

SOOS CREEK WATER AND SEWER DISTRICT
KING COUNTY, WASHINGTON

SIDE SEWER STANDARDS
STANDARD AND ALTERNATIVE
INSTALLATIONS

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SOOS CREEK WATER AND SEWER DISTRICT

KING COUNTY, WASHINGTON

SIDE SEWER STANDARDS

The side sewer standards set forth in this Resolution are minimum requirements intended to apply under usual and ordinary conditions. These requirements may be increased in unusual situations if the Board finds it advisable.

1. DEFINITIONS

- a. "Commissioners" is the Board of Commissioners of Soos Creek Water and Sewer District.
- b. "District" is the Soos Creek Water and Sewer District in King County, State of Washington.
- c. "Engineer" is the consulting engineer and its representatives employed by the District.
- d. "Inspector" is the District's authorized representative assigned to make inspections for compliance with the District's specifications and standards.
- e. "Licensed Side Sewer Contractor" is a contractor licensed by the State of Washington.
- f. "Manager" is the chief administrator of the District.
- g. "Owner" as used herein is the property owner seeking sewer service and its contractor, and any representatives thereof, including builders or engineers acting on behalf of the owner.
- h. "Sewer or Sanitary Sewer" is any lateral, trunk, or other sewer owned or constructed by and/or a part of the public sewerage facilities of the District.
- i. "Side Sewer" is the line which connects at the property or easement line to the District's stub service and extends on private property to the connection at the building, and is owned and constructed by private parties and maintained by the property owner.
- j. "Standard Installation" is an installation requiring only a stub service and a side sewer to connect the property to the District's system of sewers.
- k. "Alternative Installation" is one requiring the use of a grinder pump on the property to be served, where permitted by the District.
- l. "Stub Service" is the six (6) inch line connecting at the sewer main and extending to the property line or the edge of the permanent easement, which is owned and maintained by the District.

2. SIDE SEWER PERMIT APPLICATIONS

The District will only accept side sewer permit applications when the sanitary sewers have been completed and accepted by the District for maintenance and operation. An owner shall file an application for a Side Sewer Permit at the District Office and pay the current fees therefor. Issuance of a Permit requires the following:

- a. For a single family residence, a plot plan showing lot dimensions and placement of the residence. For all other construction, architect or engineer plans, including site and mechanical plans and specifications showing the entire course of the proposed line. These plans and specifications will be reviewed by the District and may be approved, modified, or rejected. If the plans are approved, or if the owner agrees with any modifications, the permit will be issued for the construction of the side sewer. The construction shall be in strict compliance with the plans and specifications as approved and/or modified. There shall be no deviation from the plans and specifications without proposed modifications being submitted in writing and approved by the District.
- b. The application shall be filed by the owner. The application must state the name of the owner of the premises to be connected, giving lot, block and addition, section number, and/or other legal description, and the number of buildings on the premises which will utilize the sewer.
- c. The duration of the permit shall be one hundred and fifty (150) days. In the event work is not completed within this time, and if no extension of time has been granted, a new permit will be required. Extension of time shall be at the discretion of the Manager upon application therefore prior to the expiration of the time originally set forth in the permit. Renewal requires payment of the renewal fee established by this Resolution.
- d. The permit must at all times be posted in some conspicuous place at or near the work. The inspector for the District will sign the permit when the side sewer installation has been inspected and accepted as meeting the requirements of the District.
- e. Where connection is made to a mainline within a Right-of-Way, a Road Cut Permit will also be required from either King County or the city with jurisdiction.

3. SIDE SERVICE FEES (Reso. 1907-S)

Inspection Fees – Stub Extensions and Side Sewers

\$160.00 for each Stub Sewer Extension

\$160.00 for each side sewer - Standard Installation.

\$250.00 for each side sewer - Alternative Installation.

\$100.00 per living unit for apartments and condominiums.

Side Sewer Standards - continued

\$100.00 for renewal of any side sewer permit.
\$75.00 for connection of a mobile home on a previously occupied pad.
\$75.00 for capping off the sewer to property from which all habitable structures have been removed.

\$200.00 per outlet for commercial permits.
\$300.00 for alternate connection to a manhole.

Inspection Fees – Private Grinder Pump

\$250.00 for each privately owned grinder pump.

Administrative Fee – Waiver of Claim Agreement and Joint Side Sewer Agreement

\$50.00 for review and administration of waiver of claim agreements for side sewers with less than 2% grade.

\$50.00 for review and administration of joint side sewer agreements.

Permit Fee – Road Cut Permits

\$500.00 for all stub service road cut permits where connection is made to a main line which is located within any portion of a King County or local City right-of-way (in addition to other applicable permit). This fee covers the following items:

- i. Pre-construction conference.
- ii. Two inspections by District Inspector.
- iii. King County or local City right-of-way permit.
- iv. Two hours of inspection by King County, or by the local City.

