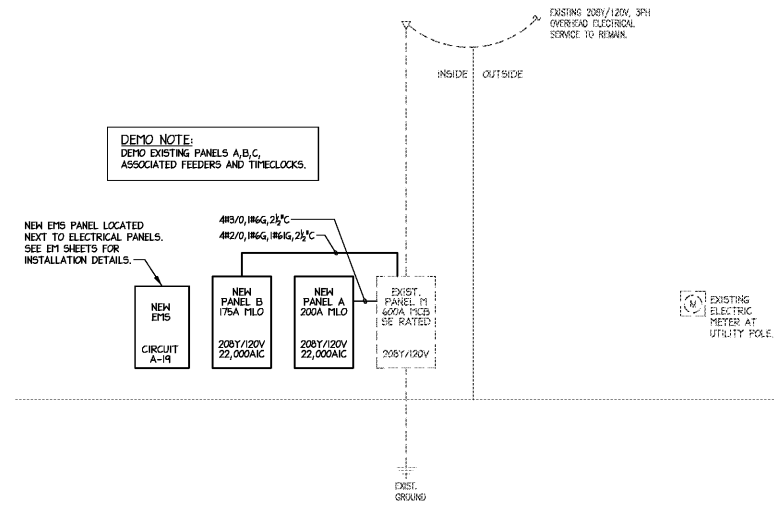


**GENERAL ELECTRICAL NOTES**

- ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND ALL LOCAL AND STATE CODES.
- ALL MATERIAL, DEVICES, APPLIANCES, AND EQUIPMENT SHALL BE NEM AND SHALL CONFORM TO THE STANDARDS OF THE UNDERWRITERS LABORATORIES, INC., AND THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION.
- ALL ELECTRICAL PERMITS AND INSPECTION FEES SHALL BE OBTAINED AND PAID FOR BY THE ELECTRICAL CONTRACTOR. DRAWINGS ARE DIAGNOSTIC ONLY AND INDICATE ONLY THE GENERAL ARRANGEMENT. SEE ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS, DO NOT SCALE PLANS.
- ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR ONE YEAR EFFECTIVE THE DAY THE PROJECT IS ACCEPTED BY THE OWNER.
- ELECTRICAL CONTRACTOR SHALL MAKE ALL ELECTRICAL POWER CONNECTIONS TO HVAC, PLUMBING AND OTHER EQUIPMENT AS REQUIRED.
- A COMPLETE GROUNDING SYSTEM SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH ARTICLE 250 OF THE NEC, AND AS SHOWN ON THE DRAWINGS.
- ALL CUTTING AND PATCHING OF WALLS AND FLOORS FOR ELECTRICAL EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
- CONDUCTORS SHALL BE COPPER RATED AT NOT LESS THAN 600 VOLTS. MINIMUM SIZE SHALL BE #12 AWG UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL WIRE #10 AWG AND LARGER SHALL BE STRANDED. ALL CONDUCTORS #10 AND SMALLER SHALL BE SOLID, UNLESS OTHERWISE NOTED. BRANCH CIRCUIT CONDUCTORS SHALL BE TYPE THHN/THWN OR XHHW AS REQ'D.
- ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH NEC. TYPE MC CABLE IS THE PREFERRED WIRING METHOD. USE EMT WHERE MC IS PROHIBITED. USE RIGID STEEL CONDUIT WHERE EXPOSED OUTDOORS. USE LIQUID TIGHT FTYC FOR ALL CONNECTIONS TO MOTORS AND CONDENSING UNITS. MINIMUM CONDUIT SIZE TO BE 3/4". EC TO RUN ALL ELECTRICAL OVERHEAD IN A NEAT AND ORGANIZED FASHION.
- PROVIDE A PULLWIRE IN ALL EMPTY CONDUITS.
- PROVIDE A TYPED DIRECTORY IN ALL PANELBOARDS CLEARLY DESCRIBING THE LOCATION OF AND TYPE OF LOAD BEING SERVED FOR ALL CIRCUITS. PROVIDE ENGRAVED PHENOLIC NAMEPLATES FOR ALL PANELBOARDS AND DISCONNECT SWITCHES, WHITE LETTERS ON BLACK BACKGROUND.
- FUSES 0 - 600 AMPS SHALL BE UL CLASS "RK-1" LOW PEAK DUAL ELEMENT TIME DELAY WITH 200,000 AMPERE INTERRUPTING RATING AS MANUFACTURED BY BUSSMANN, UNLESS NOTED OTHERWISE.
- ALL TERMINALS/LUGS SHALL BE 75% RATED. ALL TERMINALS, SPLICING CONNECTORS, LUGS, ETC SHALL BE IDENTIFIED FOR USE WITH THE MATERIAL (CUAL) OF THE CONDUCTOR AND SHALL BE PROPERLY INSTALLED.
- VERIFY ALL REQUIREMENTS AND COORDINATE EXACT LOCATION OF INCOMING ELECTRICAL SERVICE WITH LOCAL POWER COMPANY PRIOR TO PROJECT START-UP. NOTIFY ENGINEER OF ANY CHANGES AS MAY BE REQUIRED.
- ALL ELECTRICAL DEVICES (SWITCHES AND OUTLETS) SHALL BE "WHITE" WITH WHITE NYLON UNBREAKABLE WALL COVER PLATES EXCEPT THAT IG OUTLETS SHALL BE "ORANGE".
- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL ELECTRICAL EQUIPMENT FROM FOREIGN MATERIAL DURING CONSTRUCTION (PAINT, SPARKLE, ETC.).
- PENETRATIONS OF REQUIRED SPOKE PARTITIONS SHALL BE SEALED USING METHODS APPROVED UNDER THE STATE BUILDING CODE. COORDINATION WITH THE GENERAL CONTRACTOR SHALL BE MAINTAINED TO INSURE THAT THIS SPOKE STOPPING IS ACCOMPLISHED.
