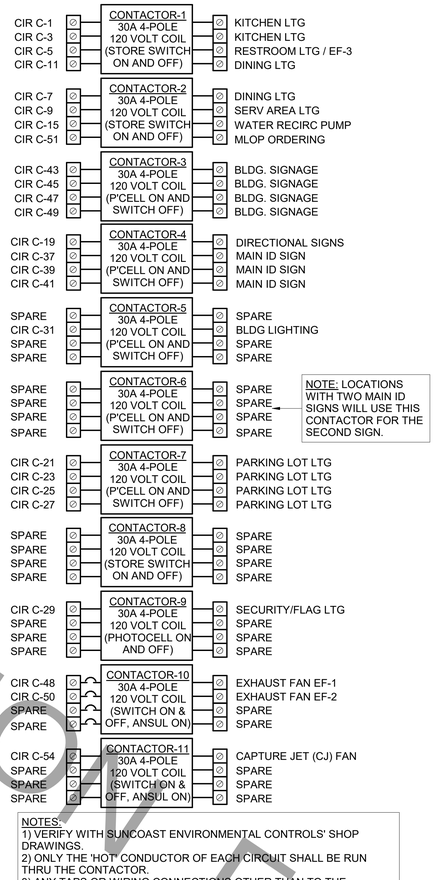
3 DETAIL - INVERTER XD WIRING DIAGRAM
NO SCALE



B4 LIGHTING CONTROL DIAGRAM
NO SCALE



A4 LIGHT FIXTURE NOMECLATURE
NO SCALE



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 ANSUL 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

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.

C1 ELECTRICAL LEGEND

SYMBOL	DESCRIPTION	MTG HT AFF TO CL
	LIGHTING FIXTURES	
	SURFACE MOUNTED LIGHTING FIXTURE	
	RECESSED LED TROFFER LIGHTING FIXTURE	
	SURFACE MOUNTED LED LIGHTING FIXTURE	
	RECESSED LED LIGHTING FIXTURE	
	WALL MOUNTED LIGHTING FIXTURE, SEE LIGHTING FIXTURE SCHEDULE	AS NOTED
	WALL MOUNTED EXIT SIGN, SHADE INDICATES FACES, PROVIDE CHEVRON DIRECTIONALS WHEN NEEDED	6" FROM CEILING TO TOP
	CEILING MTD EXIT SIGN, SHADING INDICATES FACES. PROVIDE W/ CHEVRON DIRECTIONALS WHEN NEEDED	
	COMBO EXIT WITH TWO LAMPHEADS	
	WALL MTD EMERGENCY BATTERY PACK LIGHTING FIXTURE	AS NOTED
	CEILING MTD EMERGENCY BATTERY PACK LIGHTING FIXTURE	
	FLUORESCENT STRIP LIGHTING FIXTURE	
	WALLWASHER TYPE RECESSED DOWNLIGHT, AIM LIGHT TOWARD WALL	
	RECESSED LIGHTING FIXTURE W/ EMERGENCY BATTERY PACK	
	PENDANT LIGHTING FIXTURE	AS NOTED
	LIGHTING TRACK WITH TRACK HEADS	
	WIRING DEVICES	
	120 VOLT DUPLEX RECEPTACLE, 20 AMPS U.O.N.	14" UON
	120 VOLT DUPLEX AT SPECIAL MTD HEIGHT, 20 AMPS U.O.N.	44" UON
	120 VOLT QUADRAPLEX RECEPTACLE, 20 AMPS U.O.N.	14" UON
	120 VOLT QUAD. AT SPECIAL MTD HEIGHT, 20 AMPS U.O.N.	44"
	120 VOLT SIMPLEX RECEPTACLE, 20 AMPS U.O.N.	14" UON
	SINGLE SPECIAL PURPOSE RECEPT W/ VOLTS, AMPS, & PHASE AS NOTED, NEMA CONFIGURATION AS REQUIRED BY EQUIP.	14" UON
	RECEPTACLE MOUNTED ON DROP CORD, 120 VOLT, 20 AMP, UON, OUTLET BOX FLUSH WITH CEILING	
S	SINGLE POLE TOGGLE SWITCH	48"
S_2	DOUBLE POLE TOGGLE SWITCH	48"
S_3	THREE WAY TOGGLE SWITCH	48"
S_M	MANUAL MOTOR STARTER SWITCH (WP=NEMA 3R)	48"
S_P	SWITCH WITH PILOT LIGHT (ON WHEN SWITCH IS ON)	48"
S_K	KEY OPERATED SWITCH	48"

NOTE: RECEPTACLES ON A DEDICATED CIRCUIT (THAT IS, NO OTHER LOAD CONNECTED TO THE BRANCH CIRCUIT) SHALL HAVE AMPACITY RATING NOT LESS THAN THE AMPERAGE OF THE CIRCUIT BREAKER SERVING THE DEVICE.

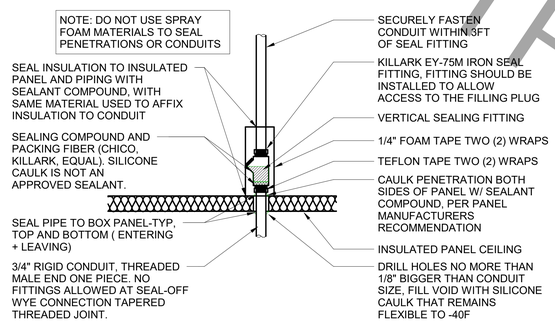
	CONDUIT/RACEWAYS	
	CONDUIT CONCEALED ABOVE CEILNG OR IN WALL	
	CIRCUIT HOMERUN TO PANELBOARD W/ MIN 2#12, 1#12G, 3/4"C	
	CONDUIT TURNING UP	
	CONDUIT TURNING DOWN	
	CONDUIT CONCEALED IN OR BELOW SLAB (OR UNDERGROUND)	
	FLEXIBLE LIGHT FIXTURE WHIP; SIX FOOT MAXIMUM LENGTH	
MC	METAL CLAD CABLE ASSEMBLY - ONLY WHERE INDICATED ON DWGS OR SPECS	
	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" *
	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" *
	FLUSH MOUNTED LIGHTING PANELBOARD	6'-6" *
	SURFACE MOUNTED LIGHTING PANELBOARD	6'-6" *

* 6'-6" DISTANCE IS TO TOP-MOST DISCONNECTING DEVICE OR HIGHEST POSITION OF OPERATING HANDLE OF DISCONNECTING DEVICE

SYMBOL	DESCRIPTION	MTG HT AFF TO CL
	MISCELLANEOUS SYMBOLS	
	GROUND	
M	MOTOR	
EF	EXHAUST FAN MOTOR	
J	JUNCTION BOX	
1	CONDUIT AND WIRE 'MARK' NUMBER, REFER TO CONDUCTORS AND CONDUIT SCHEDULE FOR SIZE	
101	KITCHEN EQUIPMENT 'MARK' NUMBER, REFER TO KITCHEN EQUIPMENT SCHEDULE FOR REQUIREMENTS	
1	NOTE NUMBER	
A	HOOD EXTINGUISHING ANSUL PULL STATION	
D	SMOKE DETECTORS REMOTE STATUS INDICATOR W/ 1/2"C STUB-UP	
	PUSHBUTTON	
B	BELL, TYPE AS NOTED ON PLANS	
PE	PHOTO-ELECTRIC CELL	
T	TRANSFORMER / DRIVER	
S	LOCKABLE SINGLE POLE SWITCH	
	ABBREVIATIONS	
AFF	ABOVE FINISHED FLOOR	
AFG	ABOVE FINISHED GRADE	
AHU	AIR HANDLING UNIT	
C	CONDUIT	
CL	CENTER-LINE	
CT	CONTACTOR	
EF	EXHAUST FAN	
FLA	FULL LOAD AMPS	
GF/GFI	GROUND FAULT CIRCUIT INTERRUPTER	
GND/GRD	GROUND	
HT	HEIGHT	
IG	ISOLATED GRD, PROVIDE ORANGE DEVICE WHEN ADJACENT TO WIRING DEVICE	
MOCP	MAXIMUM OVER-CURRENT PROTECTION	
MUA	MAKE UP AIR UNIT	
NEC	LOCALLY ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA 70)	
NL	NIGHT LIGHT (ON 24 HOURS)	
OC	ON CENTER	
POS	POINT OF SALE EQUIPMENT	
RTU	ROOF TOP UNIT	
TB	TERMINAL BLOCK	
TL	TWIST-LOCK TYPE DEVICE	
TR	TAMPER-RESISTANT	
UON	UNLESS OTHERWISE NOTED	
WP	WEATHERPROOF (NEMA 3R)	
	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
K	SECURITY ALARM KEYPAD
S1	SECURITY SYSTEM KEY NOTE



A2 WIC/WIF SEAL-OFF DETAIL
NO SCALE

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Atlanta, Georgia
30349-2998

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ALABAMA LICENSED No. 18054 PROFESSIONAL ENGINEER GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 ALL
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

CONSULTANT PROJECT #	C29119
PRINTED FOR	PERMIT
DATE	10-10-21
DRAWN BY	K.C.L.

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SHEET
ELECTRICAL SCHEDULES AND DETAILS

SHEET NUMBER
E-001

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50-S03-01530-E-001-ELECTRICAL SCHEDULES AND DETAILS

SECTION C16124
SUPPORTING DEVICES AND HANGERS

PART 1 - PRODUCTS

1.01 ACCEPTABLE MANUFACTURERS
A. Supporting devices and hangers shall be manufactured by RACO Fasteners, or approved equivalent.

PART 2 - EXECUTION

2.01 INSTALLATION
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.

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.

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.

D. Use of chains, perforated iron, baling wire, or tie wire for supporting conduit runs is not permitted.

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.

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.

SECTION C16140
WIRING DEVICES AND PLATES

PART 1 - PRODUCTS

1.01 WALL SWITCHES
A. Ratings: 20 amps, 120/277 volts a.c. or as identified on drawings.

B. Devices: (Cooper/Arrow Hart catalog numbers are listed unless notedotherwise):
1. Single pole toggle switches: 20 AMP device - #AH1221-GY (Kitchen) or #AH1221-B (Dining) 20 AMP Pilot lights illuminated with load on - #AH1221-PL

2. Double pole toggle switches: 20 AMP device - #AH1222-GY (Kitchen) or #AH1222-B (Dining)

3. Three-way toggle switches: 20 AMP device - #AH1223-GY (Kitchen) or #AH1223-B (Dining)

1.02 RECEPTACLES
A. Devices: (Cooper/Arrow Hart catalog numbers are listed unless otherwise noted):
1. Specification grade devices to be 20 amp, 125 volts, a.c. receptacles:
a. Single (simplex) device: #1877-GY (Kit) or #1877-B (Dining)
b. Duplex device: #CR20-GY (Kitchen) of #CR20-B (Dining)
c. Tamper resistant duplex device: #TRCR20-B or #TR7756-B (with USB charging)
d. GF (ground-fault circuit interupter) duplex device: #VGF20-GY (Kitchen) or #VGF20-B (Dining)
e. IG (isolated ground) duplex device: #IG5362-RN (orange face)

B. Color:
1. Devices mounted in the FRP or tile shall be gray.
2. Devices mounted in wood finish shall be brown.
3. Isolated ground receptacles shall be orange.

1.03 SPECIAL DEVICES
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.

1.04 WALL PLATES
A. Provide blank plates on all outlet boxes for future outlets, or outlets without devices. Plate style shall match device plates.

B. 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.

C. Where devices installed in exposed boxes or conduit fittings; provide properly designed plates and covers equal to Arrow Hart RS-Series exposed work covers.

D. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface mounted boxes.

E. Color:
1. Wall plates mounted in FRP or tile shall be smooth satin stainless steel 302-ss series.
2. Wall plates mounted in wood finish shall be brown nylon plastic.
3. Isolated ground wall plates shall be orange nylon plastic with a circuit number printed in 3/16 inch black lettering on clear adhesive label adhered to plate.

PART 2 - EXECUTION

2.01 INSTALLATION

A. Mounting
1. Mount switches and receptacles at height above finished floor as indicated on plans, and legend.
2. 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.
3. Install switches with off position down.
4. Do not use the feed thru feature for the GF Type receptacle, unless required by the plans.
5. Use jumbo sized plates for outlets installed in masonry walls.
6. Each receptacle shall be provided with a #12 green grounding jumper between the ground terminal of the receptacle and the outlet box.
7. 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.

B. Testing
1. Test each switch and verify proper operation with energized circuit.
2. Test each receptacle for proper polarity on energized circuit.
3. 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.

SECTION C16440
PANELBOARDS

PART 1 - PRODUCTS

1.01 MANUFACTURER (via Chick-fil-A National Accounts Program)
A. Square-D (for all Regions): from Villa Lighting, Dave Christanell (800)325-0963

1.02 PANELBOARD FEATURES
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.

B. Bus bars shall be copper.

C. Provide factory-installed copper ground bus in each panelboard with lugs or connectors on bar.

D. Provide electrically isolated, factory installed, neutral bus in each 3 phase, 4 wire or 1 phase 3 wire panelboard.

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.

F. Main lugs and main circuit breaker lugs shall be UL Listed for use with both aluminum and copper conductors.

G. Provide panelboard doors with chrome-plated locks and catches. All locks shall be keyed alike. Provide two keys for each lock.

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.

I. MDP 100% rated main breaker, 1200 Amps or higher, shall be equipped with Arc Flash Maintenance Setting switch for use as a temporary arc-flash incident energy reduction device during maintenance activities.

J. Provide typed directory card with clear holder for each panelboard.

PART 2 - EXECUTION

2.01 INSTALLATION
A. Panelboards shall be mounted at height above finished floor such that the height of the top-most breaker in the panel is not more than 6-1/2 feet above finished floor in its highest position per the NEC.

B. Where multiple panelboards are installed on walls in common areas of buildings, the panelboards shall be installed with the top of all panelboards at the same height.

C. Provide blank filler plates over all unused spaces in panelboards.

D. A typed directory card shall indicate devices being served and the space name where the device is located.

E. Provide minimum of one (1) 3/4" empty spare conduit for every 3 poles of spare breaker or space in the panelboard. Stub conduit to nearest accessible ceiling space. Label conduit as spare at panelboard and termination point.

F. Non-isolated ground bars shall be grounded to panelboard can and main service entrance ground bus with a code sized grounding conductor installed in the same conduit as the phase and neutral conductors.

G. Circuits using a common neutral shall be installed in accordance with the National Electrical Code.

H. Inspect each panelboard for proper installation, physical damage, tightness and installation of overcurrent devices. Verify proper color coding of conductors. Correct or repair all items found in inspection.

I. Neutral wires, ground wires, and isolated ground wires shall be connected to the appropriate panel bus bar. Do not mix bus wire connections.

SECTION C16441
ENCLOSED SWITCHES
PART 1 - PRODUCTS

1.01 MANUFACTURERS
A. Square D
B. GE / ABB
C. Siemens

1.02 ENCLOSED SWITCHES
A. Nonfusible 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.

B. Enclosures: NEMA KS 1.
1. Interior dry locations: Type 1.
2. Exterior locations: Type 3R.

SECTION C16442
UTILITY SERVICE ENTRANCE AND DISTRIBUTION SYSTEM

PART 1 - GENERAL

1.01 SYSTEM DESCRIPTION
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.

B. Metering of electrical usage shall be located as required by local electrical utility company. Coordinate requirements with local utility company.

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.

PART 2 - PRODUCTS

2.01 MATERIALS
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.

PART 3 - EXECUTION

3.01 EXAMINATION AND PREPARATION
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.

B. Ensure pad mounted transformer is not located within roadway or sidewalk.

C. Coordinate with local electrical utility for all utility company requirements and provide for the following items and any others required by the utility:
1. Concrete pad for utility transformer with required dimensions and details.
2. Primary underground conduit, excavation, and backfill requirements.
3. Pay for all fees associated with establishment of electrical service.
4. Furnish list of loads to the electrical utility company serving the facility.
5. Verify that utility company clearances are provided on all sides of utility equipment.

D. Ensure proper access to utility equipment is maintained.

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.

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.

SECTION C16500
LIGHTING FIXTURES (LUMINAIRES)

PART 1 - GENERAL

1.01 ACCEPTABLE MANUFACTURERS AND VENDORS
A. Lighting fixtures indicated on lighting fixture schedule are to be purchased from the National Account Vendor for the region of the project (verify region designation with Owner's Representative):

1. Villa Lighting - all regions. Contact at Villa Lighting: Dave Christanell at 800-325-0963, fax- 314-531-8720, email - davec@villalighting.com

B. Lamps to be Osram-Sylvania and will typically be provided with the luminaire by the lighting manufacturer.

1.02 FIXTURE REQUIREMENTS
A. Provide regulating, HPF ballasts in all HID lighting fixtures. HID lamp types shall be as indicated on the drawings.

B. Recessed fluorescent lighting fixture ballasts shall be provided with integral thermal protection.

C. Provide energy-saving Instant or Rapid Start lamps for all fluorescent fixtures.

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.

E. All components of recessed fixtures shall be accessible without disturbing fixture in or on ceiling.

F. Energy saving ballasts and energy saving lamps provided shall be compatable for operation together.

G. Exterior fixtures and poles shall be suitable for exterior use, shall be UL Listed, and shall be a standard design for exterior application.

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.

1.03 CONTROLS
A. Lighting contactors shall be Square-D, GE / ABB, Cutler-Hammer or Siemens of types and quantity shown on drawings, except those furnished with the switchgear as part of the National Account Program by Suncoast Environmental Controls (SEC).

1.04 EMERGENCY LIGHTING UNITS
A. Batteries shall supply emergency power for lighting with minimum operating time of 1-1/2 hours.

B. Emergency lighting shall be automatically operational upon normal utility power failure.

PART 3 - EXECUTION

3.01 INSTALLATION
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.

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.

C. Fixtures surface mounted on exposed tee bar ceilings shall use grip clamps on tee bars to support fixtures.

D. Wire shall be continuous from splice in outlet box of building wiring system to lamp socket or ballast terminals.

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.

F. Concrete bases shall be provided for all exterior ground mounted or pole mounted fixtures.

G. Install accessories furnished with each fixture.

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.

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.

3.02 FIELD QUALITY CONTROL
A. Relamp fixtures that have failed lamps at substantial completion.

SECTION C16596
SPECIAL SYSTEMS

PART 1 - GENERAL

1.01 WORK INCLUDED
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.

B. Interior system equipment will be furnished by Owner's Vendor.

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.

PART 2 - PRODUCTS

2.01 MATERIALS
A. Provide 4-11/16" square boxes, with plaster rings. Provide device plates for system outlets as specified in Section 16141. Provide separate conduit to nearest accessible ceiling space from each outlet.

B. Cable shall be in conduit where installed in walls or inaccessible ceilings.

C. Minimum conduit size shall be 3/4" .

PART 3 - EXECUTION

3.01 INSTALLATION
A. Furnish and install conduits, junction boxes, outlet boxes, and plates.

B. Provide one #10 equivalent nylon pull wire in each system empty conduit.

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.

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.

E. Terminate each conduit stub-up or termination with nylon insulated bushing.

SECTION C16597
TELEPHONE SERVICE

PART 1 - GENERAL

1.01 WORK INCLUDED
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.

B. Provide underground PVC, Schedule 40, service conduit as required by plans.

C. Telephone Utility Company will provide service entrance cable.

D. Interior telephone system will be furnished by owner's vendor.

E. Special backboxes (unless otherwise noted) and faceplates will be furnished by the owner's vendor.

PART 2 - PRODUCTS

2.01 MATERIALS
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.

B. Minimum conduit size shall be 3/4".

C. Provide lightning arrester for telephone service entrance at main telephone backboard in accordance with UL96A paragraph 11.2 and NFPA 780.

D. Cable shall be in conduit where installed in walls or above inaccessible ceiling spaces.

PART 3 - EXECUTION

3.01 INSTALLATION
A. Provide one #10 equivalent nylon pull wire in each empty telephone conduit.

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.

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.

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.

E. Terminate each conduit stub-up or termination with nylon insulated bushings.

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.

CLOSE OUT DOCUMENT REQUIREMENTS

Provide the following to the building owner upon completion of construction:

1. Submittal data stating equipment rating and selected options for each piece of equipment requiring maintenance.
2. Operation manuals and maintenance manuals for each piece of equipment requiring maintenance. Required routine maintenance actions shall be clearly identified.
3. Names and addresses of at least one qualified service agency.
4. A complete narrative of how each system is intended to operate.

FOR CONSTRUCTION

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

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Plans Prepared By:
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State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED
No. 18054
PROFESSIONAL
ENGINEER
GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: P13 SE ALL
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

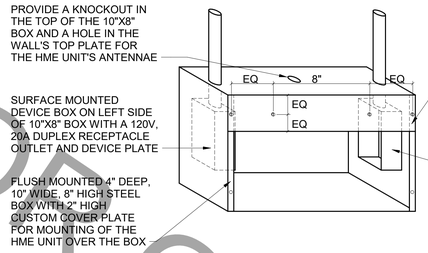
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ELECTRICAL SPECIFICATIONS

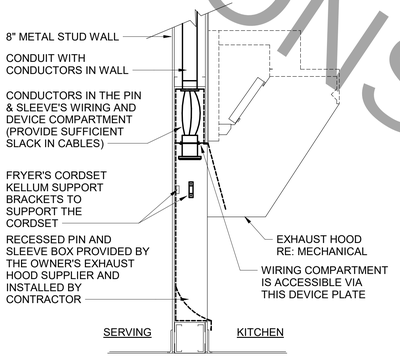
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E-902

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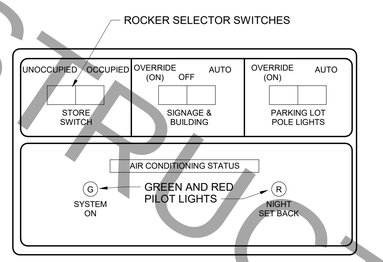
E3 HME UNIT POWER & DATA BOX DETAIL

NO SCALE



D4 PIN & SLEEVE BOX DETAIL

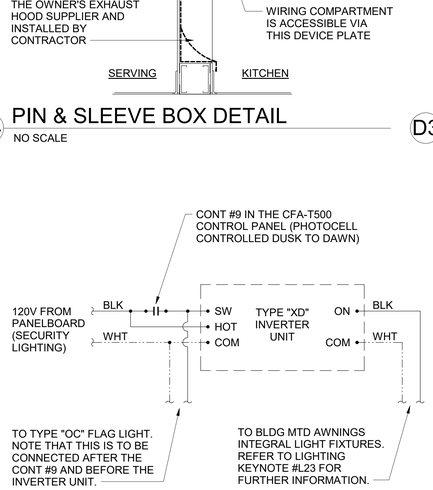
NO SCALE



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.

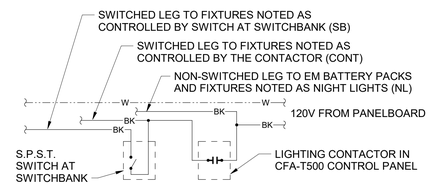
D3 OPEN-CLOSED CONTROL SWITCH

NO SCALE



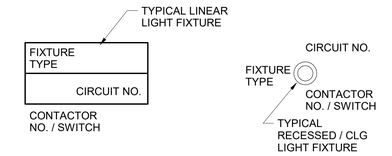
C4 DETAIL - INVERTER XD WIRING DIAGRAM

NO SCALE



B4 LIGHTING CONTROL DIAGRAM

NO SCALE



A4 LIGHT FIXTURE NOMECLATURE

NO SCALE

CIR C-1	CONTACTOR-1 30A 4-POLE 120 VOLT COIL (STORE SWITCH ON AND OFF)	KITCHEN LTG
CIR C-3		KITCHEN LTG
CIR C-5		RESTROOM LTG / EF-3
CIR C-11		DINING LTG
CIR C-7	CONTACTOR-2 30A 4-POLE 120 VOLT COIL (STORE SWITCH ON AND OFF)	DINING LTG
CIR C-9		SERV AREA LTG
CIR C-15		WATER RECIRC PUMP
SPARE		SPARE
CIR C-43	CONTACTOR-3 30A 4-POLE 120 VOLT COIL (P'CELL ON AND SWITCH OFF)	BLDG. SIGNAGE
CIR C-45		BLDG. SIGNAGE
CIR C-47		BLDG. SIGNAGE
CIR C-49		BLDG. SIGNAGE
CIR C-19	CONTACTOR-4 30A 4-POLE 120 VOLT COIL (P'CELL ON AND SWITCH OFF)	DIRECTIONAL SIGNS
CIR C-37		MAIN ID SIGN
CIR C-39		MAIN ID SIGN
CIR C-41		MAIN ID SIGN
SPARE	CONTACTOR-5 30A 4-POLE 120 VOLT COIL (P'CELL ON AND SWITCH OFF)	SPARE
CIR C-31		BLDG LIGHTING
SPARE		SPARE
SPARE		SPARE
SPARE	CONTACTOR-6 30A 4-POLE 120 VOLT COIL (P'CELL ON AND SWITCH OFF)	SPARE
SPARE		SPARE
SPARE		SPARE
SPARE		SPARE
CIR C-21	CONTACTOR-7 30A 4-POLE 120 VOLT COIL (P'CELL ON AND SWITCH OFF)	PARKING LOT LTG
CIR C-23		PARKING LOT LTG
CIR C-25		SPARE/PARKING LOT LTG
CIR C-27		SPARE/PARKING LOT LTG
SPARE	CONTACTOR-8 30A 4-POLE 120 VOLT COIL (STORE SWITCH ON AND OFF)	SPARE
SPARE		SPARE
SPARE		SPARE
SPARE		SPARE
CIR C-29	CONTACTOR-9 30A 4-POLE 120 VOLT COIL (PHOTOCELL ON AND OFF)	SECURITY/FLAG LTG
SPARE		SPARE
SPARE		SPARE
SPARE		SPARE
CIR C-48	CONTACTOR-10 30A 4-POLE 120 VOLT COIL (SWITCH ON & OFF, ANSUL ON)	EXHAUST FAN EF-1
CIR C-50		EXHAUST FAN EF-2
SPARE		SPARE
SPARE		SPARE
CIR C-54	CONTACTOR-11 30A 4-POLE 120 VOLT COIL (SWITCH ON & OFF, ANSUL ON)	HOOD CJ FAN/LIGHTS
SPARE		SPARE
SPARE		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 ANSUL 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

C1 ELECTRICAL LEGEND

SYMBOL	DESCRIPTION	MTG HT AFF TO CL
	LIGHTING FIXTURES	
	SURFACE MOUNTED LIGHTING FIXTURE	
	RECESSED LED TROFFER LIGHTING FIXTURE	
	SURFACE MOUNTED LED LIGHTING FIXTURE	
	RECESSED LED LIGHTING FIXTURE	
	WALL MOUNTED LIGHTING FIXTURE, SEE LIGHTING FIXTURE SCHEDULE	AS NOTED
	WALL MOUNTED EXIT SIGN, SHADE INDICATES FACES, PROVIDE CHEVRON DIRECTIONALS WHEN NEEDED	6" FROM CEILING TO TOP
	CEILING MTD EXIT SIGN, SHADING INDICATES FACES, PROVIDE W/ CHEVRON DIRECTIONALS WHEN NEEDED	
	COMBO EXIT WITH TWO LAMPHEADS	
	WALL MTD EMERGENCY BATTERY PACK LIGHTING FIXTURE	AS NOTED
	CEILING MTD EMERGENCY BATTERY PACK LIGHTING FIXTURE	
	FLUORESCENT STRIP LIGHTING FIXTURE	
	WALLWASHER TYPE RECESSED DOWNLIGHT, AIM LIGHT TOWARD WALL	
	RECESSED LIGHTING FIXTURE W/ EMERGENCY BATTERY PACK	
	PENDANT LIGHTING FIXTURE	AS NOTED
	LIGHTING TRACK WITH TRACK HEADS	
	WIRING DEVICES	
	120 VOLT DUPLEX RECEPTACLE, 20 AMPS U.O.N.	14" UON
	120 VOLT DUPLEX AT SPECIAL MTD HEIGHT, 20 AMPS U.O.N.	44" UON
	120 VOLT QUADRAPLEX RECEPTACLE, 20 AMPS U.O.N.	14" UON
	120 VOLT QUAD. AT SPECIAL MTD HEIGHT, 20 AMPS U.O.N.	44"
	120 VOLT SIMPLEX RECEPTACLE, 20 AMPS U.O.N.	14" UON
(A)	SINGLE SPECIAL PURPOSE RECEPT W/ VOLTS, AMPS, & PHASE AS NOTED, NEMA CONFIGURATION AS REQUIRED BY EQUIP.	14" UON
	RECEPTACLE MOUNTED ON DROP CORD, 120 VOLT, 20 AMP, UON, OUTLET BOX FLUSH WITH CEILING	
S	SINGLE POLE TOGGLE SWITCH	48"
S_2	DOUBLE POLE TOGGLE SWITCH	48"
S_3	THREE WAY TOGGLE SWITCH	48"
S_M	MANUAL MOTOR STARTER SWITCH (WP=NEMA 3R)	48"
S_P	SWITCH WITH PILOT LIGHT (ON WHEN SWITCH IS ON)	48"
S_K	KEY OPERATED SWITCH	48"

NOTE: RECEPTACLES ON A DEDICATED CIRCUIT (THAT IS, NO OTHER LOAD CONNECTED TO THE BRANCH CIRCUIT) SHALL HAVE AMPACITY RATING NOT LESS THAN THE AMPERAGE OF THE CIRCUIT BREAKER SERVING THE DEVICE.

	CONDUIT/RACEWAYS	
	CONDUIT CONCEALED ABOVE CEILNG OR IN WALL	
	CIRCUIT HOMERUN TO PANELBOARD W/ MIN 2#12, 1#12G, 3/4"C	
	CONDUIT TURNING UP	
	CONDUIT TURNING DOWN	
	CONDUIT CONCEALED IN OR BELOW SLAB (OR UNDERGROUND)	
	FLEXIBLE LIGHT FIXTURE WHIP; SIX FOOT MAXIMUM LENGTH	
MC	METAL CLAD CABLE ASSEMBLY - ONLY WHERE INDICATED ON DWGS OR SPECS	
	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" *
	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" *
	FLUSH MOUNTED LIGHTING PANELBOARD	6'-6" *
	SURFACE MOUNTED LIGHTING PANELBOARD	6'-6" *

* 6'-6" DISTANCE IS TO TOP-MOST DISCONNECTING DEVICE OR HIGHEST POSITION OF OPERATING HANDLE OF DISCONNECTING DEVICE

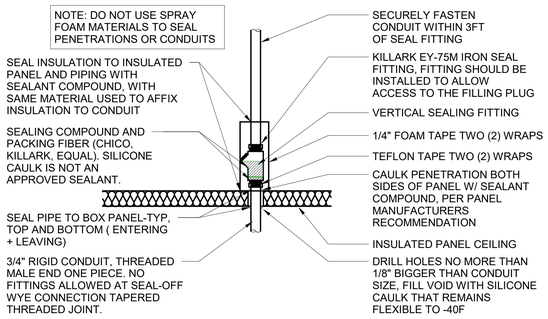
SYMBOL	DESCRIPTION	MTG HT AFF TO CL
	MISCELLANEOUS SYMBOLS	
	GROUND	
M	MOTOR	
EF	EXHAUST FAN MOTOR	
J	JUNCTION BOX	
1	CONDUIT AND WIRE 'MARK' NUMBER, REFER TO CONDUCTORS AND CONDUIT SCHEDULE FOR SIZE	
101	KITCHEN EQUIPMENT 'MARK' NUMBER, REFER TO KITCHEN EQUIPMENT SCHEDULE FOR REQUIREMENTS	
1	NOTE NUMBER	
A	HOOD EXTINGUISHING ANSUL PULL STATION	
D	SMOKE DETECTORS REMOTE STATUS INDICATOR W/ 1/2"C STUB-UP	
+	PUSHBUTTON	
B	BELL, TYPE AS NOTED ON PLANS	
PE	PHOTO-ELECTRIC CELL	
T	TRANSFORMER / DRIVER	
S	LOCKABLE SINGLE POLE SWITCH	
	ABBREVIATIONS	
AFF	ABOVE FINISHED FLOOR	
AFG	ABOVE FINISHED GRADE	
AHU	AIR HANDLING UNIT	
C	CONDUIT	
CL	CENTER-LINE	
CT	CONTACTOR	
EF	EXHAUST FAN	
FLA	FULL LOAD AMPS	
GF/GFI	GROUND FAULT CIRCUIT INTERRUPTER	
GND/GRD	GROUND	
HT	HEIGHT	
IG	ISOLATED GRD, PROVIDE ORANGE DEVICE WHEN ADJACENT TO WIRING DEVICE	
MOCP	MAXIMUM OVER-CURRENT PROTECTION	
MUA	MAKE UP AIR UNIT	
NEC	LOCALLY ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA 70)	
NL	NIGHT LIGHT (ON 24 HOURS)	
OC	ON CENTER	
POS	POINT OF SALE EQUIPMENT	
RTU	ROOF TOP UNIT	
TB	TERMINAL BLOCK	
TL	TWIST-LOCK TYPE DEVICE	
TR	TAMP-RESISTANT	
UON	UNLESS OTHERWISE NOTED	
WP	WEATHERPROOF (NEMA 3R)	
	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
K	SECURITY ALARM KEYPAD
S1	SECURITY SYSTEM KEY NOTE

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

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

cph
www.cphcorp.com
A Full Service A & E Firm

Plans Prepared By:
CPH Consulting, LLC
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED PROFESSIONAL ENGINEER No. 18054 GREGORY TAYLOR

CHICK-FIL-A
CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: P13 SE ALL
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

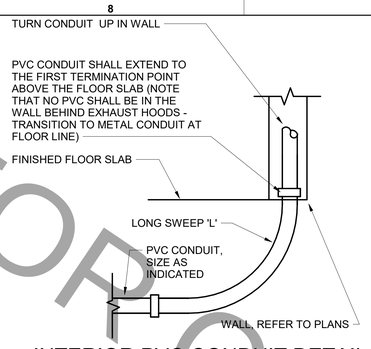
CONSULTANT PROJECT #	C29119
PRINTED FOR	PERMIT
DATE	03/27/2023
DRAWN BY	KCL

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SHEET: ELECTRICAL SCHEDULES AND DETAILS

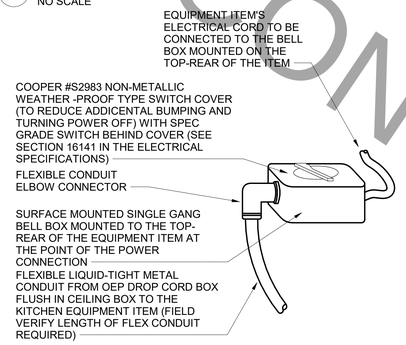
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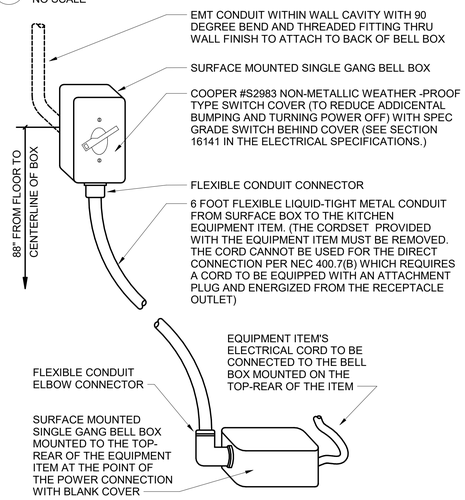
D4 INTERIOR PVC CONDUIT DETAIL

NO SCALE



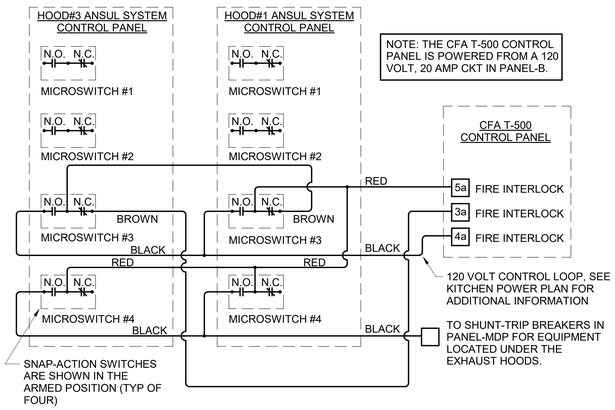
C4 DIRECT CONNECTION - ISLAND LOCATION

NO SCALE



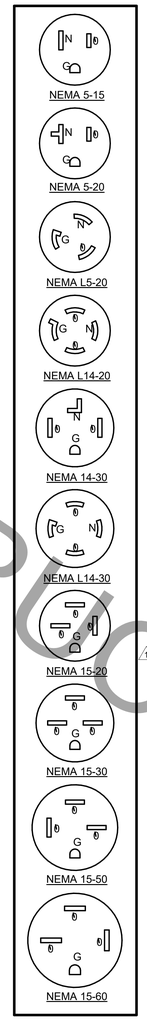
B4 DIRECT CONNECTION -WALL LOCATION

NO SCALE



A3 ANSUL SYSTEM PANEL WIRING DIAGRAM

NO SCALE



KITCHEN EQUIPMENT SCHEDULE NOTES
1. ALL SO CORD LENGTHS SHALL BE MEASURED FROM THE REAR OF THE EQUIPMENT TO THE END OF THE CORD. 2. CONTRACTOR SHALL PROVIDE GROUND-FAULT PROTECTION FOR ALL 120 VOLT 15 AMP AND 20 AMP RECEPTACLES IN THE 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. 3. PROVIDE GFCI TYPE BRANCH BREAKER FOR KITCHEN / FOOD PREPARATION AREA RECEPTACLES THAT ARE TWIST-LOCK, CLOCK STYLE, OR IG (ISOLATED GROUND) TYPE.

