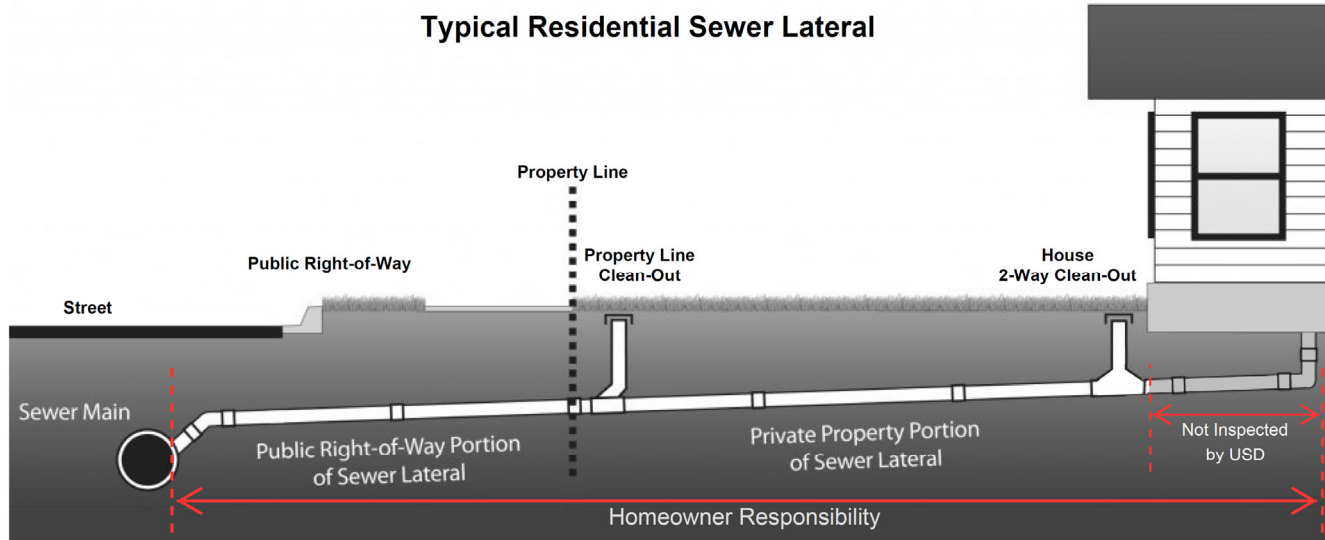


## LATERAL INSTALLATION AND REPAIR GUIDE

To help avoid costly and time-consuming mistakes, a pre-job meeting with a USD inspector, the homeowner, and the person or contractor installing the sewer, should occur at least 24 hours prior to starting work. The pre-job meeting will be scheduled when the permit is issued; if you need to reschedule the meeting, contact the inspector at their phone number on the permit or email [Permits@UnionSanitary.ca.gov](mailto:Permits@UnionSanitary.ca.gov) at least 24 hours prior to when the meeting is needed or scheduled.



### Frequently Asked Questions

#### When should I call USD for an inspection?

After the pre-job meeting, the first inspection will be to inspect the installed pipe and pipe bedding prior to backfill. Please call the inspector at least 24 hours in advance of the desired inspection.

#### What size pipe should I use?

4-inch diameter pipe is the minimum size allowed for a sewer lateral. The size of the pipe must always be the same or larger than the upstream pipe being connected to.

#### What kind of pipe may I use?

- Plastic ABS Schedule 40/SDR 26 pipe, PVC Schedule 40/SDR 18, or PVC SDR 26 can be used where the area is unpaved and in paved areas, such as under a driveway or walkway; the pipe must have at least 24 inches of cover.
- Where pipe cover is less than the above requirements, Ductile Iron pipe (minimum cover 6 inches) or PVC C-900 DR 18 pipe (minimum cover 12 inches) should be used.

Your inspector will assist in identifying the allowed pipe at the pre-job meeting.

