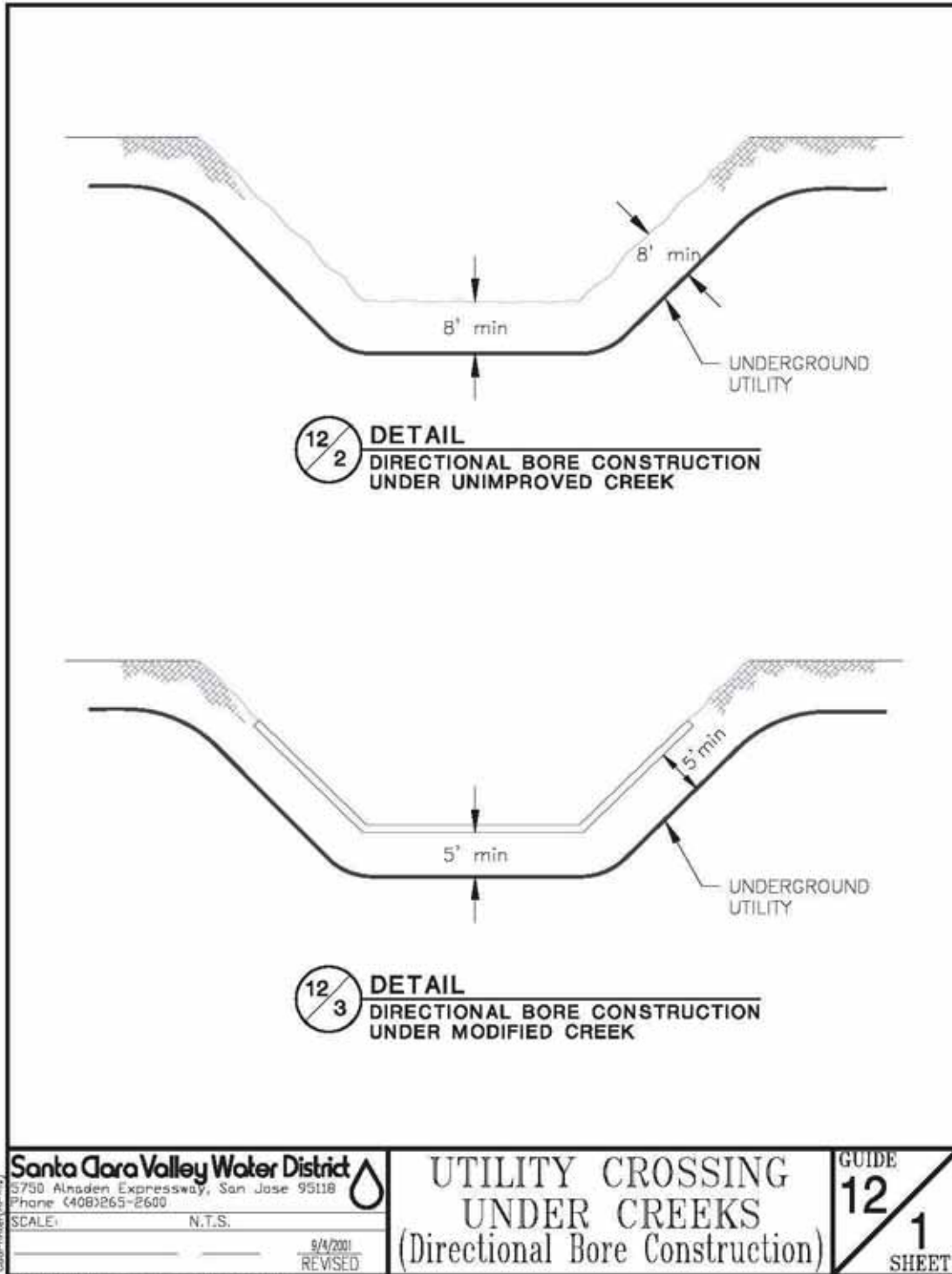


UTILITY CROSSING UNDER CREEKS

Place utilities on the downstream face of bridge and culvert crossings. Downstream face is preferred so as to not be damaged during debris removal activities. Exposed sanitary sewer, gas lines and treated water lines should be sleeved or otherwise protected to prevent breakage. Utilities may not be placed within the waterway, opening of the bridge or culvert. Utility crossings using direction bore or jack and bore methods are the preferred methods for under stream crossing.



Santa Clara Valley Water District
 5750 Almaden Expressway, San Jose 95118
 Phone (408)265-2600

SCALE: N.T.S.