EQUIPMENT SCHEDULE

ITEM NO.	DESCRIPTION OF EQUIPMENT	VOLTS	PH	KW	AMPS	NEMA-RATING	COMMENTS AND REMARKS
180	ORDER REGISTER	120	1		0.7	5-20P	PROVIDED BY CFA IT
180R	ORDER REGISTER	120	1		0.70	5-20P	
182L	LABEL PRINTER	other	1			5-20P	PROVIDED BY CFA IT WITH 120V/24V POWER SUPPLY ADAPTER FOR USE WITH 120V IG OUTLET
182LR	LABEL PRINTER	other	1		1.70	5-20P	PROVIDED BY CFA IT WITH 120V/24V POWER SUPPLY ADAPTER FOR USE WITH 120V IG OUTLET
182R	RECEIPT PRINTER	other	1		1.80	5-20P	
183	ORDER MONITOR	120	1		0.125	5-20P	PROVIDED BY CFA IT
183R	ORDER MONITOR	120	1		0.125	5-20P	PROVIDED BY CFA IT
184	IPAD	120	1	0.120	1.00	5-20P	PROVIDED BY CONNECTION
184T	ITIMER	120	1	0.120	1.00	5-20P	PROVIDED BY CLARK
190R	DRIVE-THRU VIDEO MONITOR	120	1		0.8	5-20P	PROVIDED BY CFA IT
211B	FLY SYSTEM	120	1	0.078	0.65	5-15P	CLOCK STYLE RECEPTACLE REQUIRED
269	ANSUL FIRE SUPPRESSION SYSTEM	120	1		VERIFY	DIRECT CONNECTION	REMOTE CABINET - FED FROM CFA-T500 PANEL - REFER TO SHOP DRAWINGS
270	ANSUL FIRE SUPPRESSION SYSTEM	120	1		VERIFY	DIRECT CONNECTION	LOCATED ABOVE HOOD BEHIND CLOSURE PANEL - FED FROM CFA-T500 PANEL - REFER TO SHOP DRAWINGS
300a	MILKSHAKE BASE DISPENSER	120	1		4.0	5-20P	MOUNTED ON ITEM #300b
300X	DOUBLE BARREL ICE CREAM MACHINE	208	3		19.00/15.00	15-30P/15-20P	PROVIDED WITH HUBBELL HBL8432C & HBL8421C ANGLE PLUGS
305	TEA BREWER	120	1	1.650	13.80		QUICK DISCONNECT HOSES PROVIDED BY CFA WAREHOUSE
308	SINGLE COFFEE MAKER	208	1	4.000	19.20	L14-30P	QUICK DISCONNECT HOSES PROVIDED BY CFA WAREHOUSE
309	SINGLE LEMONADE BUBBLER	120	1		3.60	5-15P	ORDER (1) #3CRA015 BOWL KIT AND (1) #3CRA017 BASE PER BUBBLER
309R	SINGLE LEMONADE BUBBLER	120	1		3.60	5-15P	
310R	DOUBLE LEMONADE BUBBLER	120	1		8.50	5-15P	
315W	10-HEAD BEVERAGE DISPENSER WITH ICE BIN	115	1		10.00	5-15P/5-15P	PROVIDED WITH (2) CORDS AND PLUGS PER TOWER
320	TURBO CARBONATOR	115	1	.7	6.2	5-20P	ORDER (6) #44231, (2) #44233, (6) DR. PEPPER PUMPS, & (2) #T5274SN-01
363R	HIGH-TEMP UPRIGHT DISHWASHER	208	3		46.00	DIRECT CONNECTION	GC TO VERIFY EXISTING ELECTRICAL
380	ICE MACHINE	115	1	0.6	5	5-15P	INSTALLED ON TOP OF ICE BIN - PROVIDED WITH 6 FT CORD AND 35 FT LINE SETS
380a	ICE BIN SANITATION SYSTEM	120	1	0.0096		5-15P	INSTALLED ON WALL ABOVE ICE BIN - SHARES DUPLEX WITH (1) ICE MACHINE
380C	ICE MACHINE REMOTE CONDENSING UNIT	208	3	3.1	14.2	DIRECT CONNECTION	AIR COOLED UNIT - GC SHALL PLACE AND INSTALL CONDENSER ON ROOF - NOT SHOWN ON DRAWINGS
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
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
400LT	SINGLE UPRIGHT FREEZER (30" WIDE)	115	1	1.100	9.40	L5-15P (BY EC)	HINGE LEFT - PROVIDE FINISHED BACK - ORDER ON 4 5/8 IN CASTERS - EC TO CHANGE PLUG TO TWIST LOCK
400R	SINGLE UPRIGHT FREEZER (30" WIDE)	115	1	1.100	9.40	5-15P	
410	WALK-IN FREEZER	120	1		3.3	DIRECT CONNECTION	ORDER WITHOUT FLOOR - REFER TO LIGHTING PLAN
410a	WALK-IN FREEZER CONDENSER	208	3		16.30	DIRECT CONNECTION	GC SHALL INSTALL CONDENSER ON ROOF - NOT SHOWN ON DRAWINGS
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" CASTERS
420LR	SINGLE UNDERCOUNTER REFRIGERATOR	115	1	0.564	4.70	5-20P	
420R	SINGLE UNDERCOUNTER REFRIGERATOR	115	1	0.564	4.70	5-20P	
421	DOUBLE UNDERCOUNTER REFRIGERATOR	115	1	0.756	6.30	5-15P	ORDER ON 4 IN CASTERS
422T	REFRIGERATED EQUIPMENT STAND (48")	115	1	0.80	6.70	L5-15P	EC TO CHANGE PLUG TO TWIST LOCK - PROVIDED W/9' CORD - ORDER ON 4" CASTERS
432TR	DOUBLE REFRIGERATED WORK TABLE	115	1	0.756	6.30	L5-20P (BY EC)	EC TO CHANGE PLUG TO TWIST LOCK IF NEEDED - FIELD VERIFY
439L	40" COLD RAIL	115	1	0.800	7.10	5-15P	COMPRESSOR ON LEFT - SUPPLIED WITH 9 FT CORD AND PLUG
440CT	ICE BATH BREADING TABLE	120	1		1.00	L5-15P (BY EC)	EC TO CHANGE PLUG TO TWIST LOCK - 10 FT CORD AND PLUG - LEAF INCLUDED WITH TABLE - INSTALL IF SHOWN ON PLANS
441	SALAD PREP TABLE	115	1		9.0	L5-15P	PROVIDED WITH TWIST LOCK PLUG - ORDER ON 4" CASTERS - INCLUDES PAN PACKAGE
442WCL	SINGLE UPRIGHT REFRIGERATOR (30" WIDE)	115	1		7	L5-15P (BY EC)	HINGE LEFT - PROVIDE FINISHED BACK - ORDER ON 6 IN CASTERS - EC TO CHANGE PLUG TO TWIST LOCK
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
444DR	DOUBLE THAWING CABINET (52" WIDE)	115	1		16.00	DIRECT CONNECTION	CONVERT TO DIRECT CONNECT IF NEEDED - GC TO INSTALL LIQUID TIGHT FLEX CONDUIT
444SL	SINGLE THAWING CABINET (32" WIDE)	115	1		16.00	DIRECT CONNECTION	HINGE LEFT - GC TO INSTALL LIQUID TIGHT FLEX CONDUIT - ORDER ON 6 IN CASTERS
449	WALK-IN COOLER	120	1		2.4	DIRECT CONNECTION	ORDER WITHOUT FLOOR - REFER TO LIGHTING PLAN
449a	WALK-IN COOLER CONDENSER	208	3		9.50	DIRECT CONNECTION	GC SHALL INSTALL CONDENSER ON ROOF - NOT SHOWN ON DRAWINGS
449b	WALK-IN COOLER EVAPORATOR	208	1	0.110	1.00	DIRECT CONNECTION	POWER FED FROM CONDENSER
500A	VERTICAL CONTACT TOASTER	120	1	1.80	15.00	5-15P	
500AR	VERTICAL CONTACT TOASTER	120	1	1.80	15.00	5-15P	
500BR	RADIANT TOASTER	208	1	5.50	24.00	L6-30P	
503T	EGG STATION	208	1	2.5	12.5	L6-20P	PROVIDED W/TWIST LOCK PLUG
505V	VECTOR OVEN	208	3	7.90	22.00	15-30P	HINGE RIGHT
505VLT	VECTOR OVEN	208	3	7.90	22.00	L15-30P (BY EC)	HINGE LEFT - EC TO CHANGE PLUG TO TWIST LOCK
522	SINGLE OPEN FRYER	208	3	22.0	62.0	PIN & SLEEVE	PIN&SLEEVE PROVIDED WITH EQUIPMENT AND RECEPTACLE BOX PROVIDED WITH HALTON ITEMS
522R	SINGLE OPEN FRYER	208	3	22.0	62.0	PIN & SLEEVE	
523	PRESSURE FRYER	208	3	13.500	38.00	15-50P	PROVIDED WITH 6 FT CORD AND PLUG
523R	PRESSURE FRYER	208	3	13.500	38.00	15-50P	
524R	DUAL SIDE CLAMSHELL GRILL	208	3	3.3	24.1/28.2/23.1	15-50P	
560	FRY HOLDING STATION	120	1	1.90	15.4	5-20P	
562A	HIGH DENSITY HOT HOLDING TOWER	120	1	1.80	16.00	5-20P	PROVIDED WITH 8 FT CORD AND PLUG
562AR	HIGH DENSITY HOT HOLDING TOWER	120	1	1.80	16.00	5-20P	
563D	DOUBLE TIER SANDWICH SLIDE	120	1	1.09	9.13	5-15P	CORD EXITS RIGHT - 6' CORD AND PLUG
563SL	SINGLE TIER SANDWICH SLIDE	120	1	0.548	4.56	5-15P	CORD EXITS LEFT - 6 FT CORD AND PLUG
564A	VISUAL HOT HOLDING CABINET (2x2)	120	1	0.660	5.50	5-15P	ORDER WITH LIDS/TRAY SEALS, AMBER PANS, AND FALSE BOTTOMS
564B	VISUAL HOT HOLDING CABINET (2x2 LANDSCAPE)	120	1	0.660	5.50	5-15P	ORDER WITH LIDS/TRAY SEALS, AMBER PANS, AND FALSE BOTTOMS
565C	FOOD COOKER/WARMER	120	1	1.500	12.50	5-15P	ORDER WITH (1) 3VOL042, (2) 3VOL043, (8) 3VOL051, AND (8) 3VOL061
580H	VISUAL HOT HOLDING CABINET (5x2)	120	1	1.920	16.00	5-20P	ORDER WITH LIDS/TRAY SEALS
592	RETHERMALIZER	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
600R	MIXER	120	1		8.0	L5-20P	
607R	COUNTER TOP LEMON JUICER	115	1			5-15P	
669	OFFICE SAFE	120	1			5-20P	INSTALL SAFE PER MANUFACTURER'S WRITTEN INSTRUCTIONS
671	LED MENU BOARD	120	1		12.5	5-20P	MENU BOARDS TO BE CONNECTED TO POWER MODULE VIA 48V DC CAT5 LOW VOLTAGE CABLES

FOR CONSTRUCTION

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

cph
www.cphcorp.com
A Full Service
A & E Firm
Plans Prepared By :
CPH, Inc.
Licenses:
Eng. C.O.A. No. 3215
Survey L.B. No. 7143
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Lndscp. Lic. No. LC0000298

ALABAMA LICENSED No. 18054 PROFESSIONAL ENGINEER GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 ALL
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	10-26-2021	PERMIT REV#1

PERMIT

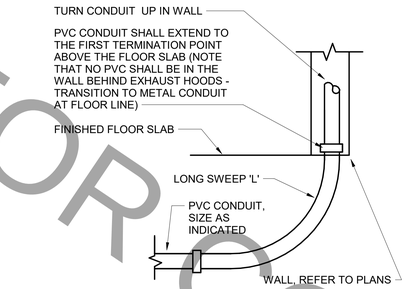
CONSULTANT PROJECT # C29119
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DATE 10-10-21
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SHEET
ELECTRICAL SCHEDULES AND DETAILS

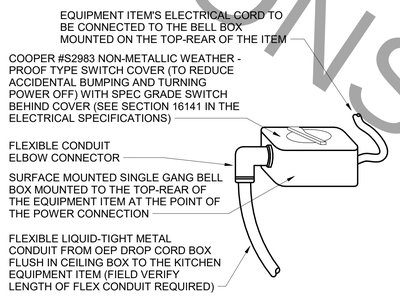
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E-002

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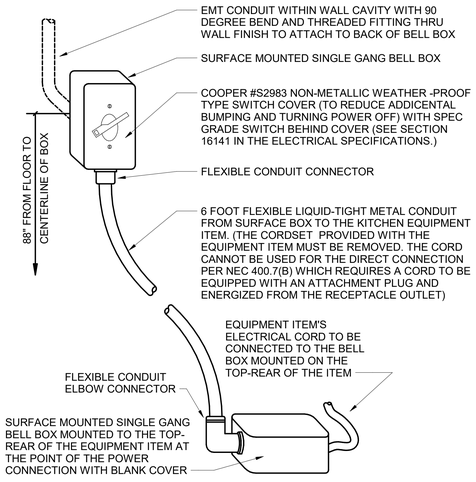
D4 INTERIOR PVC CONDUIT DETAIL

NO SCALE



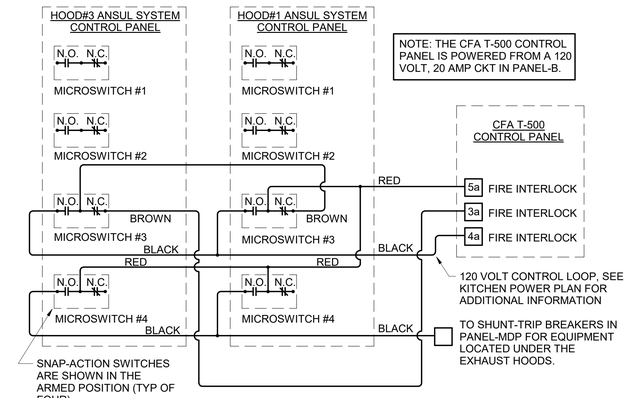
C4 DIRECT CONNECTION - ISLAND LOCATION

NO SCALE



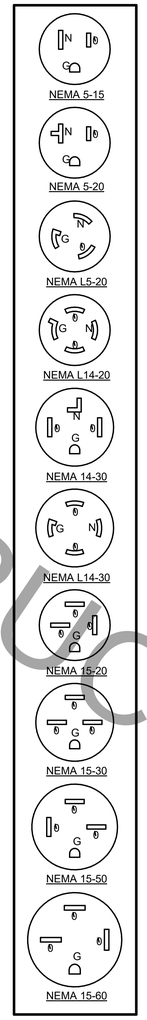
B4 DIRECT CONNECTION -WALL LOCATION

NO SCALE



A3 ANSUL SYSTEM PANEL WIRING DIAGRAM

NO SCALE



KITCHEN EQUIPMENT SCHEDULE NOTES

1. ALL SO CORD LENGTHS SHALL BE MEASURED FROM THE REAR OF THE EQUIPMENT TO THE END OF THE CORD.
2. CONTRACTOR SHALL PROVIDE GROUND-FAULT PROTECTION FOR ALL 120 VOLT 15 AMP AND 20 AMP RECEPTACLES IN THE 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.
3. PROVIDE GFCI TYPE BRANCH BREAKER FOR KITCHEN / FOOD PREPARATION AREA RECEPTACLES THAT ARE TWIST-LOCK, CLOCK STYLE, OR IG (ISOLATED GROUND) TYPE.

KITCHEN EQUIPMENT SCHEDULE - CHICK-FIL-A P13 EDITION

ITEM NO.	DESCRIPTION OF EQUIPMENT	VOLTS	PH	KW	AMPS	NEMA-RATING	COMMENTS AND REMARKS
180	ORDER REGISTER	120	1		<varies>	5-20P	
182	RECEIPT PRINTER	other	1		1.80	5-20P	PROVIDED WITH 120V/24V POWER SUPPLY ADAPTER FOR USE WITH 120V IG OUTLET
182L	LABEL PRINTER	other	1		1.70	5-20P	PROVIDED WITH 120V/24V POWER SUPPLY ADAPTER FOR USE WITH 120V IG OUTLET
183	ORDER MONITOR	120	1		0.125	5-20P	PROVIDED BY CFA IT
184	IPAD	120	1	0.120	1.00	5-20P	PROVIDED BY CONNECTION
184T	ITIMER	120	1	0.120	1.00	5-20P	PROVIDED BY CLARK
190	DRIVE-THRU VIDEO MONITOR	120	1		0.8	5-20P	
211B	FLY SYSTEM	120	1	0.10	0.60	5-15P	CLOCK STYLE RECEPTACLE REQUIRED
211C	FLY SYSTEM	120	1	.03	.25	5-15P	RE: ARCHITECTURAL SHEETS FOR MOUNTING DETAILS
269	ANSUL FIRE SUPPRESSION SYSTEM	120	1		VERIFY	DIRECT CONNECTION	REMOTE CABINET - REFER TO SHOP DRAWINGS - FED FROM CFA-T500 PANEL
270	ANSUL FIRE SUPPRESSION SYSTEM	120	1		VERIFY	DIRECT CONNECTION	LOCATED ABOVE HOOD - BEHIND CLOSURE PANEL - REFER TO SHOP DRAWINGS - FED FROM CFA-T500 PANEL
300aR	MILKSHAKE BASE DISPENSER	120	1		4.00	5-20P	MOUNTED ON ITEM #300b
300X	DOUBLE BARREL ICE CREAM MACHINE	208	3		19.00/15.00	15-30P/15-20P	PROVIDED WITH HUBBELL HBL8432C & HBL8421C ANGLE PLUGS
305	TEA BREWER	120	1	1.650	13.80		PROVIDE QUICK DISCONNECT HOSES
305R	TEA BREWER	120	1	1.650	13.80		
308	SINGLE COFFEE MAKER	208	1	4.000	19.20	L14-30P	QUICK DISCONNECT HOSES PROVIDED BY CFA WAREHOUSE
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
315W	10-HEAD BEVERAGE DISPENSER WITH ICE BIN	115	1		10.00	5-15P/5-15P	PROVIDED WITH (2) CORDS AND PLUGS PER TOWER
320	TURBO CARBONATOR	115	1		6.2	5-20P	ORDER (8) #44231, (3) #44233, (8) DR. PEPPER PUMPS, & (3) #T5274SN-01
363H	HIGH-TEMP UPRIGHT DISHWASHER	208	3		53.68	DIRECT CONNECTION	INCLUDES 6 FT BRAIDED HOSE AND INTEGRATED DRAIN WATER TEMPERING SYSTEM
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
380a	ICE BIN SANITATION SYSTEM	120	1	0.0096		5-15P	INSTALLED ON WALL ABOVE ICE BIN - SHARES DUPLEX WITH (1) ICE MACHINE
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
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
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
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
400T	SINGLE UPRIGHT FREEZER (30" WIDE)	115	1	1.100	9.40	L5-15P (BY EC)	HINGE RIGHT - PROVIDE FINISHED BACK - ORDER ON 4 5/8 IN CASTERS - EC TO CHANGE PLUG TO TWIST LOCK
404	UNDERCOUNTER FREEZER (27")	115	1		8.00	5-15P	HINGE RIGHT - ORDER ON 4 IN CASTERS
410	WALK-IN FREEZER	120	1		3.3	DIRECT CONNECTION	ORDER WITHOUT FLOOR - REFER TO LIGHTING PLAN
410a	WALK-IN FREEZER CONDENSER	208	3		16.30	DIRECT CONNECTION	GC SHALL INSTALL CONDENSER ON ROOF - NOT SHOWN ON DRAWINGS
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" CASTERS
420A	SINGLE UNDERCOUNTER REFRIGERATOR	115	1	0.564	4.70	5-20P	HINGE RIGHT - ORDER ON 2 IN CASTERS
420L	SINGLE UNDERCOUNTER REFRIGERATOR	115	1	0.564	4.70	5-20P	HINGE LEFT - ORDER ON 4" CASTERS
421	DOUBLE UNDERCOUNTER REFRIGERATOR	115	1	0.756	6.30	5-15P	ORDER ON 4 IN CASTERS
422	REFRIGERATED EQUIPMENT STAND (48")	115	1	0.80	6.70	5-15P	PROVIDED W/9' CORD - ORDER ON 4" CASTERS
431TR	DOUBLE REFRIGERATED WORK TABLE	115	1	0.756	6.30	L5-15P (BY EC)	EC TO CHANGE PLUG TO TWIST LOCK - ORDER ON 6 IN CASTERS WITH BACKSPLASH TOP
432T	DOUBLE REFRIGERATED WORK TABLE	115	1	0.756	6.30	L5-20P (BY EC)	EC TO CHANGE PLUG TO TWIST LOCK - ORDER ON 6 IN CASTERS WITH BACKSPLASH TOP
439L	40" COLD RAIL	115	1	0.800	7.10	5-15P	COMPRESSOR ON LEFT - SUPPLIED WITH 9 FT CORD AND PLUG
440CT	ICE BATH BREADING TABLE	120	1		1.00	L5-15P (BY EC)	EC TO CHANGE PLUG TO TWIST LOCK - 10 FT CORD AND PLUG - LEAF INCLUDED WITH TABLE - INSTALL IF SHOWN ON PLANS
441R	SALAD PREP TABLE	115	1		9.0	L5-15P	
442WCLT	SINGLE UPRIGHT REFRIGERATOR (30" WIDE)	115	1		7	L5-15P (BY EC)	HINGE LEFT - PROVIDE FINISHED BACK - ORDER ON 6 IN CASTERS - EC TO CHANGE PLUG TO TWIST LOCK
443GT	SINGLE UPRIGHT REFRIGERATOR (24" WIDE)	115	1		8	L5-15P (BY E.C.)	HINGE RIGHT - HALF HEIGHT GLASS DOORS - PROVIDE FINISHED BACK - ORDER ON 6" CASTERS - E.C. TO CHANGE PLUG TO TWIST LOCK
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
444DR	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
444S	SINGLE THAWING CABINET (32" WIDE)	115	1		16.00	DIRECT CONNECTION	HINGE RIGHT - GC TO INSTALL LIQUID TIGHT FLEX CONDUIT - ORDER ON 6 IN CASTERS
449	WALK-IN COOLER	120	1		2.4	DIRECT CONNECTION	ORDER WITHOUT FLOOR - REFER TO LIGHTING PLAN
449a	WALK-IN COOLER CONDENSER	208	3		9.50	DIRECT CONNECTION	GC SHALL INSTALL CONDENSER ON ROOF - NOT SHOWN ON DRAWINGS
449b	WALK-IN COOLER EVAPORATOR	208	1	0.110	1.00	DIRECT CONNECTION	POWER FED FROM CONDENSER
500A	VERTICAL CONTACT TOASTER	120	1	1.80	15.00	5-15P	
500BR	RADIANT TOASTER	208	1	5.50	24.00	L6-30P	PROVIDED WITH TWIST LOCK PLUG
503R	EGG STATION	208	1	2.5	12.5	6-20P	
505VT	VECTOR OVEN	208	3	7.90	22.00	L15-30P (BY EC)	HINGE RIGHT - EC TO CHANGE PLUG TO TWIST LOCK
505VTR	VECTOR OVEN	208	3	7.90	22.00	L15-30P (BY EC)	HINGE RIGHT - EC TO CHANGE PLUG TO TWIST LOCK IF NEEDED - FIELD VERIFY
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
522AR	DOUBLE OPEN FRYER	208	3	44.000	124.00	PIN & SLEEVE	
523	PRESSURE FRYER	208	3	<varies>	<varies>	15-50P	PROVIDED WITH 6 FT CORD AND PLUG
523R	PRESSURE FRYER	208	3	13.500	39.00	15-50P	
524	DUAL SIDE CLAMSHELL GRILL	208	3	9	24.1/28.2/23.1	15-50P	PROVIDED WITH 5' CORD & PLUG
524R	DUAL SIDE CLAMSHELL GRILL	208	3	9	24.1/28.2/23.1	15-50P	PROVIDED WITH 5' CORD & PLUG
560	FRY HOLDING STATION	120	1	1.90	15.4	5-20P	
562A	HIGH DENSITY HOT HOLDING TOWER	120	1	1.80	16.00	5-20P	PROVIDED WITH 8 FT CORD AND PLUG
562AR	HIGH DENSITY HOT HOLDING TOWER	120	1	1.80	16.00	5-20P	PROVIDED WITH 8 FT CORD AND PLUG
563D	DOUBLE TIER SANDWICH SLIDE	120	1	1.09	9.13	5-15P	CORD EXITS RIGHT - 6' CORD AND PLUG
563SL	SINGLE TIER SANDWICH SLIDE	120	1	0.548	4.56	5-15P	CORD EXITS LEFT - 6' CORD AND PLUG
564B	VISUAL HOT HOLDING CABINET (2x2 LANDSCAPE)	120	1	0.660	5.50	5-15P	ORDER WITH LIDS/TRAY SEALS, AMBER PANS, AND FALSE BOTTOMS
565C	FOOD COOKER/WARMER	120	1	1.500	12.50	5-15P	ORDER WITH (1) 3VOL042, (2) 3VOL043, (8) 3VOL051, AND (8) 3VOL061
580H	VISUAL HOT HOLDING CABINET (5x2)	120	1	1.920	16.00	5-20P	ORDER WITH LIDS/TRAY SEALS
592R	RETHERMALIZER	208	3	8.000	22.00	15-30P	
600	MIXER	120	1		8.0	L5-20P	E.C. TO CHANGE PLUG TO TWIST LOCK - ORDER WITH 3HOB405, 3HOB061, 3HOB318, 3HOB319, & 3HOB058
607	COUNTERTOP LEMON JUICER	115	1			5-15P	LOCATED ON ITEM #606
669	OFFICE SAFE	120	1				INSTALL SAFE PER MANUFACTURE'S WRITTEN INSTRUCTIONS
672	DIGITAL MENU BOARD	120	1			5-15P	PROVIDED BY COATES

FOR CONSTRUCTION

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CHICK-FIL-A
CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: P13 SE ALL
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

CONSULTANT PROJECT # C29119
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DATE 03/27/2023
DRAWN BY KCL

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SHEET
ELECTRICAL SCHEDULES AND DETAILS

SHEET NUMBER
E-002

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LIGHTING PLAN KEYNOTES

L1 ROUTE THROUGH CONTROL PANEL CFA-T500 AND CONTROLLED BY STORE OCCUPIED SWITCH.

L2 APPROXIMATE LOCATION OF SWITCH BANK 'SB'. SEE DETAIL ON THE LIGHTING PLAN FOR MORE INFORMATION.

L3 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.

L4 FOR CONTROL OF LIGHTING FIXTURE IN WALK-IN COOLER AND FREEZER, SWITCH FURNISHED WITH EQUIPMENT, INSTALLED BY ELECTRICAL CONTRACTOR.

L5 CONNECT FIXTURE SO THAT BATTERY PACK IS NOT SWITCHED WITH LIGHTS, BUT ALL LAMPS ARE SWITCHED.

L6 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.

L7 THE LIGHT FIXTURES IN THE SERVING AREA ARE PROVIDED WITH LAMP SHIELDING VIA A LENS.

L8 NOT USED.

L9 TO THE TOILET EXHAUST FAN ON ROOF. SEE SHEET E-250, ROOF ELECTRICAL PLAN.

L10 NOT USED.

L11 THIS FIXTURE SHALL NOT BE SWITCHED. CONNECT TO CIRCUIT AHEAD OF ALL SWITCHING AND CONTROLS.

L12 INSTALL ALL JUNCTION BOXES IN THE PLAY AREA SO THEY WILL BE READILY ACCESSIBLE AFTER THE PLAYGROUND EQUIPMENT IS INSTALLED.

L13 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.)

L14 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.

L15 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.)

L16 ROUTE THROUGH CONTROL PANEL CFA-T500 AND CONTROLLED BY OCCUPIED SWITCH AND PHOTOCELL.

L17 NOT USED.

L18 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.

L19 NOT USED.

L20 NOT USED.

L21 LOCATE RECEPTACLE FLUSH IN CEILING FOR FUTURE OWNER FURNISHED INTERIOR SIGNAGE.

L22 TYPE 'XD' INVERTER CABINET TO BE WALL MOUNTED AT THE CEILING AND CONNECTED TO CIRCUIT C-29 THRU THE CFA-T500'S CONTACTOR #9 (DUSK TO DAWN CONTROL). CONNECT WITH BOTH A CONTROLLED (VIA THE CONTACTOR FOR LIGHTS ON AT DUSK AND OFF AT DAWN) LEG AND AN UNSWITCHED LEG FOR THE BATTERY IN THE INVERTER. WHEN POWER IS DISRUPTED ON THE UNSWITCHED LEG, THEN THE INVERTER'S BATTERY WILL ENERGIZE THE LIGHTS CONNECTED TO THE INVERTER NO MATTER THE TIME OF DAY. PROVIDE CONNECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

L23 CONNECT THE 120V CIRCUIT TO THE 'XD' INVERTER UNIT. LIGHTS WILL COME ON AT DUSK, TURN OFF AT DAWN, AND BE ENERGIZED WHENEVER THERE IS A POWER OUTAGE. (2)

L24 REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR LOCATIONS OF PENDANTS, DOWNLIGHTS, ACCENTS LIGHTS, AND OTHER CEILING MOUNTED LIGHT FIXTURES.

L25 NOT USED.

L26 NOT USED.

L27 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.

OMD CANOPY KEYNOTES:

A1 CEILING LIGHT FIXTURE PROVIDED BY THE CANOPY SUPPLIER AND INSTALLED BY ELECTRICAL CONTRACTOR.

A2 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-OUTFOR THE FAN'S PLUG AND CORD CONNECTION.

A3 INFRARED GAS HEATER WITH INTEGRAL ON-OFF SWITCH PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR.

A4 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.

A5 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 MC 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.

POWER PLAN KEYNOTES

1 PROVIDE TWO-GANG DEEP BOX (2" MIN.) FOR ANSUL PULL STATION. EXTEND 1/2" CONDUIT FROM BOX, STUBBED ABOVE CEILING.

2 PROVIDE EDWARDS #340-4N5 VIBRATING 4" DIAMETER BELL. THE BELL SHALL BE RATED AT 120 VOLTS.

3 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.

4 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.

5 SEE FURNITURE ELEVATIONS FOR EXACT MOUNTING LOCATION.

6 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.

7 TAMPER RESISTANT (TR) DUPLEX RECEPTACLE (IN DINING AREAS) WITH USB CHARGER SHALL BE COOPER/ARROW HART #TR7756-B (BROWN) WITH MATCHING COLOR 'DECOR' STYLE PLATE. VERIFY COLOR WITH OWNER.

8 NOT USED.

9 ONE 3" ISP SERVICE CONDUIT. EXTEND WITH PULL STRING FROM J-BOX TO SUPPLIER'S SOURCE, REFER TO ELECTRICAL SITE PLAN FOR ADDITION INFORMATION.

10 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.

11 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 AT THE BOTTOM OF THE BACKBOARD WITH A #6 AWG INSULATED CU GROUNDING CONDUCTOR IN A 3/4"C FROM THE GROUND BAR TO THE BUILDING'S ELECTRICAL SERVICE GROUNDING ELECTRODE SYSTEM (GES). 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, CONNECT TO CIRCUIT POS-12 (15A/1P BRANCH BREAKER), AND LABEL THE RECEPTACLE "FOR FIBER TO CABLE MODEM USE ONLY".

12 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.

13 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.

14 SEE SHEET E-303 AND THE ELECTRICAL SITE PLAN FOR THE DRIVE-THRU ORDER AREA REQUIREMENTS AND FOR THE LOCATION OF THE LIGHTING POLE(S) THAT WILL SERVE AS A LOCATION FOR CAMERAS.

SECURITY KEYNOTES

S1 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.

S2 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.

S3 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.

S4 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.

S5 PROVIDE SINGLE GANG BOX WITHOUT COVER PLATE. EXTEND 1/2" CONDUIT UP IN WALL TO ABOVE ACCESSIBLE CEILING.

S6 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.

S7 EXTEND 1/2" RIGID CONDUIT FROM TOP OF STRIKE-SIDE DOOR FRAME CHANNEL TO ABOVE ACCESSIBLE CEILING.

S7A EXTEND 3/4" RIGID CONDUIT FROM TOP OF STRIKE-SIDE DOOR FRAME CHANNEL TO ABOVE ACCESSIBLE CEILING.

S8 EXTEND 1/2" CONDUIT FROM A POINT 3" WITHIN EITHER HINGE-SIDE DOOR VERTICAL FRAME MULLION TO ABOVE ACCESSIBLE CEILING.

S9 PROVIDE SINGLE GANG JUNCTION BOX WITHOUT COVERPLATE. EXTEND 1/2" CONDUIT UP IN WALL TO ABOVE ACCESSIBLE CEILING.

S10 PROVIDE SINGLE GANG JUNCTION BOX WITH STAINLESS STEEL COVER PLATE MOUNTED ABOVE THE CEILING SPACE AND ABOVE ON THE INTERIOR SIDE OF THE REAR DOOR. ROUTE 1" CONDUIT FROM THE BOX TO THE "S12" BOX NOTED BELOW.

S11 EXTEND 1/2" CONDUIT FROM WINDOW'S FRAME MULLION (RIGHT SIDE) TO ABOVE ACCESSIBLE CEILING.

S12 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.

S13 EXTEND 1/2" CONDUIT FROM A POINT 3" INSIDE THE STRIKE-SIDE DOOR FRAME MULLION TO ABOVE ACCESSIBLE CEILING.

S14 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.

COMMUNICATIONS KEYNOTES

C1 PROVIDE DOUBLE-GANG RING (CARLON #SC200RR) WITH STAINLESS STEEL COVER PLATE AND HOLE IN PLATE FOR AUDIO WITH 2" CONDUIT UNDERGROUND TO THE DT DUAL-LANE (MLOP) ORDERING AREA AND A 2" CONDUIT STUBBED UP INTO THE CEILING SPACE.

C2 PROVIDE JUNCTION BOX, LESS COVER PLATE, AND EXTEND 3/4" CONDUIT UP IN WALL TO ABOVE CEILING FOR INSTALLATION OF WIRELESS COMMUNICATION CONTROL UNIT.

C3 PROVIDE TWO DOUBLE-GANG RINGS (CARLON #SC200RR) WITH STAINLESS STEEL COVER PLATE AND HOLE IN PLATE FOR AUDIO WITH 2" CONDUIT STUBBED UP INTO THE CEILING SPACE. ONE RING SHALL BE ABOVE THE COUNTER AND ONE BELOW WITH A 2" CONDUIT BETWEEN THE RINGS.

C4 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.

C5 PROVIDE SINGLE-GANG JUNCTION BOX WITH A 3/4" EMPTY CONDUIT STUBBED UP INTO THE ACCESSIBLE CEILING SPACE FOR FUTURE MENU BOARD CABLES.

MUSIC KEYNOTES

M1 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.

M2 NOT USED.

M3 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.

M4 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.

POS DATA KEYNOTES

R1 PROVIDE A 'RETROFIT' DOUBLE-GANG RING (CARLON #SC200RR) FOR OWNER'S DEVICE PLATE WITH A 3" EMPTY CONDUIT AT THE OPENING STUBBED UP INTO THE CEILING SPACE FOR OWNER'S DATA CABLES.

R2 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.

R3 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.

R4 PROVIDE A 'RETROFIT' SINGLE GANG RING (CARLON #SC100RR) FOR OWNER'S DEVICE PLATE WITH A 2" EMPTY CONDUIT AT THE OPENING STUBBED UP INTO THE CEILING SPACE FOR OWNER'S DATA CABLES.

R5 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.

R6 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.

R7 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.

CO2 DETECTOR NOTES

G1 CO2 CENTRAL CONTROL UNIT - PROVIDE SINGLE-GANG BACKBOX AT 60" AFF WITH 3/4" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING SPACE

G2 CO2 ANNUNCIATOR UNIT - PROVIDE SINGLE-GANG BACKBOX AT 60" AFF WITH 3/4" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING SPACE

G3 CO2 SENSOR UNIT - PROVIDE SINGLE-GANG BACKBOX AT 12" AFF WITH 3/4" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING SPACE

G4 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

POWER PLAN GENERAL NOTES

1. ALL SECURITY, POS, MUSIC, COMMUNICATIONS, AND POWER ROUGH-IN SHALL BE INSTALLED DURING THE FRAMING/ROUGH-IN PHASE OF CONSTRUCTION.
2. REFER TO KITCHEN EQUIPMENT SHEETS FOR EQUIPMENT ELECTRICAL ROUGH-IN ELEVATIONS ABOVE FINISHED FLOOR.
3. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH PULL STRING.
4. PROVIDE INSULATED BUSHING AT TERMINATION POINTS OF ALL CONDUITS FOR LOW VOLTAGE WIRING.
5. 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.

KEYNOTE NOTE

THIS IS A GENERAL LISTING OF ALL KEYNOTES FOR THE LIGHTING PLAN AND THE POWER PLANS. NOT ALL KEYNOTES ARE USED ON THE PLANS.

ROOF POWER KEYNOTES

1 ROUTE ELECTRICAL CONDUITS TO UNIT CONNECTIONS THROUGH WEATHERPROOF RACEWAY FURNISHED WITH UNIT. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATIONS.

2 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.

3 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.

4 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 14" DIAMETER LOOP IN THE FLEXIBLE CONDUIT BETWEEN THE ROOF AND THE FAN ELECTRICAL CONNECTION.

5 NOT USED.

6 NOT USED.

7 NOT USED.

8 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.

9 MOUNT TYPE 'OC' LIGHTING FIXTURE, WITH INTEGRAL SLIPFITTER, ON PIPE. PIPE WILL BE PROVIDED BY OTHER TRADES. AIM LIGHTING FIXTURE AT NIGHT FOR BEST ILLUMINATION OF FLAG.

10 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.

11 CONVENIENCE RECEPTACLE PROVIDED PRE-INSTALLED IN HVAC UNIT. CONNECT TO 120 VOLT CIRCUIT AS REQUIRED AND/OR AS INDICATED. (NOTE THAT ONE UNIT WILL NOT BE FURNISHED WITH AN INTEGRAL PRE-INSTALLED RECEPTACLE OUTLET. CONTRACTOR SHALL PROVIDE A GFCI TYPE 20 AMP RECEPTACLE WITH IN-USE WP COVERPLATE MOUNTED TO THE OUTSIDE OF THE ROOFTOP AC UNIT.)

12 A/C UNIT DISCONNECT IS FURNISHED WITH A/C UNIT AND SHALL BE CONNECTED BY THE CONTRACTOR.

13 EXHAUST FAN IS FURNISHED WITH A PREWIRED DISCONNECT.

ENLARGED POWER PLAN KEYNOTES

E1 CONNECT EVAPORATOR UNIT IN FREEZER TO FREEZER CONDENSING UNIT CONTROLS LOCATED ON ROOF. SEE THE ROOF ELECTRICAL PLAN.

E2 CONNECT EVAPORATOR UNIT IN COOLER TO COOLER CONDENSING UNIT CONTROLS LOCATED ON ROOF. SEE THE ROOF ELECTRICAL PLAN.

E3 NOT USED.

E4 CONNECT AS REQUIRED TO CJ FAN VIA THE HOOD SUPPLIED SPEED CONTROLLER. CONNECT HOMERUN VIA A RELAY IN THE CFA-T500 CONTROL SECTION.

E5 ROUTE THROUGH LIGHTING CONTROL SWITCHBANK "SB" FOR THE MENUBOARD POWER. CONTROLLED BY SWITCH "F". SEE THE LIGHTING FLOOR PLAN.

E6 SEE THE ROOF ELECTRICAL PLAN FOR THE LOCATION OF THE ICE MAKER CONDENSERS AND ANY ADDITIONAL REQUIREMENTS.

E7 PROVIDE 3#12 IN 1/2" CONDUIT BETWEEN THE CFA-T500 CONTROL PANEL AND THE ANSUL SYSTEM PANEL(S). SEE ANSUL SYSTEM WIRING DIAGRAM DETAIL ON SHEET E-002 FOR ADDITIONAL INFORMATION.

E8 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.

E9 NOT USED.

E10 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 INTERGRAL WITH THE OPEN FRYER TO PLUG INTO THE SLEEVE RECEPTACLE.

E11 NOT USED.

E12 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.

E13 TWIST-LOCK 208V, 3 PHASE, 30 AMP RECEPTACLE ABOVE AD-1 AT THE DRIVE-THRU WINDOW. PROVIDE AND INSTALL A 30 AMP CORDSET WITH NEMA L14-30 PLUG INTO THE KNOCKOUT ON THE TOP OF AD-1 AND TERMINATE ON THE LUGS IN THE UNIT'S WIRING COMPARTMENT.

E14 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 TWISTLOCK PLUGS AS NOTED ON PLAN. CONTACT BRIDGID DEFRAMCESHI EMAIL: BRIDGID1985@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.

E15 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 IG (ORANGE) RECEPTACLE OUTLETS. OUTLET BOX TO BE MOUNTED TO THE OVERHEAD SHELVING AT THE PRINTER AND MONITOR MOUNTING BRACKET.

POS POWER KEYNOTES

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 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.

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.

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GREGORY D. TAYLOR

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FSR#01530

BUILDING TYPE / SIZE: S03 ALL
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
2	03-22-2022	CONSTRUCTION REVISION #1

CONSULTANT PROJECT #	C29119
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DRAWN BY	K.C.L.

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SHEET #
LIGHTING AND POWER PLAN KEYNOTES

SHEET NUMBER
E-003

ELECTRICAL SITE PLAN KEYNOTES

(APPLIES TO THE ELECTRICAL SITE PLAN ONLY)

1. PROPOSED LOCATION OF SECONDARY UNDERGROUND ELECTRICAL UTILITY LINES.
2. PROPOSED LOCATION OF PAD MOUNTED TRANSFORMER FURNISHED BY THE ELECTRICAL UTILITY COMPANY. THE ELECTRICAL CONTRACTOR SHALL PROVIDE:
   - A. 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.
   - B. 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.
   - C. CONCRETE PAD FOR UTILITY TRANSFORMER IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS.
   - D. METERING CONDUIT. SEE NOTE-14.
3. LOCATION OF TERMINATION OF SECONDARY SERVICE LATERAL AT PANEL 'MDP'. REFER TO "SINGLE-LINE".
4. A. 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.
   - B. 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.
5. LOCATION OF DUMPSTER. REFER TO "REFUSE ENCLOSURE PLAN - ELECTRICAL", SHEET E-303 FOR ELECTRICAL REQUIREMENTS IN THIS AREA.
6. REFER TO SHEET E-303 FOR ELECTRICAL REQUIREMENTS AT MENU BOARD, DRIVE-THROUGH CANOPY, AND PRESELL MENU BOARD.
7. REFER TO SHEETS E-901, & E-902 FOR ELECTRICAL SPECIFICATIONS PERTAINING TO ELECTRICAL WORK DESCRIBED ON THIS SHEET.
8. REFER TO SHEET E-211 FOR LIGHTING FIXTURE SCHEDULE.
9. 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.
10. CONNECT SITE LIGHTING CIRCUITS TO TERMINAL BLOCKS LOCATED IN THE "CFA-T500" CONTROL PANEL (TYPICAL). SEE PANEL SCHEDULES ON SHEET E-501.
11. 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.
12. 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.)
13. PROVIDE WEATHERPROOF 20A SPST TOGGLE SWITCH 18" AFG AND CONNECTION TO MAINTENANCE DISCONNECT SWITCH FOR MAIN I.D. SIGN.
14. 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.
15. PROVIDE A 12' POLE FOR MOUNTING OF SECURITY CAMERA. POLE TO MATCH SITE LIGHTING POLES IN STYLE AND COLOR.

