

Seattle Permits

Side Sewer Permit As-Built Plan Requirements

Updated July 28, 2016

What is a Side Sewer As-Built Plan?

A side sewer as-built plan is the drawing that shows all changes made to the side sewer and/or service drains during construction. It will become part of the City's permanent public record. You submit the side sewer as-built plan after construction as part of the process to close out your side sewer permit. For new construction, your as-built plan includes the on-site stormwater management (also known as green stormwater infrastructure), flow control, and water quality treatment facilities that are required under the Stormwater Code (SMC 22.800).

Your scaled drawing should show the alignment, depth and materials used for the as-constructed side sewer on your property and/or in the right-of-way (ROW). We require an as-built plan for new services, additions, alterations, repairs and capping side sewer work (see SMC 21.16.275). We use the information provided on your as-built plan to update the City of Seattle's Geographic Information System (GIS) maps that depict Seattle's existing utilities. Sewer and drainage GIS data is used to support work in various departments, most notably to ensure the City of Seattle is compliant in its efforts related to the NPDES (National Pollutant Discharge Elimination System) permit program.

Guidelines for Preparing a Side Sewer Permit As-Built Plan

- 1. Features to be documented on ALL Side Sewer Permit As-Built Plans
 - Draw the as-built to scale.
 - Draw and label an arrow to indicate the direction of North on the as-built plan.
 - Include your site address and side sewer permit number. If the as-built plan contains information

for multiple addresses or permits, include all that apply to your project.

- Draw all existing side sewer and main sewer infrastructure. SDCI Drainage & Sewer Review Desk staff will provide you with a copy of the "Side Sewer Site Plan" map template displaying existing infrastructure on record (see additional contact information below). You can also visit the DSO Research Map to research existing drainage and sewer infrastructure.
- Document all features in color according to the USE of the pipe:
 - Drainage draw in blue
 - Wastewater (includes combined wastewater and drainage) - draw in red
- Show all conveyance facilities, such as pipes, swales, splash-blocks, etc.
- Label the pipe material, diameter, slope (if possible), and the location of all new pipe material installed that is related to the side sewer construction. You don't need to label every bend and fitting, as long as you draw the pipe and changes in direction to scale.
- Show and label the depth of the side sewer pipe at the point of connection to the building.
- Show and label the depth of the side sewer repair.
- Show end points and provide length for pipe lining and pipe bursting.
- Show and label the depth where the side sewer crosses the property line abutting the right-of-way.

Use the following abbreviations for pipe materials:

- ABS Acrylonitrile butadiene styrene
- **CFP** Corrugated flexible plastic
- **CIP** Cast iron pipe
- **CMP** Corrugated metal pipe
- CON Concrete
- **DIP** Ductile iron pipe
- HDP High density polyethylene

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| PVC | Polyvinyl | chloride |
|-----|-----------|----------|
|-----|-----------|----------|

RCP Reinforced concrete pipe

VC Clay

Table 1 - Abbreviations for Other Infrastructure

| Drainage | Abbreviation | |
|-------------------------------|--------------|--|
| Area drain | AD | |
| Catch basin | СВ | |
| Culvert | CUL | |
| Detention system | DTS | |
| Downspout | DSP | |
| Footing drain | FTD | |
| Inlet | INL | |
| Subdrain (around walls) | SUB | |
| Trench drain | TR | |
| Weephole | WH | |
| Yard drain | YD | |
| On-site BMPs | | |
| Dry well | PIT | |
| Infiltrating bioretention | IBR | |
| Infiltration trench | PIT | |
| Non-infiltrating bioretention | NBR | |
| Permeable pavement surface | PPS | |
| Permeable pavement facility | PPF | |
| Raingarden | RG | |
| Rainwater harvesting | RWH | |
| Subdrain | SUB | |
| Underground injection control | UIC | |
| Vegetated roof | VGR | |
| Water quality structure | WQS | |
| Splash Blocks | SBL | |
| Level spreaders | LSP | |
| Sewer | | |
| Backwater sewage valve | BSV | |
| Cleanout | CO | |
| Rubber coupler | RBC | |
| Oil/water separator | SEP | |

| Other | | |
|---------------------------------|-----|--|
| Capped | CAP | |
| Pump | PMP | |
| Reducer | RED | |
| Stub | STB | |
| Wye | WYE | |
| Maintenance Hole | MH | |
| Building Connection (Soil pipe) | SP | |

Note: If a pipe is perforated, precede the material or infrastructure type with the abbreviation PERF.

