### **SPECIFICATIONS**

ALL SPECIFIED MANUFACTURERS AND MODELS ARE "OR EQUAL". ALL ITEMS BY COOLER PANEL MANUFACTURER U.N.O.

ALL PANELS SHALL BE CONSTRUCTED WITH DIE-FORMED INTERIOR, AND EXTERIOR, METAL PANS SECURELY FASTENED TO A 3/8" TONGUE AND GROOVE PERIMETER FRAME OF HIGH-DENSITY URETHANE STRUCTURAL MEMBERS. INSULATION SHALL BE 100% RIGID URETHANE, WITH AN R-VALUE OF 30 FOR COOLER PANELS AND AN R-VALUE OF 38 FOR FREEZER PANELS. STANDARD PANELS SHALL BE MANUFACTURED IN 23" OR 47" WIDTHS.

CORNERS SHALL BE ONE-PIECE FACTORY MOLDED CONSTRUCTION (NOT FIELD-CUT AND TRIMMED IN PLACE). SPECIAL PANELS (IF REQUIRED) SHALL BE MANUFACTURED TO THE SIZE REQUIRED TO OBTAIN A SPECIFIED VAULT SIZE. ANGLED PANELS WILL BE FACTORY MOLDED TO SIZE (NOT FIELD CUT AND TRIMMED IN PLACE). ALL PANEL JOINTS REQUIRE VERTICAL SEAMS. HEADER PANELS ABOVE ALL GLASS DOOR OPENINGS TO RUN IN VERTICAL DIRECTION.

ALL PANELS SHALL BE ASSEMBLED USING CAM-LOCK FASTENERS, TO PROVIDE A TIGHT AND POSITIVE SEAL. ALL CEILING PANELS MUST CAM-LOCK TOGETHER, NO BUTT JOINTS. ON ALL CEILING PANELS, THE CAM-LOCK ACCESS MUST BE ON THE EXTERIOR SIDE OF THE PANELS. CEILING PANELS SHALL LAG TO WALL PANELS. UNIT SHALL BE BUILT TO EXACT DIMENSIONS -NOMINAL SIZES WILL NOT BE ACCEPTED.

PROVIDE WOOD BLOCKING AT ALL DOOR OPENINGS AND HOSE REEL LOCATIONS.

### PANEL FINISHES

INTERIOR AND EXTERIOR OF ALL PANELS SHALL BE WHITE EMBOSSED GALVANIZED WITH A "V" RIB PROVIDED EVERY 6"-7". EXTERIOR CEILING PANELS SHALL BE NATURAL EMBOSSED GALVANIZED.

COOLER MANUFACTURER TO PROVIDE 4" INSULATED WALL PANELS FOR COLUMNS LOCATED INSIDE THE FREEZER. COLUMN WRAPS MUST BE PROPERLY SEALED WITH BUTYL / SILICONE PER DETAILS. ANY COLUMN WRAP TRIM (IF REQUIRED) SHOULD BE FINISHED OUT WITH WHITE PAINTED FASTENERS. COLUMN WRAPS ARE TO BE SECURED TO THE FLOOR IN THE SAME FASHION AS WALL PANELS (I.E ANGLE TRIM)

IN THE SHRIMP FREEZER, PROVIDE 4" INSULATED FLOOR PANELS WITH 3/4" PLYWOOD ON 2x SLEEPERS. PROVIDE 18GA STAINLESS STEEL FINISH UNDER RACKS.

NO OTHER FLOORS ARE PROVIDED BY PANEL MANUFACTURER. FREEZER SUB-FLOOR TO BE INSULATED BY GENERAL CONTRACTOR. ALL MATERIALS FOR THE INSULATED SUB-FLOOR (TREATED WOOD, VISQUEEN VAPOR BARRIER, INSULATION, ETC) ARE PROVIDED BY THE GENERAL CONTRACTOR.

1-1/2" X 1-1/2" 18GAUGE GALVANIZED ANGLE SCREED AROUND ENTIRE PERIMETER OF WALK-INS.

WHEN REQUIRED, 6" STAINLESS STEEL COVE BASE IS TO BE PROVIDED TO MEET LOCAL CODES.

### INTERIOR INSULATED SWING DOORS

DOOR AND DOOR PANEL SHALL BE OF THE SAME GENERAL CONSTRUCTION AND INSULATION AS THE WALL PANELS. DOOR STYLE TO BE AN INSET DOOR, SIZE 36"x85" (ALL MAN DOORS TO BE 7'1" HIGH TO MEET THE ENERGY CODE AND MAINTAIN UNIFORMITY WITH ALL OTHER STORES). ALL SWING DOORS TO INCLUDE .080 ALUMINUM DIAMOND TREAD KICK PLATES 36" HIGH ON THE INTERIOR AND EXTERIOR. EACH DOOR SHALL INCLUDE A 14"x14" VIEW WINDOW. EACH DOOR SHALL INCLUDE A KASON K-56 LATCH W/ INSIDE SAFETY RELEASE, AND (2) KASON 1248 HINGES. FREEZER DOORS TO INCLUDE 3-SIDED FRAME HEATERS. WITH A HEATED WIPER GASKET AND HEATED WINDOW. HEATED WIPER GASKET TO SEAL AGAINST 12GA STAINLESS STEEL THRESHOLD BY COOLER MANUFACTURER.

