



Issue Date	January 9, 2012, Rev. July 18, 2013
Code/Section	Phoenix Plumbing Code Chapter 7
Approved:	Technical Review Team
Developed By:	David McCarthy, P.E., Mechanical Plans Engineer

Purpose:

To provide the design and installation requirements for private pressure drainage systems (forced mains) installed in public right-of-ways.

Interpretation:

All proposals for installing private sewer systems within public right-of-way shall first obtain preliminary approval from Water Services Department. Once preliminary approval is obtained, a revocable permit is required from Street Transportation Department. A plumbing permit and S-511 review and permit are then obtained from the Planning and Development Department. Pressure discharge piping from onsite sewage ejectors or lift stations shall comply with the following:

1. **Pipe size:** Minimum 2" diameter for discharge piping serving a single family dwelling and minimum 3" pipe diameter for all other building types.
2. **Valves:** A check valve shall be installed on the pump discharge piping. A gate valve (or other full-way valve) shall be provided downstream of the check valve. The check valve and the gate valve shall be accessible per UPC 710.6 and IPC 712.2.
3. **Piping:** Piping downstream of the discharge pump shall be sized to prevent head pressure resistance in excess of that which is recommended by the pump manufacturer. Plastic piping shall be rated as pressure piping and shall be accompanied by a metallic locator strip. All piping (metallic or plastic) shall be installed with a minimum of three (3) feet of cover and shall be placed a minimum of two (2) feet below any water piping.
4. **Fittings:** Fittings shall be pressure rated and shall be of a radii and pattern which provides for the least amount of flow resistance.
5. **Cleanouts:** Cleanouts shall be provided and shall be accessible. Such cleanouts shall be designed with full-way valves and appropriate connection for removal of system contents. Maximum spacing between cleanouts shall be as determined by the design professional's recommendation.
6. **Inspections:** On-site Plumbing Inspectors will be responsible for all on-site system components and the pressure drainage piping installation located within the right-of-way. Off-site Civil Inspectors will be responsible for trenching, bedding, and paving located within the right-of-way.
7. **Sewer connection:** The private plumbing review will terminate at the force main connection to a public manhole. This connection shall require an S-511 Detail Plan Review and Permit. The S-511 connection is reviewed and permitted by Counter 8 and inspected by the off-site inspections group.

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