

Design Standard Plumbing Equipment

Purpose:

Plumbing equipment are essential elements of plumbing systems and subsystems. This design standard has the purpose of creating a consistent application of plumbing equipment requirements throughout the East Side Union High School District. The intent is to create a standard of quality for maintenance, water efficiency and reliability throughout all renovation and new building projects.

Design Standard:

Design and specify work to include materials and installation of water heaters, circulation pumps, storage tanks, sump pumps, grease interceptors, and accessories for a complete and operable system.

- Pumps: Design, manufacture and install pumps in accordance with HI (Hydraulic Institute Standards).
- Water Heaters: Gas storage or instantaneous type commercial heater, with minimum 5 year commercial warranty.
- Circulation Pumps: Provide in-line factory tested pumps, cleaned, and painted with enamel prior to shipment. Provide pumps of same type by same manufacturer.
- Sump Pumps: Submersible, heavy duty cast iron, float operated, visual/audible alarm/control panel. Each sump pit shall have 2 pumps with a small height differential setting. This creates a purposeful system redundancy, in the event one of the pumps fails to operate properly. In addition, high water alarms are to be interconnected to the EMS system for alarm notification.
- Grease/Oil Interceptors:
 - Prefabricated, reinforced concrete grease interceptor structure in accordance with state and local agency code standards.
 - Coated cast iron grease interceptor with coated steel extension. Gasketed nonskid locking cover.
- Plaster/sediment traps and interceptors:
 - Surface mounted is preferred to flush installation to simplify future changes and alterations.
- Storage Tanks: Factory fabricated steel, glass lined, vertical tank with mounting supports.

Approved Manufacturers:

- Water Heaters (Gas, Storage)

- A. O. Smith
- State
- Water Heaters (Gas, Instantaneous)
 - Takagi
 - A.O. Smith
 - Aerco
- Circulation Pumps
 - Amtrol
 - Armstrong
 - Bell & Gossett
 - Grundfos
 - Paco
 - Taco
- Sump Pumps
 - Paco
 - Hydromatic
 - Aurora
 - Grundfos
 - Peerless

Substitutes Allowed:

Yes, if performance and quality equivalency can be evidenced.

Associated Design Standards and Construction Specifications

- Division 22 Plumbing Design Standards and Construction Specifications

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