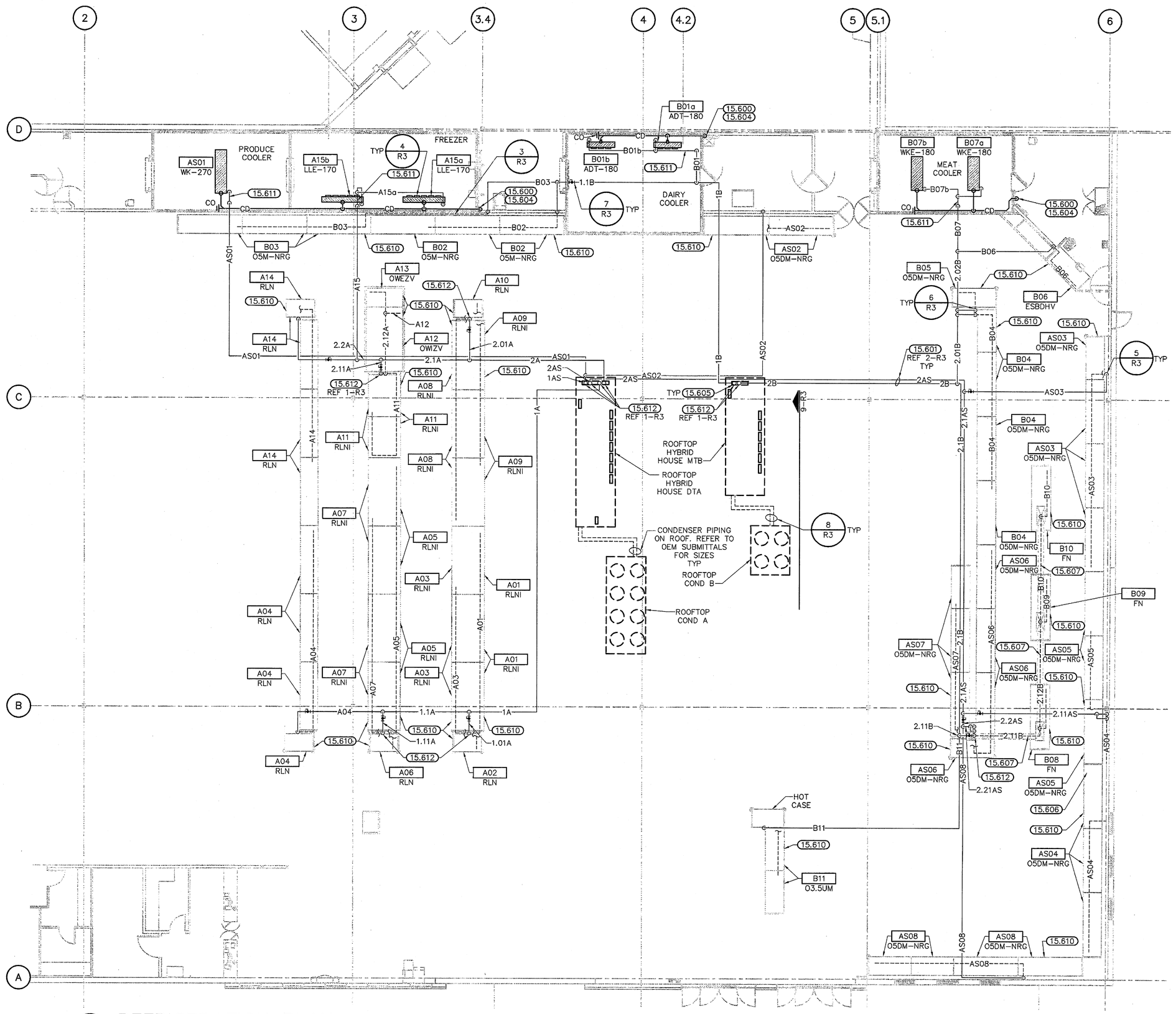

1 REFRIGERATION PLAN
1/10" = 1' - 0"

PIPING SCHEDULE RACK DTA

PIPE DESIGNATION	HORIZONTAL SUCTION	VERTICAL SUCTION RISER AS REQUIRED	LIQUID	ESTIMATED TOTAL LENGTH**
1A	2 5/8	1 5/8 & 2 1/8	7/8	96
1.01A	1 3/8	7/8 & 1 1/8	1/2	24
A01	1 3/8	7/8*	1/2	40
A02	1/2	3/8*	1/2	4
A03	1 3/8	7/8*	1/2	30
1.1A	2 1/8	2 1/8*	5/8	16
A04	1 3/8	1 1/8	1/2	80
1.11A	1 5/8	7/8 & 1 3/8	1/2	24
A05	1 3/8	1 1/8*	1/2	54
A06	1/2	3/8*	1/2	5
A07	1 3/8	1 1/8*	1/2	42
2A	2 5/8	1 5/8 & 2 1/8	7/8	40
2.01A	1 5/8	7/8 & 1 1/8	1/2	28
A08	1 1/8	7/8*	1/2	41
A09	1 1/8	7/8*	1/2	30
A10	1/2	1/2*	1/2	4
2.1A	2 1/8	2 1/8*	7/8	17
2.11A	1 3/8	5/8 & 7/8	1/2	24
A11	1 1/8	7/8*	1/2	31
2.12A	7/8	7/8*	1/2	12
A12	7/8	5/8*	1/2	4
A13	1/2	1/2*	1/2	4
2.2A	2 1/8	1 5/8*	5/8	5
A14	1 3/8	1 1/8	1/2	72
