RESIDENTIAL GAS PIPING

BUILDING DIVISION REQUIREMENTS
A plumbing permit is required to replace, add, or extend any gas piping. Permits are required before the installation or replacement of gas piping.

Following is a listing of the general requirements for gas piping based on the 2022 California Plumbing Code. This brochure is intended to provide general information, contact the Building Department for any questions or additional information.

**Gas Pipe Sizing (CPC 1208, 1208.1.1, 1208.4)**
If extending or tapping off of an existing gas line, sizing calculations shall be completed to ensure the gas piping is adequate to serve all existing and new appliances. Provide a diagram that shows the size, location, and length of the run of the existing and proposed gas lines, and the location and BTUs of all appliances served to the One-Stop Permit Center. Building Division staff can assist in completing the necessary calculations.

**Pipe Materials (CPC 1208.6)**
Gas pipe material is allowed as follows:

<table>
<thead>
<tr>
<th>Pipe Material</th>
<th>Indoor Installation</th>
<th>Outdoor, Above Ground Installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Galvanized Wrought Iron (Sch. 40)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Galvanized Steel (Sch. 40)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Black Steel</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Corrugated Stainless Steel Tubing*</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*The installer must be certified by the manufacturer to install such material.

**Underground Installation (CPC 1210.1.7.2)**
Gas piping installed underground shall be a minimum of 18” in depth. Underground gas piping shall be factory-coated material listed for underground gas line installation and installed in accordance with the manufacturer’s requirements (or as approved by the Building Division). Fittings may be wrapped in the field with an approved material. When using non-metallic pipe, an electrically continuous corrosion-resistant yellow tracer wire (minimum AWG 14) shall be buried with the piping and the tracer wire shall be continuous above ground attached to a building wall or the riser.
Underground Beneath Buildings (1210.1.6)
Gas piping shall be sleeved and vented in accordance with the California Plumbing Code. Please contact the Building Division for more information.

Piping Unions (CPC 315.1, 1212.6, 1210.3)
Unions (inline couplings) are only permitted downstream (after) appliance shut-off valves, meter locations, and immediately downstream on building shut-off valves. The use of right/left couplings and nipples are required in all other locations. Unions shall not be installed in a concealed location.

Shut-Off Valves (CPC 1212.6)
Shut-off valves are required ahead of all gas appliances. They must remain accessible from the same rooms as the appliance and shall be within 6 feet of the appliance.

Pipe Support (CPC 1210.2.4.1)
Pipes shall be supported as follows:

<table>
<thead>
<tr>
<th>Size of Pipe</th>
<th>Pipe Support Distance (maximum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2” Tubing</td>
<td>4 feet</td>
</tr>
<tr>
<td>1/2” Steel Pipe</td>
<td></td>
</tr>
<tr>
<td>5/8” or 3/4” Tubing</td>
<td>6 feet</td>
</tr>
<tr>
<td>3/4” to 1” Steel Pipe</td>
<td></td>
</tr>
<tr>
<td>7/8” or 1” (Horizontal) Tubing</td>
<td>8 feet</td>
</tr>
<tr>
<td>1-1/4” or larger (Horizontal) Steel Pipe</td>
<td>10 feet</td>
</tr>
<tr>
<td>1-1/4” or larger (Vertical) Steel Pipe</td>
<td></td>
</tr>
<tr>
<td>1” or Larger (Vertical) Tubing</td>
<td>Every Floor</td>
</tr>
</tbody>
</table>

Sediment Trap (CPC 1212.9)
A sediment trap shall be provided on the gas line downstream of the appliance shut-off valve, as close to the inlet of the equipment as practical, and upstream of the flex connector.

Pressure Test Inspection (CPC 318.0, 1213.3)
Test pressure shall be no less than 1-1/2 times the proposed maximum working pressure, but not less than 10 psi. The test duration shall be a minimum of 15 minutes. Test gauges shall have a scale not greater than twice times the test pressure and shall be 0.10 psi increments.

Smoke and Carbon Monoxide Alarms (CBC 907.2.11.1, CRC 314 and 315)
Smoke alarms shall be installed on the ceiling or wall (between 4” and 12” of the ceiling) in all sleeping rooms, each area/hallway adjacent to sleeping rooms, each story of the building, and in any basement.
Smoke alarms shall be replaced 10 years after the date of manufacture listed on the alarm (if no date is listed the alarm shall be replaced). Newly installed smoke alarms shall have a 10-year battery.

Carbon monoxide (CO) alarms shall be installed on the ceiling or wall (above the door header) in each area/hallway adjacent to sleeping rooms, each occupiable story, and within a bedroom if the bedroom or attached bathroom contains a fuel-burning appliance. CO alarms are not required if there is no fuel-burning appliance or fireplace in the house and where the garage is detached from the house.

**PERMIT PROCESS**

**Building Permit Review**
1. Permit can be submitted online at [https://epermits.montesereno.org/](https://epermits.montesereno.org/).

**Inspections**
2. Two inspections are required; a rough plumbing and a final.
   - The rough plumbing inspection should be scheduled when the new gas lines are installed, before walls are covered, and before the connection is made to the gas service. A pressure test inspection will be done and all testing equipment is to be provided by the permittee. (1213.3)
   - The final inspection should be scheduled after all the work has been completed. A completed Smoke Alarm and Carbon Monoxide Alarm Certification Form shall be provided to the building inspector.

**Building Permit Application Requirements**
(3 copies of each item)
- A completed Building Permit Application
- If new gas piping is installed, a gas piping diagram showing existing and proposed gas piping diameter, length, and BTUs of all appliances served is required.