#### What type of fittings should I use?

- Repair couplings, for connections that can't be made with standard couplings and fittings for the type of pipe being used, must be shielded (have a stainless-steel band) and four clamps (see page x for additional information).
- Standard 90° fittings are not allowed; two 45° fittings or a 90° long sweep elbow fitting should be used.

#### How much slope should the pipe have?

The minimum slope for 4-inch pipe is 2% (¼-inch drop per foot); 1% can be allowed if the sewer main or the existing lateral being connected to is not of sufficient depth for 2% slope. The minimum slope for 6-inch pipe is 0.5%, although a minimum slope of 1% is recommended.

**What should I put under the pipe?**

6 inches of ¾-inch crushed rock (chips) are required. After pipe has been tested and approved by the inspector, additional crushed rock shall be placed up to the top of the pipe, or a minimum of 6” above the pipe, where required by the inspector.

**What type of testing does USD require?**

An air pressure test is required for all trenchless repairs. For open trench repairs and installations, a water test is required. A test wye must be installed at the lowest point on the lateral or at a location specified by the Inspector. The permittee shall perform the test, which shall be witnessed by the Inspector as part of the acceptance requirements for the work.

**How much cover do I need over the top of the pipe?**

A minimum cover of 24 inches is required over the pipe. If pipe cover is less than 24 inches, special requirements apply such as using ductile iron sewer pipe.

**Where do I need to install clean-outs?**

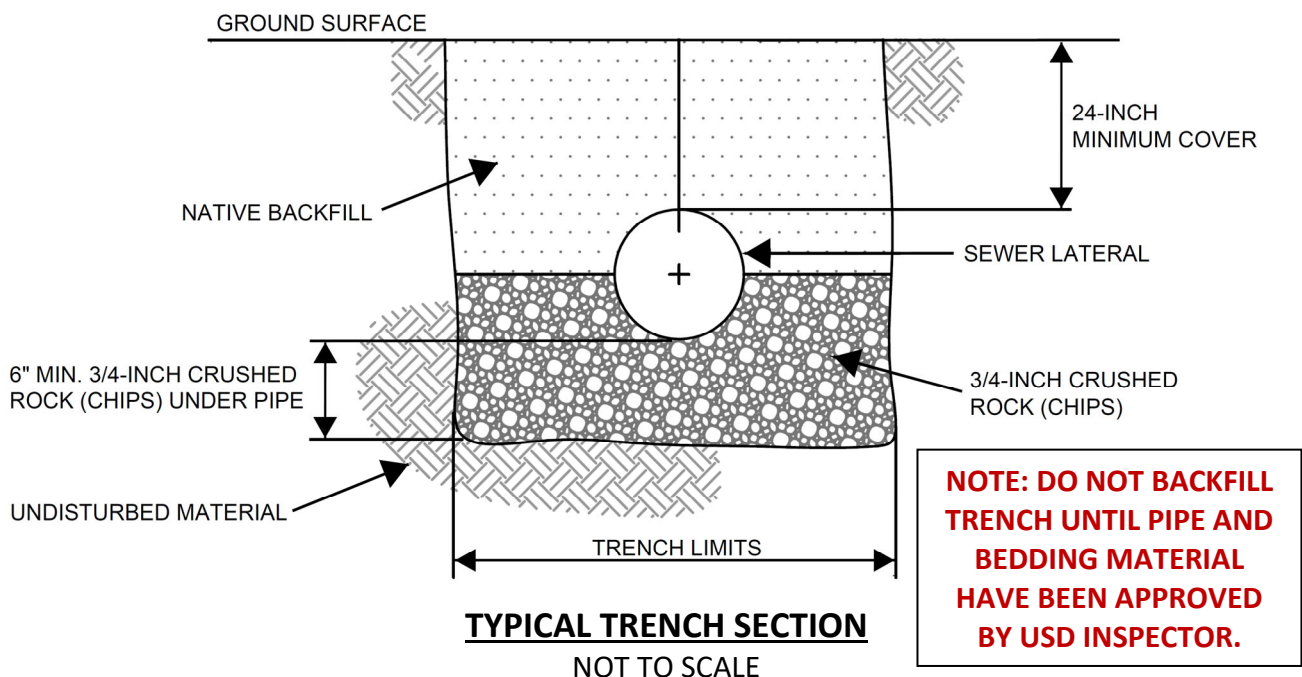
- 1) A two-way clean-out is required at the connection to the house plumbing (kick-out), no more than 30 inches from the building.
- 2) A clean-out just behind the property line is required if the distance from the property line to the closest clean-out upstream is greater than 50 feet.
- 3) A clean-out is also required at:
  - a. every change of alignment (horizontal bend) that is more than 22.5° after the first 45° bend from the building clean-out.
  - b. a maximum spacing of 100 feet.