GENERAL ELECTRICAL SITE PLAN NOTES

(APPLIES TO THE ELECTRICAL SITE PLAN ONLY)

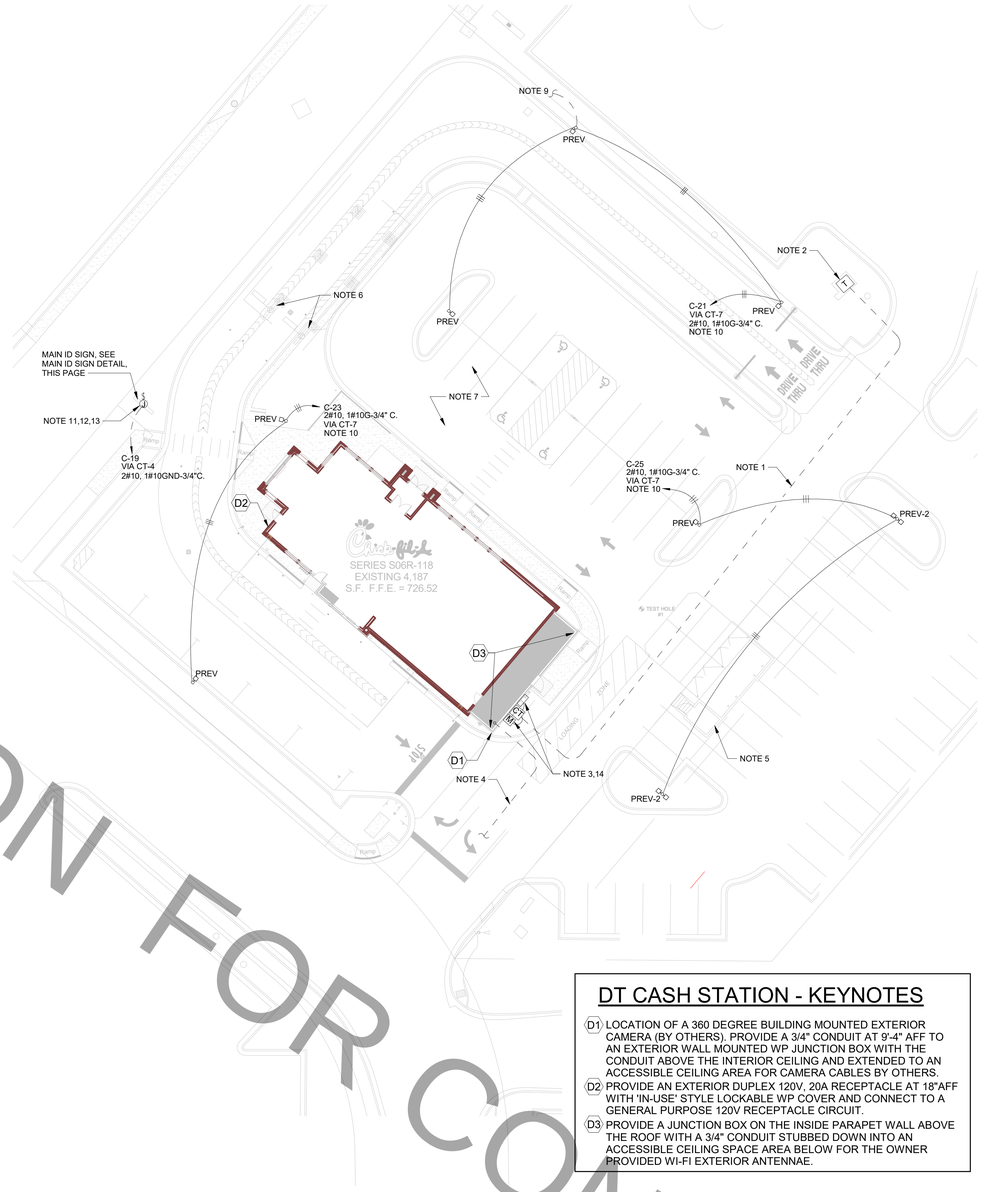
1. VERIFY WITH LOCAL AUTHORITIES AND UTILITIES THAT OWNER'S SIGNS, POLES, AND THEIR APPURTENANCES ARE NOT LOCATED ON OR OVER ANY EASEMENT OR MUNICIPAL RIGHT OF WAY.
2. SITE WORK, UTILITY, AND ROADWAY INFORMATION ARE TAKEN FROM BOUNDARY AND TOPO SURVEY SITE PLANS. REFER TO C-DRAWINGS.
3. MINIMUM CONDUIT SIZE SHALL BE 3/4"C. MINIMUM CONDUCTOR SIZE SHALL BE #10AWG COPPER UNLESS OTHERWISE NOTED.
4. REFER TO BUILDING ELECTRICAL DRAWINGS FOR EXTERIOR LIGHTING CONTROL.
5. 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.
6. 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").
7. 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.
8. 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: CULLMAN ELECTRIC COOPERATIVE
(800) 242-1806

TELEPHONE UTILITY : AT&T
(888) 944-0447



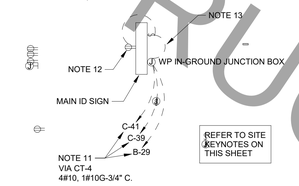
C1 ELECTRICAL SITE PLAN
1" = 20'-0"

DT CASH STATION - KEYNOTES

- D1 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.
- D2 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.
- D3 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.

ELECTRICAL SITE PLAN SYMBOLS

SYMBOL	DESCRIPTION (UNLESS OTHERWISE NOTED ON PLANS)
T	UTILITY COMPANY TRANSFORMER, (208 VOLT, 3 PHASE, 4 WIRE SECONDARY)
$	S.P.S.T. LIGHT SWITCH (600V AC QUIET TYPE)
GF	GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE
	CONDUIT HOMERUN TO PANEL
J	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.



A1 MAIN ID SIGN DETAIL
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ENGINEER
GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 ALL
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

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SHEET /
ELECTRICAL SITE PLAN

SHEET NUMBER
E-100

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3/23/2022 4:44:05 PM
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ELECTRICAL SITE PLAN KEYNOTES

(APPLIES TO THE ELECTRICAL SITE PLAN ONLY)

1. PROPOSED LOCATION OF SECONDARY UNDERGROUND ELECTRICAL UTILITY LINES.
2. PROPOSED LOCATION OF PAD MOUNTED TRANSFORMER FURNISHED BY THE ELECTRICAL UTILITY COMPANY. THE ELECTRICAL CONTRACTOR SHALL PROVIDE:
   - A. PROVIDE FOUR 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.
   - B. 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.
   - C. CONCRETE PAD FOR UTILITY TRANSFORMER IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS.
   - D. METERING CONDUIT. SEE NOTE-14.
3. LOCATION OF TERMINATION OF SECONDARY SERVICE LATERAL AT PANEL 'MDP'. REFER TO "SINGLE-LINE
4. A. 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.
   - B. 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.
5. LOCATION OF DUMPSTER. REFER TO "REFUSE ENCLOSURE PLAN - ELECTRICAL", SHEET E-303 FOR ELECTRICAL REQUIREMENTS IN THIS AREA.
6. REFER TO SHEET E-303 FOR ELECTRICAL REQUIREMENTS AT MENU BOARD, DRIVE-THRU CANOPY, AND PRESELL MENU BOARD.
7. REFER TO SHEETS E-901, & E-902 FOR ELECTRICAL SPECIFICATIONS PERTAINING TO ELECTRICAL WORK DESCRIBED ON THIS SHEET.
8. REFER TO SHEET E-211 FOR LIGHTING FIXTURE SCHEDULE.
9. 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.
10. CONNECT SITE LIGHTING CIRCUITS TO TERMINAL BLOCKS LOCATED IN THE "CFA-T500" CONTROL PANEL (TYPICAL). SEE PANEL SCHEDULES ON SHEET E-501.
11. 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.
12. 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.)
13. PROVIDE WEATHERPROOF 20A SPST TOGGLE SWITCH 18" AFG AND CONNECTION TO MAINTENANCE DISCONNECT SWITCH FOR MAIN I.D. SIGN.
14. 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.
15. PROVIDE A 12' POLE FOR MOUNTING OF SECURITY CAMERA. POLE TO MATCH SITE LIGHTING POLES IN STYLE AND COLOR.

GENERAL ELECTRICAL SITE PLAN NOTES

(APPLIES TO THE ELECTRICAL SITE PLAN ONLY)

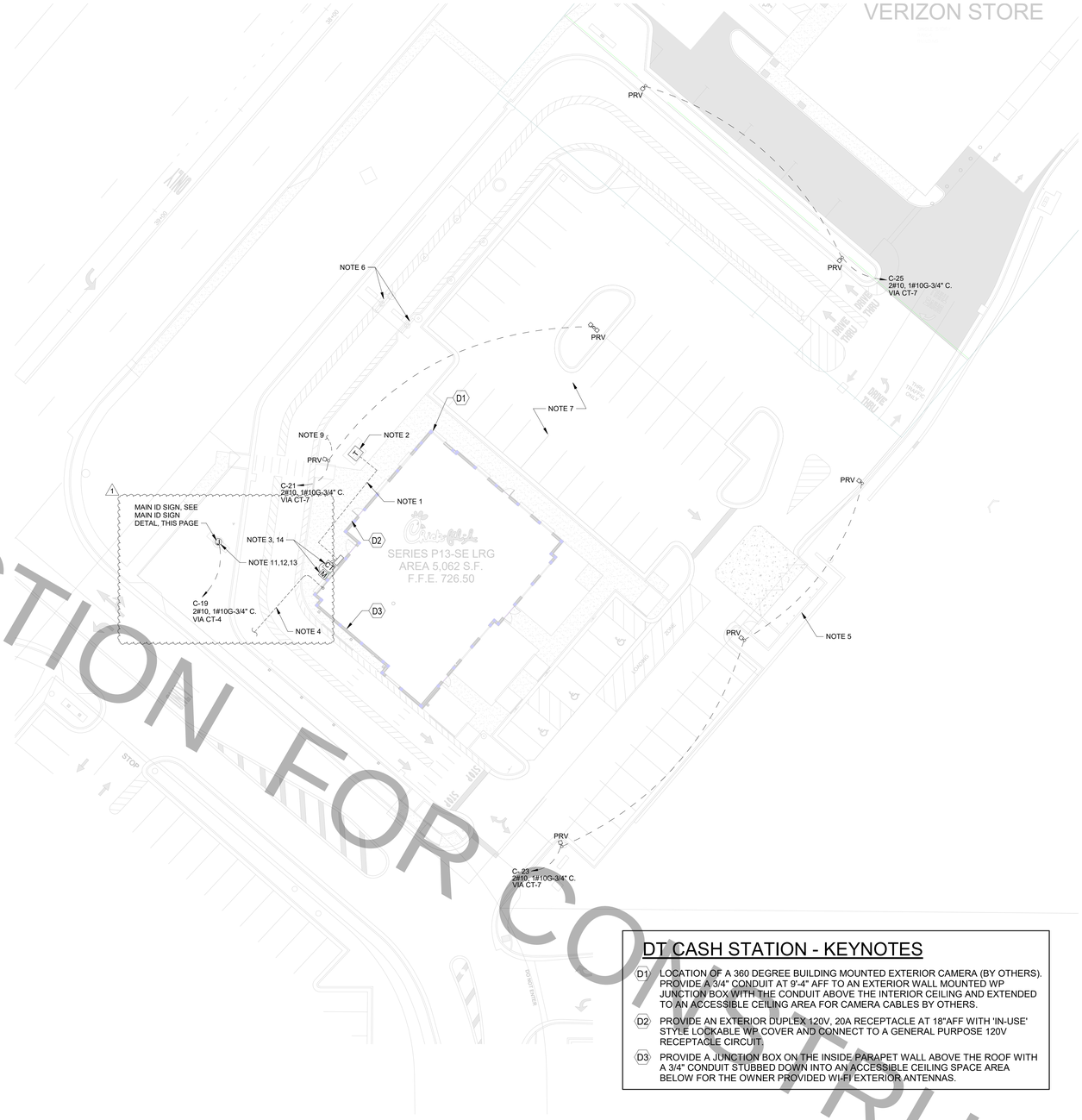
1. VERIFY WITH LOCAL AUTHORITIES AND UTILITIES THAT OWNER'S SIGNS, POLES, AND THEIR APPURTENANCES ARE NOT LOCATED ON OR OVER ANY EASEMENT OR MUNICIPAL RIGHT OF WAY.
2. SITE WORK, UTILITY, AND ROADWAY INFORMATION ARE TAKEN FROM BOUNDARY AND TOPO SURVEY SITE PLANS. REFER TO C-DRAWINGS.
3. MINIMUM CONDUIT SIZE SHALL BE 3/4"C. MINIMUM CONDUCTOR SIZE SHALL BE #10AWG COPPER UNLESS OTHERWISE NOTED.
4. REFER TO BUILDING ELECTRICAL DRAWINGS FOR EXTERIOR LIGHTING CONTROL.
5. 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.
6. 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").
7. 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.
8. 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: CULLMAN ELECTRIC COOPERATIVE
1749 EVA ROAD NE
CULLMAN, AL 35055
(256) 737-3200

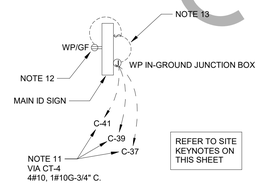
TELEPHONE UTILITY : AT&T
1871 CHEROKEE AVE SW
CULLMAN, AL 35055
(256) 775-2729



C1 ELECTRICAL SITE PLAN
1" = 20'-0"

DT CASH STATION - KEYNOTES

- D1 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.
- D2 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.
- D3 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 ANTENNAS.



A1 MAIN ID SIGN DETAIL
N.T.S.

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

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A & E Firm

Plans Prepared By:
CPH Consulting, LLC
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED No. 18054 PROFESSIONAL ENGINEER GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: P13 SE ALL
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	06/05/2023	CONST REV 1

CONSULTANT PROJECT #	C29119
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DATE	03/27/2023
DRAWN BY	KCL

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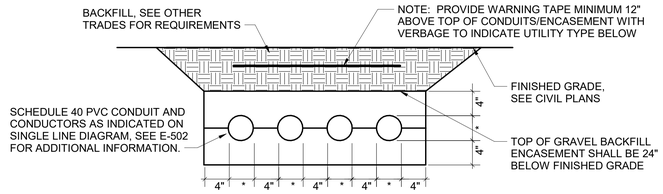
PERMIT

SHEET
ELECTRICAL SITE PLAN

SHEET NUMBER
E-100

Autodesk Docs://AL_01530_Cullman_2021.2_FSR/01530_Cullman_ELE.rvt
6/12/2023 10:06:02 AM
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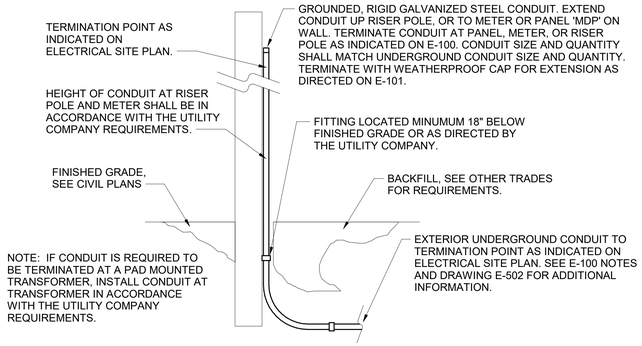
FOR CONSTRUCTION



NOTE:
WHERE THE SECONDARY CONDUITS FROM THE UTILTY TRANSFORMER TO THE CURRENT TRANSFORMER CABINET (OR MAIN PANELBOARD) ARE FURNISHED BY THE UTILITY COMPANY (FOR INSTALLATION BY THE CONTRACTOR) OR ARE FURNISHED AND INSTALLED BY THE UTILITY COMPANY, THE CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS WITH THE UTILITY COMPANY PRIOR TO BID. REFER TO THE ELECTRICAL SITE PLAN FOR ADDITIONAL INFORMATION.

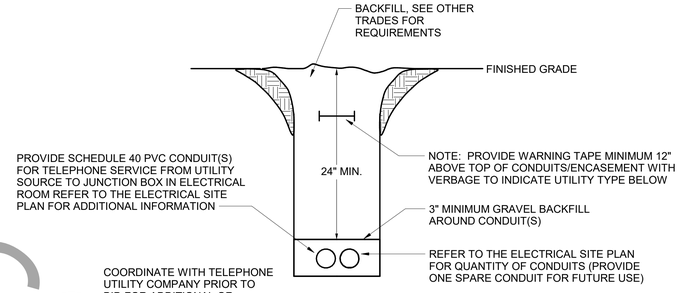
E1 ELECTRICAL SERVICE LATERAL CONDUIT DETAIL

1/4" = 1'-0"



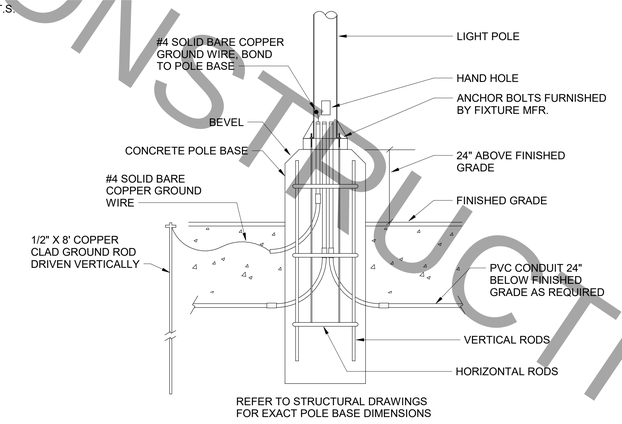
C1 EXTERIOR CONDUIT TURN UP DETAIL

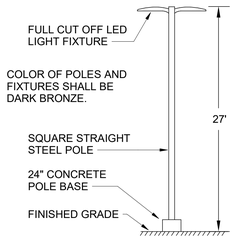
N.T.S.



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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5200 Buffington Road
Atlanta, Georgia
30349-2998

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Licenses:
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Survey L.B. No. 7143
Arch. Lic. No. AA2600926
Lndscp. Lic. No. LC0000298

ALABAMA LICENSED No. 18054 PROFESSIONAL ENGINEER GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 C
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

CONSULTANT PROJECT #	C29119
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DATE	10-10-21
DRAWN BY	K.C.L.

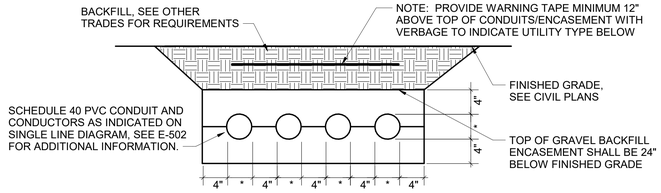
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SHEET
ELECTRICAL SITE DETAILS

SHEET NUMBER
E-101

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50-S03-01530-E-101-ELECTRICAL SITE DETAILS

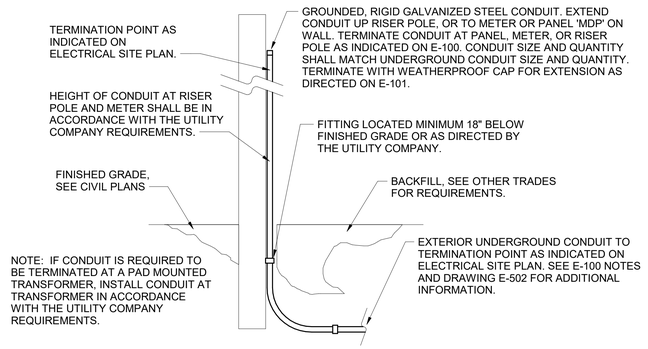
FOR CONSTRUCTION



NOTE:
WHERE THE SECONDARY CONDUITS FROM THE UTILITY TRANSFORMER TO THE CURRENT TRANSFORMER CABINET (OR MAIN PANELBOARD) ARE FURNISHED BY THE UTILITY COMPANY (FOR INSTALLATION BY THE CONTRACTOR) OR ARE FURNISHED AND INSTALLED BY THE UTILITY COMPANY, THE CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS WITH THE UTILITY COMPANY PRIOR TO BID. REFER TO THE ELECTRICAL SITE PLAN FOR ADDITIONAL INFORMATION.

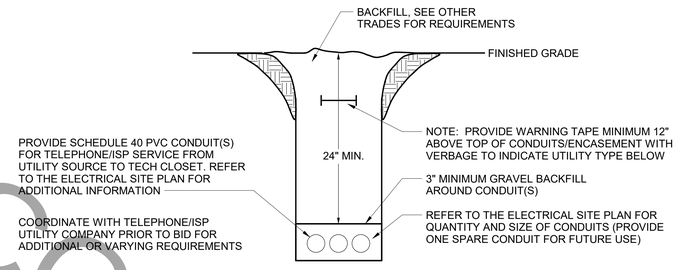
E1 ELECTRICAL SERVICE LATERAL CONDUIT DETAIL

N.T.S.



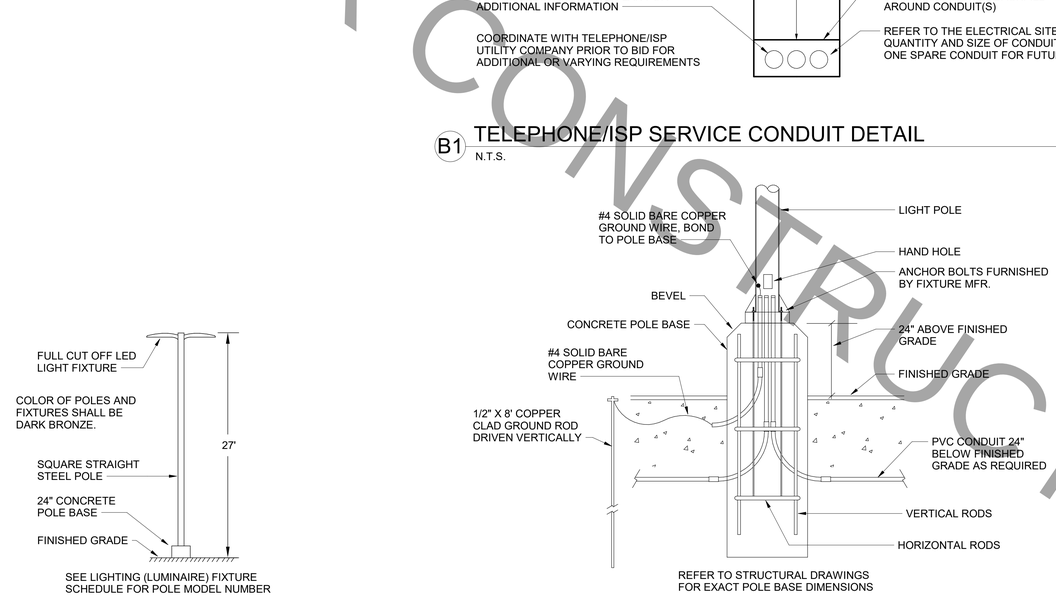
C1 EXTERIOR CONDUIT TURN UP DETAIL

N.T.S.



B1 TELEPHONE/ISP SERVICE CONDUIT DETAIL

N.T.S.



A1 TYPICAL LIGHT POLE BASE DETAIL

N.T.S.

A3 SITE LIGHTING POLE DETAIL

N.T.S.

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5200 Buffington Road
Atlanta, Georgia
30349-2998

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Plans Prepared By:
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Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED No. 18054 PROFESSIONAL ENGINEER GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: P13 SE ALL
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

CONSULTANT PROJECT #	C29119
PRINTED FOR	PERMIT
DATE	03/27/2023
DRAWN BY	KCL

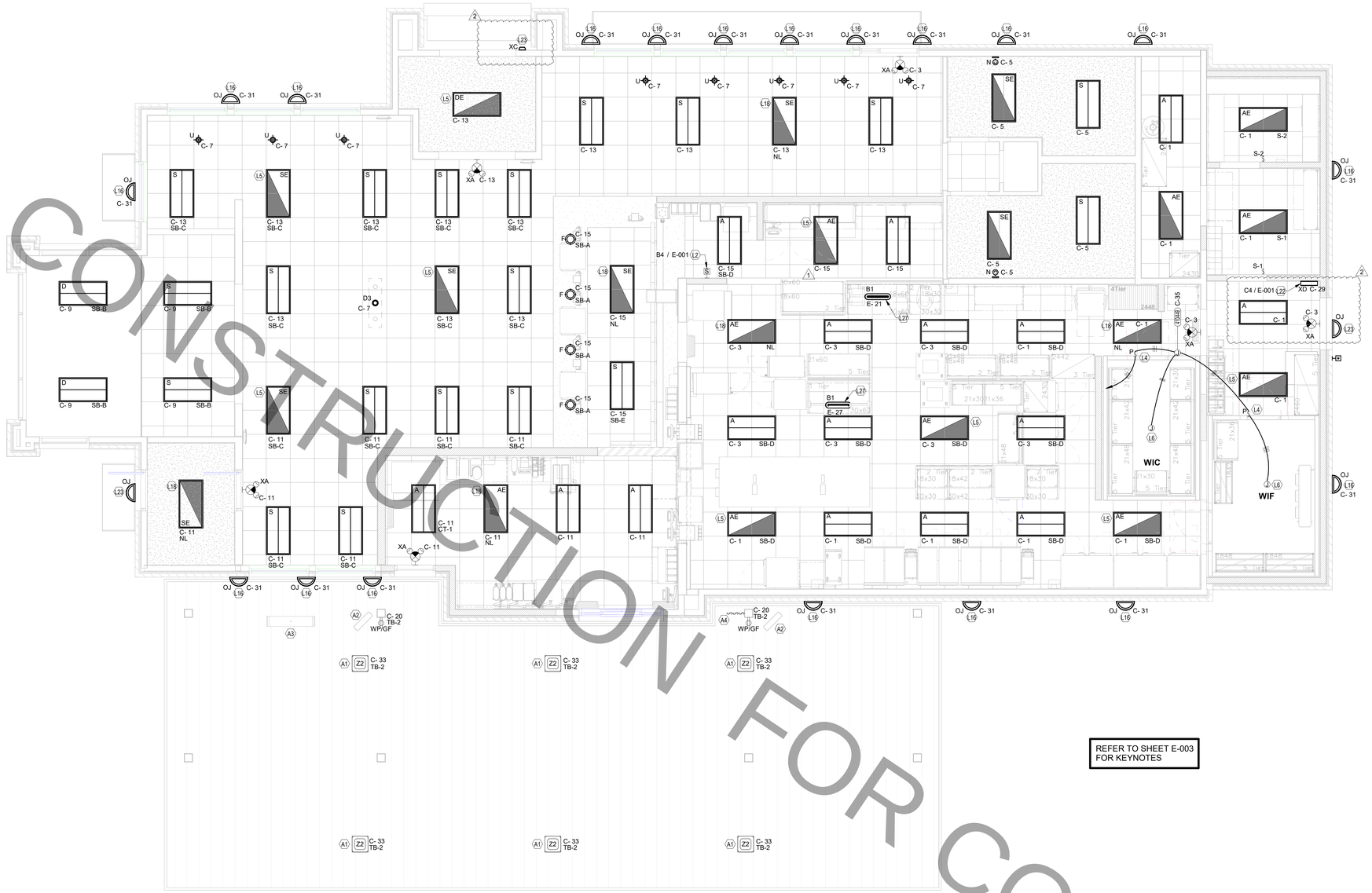
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SHEET
ELECTRICAL SITE DETAILS

SHEET NUMBER
E-101

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1 LIGHTING PLAN

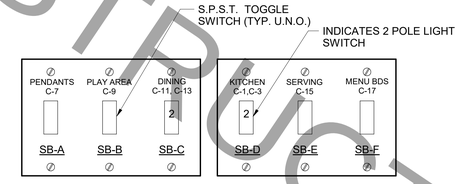
1/4" = 1'-0"

LIGHTING FIXTURE (LUMINAIRE) SCHEDULE

NOTE: NOT ALL FIXTURE TYPES ARE USED IN ALL OF THE P13 BUILDINGS. CONFIRM WITH THE LIGHTING VENDOR FOR ANY UPDATES TO THE CURRENT LIGHTING MANUFACTURER AND CATALOG NUMBER.

MARK	MANUFACTURER	CATALOG NUMBER	NO. LAMPS/TYPE	WATTS	VOLTS	MOUNTING	REMARKS
A	COOPER/METALUX	24FP644OC	INTEGRAL WITH FIXTURE	59 VA	120 V		2'X4' STATIC LED TROFFER RATED 7200 LUMENS, 4000K TEMP
AE	COOPER/METALUX	24FP644OC-EL14W	INTEGRAL WITH FIXTURE	59 VA	120 V		SAME AS 'A' WITH EMERGENCY BATTERY PACK. SEE PLAN NOTE ABOUT SWITCHING
B1	COOPER/METALUX	2VT3-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
D	COOPER/METALUX	24AC-LD5-55-UNV-L830-CD-1-U/DF-24-W	INTEGRAL WITH FIXTURE	49 VA	120 V		TOILET/VESTIBULE AREA, 2'X4' LED BASKET TROFFER WITH DRYWALL FRAME KIT
D3	COOPER/HALO	HC620D010-HM612830-61NDC	INTEGRAL WITH FIXTURE	21 VA	120 V	RECESSED	LED DOWNLIGHT WITH CLEAR REFLECTOR & TRIM RATED 2000 LUMENS, 3000K COLOR TEMP
DE	COOPER/METALUX	24AC-LD5-55-UNV-EL14W-L830-CD-1-U/DF-24-W	INTEGRAL WITH FIXTURE	49 VA	120 V		SAME AS 'D' WITH EMERGENCY BATTERY PACK.
F	MEYA	30894-8 (144638)	INTEGRAL WITH FIXTURE	12 VA	120 V	CEILING	EGG LIGHT FURNISHED WITH A 12 WATT A19-GU24 LED LAMP
G1	COOPER/METALUX	4SLSTP4040D-UNV	INTEGRAL WITH FIXTURE	44 VA	120 V	SURFACE	4760 LUMEN 4 FOOT LENSED LED STRIPLIGHT, MTD ABOVE DOOR FRAME
N	MINKA	4531-267B	1-LED11A19/827/D	11 VA	120 V		LAVATORY WALL SCONCE-SHADE POINTED DOWN W/ LED LAMP & CL ON LAVATORY
OC	HUBBELL	FLL-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
OJ	SECURITY LIGHTING	RSWC-72L-3K-UD-U-DB	INTEGRAL WITH FIXTURE	25 VA			UP/DOWN LED EXTERIOR WALL SCONCE. SEE ELEVATIONS FOR MOUNTING HEIGHT.
PREV	COOPER/LUMARK	LUMINAIRE: PRV-C60D-UNV-**-SA-BZ (DISTRIBUTION TYPES TO BE DETERMINED BY THE REGIONAL TEAM SPECIFIC TO THE SITE) POLE: SSS-4A-25-SFM-1-4 (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.
PREV-2	COOPER/LUMARK	LUMINAIRE: PRV-C60D-UNV-**-SA-BZ (DISTRIBUTION TYPES TO BE DETERMINED BY THE REGIONAL TEAM SPECIFIC TO THE SITE) POLE: SSS-4A-25-SFM-2-4 (TWO LUMINAIRES AT 180 DEGRESS)	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.
S	COOPER/METALUX	24AC-LD5-55-UNV-L830-CD-1-U	INTEGRAL WITH FIXTURE	49 VA	120 V		DINING AREA, 2'X4' VOLUMETRIC RECESSED LED TROFFER
SE	COOPER/METALUX	24AC-LD5-55-UNV-EL14W-L830-CD-1-U	INTEGRAL WITH FIXTURE	49 VA	120 V	RECESSED	SAME AS 'A' WITH EMERGENCY BATTERY PACK.
U	BESA LIGHTING	BES00298-060	FURNISHED	8 VA	120 V	PENDANT	RED FRIT GLASS, BRONZE CABLE & CANOPY, 6'-6" AFF
XA	COOPER/SURE-LITES	APCH7R	INTEGRAL WITH FIXTURE	4 VA	120 V	WALL	EXIT SIGN WITH BATTERY PACK AND TWO INTEGRAL ADJUSTABLE LAMPHEADS
XC	LITHONIA	AFF-PEL-DDBTXD-UVOLT-LTP-FCT		12 VA	120 V	WALL	EXTERIOR WALL MOUNTED EMERGENCY LIGHTING UNIT, LOCATE NEAR EGRESS DOOR.
XD	MULE LIGHTING	SPS-220/250-120/277	NONE	250 VA	120 V	WALL	INVERTER UNIT FOR EXTERIOR EGRESS LTG; ON AT DUSK, OFF AT DAWN, ON DURING PWR OUTAGE
Z2	LSI	CRUS-SC-LED-LW30-UE-WHT	INTEGRAL WITH FIXTURE	74 VA	120 V		CANOPY LIGHT PROVIDED BY CANOPY SUPPLIER AND INSTALLED BY ELECTRICAL CONTRACTOR

NOTES:
1. 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).
2. THE LIGHTING FIXTURE PACKAGE IS AVAILABLE THROUGH A NATIONAL ACCOUNT PROGRAM. REFER TO THE ELECTRICAL SPECIFICATIONS SHEET, SECTION C16500 FOR VENDOR INFORMATION.
3. THE ASTERIK (*) BESIDE THE FIXTURE MARK IN THE ABOVE SCHEDULE INDICATES THE FIXTURE IS A NON-PROTOTYPICAL LIGHT FIXTURE PER THE CFA NATIONAL P13 PROTOTYPE.
4. IF TYPE OC IS GROUND MOUNTED IN LIEU OF ROOF MOUNTED, PROVIDE EITHER THE FLL-VISOR-DB (VISOR) OR THE FLL-LOUVER-BL (LOUVER) FOR GLARE CONTROL.



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.

A1 SWITCH BANK "SB" DETAIL

NO SCALE

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

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Plans Prepared By :
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Licenses:
Eng. C.O.A. No. 3215
Survey L.B. No. 7143
Arch. Lic. No. AA2600926
Lndscp. Lic. No. LC0000298

ALABAMA LICENSED No. 18054 PROFESSIONAL ENGINEER GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 LRG
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	10-26-2021	PERMIT REV#1
2	03-22-2022	CONSTRUCTION REVISION #1

PERMIT

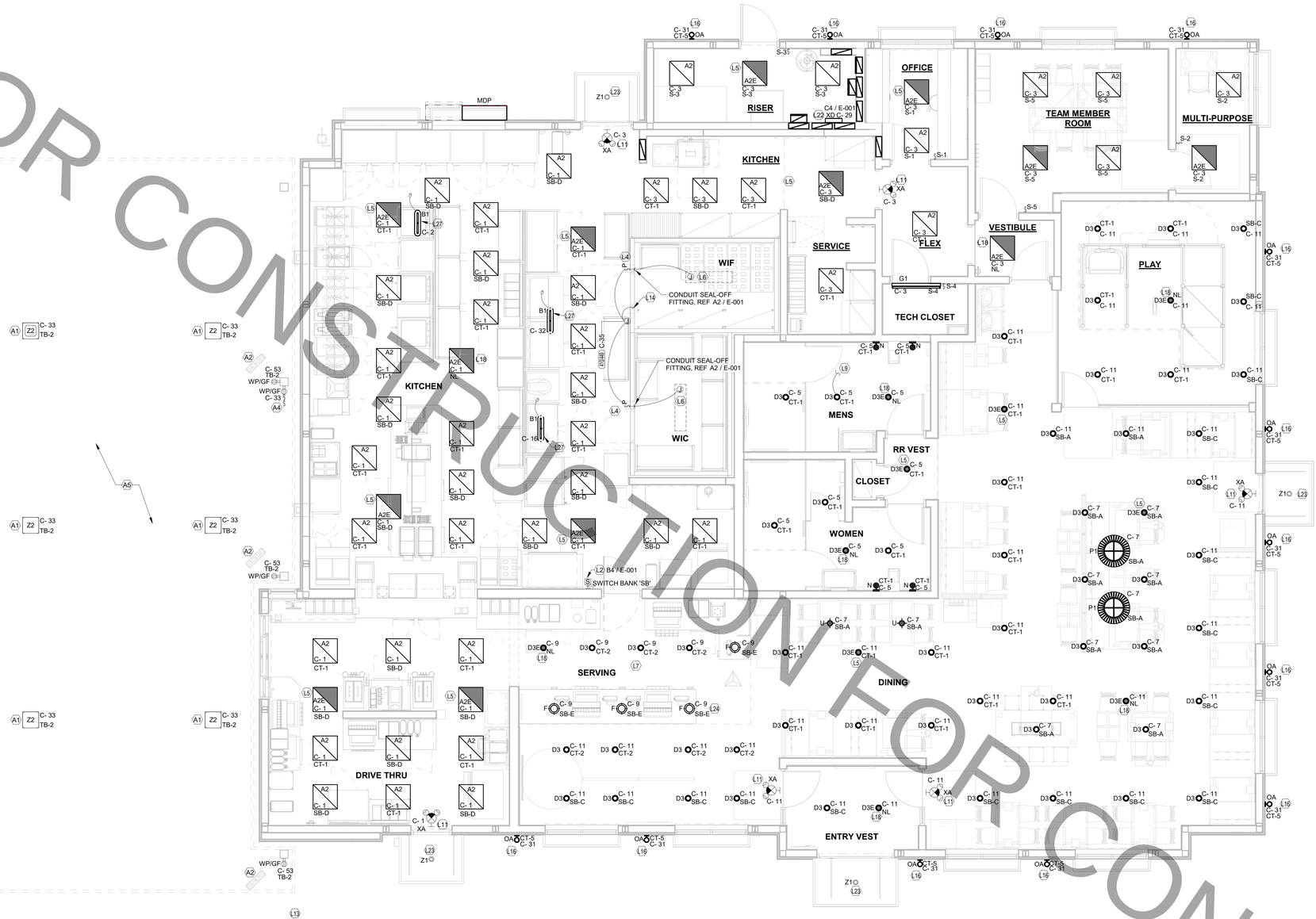
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DATE 10-10-21
DRAWN BY K.C.L.

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SHEET: LIGHTING PLAN

SHEET NUMBER
E-211

BIM 360://AL_01530_Cullman_2021-2_FSR/01530_Cullman_Remodel_ELE.rvt
3/23/2022 4:44:21 PM
50-S03-01530-E-211-LIGHTING PLAN



FOR CONSTRUCTION
FOR CONSTRUCTION

LIGHTING PLAN KEYNOTES

- L2 APPROXIMATE LOCATION OF SWITCH BANK 'SB'. SEE DETAIL ON THE LIGHTING PLAN FOR MORE INFORMATION.
- L4 FOR CONTROL OF LIGHTING FIXTURE IN WALK-IN COOLER AND FREEZER. SWITCH FURNISHED WITH EQUIPMENT, INSTALLED BY ELECTRICAL CONTRACTOR.
- L5 CONNECT FIXTURE SO THAT BATTERY PACK IS NOT SWITCHED WITH LIGHTS, BUT ALL LAMPS ARE SWITCHED.
- L6 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.
- L7 THE LIGHT FIXTURES IN THE SERVING AREA ARE PROVIDED WITH LAMP SHIELDING VIA A LENS.
- L9 TO THE TOILET EXHAUST FAN ON ROOF. SEE SHEET E-250, ROOF ELECTRICAL PLAN.
- L11 THIS FIXTURE SHALL NOT BE SWITCHED. CONNECT TO CIRCUIT AHEAD OF ALL SWITCHING AND CONTROLS.
- L13 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.)
- L14 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.
- L15 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.)
- L16 ROUTE THROUGH CONTROL PANEL CFA-T500 AND CONTROLLED BY OCCUPIED SWITCH AND PHOTOCELL.
- L18 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.
- L22 TYPE 'XD' INVERTER CABINET TO BE WALL MOUNTED AT THE CEILING AND CONNECTED TO CIRCUIT C-29 THRU THE CFA-T500'S CONTACTOR #9 (DUSK TO DAWN CONTROL). CONNECT WITH BOTH A CONTROLLED (VIA THE CONTACTOR FOR LIGHTS ON AT DUSK AND OFF AT DAWN) LEG AND AN UNSWITCHED LEG FOR THE BATTERY IN THE INVERTER. WHEN POWER IS DISRUPTED ON THE UNSWITCHED LEG, THEN THE INVERTER'S BATTERY WILL ENERGIZE THE LIGHTS CONNECTED TO THE INVERTER NO MATTER THE TIME OF DAY. PROVIDE CONNECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- L23 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.
- L24 REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR LOCATIONS OF PENDANTS, DOWNLIGHTS, ACCENTS LIGHTS, AND OTHER CEILING MOUNTED LIGHT FIXTURES.
- L27 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) AND CONNECT TO THE GENERAL RECEPTACLE (WALL OR DROP CORD). SEE THE ENLARGED POWER PLAN FOR FURTHER INFORMATION.