### EXTERIOR INSULATED SWING DOORS

ALL EXTERIOR DOORS IN COOLER SHALL BE SUPPLIED BY THE COOLER MANUFACTURER. DOOR AND DOOR PANEL SHALL BE OF THE SAME GENERAL CONSTRUCTION AND INSULATION AS THE WALL PANELS, MANUFACTURED BY CHASE, CLARK, OR EQUAL. DOOR(S) SHALL BE 3'-0"x7'-0"x4" INFIT DOOR WITH STAINLESS STEEL HINGES, MIRROR IMAGE FRAME, FLUSH STILL, CARRIAGE

BOLT WALL FASTENERS PACKAGE. RODENT SWEEP. PILFER PROOF SCREWS. PANIC BAR WITH KEYED LEVER LATCH AND STRIKE CLOSURE AND INTERIOR AND EXTERIOR KICK-PLATES. WHITE TEXTURED FINISH. DOORS TO BE MOUNTED TO EXTERIOR WALL PANELS. PROVIDE WRAPPED BLOCKING PER DOOR DETAILS.

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### HARDWARE (OR APPROVED EQUAL):

HAGER BB1279NRP 41/2"x41/2" US32D 11/2 PR CLOSER LCN 4041P-CUSH SERIES ALUM FINISH DRIP STOP NATIONAL GUARD 16A THRESHOLD NATIONAL GUARD 896 x 36" GASKETING NATIONAL GUARD 160V x (2-84", 1-36") ARROW S1250-SR12 ALUM. DOOR BOTTOM NATIONAL GUARD 200NA x 36" (2)

PREP FOR HARDWARE BY MAIN HARDWARE SUB: SECURITY ALARM DETEX EAX-500W BATTERY OPERATED EXIT CONTROL LOCK

### THERMOMETER

PROVIDE A CONTROL PRODUCTS TI-200 THERMOMETER AT EACH OPENING INTO OR OUT OF THE COOLER AND FREEZER, WITH CONDUIT FOAMED IN PLACE. CONDUIT TO PROTRUDE 7" ABOVE THE WALL PANEL FOR FINAL CONNECTION BY ELECTRICIAN.

ALL FREEZER COMPARTMENTS TO INCLUDE KASON HEATED VENTS. ON LARGE FREEZER, (2) KASON #1842 HEATED VENTS ARE

PROVIDE CLEAR STRIP CURTAINS AT ALL COOLER OPENINGS WITHOUT A DOOR. ALSO PROVIDE AT OPENINGS THAT ONLY HAVE A NIGHT DOOR (OVERHEAD DOOR).

# OVERHEAD NIGHT DOORS - BY RESTAURANT DEPOT'S VENDOR

INSULATED STEEL DOORS PROVIDED AND INSTALLED BY DOOR VENDOR. DOORS SIZES ARE PROVIDED ON ARCHITECTURAL

COOLER PANEL DOOR HEAD & JAMB SHALL BE REINFORCED WITH BLOCKING TO SUPPORT DOOR. REFER TO DETAILS FOR SPECIFIC REQUIREMENTS.

# <u> CLEAR IMPACT DOORS - BY RESTAURANT DEPOT'S VENDOR</u>

CLEAR PVC IMPACT DOORS, 12' HIGH x WIDTH INDICATED ON FLOOR PLAN.

# SLIDING JAMISON DOORS - BY RESTAURANT DEPOT'S VENDOR

INSULATED MANUAL SLIDING DOOR TO BE PROVIDED & INSTALLED BY OWNER'S DOOR VENDOR. DOOR FINISH TO MATCH COOLER PANELS, WHITE GALVANIZED INTERIOR AND EXTERIOR. ALL SLIDING DOOR OPENINGS SHOULD INCLUDE VINYL STRIP CURTAINS WITH 50% OVERLAP FOR FORKLIFT TRAFFIC.

COOLER PANEL DOOR HEAD & JAMB SHALL BE REINFORCED WITH BLOCKING TO SUPPORT DOOR AND AIR CURTAIN. REFER TO DETAILS FOR SPECIFIC REQUIREMENTS.

# RAPID CURTAIN DOORS - BY RESTAURANT DEPOT'S VENDOR

RAPID VERTICAL CURTAIN DOORS SIZES ARE PROVIDED ON ARCHITECTURAL DOOR SCHEDULE. WHERE REQUIRED, HEATED THRESHOLD AT RAPID CURTAIN DOORS TO BE INSTALLED BY GENERAL CONTRACTOR, PER DOOR MANUFACTURER SPECIFICATION AND DETAIL. (RAPID CURTAIN DOOR SUPPLIED AND INSTALLED BY DOOR VENDOR.)

COOLER PANEL DOOR JAMB SHALL BE REINFORCED WITH BLOCKING TO SUPPORT RAPID DOOR AND CONTROL BOX. REFER TO DETAILS FOR SPECIFIC REQUIREMENTS.

# REACH-IN GLASS DOORS - BY RESTAURANT DEPOT'S VENDOR

ANTHONY (OR EQUAL) 30"x75" AND 36"x75" REACH-IN DOORS. EXACT SPECIFICATION FOR EACH DOOR TO BE VERIFIED W/ ENGINEER AND R.D. REP. INCLUDE BACKER ROD IN QUOTE AND MAT LIST. DOORS PROVIDED BY R.D.

