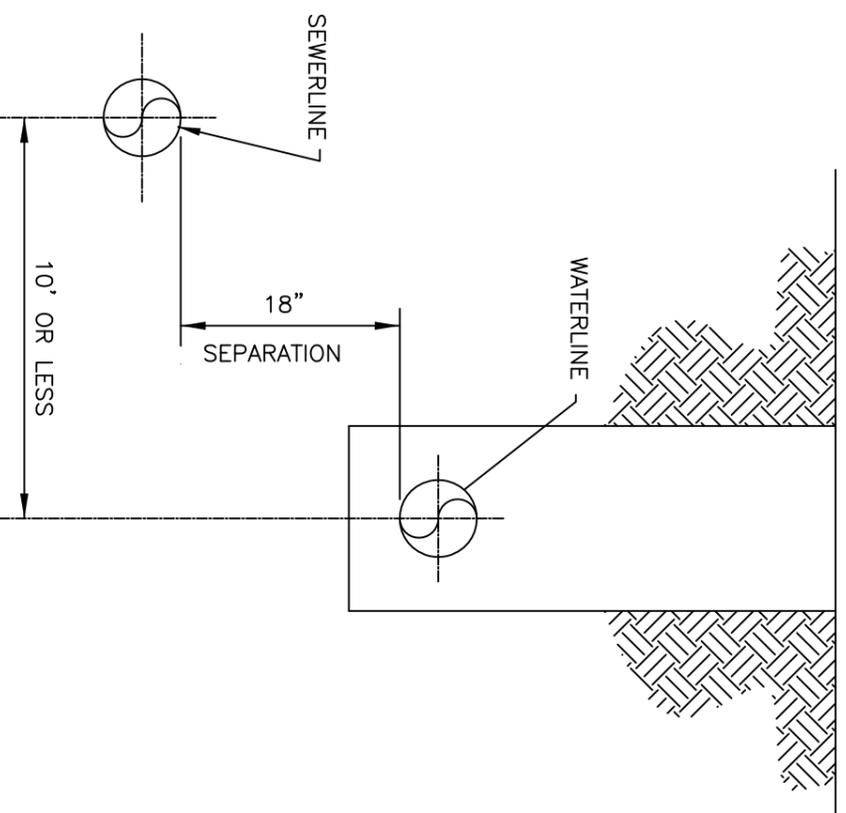


NOTE: WHEN PROPER VERTICAL SEPARATION, AS SHOWN, IS NOT POSSIBLE, THE WATERLINE SHALL BE CONCRETE ENCASED FOR A LENGTH OF 10' ON EITHER SIDE OF THE SEWERLINE. (AIR TEST FOR TIGHTNESS)

- 1) THE CONTRACTOR SHALL ADHERE TO THESE REQUIREMENTS AND THE ENGINEER SHALL BE NOTIFIED IN ANY CASE WHERE SUCH REGULATIONS MAY BE VIOLATED.
 - A. HORIZONTAL SEPARATION – WHENEVER POSSIBLE, SEWERS SHOULD BE LAID AT LEAST 10 FEET, HORIZONTALLY, FROM ANY EXISTING OR PROPOSED WATER MAINS. SHOULD LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET, A SEWER MAY BE LAID CLOSER THAN 10 FEET TO A WATER MAIN IF:
 - (1) IT IS LAID IN A SEPARATE TRENCH; OR IF
 - (2) IT IS LAID IN THE SAME TRENCH, WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH; AND IF
 - (3) IN EITHER CASE THE ELEVATION OF THE TOP (CROWN) OF THE SEWER IS AT LEAST 18 INCHES BELOW THE BOTTOM (INVERT) OF THE WATER MAIN.
 - B. VERTICAL SEPARATION – WHENEVER SEWERS MUST CROSS UNDER WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE TOP OF THE SEWER IS AT LEAST 18 INCHES BELOW THE WATER MAIN. WHEN THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THE ABOVE REQUIREMENTS, THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS SEPARATION, FOR A DISTANCE OF 10 FEET EXTENDING ON EACH SIDE OF THE SEWER. IF POSSIBLE, ONE FULL LENGTH OF WATER MAIN SHOULD BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. WHERE LESS THAN AN 18" VERTICAL SEPARATION EXISTS BETWEEN THE WATER AND SEWER LINE, THE SEWER LINE SHALL BE CONCRETE ENCASED 10 FEET ON BOTH SIDES OF THE WATER MAIN. IF POSSIBLE, SEWER CROSSING WATER MAINS SHALL BE CONSTRUCTED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.



NOTE: VERTICAL SEPARATION NOT REQUIRED FOR DISTANCES BETWEEN LINES EXCEEDING 10 FEET.

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