Required Measurements for Work in the ROW (if applicable)

Document the following information on the Side Sewer Site Plan template we provided you. You should put this information in the box labeled Measurements in the Rightof-Way, or on your site plan if that is used as the as-built plan. See Figure 3 on page 8 for reference.

Distance from center of closest maintenance hole to centerline of new service connection: This measurement is required for a new core tap connection to the main, or if the measurement does not appear on the provided template map.

Note: To measure the distance to the closest maintenance hole, begin at the center point of the nearest maintenance hole, follow the path of the main, and end at the center point of the side sewer connection to the main. You must round the measurement up to the nearest half foot and label it downstream (D/S) or upstream (U/S), relative to your side sewer connection.

- Side sewer intersection with the property line (only required if your side sewer is exposed at the property line):
 - Side sewer intersection with property line depth: Take this measurement at the actual point your side sewer intersects with the property line. You should measure from the approximated finished grade vertically down to the top of the side sewer. You must round this measurement down to the nearest half foot.
 - Side sewer intersection with property line distance (see figure on page 3): Begin this measurement at the center point of the nearest maintenance hole, follow the path of the main, and end at the point along the main

where an imaginary perpendicular (90-degree) line would intersect where the actual side sewer crosses the property line.



2. Addition/alteration, repair (includes pipe lining and pipe bursting), and/or capping:

Seattle DCI permit staff will provide you with a Side Sewer Site Plan template when we issue your side sewer permit. You may use this template to draft your as-built construction plan. This template will show the data currently stored in the City of Seattle's GIS including:

- Existing side sewer and main infrastructure
- Property lines (Note: Do not use the edge of the curb.)
- Site address
- Building outlines (Note: This is the roof outline, not the building foundation footprint.)
- Edge of the pavement (within the right-of-way only)

Know What's Below – Call Before You Dig: Call 811, two business days before you begin digging, to have the utilities come out and mark their buried lines from the street to your house. This service is highly recommended and is free. <u>http://www.washington811.com/</u>

However, be aware that many buried utility lines under your property belong to you. Locating buried utility lines that you own must be performed by a private company.

3. New Construction

The required stormwater best management practices (BMPs) for most new construction projects are shown on the <u>Standard Drainage and Wastewater Control</u> (<u>DWC</u>) Plan or your engineered plan. You must use the approved DWC Plan or engineered plan as your side sewer as-built plan, with any modifications to your approved plan shown as red-lined changes. We will not accept the DWC or engineered plan if we cannot read

the as-built information because it is of poor quality or because it contains too much information to easily read. The SDCI site inspector will determine if your plan is acceptable. In addition to the as-built features described above for addition/alteration, repair, or capping, the following information is required for all new construction projects.

On-Site Stormwater Management BMPs

(refer to Table 1 for label abbreviations):

- 1. Infiltration trenches, dry wells, and underground injection controls:
 - Show the location, dimensions, depth, and tightlined overflow
- 2. Raingardens, infiltrating bioretention, and non-infiltrating bioretention:
 - Clearly show the location, top area, underdrain, and overflow
- 3. Permeable pavement surface:
 - Show and label the location and extent of the permeable pavement
- 4. Permeable pavement facility:
 - Show and label the location, extent, of the permeable pavement facility
 - Show the location and overflow point of the underdrain
- 5. Vegetated roofs:
 - Show and label the location and total area of the vegetated roof
- 6. Rainwater harvesting:
 - Show and label the location of the rainwater harvesting cistern and outfall location
- 7. Splash blocks, level spreaders, perforated stub-out connections:
 - Show and label the location on the site

Flow Control BMPs:

- 1. Show the detention systems and flow control structure maintenance hole. Label the measured distances from a nearby building corner or closest maintenance hole.
- 2. Label orifice diameter, tank diameter (or vault crosssection), and length of tank or vault.

Water Quality BMPs:

- 1. Proprietary stormwater treatment:
 - Show and label all stormwater treatment facilities
 - Include number of cartridges and filter media type
- 2. Wet vaults and sand filters:
 - Provide the structure dimensions
- 3. Oil water separators:
 - Note if the oil/water separators are Baffle / American Petroleum Institute (API) or coalescing plate type (CP)

Standard Drainage and Sanitary Sewer Features:

- 1. Show and label all drainage or sewer structures, such as pump systems (wet wells), maintenance holes, cleanouts, downspouts, catch basins, area drains, and backwater sewage valves.
- 2. Show footing drain connections to on-site catch basins.
- 3. Show your site stormwater conveyance from point of collection to approved discharge point.

