**Gas Meter Clearances and Service Installation Requirements**

Call PSE’s Customer Construction Services 1-888-321-7779 or visit PSE.com/CustomerConstruction for more information.

**Builder/Owner/Developer Requirements**

- The clearances in this handout also apply to features on buildings adjacent to the building where the gas meter is located.
- Final grade of the service line route must be in place before the service line can be installed.
- If you are unable to meet the meter location requirements in this handout, contact PSE for further assistance.
- Puget Sound Energy reserves the right to designate gas meter locations so that they comply with PSE standards.
- For gas meter installations in Cle Elum and west of Cle Elum within Upper Kittitas County, see the Gas Meter Protection from Snow and Ice in Snow Country handout (Form 3736).

**Gas Meter Locations**

Locate gas meter on the front wall, or within the front 1/3 of the side wall, observing the corner clearance requirements detailed below.

The area 3 feet in front of and 2 feet to either side of the meter set assembly must be free of any landscaping (bushes, fences, etc.) and other structures that restrict access to the meter set assembly.

**Gas Meter Clearances to Finish Grade**

<table>
<thead>
<tr>
<th>Meter Type</th>
<th>A</th>
<th>B</th>
<th>Meter Outlet Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>250</td>
<td>16&quot;</td>
<td>32” to 36”</td>
<td>1”</td>
</tr>
<tr>
<td>425</td>
<td>24&quot;</td>
<td>42” to 46”</td>
<td>1-1/4”</td>
</tr>
<tr>
<td>630</td>
<td>30”</td>
<td>42” to 46”</td>
<td>1-1/4”</td>
</tr>
<tr>
<td>1000</td>
<td>32”</td>
<td>46”</td>
<td>1-1/4”</td>
</tr>
</tbody>
</table>

Outside Corners

- The regulator relief vent (see diagram above) should be at least 12” from any outside corner.
  - If the regulator relief vent is at least 12” from any outside corner, then there are no minimum clearances to features around the corner.
  - If the regulator relief vent is less than 12” from any outside corner, then the minimum clearances specified in this handout must be maintained. Measure as if using a string.

Inside Corners

- Clearance distances from the regulator relief vent or meter set assembly to the feature must be maintained in accordance with this handout. Measure as if using a string.
Gas and Electric Underground Service Installation Requirements Effective on: 03/01/16

For separation requirements to other Utilities see Page 2 of the Gas and Electric Underground Service Installation Requirements handout (Form 3061).

1/2 Yard Bedding and Shading Sand
Sand shall be provided on-site by the customer and placed within hand-shoveling distance to the work pit for bedding and shading of direct-buried facilities. A larger work pit may require more sand (see backfill requirements in this handout). Sand shall be washed, clean, and free of debris or rocks larger than 1/4 inch.

Gas Service Line Conduit
Customer provides and plugs conduit end.

Dig to 12” from the Gas Stub Marker Customer shall not expose the stub. If accidentally exposed, cover gas stub with 12” of sand.

20” to 24” Deep

Backfill Requirements for Conduit Installations
- **Backfill for Conduit**: Soil that is free from construction debris, glass, sharp rocks, frozen clods, and rocks larger than 10” in diameter.
- **Shading**: None required above conduit.
- **Bedding**: None required below conduit.

Gas Service Line Depth Table for Conduit and Direct-Buried Installations

<table>
<thead>
<tr>
<th>Gas Service Type</th>
<th>Gas Service Pipe Size</th>
<th>Minimum Depth of Cover over Gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>Any Size</td>
<td>18”</td>
</tr>
<tr>
<td>Commercial/Industrial</td>
<td>1-1/4” +</td>
<td>24”</td>
</tr>
<tr>
<td>Any Service in Snow Country</td>
<td>Any Size</td>
<td>24”</td>
</tr>
</tbody>
</table>

Backfill Requirements for Direct-Buried Installations
- **Final Backfill For Direct Bury**: The backfill layer above the sand shading shall be soil that is free from construction debris, glass, sharp rocks, frozen clods, and rocks larger than 8” in diameter.
  - If the final layer contains rocks larger than 8” in diameter, then 12” of shading shall be placed over the gas service.
  - Rocks larger than 10” in diameter are not permitted in the final backfill.
- **Sand Bedding**: The customer shall provide and install clean sand to a depth of 4 inches prior to gas service pipe installation. See diagram at left.
- **Sand Shading**: The customer shall provide additional clean sand in piles that are readily accessible near the trench. This shading sand is to be installed by the PSE crew after direct-buried gas line service pipe installation. See diagram at left.

If customer-owned facilities will be included in the trench, please contact PSE or local power company directly for clearance requirements.
Gas conduit runs over 100 feet long must have a 3/8-inch minimum diameter pull rope installed.

Conduit bends shall be one long radius, single-piece sweeps (see table below). Fittings and elbows shall not be used because the joints prohibit service insertion.

The sum total of the degrees of bends in the conduit run cannot exceed 180°.

Conduit shall not cross in the trench.

Yellow or white Schedule 40 PVC conduit used for gas service lines shall not be marked “water,” or any other utility.

### PSE recommends the use of conduit for all gas service installations.

- **Conduit Installation Requirements**
  - Gas conduit runs over 100 feet long must have a 3/8-inch minimum diameter pull rope installed.
  - Conduit bends shall be one long radius, single-piece sweeps (see table below).
  - Fittings and elbows shall not be used because the joints prohibit service insertion.
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  - Conduit shall not cross in the trench.
  - Yellow or white Schedule 40 PVC conduit used for gas service lines shall not be marked “water,” or any other utility.