OMD CANOPY KEYNOTES:

- A1 CEILING LIGHT FIXTURE PROVIDED BY THE CANOPY SUPPLIER AND INSTALLED BY ELECTRICAL CONTRACTOR.
- A2 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.
- A3 ELECTRIC HEATER PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR.
- A4 PROVIDE ONE DUPLEX GFCI (WITH IN-USE WP COVER PLATE) AND TWO 120V SINGLE-POLE SWITCHES (EACH WITH HUBBELL #RW51550 WP COVER PLATE) MOUNTED IN THE COLUMN IN FLUSH MOUNTED METAL SINGLE-GANG BOXES FOR LOCAL ON-OFF CONTROL OF THE FANS AND CANOPY LIGHTS. SEE WIRING SCHEMATIC FOR FURTHER INFORMATION. ALL SURFACE (OR VISIBLE) ITEMS AND COVERPLATES TO BE FIELD PAINTED MATTE BLACK.
- A5 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 MC 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.

B4 LIGHTING PLAN

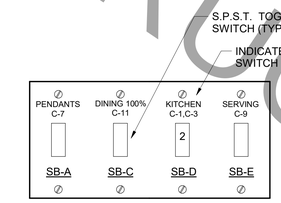
1/4" = 1'-0"

LIGHTING FIXTURE (LUMINAIRE) SCHEDULE - CHICK-FIL-A P13 EDITION

NOTE: NOT ALL FIXTURE TYPES ARE USED IN ALL OF THE P13 BUILDINGS. CONFIRM WITH THE LIGHTING VENDOR FOR ANY UPDATES TO THE CURRENT LIGHTING MANUFACTURER AND CATALOG NUMBER.

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	2VT3-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	HC620D010-HM612830-61NDC	INTEGRAL WITH FIXTURE	21 VA	120 V	RECESSED	LED DOWNLIGHT WITH CLEAR REFLECTOR & TRIM RATED 2000 LUMENS, 3000K COLOR TEMP
D3E	COOPER/HALO	HC620D010IEM14-HM612830-61NDCIEM	INTEGRAL WITH FIXTURE	21 VA	120 V	RECESSED	SAME AS 'D3' EXCEPT WITH EMERGENCY BATTERY PACK/INTEGRAL TEST SWITCH
F	MEYDA	30894-8 (144638)	1-SATS9238	12 VA	120 V	CEILING	EGG LIGHT FURNISHED WITH A 12 WATT A19-GU24 LED LAMP
G1	COOPER/METALUX	4SLSTP4040DD-UNV	INTEGRAL WITH FIXTURE	44 VA	120 V	SURFACE	4760 LUMEN 4 FOOT LENSED LED STRIPLIGHT, MTD ABOVE DOOR FRAME OR CEILING
N	MINKA	4531-267B	1-LED11A19/827/D	11 VA	120 V	WALL	LAVATORY WALL SCONCE-SHADE POINTED DOWN W/ LED LAMP & CL ON LAVATORY
OA	PROGRESS LIGHTING	P5675-31 WITH P8799 TOP COVER LENS	2-(GE) LED12P30RW830/25	24 VA	120 V	WALL	5" DIAMETER, 14" HEIGHT, WET LOCATION, UP/DOWN CYLINDER W/ 12 WATT PAR30 3K NFL LED LAMPS
OC	HUBBELL	FLL-4ZL-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
P1	MEYDA	142776	2-LED11A19/827/D	22 VA	120 V	PENDANT	31" DIA PEACH BASKET PENDANT WITH BTM AT 6'-8" AFF ABV TABLE, 8'-0" OTHERWISE
PRV	COOPER/LUMARK	LUMINAIRE: PRV-A60D-UNV-**-SA-BZ (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.
U	BESA LIGHTING	BES00298-060	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-220/250-120/277	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	SLD405830WH	INTEGRAL WITH FIXTURE	12 VA	120 V	RECESSED	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:
1. LUMINAIRES UTILIZING DOUBLE-ENDED LAMPS AND CONTAIN BALLAST THAT CAN BE SERVICED IN PLACE SHALL HAVE A DISCONNECTING MEANS EITHER INTERNAL TO EACH LUMINAIRE PER NEC 410.130(G).
2. THE LIGHTING FIXTURE PACKAGE IS AVAILABLE THROUGH A NATIONAL ACCOUNT PROGRAM. REFER TO THE ELECTRICAL SPECIFICATIONS SHEET, SECTION C165500 FOR VENDOR INFORMATION.
3. THE ASTERISK (*) BESIDE THE FIXTURE MAKE IN THE ABOVE SCHEDULE INDICATES THE FIXTURE IS A NON-PROTOTYPCIAL LIGHT FIXTURE PER THE CFA NATIONAL P13 PROTOTYPE.
4. IF TYPE OC IS GROUND MOUNTED IN LIEU OF ROOF MOUNTED, PROVIDE EITHER THE FLL-VISOR-DB (VISOR) OR THE FLL-LOUVER-BL (LOUVER) OF GLARE CONTROL.



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.

A1 SWITCH BANK "SB" DETAIL

NO SCALE

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Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED PROFESSIONAL No. 18054 ENGINEER GREGORY TAYLOR

CHICK-FIL-A
CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: P13 SE LRG
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

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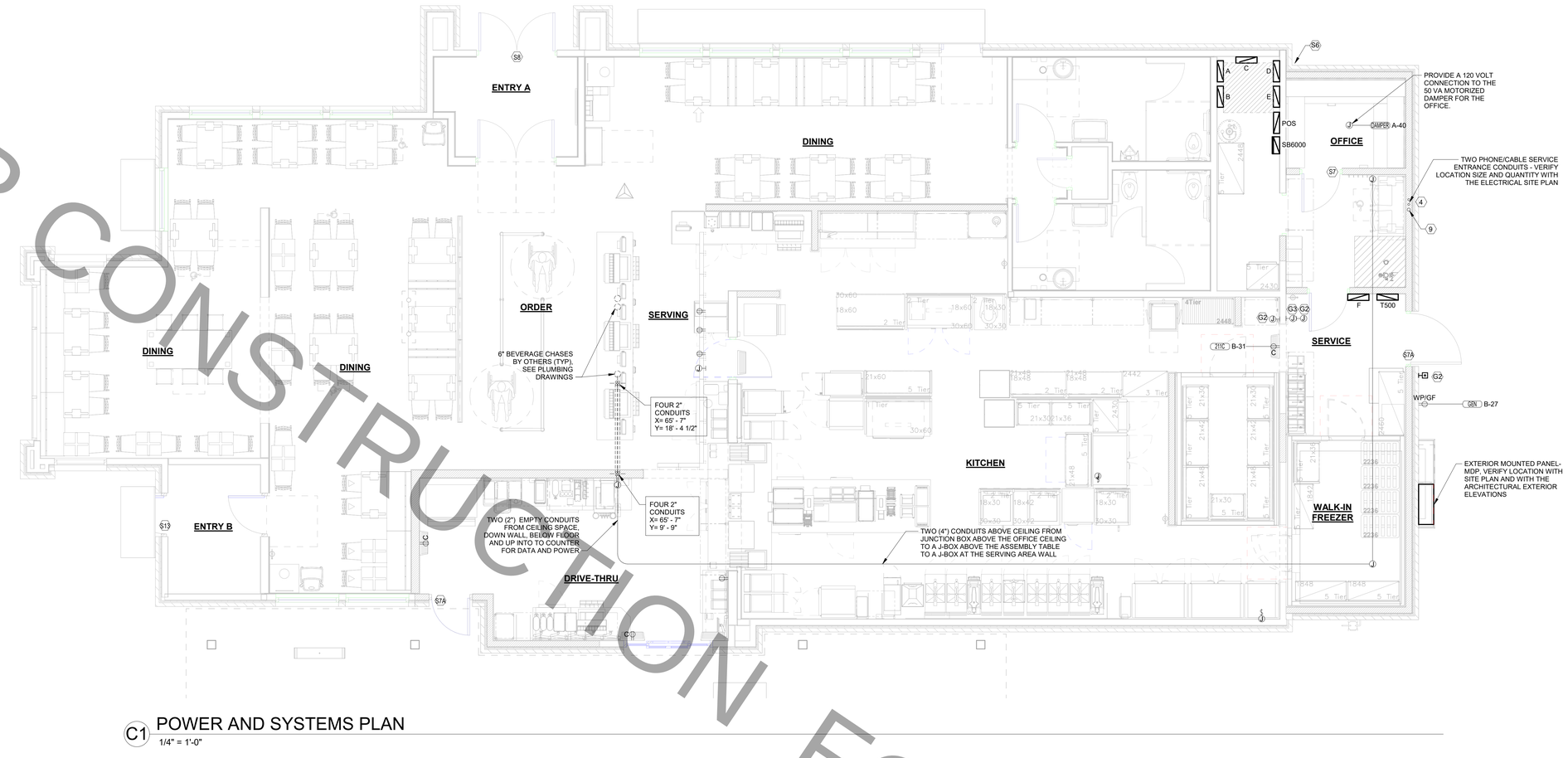
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SHEET: LIGHTING PLAN

SHEET NUMBER: **E-211**

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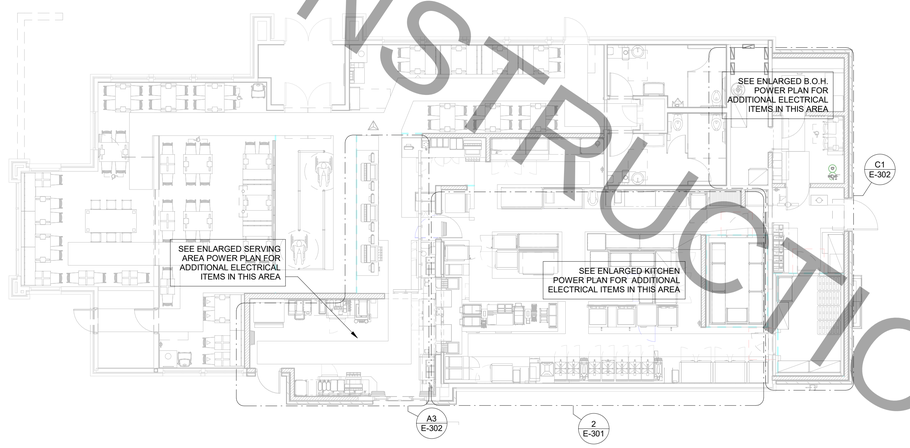


C1 POWER AND SYSTEMS PLAN

1/4" = 1'-0"

REFER TO SHEET E-003 FOR KEYNOTES

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



A1 ELECTRICAL KEY PLAN

1/8" = 1'-0"

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ALABAMA LICENSED No. 18054 PROFESSIONAL ENGINEER GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 LRG
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

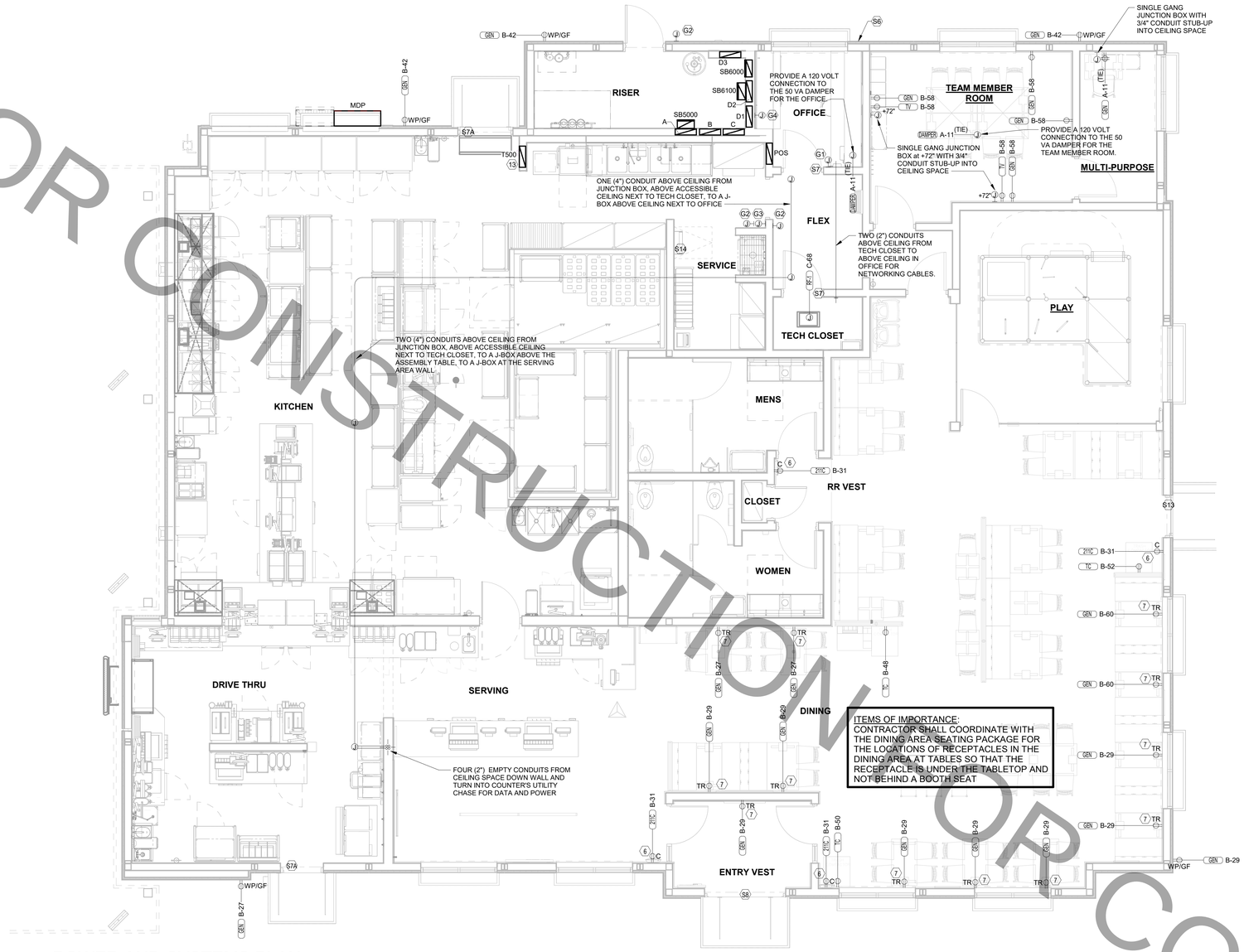
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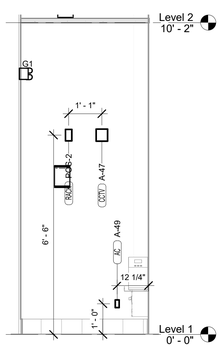
SHEET
POWER AND SYSTEMS PLAN

SHEET NUMBER
E-221

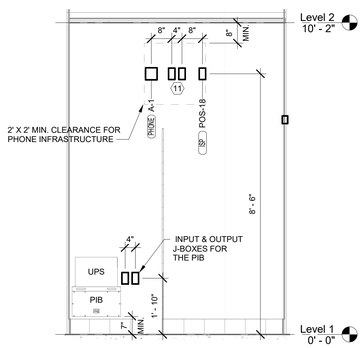
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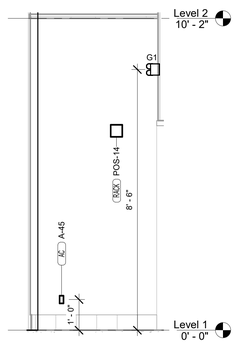
B4 POWER AND SYSTEMS PLAN
1/4" = 1'-0"



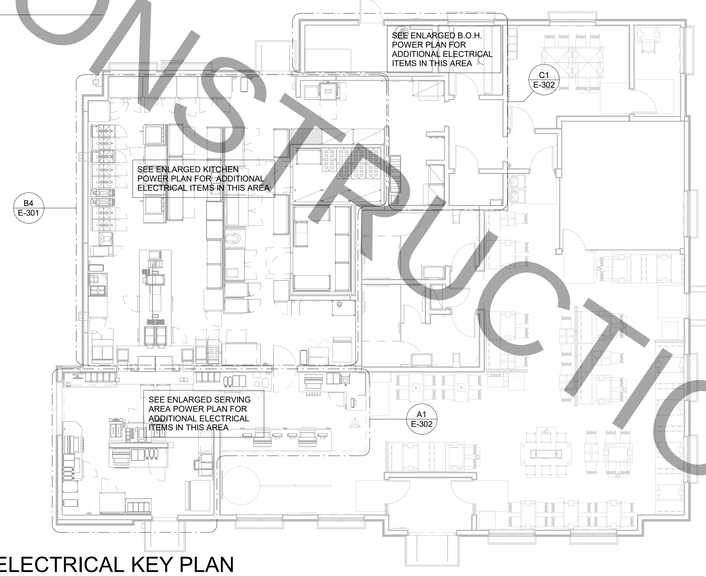
A4 TECH CLOS. ELEV LEFT
1/2" = 1'-0"



A3 TECH CLOS. ELEV CENTER
1/2" = 1'-0"



A2 TECH CLOS. ELEV RIGHT
1/2" = 1'-0"



A1 ELECTRICAL KEY PLAN
1/8" = 1'-0"

POWER PLAN KEYNOTES

6 PROVIDE DUPLEX RECEPTACLE (SEE ELEVATIONS FOR MTG HT) IN AN ARLINGTON #DFR2W DOUBLE-GANG RECESSED BOX FOR THE FLYLIGHT 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.

7 TAMPER RESISTANT (TR) DUPLEX RECEPTACLE (IN DINING AREAS) WITH USB CHARGER SHALL BE COOPER/ARROW HART #TR7756-B (BROWN) WITH MATCHING COLOR 'DECOR' STYLE PLATE. VERIFY COLOR WITH OWNER.

13 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.

14 TIMER SWITCH FOR OUTSIDE ELECTRIC HEATER. REFER TO A1 / E-304 FOR DETAILS AND WIRING SCHEMATIC.

SECURITY KEYNOTES

S6 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.

S7 EXTEND 1/2" RIGID CONDUIT FROM TOP OF STRIKE-SIDE DOOR FRAME CHANNEL TO ABOVE ACCESSIBLE CEILING.

S7A EXTEND 3/4" RIGID CONDUIT FROM TOP OF STRIKE-SIDE DOOR FRAME CHANNEL TO ABOVE ACCESSIBLE CEILING.

S8 EXTEND 1/2" CONDUIT FROM A POINT 3" WITHIN EITHER HINGE-SIDE DOOR VERTICAL FRAME MULLION TO ABOVE ACCESSIBLE CEILING.

S13 EXTEND 1/2" CONDUIT FROM A POINT 3" INSIDE THE STRIKE-SIDE DOOR FRAME MULLION TO ABOVE ACCESSIBLE CEILING.

S14 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.

CO2 DETECTOR NOTES

G1 CO2 CENTRAL CONTROL UNIT - PROVIDE SINGLE-GANG BACKBOX AT 60" AFF WITH 3/4" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING SPACE

G2 CO2 ANNUNCIATOR UNIT - PROVIDE SINGLE-GANG BACKBOX AT 60" AFF WITH 3/4" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING SPACE

G3 CO2 SENSOR UNIT - PROVIDE SINGLE-GANG BACKBOX AT 12" AFF WITH 3/4" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING SPACE

G4 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

POWER PLAN GENERAL NOTES

1. ALL SECURITY, POS, MUSIC, COMMUNICATIONS, AND POWER ROUGH-IN SHALL BE INSTALLED DURING THE FRAMING/ROUGH-IN PHASE OF CONSTRUCTION.
2. REFER TO KITCHEN EQUIPMENT SHEETS FOR EQUIPMENT ELECTRICAL ROUGH-IN ELEVATIONS ABOVE FINISHED FLOOR.
3. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH PULL STRING.
4. PROVIDE INSULATED BUSHING AT TERMINATION POINTS OF ALL CONDUITS FOR LOW VOLTAGE WIRING.
5. 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.

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Landscape No. N/A

ALABAMA LICENSED PROFESSIONAL No. 18054 ENGINEER GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: P13 SE LRG
RELEASE: 22.05

REVISION SCHEDULE

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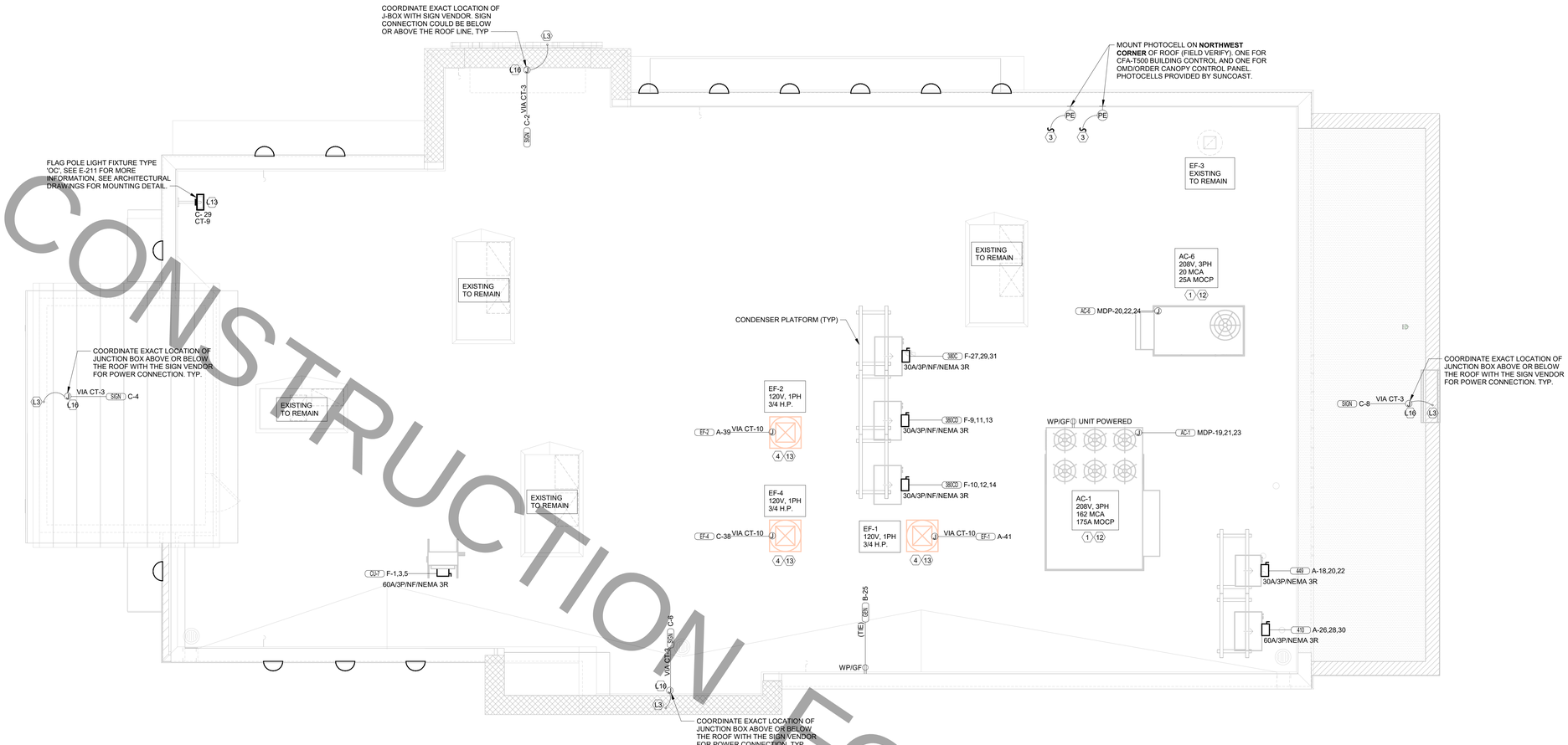
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PROJECT
POWER AND SYSTEMS PLAN

SHEET NUMBER
E-221

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C1 ROOF POWER PLAN

1/4" = 1'-0"

REFER TO SHEET E-003 FOR KEYNOTES

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.

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ALABAMA LICENSED No. 18054 PROFESSIONAL ENGINEER GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 LRG
RELEASE: N/A

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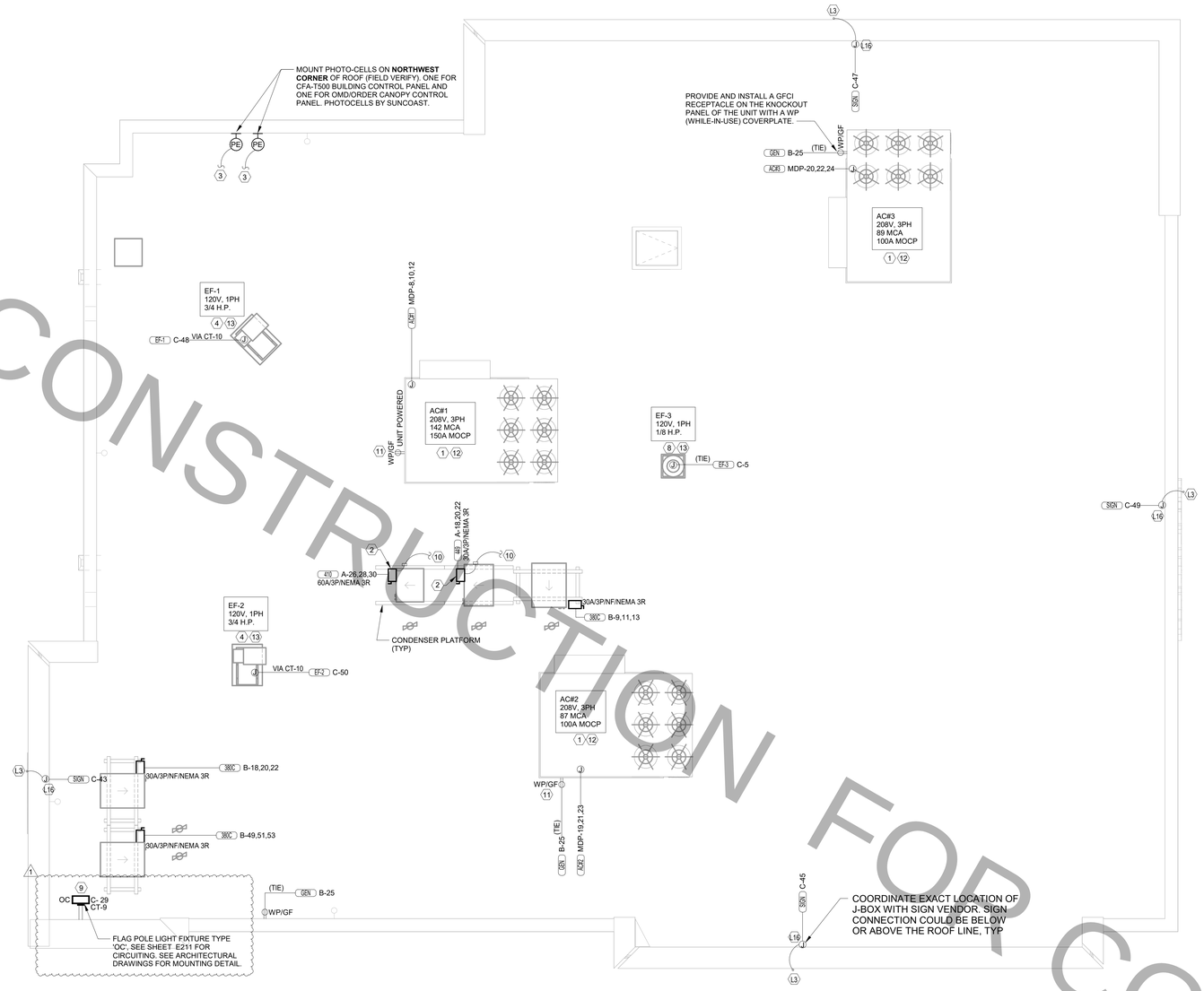
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SHEET
ROOF POWER PLAN

SHEET NUMBER
E-250

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B4 ROOF POWER PLAN

1/4" = 1'-0"

LIGHTING PLAN KEYNOTES

- L3 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.
- L16 ROUTE THROUGH CONTROL PANEL CFA-T500 AND CONTROLLED BY OCCUPIED SWITCH AND PHOTOCELL.

ROOF POWER KEYNOTES

1. ROUTE ELECTRICAL CONDUITS TO UNIT CONNECTIONS THROUGH WEATHERPROOF RACEWAY FURNISHED WITH UNIT. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATIONS.
2. 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.
3. 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.
4. 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 14" DIAMETER LOOP IN THE FLEXIBLE CONDUIT BETWEEN THE ROOF AND THE FAN ELECTRICAL CONNECTION.
8. 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.
9. MOUNT TYPE 'OC' LIGHTING FIXTURE, WITH INTEGRAL SLIPFITTER, ON PIPE. PIPE WILL BE PROVIDED BY OTHER TRADES. AIM LIGHTING FIXTURE AT NIGHT FOR BEST ILLUMINATION OF FLAG.
10. 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.
11. CONVENIENCE RECEPTACLE PROVIDED PRE-INSTALLED IN HVAC UNIT. CONNECT TO 120 VOLT CIRCUIT AS REQUIRED AND/OR AS INDICATED. (NOTE THAT ONE UNIT WILL NOT BE FURNISHED WITH AN INTEGRAL PRE-INSTALLED RECEPTACLE OUTLET. CONTRACTOR SHALL PROVIDE A GFCI TYPE 20 AMP RECEPTACLE WITH IN-USE WP COVERPLATE MOUNTED TO THE OUTSIDE OF THE ROOFTOP AC UNIT.)
12. A/C UNIT DISCONNECT IS FURNISHED WITH A/C UNIT AND SHALL BE CONNECTED BY THE CONTRACTOR.
13. EXHAUST FAN IS FURNISHED WITH A PREWIRED DISCONNECT.

POWER PLAN GENERAL NOTES

1. ALL SECURITY, POS, MUSIC, COMMUNICATIONS, AND POWER ROUGH-IN SHALL BE INSTALLED DURING THE FRAMING/ROUGH-IN PHASE OF CONSTRUCTION.
2. REFER TO KITCHEN EQUIPMENT SHEETS FOR EQUIPMENT ELECTRICAL ROUGH-IN ELEVATIONS ABOVE FINISHED FLOOR.
3. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH PULL STRING.
4. PROVIDE INSULATED BUSHING AT TERMINATION POINTS OF ALL CONDUITS FOR LOW VOLTAGE WIRING.
5. 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 ROOFTOP UNIT EQUIPMENT SCHEDULE

DESIGNATION	MANUFACTURER	MODEL	VOLTAGE	POLES	MCA	MOCP	LOAD (VA)	MARK NO.*	DESIGNATION
AC#1	LENNOX	LGH300S4B	208 V	3	142 A	150 A	49,357	34	AC#1
AC#2	LENNOX	LGH210H4B	208 V	3	87 A	100 A	31,342	28	AC#2
AC#3	LENNOX	LGH240H4B	208 V	3	89 A	100 A	32,064	28	AC#3
ALT AC#1	TRANE	YHD300	208	3	117 A	150 A	42,152	34	ALT AC#1
ALT AC#2	TRANE	YHD210	208	3	86 A	110 A	30,983	30	ALT AC#2
ALT AC#3	TRANE	YHD240	208	3	115 A	150 A	41,431	34	ALT AC#3

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

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 AND VERIFY COMPLIANCE WITH NEC 210-63.

FOR CONSTRUCTION

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
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A Full Service
A & E Firm

Plans Prepared By:
CPH Consulting, LLC
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED No. 18054 PROFESSIONAL ENGINEER GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: P13 SE LRG
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	06/05/2023	CONST REV 1

PERMIT

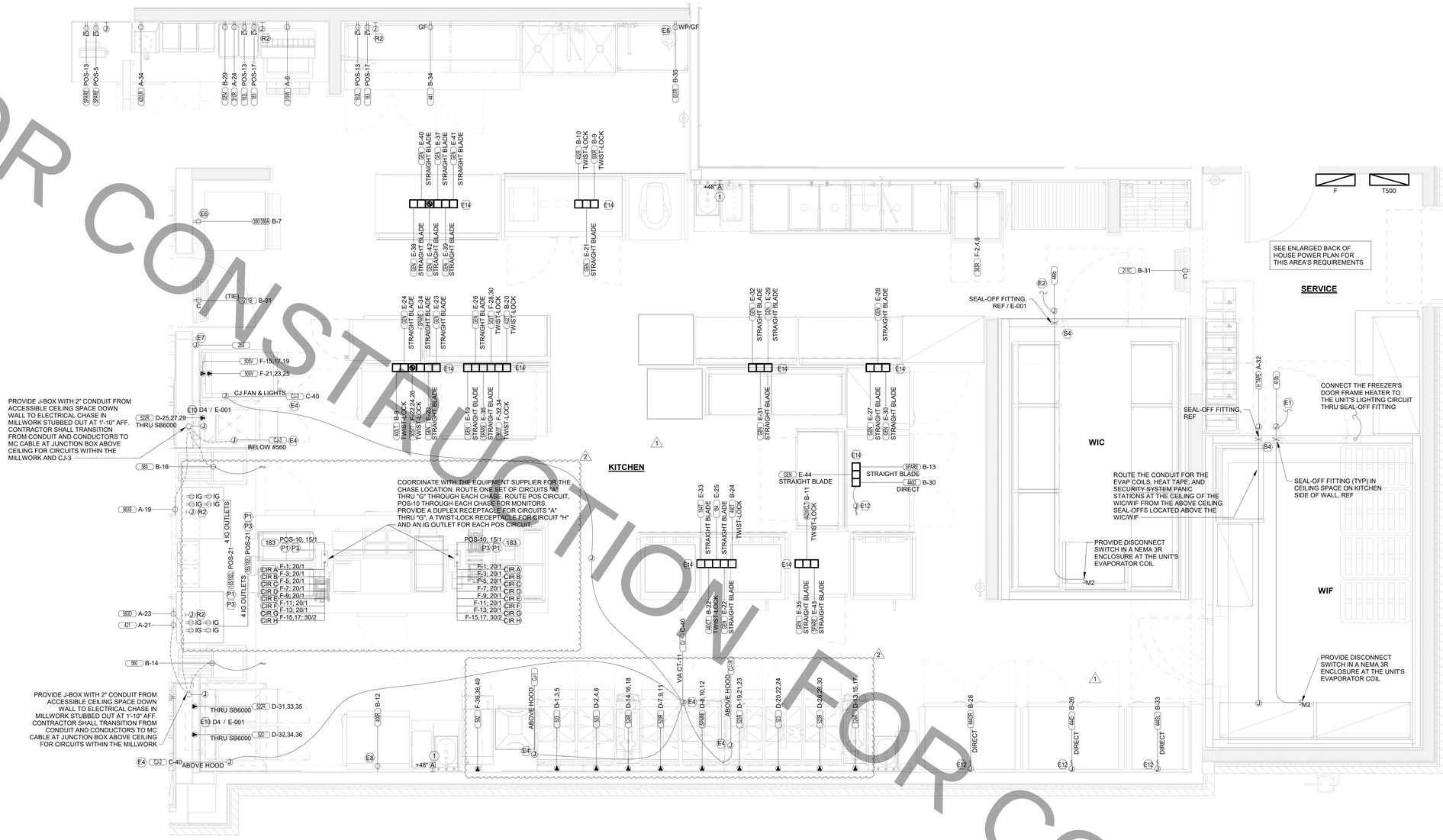
CONSULTANT PROJECT # C29119
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SHEET
ROOF POWER PLAN

SHEET NUMBER
E-250

Autodesk Docs://AL_01530_Cullman_2021.2_FSR/01530_Cullman_ELE.rvt
6/12/2023 10:05:36 AM
50-SE-01530-E-250-ROOF POWER PLAN



2 ENLARGED KITCHEN POWER PLAN

1/2" = 1'-0"

REFER TO SHEET E-003 FOR KEYNOTES

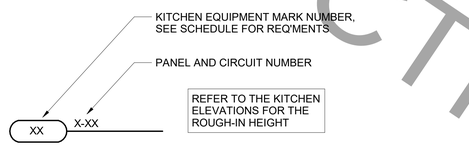
NOTE FOR POS GF IN KITCHEN:
THE CONTRACTOR SHALL PROVIDE GROUND FAULT PROTECTION FOR ALL 120 VOLT, 15 AND 20 AMP ISOLATED GROUND RECEPTACLE OUTLET BRANCH CIRCUITS IN THE KITCHEN/FOOD PREPARATION AREAS. GROUND FAULT PROTECTION SHALL BE PROVIDED AT THE BREAKER VIA A GROUND FAULT TYPE BRANCH BREAKER. (GFCI TYPE ISOLATED GRD 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.

GFCI REQUIREMENTS PER 2017 NEC:

THE CONTRACTOR SHALL PROVIDE GROUND FAULT PROTECTION FOR ALL RECEPTACLE OUTLET BRANCH CIRCUITS (IN ADDITION TO WHAT IS INDICATED IN THESE DOCUMENTS FOR 15 AND 20 AMP, 120 VOLT RECEPTACLES) IN THE KITCHEN/FOOD PREPARATION AREAS IN ACCORDANCE WITH THE 2017 EDITION OF THE NEC.

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).