**What if I don’t have an existing sewer lateral?**

You will need to have a new lateral installed and connected to the USD sewer main. Contract with a City-bonded contractor who is qualified to perform work in the City right-of-way. Both a USD sewer permit and a City encroachment permit will be required.

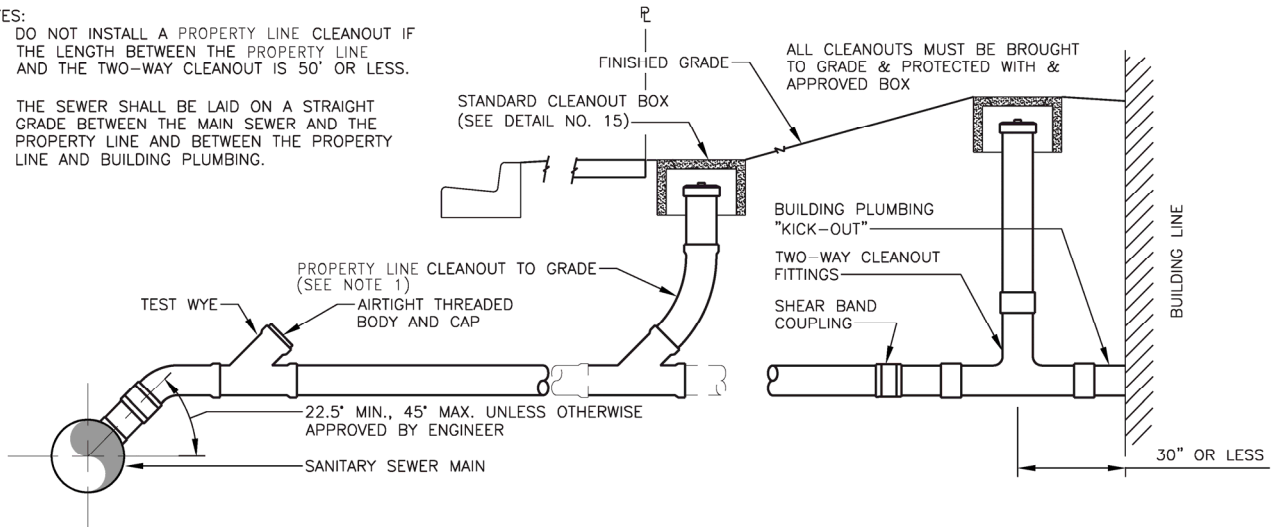
**What if there is insufficient grade to achieve the minimum required pipe slope?**

If it is not possible to construct a sewer lateral with the minimum required slope, a residential pump station can be installed (see USD Detail 25 for requirements). USD requires a pump station submittal for review and approval, and will inspect the installed pump station including testing of its operation.



