

METROPOLITAN UTILITIES DISTRICT	Construction Standard	No: 1.13.1
	Water Mains Crossing Sanitary and Storm Sewers	Page: 1 of 2
Prepared by: Bill Travnicsek		<u>Supersedes:</u> 12-3-09
Approved by: Jeff Loll		Effective: 5-21-10

WATER MAINS CROSSING SANITARY AND STORM SEWERS

When crossing under or over a sewer during the installation of a new water main, one full length of water pipe shall be centered at the intersection of the water main and the sewer as shown in Fig 1. If a sanitary and storm sewer are parallel to each other and are less than 20' apart, the water pipe shall be centered on the sanitary sewer as shown in Fig 2. An edge to edge separation of 18" between the water main and the sewer shall be maintained. Water mains shall normally be installed above sanitary sewers. If a water main crosses both a sanitary and storm sewer at or near the same location, priority shall be given to keeping the water main above the sanitary sewer and maintaining separation on the sanitary sewer.

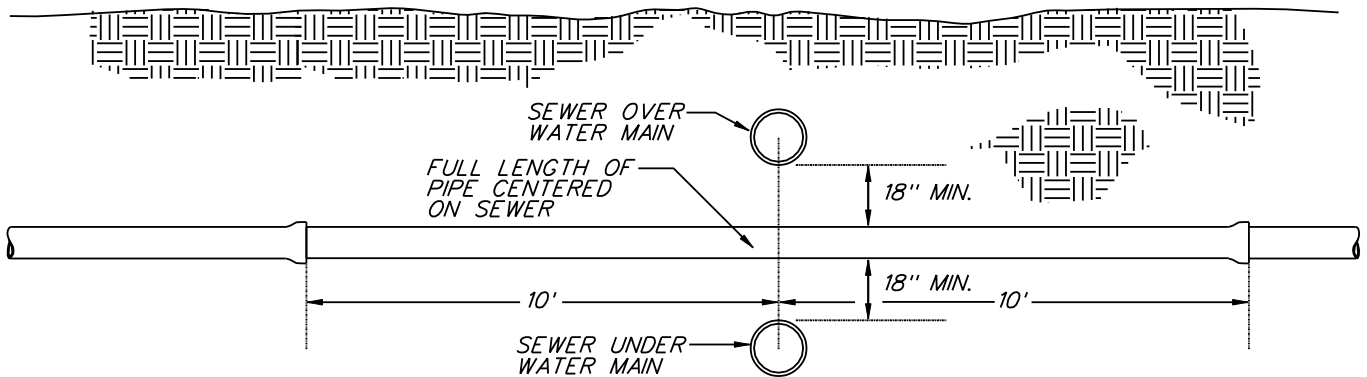


FIG 1 WATER MAIN INSTALLATION UNDER/OVER SANITARY AND STORM SEWERS

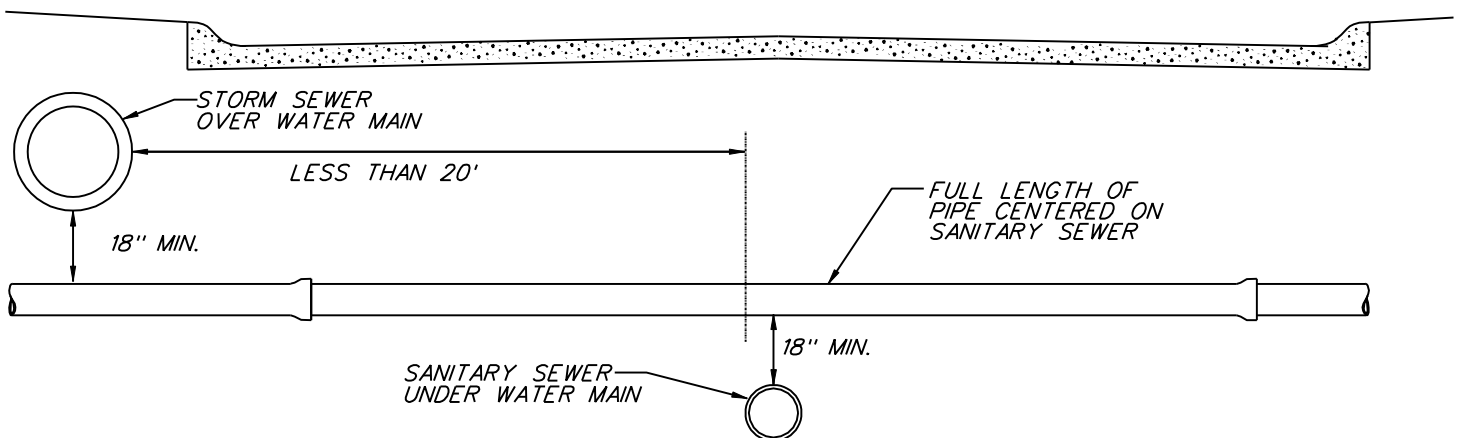


FIG 2 WATER MAIN INSTALLATION CROSSING UNDER/OVER PARALLEL SANITARY AND STORM SEWERS

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WATER MAINS PARALLEL TO SANITARY AND STORM SEWERS