A1 KITCHEN EQUIP NOMENCLATURE

NO SCALE

FOR CONSTRUCTION
PERMIT

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Plans Prepared By :
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Eng. C.O.A. No. 3215
Survey L.B. No. 7143
Arch. Lic. No. AA2600926
Lndscp. Lic. No. LC0000298

ALABAMA LICENSED No. 18054 PROFESSIONAL ENGINEER GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 ALL
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	10-26-2021	PERMIT REV#1
2	03-22-2022	CONSTRUCTION REVISION #1

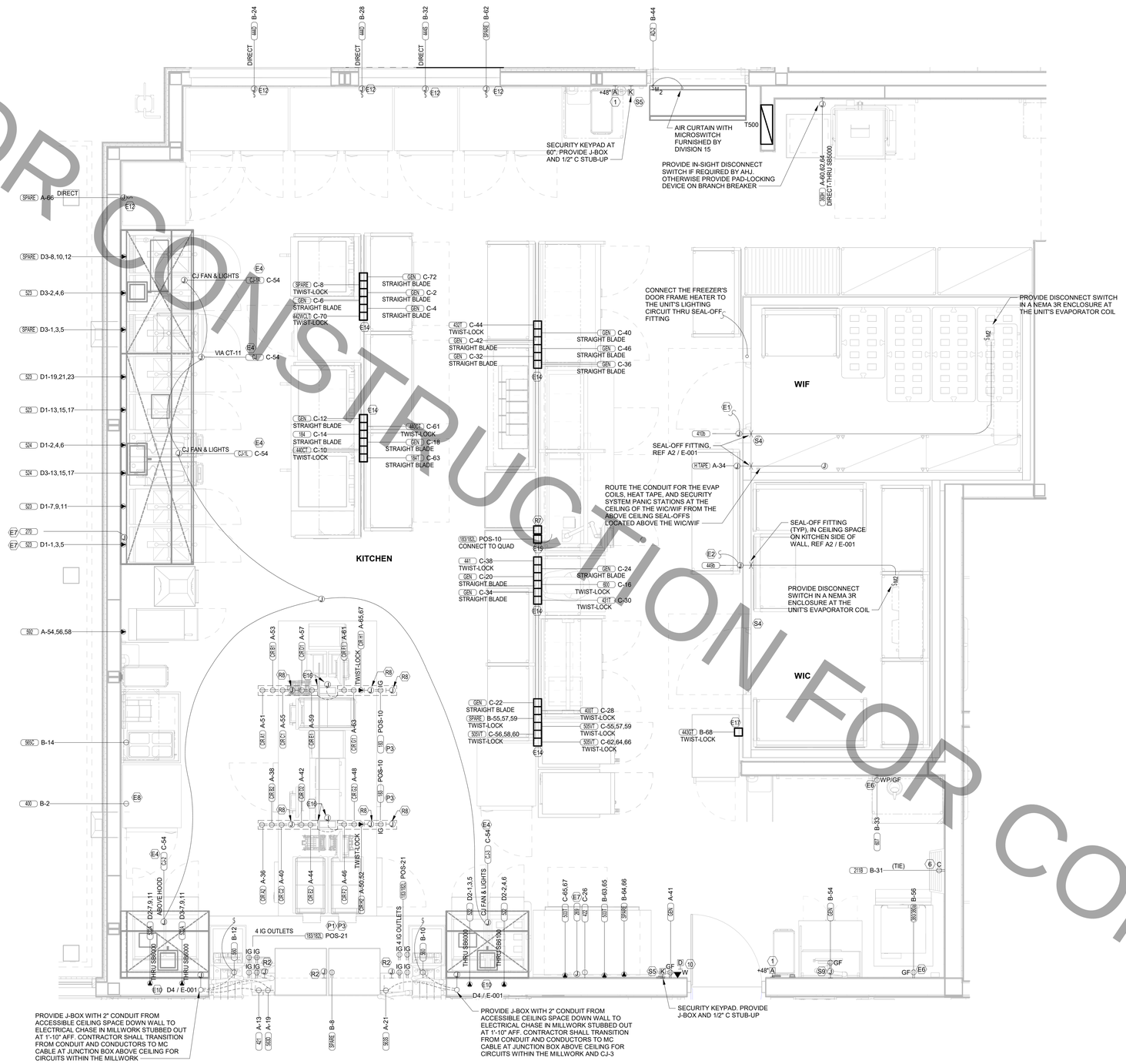
CONSULTANT PROJECT #	C29119
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SHEET
ENLARGED KITCHEN POWER PLAN

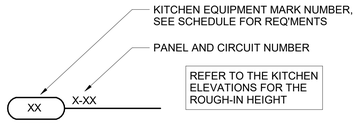
SHEET NUMBER
E-301

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3/23/2022 4:44:58 PM
50-S03-01530-E-301-ENLARGED KITCHEN POWER PLAN



B4 ENLARGED KITCHEN POWER PLAN

1/2" = 1'-0"



A4 KITCHEN EQUIPMENT NOMENCLATURE

NO SCALE

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.

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 USING GROUND FAULT TYPE BRANCH BREAKERS. (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.

POWER PLAN KEYNOTES

1. PROVIDE TWO-GANG DEEP BOX (2" MIN.) FOR ANSUL PULL STATION. EXTEND 1/2" CONDUIT FROM BOX, STUBBED ABOVE CEILING.
6. 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.
10. 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.

SECURITY KEYNOTES

S4. 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.

S5. PROVIDE SINGLE GANG BOX WITHOUT COVER PLATE. EXTEND 1/2" CONDUIT UP IN WALL TO ABOVE ACCESSIBLE CEILING.

S9. PROVIDE SINGLE GANG JUNCTION BOX WITHOUT COVERPLATE. EXTEND 1/2" CONDUIT UP IN WALL TO ABOVE ACCESSIBLE CEILING.

POS DATA KEYNOTES

R2. 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.

R7. 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.

R8. 3/4" FLEX PROVIDED FOR DATA CABLES IN CHASE.

POS POWER KEYNOTES

P1. PROVIDE ORANGE ISOLATED GROUND (IG) DUPLEX RECEPTACLE.

P3. 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.

ENLARGED POWER PLAN KEYNOTES

E1. CONNECT EVAPORATOR UNIT IN FREEZER TO FREEZER CONDENSING UNIT CONTROLS LOCATED ON ROOF. SEE THE ROOF ELECTRICAL PLAN.

E2. CONNECT EVAPORATOR UNIT IN COOLER TO COOLER CONDENSING UNIT CONTROLS LOCATED ON ROOF. SEE THE ROOF ELECTRICAL PLAN.

E4. CONNECT AS REQUIRED TO HOOD. CONNECT HOMERUN VIA A RELAY IN THE CFA-T500 CONTROL SECTION.

E6. SEE THE ROOF ELECTRICAL PLAN FOR THE LOCATION OF THE ICE MAKER CONDENSERS AND ANY ADDITIONAL REQUIREMENTS.

E7. PROVIDE 3#12 IN 1/2" CONDUIT BETWEEN THE CFA-T500 CONTROL PANEL AND THE ANSUL SYSTEM PANEL(S). SEE ANSUL SYSTEM WIRING DIAGRAM DETAIL ON SHEET E-002 FOR ADDITIONAL INFORMATION.

E8. 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.

E10. 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 INTERGRAL WITH THE OPEN FRYER TO PLUG INTO THE SLEEVE RECEPTACLE.

E12. 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.

E14. 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 TWISTLOCK PLUGS AS NOTED ON PLAN. CONTACT BRIDGID DEFRAMCESHI EMAIL: BRIDGID1985@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.

E15. 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 IG (ORANGE) DUPLEX OUTLETS. OUTLET BOX TO BE MOUNTED TO THE OVERHEAD SHELVING AT THE PRINTER AND MONITOR MOUNTING BRACKET.

E16. COORDINATE WITH THE EQUIPMENT SUPPLIER FOR THE CHASE LOCATIONS. ROUTE ONE SET OF CIRCUITS 'A' THRU 'H' AND POS CIRCUIT TO EACH JBOX PROVIDED ABOVE CEILING. CONNECT TO PREWIRED LABELED CIRCUITS. ENSURE CIRCUITS ARE LABELED CORRECTLY FOR EACH PREWIRED OUTLET PROVIDED IN EACH CHASE.

E17. DROP CORD RECEPTACLE FROM A FLUSH MOUNTED CEILING BOX. ASSEMBLY PART ##12360-0910 WILL CONSIST OF A FLUSH CEILING OUTLET BOX AND A TWIST-LOCK PENDANT RECEPTACLE, CORDS, STRAIN RELIEF, AND A TWIST-LOCK PLUG AS NOTED ON PLAN. CONTACT BRIDGID DEFRAMCESHI EMAIL: BRIDGID1985@GMAIL.COM (800-639-7584) TO PURCHASE DROP CORD/RECEPTACLE.

POWER PLAN GENERAL NOTES

1. ALL SECURITY, POS, MUSIC, COMMUNICATIONS, AND POWER ROUGH-IN SHALL BE INSTALLED DURING THE FRAMING/ROUGH-IN PHASE OF CONSTRUCTION.
2. REFER TO KITCHEN EQUIPMENT SHEETS FOR EQUIPMENT ELECTRICAL ROUGH-IN ELEVATIONS ABOVE FINISHED FLOOR.
3. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH PULL STRING.
4. PROVIDE INSULATED BUSHING AT TERMINATION POINTS OF ALL CONDUITS FOR LOW VOLTAGE WIRING.
5. 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.

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A & E Firm

Plans Prepared By:
CPH Consulting, LLC
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED PROFESSIONAL No. 18054 ENGINEER GREGORY D. TAYLOR

CHICK-FIL-A CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: P13 SE ALL
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

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CONSULTANT PROJECT #	C29119
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DATE	03/27/2023
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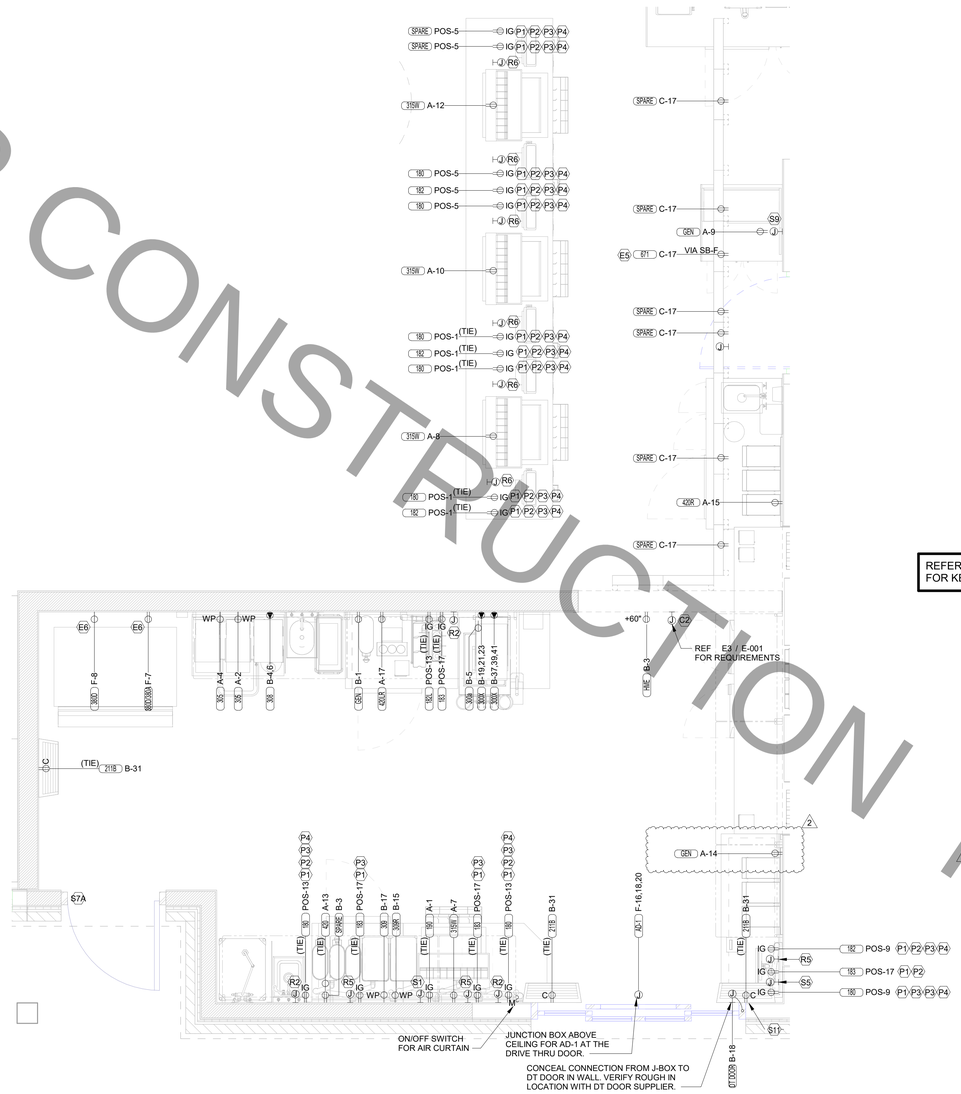
SHEET
ENLARGED KITCHEN POWER PLAN

SHEET NUMBER
E-301

FOR CONSTRUCTION

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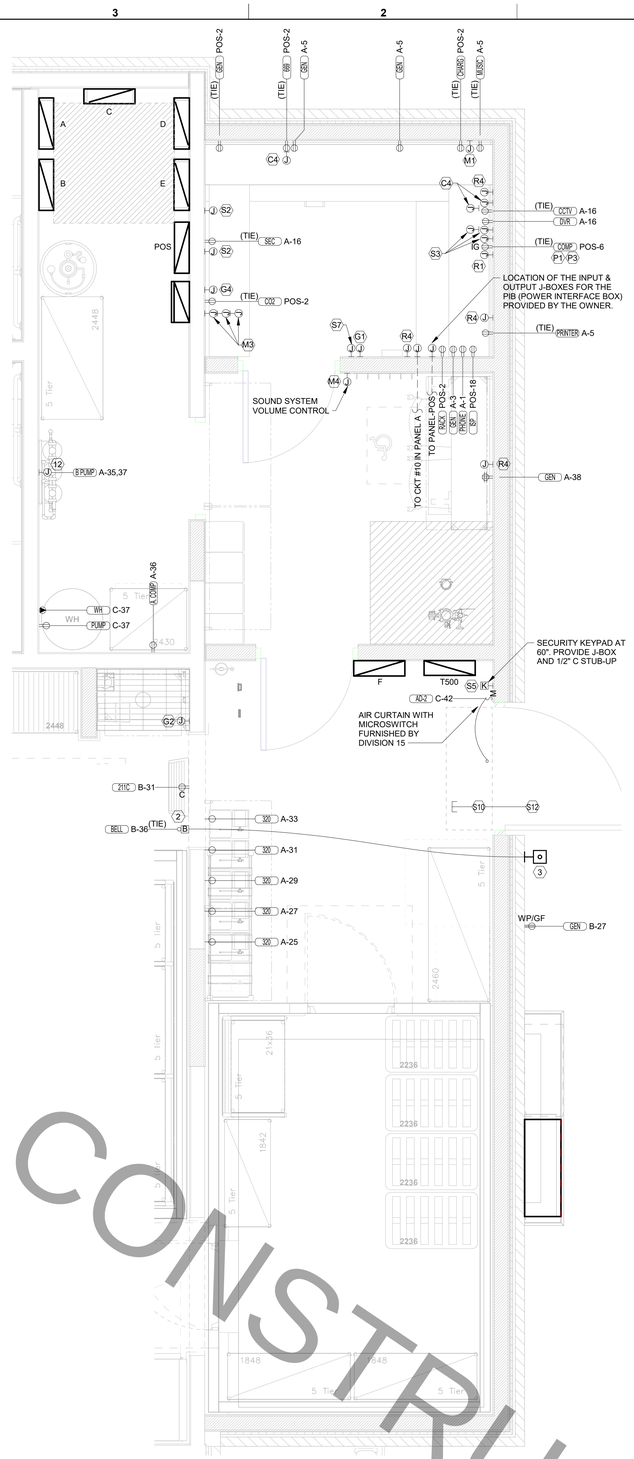
FOR CONSTRUCTION



A3 ENLARGED SERVING AREA POWER PLAN

1/2" = 1'-0"

REFER TO SHEET E-003
FOR KEYNOTES



C1 ENLARGED BOH POWER PLAN

1/2" = 1'-0"

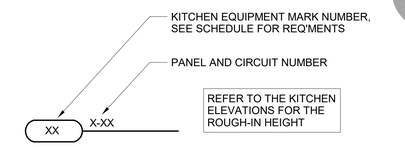
NOTE FOR POS GF IN KITCHEN:
THE CONTRACTOR SHALL PROVIDE GROUND FAULT PROTECTION FOR ALL 120 VOLT, 15 AND 20 AMP ISOLATED GROUND RECEPTACLE OUTLET BRANCH CIRCUITS IN THE KITCHEN/FOOD PREPARATION AREAS. GROUND FAULT PROTECTION SHALL BE PROVIDED AT THE BREAKER VIA A GROUND FAULT TYPE BRANCH BREAKER. (GFCI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

GFCI REQUIREMENTS PER 2017 NEC:

THE CONTRACTOR SHALL PROVIDE GROUND FAULT PROTECTION FOR ALL RECEPTACLE OUTLET BRANCH CIRCUITS (IN ADDITION TO WHAT IS INDICATED IN THESE DOCUMENTS FOR 15 AND 20 AMP, 120 VOLT RECEPTACLES) IN THE KITCHEN/FOOD PREPARATION AREAS IN ACCORDANCE WITH THE 2017 EDITION OF THE NEC.

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).

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

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Plans Prepared By :
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Licenses:
Eng. C.O.A. No. 3215
Survey L.B. No. 7143
Arch. Lic. No. AA2600926
Lndscp. Lic. No. LC0000298

ALABAMA LICENSED
No. 18054
PROFESSIONAL
ENGINEER
GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 ALL
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	10-26-2021	PERMIT REV#1
2	03-22-2022	CONSTRUCTION REVISION #1

PERMIT

CONSULTANT PROJECT # C29119
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SHEET
ENLARGED SERVING AND BOH POWER PLAN

SHEET NUMBER
E-302

BIM 360://AL_01530_Cullman_2021-2_FSR\01530_Cullman_Remodel_ELE.rvt
3/23/2022 4:45:06 PM
50-S03-01530-E-302-ENLARGED SERVING AND BOH POWER PLAN

POWER PLAN KEYNOTES

2. PROVIDE EDWARDS #340-4N5 VIBRATING 4" DIAMETER BELL. THE BELL SHALL BE RATED AT 120 VOLTS.
3. 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 SWITCH PLATE.
4. 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.
6. 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.
8. SB6000 PANEL ENCLOSURE WITH 3 LITTLEFUSE SHOCK BLOCK GFCI PROTECTION DEVICES AND SB6100 PANEL ENCLOSURE 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.
9. ONE 3" ISP SERVICE CONDUIT. EXTEND WITH PULL STRING FROM J-BOX TO SUPPLIER'S SOURCE, REFER TO ELECTRICAL SITE PLAN FOR ADDITION INFORMATION.
11. 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 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"C 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.
12. PROVIDE JUNCTION BOX AT 8"-0" AFF WITH CONDUIT AND CONDUCTORS TO PANELBOARD FOR FUTURE CONNECTION TO BOOSTER PUMP. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

SECURITY KEYNOTES

S1. 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.
S2. 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.
S3. PROVIDE A SINGLE-GANG JUNCTION BOX WITH A 1.5" CONDUIT STUBBED UP INTO ACCESSIBLE CEILING SPACE WITH A BUSHING ON THE CONDUIT END FOR THE CCTV MONITOR AND DVR LOCATION.
S5. PROVIDE SINGLE GANG BOX WITHOUT COVER PLATE. EXTEND 1/2" CONDUIT UP IN WALL TO ABOVE ACCESSIBLE CEILING.
S10. PROVIDE SINGLE GANG JUNCTION BOX WITH STAINLESS STEEL COVER PLATE MOUNTED ABOVE THE CEILING SPACE AND ABOVE ON THE INTERIOR SIDE OF THE REAR DOOR. ROUTE 1" CONDUIT FROM THE BOX TO THE "S12" BOX NOTED BELOW.
S11. EXTEND 1/2" CONDUIT FROM WINDOW'S FRAME MULLION (RIGHT SIDE) TO ABOVE ACCESSIBLE CEILING.
S12. 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.

COMMUNICATIONS KEYNOTES

C2. 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.
C4. 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.
C5. PROVIDE SINGLE-GANG JUNCTION BOX WITH A 3/4" EMPTY CONDUIT STUBBED UP INTO THE ACCESSIBLE CEILING SPACE FOR FUTURE MENU BOARD CABLES.

MUSIC KEYNOTES

M1. 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.
M3. 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.
M4. 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.

POS DATA KEYNOTES

R1. 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.
R2. 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.
R3. PROVIDE A 2" CONDUIT FROM FACE OF WALL AND EXTEND CONDUIT TO JUNCTION BOX IN CELING 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.
R4. 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.
R5. 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.
R6. 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.

ENLARGED POWER PLAN KEYNOTES

E6. SEE THE ROOF ELECTRICAL PLAN FOR THE LOCATION OF THE ICE MAKER CONDENSERS AND ANY ADDITIONAL REQUIREMENTS.
E13. JUNCTION BOX ABOVE CEILING FOR AD-1 AT THE DRIVE-THRU WINDOW.

POS POWER KEYNOTES

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 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.
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.

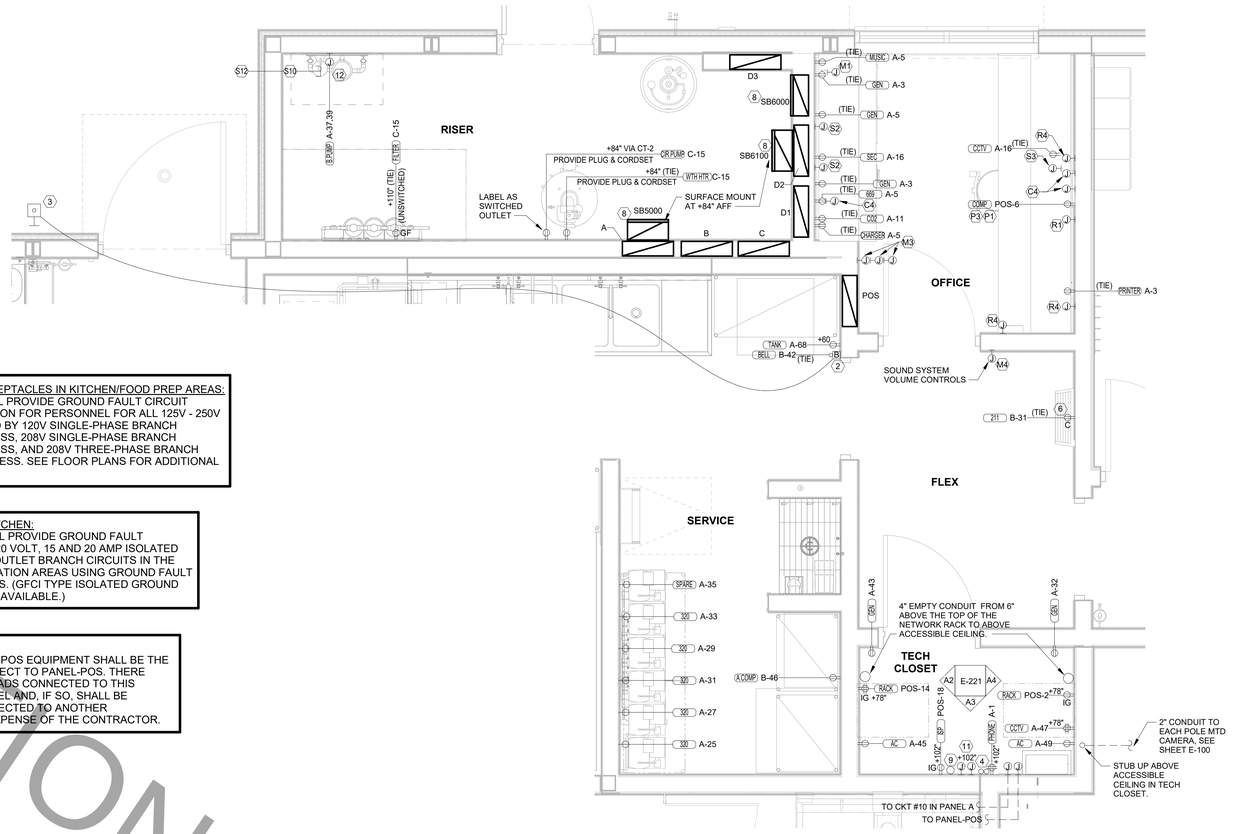
POWER PLAN GENERAL NOTES

1. ALL SECURITY, POS, MUSIC, COMMUNICATIONS, AND POWER ROUGH-IN SHALL BE INSTALLED DURING THE FRAMING/ROUGH-IN PHASE OF CONSTRUCTION.
2. REFER TO KITCHEN EQUIPMENT SHEETS FOR EQUIPMENT ELECTRICAL ROUGH-IN ELEVATIONS ABOVE FINISHED FLOOR.
3. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH PULL STRING.
4. PROVIDE INSULATED BUSHING AT TERMINATION POINTS OF ALL CONDUITS FOR LOW VOLTAGE WIRING.
5. 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.

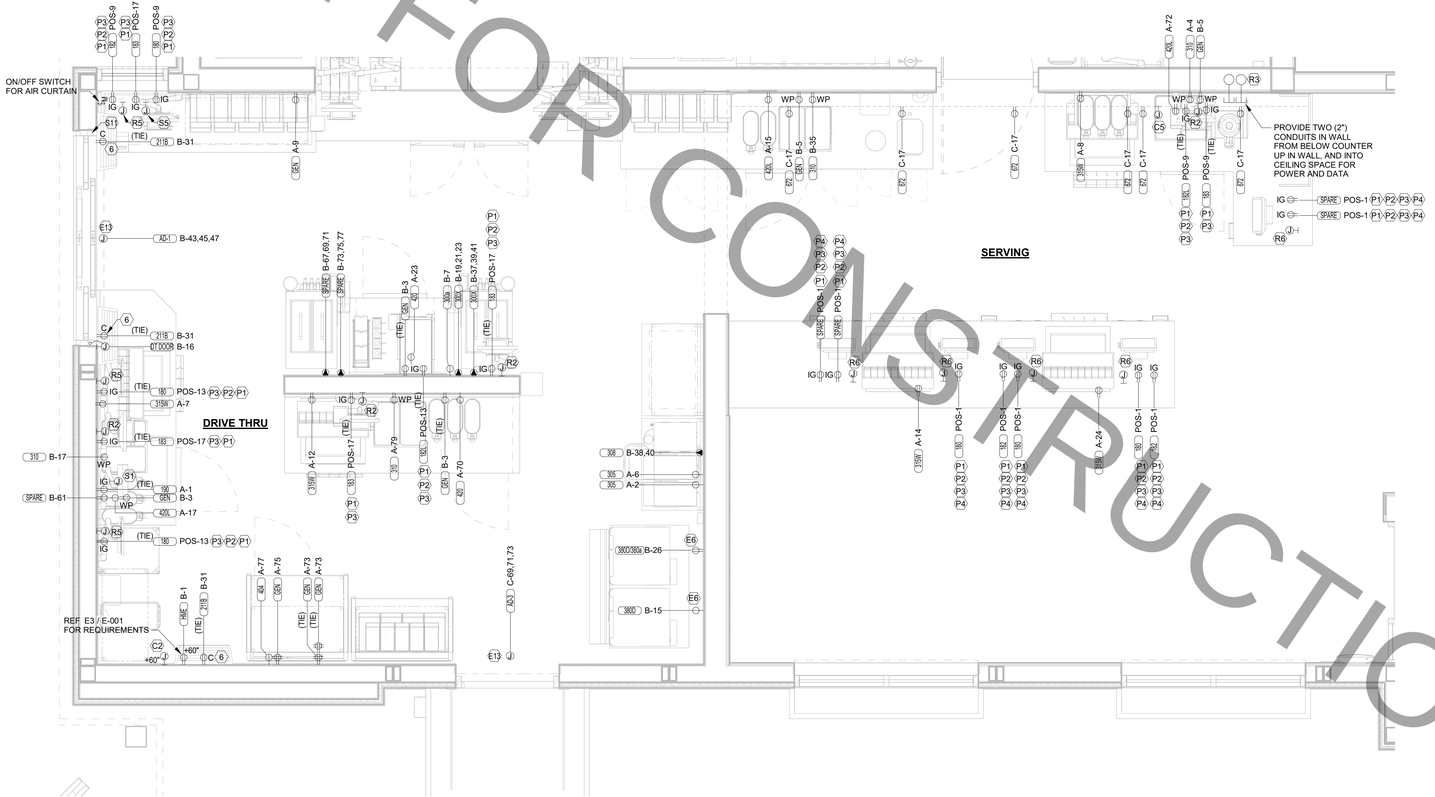
NOTE FOR GF TYPE RECEPTACLES IN KITCHEN/FOOD PREP AREAS:
THE CONTRACTOR SHALL PROVIDE GROUND FAULT CIRCUIT INTERRUPTER PROTECTION FOR PERSONNEL FOR ALL 125V - 250V RECEPTACLES SUPPLIED BY 120V SINGLE-PHASE BRANCH CIRCUITS 50 AMPS OR LESS, 208V SINGLE-PHASE BRANCH CIRCUITS 50 AMPS OR LESS, AND 208V THREE-PHASE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

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 USING GROUND FAULT TYPE BRANCH BREAKERS. (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.



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



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

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State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED ENGINEER No. 18054 PROFESSIONAL GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: P13 SE LRG
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

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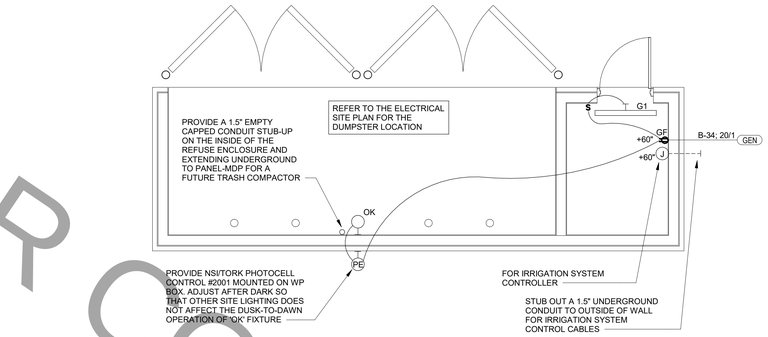
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DRAWN BY	KCL

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SHEET
ENLARGED SERVING AND BOH POWER PLAN

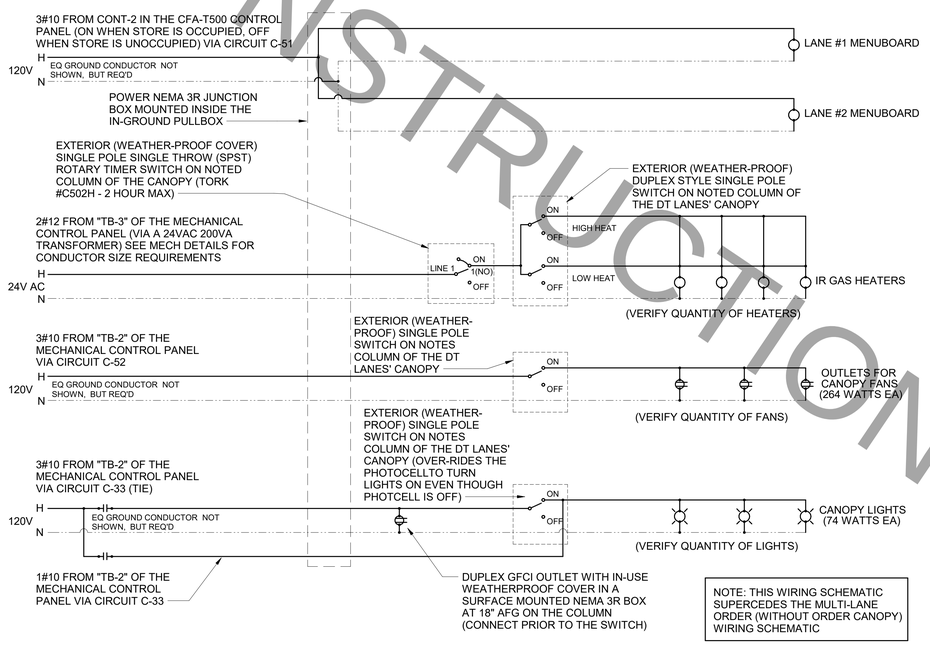
SHEET NUMBER
E-302

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D1 REFUSE ENCLOSURE ELECTRICAL PLAN

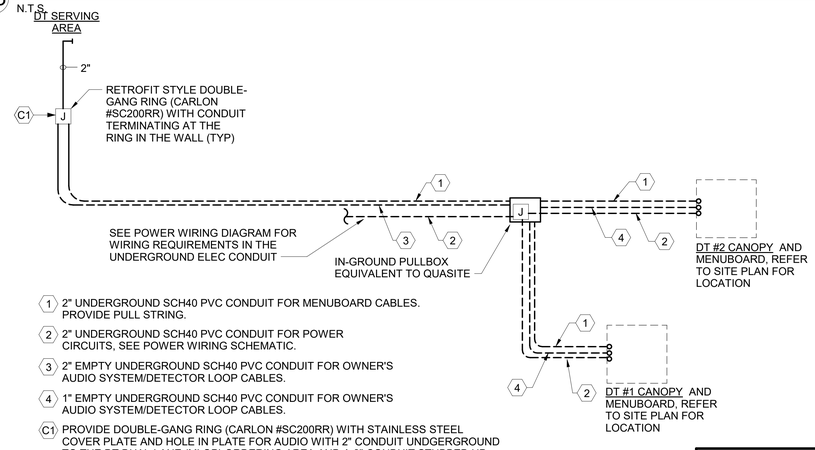
1/4" = 1'-0"



NOTE: THIS WIRING SCHEMATIC SUPERCEDES THE MULTI-LANE ORDER (WITHOUT ORDER CANOPY) WIRING SCHEMATIC

B3 MLOP DT REQUIREMENTS - NO ORDER F2F CANOPY

N.T.S.



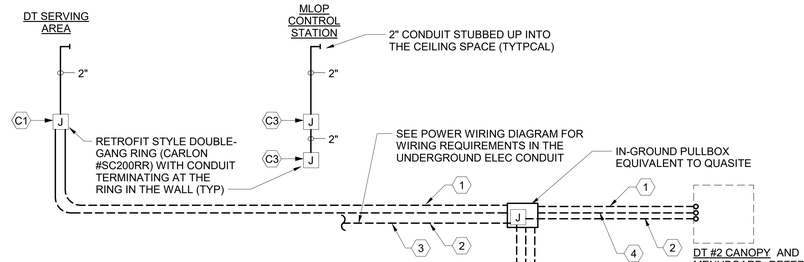
1. 2" UNDERGROUND SCH40 PVC CONDUIT FOR MENUBOARD CABLES. PROVIDE PULL STRING.
2. 2" UNDERGROUND SCH40 PVC CONDUIT FOR POWER CIRCUITS, SEE POWER WIRING SCHEMATIC.
3. 2" EMPTY UNDERGROUND SCH40 PVC CONDUIT FOR OWNER'S AUDIO SYSTEM/DETECTOR LOOP CABLES.
4. 1" EMPTY UNDERGROUND SCH40 PVC CONDUIT FOR OWNER'S AUDIO SYSTEM/DETECTOR LOOP CABLES.

C1. PROVIDE DOUBLE-GANG RING (CARLON #SC200RR) WITH STAINLESS STEEL COVER PLATE AND HOLE IN PLATE FOR AUDIO WITH 2" CONDUIT UNDGERGROUND TO THE DT DUAL-LANE (MLOP) ORDERING AREA AND A 2" CONDUIT STUBBED UP INTO THE CEILING SPACE.

NOTE FOR MLOP WITH ORDER AREA CANOPY:
THE LANE CONTROL SWITCH WILL NOT BE REQUIRED FOR STORES WITH A ORDER AREA CANOPY WHICH COVERS THE ORDER AREA'S MENUBOARDS. THIS CANOPY WILL NOT HAVE AN OPEN/CLOSED SIGNAL LIGHT ON THE CANOPY'S LANES. SEE DUAL DT LANES CANOPY POWER WIRING SCHEMATIC FOR REQUIREMENTS.

A3 MLOP DT REQUIREMENTS - WITH ORDER AREA F2F CANOPY

NO SCALE

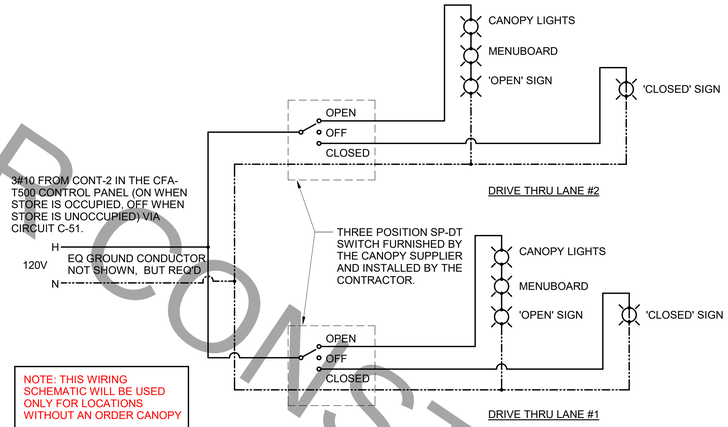


1. 2" UNDERGROUND SCH40 PVC CONDUIT FOR MENUBOARD CABLES. PROVIDE PULL STRING.
2. 2" UNDERGROUND SCH40 PVC CONDUIT FOR POWER CIRCUITS, SEE POWER WIRING SCHEMATIC.
3. 2" EMPTY UNDERGROUND SCH40 PVC CONDUIT FOR OWNER'S AUDIO SYSTEM/DETECTOR LOOP CABLES.
4. 1" EMPTY UNDERGROUND SCH40 PVC CONDUIT FOR OWNER'S AUDIO SYSTEM/DETECTOR LOOP CABLES.

C1. PROVIDE DOUBLE-GANG RING (CARLON #SC200RR) WITH STAINLESS STEEL COVER PLATE AND HOLE IN PLATE FOR AUDIO WITH 2" CONDUIT UNDGERGROUND TO THE DT DUAL-LANE (MLOP) ORDERING AREA AND A 2" CONDUIT STUBBED UP INTO THE CEILING SPACE. ONE RING SHALL BE ABOVE THE COUNTER AND ONE BELOW WITH A 2" CONDUIT BETWEEN THE RINGS.

C3. PROVIDE TWO DOUBLE-GANG RINGS (CARLON #SC200RR) WITH STAINLESS STEEL COVER PLATE AND HOLE IN PLATE FOR AUDIO WITH 2" CONDUIT UNDGERGROUND TO THE DT DUAL-LANE (MLOP) ORDERING AREA AND A 2" CONDUIT STUBBED UP INTO THE CEILING SPACE. ONE RING SHALL BE ABOVE THE COUNTER AND ONE BELOW WITH A 2" CONDUIT BETWEEN THE RINGS.

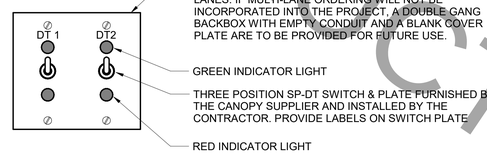
MULTI-LANE DRIVE-THRU ORDER AREA CONDUIT REQUIREMENTS



NOTE: THIS WIRING SCHEMATIC WILL BE USED ONLY FOR LOCATIONS WITHOUT AN ORDER CANOPY

MULTI-LANE DRIVE-THRU ORDER AREA POWER WIRING SCHEMATIC

NOTE: THIS CONTROL STATION WILL NOT BE PROVIDED OR REQUIRED WHEN A PROJECT HAS A DT ORDER AREA CANOPY WHICH COVERS THE MENUBOARD AREA.



3 POSITION DT LANE CONTROL STATION

A1 MLOP DT REQUIREMENTS - NO ORDER AREA F2F CANOPY

NO SCALE

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Lndscp. Lic. No. LC0000298

ALABAMA LICENSED No. 18054 PROFESSIONAL ENGINEER GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 ALL
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

CONSULTANT PROJECT #	C29119
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SHEET
DT ORDERING AREA DETAILS & REFUSE ENCLOSURE PLAN
SHEET NUMBER
E-303

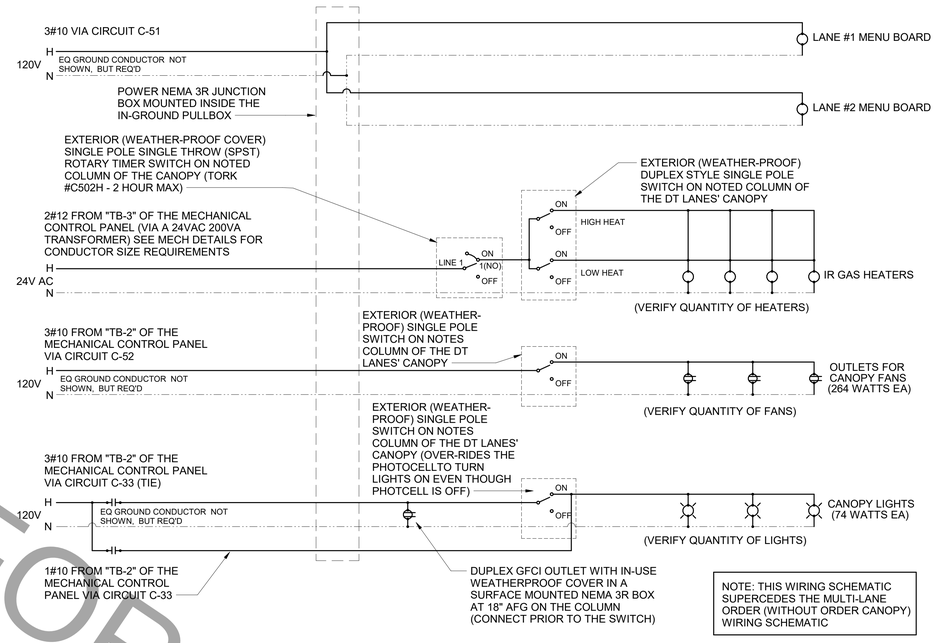
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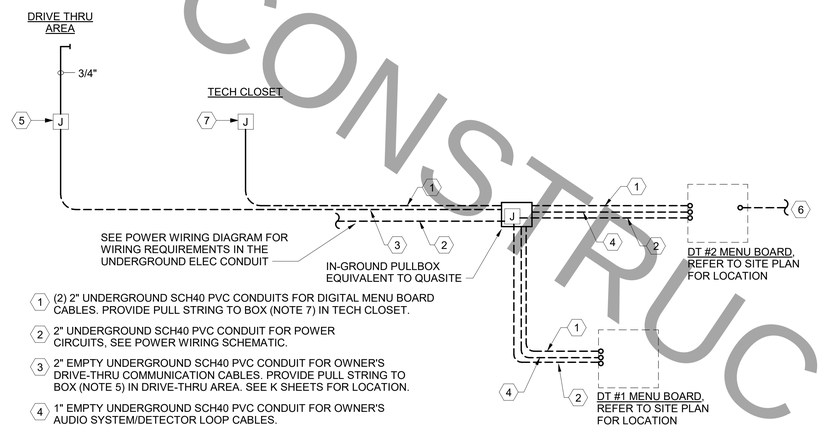
D4 REFUSE ENCLOSURE ELECTRICAL PLAN

1/4" = 1'-0"



B4 MULTI-LANE ORDER CANOPY POWER WIRING SCHEMATIC

N.T.S.



