

DC 2.6 v09.02

Summary of Changes:

1. Para 2.6.1.5: Board of Water Supply and other county water supply agencies requirements for backflow preventer only applies to the main supply line feeding the building and is intended to protect the main water line from potential contamination coming from the supplied building. There could be rooms within the building handling toxic materials which should require additional internal backflow preventers to protect the water system and occupants within the building.
2. Para 2.6.2.1: Grease traps shall be installed at the proper elevation along with connecting inlet and outlet piping installed at the proper relative locations to insure proper operation of the trap.
3. Para 2.6.2.6: Harmful or unhealthy fumes and gases emanating from roof top plumbing vents should be prevented from entering the outdoor air intake vents going to the buildings HVAC system. The separation distances between the intakes and plumbing vents should be in accordance with the latest adopted plumbing code or indoor air quality ventilation code or standard requirements, whichever is more stringent.
4. Para 2.6.2.7: Spaces proposed for water heaters are sometimes too small for a satisfactory installation. Heaters will barely fit and/or have inadequate clearances for maintenance access.
5. Para 2.6.3.5: Wall mounted fixtures, particularly on gypsum or wood type constructed walls, should have the proper type of fitting and/or support carriers inside of the wall space with adequate space for proper installation and subsequently proper support for the wall mounted fixtures.
6. Para 2.6.3.6: Wall access panels should be provided for plumbing devices located inside of the wall space to enable access for adjustments, maintenance or repairs.
7. Para 2.6.3.7: Corrosion rate on steel piping is sometimes accelerated when connected to a dissimilar pipe material without any dielectric fitting preventing contact between the two different piping materials.

2.6.1 Water System

- 2.6.1.2** Provide pressure regulators at meter location or at each building for all new schools where the municipal's water pressure entering the property exceeds 80 p.s.i at any time.

- 2.6.1.3** Provide a domestic water booster pump where water pressure does not meet the minimum required for the plumbing fixtures and equipment.
- 2.6.1.4** The following information shall be shown on the plans:
- a. Static water pressure at meter or fire hydrant.
 - b. Residual water pressure and quantity of flow.
 - c. Source of information.
- 2.6.1.5** Backflow preventer shall be provided as required by all **county water supply agency** regulations **to protect the public water supply system from being contaminated by the connected building or facility. Provide additional and appropriate backflow preventer(s) within the building when necessary to prevent contamination of the potable water system within the building.**
- 2.6.1.6** Hose bibs shall be located so as not to protrude into pedestrian traffic. In lieu of free-standing hose bibb, use street washer box or floor or wall hydrant. Do not use vacuum type unless required by code.
- 2.6.1.7** Provide a combination hot and cold water hose bibb near waste handling areas in kitchen areas for wash down.
- 2.6.1.8** All hot water pipes, whether exposed or not, shall be insulated.
- 2.6.1.9** Where trap primers are used they shall be specified with bodies constructed from brass, bronze or similar metal type materials. Plastic bodies will not be allowed due to damage caused by water leaking from cracked bodies.

2.6.2 Drainage, Waste and Vent System

- 2.6.2.1** Grease interceptors, which are required for all kitchens, shall be installed outdoors with easy access for grease and wastewater removal. Verify with the local wastewater authority having jurisdiction over connection to the public sewer, the applicable regulations for grease interceptors including fixtures required to be connected and sizing of the interceptor. For example, waste from kettles shall empty into floor sinks or trench drains connected to the grease interceptor. Waste from pot and pan sinks shall also empty into grease interceptor. **Grease traps and the connected waste inlet and outlet piping need to be installed at the proper elevations recommended by the manufacturer to insure proper operation of the trap.**
- 2.6.2.2** Solids interceptor (e.g. plaster trap) for single sinks shall be located to the side and not under the sink, unless there is sufficient space to clean the interceptor. For example, verify there is enough vertical clearance above the interceptor to remove the basket from the body.
- 2.6.2.3** The waste water from a footwash shall be directed into a storm drain if available. Do not use dry wells.
- 2.6.2.4** Locate cleanouts in accordance with the requirements of the local Plumbing Code where the project is located. Access space shall be provided for cleanouts above the suspended ceiling as well as for floor and wall cleanouts.
- 2.6.2.5** Where acid neutralization tanks are required, provide compatible acid resistant pipe and fitting system.

2.6.2.6 Insure adequate separation distance is provided between the building outside air intakes and plumbing vents in accordance with the latest adopted plumbing code or any indoor air quality ventilation code or standard requirement, whichever is more stringent.

2.6.2.7 Ensure adequate space for water heaters are provided including maintenance access clearances.

2.6.3 Other Design Considerations

2.6.3.1 Provide an isolation (e.g. gate) valve for each utility supplied to the building.

2.6.3.2 For maintenance reasons, it is important that consideration be given to locating all utility lines outside of the main structure and outside of concrete slabs where practical to allow access for repairs with minimum interference to users.

2.6.3.3 Wherever possible and as permitted by the Department of Health regulations, all piping in kitchen, physical education and shops shall be exposed. DOH Sanitation Regulations prohibit exposed waste and soil piping located above kitchen areas.

2.6.3.4 Plumbing rough-in (e.g. under concrete floor slab) of piping shall be provided for future equipment where identified during planning and design phases.

2.6.3.5 Provide adequate space within the pipe chase and provide the appropriate lavatory, sink or water closet fitting or carrier support when required to support wall mounted plumbing fixtures.

2.6.3.6 Plumbing devices requiring maintenance or repair work located inside of wall spaces shall be provided with maintenance access wall panels.

2.6.3.7 Provide dielectric fittings between dissimilar metal piping.

2.6.4 Coordination with Electrical Equipment: Do not locate piping and other water containing equipment directly over electrical equipment, panel boxes, controls, switches and other energized electrical devices. The **latest adopted NEC** Electric Code (~~NEC 1999~~, 110-26 (f)(1)(a) does not allow placement of piping, equipment and other plumbing hardware over electrical panels, switchboards and other panels under its jurisdiction. Do not route piping and do not locate plumbing equipment in electric rooms, electric vaults and electric closets. Designer shall provide coordinated drawings to DAGS prior to final drawings. Specifications shall require contractor to submit coordination drawings showing all existing conditions and new work.

2.6.5 Accessibility

2.6.5.1 Refer to DC 2.15 Accessibility for general design requirements.

2.6.5.2 Include the following note on the Plumbing Drawings:
“Establish finish elevations for all utility structures, frames and covers within accessible routes such that they will be flush with the surface of the adjacent accessible route when work is completed. The final finish elevation of any such item shall not exceed ¼” above or below the adjacent

finish elevation of the accessible route at any point. Variations in excess of this amount will be considered defective work, and shall be corrected.”