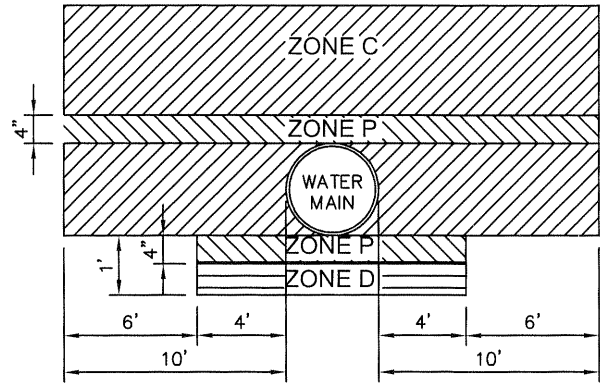


**PARALLEL CONSTRUCTION**



**PERPENDICULAR CONSTRUCTION**

**NOTES:** DIMENSIONS ARE FROM OUTSIDE OF WATER MAIN TO OUTSIDE OF SEWER. ALL CROSSINGS SHALL BE AT 90 DEGREES WHERE POSSIBLE.

### CASE I - NEW SEWER - EXISTING WATER MAIN

- ZONE A** SEWER LINES SHALL NOT BE PERMITTED IN THIS ZONE WITHOUT SPECIAL PERMISSION FROM THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES.
- B** EXTRA-STRENGTH VITRIFIED CLAY PIPE WITH COMPRESSION JOINTS, DUCTILE IRON PIPE. POLYETHYLENE LINED OR PVC SEWER PIPE WITH PUSH-ON TYPE RUBBER RING JOINTS FOR SEWER LINES.
- C** DUCTILE IRON PIPE WITH HOT DIP BITUMINOUS COATING AND MECHANICAL JOINTS, OR SEWER PIPE WITHIN A CONTINUOUS SLEEVE, OR ANY SEWER PIPE IN A 1/4" THICK CONTINUOUS STEEL CASING WITH ANNULAR SPACE PRESSURE GROUTED FOR SEWER LINES.
- D** CONTINUOUS SECTION OF DUCTILE IRON PIPE WITH HOT DIP BITUMINOUS COATING, OR SEWER PIPE WITHIN A CONTINUOUS SLEEVE. ANY SEWER PIPE IN A 1/4" THICK CONTINUOUS STEEL CASING WITH ANNULAR SPACE PRESSURE GROUTED ON ANY SEWER PIPE SEPARATED BY A 10'x10'x4" THICK REINFORCED CONCRETE SLAB.
- P** SEWER LINES SHALL NOT BE PERMITTED IN THIS ZONE.

### CASE II - NEW WATER MAIN - EXISTING SEWER

- ZONE A** NO WATER MAINS PARALLEL TO SEWERS WILL BE CONSTRUCTED WITHOUT SPECIAL PERMISSION FROM THE DEPARTMENT OF HEALTH.
- B,C&D** IF THE SEWER DOES NOT MEET THE IDENTICAL ZONE REQUIREMENT ABOVE, THE MAIN SHALL BE CLASS 50 DUCTILE IRON PIPE, CEMENT MORTAR LINED AND ASPHALT COATED, OR 0.25" THICK WELDED STEEL PIPE, CEMENT MORTAR LINED AND WRAPPED. IN ZONES C AND D, THE WATER MAIN SHALL HAVE NO JOINTS WITHIN THAT ZONE.
- P** WATER MAINS SHALL NOT BE CONSTRUCTED WHEN A SEWER LINE EXISTS WITHIN THIS ZONE. SECTION 64640(e)(2) CALIFORNIA ADMINISTRATIVE CODE. TITLE 22.

### NOTES:

- ① SEWER OR WATER MAINS LARGER THAN 24" DIAMETER, HOUSE LATERALS ABOVE PRESSURED WATER MAINS AND SEWERS WITHIN 25' OF LOW HEAD WATER MAINS SHALL BE REVIEWED AND APPROVED BY THE DEPARTMENT OF HEALTH.
- ② MINIMUM SEPARATION SHALL BE 10' HORIZONTALLY AND 1' VERTICALLY. IN EXCEPTIONAL SITUATIONS, WHERE SEPARATION IS NOT FEASIBLE, THE ABOVE SPECIAL CONSTRUCTION PROVISIONS SHALL BE MADE.
- ③ WATER MAINS AND SEWER MAINS SHALL NOT BE INSTALLED IN A COMMON TRENCH. WATER SERVICE LATERALS AND SEWER LATERALS SHALL HAVE A 5' MIN. SEPARATION.
- ④ THE DESIGN AND INSTALLATION OF SEWER FORCE MAINS REQUIRE CITY REVIEW AND APPROVAL.
- ⑤ REF. SOURCE: 'CRITERIA FOR THE SEPARATION OF WATER MAINS AND SANITARY SEWER, THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES; AS LAST REVISED.
- ⑥ IF CONFLICT BETWEEN THIS STANDARD AND THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES EXISTS, THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES CRITERIA WILL CONTROL.
- ⑦ WATER & SEWER LATERALS REQUIRE 5' SEPARATION PER CITY AND STATE DOHS REQUIREMENTS.



APPROVED BY		24079 08/15/06	
JOHN P. SULLIVAN CITY ENGINEER		RCE DATE	
RECOMMENDED BY		57875 08/14/06	
ASST. UTIL. DIRECTOR/ENG.		RCE DATE	
REV	DESCRIPTION	BY	APP'D DATE

**CITY OF ONTARIO**

**PROTECTION OF  
WATER LINES FROM  
SANITARY SEWER**

STANDARD  
DRAWING  
NUMBER

**4001**