- WHERE PENETRATIONS ARE MADE THROUGH A REQUIRED FIRE-RESISTIVE HALL, FLOOR, OR PARTITION FOR THE PURPOSE OF RUNNING RACEWAY CARRYING ELECTRICAL, TELEPHONE, TELEVISION, OR LOCAL COMMUNICATION AND/OR SIGNALING CIRCUITS, THE OPENING AROUND THE RACEWAY SHALL BE FIRE STOPPED PER THE STATE BUILDING CODE. COORDINATION WITH THE GENERAL CONTRACTOR SHALL BE MAINTAINED TO INSURE THAT THIS FIRE STOPPING IS ACCOMPLISHED. USE APPROVED U.L. OR EQUIVALENT ASSEMBLIES.
- IN REQUIRED FIRE RATED WALLS AND PARTITIONS, OPENINGS FOR INSTALLATION OF BOXES THAT ARE GREATER THAN 16" SQUARE INCHES SHALL BE PROTECTED AS REQUIRED BY U.L. COORDINATE CLOSELY WITH THE GENERAL CONTRACTOR TO INSURE THAT THE INTEGRITY OF THE U.L. RATING IS MAINTAINED.
- WHERE A HOME RUN IS SHOWN THE CIRCUIT SHALL BE INSTALLED IN A DEDICATED CONDUIT. DO NOT COMBINE WITH OTHER CIRCUITS. WHERE A CIRCUIT HOMERUN IS NOT SHOWN, THE CONTRACTOR SHALL COMBINE CIRCUITS AS FOLLOWS: A MAXIMUM OF THREE 20A BRANCH CIRCUITS MAY BE COMBINED IN A COMMON HOMERUN WITH SEPARATE NEUTRALS FOR A MAXIMUM TOTAL OF SIX CURRENT CARRYING CONDUCTORS. ALL BRANCH CIRCUITS LARGER THAN 20A SHALL BE SEPARATELY HOMERUN TO THE PANEL.
- EACH DISCONNECT SHALL BE EQUIPPED WITH A GROUND BAR.
- PROVIDE GREEN EQUIPMENT GROUNDING CONDUCTOR WITH ALL FEEDER AND BRANCH CIRCUITS.
- DEVICE HEIGHTS INDICATED ARE TO THE CENTER OF THE DEVICE OR EQUIPMENT UNLESS NOTED OTHERWISE. RECEPTACLE AND DATA/TELEPHONE OUTLETS SHOWN ADJACENT ON DRAWINGS SHALL BE MOUNTED 6" APART ON CENTER HORIZONTALLY.
- COORDINATE ALL DEVICES AND OUTLETS ABOVE OR BELOW WITH CASEWORK INSTALLATION AND FDS IN ORDER TO POSITION AT THE PROPER LOCATION AND HEIGHT.
- ALL EXTERIOR FIXTURES AND DEVICES SHALL BE RATED FOR OPERATION AT 0' F AND SHALL BE DAMP OR WET LABELED AS REQUIRED.
- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL ELECTRICAL EQUIPMENT, DEVICES, ETC. IN ACCORDANCE WITH LOCAL SEISMIC CODE REQUIREMENTS. PROVIDE SEISMIC RESTRAINTS, ACCESSORIES AND INSTALLATION DETAIL AS REQUIRED.
- THE CONTRACTOR SHALL VISIT THE SITE AND BECOME THOROUGHLY FAMILIAR WITH ALL DETAILS OF THE WORK AND WORKING CONDITIONS. VERIFY ALL FIELD CONDITIONS INCLUDING LOCATION OF UTILITY LINES, STRUCTURES AND ADVISE THE ENGINEER OF ANY DISCREPANCY THAT MAY PREVENT OR HINDER THE SPECIFIED WORK FROM BEING COMPLETED.
- THE CONTRACTOR SHALL STUDY THE STRUCTURE AND FINISH CONDITIONS AFFECTING THE WORK AND SHALL COORDINATE THE WORK ACCORDINGLY. CONTRACTOR SHALL PROVIDE ALL ACCESSORIES, HANGERS, AND ANCHORS AS NECESSARY TO MEET SUCH CONDITIONS WITHOUT ADDITIONAL COST TO THE OWNER.
- PRIOR TO ACCOMPLISHING ANY WORK IN AN AREA, ALL WORK SHALL BE DEFINED AND COORDINATED WITH OTHER TRADES AND THE OWNER. THE CIRCUIT RATING SHALL BE COORDINATED WITH DUCTWORK AND OTHER DEVICES SO AS TO PROVIDE THE MOST EFFICIENT AND AESTHETIC PLEASING INSTALLATIONS.
- PROPERLY SUPPORT ALL WORK AND EQUIPMENT INSTALLED UNDER CONTRACT. STUDY ALL DRAWINGS, MANUFACTURER'S INSTRUCTIONS, AND CHECKING DATA TO DETERMINE HOW EQUIPMENT ACCESSORIES AND RELATED PARTS ARE TO BE SUPPORTED OR HANGERS. PROVIDE ALL WTS, INSERTS, BRACKETS, STRUCTURAL SUPPORTS, ACCESSORIES, ETC. TO SUPPORT EQUIPMENT BEING FURNISHED BY THIS CONTRACT.

