

**DESIGN CRITERIA**

1. Related Sections: See Division 03 Section Cast-In-Place Concrete, Division 13 Section Cold Storage Rooms and related Design Standard Plates.
2. Provide insulating concrete freezer floors at freezer locations indicated on Concept Floor Plan and as follows:
  - A. Low temperature cold storage rooms 200 SF in size, and larger, shall have insulated concrete freezer floors with positive underfloor ventilation for prevention of frost heave. Construct insulated concrete freezer floors systems consisting of:
    1. 36" deep drainage fill layer containing PVC ventilation piping.
    2. 10 mil vapor retarder directly on top of drainage fill.
    3. Concrete sub-slab.
    4. Three 2" layers of polystyrene insulation.
    5. Perimeter wood thermal break (preservative treated or redwood) around freezer slab recess.
    6. 10 mil vapor retarder set directly on top of insulation and wrapping-up and over exposed face of perimeter wood thermal break (note that purpose of this is to minimize possibility of excess concrete mix water from seeping down between joints in insulation).
    7. Concrete top slab designed to accommodate a 250 psf live load.
    8. Concrete top slab shall be level with hard trowel surface. Provide floor sealing treatment. Refer to related Section indicated above for additional information.
    9. Provide block-out at all door openings to accommodate heater cable and stainless steel threshold furnished as part of low temperature insulated cold storage room.
  - B. On new construction projects, low temperature cold storage rooms (less than 200 SF in size) shall be constructed similarly, except that an underfloor ventilation system is not required.
  - C. On alteration projects utilizing existing concrete floor slabs, low temperature cold storage rooms (less than 200 SF in size) shall be constructed using 4" thick prefabricated insulated aluminum floor panels with 1/4" thick aluminum diamond tread plate wearing surface. Refer to related section indicated above for additional information on this floor system.

**END OF SECTION**