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600 MINIMUM DESIGN CRITERIA

600.01 Genera

Unless specified in this Section refer to Section 700 Potable Water Distribution for the requirements of the Standards and Specifications for non-potable water main and service line construction. Additional criteria shall be outlined during public improvement plan review as determined necessary by the Town Engineer or Town Representative. Under no circumstances shall the Non-Potable Water system be connected in any way to the Potable Water system.

600.02 Design Guidelines

| Table 600-01 - Design Guidelines | |
|---|---------|
| Max Main Pipe Velocity | 8-fps |
| Max Service Line Velocity | 8-fps |
| Minimum Static Pressure* | 70-psi |
| Max Static Pressure | 110-psi |
| Maximum System Pressure Fluctuation | 20-psi |

*Pressure could be lower on certain Town Mains.
(To be determined at time of system design)

600.03 Pipe Sizes

See Potable Water Distribution Section.

600.04 Service Lines

See Potable Water Distribution Section.

600.05 Depth

See Potable Water Distribution Section.

600.06 Alignment

All water lines shall be laid, when possible, generally 10-feet north or west of the center line of the street. If the curves exceed the Town’s maximum allowed deflections (half of the



manufacturers recommendation) then fittings shall be used. Potable and non-potable water lines shall be installed with a minimum 10-foot horizontal separation (edge to edge distance) unless otherwise authorized by the Town Engineer. All weather vehicular access shall be provided to manholes and valve boxes installed in areas outside of the public roadway. No potable or non-potable water mains shall be installed within 15-feet of any existing building, retaining wall, or structure, unless approved by the Town Engineer. No building, retaining wall, or structure shall be constructed within 15-feet from any potable or non-potable water main, unless approved by the Town Engineer.

600.07 Grade

See Potable Water Distribution Section.

600.08 Future Connections

See Potable Water Distribution Section.

600.09 Valve Spacing

In general, valves will be placed on lines of 12-inch or smaller diameter no more than 1,000-feet apart.

600.10 Fire Hydrant Locations

No fire hydrants shall be placed on the Town's non-potable water system without written approval of the Town Engineer.

600.11 Fire Lines and Fire Hydrant Lines

No fire hydrants shall be placed on the Town's non-potable water system without written approval of the Town Engineer.

601 MATERIALS

See the Approved Materials List in the Appendix. Accessible appurtenances not available from the manufacturer in the purple color (i.e. valve boxes, meter covers), shall be primed and painted with two (2) coats of an approved rust inhibitive purple paint.

602 DUCTILE IRON PIPE

Written approval of the Town Engineer is required to use this material.



603 POLYVINYL CHLORIDE PIPE

All Polyvinyl Chloride (P.V.C.) pipe shall be purple pipe and manufactured according to A.W.W.A. Standard C900, "Polyvinyl Chloride (P.V.C.) Pressure Pipe, 4-inch through 12-inch, for Water. No P.V.C. over 12-inches in diameter will be installed without approval of the Town Engineer. PVC pipe markings shall include the designation "CAUTION NONPOTABLE WATER" in addition to the standard factory labeling required by AWWA.

604 ASBESTOS CEMENT PIPE

See Potable Water Distribution Section.

605 CAST AND DUCTILE IRON WATER WORKS FITTINGS

See Potable Water Distribution Section.

606 VALVES

See Potable Water Distribution Section.

607 VALVE BOXES

See Potable Water Distribution Section.

608 CURB STOP BOXES

See Potable Water Distribution Section.

609 FIRE HYDRANTS

No fire hydrants shall be placed on the Town's non-potable water system without written approval of the Town Engineer.

610 GENERAL INFORMATION

There should be no connections between the potable and non-potable water systems.

611 TAPPING

See Potable Water Distribution Section.



612 GENERAL PIPE INSTALLATION

See Potable Water Distribution Section.

613 RESTRAINT

See Potable Water Distribution Section.

614 SERVICE LINES

Location of all service lines shall be marked with an "N" chiseled in the sidewalk or curb closest to the property line.

615 SETTING OF VALVES AND FITTINGS

See Potable Water Distribution Section.

616 SETTING OF VALVE BOXES

See Potable Water Distribution Section.

617 SETTING HYDRANTS

No fire hydrants shall be placed on the Town's non-potable water system without written approval of the Town Engineer.

618 DISINFECTION AND FLUSHING

Mains should be kept clean of all debris and should be thoroughly flushed if any debris or sediment is present.

619 HYDROSTATIC TESTS

See Potable Water Distribution Section.

620 WATER METERS

See Potable Water Distribution Section.



621 BACKFLOW CONTROL

Backflow prevention device requirements will be determined on a case by case basis at time of plan review.

622 TEMPORARY WATER USE PERMIT REQUIRED

See Potable Water Distribution Section.

623 REFERENCES

See Potable Water Distribution Section.