**NOTE TO CONTRACTORS**

- RUN ALL ELECTRICAL CONDUITS, PLUMBING PIPING, LOW VOLTAGE WIRING, ETC. SO AS NOT TO INTERFERE WITH STORE FIXTURE EQUIPMENT LAYOUTS, OR ANY OTHER FAMILY DOLLAR EQUIPMENT.
- CONTRACTORS TO ROUTE ALL CONDUITS, PLUMBING PIPING, LOW VOLTAGE WIRING, ETC., TIGHT TO STRUCTURE AND PERPENDICULAR TO HALL IN AN ORDERLY MANNER.



**NEW PANEL A** SURFACE MOUNTED  
SERVICE ENTRANCE RATED 208Y/120 VOLTS, 3Ø, 4W  
200 AMP MAIN LUGS ONLY

KVA CONN.	REMARKS OR EQUIPMENT SERVED	WIRE SIZE		KVA CONN.
		TRIP	AMPS	
BL 0.3	LTS - MUD/ENT/EMERG	10	30	1
0.2	LTS - ERS	12	30	3
EHPL 0.7	LTS - SALES / INVERTER	10	5	4
EHPL 0.5	LTS - SALES AREA	12	7	8
EHPL 0.4	LTS - SALES AREA	10	4	10
EHPL 0.2	LTS - STOCK ROOM	12	11	12
CUST 1.0	LTS - SALES AREA	12	15	14
CUST 1.0	LTS - SALES AREA	10	15	16
CUST 0.6	LTS - SALES AREA	10	17	18
BL 0.2	EPS	12	14	20
BL 1.2	BUILDING SIGN	12	21	22
-	SPARE	20	23	24
-	SPARE	20	25	26
-	SPARE	20	27	28
-	SPARE	20	29	30
-	SPARE	20	31	32
-	SPARE	20	33	34
-	SPARE	20	35	36
-	SPARE	20	37	38
-	SPARE	20	39	40
-	SPARE	20	41	42
6.3	SUBTOTAL	TOTAL KVA		36.3

BL - PROVIDE BREAKER LOCKING DEVICE  
HACR - PROVIDE HACR TYPE BREAKER FOR HVAC/REFRIGERATION EQUIPMENT  
EPMS - EMPLOYEE WORK LIGHTING (CIRCUIT VIA EPMS EMPLOYEE CONTRACTOR)  
CUST - CUSTOMER LIGHTING (CIRCUIT VIA EPMS CUSTOMER CONTRACTOR)  
EXT - EXTERIOR LIGHTING (CIRCUIT VIA EPMS EXTERIOR CONTRACTOR)

**CONNECTED LOAD SUMMARY (PANEL A)**

LOAD	KVA CONN.	D.F.	KVA NET
LIGHTS	6.1	1.25	7.6
HVAC (LARGEST MOTOR)	5.7	1.25	1.9
OTHER	2.2	1.0	0.2
COOLERS/FREEZERS	3.3	1.0	24.3
TOTAL	17.3		34.2

