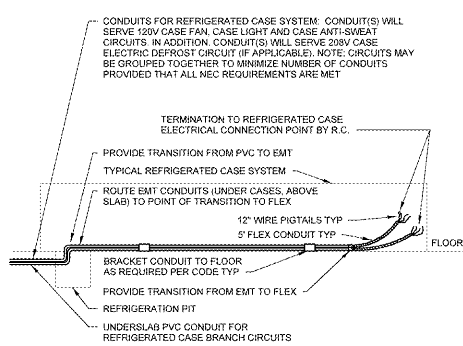
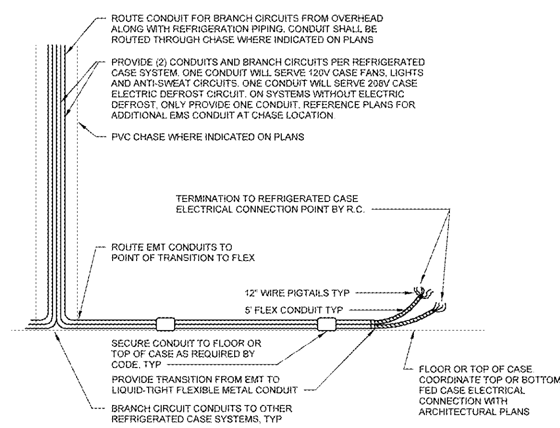


