SYMBOL	DESCRIPTION
⬡	REFRIGERATION CIRCUIT DESIGNATION
DT	DEFROST TERMINATION THERMOSTAT
P	ANALOG TEMPERATURE SENSOR
DS	DOOR SWITCH
IO	PROTOCOL INPUT/OUTPUT BOARDS
EJ	ETHERNET JACK
SS	SUCTION STOP SOLENOID[2]

1. MAIN CASES ARE FED FROM LOOP PIPING, SUCTION STOP SOLENOIDS WILL BE ON REFRIGERATION CIRCUITS ON SALES FLOOR.
2. REFER TO PIPING DRAWINGS R5, R4, R3 FOR EXACT LOCATIONS

ANALOG TEMPERATURE SENSOR GUIDELINES

APPLICATION:

- COOLERS/FREEZERS/PREP AREAS

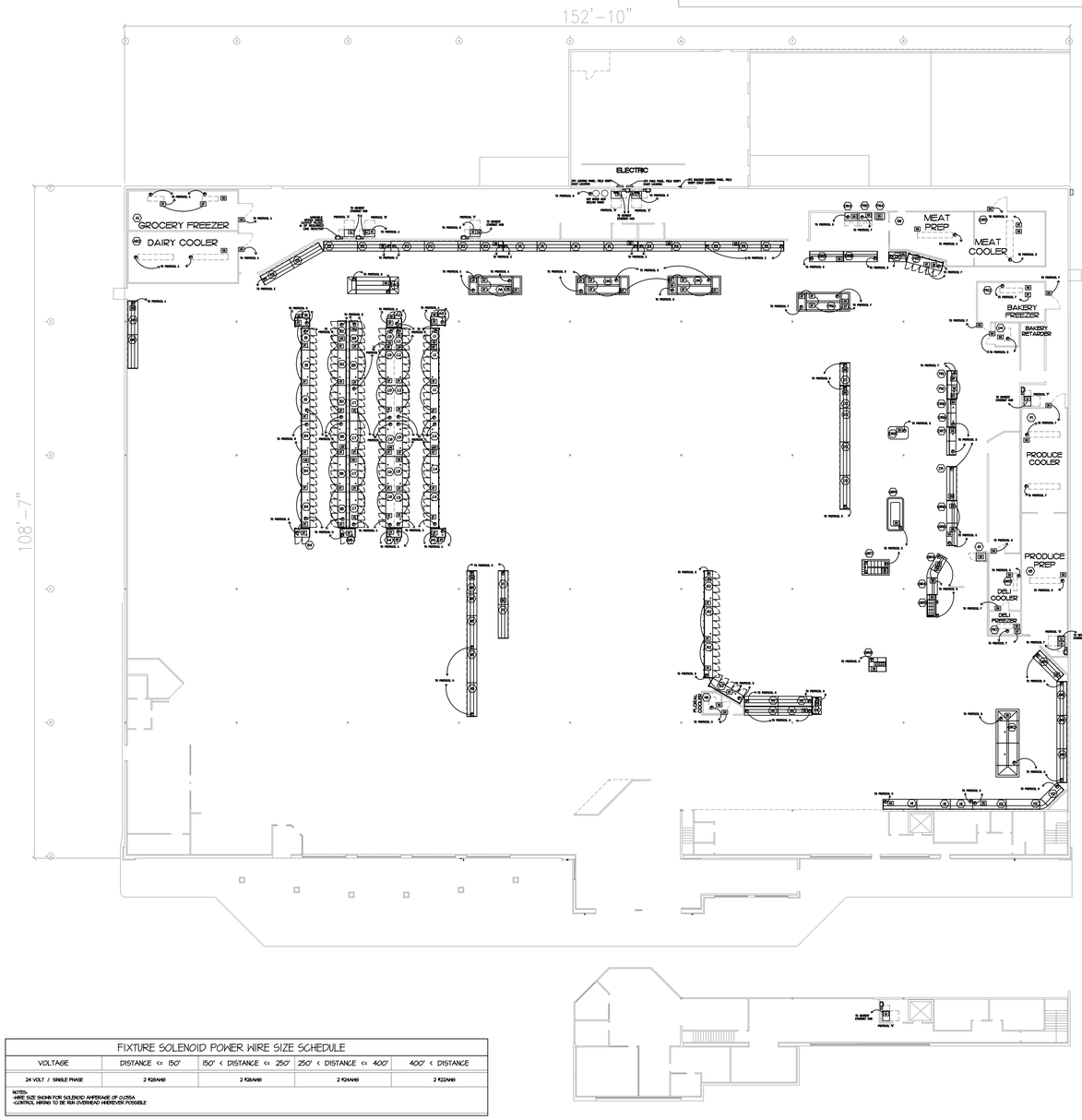
  ONE SENSOR PER COOLING COIL. LOCATE IN THE COILS RETURN AIRFLOW.

