



**EZ Permit Standard: Plumbing (New Construction)**

**Obtain permits for installing a plumbing system for Residential New Construction (One- and Two-Family Dwellings) without submitting plans by meeting the Conditions and Construction Requirements below. A completed *EZ Plumbing Permit Application Form* must be submitted with a completed standard Permit Application.**

Deviations from this EZ Permit Standard will require submission of plans to the Department with your permit application.

**Conditions**

- The following types of work are eligible for an EZ Plumbing Permit:
  - New construction for residential one- and two-family dwellings where the following conditions apply:
    - If a property is served by a Well or Septic System, PA. Department of Health (PA.DOH) approved site plan is required at the time of the application.
  - New construction of building drain that discharges by gravity to the building sewer (including building trap and FAI) and/or water distribution pipe where all of the following conditions apply:
    - No private infrastructure on-site direct connection between the public sewer and building drain or public water main and the water distribution.
    - No well or septic system serves the property.
    - No forced building drain or building sewer.
  - Installation of new building traps, building drains, and water distribution pipe with a direct connection between the building and the curb stop or building trap.
- All work performed shall be in accordance with the **2021 City of Philadelphia Plumbing Code**.
- Separate PWD permits are required for connections to the City water main or sewer.

**Prior Permit / Approvals Required**

- The following permits/approvals must be in place BEFORE an EZ Plumbing Permit can be issued:
  - An approved PWD site utility plan for all new construction.
  - Where fire and domestic water use the same water service (RFSS), supply installation size must be consistent with PWD utility plan approval.
  - Exterior plumbing permits for water distribution, building drain, and building trap for all new construction prior to issuing the interior permit. No penetrations or installations permitted through common wall construction.

**Construction Requirements**

**Building Sewer / Building Drain Requirements**

- Below ground sanitary waste and vent pipe for buildings less than 75' in height servicing one- and two-family dwellings and apartments may be nonmetallic pipe listed in Table 702.2.
- Where the public sewer is a combined system, the sanitary building sewer shall be connected independently to the lateral.
- Sanitary or combination storm and sanitary building trap shall be a minimum size of 5" and ARC clamps are permitted for replacements. (P-705.3.5).
- Backwater valves are required on the sanitary building drain or horizontal branch when plumbing fixtures are below the fresh-air-inlet termination of the building trap. (P-714).
- The fresh-air-inlet for the building trap is required to be metallic pipe when within 5' of the water distribution pipe. (P-603.2).
- Unshielded mechanical couplings are not permitted. (P-705.3.3).
- Cellular core PVC and ABS pipe are not permitted to be installed underground. (Table P-702.2, Table P-702.3).
- Compression gasket joints for hub and spigot pipe can be installed for building sewers, building drains, and branches. (705.3.2).



### **Drain, Waste and Vent (DWV) Requirements**

- Above ground sanitary waste and vent pipe for buildings less than 75' in height servicing one- and two-family dwellings and apartments may be nonmetallic pipe listed in Table 702.1.
- Open vents that extend through the roof shall be terminated not less than 24" above the roof. (903.1)
- Where a roof is used for assembly, observation deck, sunbathing deck or similar purposes open vent pipes shall terminate 7' above the roof. (903.1)
- Simplex sewage ejector pumps can be used only for one- and two-family dwellings. (P-712.4)
- Backwater valve installations required for all fixtures located below grade. (P-714.1)
- Philadelphia single-stack waste & vent system cannot be incorporated in any other design method in chapters 7 and 9 (P-919).

### **Storm Water Requirements**

- Storm water sewer pipes for buildings less than 75' in height servicing one- and two-family dwellings and apartments may be non-metallic pipe listed in Table 1102.4.
- Either a building (house) trap 6" minimum size or cleanout is required at the curb line for a dedicated storm sewer. (P-1103.4)
- Where the public sewer is a combined system, the storm building sewer shall be connected independently to the lateral. (P-1109.1)
- Backwater valves are required on the storm building drain or horizontal branch when plumbing fixtures are below the fresh-air-inlet termination of the building trap. (P-1101.9)
- Sizing storm water piping rainfall rates of 4.5" per hour for new construction, and 3.1" per hour for PWD approved green roofs. (1106.1)

