# **CENTRAL PLANT PUMP REPLACEMENT**

# 1. Demolition of Existing Equipment and Piping

## 2. Centrifugal Pump Replacement

- 6 Base mounted pumps (3 75 Hp, 3 50 Hp)
- 3 Base mounted pumps (3 30 Hp)
- 2 in-line overhead mounted pumps (5 Hp)
- 2 in-line pumps (booster) in D module (7.5 Hp)

### 3. Expansion Tank Replacement

3- (250 gallon) Horizontal Expansion Tanks

**4. Heating Water Separation Tank Replacement** 6" pipe connection (centrifugal separator) – approx. – 24" dia., 42" tall.

# 5. Piping, Valve and Gauge Replacement

Approx. 530 ft. of Heating, Chilled, and Condenser water piping in plant, approx. Approx. 80 ft. of heating water piping in Module B between crawlspace and pump room.

## 6. VFD Installation

3 new 30 Hp VFDs in central plant for heating water pumps. 2 new 7.5 Hp VFDs in D Module for In-line booster pumps.

7. Monitoring Control Panel & Energy Management System Upgrade To Accommodate New Equipment Installation

Adding 1 modulating main HW control valve in central plant, 2 pumps, 2 VFDs, and additional sensors for booster pumps and sequences of operation. New control panel in Module D pump room.

#### 8. Insulate & Tag all new Piping & Equipment

- 9. Mechanical System Testing, Adjusting & Balancing HVAC Equipment
- **10. Replace HVAC water treatment**
- 11. Extend existing pump pads to accommodate new motors
- 12. Replace heating water chemical shot feeder
- 13. Revise electrical wiring and starters for the 3 HW distribution pumps to run off VFDs.