

SECTION 2.3 WATER FACILITY GUIDELINES

2.3.1 PURPOSE

This section is a guideline to be used in the design of proposed water systems. The Engineer of Work shall be responsible to ensure that improvement plans are processed in accordance with Section 2.2 and designed in accordance with Sections 5.1 through 5.7 and accepted standards of good engineering practice.

Developer facilities will be designed by the Engineer of Work, constructed by the developer's contractor and transferred to the District upon satisfactory completion and acceptance in accordance with the District's Rules and Regulations.

2.3.2 STANDARD TERMS AND DEFINITIONS

Wherever technical terms or pronouns occur in these guidelines or in related documents, the intent and meaning shall be interpreted as described in Standard Terms and Definitions.

The following terms and definitions as found in this section shall have the following meaning:

DHS: The State of California, Health and Welfare District, Department of Health Services (DHS). DHS set requirements for minimum horizontal and vertical separation between potable water, **recycled** water, hazardous fluids, storm drainage, and/or sewer lines.

2.3.3 GENERAL

It is the responsibility of the user of these documents to make reference to and/or utilize industry standards not otherwise directly referenced within this document. The Engineer of Work may not deviate from the criteria presented in this section without prior written approval of the District's Engineer.

2.3.4 PIPE SIZE AND MATERIAL

- A. The minimum size, pressure class, and type of material for water pipelines shall be in accordance with Section 5.1. Residential, commercial or industrial lateral service sizes shall be as shown on the improvement plans. The District will not accept water pipelines that are constructed in a common trench with another utility.
- B. Approved materials and manufacturers for services and connections are listed in the Approved Materials List.

2.3.5 FLOW DESIGN CRITERIA

- A. Residential, commercial, and industrial design flows shall be based on demand and peaking factors listed in Section 4.1.
- B. Fire flow design requirements shall be determined by the governing fire department and as listed in Section 4.1.

2.3.6 DEPTH OF COVER

Depth of cover for water pipelines shall be in accordance with Section 5.1.

2.3.7 STANDARD LOCATION AND ALIGNMENT

For standard location and alignment of water pipelines, see Section 5.1. For water lines allowed within an easement, refer to Section 1.5 for easements widths and locations.

2.3.8 SEPARATION CRITERIA FOR WATER, SEWER, HAZARDOUS FLUIDS, STORM DRAINAGE, AND RECYCLED WATER

A. Horizontal and Vertical Separation:

The State of California, Health and Welfare District, Department of Health Services (DHS) regulations require a minimum horizontal and vertical separation between water and recycled water, hazardous fluids, storm drainage, or sewer lines as described in their guidelines. Those guidelines govern all improvements within the District.

B. Guidance Memo 2003-02 no longer applies and any deviation from the required separation must be submitted to the State Water Resource Control Board for evaluation, and only they can grant a waiver. See Exhibit 2.3 A describing the revised regulations.

2.3.9 STATIONING PROCEDURE

Stationing for water lines shall be as listed in Section 1.1.

2.3.10 NOTES

The District's Notes for development improvement plans are listed in Appendix 2.2.B.

2.3.11 VALVE ARRANGEMENTS

- A. Valves shall typically be shown on each branch of a tee or cross at intersections. See Section 5.3 for exceptions.**
- B. In-line valves shall be shown on lengthy streets, where a designated number of single-family dwelling or commercial units will be put out of service, or when multiple fire hydrants will be out of service per Section 5.3.**
- C. Line valves are required so that multiple fire protection devices, such as fire hydrants and fire services, will not be out of service concurrently in accordance with Section 5.3.**
- D. Line valves shall be installed in accordance with Section 5.3 to avoid long single feed distribution pipelines or to prevent water quality problems on dead-end pipelines.**

2.3.12 WATER METERS

- A. All residential, commercial, and industrial water meters shall be furnished and installed by the District, subsequent to payment of all applicable fees and if required, posting of securities.**

- B. Generally, single-family residential developments will have a single domestic meter and a separate fire meter.
- C. Generally, commercial/industrial developments will have two meters, a meter for inside building use and a landscape irrigation meter.
- D. Generally, multi-family dwelling units such as apartments/condominiums/townhomes will be individually metered similar to single family residential.
- E. On four inch (4") and larger fire service installations, reduced pressure detector assemblies (RPDA) shall be installed per Standard Drawing W-8.
- F. Backflow preventer device shall be required in accordance with Section 2.2.

2.3.13 WATER SERVICES

Water services and appurtenances shall be in accordance with Section 5.7.

2.3.14 AIR VALVES

Air valves shall be placed on water lines in accordance with Section 5.5.

2.3.15 BLOW-OFF VALVES

Blow-off valves shall be placed on water lines in accordance with Section 5.6.

2.3.16 TRENCHING, EXCAVATION, AND BACKFILL

Trenching, excavation, and backfill shall be in accordance with Standard Specification 02221.

2.3.17 THRUST BLOCKS

Thrust blocks and anchor blocks shall be designed in accordance with Section 5.2.

2.3.18 REFERENCE

Should the reader have any suggestions or questions concerning the material in this section, contact the District Engineer.

The publications listed below form a part of this section to the extent referenced and are referred to in the text by the basic designation only. Reference shall be made to the latest edition of said publications unless otherwise called for. The following list of publications, as directly referenced within the body of this document, has been provided for the users convenience. It is the responsibility of the user of these documents to make reference to and/or utilize industry standards not otherwise directly referenced within this document.

1. Valley Center Municipal Water District Standards:

A. Design Guidelines

i. Section 1.1, Drafting Guidelines

- ii. Section 1.5, Easements and Encroachments
- iii. Section 2.2, Development Plan and Permit Processing
- iv. Section 4.1, Water Planning
- v. Section 5.1, Pressure Pipeline Design
- vi. Section 5.2, Thrust Restraint and Anchor Blocks
- vii. Section 5.3, Line Valves
- viii. Section 5.5, Air Valves
- ix. Section 5.6, Blowoffs
- x. Section 5.7, Water Services and Test Stations

B. Standard Drawings

- i. W-3 and W-3A
- ii. W-8

C. Approved Materials List for Water Facilities

D. Technical Specifications

- i. Section 02221, Trenching, Excavation, Backfill, and Compaction

2. California Regulations Related to Drinking Water (most current version)

END OF SECTION