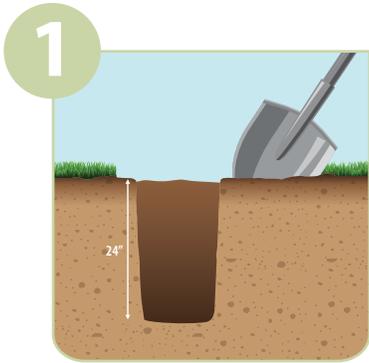


# SOIL PERCOLATION TEST

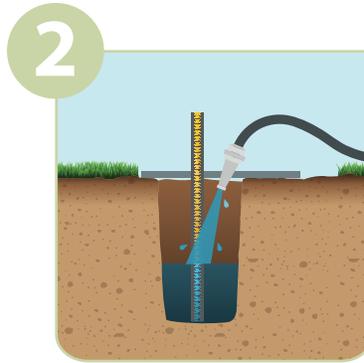
## A Step-by-Step Guide

A visual inspection of soil is rarely accurate in assessing how fast water drains away from the roots of a tree.

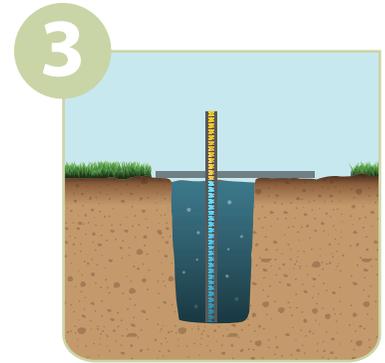
If drainage is too slow or too fast, it can kill the tree. A percolation test is a great way to determine the drainage rate.



Dig a 24" (61 cm) deep hole.

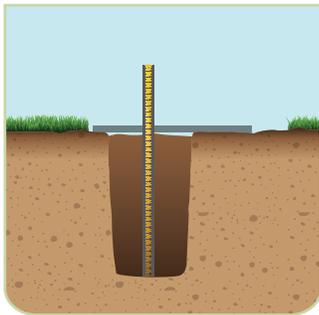


Fill the hole with water and let it completely absorb and drain away.



Fill up the hole again and come back 24 hours later.

## 4 ANALYZE THE RESULTS:

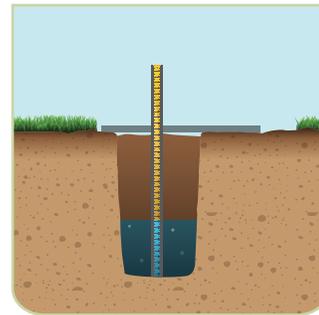


### Well Drained:

If there is no water, you have adequately-draining soil and can adjust watering intervals based on the needs of the tree species.

### Benefits of Well-Drained Soil:

- ▶ Allows for percolation of more water, which reduces runoff and erosion
- ▶ Allows for sufficient pore space for necessary air in the soil
- ▶ Promotes healthy plant growth



### Poorly Drained:

If water is still in the hole, discuss possible solutions with the client or design team.

### Solutions for Poorly-Drained Soil:

- ▶ Choose a suitable plant species that grows in consistently wet / poorly-drained soil
- ▶ Use mechanical subsoiling techniques to improve infiltration rates and drainage
- ▶ Install a subsurface drainage solution