

Protect Your Trees During Construction

Are you planning to build or remodel your home? Before you start consider the impact of construction on your plants.

Trees and shrubs are an important part of your property. Many times plants are damaged due to lack of knowledge or not thinking about them during the planning stage of the project.

This damage can be deadly. Unless the damage is extreme the trees may not die immediately but could decline over several years. You may not associate the loss of your tree to construction because of the delay.

Not all trees can be saved during construction generally due to location of the work area or poor health to start with. But it is possible to preserve many of the trees if the right measures are taken.

There are many ways trees are injured or killed due to construction damage. The easiest to see is physical damage to the above ground portion of the tree. Breaking branches, tearing bark, and wounding the trunk are permanent, and if extensive, can be fatal.

The worst damage, however, often remains hidden underground. Roots are a vital part of any tree. They are responsible for nutrient and water uptake, energy storage, and anchoring. Because of all this roots need to be protected.

Typically ninety to ninety-five percent of a tree's root system is in the top three feet of soil and more than half is in the top one foot. The root plate does not stop at the tips of the branches but can expand out three times the tree's height in all directions. And just like us, trees need oxygen to survive. Without at least eight percent air space in the soil roots begin to decline.

Digging and trenching are sometimes necessary for construction. The amount of damage a tree can suffer from the root loss depends in part on how close to the tree the cut is made. Severing one major root can cause the loss of five to twenty percent of the root system. And if the major support roots are cut on one side, the tree may fall or blow over. If at all possible, tunnel under the tree rather than across the roots.

Using heavy equipment during construction compacts the soil. This reduces the amount of pore space in the soil which reduces the amount of oxygen to the roots and inhibits root growth and penetration through the soil. Keep equipment and materials off the root systems – especially when soil is wet.

Piling soil over the root system or increasing the grade smothers roots. Ninety percent of the fine roots that absorb water and minerals are in the upper six to twelve inches of soil. Roots require space, air, and water. It only takes a few inches of added soil to kill a sensitive mature tree. This can be a slow decline over several years or quickly in a couple years. Pile soil when the ground is frozen and remove it before the spring thaw. Keep the original grade around your tree's root system if possible, and if not, there are systems to help get air and water to the buried roots.

Small changes in the design of your project can sometimes make a great difference in whether a critical tree will survive. The contractor may need to be educated regarding the value of the trees on your property and the importance of saving them. Few builders are aware of the way tree roots grow and what must be done to preserve them.

The ability to repair construction damage to trees is limited so it is vital to protect the trees from injury to begin with. Set up construction fences around the trees you want to protect. A good guideline is one foot of space for every inch of tree diameter. Don't allow any traffic, storage of materials, waste, digging, trenching, or other soil disturbances inside the fenced area, and keep it intact until the end of the project.

It is not always easy to save trees during construction, but your efforts are worth the trouble. Take time to protect and monitor the health of your investments. Your home and our communities will be healthier and more attractive places to live.

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