# RECEIVING WINDOW - BY RESTAURANT DEPOT'S VENDOR

RECEIVE SILICONE AT THE TOP TO WALL JOINTS.

PROVIDE ONE 48"x42" ANTHONY #1950 WINDOW (OR EQUAL) IN THE REFRIGERATED RECEIVING ROOM. FINAL LOCATION OF THE ANTHONY WINDOW IS TO BE VERIFIED DURING APPROVAL PROCESS. (FIELD CUT OPENING FOR PROPER LOCATION)

AND REFRIGERATION SYSTEM. ALL FREEZER PANELS TO RECEIVE BUTYL BETWEEN ALL FREEZER JOINTS. WALL PANELS TO RECEIVE 2 BEADS OF BUTYL AT WALL TO FLOOR LOCATIONS (INCLUDING COLUMN WRAPS WHERE APPLICABLE). ALL FREEZER AND COOLER PANELS TO

COOLER MANUFACTURER TO COORDINATE INSTALLATION DATES WITH G.C. AND SUPPLIERS/ INSTALLERS OF DOORS, RACKING,

INTERIOR SIDE OF REACH-IN GLASS DOORS TO BE FIELD FOAMED AND CAULKED AROUND THE EDGES FOR A TIGHT SEAL. ALL DOORS SHOULD BE PROPERLY ADJUSTED FOR CLOSING BY INSTALLER.

# FIELD INSTALL INTERIOR/EXTERIOR FACERS AND JAMBS ON DOOR OPENINGS, PER DETAILS.

FIELD INSTALL MATCHING CLOSURE TRIM AROUND ALL DOCK DOORS, AND HOLLOW METAL EXIT DOORS. ALL CLOSURE TRIM SHOULD BE FINISHED OUT WITH WHITE PAINTED FASTENERS AND SEALED AIRTIGHT.

ALL FORKLIFTS AND SCISSOR LIFTS SHALL HAVE WHITE NON MARKING TIRES AND BE EQUIPPED WITH DIAPERS IF NECESSARY.

# **RESTAURANT DEPOT KEY DETAILS**

THIS LIST IS TO HIGHLIGHT SOME KEY AREAS IMPORTANT FOR A SUCCESSFUL AND TROUBLE FREE INSTALLATION. THE CONTRACTORS ARE STILL RESPONSIBLE TO INSPECT AND UNDERSTAND EACH AND EVERY DETAIL APPEARING ON THE PLANS.

MANUFACTURER PLANS IS WHAT SHOULD BE USED TO BUILD FROM IT IS VERY IMPORTANT THAT A MEETING IS ESTABLISHED WITH ALL TRADES TO REVIEW THE ENTIRE SCOPE OF WORK BEFORE COMMENCING PRICING ON ANY PROJECT.

FUTURE SERVICE AT COMMENCEMENT OF THE PROJECT

INTERNET AND PHONE LINE IS IMPERATIVE PRIOR TO START UP OF REFRIGERATION AND BUILDING CONTROL

EACH CONTRACTOR/ VENDOR BELOW MUST PROVIDE FULL CONTACT INFO AND GET SET UP IN FROSTRAK FOR

### EACH CONTRACTOR MUST SIGN THEIR TRADE DETAILS BELOW.

- a. FOLLOW THESE DETAILS AND SPECIFICATIONS VERY CAREFULLY, NO SUBSTITUTIONS WITHOUT APPROVAL BY RD
- 3/4 WASHED STONE REQUIRED UNDER SLAB AS PER SPECS PICTURES SHOULD BE TAKEN AT EACH STEP AND SHARED WITH RD REP FOR INSPECTION PRIOR TO
- PROCEEDING TO NEXT STEP. d. TEMP SENSORS INSTALLED IN GALVANIZED PIPE BY EC WITH WATER TIGHT CONNECTION WHICH MUST BE SEALED AS PER PLANS.
- e. ALL VAPOR BARRIERS APPLIED AS PER DETAILS. DOW FREEZER MATE ONLY. INSULATION PLACED WITH SEAMS STAGGERED AND CROSSED AND TAPPED WITH DUCT TAPE. SDR-35 VENT PIPE SYSTEM MUST HAVE VISUAL INSPECTION PRIOR TO PROCEEDING TO NEXT STEP.
- EXHAUST FANS MUST BLOW DOWN, THROUGH HIGHER PIPE. PIPING OF SUPPLY AND RETURN MUST MATCH PLANS. WHEN POURING SLABS EXTRA ATTENTION MUST BE APPLIED TO STRENGTHEN ALL CEMENT FORMS TO KEEP THEM FROM WALKING FROM PRESSURE OF CONCRETE.
- SIGNED OFF SO WE HAVE NO SURPRISES WHEN BOX DELIVERS. m. IT'S IMPERATIVE THAT THE FREEZER WALLS SIT EXACTLY ON THE WOOD PERIMETERS AS PER PLANS AND DETAILS.

ALL MEASUREMENTS MUST BE CONFIRMED ON SITE WITH HELP OF WALK IN BOX MANUFACTURER AND

ALL HOLES, IN VENT PIPES, FACE DOWNWARD.