Additional inspection by the District, or by King County or the local City will be subject to additional charge.

Inspection Fee – Special Installations

\$100.00 fee, in addition to side sewer permit fee, for each side sewer which requires a backwater valve.

\$200.00 fee, in addition to side sewer permit fee, for each side sewer which requires a grease trap or oil/water separator.

4. CONSTRUCTION STANDARDS FOR SIDE SEWERS AND STUB SERVICES

All work described in these Standards shall be performed to the District's reasonable satisfaction.

a. **Materials**

Materials for side sewer construction shall be in compliance with the District's specifications. The District will from time to time post a list of acceptable materials. Only materials on the list will be utilized.

Materials shall be installed in compliance with the District's specifications and/or the manufacturer's specifications for installation. In case of dispute, the District will determine which specification shall be followed.

The District reserves the right to deny a connection to the District's sanitary sewer if the work has not been completed in a satisfactory manner.

No side sewer shall be covered or backfilled prior to the field inspection by the District. Any person performing work subject to the provisions of this Resolution shall notify the District at least four (4) hours in advance of when the work will be ready for inspection and testing, and an appointment will be arranged for the inspection. The owner or contractor must be present during the inspection. If an appointment has been scheduled and the inspector arrives and finds that, in fact, the side sewer is not ready for testing and inspection, a new appointment must be made and a charge made for the second visit as established by this Resolution.

b. **Shoring**

It is the owner's responsibility to provide whatever shoring may be required to protect the work and property, utilities, pavement, to provide lateral support of existing property, and also to provide safe working conditions in the trench. Such shoring shall be in accordance with Washington Industrial Safety and Health Administration and Office of Safety and Health Administration standards and shall be at the owner's expense.

Removal of any shoring from the trench shall be accomplished in such a manner as to assure that no damage is done to the pipe or work.

It is the owner's sole responsibility to restore all properties, public or private, which may be disturbed or damaged by the owner's construction. The owner shall maintain an absolute minimum width of trench at both the top of the pipe and the top of the ditch.

Temporary shoring shall be removed unless specific permission is granted by the District to leave it in place, and in no event will shoring be permitted to remain in the top eighteen (18) inches of the trench.

c. **Pipe Bedding**

Pipe bedding shall only be either pea gravel or 5/8" crushed rock. Backfill with such material shall be continued until embedding is completed to the top of the pipe. The top of the pipe and all fittings shall remain exposed for inspection. The bedding shall be completed before inspection or testing of the side sewer.

Ledge rock, boulders or stones shall be removed to provide a minimum clearance of four (4) inches from the pipe. All materials removed shall be replaced with 4" minimum bedding material around pipe. Bedding material must be satisfactory to the District.

The interior of the pipe shall be kept clean and free from dirt, cement, or any other superfluous material, and each joint left entirely free from any protruding material on the inside of the pipe joint or pipe barrel.

Where trench bottom is in quicksand, muck, peat or other unstable material, a stable foundation of gravel shall be provided. The responsibility for adequate pipe bedding will rest entirely with the owner. Bedding material shall be satisfactory to the District and so placed as to preclude the possibility of large rocks or boulders bearing directly against the sewer pipe.

d. **Grade and Alignment (Minimum and Maximum)**

All four inch and six inch side sewers shall be laid to a minimum grade of two percent (2%) and a maximum grade of two (2) feet vertical to one (1) foot horizontal (200%), unless otherwise explicitly authorized in writing by the District. Side sewers shall be constructed with a maximum deflection of not more than two (2) inches per foot.

The maximum deflection permissible at any one fitting shall not exceed forty-five (45) degrees with minimum of 24" separation between bends.

Required depths, clearances, grades, and associated data may be found on the District's "Side Sewer Requirements" sketch, which by this reference is made a part of this Resolution. Copies of the sketch are available at the District office.

e. **Dewatering of Trench**

Pipe trenches shall be kept free from water during pipe laying, pipe jointing, bedding and backfill operations, and prior to and during inspection. Surface water shall be diverted, and ground water shall be disposed of in a manner satisfactory to the District. In wet

conditions the contractor shall have a pump on the site until completion of all construction procedures, and adequate to dewater the excavation to prevent any infiltration of excavation water into the sanitary sewer system.

f. **Wyes, Tees and Cleanouts**

Wyes and cleanouts shall be placed in strict compliance with the requirements of the "Side Sewer Requirements" sketch. In addition, wyes and cleanouts shall be placed at any location or locations which in the District's opinion are reasonably necessary to assure a proper installation.