- CASES

  ONE SENSOR PER EVERY TWO CASES, WIDE ISLAND END CAPS TO BE CONSIDERED CASES
  SENSORS TO BE LOCATED IN THOSE CASES MOST LIKELY TO EXPERIENCE THE GREATEST LOAD. (CASES AT END OF LINE UPS OR NEAR DOORS TO VESTIBULE, BACKROOM OR PREP AREA)

  MISCELLANEOUS EQUIPMENT (FREE STANDING FREEZERS, REFRIGERATORS ETC.):
  ONE SENSOR PER ITEM
  ICE MACHINES AND BLAST CHILLERS DO NOT REQUIRE TEMPERATURE SENSORS.

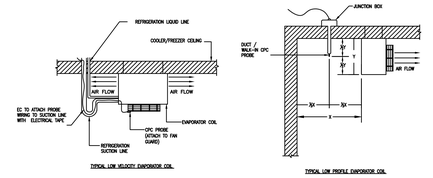
EXCEPTIONS TO ABOVE RULES:
IF CIRCUIT CONSISTS OF DISSIMILAR CASE MODELS, PROVIDE A MINIMUM OF ONE SENSOR PER MODEL TYPE.
EACH GLASS DOOR END CAP TO BE PROVIDED WITH A SENSOR, ANY OTHER GLASS DOOR CASES ON CIRCUITS TO BE CONSIDERED INDEPENDENTLY.
IF ALL CASES ON A CIRCUIT ARE NOT ADJOINING, PROVIDE A MINIMUM OF ONE SENSOR PER CONTINUOUS SECTION.



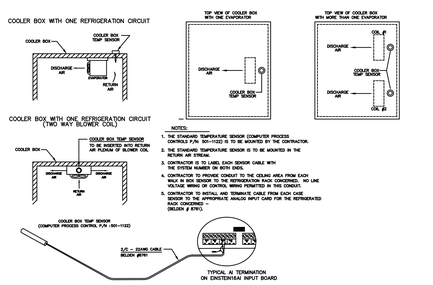
FIXTURE SOLENOID POWER WIRE SIZE SCHEDULE				
VOLTAGE	DISTANCE <= 150'	150' < DISTANCE <= 250'	250' < DISTANCE <= 400'	400' < DISTANCE
24 VOLT / SINGLE PHASE	2 #2AWG	2 #2AWG	2 #2AWG	2 #2AWG