- THERE MUST BE A MIN OF 4"AIR SPACE PANELS AND ANY WALLS THAT PALES GO NEXT TO! DOUBLE ROW OF 1/2" CAULKING APPLIED TO WALL PANELS AT WALL TO FLOOR AND WALL TO CEILING CONNECTIONS PRIOR TO SETTING
- LO TEMP SEALANT APPLIED TO COVER 3" EXPOSED INSULATION ON INSIDE PERIMETER OF FREEZER TRIM INSTALLED ALL EXPOSED ENDS SILICONE DOWN WHILE SCREWING DOWN WALL TRIM SCREWS SHOULD BE WHITE AND INSTALLED IN A STRAIGHT LINE EVENLY SPACED
- WHERE RODS GO THROUGH WALK IN FREEZER FOR CEILING SUPPORT, THRU BOLTING OF DOORS ETC NYLON ROD IS PREFERRED A LONG AS IT IS SIZED CORRECT TO HOLD WEIGHT ALL DOOR OPENINGS MUST BE REINFORCED AS PER RD DETAILS AND MANUFACTURES
- RECOMMENDATIONS h. DIGITAL KASSON K7 DIGITAL THERMOMETERS SUPPLIED AND INSTALLED FLUSH MOUNTED INTO PANELS WITH ELECTRICAL CONNECTIONS ON TOP OF BOX AND NOT INSTALLED WHERE THEY WILL NOT BE VAPOR RELIEF PORTS SIZED PROPERLY SIZED FOR FREEZER SUPPLIED AND INSTALLED AND POINTED
- OUT TO EC TO ASSURE PROPER WIRING RECEIVING SLIDER SHOULD BE JAMISON EITHER SINGLE OR BI PARTING WITH WICKET DOOR UNLESS OTHER TYPE DOOR IS SPECIFIED k. ALL MAN DOORS SHOULD HAVE HEATED WINDOW WIRED AND POINTED OUT TO EC TO ASSURE PROPER
- GARBAGE MUST BE CLEANED DURING AND AFTER WORK EACH DAY m. ALL SEAMS, TRIM AROUND COLUMNS AND FLOOR MUST BE SIGNED OFF BY RD PRIOR TO FINAL PAYMENT, A QUALITY CONTROL MANUFACTURES CHECKLIST SHOULD ACCOMPANY THE FINAL INVOICE

### INSTALLING FORMAN:

ALL PENETRATIONS COVERED INSPECTED BY G.C.? SLIDE DOORS INSTALLED AND PROPERLY ADJUSTED?

GLASS REACH-IN DOORS INSTALLED, ADJUSTED, AND INSIDE FRAMES SEALED PROPERLY? IS THERE A FLOOR DRAIN OR PITCHED CONCRETE THAT INTERFERES WITH TIGHT SEAL ON ANY DOOR? KPS SWING DOORS INSTALLED AND ADJUSTED TO SEAP PROPERLY? NO DAYLIGHT AT DOOR SWEEP, DOOR ANCHORS INSTALLED AND TIGHTENED?

SAFETY RELEASE PLUNGERS GREASED AND WORKING PROPERLY? PLUG BUTTONS INSTALLED THROUGH-OUT ENTIRE BOX?(WALLS/CELINGS/FLOORS) ARE PAINTED PANELS CLEANED AND TOUCHED UP WITH GLOSSY WHITE? (NO SPRAY PAINT) ALL WALL TO FLOOR JOINTS AND WALL TO CEILING JOINTS SILICONED?

WALL TO FLOOR JOINTS FOAMED IF GAP IS EXCESSIVE AND THEN SILICONED? ALL TRASH PICKED UP AND PLACED IN G.C.'S DUMPSTER ANY MAJOR DENTS OR DAMAGES IN PANELS FROM OTHER TRADES? IF SO WHERE? ALL CEILING LAG BOLTS INSTALLED ACCORDING TO SHOP DRAWINGS. ALL CONCEALED TOPS BUTYLED AND SILICONED ACCORDING TO SHOP DRAWINGS PNEUMATIC/BATTERY POWERED CAULK GUN WAS USED ON ALL BUTYL JOINTS. ALL COOLER/FREEZER WALL/FLOOR JOINTS HAVE A DOUBLE BEAD OF BUTYL? ALL DOOR OPENINGS SQUARE AND TO DIMENSION? DOCK DOORS AND EMERGENCY EXITS TRIMMED OUT AND HAVE CLEAN APPEARANCE?