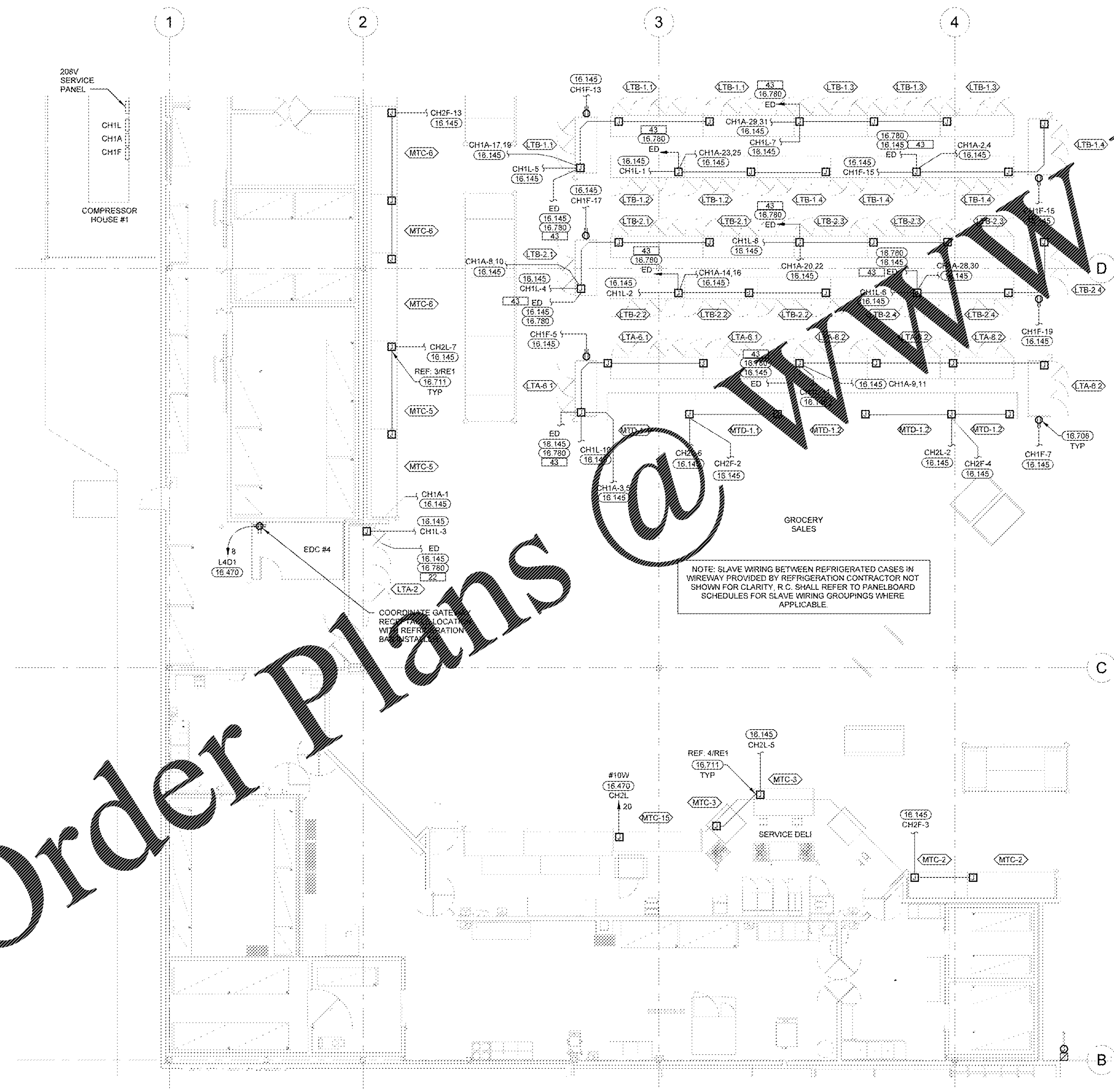
4 UNDERSLAB CASE CONNECTION WIRING

NTS



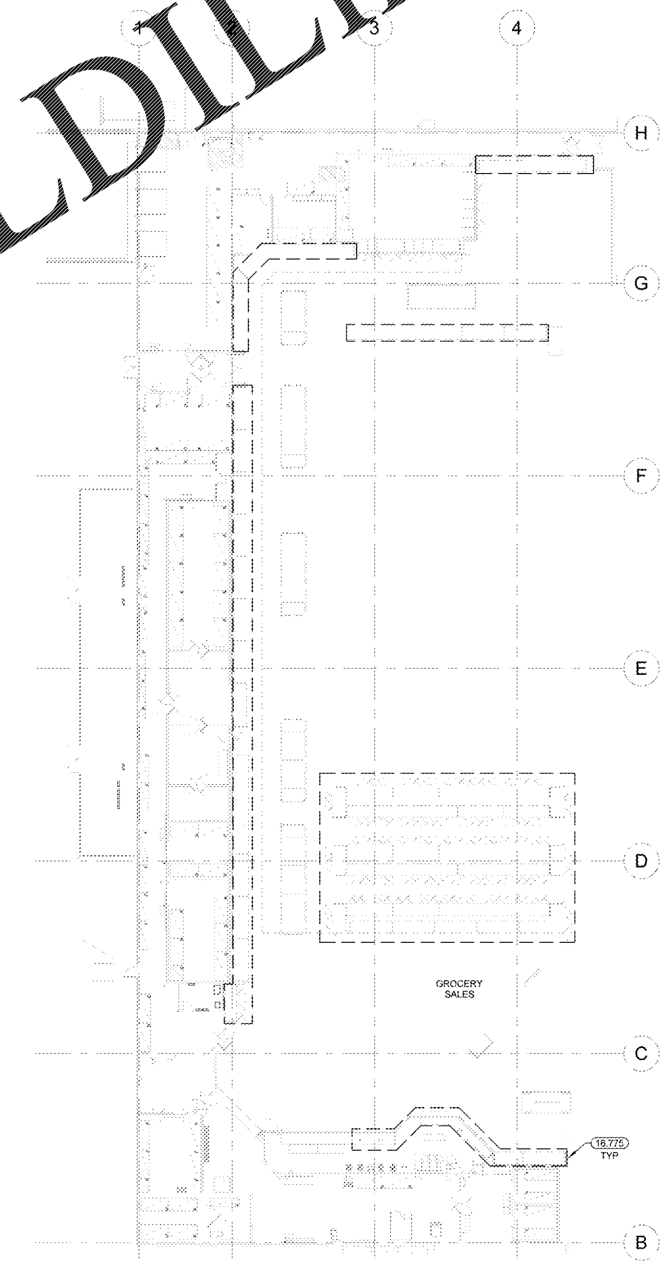
3 OVERHEAD CASE CONNECTION WIRING

NTS



2 FRONT REFRIGERATION ELECTRICAL PLAN

1/8" = 1'-0"