<table>
<thead>
<tr>
<th>Service Line</th>
<th>Conduit Size, Type, &amp; Color</th>
<th>Min. Bend Radius</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical Residential ≤ 185’</td>
<td>2” (minimum) Schedule 40 Yellow or White PVC</td>
<td>36”</td>
</tr>
<tr>
<td>Typical Residential Services &gt;185’ and ≤ 1000’</td>
<td>3” (minimum) Schedule 40 Yellow or White PVC</td>
<td>48”</td>
</tr>
<tr>
<td>Typical Residential &gt; 1000’</td>
<td>4” (minimum) Schedule 40 Yellow or White PVC</td>
<td>60”</td>
</tr>
<tr>
<td>Typical Large Multi-Family &amp; Commercial Services</td>
<td>4” (minimum) Schedule 40 Yellow or White PVC</td>
<td>60”</td>
</tr>
</tbody>
</table>

### Preferred Trench Location When the Trench Must Pass Near Trees

The preferred position for customer-provided trenching is as far as possible outside of the dripline of trees. If this is not possible, contact PSE’s Customer Construction Services at 1-888-321-7779 for trench location and depth requirements.

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**Conduit Requirements for Gas Service**

- **Conduit Installation Requirements**
  - Gas conduit runs over 100 feet long must have a 3/8-inch minimum diameter pull rope installed.
  - Conduit bends shall be one long radius, single-piece sweeps (see table below).
  - Fittings and elbows shall not be used because the joints prohibit service insertion.
  - The sum total of the degrees of bends in the conduit run cannot exceed 180°.
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**Know what's below. Call before you dig.**

Effective on: 03/01/16
Canceling: 03/01/15
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Regulator Relief Vent Clearances from Building Features

Clearance Zone from Windows, Building Vents, and Fireplace Cleanouts

Clearance Zone from Electrical Components

Clearance Zone from Doors and Garage Doors

Mechanical Air Intake Features at Clearance Distance A (10 feet)

Appliance Intake and Exhaust Features at Clearance Distance B (3 feet)

Clearance Zones from Wall-Mounted Fans and Air Conditioners, and Appliance Vents and Intakes

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Gas Meter Clearances from Building Features

Clearances from Padmounted Air Conditioners, Heat Pumps, Generators, or Transformers

Preferred Clearance Zone from Water Spigots, and from Communications and Cable Boxes

Preferred Clearance Zone from Overhead- or Underground-Fed PSE Electric Meters

Clearances Under Porches, Decks, and Balconies

Clearance Zone from Incinerators or Open Flame Devices

Clearance Zone From Padmounted Air Conditioners, Heat Pumps, Generators, or Transformers

Clearance Zone From Overhead- or Underground-Fed PSE Electric Meters

NOTE: A clearance of 36 inches is required in front of the electric meter face.

NOTE: Clearly mark buried ground rod.

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Guard Post Installation (PSE’s Responsibility)

♦ To protect meter set assembly from vehicle damage, PSE will install guard posts when required.
♦ To avoid the need for PSE to install guard posts, choose a meter location that is away from driveways or other areas where vehicles travel.
♦ Guard post requirements are based on the following factors:
  - Existing barriers (curbs, guard rails, steep increases in grade, ditches, rockeries, trees, shrubs, chimneys, recessed walls, etc.), which will provide adequate protection;
  - Proximity of the facility to the edge of the travel lanes;
  - The expected speeds in the travel lanes;
  - The width of the travel lane;
  - The volume of vehicle traffic;
  - Existing nearby building damage or other indicators of vehicle damage that may have already occurred; and,
  - The type of customer (i.e., single-family residential versus commercial/industrial or multifamily).
♦ In cases where a meter set assembly will be installed behind a curb, observe the following:
  - If the curb will be a rolled curb, and if there is less than 10 feet of space between the curb and the meter, guard posts will be installed; and,
  - If the curb will have a vertical face, and if there will be less than 5-1/2 feet between the curb and the meter, guard posts will be installed.
♦ Guard posts will be painted "caution" yellow, especially those located in commercial or industrial locations, street rights-of-way, and alleyways.

Typical Single-Family Guard Post Installation

- 2-1/2" Dia steel pipes filled with concrete
- Underground concrete base
- 30” Min above grade
- 24” Driveway or parking area
- 42” Min above grade
- 3-1/2 Dia. 42” Dia. x 30” High
- Minimum Clearance between Meter Set Assembly & Guard Post

<table>
<thead>
<tr>
<th>Guard Post</th>
<th>Single-Family Residence</th>
<th>Commercial/Industrial or Multi-Family</th>
<th>Legal Speed Limit Greater than 35 MPH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2-1/2” Dia.</td>
<td>4” Dia.</td>
<td>6” Dia.</td>
</tr>
<tr>
<td>Concrete Base</td>
<td>8” Dia. x 30” High</td>
<td>15” Dia. x 30” High</td>
<td>30” Dia. x 42” High</td>
</tr>
</tbody>
</table>

Minimum Clearance between Meter Set Assembly & Guard Post

1. Guard posts shall be made from steel pipe, 6 feet long, filled with wet concrete and domed on top.
2. In this installation, the guard post can be solid concrete 9 inches in diameter.
3. At least 24 inches of the guard post shall be embedded in the base, with at least 42 inches of the post above final grade.
4. In this installation, at least 26 inches of the guard post shall be embedded in the base, with at least 42 inches of the post above final grade.
5. Additional guard posts are required if the centerline spacing between guard posts exceeds 36 inches. The additional guard posts are typically evenly spaced between the outer two posts.