STRUCTURAL STEEL CLEAN AND TOUCHED UP? DIGITAL THERMOMETERS FACTORY INSTALLED PER PLANS

# EC SHOULD HAVE REFRIG INSTALL EXPERIENCE \*\*\*WIRING SHOULD FOLLOW MANUFACTURER PLANS ONLY

- a. ALL FREEZER AND COOLER PENETRATIONS MUST BE DOUBLE SEALED AND ALL PIPES SEALED INSIDE CONDUITS WITH WATER PROOF SEAL OFF DEVICE AS PER DRAWINGS AND SPECIFICATIONS ANTHONY DOORS FACTORY WIRING MUST CHECKED FOR GOOD SEAL ON WIRING RACEWAYS THAT CAN BE DISLODGED WHILE INSTALLING. ALL CONDUITS MUST BE SEALED IN AND OUT TO AVOID ANY
- CONDENSATION. c. ANTHONY DOORS SHOULD BE WIRED USING SEAL TIGHT AND ALL WATER PROOF CONNECTIONS, RISERS THROUGH WALK IN CEILINGS MUST HAVE CONDUITS SEALED INSIDE WITH WATER PROOF SEAL OFF
- DEVICE AS PER DRAWINGS AND SPECIFICATIONS. d. BOTH FRAME AND ANTHONY DOOR LOAD WIRING MUST BE FED FROM BREAKERS. e. ELECTRICAL CONTRACTOR MUST COORDINATE PULSE METER INFO FOR ASSISTANCE WITH EMS AND RD. (IF REQUIRED)
- ALL WIRING TO EVAPS AND ALL DOORS MUST BE WATER PROOF TYPE CONDUIT/SEAL TIGHT... FOLLOW **DETAILS** FOR DROPS TO EVAPS. \*LIQUID LOOP TRAP IS REQUIRED TO ASSURE NO CONDENSATION CAN DRIP INTO THE TOP OF ANY ELECTRICAL BOXES ALL CONDUITS SEALED INSIDE CONDUITS WITH WATER PROOF SEAL OFF
- DEVICE AS PER DRAWINGS AND SPECIFICATIONS ALL LIGHT FIXTURES IN COOLER/FREEZER RUN ALONG CEILING AND NOT DROPPED FROM CEILING INTO FACH FIXTURE. h. SALES T-5 LIGHT FIXTURES SHOULD HAVE ALTERNATING SEQUENCE OF FIXTURES FOR BETTER LIGHT
- DISTRIBUTION AS PER PLANS. ALL FIELD WIRING MUST BE CLEARLY IDENTIFIED WITH BROTHER P TOUCH OR EQUIVALENT LABELING DEVICE. THIS INCLUDES BREAKER PANEL SCHEDULES WHERE MISSING FREEZER AND BI PARTING DOORS WIRING MUST ONLY ENTER FROM BOTTOM OF ELECTRICAL PANELS TO
- AVOID CONDENSATION TO ACCUMULATE IN BOX AND SHORT OUT. k. EC PROVIDES ALL CONDUITS FOR EMS WIRING INTO BUILDING. THIS INCLUDES BUT NOT LIMITED TO REFRIG SYSTEM, ELECTRICAL HOUSES AND WATER TOWER, AIR COOLED CONDENSERS, IRLDS TUBING ETC. EMS WILL PROVIDE CONDUITS FOR HIS TEMP, DEW POINT, LIGHT LEVEL, SPACE, SUPPLY SENSORS
- I. EC PROVIDES GALVANIZED PIPE FOR UNDER SLAB SENSORS WITH WATER TIGHT CONNECTION WHICH MUST BE INSTALLED AND SEALED AS PER PLANS. m. EMS INSTALLS UNDER FREEZER SLAB TEMP SENSORS
- n. ALL HOLES DRILLED CAUSING METAL SHAVINGS EC MUST PROTECT THESE SHAVINGS FROM ENTERING ANY ELECTRICAL DEVICES. o. ALL ELECTRICAL DEVICES SHOULD BE BLOWN OUT USING SAFETY GOGGLES TO REMOVE ANY SHAVINGS. EC MUST WIRE MAN DOORS FRAME HEAT AND LIGHT.
- EC MUST WIRE WALK IN FREEZER VAPOR RELIEF PORT AND ALL DIGITAL. r. EC MUST WIRE KASSON DIGITAL THERMOMETERS AT EACH REFRIG. OPENING.

# \*\*\*WIRING SHOULD FOLLOW MANUFACTURER PLANS ONLY.

COMPLETE OPERATING SYSTEM WITH RD EMS REP.

# a. ONLY USE APPROVED CPC WIRING.

- b. ALL RISERS THROUGHOUT THE STORE IN CONDUIT PROVIDED BY EMS. c. ALL WIRES FROM BUILDING TO OUTDOOR SYSTEMS, ELECTRICAL ROOM IN CONDUIT BY EC. d. ALL CPC PARTS MUST BE INVENTORIED AT TIME OF DELIVERY AND REPORT OF ANY SHORTAGES AT THAT
- e. ALL FIELD WIRING MUST BE CLEARLY IDENTIFIED WITH LABELS BROTHER P TOUCH OR EQUIVALENT. EVERY CPC CONTROL MUST BE TESTED WITH RD REP &ELECTRICIAN & ASSOCIATED TRADE FOR PROPER
- PROVIDE **COMPLETE** DOCUMENTED COLD TEST. (WITH HEAT /COLD) PRESSURES, LIGHT LEVEL, DEW PT, DIGITAL OUTPUT, ETC. A TEST OF EACH APPLICATION WITH RD REP. ALL EMS CONNECTIONS USING DOLPHIN TYPE CONNECTORS. AT START UP TEST AND ASSIST IN TROUBLESHOOTING OR REPLACEMENT OF PARTS TO ASSURE
- EMS MAKES ALL THEIR OWN PENETRATIONS, ALL MUST BE SEALED. WIF DOOR HEAT, FAN AND PROOFS MUST BE TESTED. TEMP SENSORS PIPE SEALED TO AVOID COLD AIR GOING DOWN PIPES AND GIVING FALSE READINGS. GET YOUR WIRING INFO FROM RD REP AND DOOR MANUFACTURER'S WAY BEFORE START UP DAY.
- PROGRAMMING OF THIS METER TO READ KWH PULSE OUT PUTS. WE WILL NEED TO KNOW WHAT EACH PULSE EQUALS TO COMPLETE FOR THIS OPERATION. m. ALL SPLICE BOXES CONTAINING TEMP SENSORS MUST BE SEALED TO AVOID COLD AIR GOING DOWN PIPES AND GIVING FALSE READINGS - REAL IMPORTANT!! INCLUDING SLAB SENSORS SPLICE BOXES AND