1 REFRIGERATION ELECTRICAL DEMO PLAN

1" = 20'-0"

FEEDER SCHEDULE

ALL CONDUIT AND CONDUCTOR SIZES ARE BASED ON EMT WITH 40% FILL, 75°C RATED TERMINATIONS AND TYPE THHN/THWN-2 INSULATION. FOR NON EMT CONDUIT OR TERMINATIONS OR INSULATION TYPES RATED LESS THAN 75°C, MODIFY SIZES ACCORDING TO NEC.

XXX	FEEDER OR GROUND SIZE
22	(2)#12, (1)#12 G, 1/2" C
43	(3)#8, (1)#10 G, 3/4" C

GENERAL REFRIGERATION ELECTRICAL NOTES

12.21.18

1. COORDINATE ALL WORK WITH REFRIGERATION CONTRACTOR (R.C.) PRIOR TO INSTALLATION.
2. REFRIGERATED CASES: E.C. SHALL PROVIDE CONDUIT AND WIRE FOR REFRIGERATED CASE FANS, LIGHTS AND ANTI-SWEAT HEATERS, AND (IF APPLICABLE) ELECTRICAL DEFROST. PROVIDE ADEQUATE CONDUCTOR LENGTH TO ALLOW TERMINATION. NEATLY BUNDLE CIRCUITS AND CLEARLY TAG AND LABEL EACH CIRCUIT WITH BRANCH CIRCUIT DESIGNATION AND REFRIGERATION SYSTEM NUMBER FOR FINAL TERMINATION AT CASE BY R.C. REF CASE CONNECTION WIRING DETAIL.
3. NEW CASES ARE PROVIDED WITH A FACTORY INSTALLED TERMINAL STRIP AND JUMPERS FOR CONNECTION TO A SINGLE CIRCUIT FOR 120V CASE LOADS. RC SHALL REMOVE FACTORY INSTALLED JUMPERS AS REQUIRED TO UTILIZE EXISTING SEPARATE 120V FAN/LIGHT/ANTI-SWEAT CIRCUITS AS INDICATED ON PLANS AND/OR PANELBOARD SCHEDULES. ANY EXISTING ANTI-SWEAT CONTROL (SWEATMISER) SHALL BE BY-PASSED. CASES UTILIZING ELECTRICAL DEFROST WILL BE PROVIDED WITH SEPARATE 208V TERMINATIONS AT THE TERMINAL STRIP FOR CONNECTION TO THE 208V ELECTRIC DEFROST CIRCUIT. RC SHALL MAKE FINAL TERMINATIONS OF 120V AND 208V POWER CIRCUIT(S) AT CASE TERMINAL STRIP. REFER TO CASE CONNECTION SCHEMATIC ON REFRIGERATION SHEETS.
4. WALK-IN UNITS: PROVIDE CONDUIT AND WIRE FOR EVAPORATOR COIL FANS (CF) AND (IF APPLICABLE) ELECTRIC DEFROST (ED). PROVIDE ADEQUATE CONDUCTOR LENGTH TO ALLOW TERMINATION. NEATLY BUNDLE CIRCUITS AND CLEARLY TAG AND LABEL EACH CIRCUIT WITH BRANCH CIRCUIT DESIGNATION AND REFRIGERATION SYSTEM NUMBER FOR FINAL TERMINATION AT COIL BY R.C. REF EVAPORATOR COIL WIRING DETAIL.
5. ROUTE REFRIGERATED CASE AND WALK-IN UNIT COIL FAN, LIGHTS, ANTI-SWEAT AND DEFROST BRANCH CIRCUITS TO WIREWAYS PROVIDED AT REFRIGERATION EQUIPMENT AND/OR PANELBOARDS AS REQUIRED.
6. REFRIGERATED CASE WIRING COMPARTMENT REPRESENTED ON DRAWING BY JUNCTION BOX.
7. KEEP PENETRATIONS THROUGH WALK-IN UNITS TO A MINIMUM. ROUTE ALL CONDUITS SERVING FREEZERS AND COOLERS ON INSIDE OF BOX.
8. ALL CONDUITS INSTALLED ON TOP OF WALK-IN UNITS SHALL BE A MINIMUM OF 6" FROM ANY EDGE TO ALLOW SPACE FOR EDGE PROTECTION NETTING. DO NOT ROUTE CONDUITS ABOVE THE CEILING GRID ACCESS UNLESS CONDUITS ARE INSTALLED IN JOIST SPACE, REF ARCH.
9. UNDERSLAB CIRCUITS SHALL NOT BE ROUTED UNDER WALK-IN FREEZERS AND SHALL BE ROUTED ABOVE REFRIGERANT LINES WHERE THEY CROSS.
10. CIRCUITS FOR REFRIGERATED CASES SERVED BY UNDERSLAB REFRIGERATION PIPING ARE TO BE ROUTED UNDERSLAB AND EXTENDED TO THE FIRST CASE IN EACH SYSTEM. WIRING AND CONDUIT FOR SLAVE WIRING BETWEEN CASES SHALL BE PROVIDED BY R.C. REFER TO UNDERSLAB CASE CONNECTION WIRING DETAIL.
11. ALL UNDERSLAB CONDUITS SHALL BE 3/4" MIN.
12. CIRCUITS FOR REFRIGERATED CASES SERVED BY OVERHEAD REFRIGERATION PIPING ARE TO BE ROUTED DOWN FROM STRUCTURE AT THE SAME LOCATION AS THE REFRIGERATION PIPING AND EXTENDED TO THE FIRST CASE IN EACH SYSTEM. WIRE AND CONDUIT FOR SLAVE WIRING BETWEEN CASES SHALL BE PROVIDED BY THE R.C. REFER TO OVERHEAD CASE CONNECTION WIRING DETAIL.
13. ON GROUPS OF THREE OR MORE REFRIGERATED CASES WITH ELECTRIC DEFROST, R.C. SHALL CONNECT CASES TO CREATE A THREE-PHASE HEATER CIRCUIT. HEATER LOADS SHALL BE BALANCED BETWEEN PHASES AS EVENLY AS POSSIBLE. REF CASE DEFROST WIRING DETAIL.
14. PROVIDE A SEPARATE NEUTRAL FOR EACH BRANCH CIRCUIT SERVING REFRIGERATED CASES OR WALK-IN UNITS AS INDICATED ON PLANS.
15. PROVIDE CIRCUIT BREAKER LOCKING DEVICE (LOCK-OFF FOR MAINTENANCE) ON NEW AND/OR EXISTING CIRCUIT BREAKERS SERVING REFRIGERATED CASE ANTI-SWEAT HEATERS OR DRAIN HEATERS.
16. REFERENCE ARCHITECTURAL DEMOLITION PLANS FOR FULL EXTENT OF DEMOLITION WORK REQUIRED.