1. (2) 2" UNDERGROUND SCH40 PVC CONDUITS FOR DIGITAL MENU BOARD CABLES. PROVIDE PULL STRING TO BOX (NOTE 7) IN TECH CLOSET.
2. 2" UNDERGROUND SCH40 PVC CONDUIT FOR POWER CIRCUITS, SEE POWER WIRING SCHEMATIC.
3. 2" EMPTY UNDERGROUND SCH40 PVC CONDUIT FOR OWNER'S DRIVE-THRU COMMUNICATION CABLES. PROVIDE PULL STRING TO BOX (NOTE 5) IN DRIVE-THRU AREA. SEE K SHEETS FOR LOCATION.
4. 1" EMPTY UNDERGROUND SCH40 PVC CONDUIT FOR OWNER'S AUDIO SYSTEM/DETECTOR LOOP CABLES.
5. HME BOX IN DRIVE THRU AREA. REF E3 / E-001
6. 2" CONDUIT FROM MENU BOARD TO DUMPSTER ENCLOSURE ROOM FOR WIFI AND CAMERA CABLES. REF D1 / E-303
7. PROVIDE 6X6 BOX AT 48" AFF. FOR DIGITAL MENU BOARD CABLES.

A4 MLOP DT REQUIREMENTS - WITH ORDER AREA F2F CANOPY

NO SCALE

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State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED No. 18054 PROFESSIONAL ENGINEER GREGORY D. TAYLOR

CHICK-FIL-A CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: P13 SE ALL
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

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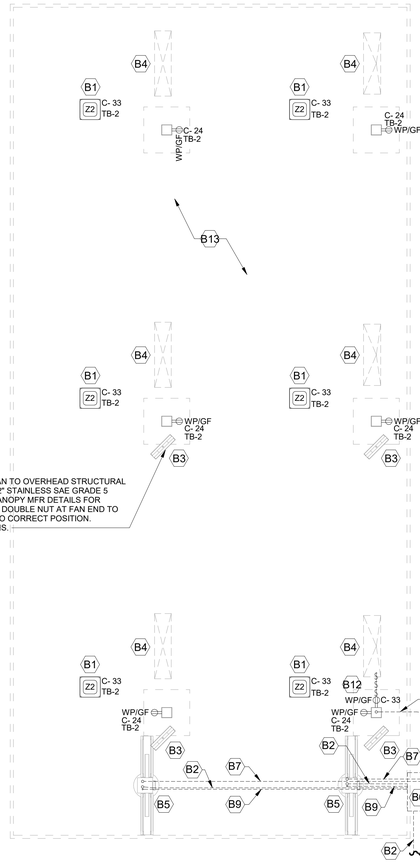
SHEET
DT ORDERING AREA DETAILS & REFUSE ENCLOSURE PLAN
SHEET NUMBER

E-303

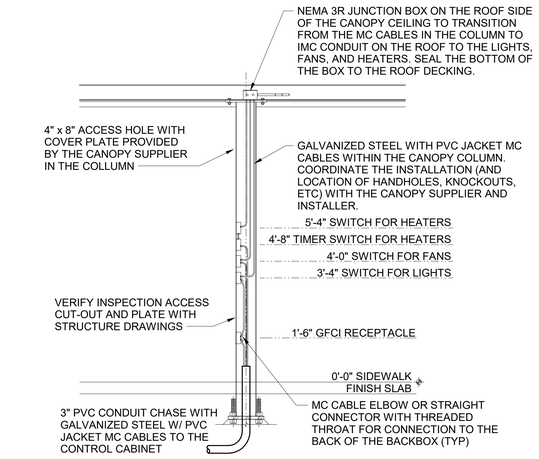
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ORDER CANOPY ELECTRICAL KEYNOTES:

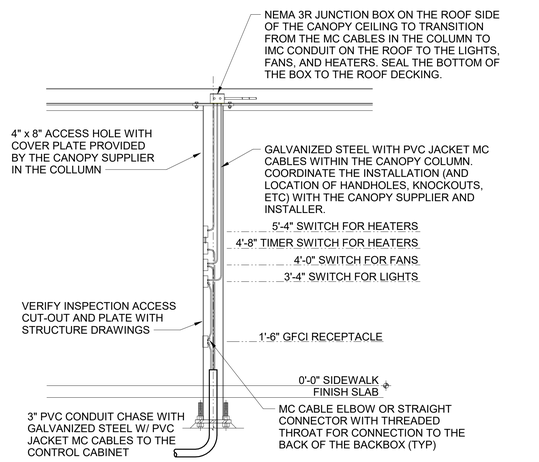
- (B1) CEILING LIGHT PROVIDED BY CANOPY SUPPLIER AND INSTALLED BY E.C.
- (B2) 2" EMPTY UNDERGROUND SCH40 PVC CONDUIT FOR MENUBOARD CABLES. PROVIDE PULL STRING.
- (B3) AIR CIRCULATING FAN (WITH INTEGRAL ON-OFF SWITCH) PROVIDED BY OTHERS. PROVIDE A DUPLEX OUTLET (WITH IN-USE COVER PLATE) FLUSH MOUNTED IN CUT-OUT AT TOP OF COLUMN FOR FAN'S PLUG AND CORD. OUTLET TO BE ON DOWNSTREAM SIDE OF COLUMN AND AWAY FROM ONCOMING VEHICLES' VIEW.
- (B4) INFARED GAS HEATER WITH INTEGRAL ON-OFF SWITCH PROVIDED BY OTHERS.
- (B5) MENUBOARD PROVIDED BY OTHERS.
- (B6) PROVIDE IN-GROUND QUAZITE PULLBOX FOR MLOP DATA CABLES WITH POWER NEMA 3R JUNCTION BOX MOUNTED INSIDE THE PULLBOX.
- (B7) 2" UNDERGROUND SCH40 PVC CONDUIT WITH POWER CONDUCTORS, SEE WIRING SCHEMATIC.
- (B8) 2" EMPTY UNDERGROUND SCH40 PVC CONDUIT FOR OWNER'S AUDIO SYSTEM/DETECTOR LOOP CABLES.
- (B9) 1" EMPTY UNDERGROUND SCH40 PVC CONDUIT FOR OWNER'S AUDIO SYSTEM/DETECTOR LOOP CABLES.
- (B10) 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 INFARED GAS HEATERS.
- (B11) NOT USED.
- (B12) 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 FLUSH MOUNTED METAL SINGLE GANG BOXES FOR LOCAL ON-OFF CONTROL OF THE FAN, TWO-STAGE HEATERS, AND CANOPY LIGHTS. SEE WIRING SCHEMATIC AND CANOPY COLUMN DETAILS FOR FURTHER INFORMATION. ALL SURFACE MOUNTED ITEMS AND COVER PLATES TO BE FIELD PAINTED MATTE BLACK.
- (B13) 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.



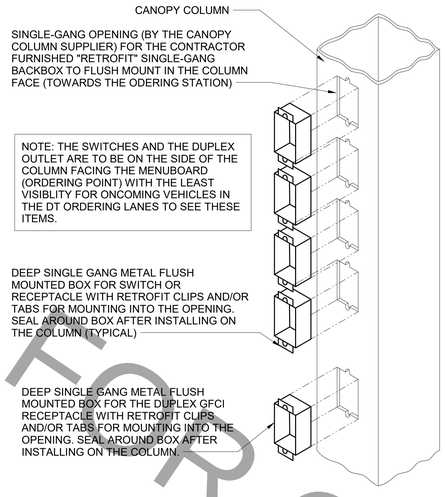
B4 MLOP ORDER CANOPY POWER PLAN
1/4" = 1'-0"



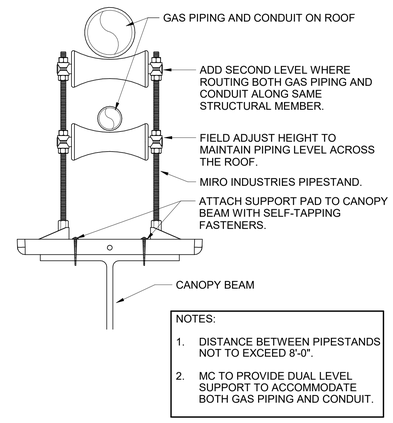
D2 MLOP ORDER CANOPY COLUMN SECTION
N.T.S.



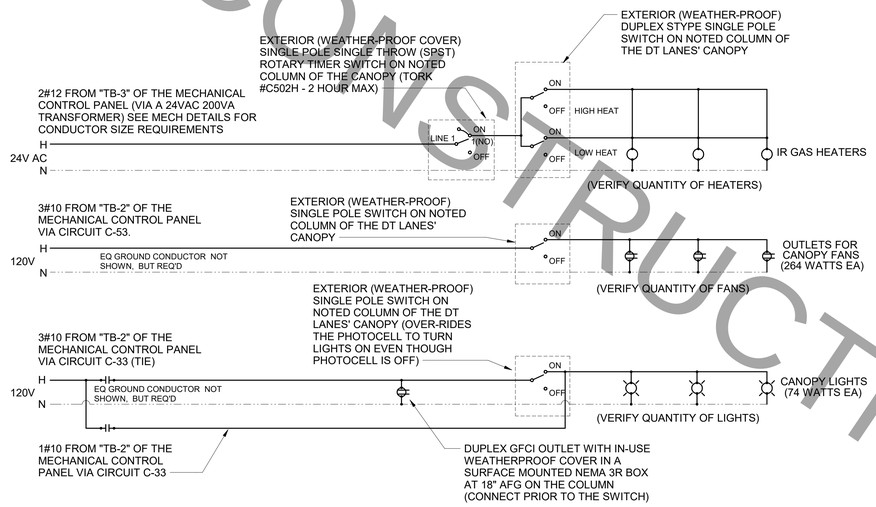
D1 MEAL DELIVERY CANOPY COLUMN SECTION
N.T.S.



C3 CANOPY COLUMN ISOMETRIC
N.T.S.



C1 PIPING SUPPORT ON CANOPY
1/4" = 1'-0"



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

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ALABAMA LICENSED
No. 18054
PROFESSIONAL
ENGINEER
GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 ALL
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

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DATE	10-10-21
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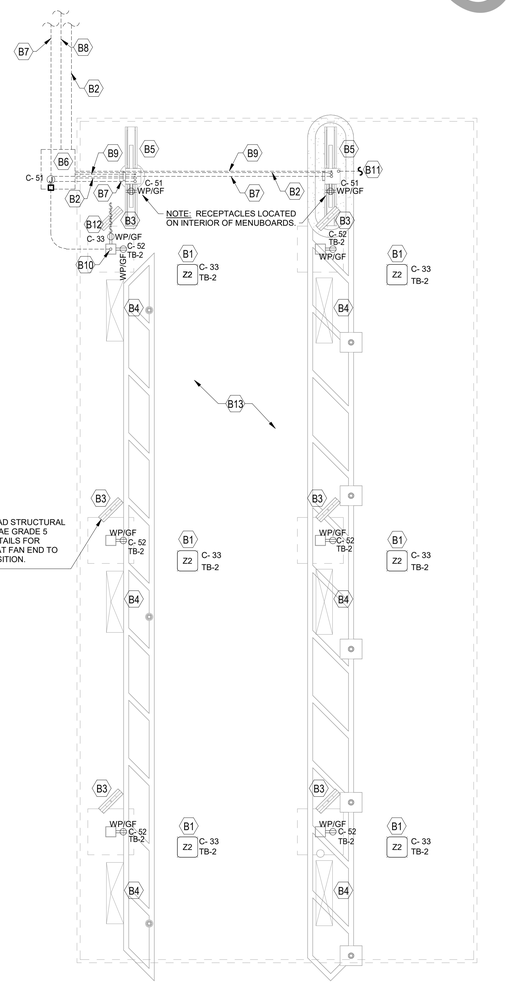
SHEET
ORDER CANOPY PLAN AND DETAILS

SHEET NUMBER
E-304

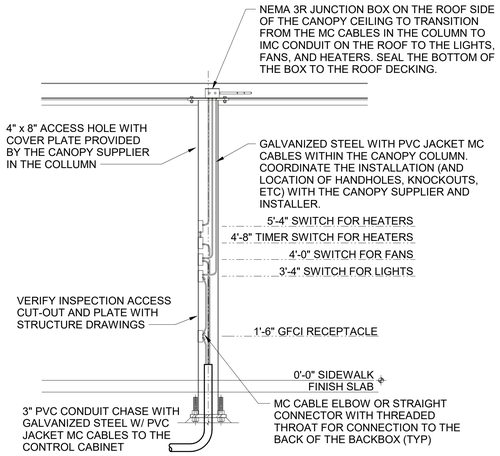
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50-S03-01530-E-304-ORDER CANOPY PLAN AND DETAILS

ORDER CANOPY ELECTRICAL KEYNOTES:

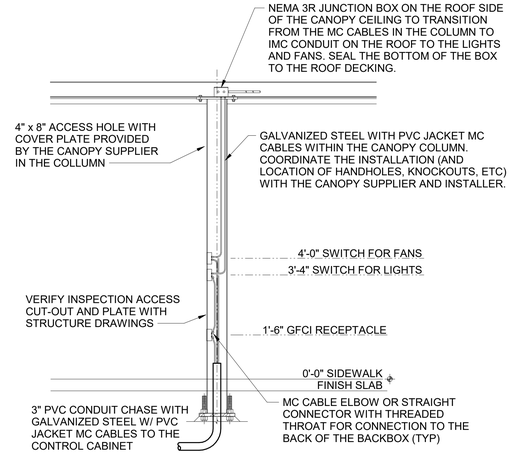
- B1 CEILING LIGHT PROVIDED BY CANOPY SUPPLIER AND INSTALLED BY E.C.
- B2 (2) 2" UNDERGROUND SCH40 PVC CONDUIT FOR MENU BOARD FIBER. PROVIDE PULL STRING. STUB UP INTO ACCESSIBLE CEILING SPACE AT TECH CLOSET OR OFFICE IF NO TECH CLOSET.
- B3 AIR CIRCULATING FAN (WITH INTEGRAL ON-OFF SWITCH) PROVIDED BY OTHERS. PROVIDE A DUPLEX OUTLET (WITH IN-USE COVER PLATE) FLUSH MOUNTED IN CUT-OUT AT TOP OF COLUMN FOR FAN'S PLUG AND CORD. OUTLET TO BE ON DOWNSTREAM SIDE OF COLUMN AND AWAY FROM ONCOMING VEHICLES' VIEW.
- B4 INFRARED GAS HEATER WITH INTEGRAL ON-OFF SWITCH PROVIDED BY OTHERS.
- B5 MENUBOARD PROVIDED BY OTHERS.
- B6 PROVIDE IN-GROUND QUAZITE PULLBOX FOR MLOP DATA CABLES WITH POWER NEMA 3R JUNCTION BOX MOUNTED INSIDE THE PULLBOX.
- B7 2" UNDERGROUND SCH40 PVC CONDUIT WITH POWER CIRCUITS, SEE WIRING SCHEMATIC.
- B8 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.
- B9 1" EMPTY UNDERGROUND SCH40 PVC CONDUIT FOR OWNER'S AUDIO SYSTEM/DETECTOR LOOP CABLES.
- B10 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.
- B11 2" CONDUIT FROM DRIVE-THRU MENU BOARD TO DUMPSTER ENCLOSURE ROOM FOR WIFI AND CAMERA CABLES.
- B12 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 FLUSH MOUNTED METAL SINGLE GANG BOXES FOR LOCAL ON-OFF CONTROL OF THE FAN, TWO-STAGE HEATERS, AND CANOPY LIGHTS. SEE WIRING SCHEMATIC AND CANOPY COLUMN DETAILS FOR FURTHER INFORMATION. ALL SURFACE MOUNTED ITEMS AND COVER PLATES TO BE FIELD PAINTED MATTE BLACK.
- B13 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.



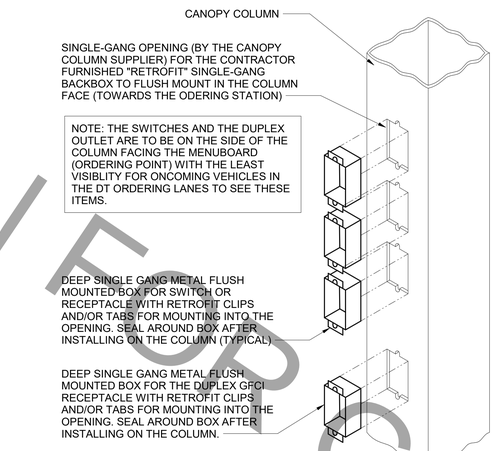
A4 MLOP ORDER CANOPY POWER PLAN
1/4" = 1'-0"



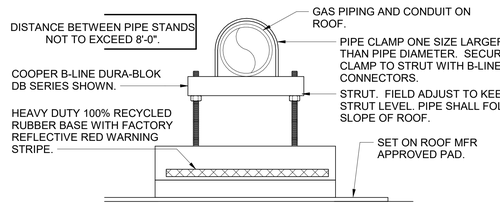
D2 MLOP ORDER CANOPY COLUMN SECTION
N.T.S.



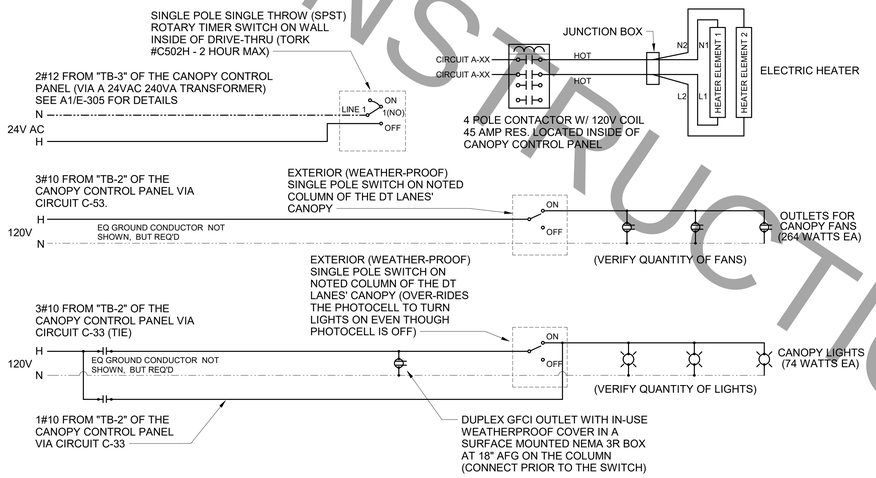
D1 MEAL DELIVERY CANOPY COLUMN SECTION
N.T.S.



C2 CANOPY COLUMN ISOMETRIC
N.T.S.



C1 PIPING SUPPORT ON CANOPY
1/4" = 1'-0"



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

FOR CONSTRUCTION

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

cph
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A Full Service
A & E Firm

Plans Prepared By:
CPH Consulting, LLC
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED PROFESSIONAL ENGINEER GREGORY D. TAYLOR No. 18054

CHICK-FIL-A
CULLMAN (AL)

1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: P13 SE ALL
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

CONSULTANT PROJECT # C29119
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DATE 03/27/2023
DRAWN BY KCL

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SHEET
ORDER CANOPY PLAN AND DETAILS

SHEET NUMBER
E-304

Autodesk Docs://AL_01530_Cullman_2021.2_FSR/01530_Cullman_ELE.rvt
3/20/2023 11:34:48 AM
50-SE-01530-E-304-ORDER CANOPY PLAN AND DETAILS

FOR CONSTRUCTION

SEQUENCE OF OPERATION

STORE SWITCH IN "STORE OPEN" POSITION

A. INFRARED HEATERS ARE ENABLED.
B. COOLING FANS ARE ENABLED.
C. LIGHTS ARE ENABLED.
D. MASTER AUTO/OFF SWITCH FOR IR HEATERS AND COOLING FANS. PROVIDE SINGLE POINT ON/OFF CONTROL.

STORE SWITCH IN "STORE CLOSED" POSITION

A. INFRARED HEATERS ARE DISABLED.
B. COOLING FANS ARE DISABLED.
C. LIGHTS ARE DISABLED.

NOTES

1. CONTRACTOR SHALL PURCHASE CONTROL PANEL DIRECT FROM SUNCOAST ENVIRONMENTAL CONTROLS (727-544-6679).
2. COORDINATE WITH GC TO ESTABLISH LOCATION TO MOUNT PANEL IN A CONDITIONED SPACE INSIDE THE BUILDING. SUGGESTED LOCATION IS SURFACE MOUNTED DIRECTLY ABOVE THE LOCATION OF THE CFA-T500 CONTROL PANEL.
3. THE SUNCOAST ENVIRONMENTAL CONTROLS (SEC) IS TO BE SURFACE MOUNTED, UNLESS OTHERWISE REQUESTED TO SUNCOAST.
4. PROVIDE LAMINATED LEGEND SHOWING NAMED LOCATIONS OF FANS AND IR HEATERS. MOUNT LEGEND AT PANEL.

LEGEND

SEC SUNCOAST ENVIRONMENTAL CONTROLS (SUPPLIER OF CONTROL PANELS)
LOW VOLTAGE BY CONTRACTOR
LOW VOLTAGE WIRING BY SUNCOAST
120 VOLT BY CONTRACTOR
120 VOLT BY SUNCOAST

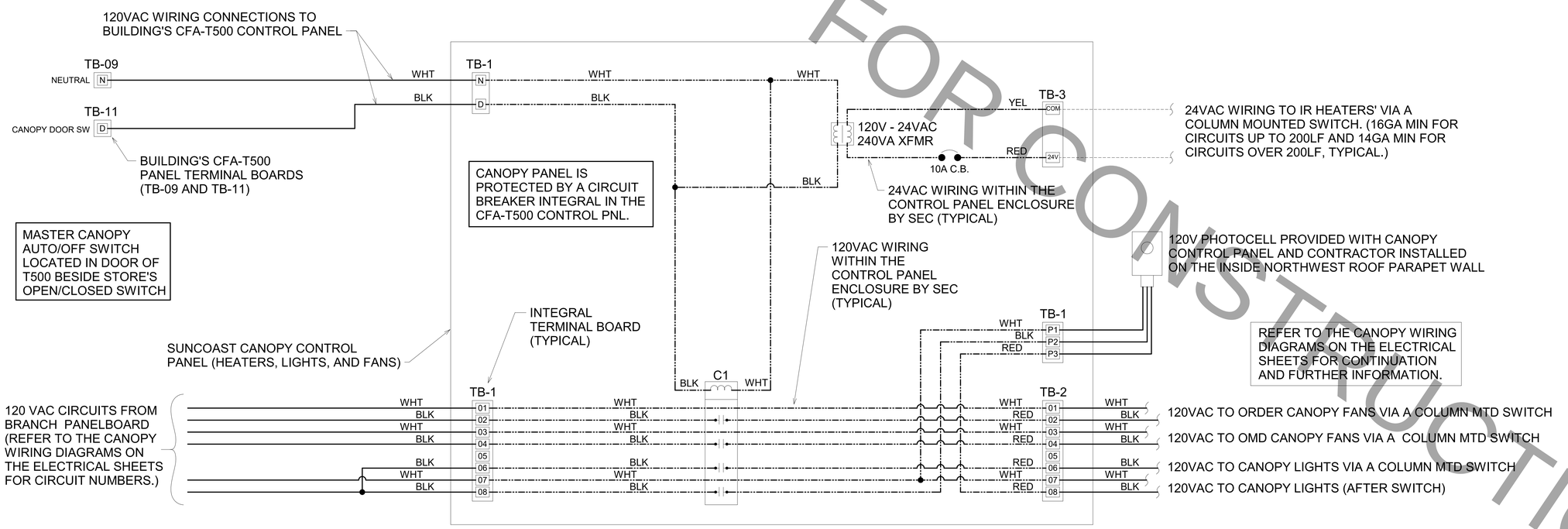
SUNCOAST RELAYS CONTACTORS SHOWN IN DE-ENERGIZED "STORE UNOCCUPIED" CONDITION. RELAYS AND CONTACTORS FACTORY INSTALLED BY SEC IN CONTROL PANEL. RELAYS AND CONTACTORS ENERGIZED VIA "STORE OPEN/CLOSED" SWITCH.

CIRCULATING FAN SCHEDULE

MARK	CFM	RPM	HP	MODEL	MANUFACTURER
CF	5,750	1,625	1/8	U18TE-HD	TPI

REMARKS
1. ALUMINUM PADDLE WITH STEEL HUB/SPIDER PROPELLER.
2. 360° ROTATING HEAD HORIZONTALLY AND VERTICALLY.
3. OSHA COMPLIANT DOUBLE LOCKING, COATED STEEL WIRE GUARD.
4. 3-SPEED, TOTALLY ENCLOSED, PERMANENTLY LUBRICATED BALL BEARING MOTOR.
5. FACTORY PRE-WIRED POWER CORD.
6. PROVIDE FACTORY WALL MOUNTING BRACKET. SEE FAN MOUNTING DETAIL ON CANOPY SHOP DRAWINGS FOR TYPICAL INSTALLATION INSTRUCTIONS.
7. PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. MOUNT TO UNDERSIDE OF CANOPY OR EXISTING OVERHANG, FACING DOWNWARD, 12" LATERALLY FROM THE FAN LOCATION.
8. REMOVE PULL CHAIN EXTENSION AT ON/OFF SWITCH IN THE FIELD.
9. FACTORY CERTIFIED FOR OUTDOOR INSTALLATION.

TPI FAN PACKAGE - THE 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.



A1 SUNCOAST CANOPY CONTROL PANEL WIRING DIAGRAM
NO SCALE

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

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Plans Prepared By :
CPH, Inc.
Licenses:
Eng. C.O.A. No. 3215
Survey L.B. No. 7143
Arch. Lic. No. AA2600926
Lndscp. Lic. No. LC0000298

ALABAMA LICENSED No. 18054 PROFESSIONAL ENGINEER GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 ALL
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

CONSULTANT PROJECT # C29119
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SHEET
CANOPY CONTROL PANEL WIRING DIAGRAM

SHEET NUMBER
E-305

BIM 360://AL_01530_Cullman_2021.2_FSR#01530_Cullman_Remodel_ELE.rvt
3/23/2022 4:45:29 PM
50-S03-01530-E-305-CANOPY CONTROL PANEL WIRING DIAGRAM

FOR CONSTRUCTION

SEQUENCE OF OPERATION

STORE SWITCH IN "STORE OPEN" POSITION

A. INFRARED HEATERS ARE ENABLED.
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C. LIGHTS ARE ENABLED.
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C. LIGHTS ARE DISABLED.

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LEGEND

SEC — SUNCOAST ENVIRONMENTAL CONTROLS (SUPPLIER OF CONTROL PANELS)
- - - - LOW VOLTAGE BY CONTRACTOR
— — — LOW VOLTAGE WIRING BY SUNCOAST
——— 120 VOLT BY CONTRACTOR
——— 120 VOLT BY SUNCOAST

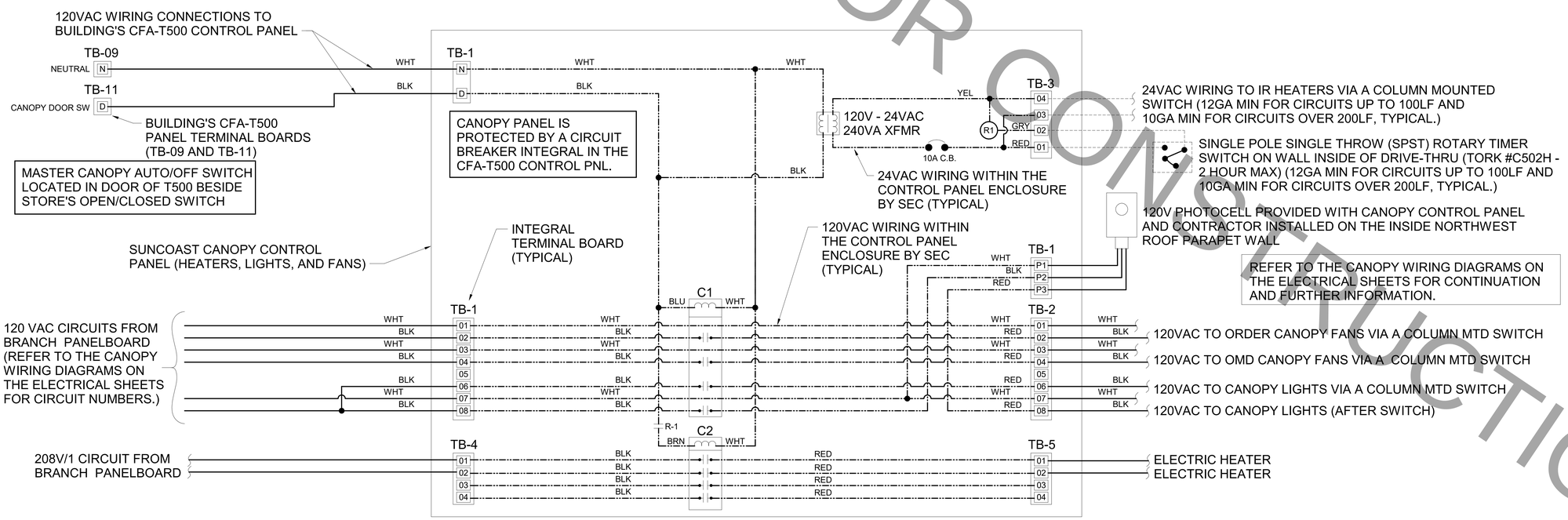
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CIRCULATING FAN SCHEDULE

MARK	CFM	RPM	HP	MODEL	MANUFACTURER
CF	5,750	1,625	1/8	U18TE-HD	TPI

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A1 SUNCOAST CANOPY CONTROL PANEL WIRING DIAGRAM
NO SCALE

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

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Plans Prepared By:
CPH Consulting, LLC
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED No. 18054 PROFESSIONAL ENGINEER GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: P13 SE ALL
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

CONSULTANT PROJECT # C29119
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SHEET
CANOPY CONTROL PANEL WIRING DIAGRAM

SHEET NUMBER
E-305

Autodesk Docs://AL_01530_Cullman_2021.2_FSR/01530_Cullman_ELE.rvt
3/20/2023 11:34:54 AM
50-SE-01530-E-305-CANOPY CONTROL PANEL WIRING DIAGRAM

Branch Panel: A

LOCATION:
SUPPLY FROM: MDP
MOUNTING: SURFACE
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
H	1	TELEPHONE DT VIDEO (190)	20 A	1	0.240 1.650			1	20 A	TEA BREWER (305)	2	I
	3	OFFICE GEN OUTLETS & PRINTER	20 A	1		0.540 1.020		1	20 A	DOUBLE LEMONADE BUBBLER (310)	4	I
	5	OFFICE GEN OUTLETS & MUSIC (669)	20 A	1			0.720 1.650	1	20 A	TEA BREWER (305)	6	I
H	7	DRINK TOWER (315W)	20 A	1	1.200 1.200			1	20 A	DRINK TOWER (315W)	8	I
	9	GENERAL OUTLET	20 A	1		0.180 1.571		1	20 A	PANEL-POS THRU PIB	10	M
I	11	GENERAL OUTLETS (CO2)	20 A	1			0.580 1.200	1	20 A	DRINK TOWER (315W)	12	I
H	13	U.C. REFRIG (421)	20 A	1	0.756 1.200			1	20 A	DRINK TOWER (315W)	14	I
I	15	U.C. REFRIG (420L)	20 A	1		0.564 0.240		1	20 A	SECURITY SYSTEM	16	L
I	17	U.C. REFRIG (420L)	20 A	1			0.564 1.244	3	15 A	COOLER CONDENSER/EVAP COIL (449)	18	LO
I	19	DOUBLE SANDWHICH SLIDE (563D)	20 A	1	1.090 1.244			--	--	--	20	--
I	21	SINGLE SANDWHICH SLIDE (563S)	20 A	1		0.548 1.140		--	--	--	22	--
I	23	U.C. REFRIG (420)	20 A	1			0.564 1.200	1	20 A	DRINK TOWER (315W)	24	I
	25	CARBONATOR (320)	20 A	1	0.744 1.752			3	35 A	FREEZER CONDENSER/EVAP COIL (410)	26	LO
	27	CARBONATOR (320)	20 A	1		0.744 1.908		--	--	--	28	--
	29	CARBONATOR (320)	20 A	1			0.744 1.908	--	--	--	30	--
	31	CARBONATOR (320)	20 A	1	0.744 0.180			1	20 A	GEN OUTLET TECH CLOSET	32	
	33	CARBONATOR (320)	20 A	1		0.744 0.500		1	20 A	FREEZER HEAT TAPE (410)	34	F
	35	SPARE/FUTURE CARBONATOR (320)	20 A	1			0.744 1.800	1	20 A	CIR A2 - HOT HOLDING CABINET (562A)	36	
	37	BOOSTER PUMP	20 A	2	1.144 0.660			1	20 A	CIR B2-HOT HOLDING CABINET (564B)	38	I
--	39	--	--	--		1.144 0.180		1	20 A	CIR C2-GEN OUTLET (122)	40	I
H	41	GENERAL OUTLETS	20 A	1			0.180 1.920	1	20 A	CIR D2-HOT HOLDING CABINET (580H)	42	I
	43	GEN OUTLET TECH CLOSET	20 A	1	0.180 0.564			1	20 A	CIR E2-U.C. REFRIG (420L)	44	I
	45	FUTURE/RACK AC TECH CLOSET	20 A	1		1.272 0.660		1	20 A	CIR F2-HOT HOLDING CABINET (564B)	46	I
	47	CCTV RACK TECH CLOSET	20 A	1			0.360 0.800	1	20 A	CIR G2-COLD RAIL (439L)	48	I
	49	FUTURE/RACK AC TECH CLOSET	20 A	1	1.272 2.496			2	30 A	CIR H2-SPARE/FUTURE (500B)	50	I
I	51	CIR A1-HOT HOLDING CABINET (562A)	20 A	1		1.920 2.496		--	--	--	52	--
I	53	CIR B1-VERTICAL TOASTER (500A)	20 A	1			1.800 2.667	3	30 A	RETHERMALIZER (592)	54	I
I	55	CIR C1-GENERAL OUTLET (122)	20 A	1	1.920 2.667			--	--	--	56	--
I	57	CIR D1-HOT HOLDING CABINET (580H)	20 A	1		0.180 2.667		--	--	--	58	--
I	59	CIR E1-U.C. REFRIG (420L)	20 A	1			0.564 6.442	3	60 A	DISHWASHER (393H)	60	LO,SB
I	61	CIR F1-GEN OUTLET (122)	20 A	1	0.180 6.442			--	--	--	62	--
I	63	CIR G1-VERTICAL TOASTER (500A)	20 A	1		0.660 6.442		--	--	--	64	--
I	65	CIR H1-RADIANT TOASTER (500B)	30 A	2			2.496 1.920	1	20 A	SPARE/FUTURE SINGLE THAW (444S)	66	
--	67	--	--	--	2.496 0.180			1	20 A	DARPRO OIL TANK	68	
	69	SPARE	20 A	1		0.000 0.564		1	20 A	U.C. REFRIG (420L)	70	I
	71	SPARE	20 A	1			0.000 0.564	1	20 A	U.C. REFRIG (420L)	72	I
	73	GENERAL OUTLETS	20 A	1	0.720 0.000			1	20 A	SPARE	74	
	75	GENERAL OUTLETS	20 A	1		0.360 0.000		1	20 A	SPARE	76	
	77	SINGLE REACH-IN FREEZER (404)	20 A	1			0.960 0.000	1	20 A	SPARE	78	
	79	DOUBLE LEMONADE BUBBLER (310)	20 A	1	1.020 0.000			1	20 A	SPARE	80	
	81	SPACE	--	1		-- 0.000		1	20 A	SPARE	82	
	83	SPACE	--	1			-- 0.000	1	20 A	SPARE	84	
			Total Load:		33.94 kVA	28.24 kVA	33.59 kVA					
			Total Amps:		289.7 A	235.4 A	286.8 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC COOL	2544 VA	100.00%	2544 VA		
KITCHEN EQUIPMENT	67995 VA	65.00%	44197 VA	**Total Conn. Load:**	95.8 kVA
KITCHEN REFRIG EQUIPMENT	16216 VA	65.00%	10540 VA	**Total Est. Demand:**	66.9 kVA
MISCELLANEOUS	2060 VA	100.00%	2060 VA	**Total Conn.:**	265.8 A
Motor	2388 VA	123.95%	2960 VA	**Total Est. Demand:**	185.6 A
RECEPTACLES	4571 VA	100.00%	4571 VA		

