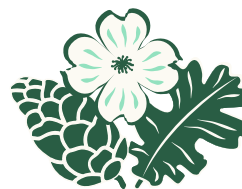


# Basic Tree Protection



**MILWAUKIE  
URBAN FOREST**  
Growing Trees  
Growing Community

It is crucial to implement best management practices for tree protection early on during construction activities to ensure trees remain healthy and continue to provide benefits long-term. Any site development activities including grading, landscaping, and demolition should have a tree protection plan in place to reduce the negative impacts of construction on trees. Creating a tree protection zone (TPZ) should keep the foliage, crown, branches, and trunks of trees clear from direct contact and injury by equipment, materials, or other disturbances. Tree roots are not always visible to the naked eye and are often crushed, cut, and suffocated during construction. Damage to tree roots and surrounding soils are often permanent and can compromise tree health in the short- and long-term.



**A tree's critical root zone (CRZ)** is the area immediately adjacent to the trunk where roots essential for tree health and stability are located.

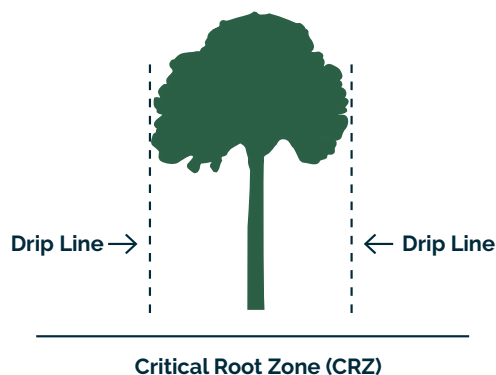
A tree protection plan should take tree species, size and construction design into account before work begins. Different tree species have varying levels of construction damage tolerance. An arborist can provide more specific information about a site's recommended TPZ.

A TPZ is an arborist-defined area surrounding the trunk intended to protect roots and soil within the CRZ and beyond, to ensure future tree health. There are several methods to determine the size of a TPZ. The most common one is the drip line method. This method uses the tree canopy's drip line to define the boundary of the TPZ. The drip line is the imaginary line defined by the branch spread of a single plant or group of plants.

Highly visible fencing that is at least 6 feet tall must be placed around the TPZ to keep construction activities outside of it. Signage that labels that area as a TPZ should also be placed on the fencing. People and equipment should not enter the area without permission from the arborist.

Even when the TPZ is placed at the drip line, large portions of the root system may be lost. An ISA Certified Arborist may need to inspect the tree and site to alter the TPZ as needed to provide adequate tree protection.

To learn more about managing trees during construction and other methods to determine tree protection zones, consult the [International Society of Arboriculture's \(ISA\) Best Management Practices handbook](#).



The CRZ as defined by the dripline method

**FOR QUESTIONS OR MORE INFORMATION, CONTACT:**



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