Water mains shall be laid at least 10 feet horizontally edge to edge from any sewer. Where a ten foot separation is not practical, the Engineer may allow a water main to be laid closer to a sewer, provided that the water main is laid in a separate trench or on an undisturbed earth shelf so that the bottom of the water main is at least 18 inches above the top of the sewer.

HYDRANTS

Hydrants shall be installed at least 10 feet from a sewer or sewer inlet.

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SEWER MANHOLES

Water main shall not pass through or come in contact with any part of a sewer manhole. Water main should be located 10' from sewer manholes. If field conditions require the water main to be closer than 10' to the sewer manhole, then a full length of pipe shall be centered on the manhole. An edge to edge separation of 18" between the centered water pipe and sewer manhole shall be maintained. See Fig 3.

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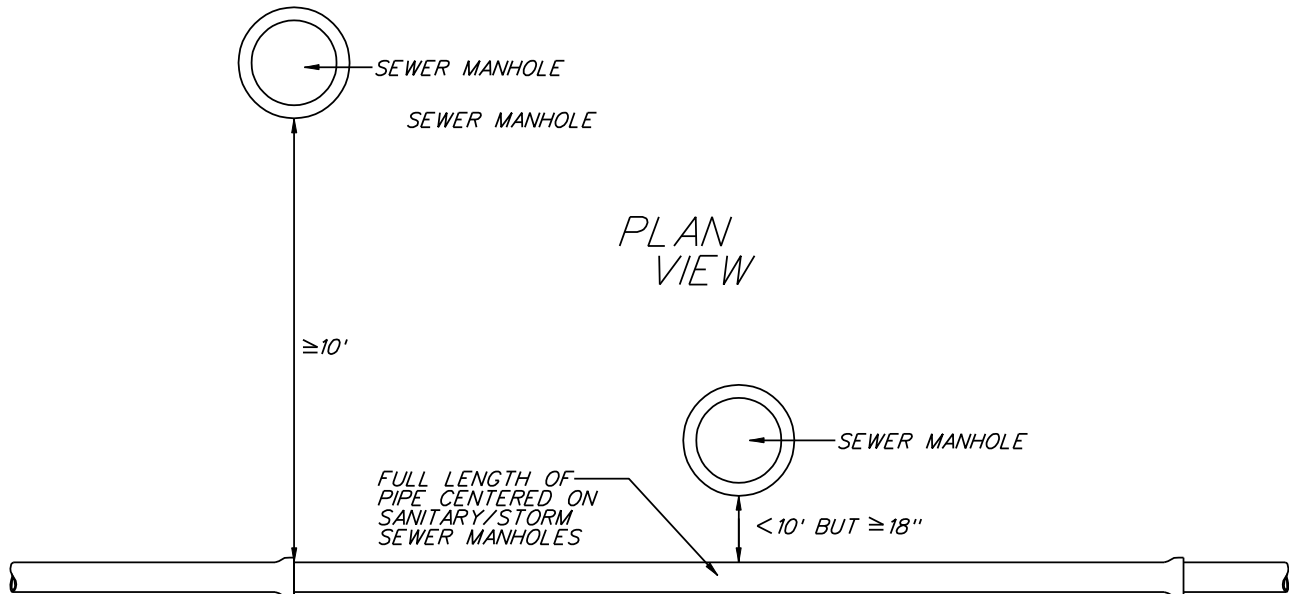


FIG 3 WATER MAIN INSTALLATION IN RELATION TO SANITARY AND STORM SEWER MANHOLES

EXCEPTIONS

Where field conditions do not allow for standard sewer separation, the Engineer can make exceptions and specify other protective measures as required. All deviations from this sewer separation standard must be documented in the as-built along with the Engineer's justification.



* Revised Text

** Revised Drawing