All wyes to be installed for use as a permanent cleanout, and all temporary or future ends of runs shall be plugged with a plug of a type satisfactory to the District and shall be made completely watertight. It is the installer's responsibility to assure that such plug will not be blown out or moved by the testing pressure in the sewer system. Any such means of prevention shall be easily removable without damage to the fitting or the plug.

Cleanouts shall be placed at intervals of not more than one hundred (100) feet. Cleanouts shall utilize a wye or tee branch.

g. **Flexible-Type Coupling**

Only ROMAC or Ford flexible couplings may be used (Coulter couplings are not allowed for stub connections). They shall be allowed only at the connections to the structure piping. They shall be installed as prescribed by the manufacturer of the coupling, and in a manner satisfactory to the District. If pipe bursting with HDPE – stiffeners are required for sleeves along with ROMACs.

h. **Backfill**

Backfill shall begin immediately after inspection and approval of the installation by the District. Backfill compaction on private property is the owner's responsibility.

i. **Stub Sewer Service (Right-of-Way Construction)**

Note: The following specifications are in addition to the requirements of any stub service road cut permit.

All stub sewer services shall be six (6) inch pipe, and shall be laid to a minimum grade of two percent (2%) and a maximum grade of two (2) feet vertical to one (1) foot horizontal (200%). Unless otherwise explicitly authorized by the District, sewer stub services shall be constructed with maximum deflection of not more than two (2) inches per foot. Larger changes in direction shall be made by use of standard 11-1/4 degree or 22-1/2 degree bends. No more than one bend per stub service will be allowed.

Each stub service shall terminate with a six (6) inch cap within one (1) foot of the property or permanent easement line.

The owner may elect to extend the stub sewer by one length of side sewer. Any such extension must be six (6) inch pipe, and shall not exceed twelve (12) feet in length from a six (6) inch Tee installed at the property line. The Tee, with a push-in plug, shall be laid in such a fashion that the branch is vertical. Such length of side sewer shall terminate with a six (6) inch cap, and shall be tested along with the stub service.

Connection of stubs to existing sanitary sewers shall be by saddle and core drilling method; the core must be given to the District. The saddle fitting shall protrude to the inside wall of the existing sewer and be held firmly in place by means of a stainless steel strap or straps. There shall be a watertight gasket between the saddle fitting and the pipe being saddled.

j. **Breaking and Replacing Paving (Right-of-Way Construction)**

When it is necessary for a contractor to break through a cement concrete pavement, or asphaltic concrete pavement, the District shall obtain the necessary permits from any authority having jurisdiction over such pavement prior to starting work. All costs to the District of acquiring such permits or other authorizations shall be paid by the owner. The owner shall ascertain precisely what such authorities may require or specify to adequately replace such paving, and shall conduct work and operations in compliance therewith,

and shall assume and be responsible for all costs or damages attendant thereto. All work shall be conducted and completed in a manner satisfactory to the District.

k. **Tunneling and Jacking (Right-of-Way Construction)**

Whenever it is necessary to tunnel or jack a stub service under any public street or public right-of-way, the District will obtain the necessary permits or authorizations from those agencies having jurisdiction, and all costs thereof shall be paid by the owner.

When it is necessary to tunnel or jack a stub service under any private right-of-way or private property, it will be the owner's responsibility to procure temporary and/or permanent easements from the property owner or owners, and permits from the appropriate authorities prior to starting work. The owner shall also ascertain precisely what the requirements and specifications of the said authorities or property owners may be with regard to the proposed work, and shall conduct all work and operations in compliance therewith. The owner shall assume and be responsible for all costs or damages attendant thereto. All work shall be conducted and completed in a manner satisfactory to the District.

l. **Maintenance of Traffic (Right-of-Way Construction)**

The owner shall conduct all work so as to interfere as little as possible with public travel. The owner shall provide and maintain suitable bridges, detours, or other temporary facilities for the accommodation of public or private travel, and shall give reasonable notice to the owners of private drives before interfering with them; provided, however, that such maintenance of traffic will not be required where the owner has obtained permission from the owners or tenants of private property, or the proper public authority, or both, to obstruct public or private rights-of-way. Access for emergency vehicles shall be maintained at all times, and the owner shall keep the local fire protection authorities informed of the location of construction operations and fire lanes. Street or highway crossings shall be made in accordance with the requirements of the permit of the governing agency or agencies.

m. **Protection and Maintenance of Public and Private Rights-of-Way**

The owner shall protect and maintain all underground or above-ground utilities, and all public facilities, including streets, roads, highways, water mains, water services, culverts, drains, ditches, curbs, sidewalks, landscaping.

