

SOOS CREEK WATER & SEWER DISTRICT



WATER AND SEWER DESIGN AND CONSTRUCTION STANDARDS

APPROVED: FEBRUARY 2003

REVISED 05/16/11

**SOOS CREEK WATER & SEWER DISTRICT
DESIGN AND CONSTRUCTION STANDARDS**

<u>Contents</u>	<u>Page No.</u>
1. STANDARD SPECIFICATIONS	3
2. SEPA	3
3. PERMITS/AGENCY APPROVALS	3-4
4. EASEMENTS	4
5. STANDARD PLAN REQUIREMENTS	4-6
6. WATER DESIGN:	
A. Design Criteria	7-8
B. Construction Provisions	9-13
C. Materials	14-17
D. Surface Restoration	18-20
E. General Notes	21
F. Water Standard Details Index	22-23
Water Standard Details	W-1 through W-34
G. Water Standard Plans Format	24
Plan Sheet Format	Figure WP-1
Construction Provisions	Figure WP-2
Materials and Surface Restoration	Figure WP-3
Standard Details	Figure WP-4
7. SEWER DESIGN:	
A. Design Criteria	25-27
B. Construction Provisions	28-32
C. Materials	33-35
D. Surface Restoration	36-38

E. General Notes	39
F. Sewer Standard Details Index	40-41
Sewer Standard Details	S-1 through S-32
G. Sewer Standard Plans Format	42

1. STANDARD SPECIFICATIONS

All work, materials and testing shall conform to the standards of the Soos Creek Water & Sewer District (SCWSD, or the "District") and the Washington State Department of Transportation Standard Specifications for Road, Bridge, and Municipal Construction, current edition, except as herein modified.

NOTE: All work, materials and testing within local city or King County rights-of-way is subject to current city or King County Road Standards and requirements.

2. SEPA (STATE ENVIRONMENTAL POLICY ACT)

- A. Projects constructed in Soos Creek Water & Sewer District shall comply with SEPA.
- B. SEPA Checklist required IF:
 - 1. Project located in environmentally sensitive area or,
 - 2. Project located on "Easement" (outside of proposed subdivision or development) and requires city or King County Grading Permit or,
 - 3. Pipe size is larger than 8 inches.
- C. Preparation of SEPA checklist and Environmental Impact Statement, if required, or other environmental documents necessary for compliance with SEPA, shall be prepared by the "Design Engineer" and submitted to SCWSD for review, approval, processing, and SEPA Determination.
- D. Projects that require a SEPA checklist will need to obtain District approval by resolution prior to commencement of construction.

3. PERMITS/AGENCY APPROVALS

- A. Projects to be constructed in Soos Creek Water & Sewer District shall receive approvals from Soos Creek Water & Sewer District and other agencies as required.
- B. Plans, Specifications, and submittals of Permits or Agency Applications as required shall be prepared by the "Design Engineer", who shall also coordinate with Soos Creek Water & Sewer District as needed for review, processing and approval.
- C. Agencies:

Sewer Mains
King County Wastewater Treatment Division
Department of Ecology (DOE)

Water Mains
King County Department of Development and Environmental Services -
Commercial Permit Section - Fire Protection Engineering
Washington State Department of Health (DOH)

Both Sewer and Water

King County Real Property (R/W Construction Permit)

King County DDES - Grading Permit

City of Renton

City of Kent

City of Covington

City of Maple Valley

City of Auburn

City of Black Diamond

Burlington Northern Railroad

Bonneville Power Association

Washington State Department of Transportation

Washington State Department of Natural Resources

Washington State Department of Fish and Wildlife

U.S. Corps of Engineers

Notes:

King County DDES

- 1) Final King County approved development PLANS or street and storm drainage PLANS are required prior to construction of sewer and water developer extension projects.
- 2) Projects that will be constructed on easements and with trench excavation of more than 100 cubic yards will require a King County Grading Permit prior to construction.