A15	1 5/8	1 3/8	1/2	47
A15a	1 1/8	7/8	1/2	22
A15b	1 1/8	7/8	1/2	8
1AS	1 1/8	5/8 & 7/8	5/8	14
AS01	7/8	5/8	1/2	111
AS02	1 1/8	7/8	1/2	100
2AS	2 5/8	1 5/8 & 2 1/8	1 3/8	83
AS03	1 3/8	1 1/8	5/8	90
2.1AS	2 5/8	2 1/8*	1 1/8	61
2.11AS	1 5/8	1 3/8*	7/8	25
AS04	1 1/8	1 1/8	5/8	70
AS05	1 1/8	1 1/8	5/8	41
2.2AS	2 1/8	1 5/8*	7/8	4
2.21AS	1 5/8	1 3/8*	7/8	4
AS06	1 3/8	1 1/8	5/8	67
AS07	7/8	7/8	1/2	47
AS08	1 1/8	1 1/8	5/8	110

* RISER SIZE IS SHOWN EVEN WHERE A RISER IS NOT EXPECTED. THIS IS FOR REFERENCE ONLY AND TO BE USED IN THE EVENT THAT A PIPING CONFLICT CAUSES THE NEED FOR A RISER. IF RISER LENGTH EXCEEDS 4 FEET, IT MUST BE APPROVED BY ENGINEER OF RECORD.

**ESTIMATED TOTAL LENGTH INCLUDES HORIZONTAL AND VERTICAL PIPE SECTIONS. THIS IS ONLY AN ESTIMATE AND ACTUAL LENGTH WILL VARY.