Branch Panel: B

LOCATION:
SUPPLY FROM: MDP
MOUNTING: SURFACE
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
H	1	GENERAL OUTLET	20 A	1	0.180 1.128			1	20 A	SINGLE REACH-IN FREEZER (400)	2	I
H	3	GENERAL OUTLETS	20 A	1		0.540 0.000		1	20 A	SPARE	4	
H	5	GENERAL OUTLET	20 A	1			0.360 0.000	1	20 A	SPARE	6	
H	7	MILKSHAKE DISPENSER (300a)	20 A	1	0.120 0.180			1	20 A	GENERAL OUTLET	8	H
	9	ROOF MTD ICE MAKER (380C)	25 A	3		1.704 1.840		1	20 A	FRY HOLDING STATION (560)	10	I
--	11	--	--	--			1.704 1.840	1	20 A	FRY HOLDING STATION (560)	12	I
--	13	--	--	--	1.704 1.500			1	20 A	FOOD COOKER/WARMER (565C)	14	I
I	15	INTERIOR ICE MAKER (380D)	15 A	1		0.600 0.500		1	20 A	D.T. DOOR	16	
H	17	DOUBLE LEMONADE BUBBLER (310)	20 A	1			1.020 1.704	3	15 A	ROOF MTD ICE MAKER (380C)	18	
I,LO	19	ICE CREAM MACHINE (300X)	30 A	3	2.280 1.704			--	--	--	20	--
--	21	--	--	--		2.280 1.704		--	--	--	22	--
--	23	--	--	--			2.280 1.920	1	20 A	DOUBLE THAWING CABINET (444D)	24	
	25	ROOF RECEPTACLES	20 A	1	0.540 0.610			1	15 A	INTERIOR ICE MAKER (380D,380a)	26	I
	27	DINING AREA OUTLETS	20 A	1		0.540 1.920		1	20 A	DOUBLE THAWING CABINET (444D)	28	
	29	DINING AREA OUTLETS	20 A	1			1.620 0.000	1	20 A	FACP (WHEN REQ'D)	30	L
I	31	FLYLIGHT SYSTEM (211B,C)	20 A	1	0.360 1.920			1	20 A	SINGLE THAWING CABINET (444S)	32	
H	33	LEMON JUICER STAND (607)	20 A	1		0.180 0.237		1	20 A	REFUSE ENCLOSURE	34	
H	35	DOUBLE LEMONADE BUBBLER (310)	20 A	1			1.020 0.360	1	20 A	T500/ SHUNT TRIP (269,270)	36	L
I,LO	37	ICE CREAM MACHINE (300X)	20 A	3	1.800 1.000			2	30 A	COFFEE MAKER (308)	38	I
--	39	--	--	--		1.800 1.000		--	--	--	40	--
--	41	--	--	--			1.800 0.560	1	20 A	GENERAL OUTLETS/DOORBELL	42	
LO	43	HEATED AIR DOOR (AD-1)	45 A	3	4.068 0.960			1	20 A	UNHEATED AIR DOOR (AD-2)	44	LO
--	45	--	--	--		4.068 2.185		1	20 A	OPTIONAL COMPRESSOR	46	
--	47	--	--	--			4.068 1.800	1	20 A	TRASH COMPACTOR (TC)	48	I
	49	ROOF MTD ICE MAKER (380C)	25 A	3	1.704 1.800			1	20 A	TRASH COMPACTOR (TC)	50	
--	51	--	--	--		1.704 1.800		1	20 A	TRASH COMPACTOR (TC)	52	
--	53	--	--	--			1.704 0.180	1	20 A	MANAGERS STATION (GEN)	54	H
I	55	FUTURE VECTOR OVEN (505VT)	30 A	3	2.642 0.610			1	15 A	INTERIOR ICE MAKER (380,380a)	56	I
--	57	--	--	--		2.642 1.080		1	20 A	DINING AREA OUTLETS	58	
--	59	--	--	--			2.642 0.360	1	20 A	DINING AREA OUTLETS	60	
	61	SPARE/FUTURE DRINK TOWER (315W)	20 A	1	1.200 1.920			1	20 A	FUTURE SINGLE THAW CABINET(444S)	62	
I	63	EGG STATION (503T)	20 A	2		1.300 1.300		2	20 A	FUTURE EGG STATION (503T)	64	I
--	65	--	--	--			1.300 1.300	--	--	--	66	--
I,LO	67	SPARE/FUTURE (300X)	30 A	3	2.280 0.960			1	20 A	SINGLE REFRIG (443GT)	68	I
--	69	--	--	--		2.280 --		1	--	SPACE	70	
--	71	--	--	--			2.280 --	1	--	SPACE	72	
I,LO	73	SPARE/FUTURE (300X)	20 A	3	1.800 --			1	--	SPACE	74	
--	75	--	--	--		1.800 --		1	--	SPACE	76	
--	77	--	--	--			1.800 --	1	--	SPACE	78	
	79	SPACE	--	1	-- --			1	--	SPACE	80	
	81	SPACE	--	1		-- --		1	--	SPACE	82	
	83	SPACE	--	1			-- --	1	--	SPACE	84	
			Total Load:		34.97 kVA	35.00 kVA	33.62 kVA					
			Total Amps:		293.1 A	293.4 A	280.2 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HEAT	12204 VA	100.00%	12204 VA		
KITCHEN EQUIPMENT	43054 VA	65.00%	27985 VA	**Total Conn. Load:**	103.2 kVA
KITCHEN REFRIG EQUIPMENT	26995 VA	65.00%	17547 VA	**Total Est. Demand:**	79.4 kVA
LIGHTING	549 VA	125.00%	686 VA	**Total Conn.:**	286.6 A
MISCELLANEOUS	48 VA	100.00%	48 VA	**Total Est. Demand:**	220.4 A
Motor	9045 VA	106.04%	9591 VA		
RECEPTACLES	6140 VA	100.00%	6140 VA		
KITCHEN EQUIPMENT (100% DEMAND)	5200 VA	100.00%	5200 VA		

Branch Panel: C

LOCATION:
SUPPLY FROM: MDP
MOUNTING: SURFACE
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
J	1	KITCHEN LTG	20 A	1	1.443 0.212			1	20 A	DROP CORD OUTLET	2	I
J	3	KITCHEN LTG	20 A	1			0.708 0.180	1	20 A	DROP CORD OUTLET	4	I
J	5	RESTROOM LTG & EF-3	20 A	1			0.760 0.180	1	20 A	DROP CORD OUTLET	6	I
J	7	DINING AREA LTG	20 A	1	0.218 0.120			1	20 A	FUTURE BREADING TABLE (440CT)	8	I
J	9	SERVE AREA LTG	20 A	1		0.128 0.120		1	20 A	BREADING TABLE (440CT)	10	I
J	11	DINING AREA LTG	20 A	1			0.876 0.180	1	20 A	DROP CORD OUTLET	12	I
	13	SPARE	20 A	1	0.000 0.180			1	20 A	DROP CORD OUTLET (184)	14	I
J	15	WATER HEATER/PUMP/FILTER	20 A	1		1.440 0.212		1	20 A	FLOOR MIXER (600)	16	I
H	17	MENU BOARDS (672)	20 A	1			0.651 0.180	1	20 A	DROP CORD OUTLET	18	I
B	19	DIRECTIONAL SIGNS	20 A	1	0.360 1.175			1	20 A	DROP CORD OUTLET	20	I
E	21	PARKING LOT LTG	20 A	1			0.326 0.180	1	20 A	DROP CORD OUTLET	22	I
E	23	PARKING LOT LTG	20 A	1			0.489 0.180	1	20 A	DROP CORD OUTLET	24	I
E	25	PARKING LOT LTG	20 A	1	0.326 0.804			1	20 A	REFRIG EQUIPMENT STAND (422T)	26	I
	27	SPARE	20 A	1		0.000 1.100		1	20 A	SINGLE REACH-IN FREEZER (400T)	28	I
D	29	SECURITY/FLAGPOLE LTG	20 A	1			0.347 0.756	1	20 A	DOUBLE WORKTOP REFRIG (431T)	30	I
C	31	BLDG EXTERIOR LTG	20 A	1	0.312 0.212			1	20 A	DROP CORD OUTLET	32	I
J,S	33	MLOP & OMD CANOPY LTG	20 A	1		1.332 0.180		1	20 A	DROP CORD OUTLET	34	I
LO	35	FRZR/COOLER LTG (410/449)	20 A	1			1.000 0.180	1	20 A	DROP CORD OUTLET	36	I
B	37	MAIN ID SIGN	20 A	1	0.980 1.080			1	20 A	SALAD PREP TABLE (441)	38	I
B	39	MAIN ID SIGN	20 A	1		0.800 0.180		1	20 A	DROP CORD OUTLET	40	I
B	41	MAIN ID SIGN	20 A	1			0.800 0.180	1	20 A	DROP CORD OUTLET	42	I
B	43	BUILDING SIGNAGE	20 A	1	0.500 0.756			1	20 A	DOUBLE WORKTOP REFRIG (432T)	44	I
B	45	BUILDING SIGNAGE	20 A	1		0.500 0.180		1	20 A	DROP CORD OUTLET	46	I
B	47	BUILDING SIGNAGE	20 A	1			0.800 1.587	1	25 A	HOOD EXHAUST FAN (EF-1)	48	A
B	49	BUILDING SIGNAGE	20 A	1	0.800 1.587			1	25 A	HOOD EXHAUST FAN (EF-2)	50	A
LO,S	51	DRIVE THRU ORDERING	20 A	1		1.140 1.584		1	20 A	MLOP CANOPY FANS	52	I,J,S
I,J,S	53	OMD CANOPY FANS	20 A	1			0.792 0.563	1	20 A	HOOD CJ FANS AND LIGHTS	54	A
I	55	VECTOR OVEN (505VT)	30 A	3	0.878 0.878			3	30 A	VECTOR OVEN (505VT)	56	I
--	57	--	--	--		0.878 0.878		--	--	--	58	--
--	59	--	--	--			0.878 0.878	--	--	--	60	--
I	61	BREADING TABLE (440CT)	20 A	1	0.120 0.878			3	30 A	VECTOR OVEN (505VT)	62	I
I	63	DROP CORD OUTLET (184T)	20 A	1		0.180 0.878		--	--	--	64	--
I	65	EGG STATION (503T)	20 A	2			1.300 0.878	--	--	--	66	--
--	67	--	--	--	1.300 0.528			1	20 A	RF-1	68	
LO	69	HEATED AIR DOOR (AD-3)	45 A	3		4.068 0.840		1	20 A	SINGLE REFRIG (442WCLT)	70	I
--	71	--	--	--			4.068 0.180	1	20 A	DROP CORD OUTLET	72	I
--	73	--	--	--	4.068 --			1	--	SPACE	74	
	75	SPARE	20 A	1		0.000 --		1	--	SPACE	76	
	77	SPARE	20 A	1			0.000 --	1	--	SPACE	78	
	79	SPARE	20 A	1	0.000 --			1	--	SPACE	80	
	81	SPARE	20 A	1		0.000 --		1	--	SPACE	82	
	83	SPARE	20 A	1			0.000 --	1	--	SPACE	84	
			Total Load:		19.66 kVA	17.98 kVA	18.68 kVA					
			Total Amps:		164.7 A	149.9 A	156.6 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HEAT	12204 VA	100.00%	12204 VA		
KITCHEN EQUIPMENT	12895 VA	65.00%	8382 VA	**Total Conn. Load:**	56.3 kVA
KITCHEN REFRIG EQUIPMENT	4080 VA	65.00%	2652 VA	**Total Est. Demand:**	54.3 kVA
LIGHTING	14164 VA	125.00%	17704 VA	**Total Conn.:**	156.3 A
MISCELLANEOUS	1378 VA	100.00%	1378 VA	**Total Est. Demand:**	150.8 A
Motor	7439 VA	105.33%	7836 VA		
RECEPTACLES	4176 VA	100.00%	4176 VA		

Distribution Panel: MDP

LOCATION:
SUPPLY FROM:
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:

NT	CKT	LOAD DESCRIPTION	TRIP	POLE	A	B	C	POLE	TRIP	LOAD DESCRIPTION	CKT	NT
	1	PANEL-A (SUB-FEEDS PANEL POS)	250 A	3	33.94 34.97			3	250 A	PANEL-B	2	
--	3	--	--	--		28.24 35.00		--	--	--	4	--
--	5	--	--	--			33.59 33.62	--	--	--	6	--
	7	PANEL-C	250 A	3	19.66 16.45			3	150 A	ROOFTOP UNIT 25 TON (AC-1)	8	
--	9	--	--	--		17.98 16.45		--	--	--	10	--
--	11	--	--	--			18.68 16.45	--	--	--	12	--
ST	13	PANEL-D1	250 A	3	21.13 21.96			3	250 A	PANEL-D2	14	ST
--	15	--	--	--		22.08 21.96		--	--	--	16	--
--	17	--	--	--			21.01 21.96	--	--	--	18	--
	19	ROOFTOP UNIT 17.5 TON (AC-2)	100 A	3	10.45 10.69			3	100 A	ROOFTOP UNIT 20 TON (AC-3)	20	
--	21	--	--	--		10.45 10.69		--	--	--	22	--
--	23	--	--	--			10.45 10.69	--	--	--	24	--
	25	TVSS	30 A	3	0.00 23.89			3	250 A	PANEL-D3	26	ST
--	27	--	--	--		0.00 24.84		--	--	--	28	--
--	29	--	--	--			0.00 23.77	--	--	--	30	--
			Total Load:		193.1 kVA	187.7 kVA	190.2 kVA					
			Total Amps:		1612.7 A	1564.1 A	1588.5 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HEAT	24408 VA	100.00%	24408 VA		
HVAC	112763 VA	100.00%	112763 VA	**Total Conn. Load:**	570.7 kVA
HVAC COOL	2544 VA	100.00%	2544 VA	**Total Est. Demand:**	512.6 kVA
KITCHEN EQUIPMENT	123944 VA	65.00%	80563 VA	**Total Conn.:**	1584.1 A
KITCHEN REFRIG EQUIPMENT	47291 VA	65.00%	30739 VA	**Total Est. Demand:**	1422.8 A
LIGHTING	14712 VA	125.00%	18390 VA		
MISCELLANEOUS	3486 VA	100.00%	3486 VA		
Motor	18872 VA	103.03%	19444 VA		
RECEPTACLES	14887 VA	83.59%	12444 VA		
KITCHEN EQUIPMENT (100% DEMAND)	207808 VA	100.00%	207808 VA		

LOAD SUMMARY

TOTAL CONNECTED KVA	IF TOTAL LOAD IS 0_200 KVA	IF TOTAL LOAD IS 201_325 KVA	IF TOTAL LOAD IS 326-800 KVA	IF TOTAL LOAD IS OVER 800 KVA	DIVERSIFIED AMPS AT 208 VOLT
570.70 kVA	0	0	373.07	0	1036.30

CALCULATION PER NEC 220.88
(FOR NOT ALL ELECTRIC RESTAURANT LOAD)

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. REFER TO WIRING INSTRUCTIONS INCLUDED WITH SHUNT TRIP BREAKER.

(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.

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.

FOR CONSTRUCTION

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

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State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED
No. 18054
PROFESSIONAL
ENGINEER
GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: P13 SE LRG
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

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SHEET
PANEL SCHEDULES

SHEET NUMBER
E-501a

Autodesk Docs://AL_01530_Cullman_2021.2_FSR/01530_Cullman_ELE.rvt
3/20/2023 12:13:48 PM
50-SE-01530-E-501a-PANEL SCHEDULES

Branch Panel: D1

LOCATION:
SUPPLY FROM: MDP
MOUNTING: SURFACE
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	4.560	2.892					3	50 A	CHARGRILL COOKER (524)	2	I
--	3	--	--	--			4.560	3.840			--	--	--	4	--
--	5	--	--	--					4.560	2.772	--	--	--	6	--
I	7	PRESSURE FRYER (523)	50 A	3	4.560	--					1	--	SPACE	8	
--	9	--	--	--			4.560	--			1	--	SPACE	10	
--	11	--	--	--					4.560	--	1	--	SPACE	12	
I	13	PRESSURE FRYER (523)	50 A	3	4.560	--					1	--	SPACE	14	
--	15	--	--	--			4.560	--			1	--	SPACE	16	
--	17	--	--	--					4.560	--	1	--	SPACE	18	
I	19	PRESSURE FRYER (523)	50 A	3	4.560	--					1	--	SPACE	20	
--	21	--	--	--			4.560	--			1	--	SPACE	22	
--	23	--	--	--					4.560	--	1	--	SPACE	24	
	25	SPACE	--	1	--	--					1	--	SPACE	26	
	27	SPACE	--	1			--	--			1	--	SPACE	28	
	29	SPACE	--	1					--	--	1	--	SPACE	30	
				Total Load:	21.13 kVA		22.08 kVA		21.01 kVA						
				Total Amps:	176.3 A		184.2 A		175.1 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
KITCHEN EQUIPMENT (100% DEMAND)	64224 VA	100.00%	64224 VA		
				Total Conn. Load:	64.2 kVA
				Total Est. Demand:	64.2 kVA
				Total Conn.:	178.3 A
				Total Est. Demand:	178.3 A

Branch Panel: D2

LOCATION:
SUPPLY FROM: MDP
MOUNTING: SURFACE
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	7.320	7.320					3	80 A	OPEN FRYER (522)	2	SB
--	3	--	--	--			7.320	7.320			--	--	--	4	--
--	5	--	--	--					7.320	7.320	--	--	--	6	--
SB	7	OPEN FRYER (522A)	80 A	3	7.320	--					1	--	SPACE	8	
--	9	--	--	--			7.320	--			1	--	SPACE	10	
--	11	--	--	--					7.320	--	1	--	SPACE	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:	21.96 kVA		21.96 kVA		21.96 kVA						
				Total Amps:	183.0 A		183.0 A		183.0 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
KITCHEN EQUIPMENT (100% DEMAND)	65880 VA	100.00%	65880 VA		
				Total Conn. Load:	65.9 kVA
				Total Est. Demand:	65.9 kVA
				Total Conn.:	182.9 A
				Total Est. Demand:	182.9 A

Branch Panel: D3

LOCATION:
SUPPLY FROM: MDP
MOUNTING: SURFACE
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	SPARE/FUTURE PRESSURE FRYER (523)	50 A	3	4.560	4.560					3	50 A	PRESSURE FRYER (523)	2	I
--	3	--	--	--			4.560	4.560			--	--	--	4	--
--	5	--	--	--					4.560	4.560	--	--	--	6	--
SB	7	OPEN FRYER (522A)	80 A	3	7.320	4.560					3	50 A	SPARE/FUTURE FRYER (523)	8	I
--	9	--	--	--			7.320	4.560			--	--	--	10	--
--	11	--	--	--					7.320	4.560	--	--	--	12	--
I	13	CHARGRILL COOKER (524)	50 A	3	2.892	--					1	--	SPACE	14	
--	15	--	--	--			3.840	--			1	--	SPACE	16	
--	17	--	--	--					2.772	--	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:	23.89 kVA		24.84 kVA		23.77 kVA						
				Total Amps:	199.3 A		207.2 A		198.1 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
KITCHEN EQUIPMENT (100% DEMAND)	72504 VA	100.00%	72504 VA		
				Total Conn. Load:	72.5 kVA
				Total Est. Demand:	72.5 kVA
				Total Conn.:	201.3 A
				Total Est. Demand:	201.3 A

Branch Panel: POS

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

VOLTS: 120/120 Single
PHASES: 1
WIRES: 3
2+G+IG
PROVIDE JUMPER FOR PHASE A & B

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

NT	CKT	LOAD DESCRIPTION	TRIP	POLE	B		C		POLE	TRIP	LOAD DESCRIPTION	CKT	NT
H,IG	1	COUNTER STATIONS (180,182)	15 A	1	0.370	0.260			1	15 A	CCTV RACK TECH CLOSET	2	IG
	3	SPACE	--	1			--	--	1	--	SPACE	4	
H,IG	5	COUNTER POS STATIONS (180,182)	15 A	1	0.052	0.070			1	15 A	OFFICE RECEPTACLE (COMP)	6	IG
	7	SPACE	--	1			--	--	1	--	SPACE	8	
H,IG	9	DT POS STATION (180,182)	15 A	1	0.210	0.058			1	15 A	CL TABLE MONITORS (183/182L)	10	I,IG
	11	SPACE	--	1			--	--	1	--	SPACE	12	
H,IG	13	MLOP POS STATIONS (180,182)	15 A	1	0.111	0.040			1	15 A	NETWORK RACK TECH CLOSET	14	IG
	15	SPACE	--	1			--	--	1	--	SPACE	16	
H,IG	17	MLOP MONITORS (183)	15 A	1	0.150	0.050			1	15 A	ISP MODEM	18	IG
	19	SPACE	--	1			--	--	1	--	SPACE	20	
H,IG	21	PASS THRU MONITORS (183/182L)	15 A	1	0.200	--			1	--	SPACE	22	
	23	SPACE	--	1			--	0.000	1	20 A	BACKFED MAIN BREAKER	24	LO
				Total Load:	1.57 kVA		0.00 kVA						
				Total Amps:	13.1 A		0.0 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
MISCELLANEOUS	1200 VA	100.00%	1200 VA		
RECEPTACLES	371 VA	100.00%	371 VA	**Total Conn. Load:**	1.6 kVA
				Total Est. Demand:	1.6 kVA
				Total Conn.:	13.1 A
				Total Est. Demand:	13.1 A

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1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: P13 SE LRG
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

CONSULTANT PROJECT # C29119
PRINTED FOR PERMIT
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SHEET
PANEL SCHEDULES

SHEET NUMBER
E-501b

Autodesk Docs://AL_01530_Cullman_2021.2_FSR/01530_Cullman_ELE.rvt
3/20/2023 11:35:24 AM
50-SE-01530-E-501b-PANEL SCHEDULES

Branch Panel: A (Existing)

LOCATION: ELEC. 14 | **SUPPLY FROM:** MDP | **MOUNTING:** SURFACE | **ENCLOSURE:** NEMA 1
VOLTS: 120/208 Wye | **PHASES:** 3 | **WIRES:** 4
A.I.C. SERIES RATING: 65K/10K | **MAINS TYPE:** MLO | **MAINS RATING:** 225 A | **MCB RATING:**

NT	CKT	LOAD DESCRIPTION	TRIP	POLE	A	B	C	POLE	TRIP	LOAD DESCRIPTION	CKT	NT
H	1	TELEPHONE DT VIDEO (190)	20 A	1	0.240 1.650			1	20 A	TEA BREWER (305)	2	H
	3	OFFICE GEN OUTLETS	20 A	1		0.180 1.650		1	20 A	TEA BREWER (305)	4	H
	5	ORF GEN OUTLETS, PRINTER, MUSIC	20 A	1			0.720 1.200	1	20 A	DRINK TOWER (315W)	6	H
H	7	DRINK TOWER (315W)	20 A	1	1.200 1.200			1	20 A	DRINK TOWER (315W)	8	H
H	9	GENERAL OUTLETS	20 A	1		0.180 1.200		1	20 A	DRINK TOWER (315W)	10	H
H	11	GENERAL OUTLETS	20 A	1			0.050 1.200	1	20 A	DRINK TOWER (315W)	12	H
H	13	U.C. REFRIG (420)	20 A	1	0.564 0.180			1	20 A	GENERAL OUTLETS	14	H
H	15	U.C. REFRIG (420R)	20 A	1		0.564 0.360		1	20 A	SECURITY SYSTEM	16	L
I	17	U.C. REFRIG (420LR)	20 A	1			0.564 1.244	3	15 A	COOLER CONDENSER/EVAP COIL (449)	18	LO
I	19	SANDWICH SLIDE (563S)	20 A	1	0.548 1.244			--	--	--	20	
I	21	U.C. REFRIG (421)	20 A	1		0.756 1.140		--	--	--	22	
I	23	SANDWICH SLIDE (563D)	20 A	1			1.090 1.200	1	20 A	DOUBLE LEMONADE BUBBLER (310R)	24	H
	25	CARBONATOR (320)	20 A	1	0.744 1.752			3	35 A	FREEZER CONDENSER/EVAP COIL (410)	26	LO
	27	CARBONATOR (320)	20 A	1		0.744 1.908		--	--	--	28	
	29	CARBONATOR (320)	20 A	1			0.744 1.908	--	--	--	30	
	31	CARBONATOR (320)	20 A	1	0.744 0.500			1	20 A	FREEZER HEAT TAPE (410)	32	F
	33	CARBONATOR (320)	20 A	1		0.744 0.564		1	20 A	U.C. REFRIG (420LR)	34	I
	35	BOOSTER PUMP	20 A	2			1.144 2.185	1	20 A	AIR COMPRESSOR	36	
	37	--	--	--	1.144 0.360			1	20 A	GENERAL OUTLETS	38	H
A	39	HOOD EXHAUST FAN (EF-2)	25 A	1		1.587 0.180		1	20 A	GENERAL OUTLETS	40	H
A	41	HOOD EXHAUST FAN (EF-1)	25 A	1			1.587 2.521	1	20 A	PANEL POS THRU PIB	42	M
				Total Load:	12.07 kVA	11.76 kVA	17.36 kVA					
				Total Amps:	101.0 A	98.0 A	145.0 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	9196 VA	100.00%	9196 VA	
KITCHEN EQUIPMENT	16422 VA	65.00%	10674 VA	**Total Conn. Load:** 41.2 kVA
KITCHEN REFRIG EQUIPMENT	2448 VA	65.00%	1591 VA	**Total Est. Demand:** 35.7 kVA
MISCELLANEOUS	1408 VA	100.00%	1408 VA	**Total Conn.:** 114.3 A
Motor	5512 VA	110.38%	6084 VA	**Total Est. Demand:** 99.1 A
Power	180 VA	100.00%	180 VA	
RECEPTACLES	3833 VA	100.00%	3833 VA	
SINGLE PHASE MOTOR	2185 VA	125.00%	2731 VA	

Branch Panel: B (Existing)

LOCATION: ELEC. 14 | **SUPPLY FROM:** MDP | **MOUNTING:** SURFACE | **ENCLOSURE:** NEMA 1
VOLTS: 120/208 Wye | **PHASES:** 3 | **WIRES:** 4
A.I.C. SERIES RATING: 65K/10K | **MAINS TYPE:** MLO | **MAINS RATING:** 225 A | **MCB RATING:**

NT	CKT	LOAD DESCRIPTION	TRIP	POLE	A	B	C	POLE	TRIP	LOAD DESCRIPTION	CKT	NT
H	1	GENERAL OUTLET	20 A	1	0.180 0.050			1	20 A	REFUSE ENCLOSURE	2	
H	3	GENERAL OUTLET (SPARE)	20 A	1		0.360 2.000		2	30 A	COFFEE MAKER (308)	4	I
H	5	MILKSHAKE DISPENSER (300a)	20 A	1			0.480 2.000	--	--	--	6	I
I	7	INTERIOR ICE MAKER (380,380A)	20 A	1	0.610 1.100			1	20 A	SINGLE FREEZER (400LT)	8	I
I	9	DROP CORD OUTLET	20 A	1		0.960 0.756		1	20 A	REFRIG WORK TABLE (432R)	10	I
I	11	SINGLE UPRIGHT REFRIG. (442WCLT)	20 A	1			0.330 1.128	1	20 A	SINGLE REACH-IN FREEZER (400R)	12	I
I	13	DROP CORD OUTLET (SPARE)	20 A	1	0.180 1.840			1	20 A	FRY HOLDING STATION (560)	14	I
I	15	DOUBLE LEMONADE BUBBLER (309)	20 A	1		0.432 1.840		1	20 A	FRY HOLDING STATION (560)	16	I
I	17	DOUBLE LEMONADE BUBBLER (309R)	20 A	1			0.432 0.500	1	20 A	D.T. SLIDING DOOR	18	
LO,I	19	ICE CREAM MACHINE (300X)	25 A	3	2.280 0.800			1	20 A	REFRIG EQUIPMENT STAND (422T)	20	I
	21	--	--	--		2.280 0.120		1	20 A	ICE BATH BREADING TABLE (440CT)	22	I
	23	--	--	--			2.280 0.120	1	20 A	ICE BATH BREADING TABLE (440CT)	24	I
	25	ROOF RECEPTACLES	20 A	1	0.180 1.960			1	20 A	DOUBLE THAWING CABINET (444D)	26	
	27	GENERAL OUTLET	20 A	1		0.180 1.960		1	20 A	DOUBLE THAWING CABINET (444DR)	28	
	29	GENERAL OUTLET	20 A	1			0.980 1.960	1	20 A	DOUBLE THAWING CABINET (444D)	30	
I	31	FLY LIGHT SYSTEM (211B,C)	20 A	1	0.222 0.000			1	20 A	FACP (WHEN REQUIRED)	32	L
	33	SINGLE THAWING CABINET (444SL)	20 A	1		1.960 1.080		1	20 A	SALAD PREP TABLE (441)	34	I
H	35	LEMON JUICER STAND (607)	20 A	1			0.180 0.000	1	20 A	GENERAL OUTLETS/DOORBELL	36	
LO,I	37	ICE CREAM MACHINE (300X)	20 A	3	1.800 5.000			3	110 A	ROOFTOP UNIT 8.5 TON (AC-2)	38	
	39	--	--	--		1.800 5.000		--	--	--	40	
	41	--	--	--			1.800 5.000	--	--	--	42	
				Total Load:	16.20 kVA	20.73 kVA	17.19 kVA					
				Total Amps:	135.0 A	174.0 A	144.5 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	15000 VA	100.00%	15000 VA	
KITCHEN EQUIPMENT	23484 VA	65.00%	15265 VA	**Total Conn. Load:** 54.1 kVA
KITCHEN REFRIG EQUIPMENT	12804 VA	65.00%	8322 VA	**Total Est. Demand:** 41.5 kVA
Lighting	880 VA	100.00%	880 VA	**Total Conn.:** 150.2 A
MISCELLANEOUS	192 VA	100.00%	192 VA	**Total Est. Demand:** 115.3 A
Motor	500 VA	125.00%	625 VA	
RECEPTACLES	1260 VA	100.00%	1260 VA	

Branch Panel: C (Relocated)

LOCATION: ELEC. 14 | **SUPPLY FROM:** MDP | **MOUNTING:** SURFACE | **ENCLOSURE:** NEMA 1
VOLTS: 120/208 Wye | **PHASES:** 3 | **WIRES:** 4
A.I.C. SERIES RATING: 65K/10K | **MAINS TYPE:** MLO | **MAINS RATING:** 400 A | **MCB RATING:**

NT	CKT	LOAD DESCRIPTION	TRIP	POLE	A	B	C	POLE	TRIP	LOAD DESCRIPTION	CKT	NT
J	1	KITCHEN LTG	20 A	1	0.772 0.500			1	20 A	BUILDING SIGNAGE	2	B
J	3	KITCHEN LTG	20 A	1		0.428 0.500		1	20 A	BUILDING SIGNAGE	4	B
J	5	RESTROOM LTG	20 A	1			0.197 0.500	1	20 A	BUILDING SIGNAGE	6	B
J	7	PENDANT LIGHTING	20 A	1	0.080 0.500			1	20 A	BUILDING SIGNAGE	8	B
J	9	PLAY AREA LIGHTING	20 A	1		0.197 0.000		1	20 A	SPARE	10	
J	11	DINING LIGHTING	20 A	1			0.590 0.000	1	20 A	SPARE	12	
J	13	DINING LIGHTING	20 A	1	0.644 7.480			3	80 A	ROOFTOP UNIT 10.0 TON (A/C-3)	14	
J	15	SERVE AREA LTG	20 A	1		0.277 7.480		--	--	--	16	
H	17	MENUBOARDS (671)	20 A	1			0.840 7.480	--	--	--	18	
B	19	DIRECTIONAL SIGNS	20 A	1	0.500 0.528			1	20 A	OMD CANOPY FANS	20	I,J
E	21	PARKING LOT LTG	20 A	1		0.489 0.780		1	20 A	DRIVE THRU ORDERING	22	J,LO
E	23	PARKING LOT LTG	20 A	1			0.326 1.584	1	20 A	MLOP CANOPY FANS	24	I,J
E	25	PARKING LOT LTG	20 A	1	0.489 0.833			3	50 A	ROOFTOP UNIT 7.5 TON (A/C-4)	26	
	27	SPARE	20 A	1		0.000 0.833		--	--	--	28	
D	29	SECURITY/FLAGPOLE LTG	20 A	1			0.372 0.833	--	--	--	30	
D	31	SCONCE LIGHTING	20 A	1	0.500 3.050			3	45 A	ROOFTOP UNIT 5 TON (A/C-5)	32	
J	33	MLOP & OMD CANOPY LTG	20 A	1		1.026 3.050		--	--	--	34	
LO	35	FRZR/COOLER LTG (410/449)	20 A	1			1.500 3.050	--	--	--	36	
J	37	WATER HEATER/PUMP	20 A	1	6.062 1.587			1	20 A	HOOD EXHAUST FAN (EF-4)	38	A
B	39	MAIN ID SIGN	20 A	1		0.800 0.316		1	20 A	HOOD CJ FANS	40	A
B	41	MAIN ID SIGN	20 A	1			0.800 0.960	1	20 A	UNHEATED AIR DOOR (AD-2)	42	LO
				Total Load:	23.46 kVA	16.13 kVA	18.99 kVA					
				Total Amps:	199.2 A	134.4 A	162.0 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	34089 VA	100.00%	34089 VA	
Lighting	12689 VA	100.00%	12689 VA	**Total Conn. Load:** 58.6 kVA
Motor	10952 VA	113.70%	12452 VA	**Total Est. Demand:** 50.1 kVA
Other	525 VA	100.00%	525 VA	**Total Conn.:** 162.6 A
RECEPTACLES	360 VA	100.00%	360 VA	**Total Est. Demand:** 166.8 A

Branch Panel: D (Relocated)

LOCATION: ELEC. 14 | **SUPPLY FROM:** MDP | **MOUNTING:** SURFACE | **ENCLOSURE:** NEMA 1
VOLTS: 120/208 Wye | **PHASES:** 3 | **WIRES:** 4
A.I.C. SERIES RATING: 65K/10K | **MAINS TYPE:** MLO | **MAINS RATING:** 400 A | **MCB RATING:**

NT	CKT	LOAD DESCRIPTION	TRIP	POLE	A	B	C	POLE	TRIP	LOAD DESCRIPTION	CKT	NT
I	1	PRESSURE FRYER (523)	50 A	3	4.560 4.560			3	50 A	PRESSURE FRYER (523)	2	I
	3	--	--	--		4.560 4.560		--	--	--	4	
	5	--	--	--			4.560 4.560	--	--	--	6	
I	7	PRESSURE FRYER (523R)	50 A	3	4.560 4.560			3	50 A	FUTURE FRYER (SPARE)	8	I
	9	--	--	--		4.560 4.560		--	--	--	10	
	11	--	--	--			4.560 4.560	--	--	--	12	
I	13	CHARGRILL COOKER (524R)	50 A	3	2.892 2.892			3	50 A	CHARGRILL COOKER (524R)	14	I
	15	--	--	--		3.840 3.840		--	--	--	16	
	17	--	--	--			2.772 2.772	--	--	--	18	
I	19	PRESSURE FRYER (523)	50 A	3	4.560 4.560			3	50 A	PRESSURE FRYER (523)	20	I
	21	--	--	--		4.560 4.560		--	--	--	22	
	23	--	--	--			4.560 4.560	--	--	--	24	
SB	25	OPEN FRYER (522R)	80 A	3	7.320 4.560			3	50 A	PRESSURE FRYER (523R)	26	I
	27	--	--	--		7.320 4.560		--	--	--	28	
	29	--	--	--			7.320 4.560	--	--	--	30	
SB	31	OPEN FRYER (522R)	80 A	3	7.320 7.320			3	80 A	OPEN FRYER (522)	32	SB
	33	--	--	--		7.320 7.320		--	--	--	34	
	35	--	--	--			7.320 7.320	--	--	--	36	
	37	SPACE	--	--	0.000 0.000			--	--	SPACE	38	
	39	SPACE	--	--		0.000 0.000		--	--	SPACE	40	
	41	SPACE	--	--			0.000 0.000	--	--	SPACE	42	
				Total Load:	59.66 kVA	61.56 kVA	59.42 kVA					
				Total Amps:	497.5 A	513.3 A	495.2 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
KITCHEN EQUIPMENT	180648 VA	65.00%	117421 VA	
				Total Conn. Load: 180.6 kVA
				Total Est. Demand: 117.4 kVA
				Total Conn.: 501.4 A
				Total Est. Demand: 325.9 A

Branch Panel: POS (Relocated)

LOCATION: ELEC. 14 | **SUPPLY FROM:** A | **MOUNTING:** SURFACE | **ENCLOSURE:** NEMA 1
VOLTS: 120/120 Single | **PHASES:** 1 | **WIRES:** 3 +IG
A.I.C. SERIES RATING: 10K | **MAINS TYPE:** MLO | **MAINS RATING:** 100 A | **MCB RATING:**
PROVIDE A JUMPER FOR PHASE A & B

NT	CKT	LOAD DESCRIPTION	TRIP	POLE	A	B	POLE	TRIP	LOAD DESCRIPTION	CKT	NT
H	1	COUNTER STATIONS (180,182)	15 A	1	0.198 0.900		1	15 A	OFFICE GEN OUTLETS (CO2,669)	2	
	3	SPACE	--	--		0.000 0.000	--	--	SPACE	4	
H	5	COUNTER STATIONS (180,182)	15 A	1	0.310 0.070		1	15 A	OFFICE RECEPTACLE (COMP)	6	
	7	SPACE	--	--		0.000 0.000	--	--	SPACE	8	
H	9	DT POS STATION (180,182)	15 A	1	0.120 0.000		--	--	SPACE	10	
	11	SPACE	--	--		0.000 0.000	--	--	SPACE	12	
H	13	MLOP POS STATIONS (180,182L)	15 A	1	0.363 0.000		--	--	SPACE	14	
	15	SPACE	--	--		0.000 0.000	--	--	SPACE	16	
H	17	MLOP MONITORS (183)	15 A	1	0.180 0.180		1	15 A	ISP MODEM	18	
	19	SPACE	--	--		0.000 0.000	--	--	SPACE	20	
H	21	PASS THRU MONITORS (183,182L)	15 A	1	0.200 0.000		--	--	SPACE	22	
	23	SPACE	--	--		0.000 0.000	1	20 A	BACKFED MAIN BREAKER	24	LO
				Total Load:	2.52 kVA	0.00 kVA					
				Total Amps:	21.0 A	0.0 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
MISCELLANEOUS	908 VA	100.00%	908 VA	
RECEPTACLES	1613 VA	100.00%	1613 VA	**Total Conn. Load:** 2.5 kVA
				Total Est. Demand: 2.5 kVA
				Total Conn.: 21.0 A
				Total Est. Demand: 21.0 A

Distribution Panel: MDP (New)

LOCATION:
SUPPLY FROM:
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:** 1200 A

NT	CKT	LOAD DESCRIPTION	TRIP	POLE	A	B	C	POLE	TRIP	LOAD DESCRIPTION	CKT	NT
	1	PANEL A (SUB-FEEDS PANEL-POS)	200 A	3	12.07 16.20			3	200 A	PANEL B	2	
	3	--	--	--		11.76 20.73		--	--	--	4	
	5	--	--	--			17.36 17.19	--	--	--	6	
	7	PANEL C (NEW)	400 A	3	23.46 9.75			3	400 A	PANEL E (NEW)	8	
	9	--	--	--		16.13 13.94		--	--	--	10	
	11	--	--	--			18.99 7.16	--	--	--	12	
ST	13	PANEL D (NEW)	400 A	3	59.66 29.44			3	400 A	PANEL F (NEW)	14	
	15	--	--	--		61.56 29.48		--	--	--	16	
	17	--	--	--			59.42 28.23	--	--	--	18	
	19	ROOFTOP UNIT 25 TON (A/C-1)	175 A	3	17.05 2.40			3	25 A	ROOFTOP UNIT 3 TON (A/C-6)	20	
	21	--	--	--		17.05 2.40		--	--	--	22	
	23	--	--	--			17.05 2.40	--	--	--	24	
	25	TVSS(PER NEC 230.17)	30 A	3	0.00						26	
	27	--	--	--		0.00					28	
	29	--	--	--			0.00				30	
				Total Load:	170.0 kVA	173.1 kVA	167.8 kVA					
				Total Amps:	1419.8 A	1445.0 A	1398.4 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HEAT	11304 VA	100.00%	11304 VA	
HVAC	126735 VA	100.00%	126735 VA	**Total Conn. Load:** 510.9 kVA
KITCHEN EQUIPMENT	300204 VA	65.00%	195133 VA	**Total Est. Demand:** 398.1 kVA
KITCHEN REFRIG EQUIPMENT	26761 VA	65.00%	17395 VA	**Total Conn.:** 1418.1 A
Lighting	13630 VA	100.00%	13630 VA	**Total Est. Demand:** 1105.0 A
MISCELLANEOUS	1600 VA	100.00%	1600 VA	
Motor	16964 VA	108.84%	18464 VA	
Other	525 VA	100.00%	525 VA	
Power	180 VA	100.00%	180 VA	
RECEPTACLES	10853 VA	96.07%	10427 VA	
SINGLE PHASE MOTOR	2185 VA	125.00%	2731 VA	

LOAD SUMMARY

TOTAL CONNECTED KVA	IF TOTAL LOAD IS 0_200 KVA	IF TOTAL LOAD IS 201_325 KVA	IF TOTAL LOAD IS 326-800 KVA	IF TOTAL LOAD IS OVER 800 KVA	DIVERSIFIED AMPS AT 208 VOLT
510.91 kVA	0	0	346.16	0	961.55

GFCI REQUIREMENTS PER 2017 NEC:

THE CONTRACTOR SHALL PROVIDE GROUND FAULT PROTECTION FOR ALL RECEPTACLE OUTLET BRANCH CIRCUITS (IN ADDITION TO WHAT IS INDICATED IN THESE DOCUMENTS FOR 15 AND 20 AMP, 120 VOLT RECEPTACLES) IN THE KITCHEN/FOOD PREPARATION AREAS IN ACCORDANCE WITH THE 2017 EDITION OF THE NEC.

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).

