

**ELASTOMERIC** 

BAND

DETAIL

## STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS, LATEST EDITION. 41-2.01 PROTECTION OF WATER MAIN AND WATER SERVICE LINES 41-2.01A GENERAL Water mains and water service lines shall be protected from sanitary sewers, storm sewers, combined sewers, house sewer service connections and drains as follows: 41-2.01B HORIZONTAL SEPARATION - WATER MAINS AND SEWERS sewer or sewer service connection.

(1.) Water mains shall be located at least ten (10) feet (3.1 m) horizontally from any existing or proposed drain, storm sewer, sanitary sewer, combined

(2.) Water mains may be located closer than ten (10) feet (3.1 m) to a sewer line when:

(a) local conditions prevent a lateral separation of ten (10) feet (3.1 m);

(b) the water main invert is at least eighteen (18) inches (460 mm) above the crown of the sewer; and

(c) the water main is either in a separate trench or in the same trench on an undisturbed earth shelf located to one side of the sewer.

(3.) When it is impossible to meet (1) or (2) above, both the water main and drain or sewer shall be constructed of slip—on or mechanical joint cast or ductile iron pipe, prestressed concrete pipe, or PVC pipe equivalent to water main standards of construction. The drain or sewer shall be pressure tested to the maximum expected surcharge head before backfilling. See Standard Drawing No. 18.

> WATER AND SEWER SEPARATION REQUIREMENTS (HORIZONTAL SEPARATION)

## STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS, LATEST EDITION.

## 41-2.01C VERTICAL SEPARATION - WATER MAINS AND SEWERS

(1.) A water main shall be separated from a sewer so that its invert is a minimum of eighteen (18) inches (460mm) above the crown of the drain or sewer whenever water mains cross storm sewers, sanitary sewers or sewer service connections. The vertical separation shall be maintained for that portion of the water main located within ten (10) feet (3.1m) horizontally of any sewer or drain crossed. A length of water main pipe shall be centered over the sewer to be crossed with joints equidistant from the sewer or drain.

(2.) Both the water main and sewer shall be constructed of slip—on or mechanical joint cast or ductile iron pipe, prestressed concrete pipe, or PVC pipe equivalent to water main standards of construction when:

(a) it is impossible to obtain the proper vertical separation as described in (1) above; or

(b) the water main passes under a sewer or drain.

(1) CASING OF EITHER THE WATER MAIN OR SEWER PIPE IS ACCEPTABLE IN LIEU OF PLACING THE SEWER IN WATER MAIN EQUIVALENT PIPE.

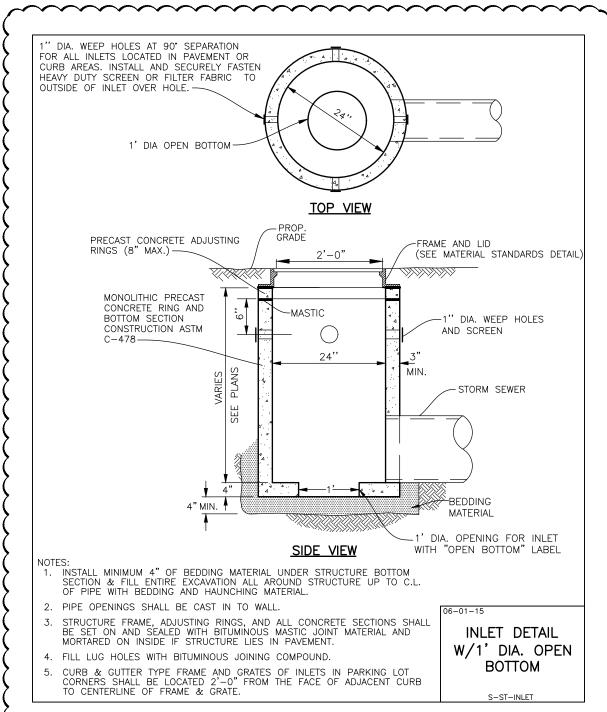
(2) THE STORM SEWER CAN BE CONSTRUCTED WITH REINFORCED CONCRETE PIPE USING FLEXIBLE GASKETS JOINTS, (ASTM C361 C443) INSTEAD OF CONSTRUCTING THE STORM SEWER WITH

