## DIVISION 23 HEATING, VENTILATI EAIR CONDITION / E ' (HVAC)

## 1 GENERAL DESIGN CONDINS

- 1.1 Design occupied spaces to maintain 72°F and a space dew point temperature not to exceed 55°F
- 1.2 Design classroom and office space buildings with Variable Air Volume (VAV) air handlers
- 1.3 Chilled water coils controlled by both space dry bulb and space dew (popinetlative humidity) are preferred
- 1.4 Coils for comfort heating in the Heat position are preferred
- 1.5 Where practical, provide return and outside air ducts and dampers capable conomizer operation
- 1.6 VAV boxes shall be selected with hydronicheeat coils.
- 1.7 Utilize campus steam (where available) to heat hydronic heating water tinuous sheet, solid fin fabricatier pper 2.2.4 Fin density >4( d)-0.7 (e) 57.a8.9 (at)-3 (io)- gasket.

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- 3.5 All water coils shall have a strainer with a valve blow down piped tontbest convenient sanitary sewer
- 3.6 All water coils shall have thermometers in thermometer wells and pressure g.3 0 Tcn12y-3.4 (e)1s 7C a12y-

## 7 PIPEDENTIFICATION

- 7.1 Provide ANSI standard labels at wall, floor and ceiling/roof penetrations and every 15 feet in machine rooms
- 7.2 Provide direction arrows at all changes in direction and at label.
- 8 PUMPS
  - 8.1 Hydronic Pumps

8.1.1

- 9.1.5 Team and Steam Condensate Piping shall be insulated with preformed fiberglass pipe insulation
- 9.1.6 Condensate lines from Air Handling Units and Ice Making Machinery shall be insultated w elastomeric foam insulation
- 9.1.7 Direct Expansion Cooling Piping shall be insulated with elastomeric foam insulation
- 9.2 Below Grade Piping Insulation (all thicknesses and installation procedures as **renderthby** material manufacturer)
  - 9.2.1 Chilled Water Piping shall be piresulated piping withaluminum exterior PVC lagging.
  - 9.2.2 Steam and Condensate Piping shall beipselated piping with aluminum exterior PVC lagging.