LOAD CALCULATION  
17.3 KVA / 0.36 KV = 108.9 AMPS

**NEW PANEL B** SURFACE MOUNTED  
SERVICE ENTRANCE RATED 208Y/120 VOLTS, 3Ø, 4W  
175 AMP MAIN LUGS ONLY

KVA CONN.	REMARKS OR EQUIPMENT SERVED	WIRE SIZE		KVA CONN.
		TRIP	AMPS	
0.5	CHECKOUT STATION (DRTRY)	20	20	2
0.4	CHECKOUT STATION (DRTRY)	10	20	3
-	SPARE	20	5	6
-	SPARE	20	7	7
-	SPARE	20	10	8
-	RECP - EAS (IG)	20	10	9
-	RECP - ATVAPP (IG)	20	10	10
0.2	RECP - EXT	12	20	12
0.2	RECP - BREAK AREA	12	20	14
0.4	RECP - STOCK ROOM	20	15	16
0.4	RECP - STOCK ROOM	20	17	18
0.4	RECP - STOCK ROOM	20	19	20
0.2	RECP - EXT	12	20	22
0.2	RECP - EXT	12	20	23
0.7	RECP - ROOF GFI	10	25	24
0.4	RECP - CONDOLA	12	27	26
0.4	RECP - CONDOLA	10	29	30
-	SPARE	20	31	32
-	SPARE	20	33	34
-	SPARE	20	35	36
-	SPARE	20	37	38
-	SPARE	20	39	40
-	SPARE	20	41	42
7.4	SUBTOTAL	TOTAL KVA		10.4

BL - PROVIDE BREAKER LOCKING DEVICE  
HACR - PROVIDE HACR TYPE BREAKER FOR HVAC/REFRIGERATION EQUIPMENT  
GFI - PROVIDE GFI BREAKER

**CONNECTED LOAD SUMMARY (PANEL B)**

LOAD	KVA CONN.	D.F.	KVA NET
RECEPTACLES	6.7	1.0	6.7
WATER HEATER	1.5	1.25	1.9
OTHER	2.2	1.0	2.2
TOTAL	10.4		10.8

LOAD CALCULATION  
10.8 KVA / 0.36 KV = 30.0 AMPS

**EXISTING PANEL M** SURFACE MOUNTED  
SERVICE ENTRANCE RATED 208Y/120 VOLTS, 3Ø, 4W  
600 AMP MAIN CIRCUIT BREAKER

KVA CONN.	REMARKS OR EQUIPMENT SERVED	WIRE SIZE		KVA CONN.
		TRIP	AMPS	
EXST. 10.4	PANEL B	2/0	175	3/0
HACR, NEH 6.8	RTU-5 (25.7 MCA) 3Ø, #10G IN 1/2"	10	35	4
-	SPARE	60	15	16
-	SPARE	60	17	18
-	SPARE	60	19	20
-	SPARE	60	21	22
NEH 0.3	EPMS PHASE MONITOR	12	20	24
17.5	SUBTOTAL	TOTAL KVA		85.2

BL - PROVIDE BREAKER LOCKING DEVICE  
HACR - PROVIDE HACR TYPE BREAKER FOR HVAC/REFRIGERATION EQUIPMENT

**CONNECTED LOAD SUMMARY (PANEL M)**

LOAD	KVA CONN.	D.F.	KVA NET
LIGHTING	6.1	1.25	7.6
HVAC (LARGEST MOTOR)	21	1.25	1.9
HVAC (REMAINING)	3.8	1.0	31.8
RECEPTACLES	6.7	1.0	6.7
WATER HEATER	1.5	1.25	1.9
OTHER	2.7	1.0	2.7
COOLERS/FREEZERS	24.3	1.0	24.3
TOTAL	85.2		90.1

LOAD CALCULATION  
90.1 KVA / 0.36 KV = 250.3 AMPS

ENGINEER OF RECORD:  
J. CORBETT THOMAS, P.E.  
2100 DULWORTH RD EAST  
CHARLOTTE, NC 28203  
PH (704) 333-1020  
Corbett@CorbettEngineering.com

Professional Seal: JOHN C. THOMAS, P.E., STATE OF TENNESSEE, 2-5-20

Project: \_\_\_\_\_  
Drawing: \_\_\_\_\_

DATE: \_\_\_\_\_

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

MARK: \_\_\_\_\_

REVISIONS:

NO.	DATE	BY	DESCRIPTION

RRMM ARCHITECTS, P.C.  
1317 Executive Blvd, Suite 200  
Chattanooga, TN, 37421  
(770) 622-2622 / Fax: (770) 622-9863

FAMILY DOLLAR  
FAMILY DOLLAR STORE, FDS #791567  
50 TENNESSEE AVE NORTH - PARKING, TN 38303  
ELECTRICAL COVER SHEET

Project: \_\_\_\_\_  
Drawing: \_\_\_\_\_

Sheet: **E-1**