

# Construction

Many construction activities are harmful to trees by causing soil compaction and mechanical damage. Advanced planning can protect your trees without limiting a project. Limiting stress prior to construction is much easier than trying to alleviate damage. In other words, prevention is the best treatment.

## Construction damage can:

- Decrease water filtration causing water stress
- Reduce oxygen levels in soil killing roots
- Make a tree vulnerable to other insect/disease and abiotic stresses
- Take 2-5 years before symptoms appear

## Basic strategies to limit damage to trees include:

- Avoid storing materials and machinery directly under trees
- Encourage the use of a single path for heavy machines
- Use mulch to limit compaction
- Water trees frequently



*Tree preservation starts before construction*



*Trees in decline due to construction damage*



*Radial Trenching*

*Core Aeration*

**Radial Trenching** – Compacted soil is excavated using an Air Spade™ to avoid damaging roots. Organic matter and customized nutrition is then added to the soil. This is most effective before landscape installation is complete.

**Growth Regulation** – A new class of chemicals to help trees survive the impacts of construction. Energy is redirected from canopy growth to root development.

**Core Aeration** – A handheld auger drills 3" diameter holes through compacted soils in a grid pattern. Holes are then backfilled with customized amendments. This "old fashioned" method of fertilization combines aeration with mineral nutrition.

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