The owner is responsible for all damages to streets, roads, highways, ditches, walls, culverts, utilities, barricades, lights, or any other property caused by its work, whether such damage be at the site of the work or caused by transporting or hauling to or from the work, and shall repair or replace, or arrange for the repair of all such damages to the satisfaction of the District and of any other authority or person having ownership or jurisdiction over the place of work and/or damage. Whenever construction work under this Resolution is undertaken on easement, right-of-way or franchise, it shall be accomplished in such manner as to minimize disturbance and damage.

The owner shall not remove, even temporarily, any trees or shrubs which exist on easements or parking strips across private or public property without first obtaining approval from the property owner or authorities.

The owner shall restore all easements and rights-of-way to a condition equal to their original condition before entry, or to a condition satisfactory to the property owner, and/or other authority, and the District.

n. **Work on State Highways, County Roads, City Streets, and other Rights-of-Way (Right-of-Way Construction)**

Work on Washington State Highway, King County Roads, City Streets, Railroad rights-of-way, or any other rights-of-way other than the District's shall be in conformity with the requirements of the authority having jurisdiction. It will be the owner's responsibility to notify any authorities before beginning work on the right-of-way, and to obtain approval of the proposed schedule of operations.

o. **Testing Specifications**

Prior to being connected to the premises all side sewers shall be tested by one of the two following methods:

- i. Exfiltration
- ii. Air test

All equipment required to make such tests, including plugs, hoses, blocking, air pumps, water and other equipment shall be furnished by the owner.

Air testing shall meet the following requirements:

<u>PIPE SIZE</u>	<u>SECONDS PER LINEAL FOOT OF PIPE</u>
4"	1.0
6"	1.5

Decompression is from 3.5 psi to 3.0 psi. Above ground water, add 0.5 psi per foot of ground water over pipe.

HDPE force main shall be tested at 60 psi for 3 minutes.

5. INSPECTIONS

By applying for a side sewer permit the owner expressly grants personnel of the District the right of entry upon its property during reasonable hours for the purpose of inspecting the construction.

If District personnel find that the construction of the side sewer does not comply with the provisions of this Resolution, they shall post a notice at a conspicuous place upon the premises, advising the owner of the defects, and shall file a copy of the notice at the District's office. The District shall mail to the permit applicant a copy of the inspection notice of deficiency within five (5) days; provided, that if a permit applicant is present at the time of the inspection, the District personnel may procure a signature upon the notice of deficiency in lieu of mailing.

When the construction provided for in the original permit has been completed and approved, any subsequent additions and/or changes to the side sewer and or property use will require a new permit application and payment of fees at the then current rate. A change of type of use (e.g., change from single family to multi-family use) for the property will also require payment of other fees and charges of the District at the then current rate attributable to the new use, with a credit for amounts paid for the prior use.

6. CONNECTIONS WITH SIDE SEWER

No more than one house may be connected with the side sewer unless the District issues a special permit for multiple connections. A special permit will be issued only upon the condition that the permittee shall hold the District harmless from any damages by reason of such installation and subject to the following regulations:

a. **Common Side Sewers**

Two houses may be connected to a common side sewer when the following conditions are met:

- i. The difference in floor elevations is not more than five (5) feet between the houses to be connected.
- ii. At the end of the common portion of the joint side sewer a cleanout shall be installed per detail for joint side sewer cleanout.
- iii. A backwater valve shall be installed on the house at the lower elevation.
- iv. An easement on a form acceptable to the District shall be provided for the installation and maintenance of the common side sewer; it is the property owners' responsibility to record the easement with the appropriate authorities.

b. **Backwater Valves**

Backwater Valves shall be installed on the following structures:

- i. Structures with floor elevation less than five (5) feet vertically above the high wet well level of any lift station through which the structure is served.
- ii. Structures with floor elevation less than the elevation of the roadway or easement surface at the point where the side sewer connects to the main line.
- iii. Structures connected to a side sewer which provides both gravity and grinder pump service (backflow valve will be required on structure with gravity service).
- iv. Structures connected to a common side sewer pursuant to Section 6.a.

Backflow valves may be used as the cleanout between the house plumbing and side sewer as otherwise required by these standards.

c. **Grease Traps and Oil Separators**

Grease traps are required for all restaurants and food service establishments as specified in the District's currently adopted pre-treatment specifications. Oil separators with grease traps are required on all automotive service stations, automotive garages, and car washes as specified in the District's currently adopted pre-treatment specifications.

d. **Required Size**

- i. For single family residences a four inch side sewer is required. For single family residences approved for use of a joint side sewer, each residence may use a four inch side sewer from the residence to the wye connection; a six inch side sewer shall be required from the wye to the connection to the main.
- ii. For two (2) to twenty-nine (29) units a six inch side sewer is required. Side sewer must connect directly to a manhole installation.