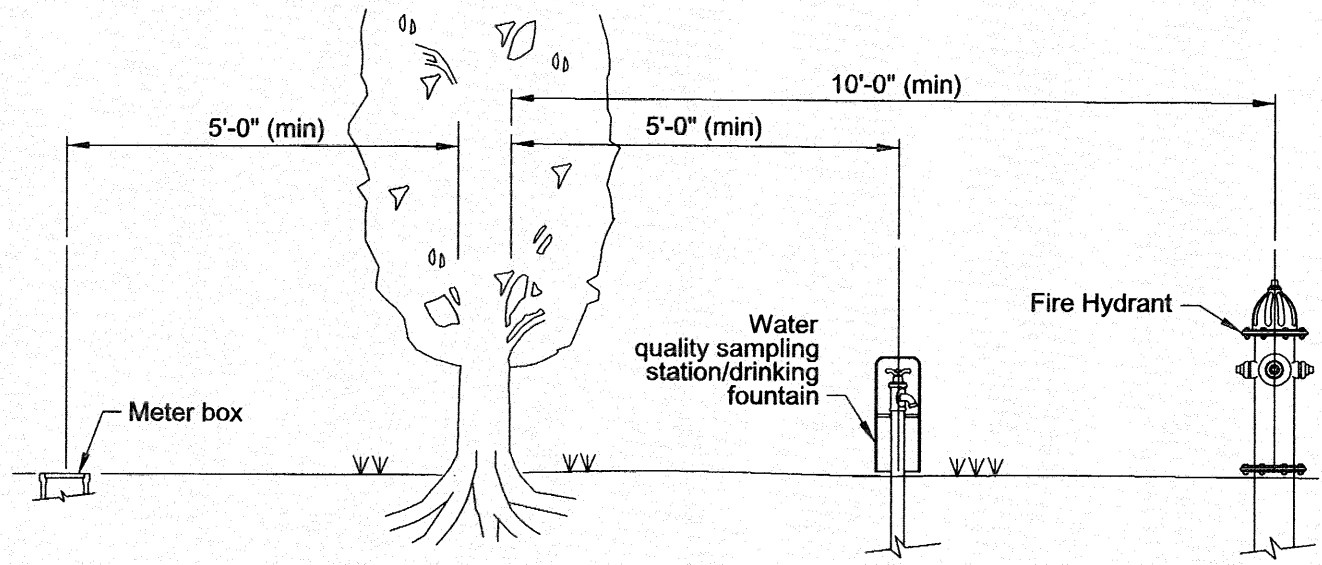


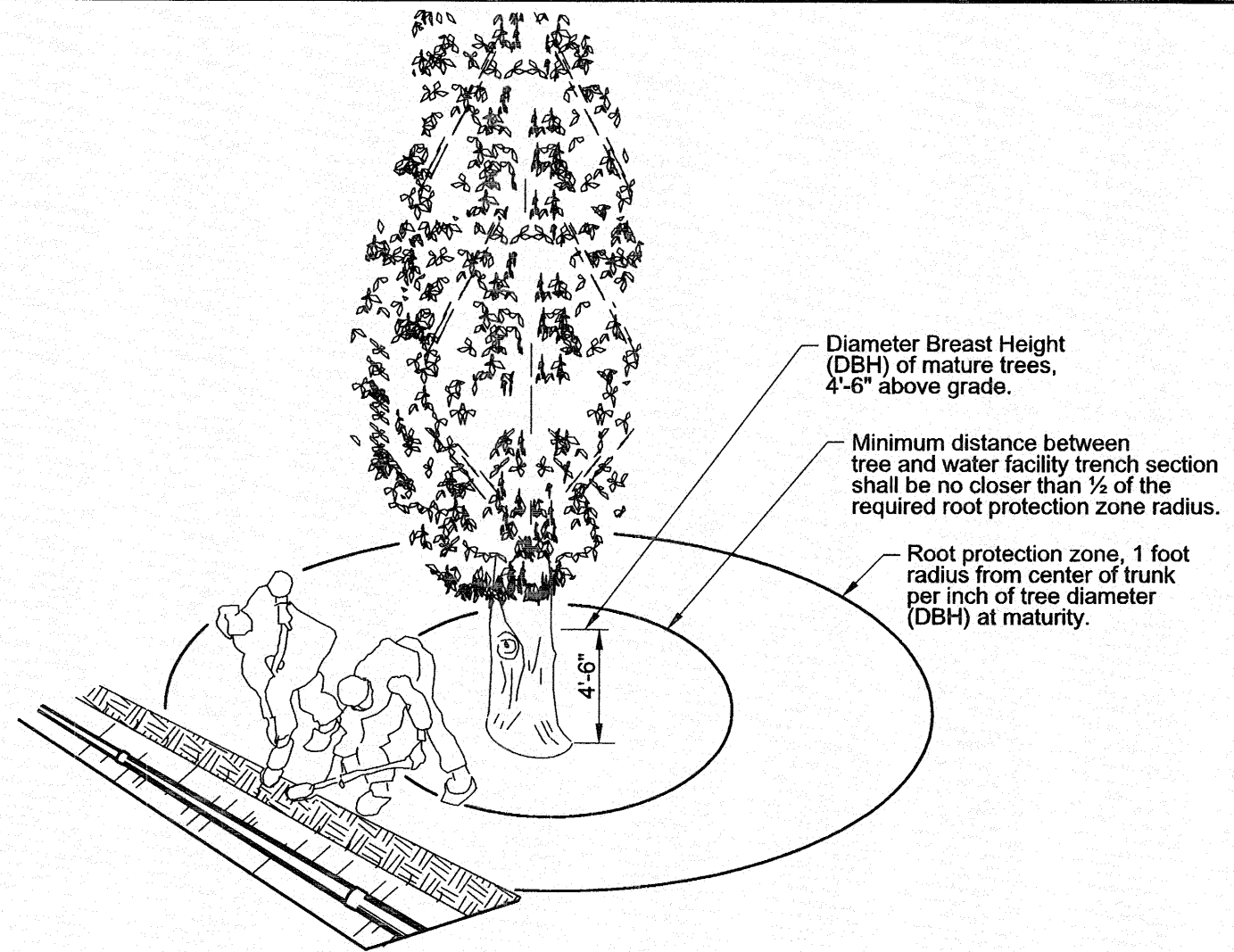
Tree Location: Plan



Tree Location: Side View

**Note:**

1. Trees must be a minimum of 5 feet from the nearest edge of water pipe, valve or meter box, water sampling station, and a minimum 10 feet from a fire hydrant.
2. Tree selection must be approved by the City Forester.
3. Trees to be planted 10 feet or less from any of the facilities listed in Note 1 must be a species expected not to exceed 12-inch diameter breast height (DBH) at maturity. Trees expected to be greater than 12-inch DBH at maturity shall be planted a minimum distance of 1/2 the root protection zone from water facility trench section. The root protection zone is 1 foot radius from the center of the tree trunk per inch of the tree diameter (DBH) at maturity. See Detail 1, Tree to Trench Distance.
4. Distribution pipe trench section is pipe outside diameter plus 18-inches for pipe size <16-inch and outside diameter plus 24-inches for pipe size ≥16-inch, See P-815.



Detail 1: Tree to Trench Distance

|   |  |  |
|---|--|--|
| <p>The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user.</p> | <p>PORTLAND WATER BUREAU<br/>CITY OF PORTLAND, OREGON</p> <p><i>John K. Smith</i><br/>Chief Engineer</p>           |  |
|   | <p>Standard Drawing Title<br/><b>Tree Planting Clearance<br/>Water Facility Pipe<br/>&lt; 24-inch Diameter</b></p> |  |
| <p>Note:<br/>All material and workmanship shall be in accordance with City of Portland Standard Construction Specifications.</p>  | <p>Effective Date <b>MARCH 28, 2016</b></p>  | <p>Standard Drawing No.<br/><b>P-845</b></p> |
|   | <p>Calc. Book No. <b>PWB 1</b></p>   |  |
| <p>Baseline Report Date <b>MARCH 28, 2016</b></p>   |  |  |

Plot Date: 3/28/2016 1:57:28 PM File Name: J:\Engineering\CAD\Standards\Working\_Details\Misc\P-845\_Tree\_Root\_Clearance.dgn