PULSE METER SET UP AND TESTING WITH RD REP, CONSULT WITH PULSE METER MANUFACTURE FOR

- TEMP DROP SENSORS INTO COOLER AND FREEZERS. n. EC PROVIDES GALVANIZED PIPE FOR UNDER SLAB SENSORS WITH WATER TIGHT CONNECTION WHICH MUST BE INSTALLED AND SEALED AS PER PLANS.
- o. EMS INSTALLS UNDER FREEZER SLAB TEMP SENSORS.

- p. EMS ASSISTS TO GET PHONE LINE AND T-5 LINE INSTALLED TO BUILDING CONTROLLER BX MODEM CARD
- AND INTERNET PORT USUALLY LOCATED ON POWER WALL. g. ALL EMS WIRES MUST BE NEATLY INSTALLED USING ZIP TIES AND WIRE RINGS TO CONCEAL WIRING AS BEST AS POSSIBLE. THERE CANNOT BE WIRES HANGING, OR DROOPING OR THEY WILL BE DONE OVER! r. 16 ZONES OF IRLDS /MRLDS INSTALLED TO APPROPRIATE LOCATIONS AND TESTED UPON START UP OF
- SYSTEMS ALL OUT DOOR HOSES MUST BE INSTALLED IN CONDUIT (IF APPLICABLE) s. IF IRLDS IS LOCATED IN AN AREA THAT FREON CAN LEAK INTO, THE INTAKE LINE MUST BE RUN OUTSIDE

# TO FRESH AIR (IF APPLICABLE) FIELD PROGRAMMING THE IRLDS IS EMS RESPONSIBILITY.

SIGNED \_\_

\*\*\*\*RIC IS RESPONSIBLE FOR LOOKING AT ALL EQUIPMENT BEING PROVIDED BY RD. ALL INSTALLERS. START UP AND SERVICE PERSONNEL MUST BE 100% FAMILIAR WITH ALL COMPONENTS OF SYSTEMS; THEY NEED TO OBTAIN THE MANUALS FOR ISD's, VS DRIVES, MRLDS, VS CONDENSERS, ETC. AND GET TRAINED BEFORE

- a. WHILE SOLDERING ALL REFRIGERATION PIPES NITROGEN MUST BE USED AT ALL TIMES WITH PROPER METHODS! THIS WILL BE SPOT CHECKED IF IT'S FOUND NOT BEING USED ALL THE PIPING WILL BE VOIDED
- AND HAVE TO BE DONE OVER AT RIC EXPENSE. b. CONTRACTOR IS RESPONSIBLE TO RECORD PRESSURES THAT REFRIG SYSTEMS ARE RECEIVED, THIS INFO MUST BE COMMUNICATED WITH RD REP IMMEDIATELY UPON ARRIVAL OF EQUIPMENT AND TEST
- PRFFORMED c. RD REP MUST WITNESS AND SIGN OFF PRESSURIZATION AND TRIPLE EVACUATION PROCESS OF REFRIGERATION LINES PRIOR TO MOVING TO NEXT STEPS.
- FURTHEST EXTENT BY REM TO OUTPUT e. CHICKEN PIT EVAPS (IF USED) FANS BLOWING DOWN. f. CONTRACTOR MUST USE RD/MANUFACTURES START UP PROCEDURE/COMMISSIONING BOOK AND SUBMIT

