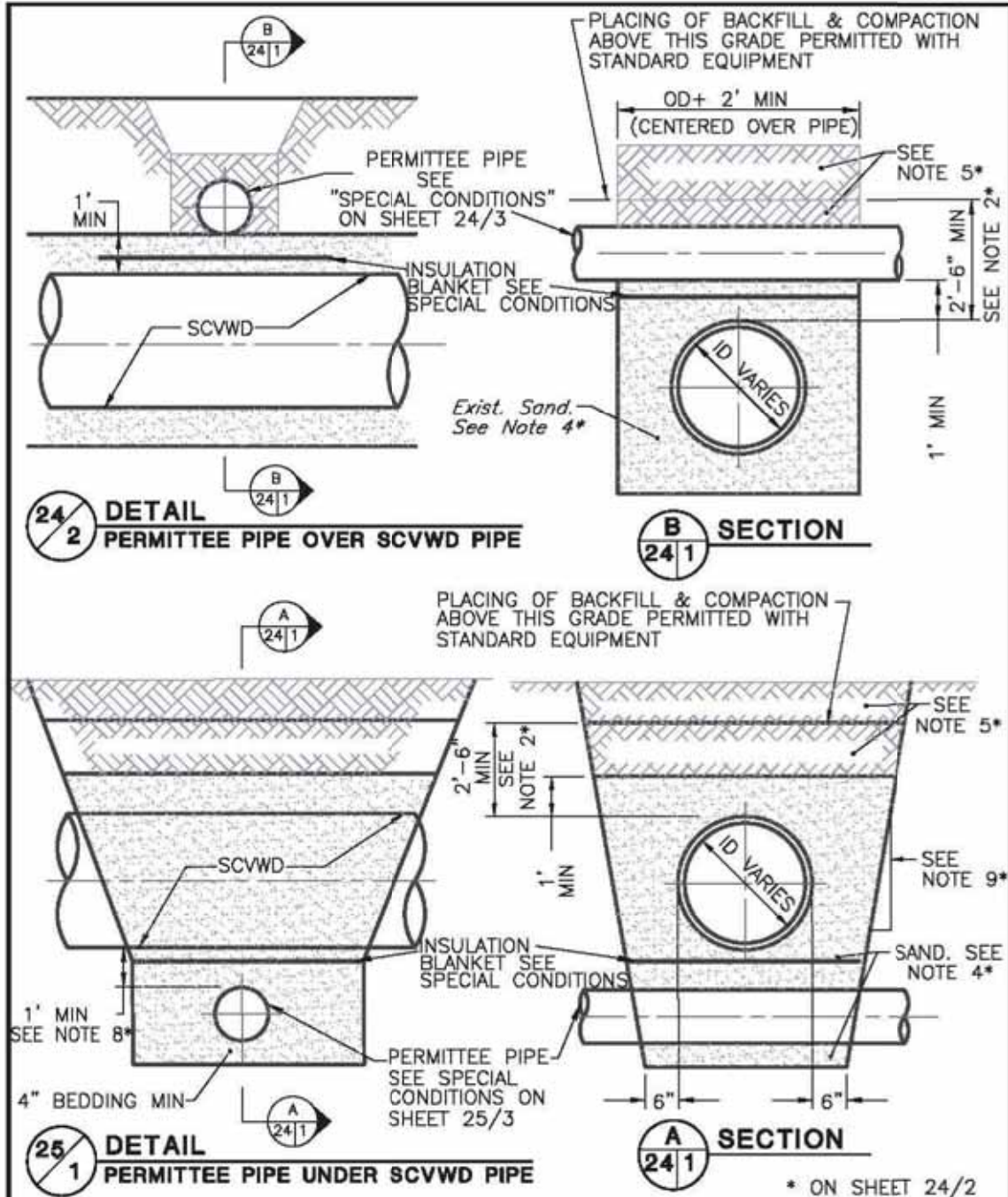


# SCVWD WATER PIPELINE CROSSING

The following pipeline crossing design guides are for water, sewer and other utilities that may cross SCVWD raw (untreated) or treated water pipelines. These are generally large diameter high pressure water mains that supply drinking water to Santa Clara County residents. There may be variations to this guideline if pipeline is located under city/county streets.