PIPING SCHEDULE RACK MTB

PIPE DESIGNATION	HORIZONTAL SUCTION	VERTICAL SUCTION RISER AS REQUIRED	LIQUID	ESTIMATED TOTAL LENGTH**
1B	2 1/8	1 3/8 & 1 5/8	1 1/8	55
B01	1 1/8	1 1/8	1/2	16
B01a	7/8	7/8	1/2	13
B01b	7/8	7/8	1/2	17
1.1B	2 1/8	1 5/8*	7/8	26
B02	1 5/8	1 1/8	5/8	62
B03	1 5/8	1 1/8	5/8	98
2B	2 1/8	7/8 & 1 3/8	7/8	52
2.01B	1 5/8	1 3/8*	7/8	13
B04	1 3/8	1 1/8	5/8	60
B05	7/8	1/2	1/2	30
2.02B	1 1/8	7/8*	1/2	11
B06	1/2	1/2*	1/2	29
B07	1 1/8	7/8	1/2	21
B07a	7/8	5/8	1/2	9
B07b	7/8	5/8	1/2	11
2.1B	1 1/8	7/8*	1/2	67
2.11B	7/8	3/8 & 1/2	1/2	40
B08	1/2	1/2*	1/2	9
2.12B	5/8	1/2*	1/2	22
B09	1/2	1/2*	1/2	9
B10	1/2	1/2*	1/2	30
B11	1 1/8	7/8	1/2	86

* RISER SIZE IS SHOWN EVEN WHERE A RISER IS NOT EXPECTED. THIS IS FOR REFERENCE ONLY AND TO BE USED IN THE EVENT THAT A PIPING CONFLICT CAUSES THE NEED FOR A RISER. IF RISER LENGTH EXCEEDS 4 FEET, IT MUST BE APPROVED BY ENGINEER OF RECORD.

**ESTIMATED TOTAL LENGTH INCLUDES HORIZONTAL AND VERTICAL PIPE SECTIONS. THIS IS ONLY AN ESTIMATE AND ACTUAL LENGTH WILL VARY.

GENERAL NOTES

1. REFRIGERANT SUCTION AND LIQUID LINES ARE SHOWN COMBINED AS A SINGLE LINE PER CIRCUIT. REFER TO REFRIGERATION SCHEDULES FOR SIZES.
2. ALL VERTICAL SUCTION LINES MUST HAVE A SHORT RADIUS SUCTION LINE TRAP AT THE BASE OF THE RISER. PROVIDE AN INVERTED P-TRAP AT THE TOP OF ALL RISERS. REFER TO PIPING SCHEDULE FOR SIZES ON ALL RISERS.
3. SUCTION BASE P-TRAPS TO BE SAME SIZE AS HORIZONTAL RUNS. REDUCE AT THE TOP SIDE OF BASE P-TRAP. INTERMEDIATE AND INVERTED P-TRAPS SHOULD BE SAME SIZE AS REDUCED RISER.
4. PROVIDE PVC DRAIN LINE FROM EACH CASE DRAIN SAME SIZE AS CASE OUTLET TO FLOOR DRAIN. TERMINATE WITH AIR GAP.
5. INSTALL AN INTERMEDIATE SUCTION TRAP OUT OF CUSTOMER VIEW AT A MINIMUM OF 7'-0"AFF FOR RISERS OVER 16'-0". REFER TO REFRIGERATION DETAILS.
6. NEUTRALIZATION WALLS ARE SHOWN ON THE ARCHITECTURAL DRAWINGS. REFER TO NEUTRALIZATION WALL PENETRATION DETAIL.
7. INSTALL A FULL PORT ISOLATION BALL VALVE UPSTREAM OF LIQUID LINE SOLENOID VALVE AND DOWNSTREAM OF EVAPORATOR PRESSURE REGULATOR FOR EACH REFRIGERATION CIRCUIT.
8. INSTALL THE LIQUID LINE SOLENOID, EVAPORATOR PRESSURE REGULATOR, AND FULL PORT ISOLATION BALL VALVES ON TOP OF WALK-IN BOX.
9. LIQUID LINE SOLENOID, EVAPORATOR PRESSURE REGULATOR, AND FULL PORT ISOLATION BALL VALVES INSTALLED ON TOP OF WALK-IN SHALL BE INSULATED.
10. REFER TO ARCHITECTURAL DRAWINGS FOR PIPING INSTALLATION AND SEALING REQUIREMENTS FOR DEVICES SHOWN ON COOLER/FREEZER PANELS. DO NOT INSTALL PIPING WITHIN COOLER/FREEZER PANELS.
11. DO NOT INSTALL PIPING DIRECTLY UNDER SKYLIGHT WELLS UNLESS INDICATED OTHERWISE ON PLANS.
12. ROUTE ALL UTILITY SERVICE LINES (PIPES AND CONDUIT) WITHIN STUD WALLS WHEREVER POSSIBLE. ON COOLER/FREEZER PANELS IN FOOD PREP AREAS WHERE UTILITIES MUST BE EXPOSED, CONTRACTOR TO HAVE THE OPTION OF THE FOLLOWING:

A. SURFACE MOUNT UTILITIES WITH NON-CORROSIVE ANCHORS; SEAL BOTH SIDES OF PIPE/CONDUIT TO PANEL CONTINUOUSLY WITH SEALANT.

B. INSTALL UTILITIES 1/2" OFF FACE OF PANEL TO ALLOW FOR CLEANING; USE ONLY NON-CORROSIVE MATERIALS FOR SPACERS AND ANCHORS.

C. COVER UTILITIES WITH 20 GAUGE STAINLESS STEEL BENT PLATES MOUNTED TO WALL WITH NON-CORROSIVE ANCHORS; APPLY CONTINUOUS SEALANT ALONG EDGES AND JOINTS.

KEYNOTES

15.600 PITCH 2" PVC CONDENSATE DRAIN 1" PER 10 FT. TOWARD DRAIN. PROVIDE COPPER PIPING WITH ELECTRIC HEAT TAPE AND INSULATION ON CONDENSATE LINES EXPOSED TO FREEZING.

15.601 SLOPE REFRIGERANT LINES DOWN TOWARD COMPRESSORS AT 1" PER 20 FT AND TRAP BEFORE RISER THROUGH ROOF. LOCATE HIGHEST POINT OF REFRIGERANT LINES JUST BELOW ROOF DECK OVER COIL SERVED. ROUTE THROUGH WEBS IN JOISTS AND GIRDERS. COORDINATE WITH HVAC, LIGHTING, AND FIRE PROTECTION.

15.604 TERMINATE 2" CONDENSATE DRAIN OVER FLOOR SINK, HUB DRAIN OR SERVICE SINK WITH AIR GAP.

15.605 COORDINATE WALL AND/OR ROOF OPENINGS FOR REFRIGERATION LINES WITH ARCHITECTURAL & STRUCTURAL.

15.606 INSTALL WALMART FURNISHED MISTING SYSTEM INCLUDING CONTROL BOX. REFER TO PLUMBING DRAWINGS FOR SUPPLY WATER CONNECTION TO CONTROL BOX.

15.607 REFRIGERATION LINES IN PVC PIPE BELOW FLOOR. PVC PIPE PROVIDED BY GENERAL CONTRACTOR.

15.610 INSTALL LIQUID LINE SOLENOID, EVAPORATOR PRESSURE REGULATOR AND FULL PORT ISOLATION BALL VALVES IN CASE DRAIN PAN.

15.611 INSTALL LIQUID LINE SOLENOID, EVAPORATOR PRESSURE REGULATOR AND FULL PORT ISOLATION BALL VALVES ON TOP OF WALK-IN BOX.

15.612 INSTALL VERTICAL SUCTION DOUBLE RISER IN THIS LOCATION. REFER TO VERTICAL SUCTION DOUBLE RISER DETAIL AND PIPING SCHEDULES FOR SIZES.

REFRIGERATION SYMBOLS

CO	CLEANOUT
CD	CONDENSATE DRAIN LINE
	ELBOW - TURNED DOWN
	ELBOW - TURNED UP
1A	LOOP DESIGNATION EXAMPLE
A01	LOAD DESIGNATION EXAMPLE
	REFRIGERATION PIPE FLOOR OR UNDERSLAB LEVEL
	SHUT-OFF BALL VALVE
	SHUT-OFF BALL VALVE IN VERTICAL LINE
	WALK-IN EVAPORATOR

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