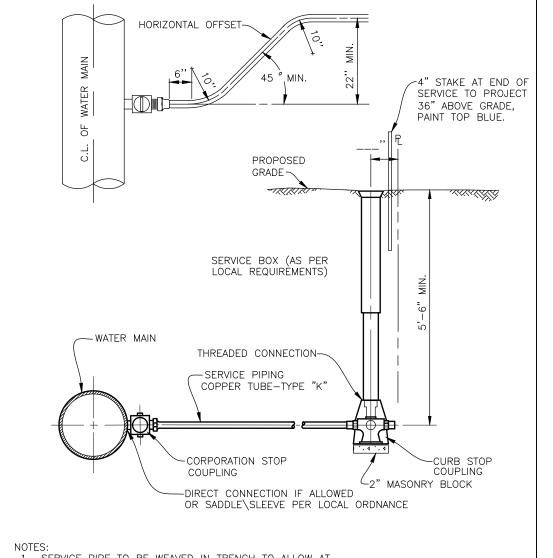
WATER MAIN EQUIVALENT PIPE OR CASING PIPE.

(3.) A vertical separation of eighteen (18) inches (460 mm) between the invert of the sewer or drain and the crown of the water main shall be maintained where a water main crosses under a sewer. Support the sewer or drain lines to prevent settling and breaking the main, as shown on the Plans or as approved by the ENGINEER.

(4.) Construction shall extend on each side of the crossing until the perpendicular distance from the water main to the sewer or drain line is at least ten (10) feet (3.1 m) See Standard Drawings No. 19-23.

> WATER AND SEWER SEPARATION REQUIREMENTS (VERTICAL SEPARATION)





1. SERVICE PIPE TO BE WEAVED IN TRENCH TO ALLOW AT LEAST ONE (1) FOOT EXTRA LENGTH IN RUN TO BUILDING. 2. UPON COMPLETION OF WATER SERVICE CONSTRUCTION ALL WATER SERVICE BOXES ARE TO BE FULLY EXTENDED AND LEFT PROTRUDING ABOVE THE PROPOSED GRADE. DETAIL 3. GRANULAR BACKFILL TO BE PLACED UNDER PAVEMENT AS SPECIFIED.

WITH REINFORCED CONCRETE TOP VIEW - NOTE: SEE PLAN FOR ACTUAL PIPE ANGLES. 8" PVC STORM SEWER OUTLET WITH TIDEFLEX INLINE CHECK \ ←(2) 4" PVC STORM SEWER \ **-**(2) CLOSED LID FRAME AND GRATE RIM = 607.26\_\_\_6" CONCRETE \_\_\_\_ ELEV. 605.80 - INV= 605.80 RUBBER BOOTS -INV= 603.00-**PROFILE** ALL PVC PIPE AND FITTINGS SHALL BE SDR26 OR STRONGER. PERFORATIONS SHALL BE DRILLED 3/4" DIA. WITH 4" SPACING ON A ON A VERTICAL LINE, ALL SIDES. PIPE STRAPS SHALL BE STAINLESS STEEL, REDLINER OR EQUIVALENT. USE HYDRAULIC CEMENT FOR GROUTING. 2. GRATES TO BE ALL WELDED CONSTRUCTION, HOT DIPPED GALVANIZED AFTER FABRICATION. 3. GRATES TO BE PER DETAIL OR APPROVED EQUAL. BAFFLE STRUCTURE 4. CONSTRUCT MANHOLE AS PER STORM MANHOLE DETAIL. DETAIL 5. PROVIDE MINIMUM 4" OF CA6 BEDDING MATERIAL UNDER MANHOLE BOTTOM SECTION & FILL ENTIRE EXCAVATION ALL AROUND MANHOLE UP TO C.L. OF SEWER WITH BEDDING MATERIAL. 6. ALL CONNECTIONS ARE TO BE MADE WITH WATERTIGHT BOOTS, CONFORMING TO ASTM C-923.

SHOULD A CONFLICT ARISE BETWEEN MANHARD DETAILS AND THE VILLAGE DETAILS, THE VILLAGE DETAILS SHALL TAKE PRECEDENCE.

PROJ. MGR.: TTR PROJ. ASSOC.: JRC 08-05-19 <u>N.T.S.</u> SCALE: SHEET

DEVELOPMENT

RETAIL

PROPOSED

DOLTON, ILLINOIS

OF

VILLAGE

NOL

AETDOIL01