NOTES:
-WIRE SIZE SHOWN FOR SOLENOID AMPERAGE OF 0.075A
-CONTROL WIRING TO BE RUN OVERHEAD WHEREVER POSSIBLE

1 ENERGY MANAGEMENT TERMINATION PLAN — SCALE: NONE

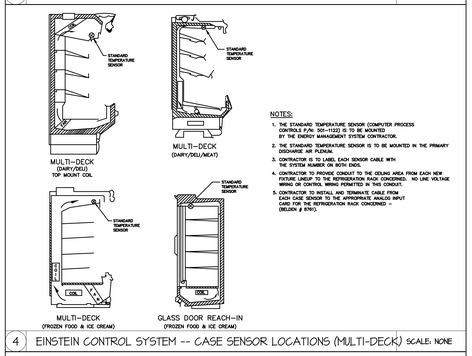


2 EINSTEIN CONTROL SYSTEM -- BOX PROBE MOUNTING DETAIL — SCALE: NONE



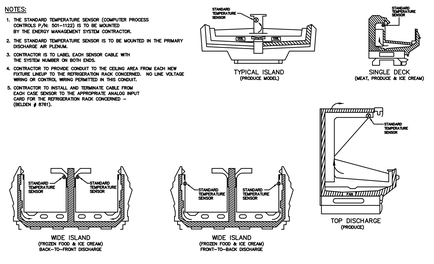
NOTES:
1. THE STANDARD TEMPERATURE SENSOR (COMPUTER PROCESS CONTROLS P/N 501-11322) IS TO BE MOUNTED BY THE CONTRACTOR.
2. THE STANDARD TEMPERATURE SENSOR IS TO BE MOUNTED IN THE RETURN AIR STREAM.
3. CONTRACTOR IS TO LABEL EACH SENSOR CABLE WITH THE SYSTEM NUMBER ON BOTH ENDS.
4. CONTRACTOR TO PROVIDE CONDUIT TO THE CEILING AREA FROM EACH NEW CASE/WALK-IN TO THE REFRIGERATION RACK CONCERNED. NO LINE VOLTAGE WIRING OR CONTROL WIRING PERMITTED IN THIS CONDUIT.
5. CONTRACTOR TO INSTALL AND TERMINATE CABLE FROM EACH CASE SENSOR TO THE APPROPRIATE ANALOG INPUT CARD FOR THE REFRIGERATED RACK CONCERNED -- (BELDEN # 8761).

3 EINSTEIN CONTROL SYSTEM -- SENSOR INSTALLATION - COOLER BOX — SCALE: NONE



NOTES:
1. THE STANDARD TEMPERATURE SENSOR (COMPUTER PROCESS CONTROLS P/N 1501-11322) IS TO BE MOUNTED BY THE ENERGY MANAGEMENT SYSTEM CONTRACTOR.
2. THE STANDARD TEMPERATURE SENSOR IS TO BE MOUNTED IN THE PRIMARY DISCHARGE AIR FLOWING.
3. CONTRACTOR IS TO LABEL EACH SENSOR CABLE WITH THE SYSTEM NUMBER ON BOTH ENDS.
4. CONTRACTOR TO PROVIDE CONDUIT TO THE CEILING AREA FROM EACH NEW CASE/WALK-IN TO THE REFRIGERATION RACK CONCERNED. NO LINE VOLTAGE WIRING OR CONTROL WIRING PERMITTED IN THIS CONDUIT.
5. CONTRACTOR TO INSTALL AND TERMINATE CABLE FROM EACH CASE SENSOR TO THE APPROPRIATE ANALOG INPUT CARD FOR THE REFRIGERATION RACK CONCERNED -- (BELDEN # 8761).

4 EINSTEIN CONTROL SYSTEM -- CASE SENSOR LOCATIONS (MULTI-DECK) — SCALE: NONE



5 EINSTEIN CONTROL SYSTEM -- CASE SENSOR LOCATIONS (SINGLE-DECK) — SCALE: NONE

THIS SHEET FOR REFERENCE ONLY
SEE PLANS FOR REQUIREMENTS SPECIFIC TO THIS PROJECT

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11-29-2021
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PROJECT INFO
11-29-2021
DATE
CONSTRUCTION SET

CPC CONTROLS INSTALLATION TEMPLATE
SHEET TITLE

REVISIONS

MARK	DATE	DESCRIPTION

PROJECT NO: 21441
CAD DWG FILE: R-327EM2
DRAWN BY: WSM
CHK'D BY: HCK

EM2
SHEET NO.