4. EASEMENTS

- A. ON-SITE and OFF-SITE easement(s) and/or temporary construction permit(s) shall be prepared by the District's Engineer, executed on the District's form(s) and shall be obtained by the Developer at its sole cost and expense prior to commencement of construction.
- B. Easement document form and number designation shall be according to the District's system.
- C. After Developer obtains signature(s) on the easement document(s), the document shall be submitted to the District for approval and final recording.

5. STANDARD PLAN REQUIREMENTS

- A. Construction PLANS shall be prepared according to District standards and submitted to the District for review and approval prior to construction. (See attached water and sewer plan sample format requirements.)
- B. The PLAN(S) shall be separate from those PLANS for plat improvements, storm drainage improvements and road/street improvements, and PLANS for any other

utilities. PLANS for water system improvements shall be separate from PLANS for sanitary sewer system improvements.

- C. The PLANS shall be prepared using AUTOCAD Release 2008 drawing (DWG) compatible electronic files. The drawing files shall be submitted to the District on CD-Rom. Drawing files to include any special fonts used, all external cross-references, lot and street layout with computation data, street and storm plan and profile data, site topography and proposed site grading or lot computation data.

(Note: **DO NOT** show street or storm computation data or topography on **FINAL** Water or Sewer PLANS.)

- D. PLAN SIZE: 22" X 34"
Plan View: Lower ½ of sheet
Profile: Upper ½ of sheet
- E. SCALE: Horizontal: 1" = 50' (SHOW SCALE BAR on PLAN)
Vertical: 1" = 10'
- F. North Arrow/Plan Orientation
North toward the top of the sheet or toward the left of the sheet.
- G. DATUM shall be KCAS (Mean Sea Level) or NAVD 88. The elevation benchmarks used for control shall be shown on the PLAN.
- H. The PLANS shall be prepared and stamped by a civil engineer with current registration in the State of Washington.
- I. The PLANS shall indicate and identify all property lot lines, street rights-of-way lines, lot numbers, block numbers, plat names, street names, utility easements and references within and adjacent to the project area. The PLANS shall indicate and identify all existing and proposed buildings; building numbers/letters; structures; existing underground power, telephone, natural gas, cable television, storm drainage, water and sewer mains; street alley and driveway pavement; stream crossings; trees to be saved; green belts; and other known physical features within the project area which will affect the construction of the system improvement. This information should not obscure any water or sewer improvement information. See the attached standard water and sewer plan format samples.

Permanent Easements shall be shown for Sewer and Water as required (typical easement widths: 15 feet or 20 feet as required; minimum width: 10 feet).

- J. The PLANS shall include title block/plate, which states the names and/or addresses of the property owner/Developer, and Engineer, the scale, the date, stamp and signature of the design Engineer. This information should be located on the right side of the PLAN according to District standard format.
- K. The PLANS shall indicate requirements for pavement restoration/repair that are necessary if an existing street or portion thereof is damaged/removed for construction.

- L. Soos Creek Water & Sewer District "General Notes" and "Standard Details" shall be included in the PLAN sets.
- M. The PLANS shall have a vicinity map that clearly shows the project and its boundaries in relationship to the nearest street intersections. The PLANS shall also include an index sheet map if there are 3 sheets or more.
- N. Lettering and line work shall be of the sizes and thickness as shown on the attached standard water and sewer plan format samples.
- O. The PLANS shall be submitted to Soos Creek Water & Sewer District for review and approval. After District approval, the PLANS shall be submitted to required agencies for review and approval. Construction shall not begin until all approvals and permits have been received by the District.
- P. Upon approval, the PLANS shall be submitted to the District to be stamped as "Approved for Construction" by the District. The electronic AUTOCAD file(s) shall be submitted along with the FINAL PLANS for use by the District. Upon completion of construction, the Developer shall also submit Construction Record Drawings as hardcopy as well as AUTOCAD file(s).