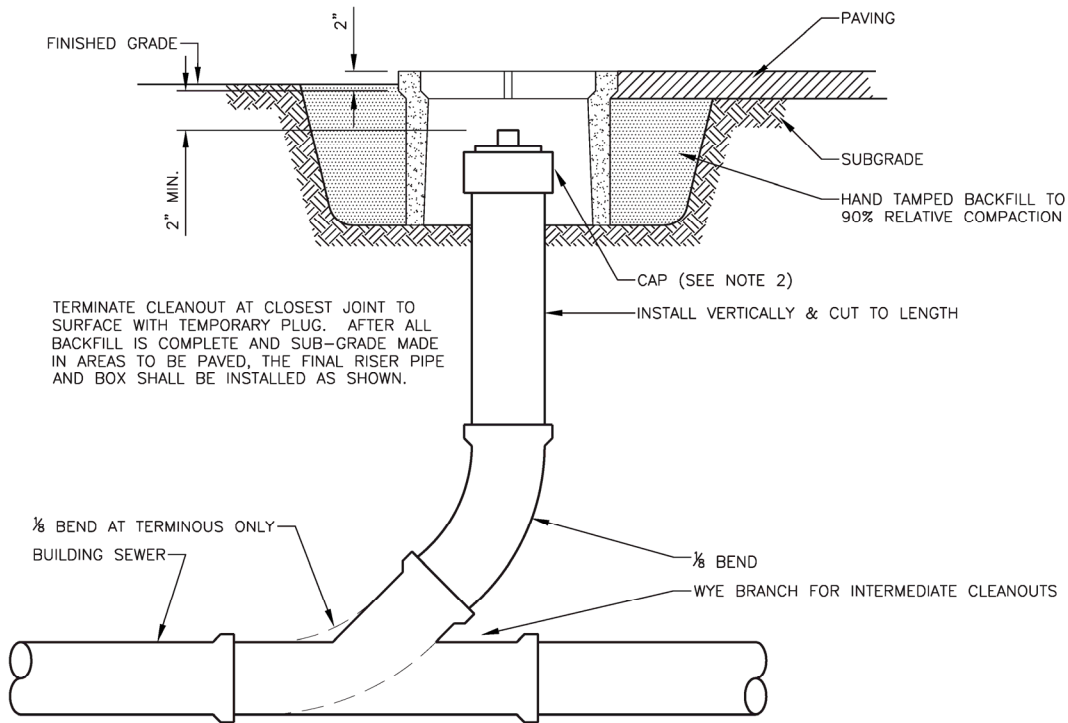
**NOTES:**

1. DO NOT INSTALL A PROPERTY LINE CLEANOUT IF THE LENGTH BETWEEN THE PROPERTY LINE AND THE TWO-WAY CLEANOUT IS 50' OR LESS.
2. THE SEWER SHALL BE LAID ON A STRAIGHT GRADE BETWEEN THE MAIN SEWER AND THE PROPERTY LINE AND BETWEEN THE PROPERTY LINE AND BUILDING PLUMBING.



**TYPICAL CONNECTION OF BUILDING SEWER TO EXISTING MAIN SEWER**

NOT TO SCALE



**CLEANOUT TO GRADE DETAIL**

NOT TO SCALE

**NOTES:**

1. RECTANGULAR OR CIRCULAR CONCRETE BOXES ARE ALLOWED.
2. CLEANOUT CAPS SHALL CONSIST OF AN AIRTIGHT THREADED BODY AND CAP.
3. APPROVED BOXES ARE (CHRISTY/OLDCASTLE INFRASTRUCTURE):
  - a) RESIDENTIAL DRIVEWAYS, SIDEWALKS/WALKWAYS: F08 WITH F08C LID, B03 WITH B03C LID, OR B12 WITH B12C LID (ALL LIDS LISTED ARE CAST IRON).
  - b) COMMERCIAL/INDUSTRIAL & TRAFFIC AREAS (H2O LOADING): G0T WITH G05TC (CAST IRON) LID, OR B1017 WITH B1017-51JH (STEEL) LID.
4. CONCRETE LIDS ARE ACCEPTABLE FOR USE IN LANDSCAPE AREAS, WHILE METAL LIDS MUST BE USED IN ALL OTHER AREAS.
5. ALL CLEANOUT BOX LIDS SHALL BE MARKED WITH A LETTER "S" OR THE WORD "SEWER".