d. MAIN LIQUID LINE SOLENOID NORMALLY OPEN WILL BE INCLUDED IN ALL SYSTEMS AND WIRED TO THE

- TO RD REP PRIOR TO FINAL PAYMENTS. g. COMPLETE EMS OPERATION OF SYSTEMS TESTED WITH RD REP AND EMS CONTRACTOR THIS INCLUDES
- h. REFRIG CIRCUIT AND IDENTIFICATION PLAN SUPPLIED AND INSTALLED IN MACHINE ROOM AND SMALLER COPY IN MANGERS OFFICE i. ALL EVAPS MUST BE INSTALLED AS PER PLANS DETAILS AND CAN'T PROTRUDE IN FRONT OF RACKING & MUST FIT WITHIN EACH BAY WHERE POSSIBLE OR OTHERWISE INDICATED, IF RACK SUPPORT BOX EVAPS MUST HANG FROM RACKING. EACH EVAP MUST BE LABELED WITH CIRCUIT IDENTIFICATION: EXAMPLE
- A1-A, A1-B. LARGE ENOUGH TO SEE FROM FLOOR. CHICKEN PIT DRAIN PAN HEATER/ FAN RELAY (IF USED) SHOULD BE INCLUDED TO ELIMINATE EXTRA WIRING AS REQUIRED.
- k. WHEN INSTALLING SHIP LOOSE VENTILATION HOODS ON TO MECHANICAL SENSORS CARE SHOULD BE TAKEN TO APPLY SILICONE FOR WATER TIGHT SEAL AT ALL FLANGES AS THEY ATTACH TO MACHINE HOUSE OUTSIDE WALL I. REFRIG CONTRACTOR RESPONSIBLE FOR SIGNING IN ALL CPC LOOSE PARTS. RC MUST REVIEW ALL PARTS WITH EMS CONTRACTOR RD REP MUST KNOW IMMEDIATELY NOT WHEN WE ARE READY TO START
- UP AND HAVE TO SCRAMBLE FOR PARTS. EMS CONTRACTOR IS RESPONSIBLE TO KEEP PARTS FROM GETTING LOST. m. RIC IS RESPONSIBLE FOR SECURING THE CPC HANDHELD AND ANY OTHER HAND HELD'S PROVIDED WITH THE PROJECT IN MOTOR ROOM OR POWER WALL FOR FUTURE FIELD PROGRAMMING AND TROUBLE
- SHOOTING OF DEVICES. THIS DOES NOT MEAN TECHS ADD THEM TO THEIR TRUCK STOCK. n. AS APPLICABLE PROVIDE RD REP WITH ALL SUPER HEAT ADJUSTMENTS SET POINTS FOR EVERY FVAPORATOR. o. MEAT CASES: MUST BE SET TO ALLOW UPRIGHT RACKING SUPPORTS TO BE INSTALLED. MEAT CASE REFRIG PIPING MUST RUN BETWEEN RISERS AND SHOULD ALSO BE BEHIND UP RIGHTS THE TOP MOUNTED HORIZONTAL REFRIG RUNS FROM CASE TO CASE SHOULD BE LOW ENOUGH AND FAR ENOUGH BACK SO NOT SEEN FROM FLOOR MEAT CASES SHOULD BE SET OFF BACK WALL TO ALLOW FOR INSTALL
- OF RACK CROSS BEAM IN FRONT OF CASES FOR PROTECTION. \*\*\*ALL REFRIG PIPING MUST BE INSTALLED TO PROTECT FROM BEING HIT WITH PALLETS. p. \*\*\*\* (GLYCOL STORES )\*\*\*\* SECONDARY GLYCOL INSTALLS CAN USE GEORGE FISCHER PIPING OR "L OR K" COPPER ARMAFLEX MUST BE 1 1/2" INSIDE AND 2" OUTSIDE. IF F PIPING IS USED EXTRA FITTING MUST
- BE ON HAND FOR LEAKS AND RIC MUST GET CERTIFIED BY GF. q. DX LOW TEMP PIPING MUST USE ARMAFLEX 1" SUCTION 1/2" LIQUID. r. DX MED TEMP PIPING MUST USES ARMAFLEX 3/4" SUCTION IF LIQUID SUB COOLED 1/2" ARMAFLEX MUST BE s. \*\*\*\*GLYCOL STORES \*\*\* FOLLOW ALL GLYCOL START UP PROCEDURES AS PER NATURES COOLING START UP AND INSTALL MANUALS, INCLUDING PROPER LEAK TESTING, RINSING AND REMOVING WATER PRIOR TO GLYCOL BEING INSTALLED. ONLY THE 2 MANUFACTURES OF GLYCOL LISTED IN THE HILL MANUAL IS ACCEPTABLE MUST BE 35%. 100% CONCENTRATE MUST BE ADDED TO ACHIEVE 35% +2 FREEZER POINT.
- DYE ALSO MUST BE ADDED FOR FUTURE LEAK FINDINGS. t. RIC MUST WORK WITH RD REP AND MANUFACTURER TO SET ALL VALVE STATIONS AND CHILLER
- BALANCING VALVES AND PUMP PARAMETERS. u. IT IS IMPERATIVE THAT RIC LEARNS AND TRAINS THEIR SERVICE. PERSONNEL ON ALL OF THE COMPONENTS THAT MAKE UP OUR SYSTEMS. THERE ARE ALLOT OF ITEMS THAT WE USE THAT TECHS HAVE NEVER SEEN OR FULLY AWARE HOW IT ALL WORKS RD REP WILL HELP WITH THIS PROCESS.

### PRESSURIZATION AND EVACUATION PROCESS

SEND ALL PICTURES TO ARTIE BEST AND WAIT FOR CONFIRMATION BEFORE PROCEEDING TO NEXT

ONLY USE A DIGITAL MICRON GAUGE, TAKE READINGS AT RACK AND FURTHEST EVAP COIL

- PRESSURIZE SYSTEM WITH NITROGEN 250# FOR 48 HOURS WITH BEFORE PICTURES. SEND PICTURES OF BEFORE & AFTER. MUST USE PROPERLY CONSTRUCTED COPPER EVAC MANIFOLD. NO HOSES.
- MUST USE PROPERLY SIZED, EQUAL SIZED 2 STAGE VAC PUMPS AT LEAST 15CFM 1ST EVAC WITH MUST PULL TO 1000 MICRONS. • BREAK VACUUM WITH REFRIGERANT TYPE USED IN SYSTEM TO PLUS 1 #.
- CHANGE OIL IN VAC PUMPS • #2 VACUUM WHICH MUST GET TO 500 MICRONS OR BELOW SEND PICTURES BEFORE CONTINUING, THEN BREAK VACUUM AS ABOVE. THIRD VACUUM BEFORE STARTING ADD OIL/ FILTERS/ DRIERS AND START FINAL VACUUM.
- THIS MUST GET AS CLOSE TO 100 MICRONS AS POSSIBLE SEND PICTURES BEFORE CONTINUING ONCE THIS IS ESTABLISHED TO BE SIGNED OFF. • BREAK THIRD VACUUM INSTALL ALL TRANSDUCERS AND DUMP CHARGE SYSTEM READY FOR START UP