\* ON SHEET 24/2

**Santa Clara Valley Water District**  
 5750 Almaden Expressway, San Jose 95118  
 Phone (408)265-2600  
 SCALE: N.T.S.  
 9/4/2001  
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## SCVWD WATER UTILITY CROSSING

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**1**  
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## SCVWD WATER PIPELINE CROSSING

### THESE NOTES ARE TO APPEAR ON PLANS

1. THE CONTRACTOR SHALL COMPLY WITH THE RULES AND REGULATIONS OF "CAL OSHA" CALIFORNIA LABOR CODE SECTION 6300 AND FOLLOWING.
2. COMPACTION EQUIPMENT SHALL BE EITHER VIBRATORY COMPACTORS OR PNEUMATIC TAMPERS. JETTING MAY BE ALLOWED. STANDARD EXCAVATION AND COMPACTION EQUIPMENT IS NOT PERMISSIBLE WITHIN 30 INCHES OF DISTRICT PIPE. IF, IN THE OPINION OF THE DISTRICT, THE COMPACTION EQUIPMENT USED IS IMPROPER OR IMPROPERLY USED AND HAS DAMAGED THE PIPE, THE PIPE SHALL BE EXPOSED FOR INSPECTION AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL THEN REPAIR DAMAGE, IF ANY, AND PROCEED WITH THE BACKFILLING WITH EQUIPMENT APPROVED BY THE DISTRICT. IN GENERAL, HAND-OPERATED POWER EQUIPMENT WILL BE CONSIDERED SATISFACTORY FOR USE WITHIN 30 INCHES OF THE DISTRICT'S PIPE.
3. PIPE TRENCH EXCAVATION AND BACKFILL SHALL CONFORM TO THE PROVISIONS OF SECTION 19 OF THE STATE STANDARD SPECIFICATIONS EXCEPT AS HEREIN MODIFIED.
4. COMPACTED SAND BACKFILL MATERIAL SHALL BE CLEAN, HARD, SOUND AND DURABLE. IT SHALL HAVE A SAND EQUIVALENT VALUE OF NOT LESS THAN 30. THE PERCENTAGE COMPOSITION BY WEIGHT SHALL CONFORM TO THE FOLLOWING GRADATION:

<u>SIEVE SIZE</u>	<u>PERCENT PASSING</u>
3/4 inch	100
3/8 inch	75 TO 100
#4	60 TO 100
#20	0 TO 40
#200	0 TO 5

THE MATERIAL SHALL BE FREE FROM DELETERIOUS COATINGS, CLAY BALLS, ROOTS, BARK, STICKS, RAGS AND OTHER EXTRANEIOUS MATERIAL. SAND BACKFILL SHALL BE COMPACTED BY APPROVED METHODS TO A DENSITY OF AT LEAST 90 PERCENT OF MAXIMUM DRY DENSITY.

5. BACKFILL AND COMPACTION REQUIREMENTS ABOVE THE NOTED LIMITS SHALL BE TO THE SPECIFICATIONS OF AGENCY HAVING JURISDICTION.
6. ALL EXCAVATION WITHIN 12 INCHES OF DISTRICT'S PIPE IS TO BE BY HAND METHODS.
7. CONTACT SANTA CLARA VALLEY WATER DISTRICT TWO WORKING DAYS PRIOR OF ANY WORK WITHIN \_\_\_\_\_ FEET OF CENTER LINE OF THE DISTRICT PIPE. PHONE 265-2600, CONSTRUCTION ADMINISTRATION UNIT.
8. FOR UNDERCROSSING, SANTA CLARA VALLEY WATER DISTRICT PIPE SHALL BE SUPPORTED DURING TRENCHING OPERATIONS IF DEEMED NECESSARY BY THE DISTRICT INSPECTOR. ANY TYPE OF PIPE COULD BE USED IF CLEARANCE TO DISTRICT PIPE BOTTOM IS AT LEAST 2 FEET. BACKFILL AND COMPACTION OF PERMITTEE'S PIPE TO BE COMPLETED BEFORE BACKFILLING SCVWD PIPE.
9. SLOPES SHOWN ARE NOT TO SCALE AND ARE INTENDED TO INDICATE NATURAL ANGLE OF REPOSE OF BACKFILL MATERIAL.

<p><b>Santa Clara Valley Water District</b>                  5750 Almaden Expressway, San Jose 95118                  Phone (408)265-2600</p> <p>SCALE: _____ N.T.S.</p> <p style="text-align: right;">9/4/2001 REVISED</p>	<p><b>SCVWD WATER UTILITY CROSSING</b></p>	<p>GUIDE <b>24</b> 2 SHEET</p>
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## SCVWD WATER PIPELINE CROSSING