Final As-Built Plan

After you have collected all of the above information, transfer any notes or sketched information onto the appropriate plan. You must draw the infrastructure to scale. The scale on your drawing or map indicates how many inches on the map equals a given length on the site. The scale for your side sewer as-built plan is fixed at 1 inch equals 20 feet or 1 inch equals 50 feet. Thus one inch on the map will be equal to 20 feet on the property. (Note: For larger sites, use 1 inch equals 50 feet, as appropriate.) Draw the new or changed infrastructure onto the side sewer template, DWC, or engineered plan. Please refer to Figures 1, 2 and 3 at the end of this document for examples.

During the side sewer inspection, the SDCI inspector will confirm that your as-built plan is accurate, clear, complete, and reflects the as-built information of the side sewer construction, including any revisions, alterations, and/or materials. If not, you will need to correct the drawing and get a second inspection. After the inspector approves your final side sewer as-built, we will finalize your side sewer permit.

Sample Side Sewer As-Built Plans

Illustrated samples of side sewer site plans are included on the next three pages.

- Figure 1 shows the required elements of a side sewer as-built plan for a side sewer repair.
- Figure 2 shows the required elements of a side sewer as-built plan for a side sewer alteration. This example includes the building addition footprint.
- Figure 3 shows the required elements of a side sewer as-built plan for a new construction project.
- Figure 4 shows a close up sample side sewer asbuilt plan for new construction.

Key Side Sewer Contacts

Application Information: Contact the SDCI Drainage & Sewer Review Desk at (206) 684-5362, <u>sidesewer-</u> <u>info@seattle.gov</u>, or visit <u>www.seattle.gov/sdci/per-</u> <u>mits/permits-we-issue-(a-z)/side-sewer-permit</u>.

Scheduling Inspections: Call the Seattle DCI Inspection Request Line at (206) 684-8900 or schedule online at www.seattle.gov/sdci/permits.

Technical Information:

- Seattle Public Utilities (SPU) Core Tap, (206) 615-0511
- SPU Development Services Office, (206) 684-3333 or <u>SPU DSO@seattle.gov</u>
- DSO Research Map
- SDOT Job Start Notification, (206) 684-5270 or SDOTJobStart@seattle.gov
- SDOT Street Restoration, Street Use Counter, (206) 684-5283
- Tip 503, Side Sewer Permits in Seattle
- Director's Rule 4-2011, <u>Requirements for De-sign & Construction of Side Sewers (Drainage & Wastewater Discharges)</u>

Access to Information

Links to electronic versions of SDCI Tips, codes, and forms are available on the "Resources" page of our website at <u>www.seattle.gov/sdci</u>. Paper copies of these documents are available from our Public Resource Center, located on the 20th floor of Seattle Municipal Tower at 700 Fifth Ave. in downtown Seattle, (206) 684-8467.



Figure 1: Sample Side Sewer As-Built Plan for Repair

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ALL REPAIRED PIPE SCH 35 PVC (To be taken by a Registered Side Sever Contractor (RSSC)) Side Sewer Site Plan Measurements in the Right-of-Way <u>1</u>2 CONNECT TO EXISTING CONC. Z' DEEP CONNECT TO S.P., 4" Side Sewer intersection with P.L. - Digit 3. Side Sewer intersection with P.L. - Dista 4% SLOPE For SPU Official Use Only Distance from centerline of D/S M/H to conterline of new service connection Date 1. = 20 SEATTLE. 9 i. INSTALLED AT Reviewed by $\triangleleft z$ Notes: N _: XXXX909 620 616 610 608 Alteration Permit No.: CAP ≮ SCALE 421.5 36 CAP 10 Por N 1522 250 621 611 1520 00 dSG S ROY . ш 1516 80 617 16TH AVE E u 1510 NO 620 610 1

DEEP

4

SDCI Tip #504—Side Sewer As-Built Plan Requirements

Address:

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Figure 3: Sample Side Sewer As-Built Plan for New Construction

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Figure 4: Close Up of Sample Side Sewer As-Built Plan for New Construction

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