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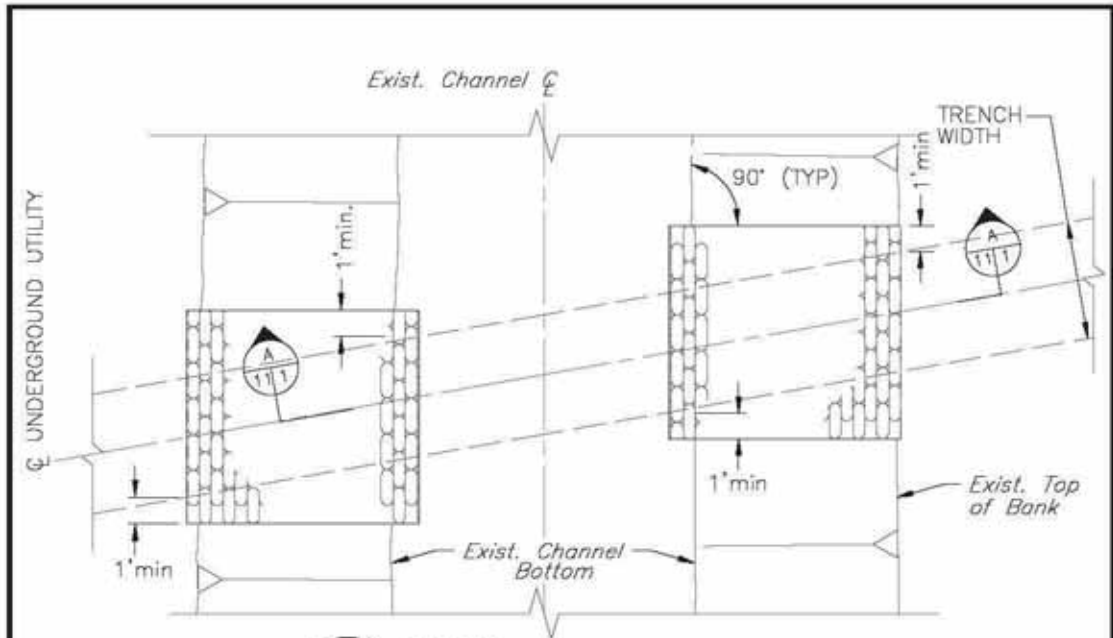
**UTILITY CROSSING
 UNDER CREEKS
 (Directional Bore Construction)**

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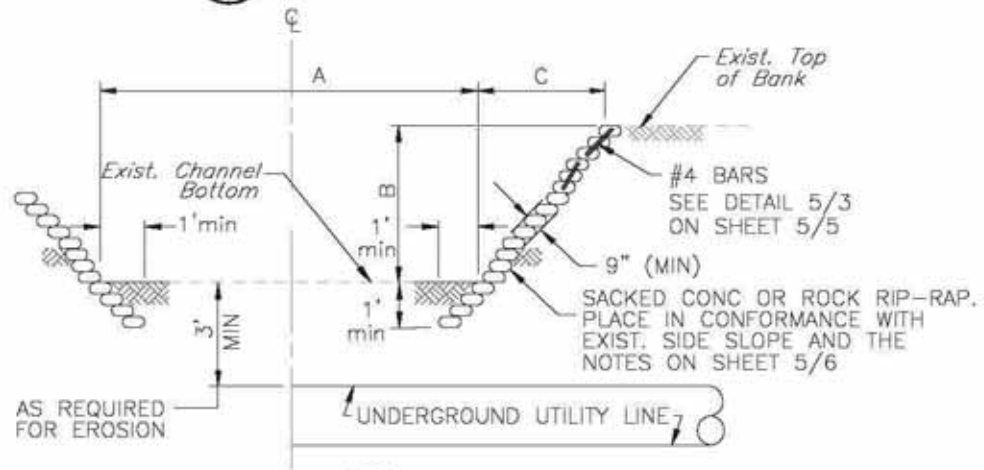
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UTILITY CROSSING UNDER CREEKS

This type of utility crossing under a creek is not preferred because of the damage it can cause to riparian areas, bank soil structure and impacts to water quality. Permits are needed from resource agencies. This option may be permissible only in rare cases for small, rural streams.



11/1 DETAIL
CUT AND COVER CONSTRUCTION



A SECTION
11/1

THIS NOTE IS TO APPEAR ON THE PLANS

All back fill shall be with suitable material from excavation to 90% compaction. If 90% compaction is not attained, placement of sacked concrete slope protection is required.

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UTILITY CROSSING UNDER CREEK

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