### SPECIAL CONDITIONS FOR PIPE CROSSINGS OF DISTRICT UNDERGROUND FACILITIES

A. PIPELINES

1. WITHIN \_\_\_\_\_ FEET OF CENTER LINE OF SCVWD PIPELINE, PERMITTEE IS TO INSTALL RIGID STEEL, CAST IRON, OR REINFORCED PLASTIC MORTAR PIPE WITH WELDED, FLANGED, OR MECHANICAL JOINTS AND ENCLOSE ALL CABLES (TELEPHONE, ELECTRIC, etc.) IN RIGID STEEL CONDUIT. BY ELECTING TO DO OTHERWISE, PERMITTEE THEREBY AGREES THAT THE SCVWD HAS NO RESPONSIBILITY FOR DAMAGE OF ANY KIND TO THE CROSSING, INCLUDING THAT WHICH MAY OCCUR DURING FUTURE MAINTENANCE, REPAIR OR REPLACEMENT OF DISTRICT'S FACILITY. FOR EXCEPTION, SEE NOTE 8 ON SHEET 24/2.
2. WHEN THE PERMITTEE PIPE CROSSING OVER A SCVWD TREATED WATER PIPELINE IS A SEWAGE PIPE OR UNDER WITH A SEWAGE FORCE MAIN, THE SEWAGE PIPE MUST BE ENCLOSED IN A CONTINUOUS SLEEVE FOR A DISTANCE OF 10', MEASURED HORIZONTALLY AND PERPENDICULAR FROM SCVWD'S TREATED WATER PIPELINE (BOTH SIDE). THE SLEEVE SHALL BE STEEL WITH A MINIMUM WALL THICKNESS OF 1/4".
3. IF THE SEWAGE PIPE IS 24" IN DIAMETER OR GRATER, THE INSTALLATION SHOULD BE REVIEWED AND APPROVED BE THE STATE DEPARTMENT OF HEALTH SERVICES PRIOR TO CONSTRUCTION.

B. CORROSION CONTROL – CATHODIC PROTECTION:

1. PERMITTEE HEREBY WAIVES ALL CLAIMS FOR DAMAGES TO FACILITIES BEING INSTALLED UNDER THIS PERMIT, FROM ELECTRICAL INTERFERENCE OR SIMILAR ACTION, RESULTING FROM OR CONNECTED WITH THE SCVWD OPERATION OF ANY EXISTING OR FUTURE CATHODIC PROTECTION SYSTEM ON OR IN VICINITY OF EASEMENTS OWNED BY THE DISTRICT.
2. BY EXERCISE OF THIS PERMIT, PERMITTEE AGREES TO BE RESPONSIBLE FOR ANY DAMAGE TO THE SCVWD FACILITIES WHICH MAY OCCUR AS THE RESULT OF THE INSTALLATION OF THE PERMITTEE'S CATHODIC PROTECTION FACILITIES.
3. PERMITTEE HEREBY AGREES TO REMOVE BY ELECTRICAL DRAINAGE OR OTHER METHOD APPROVED BY SCVWD, AT NO COST TO THE DISTRICT, CATHODIC INTERFERENCE OCCURING ON THE SCVWD FACILITIES WHICH, IN THE OPINION OF THE DISTRICT, RESULTS IN DAMAGE TO ITS STRUCTURES AND WHICH OCCURS AS A RESULT OF THE HEREIN PERMITTED INSTALLATION OF UNDERGROUND STRUCTURES OR CATHODIC PROTECTION DEVICES. THE AMOUNT OF ELECTRICAL DRAINAGE REQUIRED TO REMOVE SAID CATHODIC INTERFERENCE SHALL BE DETERMINED BY FIELD TESTS MUTUALLY CONDUCTED BY SCVWD AND PERMITTEE.
4. WHEN THE CLEARANCE SEPARATING METALLIC PIPELINES IS 24" OR LESS, AN INSULATING BLANKET IS TO BE INSTALLED. THE BLANKET SHALL BE SQUARE AND 2' LARGER THAN THE DIAMETER OF THE LARGER PIPE. THE BLANKET SHALL BE 1/4" THICK AND SHALL BE NEOPRENE, BUTYL RUBBER, PVC OR MICARTA INSULATING BLANKET.
5. BLANKET SHALL BE INSTALLED ON SOIL BACK FILL AND CENTERED BETWEEN PIPES.