### **Domestic Water Requirements**

- Water distribution pipes shall be horizontally separated by not less than 5' when the building sewers and building drains is nonmetallic pipe. A separation of 12" vertical and 12" horizontal from the outer edge of pipe when the building sewers and building drains is metallic pipe. (P-603.2)
- Above and below ground domestic water piping for buildings less than 75' in height servicing one- and two-family dwellings and apartments can be nonmetallic pipe. (P-605.4.1)
- Nonmetallic piping may be used within demised individual residential dwelling located within buildings not more than 150' in height. (P-605.4.1)
- Pressure reducing valve is required when the static water pressure exceeds 80 psi. (P-604.8)
- Backflow containment assembly is required in all buildings except in residential buildings of 4 families or less. (P-608.1.1)
- Relief port piping of RP backflow preventer assembly shall discharge to an approved indirect waste receptor or to the outdoors (608.15.2.1). The approved indirect waste and receptor drain is required to be sized according to the manufacturers of the backflow preventer specifications.
- The developed length of hot or tempered water piping, from the source of hot water to the fixtures that require hot or tempered water shall not exceed 50 feet. (607.2)
- For Group R-3 occupancies that are three stories or less above grade plane, the installation of heated water circulation and temperature maintenance systems shall be in accordance with Section R403.5.1 of the IECC. For other than Group R3 occupancies that are three stores or less above grade plane, the installation of heated circulation and heat trace systems shall be in accordance with Section C404.6 of the IECC.



**Water Heater Requirements**

- All water heaters and water heating equipment shall have a minimum of 4' of developed length of copper tubing or similar metallic piping connecting directly to the inlet and the outlet of the unit. (P-503.3)
- Thermal expansion control is required for storage water heaters when there is a backflow assembly, pressure reducing valve, check valve on the incoming water supply of the building or structure. (P-501.9)
- Water heater pans shall be required for storage water heaters where leakage will cause damage. (504.7)
- Water heaters shall be installed in accordance with Chapter 5 of the 2021 PPC, 2021 IFGC, and according to the manufacturer's installation instructions.

**Residential Plumbing Mandatory Energy Code Requirements**

- Hot water pipe insulation:
  - Hot water pipe insulation value of R-3 or greater has been installed for pipes meeting any of the following conditions:
    - ¾" or greater in nominal diameter
    - Serving more than one dwelling unit
    - Located outside the conditioned space
    - From a water heater to a distribution manifold
    - Located under a floor slab or buried in the ground

Where Additional Energy Efficiency or Energy Enhancement Packages for plumbing systems are used for project compliance, select the applicable method:

<input type="checkbox"/> <b>2021 PHILADELPHIA ENERGY CONSERVATION CODE—Additional Energy Efficiency Package</b>	
<p><b>Reduced Service Water-Heating Energy Use</b> to comply with provisions of IECC 2021, Sections R408.2.3 and R401.2.1.</p> <p><u>Mandatory Energy Code Requirements:</u></p> <ul style="list-style-type: none"> <li>• Installed equipment specifications to be made available for inspection</li> <li>• Hot water systems shall provide one of the following efficiencies:               <ul style="list-style-type: none"> <li>○ Fossil Fuel Service Water-Heating System Efficiency ≥ 82 EF</li> <li>○ Electric Service Water-Heating System Efficiency ≥ 2.0 EF</li> <li>○ Solar Service Water-Heating System Efficiency ≥ 0.4 Solar Fraction</li> </ul> </li> </ul>	<input type="checkbox"/>
<input type="checkbox"/> <b>2025 PA ALTERNATIVE RESIDENTIAL ENERGY PROVISIONS – Energy Enhancement Package</b> (For One- or Two-Family Dwelling New Construction Work Scopes under 2021 Philadelphia Residential Code ONLY. Entire permit application for the building must be designed under the 2025 PA Alternative Residential Energy Compliance.)	
<p><b>Improved Efficiency Windows and Heat Pump Water Heater Package (Option 9)</b> to comply with PA Alternative Energy Enhancement Requirements, Section PA104.</p> <p><u>Mandatory Energy Code Requirements:</u></p> <ul style="list-style-type: none"> <li>• Complete and submit the <b>2021 IECC Residential Compliance Path Selection Form (P_050_F)</b> with the residential permit application.</li> </ul>	<input type="checkbox"/>

AP#: \_\_\_\_\_ REGISTERED MASTER PLUMBER SIGNATURE \_\_\_\_\_