Branch Panel: E (New)

LOCATION: ELEC. 14 | **SUPPLY FROM:** MDP | **MOUNTING:** SURFACE | **ENCLOSURE:** NEMA 1
VOLTS: 120/208 Wye | **PHASES:** 3 | **WIRES:** 4
A.I.C. SERIES RATING: 65K/10K | **MAINS TYPE:** MLO | **MAINS RATING:** 400 A | **MCB RATING:**

NT	CKT	LOAD DESCRIPTION	TRIP	POLE	A	B	C	POLE	TRIP	LOAD DESCRIPTION	CKT	NT
	1	CIRCUIT A - ML TABLE	20 A	1	1.911 1.911			1	20 A	CIRCUIT A - ML TABLE	2	
	3	CIRCUIT B - ML TABLE	20 A	1		1.800 1.800		1	20 A	CIRCUIT B - ML TABLE	4	
	5	CIRCUIT C - ML TABLE	20 A	1			0.180 0.180	1	20 A	CIRCUIT C - ML TABLE	6	
	7	CIRCUIT D - ML TABLE	20 A	1	1.500 1.500			1	20 A	CIRCUIT D - ML TABLE	8	
	9	CIRCUIT E - ML TABLE	20 A	1		1.920 1.920		1	20 A	CIRCUIT E - ML TABLE	10	
	11	CIRCUIT F - ML TABLE	20 A	1			0.180 0.180	1	20 A	CIRCUIT F - ML TABLE	12	
	13	CIRCUIT G - ML TABLE	20 A	1	0.564 0.564			1	20 A	CIRCUIT G - ML TABLE	14	
	15	CIRCUIT H - ML TABLE	30 A	2		2.500 2.500		2	20 A	CIRCUIT H - ML TABLE	16	
	17	--	--	--			2.500 2.500	--	--	--	18	
I	19	DROP CORD OUTLET	20 A	1	0.180 0.180			1	20 A	DROP CORD OUTLET	20	I
I	21	DROP CORD OUTLET	20 A	1		0.212 0.180		1	20 A	DROP CORD OUTLET	22	I
I	23	DROP CORD OUTLET	20 A	1			0.180 0.180	1	20 A	DROP CORD OUTLET	24	I
I	25	DROP CORD OUTLET (184)	20 A	1	0.180 0.180			1	20 A	DROP CORD OUTLET	26	I
I	27	DROP CORD OUTLET	20 A	1		0.212 0.180		1	20 A	DROP CORD OUTLET	28	I
I	29	DROP CORD OUTLET	20 A	1			0.180 0.180	1	20 A	DROP CORD OUTLET	30	I
I	31	DROP CORD OUTLET	20 A	1	0.180 0.180			1	20 A	DROP CORD OUTLET (184T)	32	I
I	33	DROP CORD OUTLET	20 A	1		0.180 0.180		1	20 A	DROP CORD OUTLET (SPARE)	34	I
I	35	DROP CORD OUTLET	20 A	1			0.180 0.180	1	20 A	DROP CORD OUTLET (SPARE)	36	I
I	37	DROP CORD OUTLET	20 A	1	0.180 0.180			1	20 A	DROP CORD OUTLET	38	I
I	39	DROP CORD OUTLET	20 A	1		0.180 0.180		1	20 A	DROP CORD OUTLET	40	I
I	41	DROP CORD OUTLET	20 A	1			0.180 0.180	1	20 A	DROP CORD OUTLET	42	I
I	43	DROP CORD OUTLET (SPARE)	20 A	1	0.180 0.180			1	20 A	DROP CORD OUTLET	44	I
	45	SPACE	--	--		0.000 0.000		--	--	SPACE	46	
	47	SPACE	--	--			0.000 0.000	--	--	SPACE	48	
	49	SPACE	--	--	0.000 0.000			--	--	SPACE	50	
	51	SPACE	--	--		0.000 0.000		--	--	SPACE	52	
	53	SPACE	--	--			0.000 0.000	--	--	SPACE	54	
				Total Load:	9.75 kVA	13.94 kVA	7.16 kVA					
				Total Amps:	84.6 A	119.5 A	59.7 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
KITCHEN EQUIPMENT	25390 VA	65.00%	16504 VA	
Lighting	64 VA	100.00%	64 VA	**Total Conn. Load:** 30.9 kVA
RECEPTACLES	5400 VA	100.00%	5400 VA	**Total Est. Demand:** 22.0 kVA
				Total Conn.: 85.6 A
				Total Est. Demand: 61.0 A

Branch Panel: F (New)

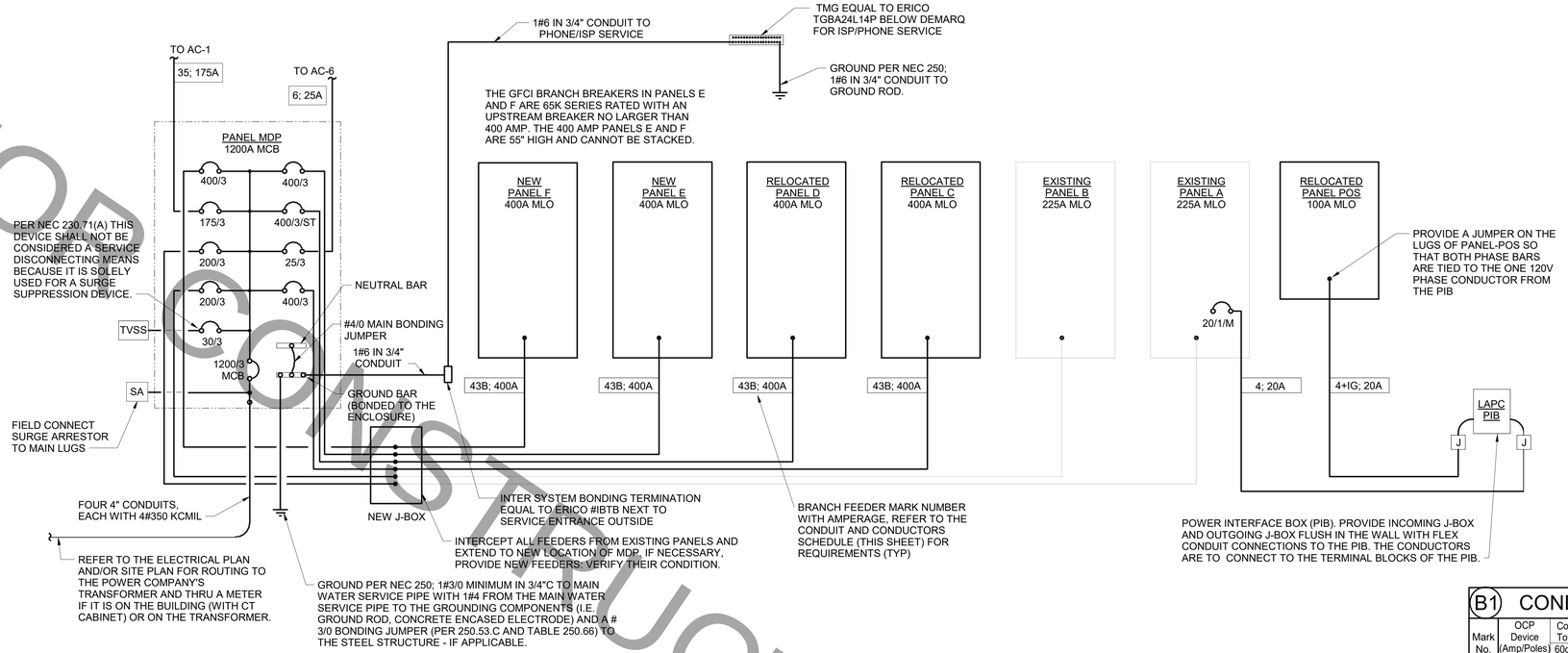
LOCATION: SERVICE 9 | **SUPPLY FROM:** MDP | **MOUNTING:** SURFACE | **ENCLOSURE:** NEMA 1
VOLTS: 120/208 Wye | **PHASES:** 3 | **WIRES:** 4
A.I.C. SERIES RATING: 65K/10K | **MAINS TYPE:** MLO | **MAINS RATING:** 400 A | **MCB RATING:**

NT	CKT	LOAD DESCRIPTION	TRIP	POLE	A	B	C	POLE	TRIP	LOAD DESCRIPTION	CKT	NT
	1	CONDENSOR UNIT (CU-7)	40 A	3	3.362 5.880			3	60 A	DISHWASHER (363)	2	LO
	3	--	--	--		3.362 5.880		--	--	--	4	
	5	--	--	--			3.362 5.880	--	--	--	6	
I	7	INTERIOR ICE MAKER (380D,380A)	15 A	1	0.610 0.600			1	15 A	INTERIOR ICE MAKER (380D)	8	I
	9	REMOTE CONDENSOR (380CD)	20 A	3		1.200 1.200		3	20 A	REMOTE CONDENSOR (380CD)	10	
	11	--	--	--			1.200 1.200	--	--	--	12	
	13	--	--	--	1.200 1.200			--	--	--	14	
I	15	VECTOR OVEN (505V)	20 A	3		2.633 3.768		3	40 A	HEATED AIR DOOR (AD-1)	16	LO
	17	--	--	--			2.633 3.768	--	--	--	18	
	19	--	--	--	2.633 3.768			--	--	--	20	
I	21	VECTOR OVEN (505V)	20 A	3		2.633 2.633		3	30 A	VECTOR OVEN (505VT)	22	I
	23	--	--	--			2.633 2.633	--	--	--	24	
	25	--	--	--	2.633 2.633			--	--	--	26	
	27	REMOTE CONDENSOR (380C)	20 A	3		1.033 1.250		2	20 A	EGG STATION (503T)	28	
	29	--	--	--			1.033 1.250	--	--	--	30	
	31	--	--	--	1.033 1.250			2	20 A	EGG STATION (503T)	32	
	33	SPARE	20 A	1		0.000 1.250		--	--	--	34	
	35	SPARE	20 A	1			0.000 2.640	3	30 A	RETHERMALIZER (592)	36	
	37	SPARE	20 A	1	0.000 2.640			--	--	--	38	
	39	SPARE	20 A	1		0.000 2.640		--	--	--	40	
	41	SPACE	--	--			0.000 0.000	--	--	SPACE	42	
	43	SPACE	--	--	0.000 0.000			--	--	SPACE	44	
	45	SPACE	--	--		0.000 0.000		--	--	SPACE	46	
	47	SPACE	--	--			0.000 0.000	--	--	SPACE	48	
	49	SPACE	--	--	0.000 0.000			--	--	SPACE	50	
	51	SPACE	--	--		0.000 0.000		--	--	SPACE	52	
	53	SPACE	--	--			0.000 0.000	--	--	SPACE	54	
				Total Load:	29.44 kVA	29.48 kVA	28.23 kVA					
				Total Amps:	246.9 A	247.2 A	235.3 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HEAT	11304 VA	100.00%	11304 VA	
HVAC	10087 VA	100.00%	10087 VA	**Total Conn. Load:** 87.2 kVA
KITCHEN EQUIPMENT	54260 VA	65.00%	35269 VA	**Total Est. Demand:** 64.1 kVA
KITCHEN REFRIG EQUIPMENT	11510 VA	65.00%	7481 VA	**Total Conn.:** 241.9 A
				Total Est. Demand: 178.0 A

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 H

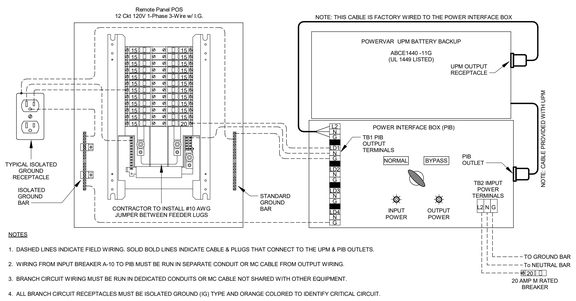


SINGLE-LINE DIAGRAM NOTES

1. 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.
2. GROUND ALL EQUIPMENT AND SERVICES IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE, LOCAL APPLICABLE CODES, AND ALSO AS INDICATED ON DRAWINGS.
3. 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.
4. 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.
5. WIRE AND CABLE:
   A. CONDUCTORS SHALL BE COPPER, #12 AWG, MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE.
   B. CONDUCTOR #10 AWG AND SMALLER SHALL BE SOLID AND #8 AWG AND LARGER SHALL BE STRANDED. INSULATION SHALL BE 600 VOLT, THHN/THWN.
6. 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.
7. ALL DEVICES SHALL HAVE AN INTERRUPTING CAPACITY NOT LESS THAN THE POWER COMPANY AVAILABLE FAULT CURRENT, OR AS INDICATED ON THE DRAWINGS.
8. 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.
9. AVAILABLE SPACE FOR MAIN PANELBOARD IS LIMITED. PANELBOARD MUST FIT IN ALLOCATED SPACE. COORDINATE WITH CONSTRUCTION AS REQUIRED.
10. 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

1. PURCHASE PANELBOARDS, SURGE ARRESTOR, AND TVSS FROM ONE OF THE TWO NATIONAL ACCOUNTS VENDORS (SEE SHEET E-902 SECTION C16440, PANELBOARDS) PROVIDING SQUARE-D EQUIPMENT. NO SUBSTITUTIONS ALLOWED.
2. 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.
3. CONTRACTOR SHALL PROVIDE PANEL FEEDERS A, B, C, D, AND POS, BRANCH CIRCUIT CONDUIT AND WIRE, AND INSTALL ALL EQUIPMENT AS REQUIRED.
4. ALL BREAKERS AND PANELS SHALL BE SQUARE-D.
5. 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 PANE. 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.
6. PROVIDE AN ENERGY-REDUCING MAINTENANCE SWITCH IN ACCORDANCE WITH NEC 240.87.



NOTES

1. DASHED LINES INDICATE FIELD WIRING. SOLID BOLD LINES INDICATE CABLE & PLUGS THAT CONNECT TO THE UPM & PIB OUTLETS.
2. WIRING FROM INPUT BREAKER A-10 TO PIB MUST BE RUN IN SEPARATE CONDUIT OR MC CABLE FROM OUTPUT WIRING.
3. BRANCH CIRCUIT WIRING MUST BE RUN IN DEDICATED CONDUITS OR MC CABLE NOT SHARED WITH OTHER EQUIPMENT.
4. ALL BRANCH CIRCUIT RECEPTACLES MUST BE ISOLATED GROUND (IG) TYPE AND ORANGE COLORED TO IDENTIFY CRITICAL CIRCUIT.
5. POWERVAR UPM BATTERY BACKUP IS MOUNTED ON TOP OF THE PIB AND CONNECTS WITH CABLE PLUGS AND OUTLETS.

(B1) CONDUIT AND CONDUCTORS SCHEDULE

Mark No.	OCP Device (Amp/Poles)	Conductors Total Amps 60d C	75d C	Conductors Phase & Neutral Qty	Size	Type	Min Eq Grd Qty/Set	Size	Raceway Size (Nominal Inches) 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	50/1	55	-	2	6	THHN	1	10	One	0.75	0.75	0.75	0.75	0.75	0.75	0.75
14	50/2	55	-	3	6	THHN	1	10	One	0.75	0.75	0.75	0.75	1.00	1.00	1.00
15	50/3	55	-	4	6	THHN	1	10	One	1.00	1.00	1.00	1.00	1.00	1.00	1.00
16	60/1	70	-	2	4	THW	1	8	One	1.00	1.00	1.00	1.00	1.25	1.00	1.25
17	60/2	70	-	3	4	THW	1	8	One	1.25	1.00	1.25	1.25	1.25	1.25	1.25
18	60/3	70	-	4	4	THW	1	8	One	1.25	1.25	1.25	1.25	1.25	1.25	1.25
19	70/1	70	-	2	4	THW	1	8	One	1.00	1.00	1.00	1.00	1.25	1.00	1.25
20	70/2	70	-	3	4	THW	1	8	One	1.25	1.00	1.25	1.25	1.25	1.25	1.25
21	70/3	70	-	4	4	THW	1	8	One	1.25	1.25	1.25	1.25	1.25	1.25	1.25
22	80/2	85	-	3	3	THW	1	8	One	1.25	1.25	1.25	1.25	1.25	1.25	1.25
23	80/3	85	-	4	3	THW	1	8	One	1.25	1.25	1.25	1.25	1.50	1.25	1.50
24	90/2	95	-	3	2	THW	1	8	One	1.25	1.25	1.25	1.25	1.50	1.25	1.50
25	90/3	95	-	4	2	THW	1	8	One	1.50	1.25	1.50	1.50	1.50	1.50	1.50
26	100/2	110	-	3	1	THW	1	6	One	1.50	1.50	1.50	1.50	2.00	2.00	2.00
27	100/3	110	-	4	1	THW	1	6	One	2.00	2.00	2.00	2.00	2.00	2.00	2.00
28	110/2	-	115	3	2	THW	1	6	One	1.25	1.25	1.25	1.25	1.50	1.25	1.50
29	110/3	-	115	4	2	THW	1	6	One	1.50	1.25	1.50	1.50	1.50	1.50	1.50
30	125/2	-	130	3	1	THW	1	6	One	1.50	1.50	1.50	1.50	2.00	2.00	2.00
31	125/3	-	130	4	1	THW	1	6	One	2.00	2.00	2.00	2.00	2.00	2.00	2.00
32	150/2	-	150	3	1/0	THW	1	6	One	2.00	1.50	2.00	2.00	2.00	2.00	2.00
33	150/3	-	150	4	1/0	THW	1	6	One	2.00	2.00	2.00	2.00	2.00	2.00	2.00
34	175/2	-	175	3	2/0	THW	1	6	One	2.00	2.00	2.00	2.00	2.00	2.00	2.00
35	175/3	-	175	4	2/0	THW	1	6	One	2.00	2.00	2.00	2.00	2.50	2.50	2.50
36	200/2	-	200	3	3/0	THW	1	6	One	2.00	2.00	2.00	2.00	2.50	2.50	2.50
37	200/3	-	200	4	3/0	THW	1	6	One	2.50	2.50	2.50	2.50	2.50	2.50	2.50
38	225/2	-	230	3	4/0	THW	1	4	One	2.50	2.00	2.50	2.50	2.50	2.50	2.50
39	225/3	-	230	4	4/0	THW	1	4	One	2.50	2.50	2.50	2.50	2.50	3.00	3.00
40	250/3	-	255	4	250	THW	1	4	One	2.50	3.00	3.00	3.00	3.00	3.00	3.00
41A	300/3	-	285	4	300	THW	1	4	One	3.00	3.00	3.00	3.00	3.00	3.00	3.00
41B	300/3	-	310	4	350	THW	1	4	One	3.00	3.00	3.00	3.00	3.00	3..00	3.00
42A	350/3	-	335	4	400	THW	1	4	One	3.00	3.50	3.50	3.50	3.50	3.50	3.50
42B	350/3	-	380	4	500	THW	1	4	One	3.50	3.50	3.50	3.50	3.50	3.50	3.50
43A	400/3	-	380	4	500	THW	1	3	One	3.50	3.50	3.50	3.50	3.50	3.50	3.50
43B	400/3	-	400	4	3/0	THW	1	3	Two	2.50	2.50	2.50	2.50	2.50	2.50	2.50
44A	600/3	-	570	4	300	THW	1	1	Two	3.00	3.00	3.00	3.00	3.00	3.00	3.00
44B	600/3	-	620	4	350	THW	1	1	Two	3.00	3.00	3.00	3.00	3.00	3.00	3.50
45A	800/3	-	760	4	500	THW	1	1/0	Two	3.50	3.50	3.50	3.50	3.50	3.50	3.50
45B	800/3	-	820	4	600	THW	1	1/0	Two	4.00	4.00	4.00	4.00	4.00	4.00	4.00
46	1000/3	-	1005	4	400	THW	1	2/0	Three	3.50	3.50	3.50	3.50	3.50	3.50	3.50
47	1200/3	-	1240	4	350	THW	1	3/0	Four	3.50	3.50	3.50	3.50	3.50	3.50	4.00
48	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 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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BUILDING TYPE / SIZE: S03 ALL
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REVISION SCHEDULE

NO.	DATE	DESCRIPTION

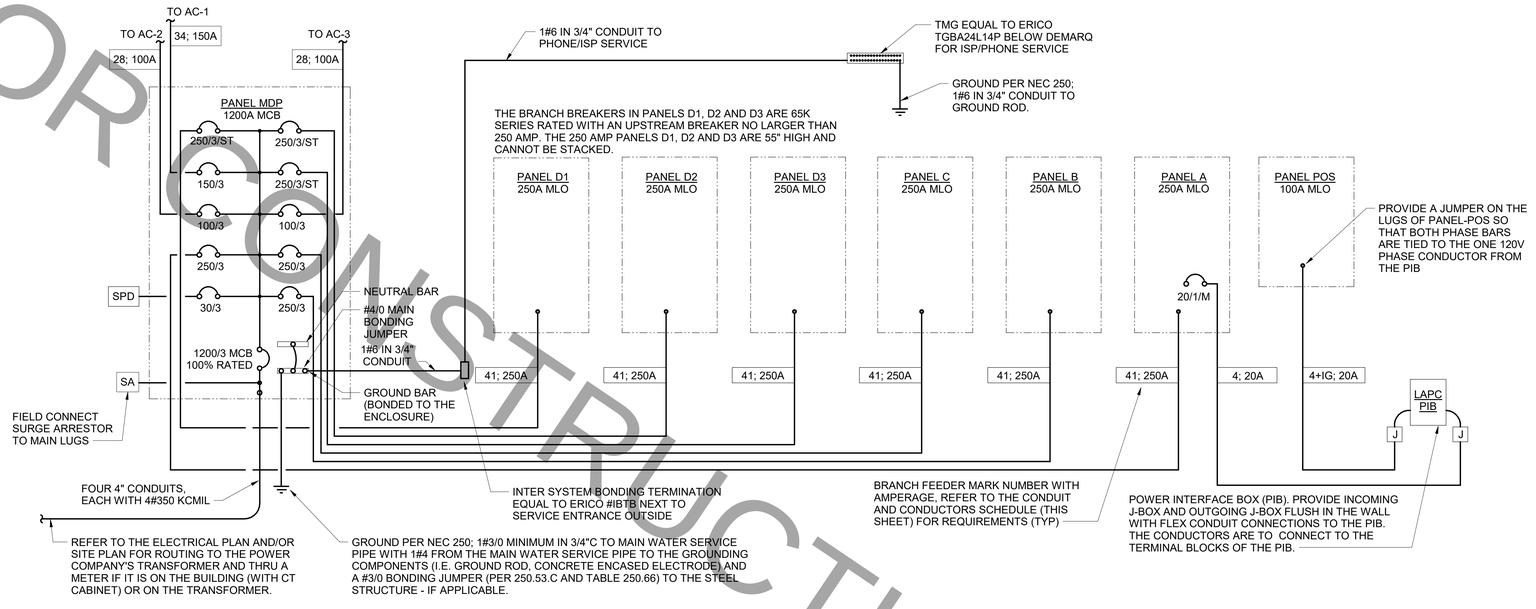
CONSULTANT PROJECT # C29119
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SHEET
SINGLE LINE DIAGRAM AND NOTES

SHEET NUMBER
E-502

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50-503-01530-E-502-SINGLE LINE DIAGRAM AND NOTES



C2 SINGLE LINE DIAGRAM

NO SCALE

B1 CONDUIT AND CONDUCTORS SCHEDULE

Mark No.	OCP Device (Amp/Poles)	Conductors Total Amps 60d C	75d C	Conductors Phase & Neutral Qty	Size	Type	Min Eq Grd Qty/Set	Size	Raceway Size (Nominal Inches) 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	1.00	1.00	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	1.50	1.25	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	2.00	2.00	2.00
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.

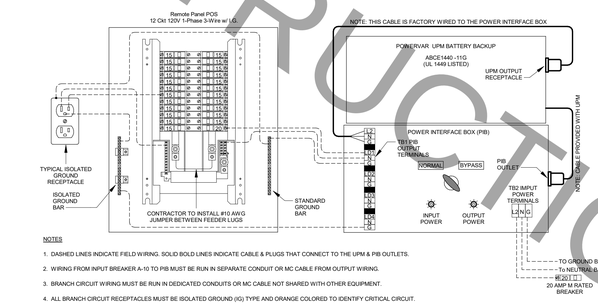
The above conductors are not calculated for Voltage Drop. Any circuits that exceed 100 feet shall be calculated by the Installer to have less than a three percent voltage drop on feeders and five percent on branch circuits per the NEC.

SINGLE-LINE DIAGRAM NOTES

1. 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.
2. GROUND ALL EQUIPMENT AND SERVICES IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE, LOCAL APPLICABLE CODES, AND ALSO AS INDICATED ON DRAWINGS.
3. 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.
4. 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.
5. WIRE AND CABLE:
   A. CONDUCTORS SHALL BE COPPER, #12 AWG, MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE.
   B. CONDUCTOR #10 AWG AND SMALLER SHALL BE SOLID AND #8 AWG AND LARGER SHALL BE STRANDED. INSULATION SHALL BE 600 VOLT, THHN/THWN.
6. 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.
7. ALL DEVICES SHALL HAVE AN INTERRUPTING CAPACITY NOT LESS THAN THE POWER COMPANY AVAILABLE FAULT CURRENT, OR AS INDICATED ON THE DRAWINGS.
8. 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.
9. AVAILABLE SPACE FOR MAIN PANELBOARD IS LIMITED. PANELBOARD MUST FIT IN ALLOCATED SPACE. COORDINATE WITH CONSTRUCTION AS REQUIRED.
10. 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

1. PURCHASE PANELBOARDS, SURGE ARRESTOR, AND TVSS FROM ONE OF THE TWO NATIONAL ACCOUNTS VENDORS (SEE SHEET E-902 SECTION C16440, PANELBOARDS) PROVIDING SQUARE-D EQUIPMENT. NO SUBSTITUTIONS ALLOWED.
2. 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.
3. CONTRACTOR SHALL PROVIDE PANEL FEEDERS A, B, C, D, AND POS, BRANCH CIRCUIT CONDUIT AND WIRE, AND INSTALL ALL EQUIPMENT AS REQUIRED.
4. ALL BREAKERS AND PANELS SHALL BE SQUARE-D.
5. 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.
6. PROVIDE ARC FLASH MITIGATION AND DOCUMENTATION FOR PANEL MDP PER NEC 240.87.
7. CONTRACTOR SHALL APPLY FOR SERVICE FROM ELECTRIC UTILITY. CONTRACTOR SHALL OBTAIN THE AVAILABLE FAULT CURRENT FROM UTILITY AND CALCULATE THE 3-PHASE FAULT CURRENT AT EACH PANEL USING COOPER BUSSMAN BULLETIN EDP-1, "*A SIMPLE APPROACH TO SHORT CIRCUIT CALCULATIONS*" (2004) OR "*SPD ELECTRICAL PROTECTION HANDBOOK*" (2017), SECTION 4. PROVIDE PANELS WITH INTERRUPTING CAPACITIES AT LEAST 10% ABOVE CALCULATED VALUES.



NOTES

1. DASHED LINES INDICATE FIELD WIRING. SOLID BOLD LINES INDICATE CABLE & PLUGS THAT CONNECT TO THE UPM & PIB OUTLETS.
2. WIRING FROM INPUT BREAKER A-10 TO PIB MUST BE RUN IN SEPARATE CONDUIT OR MC CABLE FROM OUTPUT WIRING.
3. BRANCH CIRCUIT WIRING MUST BE RUN IN DEDICATED CONDUITS OR MC CABLE NOT SHARED WITH OTHER EQUIPMENT.
4. ALL BRANCH CIRCUIT RECEPTACLES MUST BE ISOLATED GROUND (IG) TYPE AND ORANGE COLORED TO IDENTIFY CRITICAL CIRCUIT.
5. POWERVAR UPM BATTERY BACKUP IS MOUNTED ON TOP OF THE PIB AND CONNECTS WITH CABLE PLUGS AND OUTLETS.

A1 POS AND LAPC/PIB WIRING DIAGRAM

NO SCALE

FOR CONSTRUCTION

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

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Plans Prepared By:
CPH Consulting, LLC
State of Alabama Licenses:
Engineer No. 2750-E
Surveyor. No. CA-909-LS
Landscape No. N/A

ALABAMA LICENSED No. 18054 PROFESSIONAL ENGINEER GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: P13 SE ALL
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

CONSULTANT PROJECT #	C29119
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SHEET
SINGLE LINE DIAGRAM AND NOTES

SHEET NUMBER
E-502

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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 shown 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 diagramatic 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.

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 feralloy. 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 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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1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: S03 ALL
RELEASE: N/A

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

CONSULTANT PROJECT #	C29119
PRINTED FOR	PERMIT
DATE	10-10-21
DRAWN BY	K.C.L.

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SHEET :
ELECTRICAL SPECIFICATIONS

SHEET NUMBER
E-901

BIM 360://AL_01530_Cullman_2021.2_FSR/01530_Cullman_Remodel_ELE.rvt
3/23/2022 4:46:07 PM
50-S03-01530-E-901-ELECTRICAL SPECIFICATIONS

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 diagramatic 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.

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 feralloy. 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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ALABAMA LICENSED PROFESSIONAL ENGINEER
No. 18054
GREGORY D. TAYLOR

CHICK-FIL-A
CULLMAN (AL)
1830 Cherokee Ave. SW
Cullman, AL 35055

FSR#01530

BUILDING TYPE / SIZE: P13 SE ALL
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

CONSULTANT PROJECT # C29119
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DRAWN BY KCL

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SHEET
ELECTRICAL SPECIFICATIONS

SHEET NUMBER
E-901

Autodesk Docs://AL_01530_Cullman_2021.2_FSR/01530_Cullman_ELE.rvt
3/20/2023 11:35:39 AM
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SECTION C16124
SUPPORTING DEVICES AND HANGERS

PART 1 - PRODUCTS

1.01 ACCEPTABLE MANUFACTURERS
A. Supporting devices and hangers shall be manufactured by RACO Fasteners, or approved equivalent.

PART 2 - EXECUTION

2.01 INSTALLATION
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.

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.

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.

D. Use of chains, perforated iron, baling wire, or tie wire for supporting conduit runs is not permitted.

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.

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.

SECTION C16140
WIRING DEVICES AND PLATES

PART 1 - PRODUCTS

1.01 WALL SWITCHES
A. Ratings: 20 amps, 120/277 volts a.c. or as identified on drawings.

B. Devices: (Cooper/Arrow Hart catalog numbers are listed unless notedotherwise):
1. Single pole toggle switches: 20 AMP device - #AH1221-GY (Kitchen) or #AH1221-B (Dining) 20 AMP Pilot lights illuminated with load on - #AH1221-PL

2. Double pole toggle switches: 20 AMP device - #AH1222-GY (Kitchen) or #AH1222-B (Dining)

3. Three-way toggle switches: 20 AMP device - #AH1223-GY (Kitchen) or #AH1223-B (Dining)

1.02 RECEPTACLES
A. Devices: (Cooper/Arrow Hart catalog numbers are listed unless otherwise noted):
1. Specification grade devices to be 20 amp, 125 volts, a.c. receptacles:
a. Single (simplex) device: #1877-GY (Kit) or #1877-B (Dining)
b. Duplex device: #CR20-GY (Kitchen) of #CR20-B (Dining)
c. Tamper resistant duplex device: #TRCR20-B or #TR7756-B (with USB charging)
d. GF (ground-fault circuit interrupter) duplex device: #VGF20-GY (Kitchen) or #VGF20-B (Dining)
e. IG (isolated ground) duplex device: #IG5362-RN (orange face)

B. Color:
1. Devices mounted in the FRP or tile shall be gray.
2. Devices mounted in wood finish shall be brown.
3. Isolated ground receptacles shall be orange.

1.03 SPECIAL DEVICES
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.

1.04 WALL PLATES
A. Provide blank plates on all outlet boxes for future outlets, or outlets without devices. Plate style shall match device plates.

B. 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.

C. Where devices installed in exposed boxes or conduit fittings; provide properly designed plates and covers equal to Arrow Hart RS-Series exposed work covers.

D. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface mounted boxes.

E. Color:
1. Wall plates mounted in FRP or tile shall be smooth satin stainless steel 302-ss series.
2. Wall plates mounted in wood finish shall be brown nylon plastic.
3. Isolated ground wall plates shall be orange nylon plastic with a circuit number printed in 3/16 inch black lettering on clear adhesive label adhered to plate.

PART 2 - EXECUTION

2.01 INSTALLATION
A. Mounting
1. Mount switches and receptacles at height above finished floor as indicated on plans, and legend.
2. 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.
3. Install switches with off position down.
4. Do not use the feed thru feature for the GF Type receptacle, unless required by the plans.
5. Use jumbo sized plates for outlets installed in masonry walls.
6. Each receptacle shall be provided with a #12 green grounding jumper between the ground terminal of the receptacle and the outlet box.
7. 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.

B. Testing
1. Test each switch and verify proper operation with energized circuit.
2. Test each receptacle for proper polarity on energized circuit.
3. 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.

SECTION C16440
PANELBOARDS

PART 1 - PRODUCTS

1.01 MANUFACTURER (via Chick-fil-A National Accounts Program)
A. Square-D (West, Midwest, Northeast, and Southwest Regions): from Villa Lighting, Dave Christanell (800)325-0963

B. Square-D (Atlantic and Southeast Regions): from Accu-Serv, Bob Harpring (602)961-0096.

1.02 PANELBOARD FEATURES
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.

B. Bus bars shall be copper.

C. Provide factory-installed copper ground bus in each panelboard with lugs or connectors on bar.

D. Provide electrically isolated, factory installed, neutral bus in each 3 phase, 4 wire or 1 phase 3 wire panelboard.

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.

F. Main lugs and main circuit breaker lugs shall be UL Listed for use with both aluminum and copper conductors.

G. Provide panelboard doors with chrome-plated locks and catches. All locks shall be keyed alike. Provide two keys for each lock.

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.

I. Provide typed directory card with clear holder for each panelboard.

PART 2 - EXECUTION

2.01 INSTALLATION
A. Panelboards shall be mounted at height above finished floor such that the height of the top-most breaker in the panel is not more than 6-1/2 feet above finished floor in its highest position per the NEC.

B. Where multiple panelboards are installed on walls in common areas of buildings, the panelboards shall be installed with the top of all panelboards at the same height.

C. Provide blank filler plates over all unused spaces in panelboards.

D. A typed directory card shall indicate devices being served and the space name where the device is located.

E. Provide minimum of one (1) 3/4" empty spare conduit for every 3 poles of spare breaker or space in the panelboard. Stub conduit to nearest accessible ceiling space. Label conduit as spare at panelboard and termination point.

F. Non-isolated ground bars shall be grounded to panelboard can and main service entrance ground bus with a code sized grounding conductor installed in the same conduit as the phase and neutral conductors.

G. Circuits using a common neutral shall be installed in accordance with the National Electrical Code.

H. Inspect each panelboard for proper installation, physical damage, tightness and installation of overcurrent devices. Verify proper color coding of conductors. Correct or repair all items found in inspection.

I. Neutral wires, ground wires, and isolated ground wires shall be connected to the appropriate panel bus bar. Do not mix bus wire connections.

SECTION C16441
ENCLOSED SWITCHES
PART 1 - PRODUCTS

1.01 MANUFACTURERS
A. Square D
B. GE / ABB
C. Siemens

1.02 ENCLOSED SWITCHES
A. Nonfusible 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.

B. Enclosures: NEMA KS 1.
1. Interior dry locations: Type 1.
2. Exterior locations: Type 3R.

SECTION C16442
UTILITY SERVICE ENTRANCE AND DISTRIBUTION SYSTEM

PART 1 - GENERAL

1.01 SYSTEM DESCRIPTION
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.

B. Metering of electrical usage shall be located as required by local electrical utility company. Coordinate requirements with local utility company.

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.

PART 2 - PRODUCTS

2.01 MATERIALS
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.

PART 3 - EXECUTION

3.01 EXAMINATION AND PREPARATION
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.

B. Ensure pad mounted transformer is not located within roadway or sidewalk.

C. Coordinate with local electrical utility for all utility company requirements and provide for the following items and any others required by the utility:
1. Concrete pad for utility transformer with required dimensions and details.
2. Primary underground conduit, excavation, and backfill requirements.
3. Pay for all fees associated with establishment of electrical service.
4. Furnish list of loads to the electrical utility company serving the facility.
5. Verify that utility company clearances are provided on all sides of utility equipment.

D. Ensure proper access to utility equipment is maintained.

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.

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.

SECTION C16500
LIGHTING FIXTURES (LUMINAIRES)

PART 1 - GENERAL

1.01 ACCEPTABLE MANUFACTURERS AND VENDORS
A. Lighting fixtures indicated on lighting fixture schedule are to be purchased from the National Account Vendor for the region of the project (verify region designation with Owner's Representative):

1. Accu-Serv Lighting - Atlantic region and Southeast region. Contact at Accu-Serv: Bob Harpring at 877-707-7378, fax - 502-961-0357, email - bharpring@accu-serv.com
2. Villa Lighting - Northeast region, Midwest region, Southwest region, and West region. Contact at Villa Lighting: Dave Christanell at 800-325-0963, fax- 314-531-8720, email - davec@villalighting.com

B. Ballasts to be electronic ballast provided with lighting fixture by the manufacturer.

C. Lamps to be Osram-Sylvania and will typically be provided with the luminaire by the lighting manufacturer.

1.02 FIXTURE REQUIREMENTS
A. Provide regulating, HPF ballasts in all HID lighting fixtures. HID lamp types shall be as indicated on the drawings.

B. Recessed fluorescent lighting fixture ballasts shall be provided with integral thermal protection.

C. Provide energy-saving Instant or Rapid Start lamps for all fluorescent fixtures.

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.

E. All components of recessed fixtures shall be accessible without disturbing fixture in or on ceiling.

F. Energy saving ballasts and energy saving lamps provided shall be compatable for operation together.

G. Exterior fixtures and poles shall be suitable for exterior use, shall be UL Listed, and shall be a standard design for exterior application.

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.

1.03 CONTROLS
A. Lighting contactors shall be Square-D, GE / ABB, Cutler-Hammer or Siemens of types and quantity shown on drawings, except those furnished with the switchgear as part of the National Account Program by Suncoast Environmental Controls (SEC).

1.04 EMERGENCY LIGHTING UNITS
A. Batteries shall supply emergency power for lighting with minimum operating time of 1-1/2 hours.

B. Emergency lighting shall be automatically operational upon normal utility power failure.

PART 3 - EXECUTION

3.01 INSTALLATION
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.

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.

C. Fixtures surface mounted on exposed tee bar ceilings shall use grip clamps on tee bars to support fixtures.

D. Wire shall be continuous from splice in outlet box of building wiring system to lamp socket or ballast terminals.

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.

F. Concrete bases shall be provided for all exterior ground mounted or pole mounted fixtures.

G. Install accessories furnished with each fixture.

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.

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.

3.02 FIELD QUALITY CONTROL
A. Relamp fixtures that have failed lamps at substantial completion.

SECTION C16596
SPECIAL SYSTEMS

PART 1 - GENERAL

1.01 WORK INCLUDED
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.

B. Interior system equipment will be furnished by Owner's Vendor.

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.

PART 2 - PRODUCTS

2.01 MATERIALS
A. Provide 4-11/16" square boxes, with plaster rings. Provide device plates for system outlets as specified in Section 16141. Provide separate conduit to nearest accessible ceiling space from each outlet.

B. Cable shall be in conduit where installed in walls or inaccessible ceilings.

C. Minimum conduit size shall be 3/4" .

PART 3 - EXECUTION

3.01 INSTALLATION
A. Furnish and install conduits, junction boxes, outlet boxes, and plates.

B. Provide one #10 equivalent nylon pull wire in each system empty conduit.

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.

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.

E. Terminate each conduit stub-up or termination with nylon insulated bushing.

SECTION C16597
TELEPHONE SERVICE

PART 1 - GENERAL

1.01 WORK INCLUDED
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.

B. Provide underground PVC, Schedule 40, service conduit as required by plans.

C. Telephone Utility Company will provide service entrance cable.

D. Interior telephone system will be furnished by owner's vendor.

E. Special backboxes (unless otherwise noted) and faceplates will be furnished by the owner's vendor.

PART 2 - PRODUCTS

2.01 MATERIALS
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.

B. Minimum conduit size shall be 3/4".

C. Provide lightning arrester for telephone service entrance at main telephone backboard in accordance with UL96A paragraph 11.2 and NFPA 780.

D. Cable shall be in conduit where installed in walls or above inaccessible ceiling spaces.

PART 3 - EXECUTION

3.01 INSTALLATION
A. Provide one #10 equivalent nylon pull wire in each empty telephone conduit.

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.

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.

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.

E. Terminate each conduit stub-up or termination with nylon insulated bushings.

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.

CLOSE OUT DOCUMENT REQUIREMENTS

Provide the following to the building owner upon completion of construction:

1. Submittal data stating equipment rating and selected options for each piece of equipment requiring maintenance.
2. Operation manuals and maintenance manuals for each piece of equipment requiring maintenance. Required routine maintenance actions shall be clearly identified.
3. Names and addresses of at least one qualified service agency.
4. A complete narrative of how each system is intended to operate.

FOR CONSTRUCTION

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Atlanta, Georgia
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E-902

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