- CONDENSATION LINES
- a. FREEZER DRAIN PIPE FROM EVAPS MUST EXIT BEHIND EACH EVAP WITH MIN PIPE EXPOSED TO FREEZER b. RIC MUST USE"RUNNING TRAPS" ON HORIZONTAL PIPING ALL DRAIN PIPING REQUIRES MIN OF 1/4" PER FOOT PITCH. EACH EVAP REQUIRES CLEAN OUT TEE'S AS PER SPECS AND INDIRECT CONNECTION TO
- MAIN HORIZONTAL RUNS. c. RIC INSTALLS HEAT TRACE WIRED TO OUTSIDE BOXES WITH SLEEVE PROTECTING HEAT TRACE AS IT PENETRATES WALK IN PANEL.
- d. RIC MUST USE ONLY COPPER PIPE LINES FROM EVAP COILS TO HUB DRAINS IN FREEZER RIC IS RESPONSIBLE FOR ARMFLEXING EXPOSED DRAIN. e. PLUMBER MUST USE HUB DRAINS ON 4 CORNERS OF FREEZER AND INSIDE OF CURB, UNLESS OTHERWISE

STATED ON PLANS WHEN RUNNING UNDERGROUND PIPES CARE SHOULD BE TAKEN NOT PENETRATE

INSULATION ANY RISERS IN CURB SHOULD HAVE INSULATION AND THERMAL BREAK FROM FREEZER. f. USE HEAVY DUTY FLOOR DRAINS AS PER SPECS.

# g. MEAT CASE DRAINS SHOULD BE KEPT UNDER MEAT CASES AND NOT IN ISLE SIGNED \_\_\_

- 8) <u>HVAC</u> a. SUBMITTALS FOR DUCT WORK MUST BE SUBMITTED TO CSA FOR APPROVAL
- b. ROOF CURBS MUST BE LAYOUT WITH GC. c. ROOF CUTTING AND PATCHING BY GC.
- d. ROOF CURBS BOLTED TO ROOF DECKING BY HVAC CONTRACTOR. e. ROOF CURBS BAFFLES, SUPPLY / RETURN SEPARATION PLATES INSTALLED PROPERLY. f. COMPLETE START UP OF RTU'S AND ALL HVAC WITH RD EMS PERSON. g. INSTALL AND TEST ALL ECONOMIZERS. BALANCING REPORT SUBMITTED PRIOR TO FINAL PAYMENT AIR BALANCING MUST IF EMS IS NOT
- COMPLETED YET LOCAL YOYO STATS MUST BE USED IN THE INTERIM. WORK WITH RD REP AND EMS ON START UP AND TEST OF ALL HVAC ON EACH PIECE OF EQUIPMENT. ANY DEVIATIONS WHILE INSTALLING UNITS MUST BE APPROVED BY RD AND GC BEFORE PROCEEDING. ALL EQUIPMENT MUST BE LABELED TO MATCH PLANS WITH BIG BLOCK LETTERS TO WITHSTAND WEATHER
- FOR YEARS TO COME. I. IF APPLICABLE HVAC CONTRACTOR RESPONSIBLE FOR INSTALLING AND TESTING ALL C02 DEVICES IN

# SPRINKLER INSTALL IN COOLER/ FREEZER

f. RECESSED HEADS USED IN COOLER AND FREEZER.

- a. DRY HEADS USED WITH MIN OF 18" OF DRY PIPE FOR RISERS.
- b. INSULATE RISER PIPE ABOVE FREEZER WITH AT LEAST 16" ARMAFLEX ½" TO PREVENT CONDENSATE BUILD UP ROLLING DOWN INTO SPRINKLER TRIGGER. c. ALL PENETRATIONS DOUBLE SEALED TOP AND BOTTOM TO AVOID ANY CHANCE OF CONDENSATION
- FORMING AT TRIGGER PIN. d. SPRINKLER HEADS SHOULD NOT BE INSTALLED CLOSE TO ELECTRIC DEFROST HEATERS IN EVAPS. e. SPRINKLER HEADS SHOULD NOT BE INSTALLED IN FRONT OF THE WIND CHILL OF EVAP FANS.

# SIGNED \_\_\_\_

a. RACKING COMPANY MUST SUBMIT DRAWINGS THAT MATCH ALL ANTHONY DOORS, WALK IN DOORS,

EVAPS, AND MEAT CASES. b. PALLET STOP BEAMS INSTALLED TO PROTECT WALLS AND ANTHONY DOORS ON ALL LEVELS.

c. ON RACK-SUPPORTED PROJECTS, CROSS BEAMS MUST BE PROVIDED TO HANG EVAPS.

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# **CEILING PANEL SUPPORT**

CEILING PANEL SUPPORT

ALL CEILING PANELS WILL BE SUPPORTED FROM ROOF STRUCTURE

ALL CEILING PANELS WILL BE RACK-SUPPORTED

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REVISIONS

COOLER/ FREEZE NOTES

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9/10/2020 JOB NO.