KEYNOTES

16.145	CONNECT CIRCUIT(S) TO EXISTING BRANCH CIRCUITRY. MINIMUM WIRE SIZE AND PANELBOARD CIRCUIT ARE NOTED. VERIFY SIZE, RATING AND CONDITION OF EXISTING BRANCH CIRCUIT CONDUIT AND WIRE PRIOR TO USE TO ENSURE THAT THEY MEET REQUIRED SIZE, AND ALL U.L. RATINGS AND REPLACE AS REQUIRED.
16.470	FURNISH AND INSTALL NEW 20 AMP, 120 VOLT CIRCUIT(S). FEED FROM PANELBOARD AS INDICATED. PROVIDE 20A-1P CIRCUIT BREAKER IF NEEDED. E.C. SHALL MATCH MANUFACTURER, TYPE AND AIC RATINGS OF EXISTING CIRCUIT BREAKERS.
16.708	PROVIDE WIRING AND FINAL CONNECTIONS TO RECEPTACLE. RECEPTACLE FURNISHED WITH REFRIGERATED CASE.
16.711	POINT OF TRANSITION FROM EMT TO FLEX. PROVIDE CONDUIT AND BRANCH CIRCUITS FOR REFRIGERATED CASE FANS, LIGHTS, ANTI-SWEAT HEATERS, AND ELECTRICAL DEFROST (IF REQUIRED). TERMINATION TO REFRIGERATED CASE ELECTRICAL CONNECTION POINT BY R.C. REFER TO CASE CONNECTION WIRING DETAIL.
16.775	E.C. SHALL DISCONNECT, EXTEND, AND RECONNECT ALL ELECTRICAL CIRCUITRY FOR NEW OR RELOCATED EQUIPMENT. REFERENCE POWER PLANS AS APPLICABLE. VERIFY CONDITION OF BRANCH CIRCUIT, CONDUIT, AND WIRE PRIOR TO USE TO ENSURE THAT THEY MEET ALL U.L. RATINGS AND REPLACE AS REQUIRED. COORDINATE THIS PROCESS WITH CONSTRUCTION MANAGER TO MINIMIZE DOWNTIME. LABEL ALL ASSOCIATED PANELBOARD SCHEDULES TO REFLECT LOAD DESCRIPTIONS.
16.780	E.C. SHALL INSTALL VENDOR PROVIDED FUSES AND CONTACTOR FOR REFRIGERATION SYSTEM ELECTRIC DEFROST AND/OR EVAPORATOR FAN. PROVIDE WIRE BETWEEN FUSES AND CONTACTOR. PROVIDE A NEW NEMA 1 ENCLOSURE FOR ELECTRIC DEFROST AND/OR FAN SYSTEM IF NEEDED. MOUNT NEMA 1 ENCLOSURE AS CLOSE AS POSSIBLE TO EXISTING RACK CABINET.

NOTE: REFRIGERATION CONTRACTOR IS RESPONSIBLE FOR ALL FINAL REFRIGERATION ELECTRICAL TERMINATIONS TO REFRIGERATION EQUIPMENT.

EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. CONTRACTOR SHALL CAREFULLY COORDINATE NEW WORK AND DEMOLITION WITH ALL OTHER DISCIPLINES AND EXISTING CONDITIONS.

EACH SUBCONTRACTOR IS RESPONSIBLE FOR HAVING A THOROUGH KNOWLEDGE OF ALL DRAWINGS AND SPECIFICATIONS IN THEIR RELATED FIELD. THE FAILURE TO ACQUAINT THEMSELF WITH THIS KNOWLEDGE DOES NOT RELIEVE THE RESPONSIBILITY OF PERFORMING THE WORK PROPERLY. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED BECAUSE OF CONDITIONS THAT OCCUR DUE TO FAILURE TO FAMILIARIZE WORKERS WITH THIS KNOWLEDGE.

STIPULATION FOR REUSE
THIS DRAWING WAS PREPARED FOR USE ON A SPECIFIC SITE AT: CAMDEN, SC CONTEMPORANEOUSLY WITH ITS ISSUE DATE ON 12/18/19 AND IT IS NOT SUITABLE FOR USE ON A DIFFERENT PROJECT SITE OR AT A LATER TIME. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF PROPERLY LICENSED ARCHITECTS AND ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON ANOTHER PROJECT IS NOT AUTHORIZED AND MAY BE CONTRARY TO THE LAW.

CONSULTANTS
rtm engineering consultants
3333 E. Battlefield Road, Ste. 1000
Springfield, MO 65804
rtmassociates.com | 417.891.0020

Walmart
CAMDEN, SC
STORE NO: 00634-236
JOB NUMBER: 1952011 | PROTO: 172 PROTO SC
2020 GENERAL REMODEL

ISSUE BLOCK

CHECKED BY:	JEE
DRAWN BY:	TJP
PROTO CYCLE:	10/25/19
DOCUMENT DATE:	12/18/19

NOT FOR CONSTRUCTION

REFRIGERATION ELECTRICAL PLAN

SHEET: RE1

Order Plans @ www.LDILine.com