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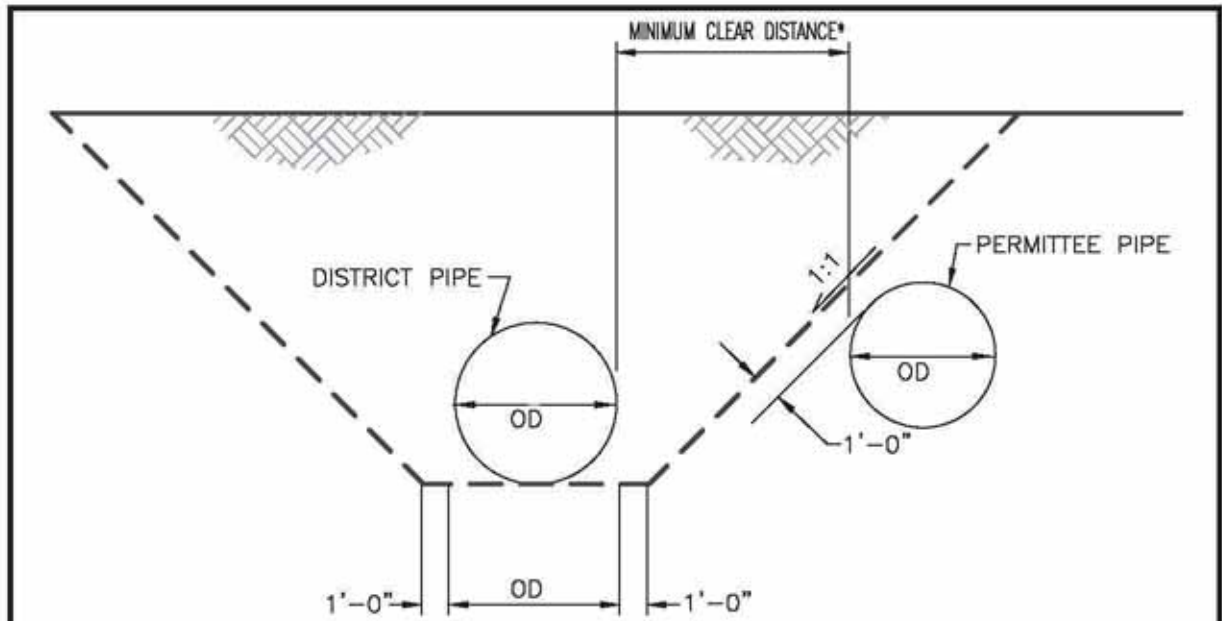
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### SCVWD WATER UTILITY CROSSING

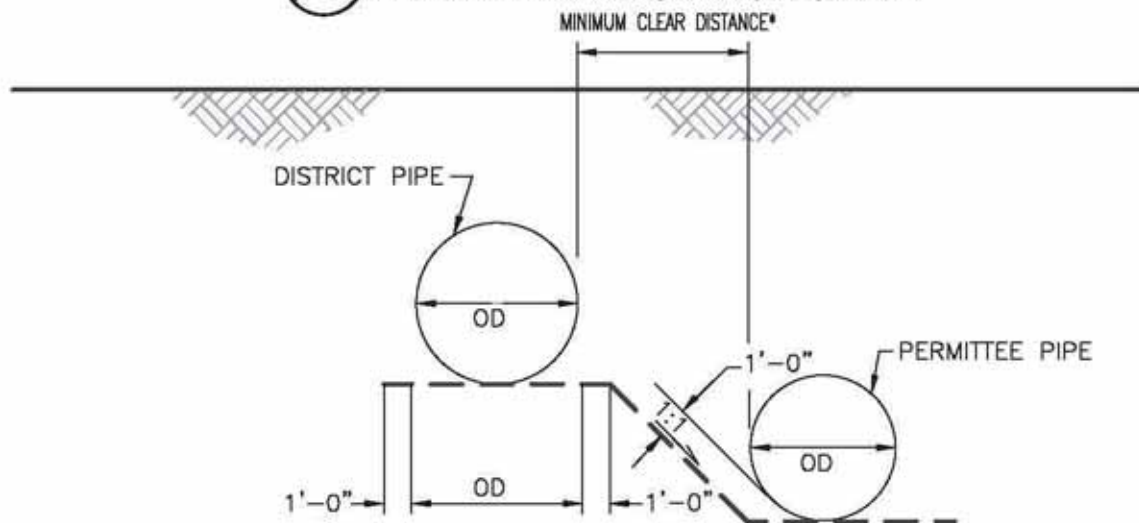
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# PIPELINE PARALLEL TO SCVWD WATER PIPELINE



**25/1** DETAIL  
**PERMITTEE PIPE ABOVE DISTRICT PIPE**



**25/2** DETAIL  
**PERMITTEE PIPE BELOW DISTRICT PIPE**

\* FOR INSTALLATION OF SEWAGE OR NON-POTABLE WATER PIPES PARALLEL WITH SCVWD'S TREATED WATER LINES, THE MINIMUM CLEAR DISTANCE IS 10 FEET. INSTALLATIONS WITH PROPOSED CLEAR DISTANCES LESS THAN 10 FEET MUST BE REVIEWED AND APPROVED BY THE DEPARTMENT OF HEALTH SERVICES. SEWAGE AND NON POTABLE WATER PIPES SHOULD BE INSTALLED BELOW SCVWD'S TREATED WATER LINE.

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## CLEARANCE FOR PIPELINES PARALLEL TO WATER UTILITY PIPE

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