

Construction *with* Trees

Trees are often harmed during construction projects simply because the contractors and homeowners don't know that the trees need protection. Here you will find tips for caring for your trees throughout this process.

Trees must adapt to their surroundings to survive. A tree's survival is often jeopardized when the following *incorrect* assumptions are made:

- ✿ Trees are flexible enough to adapt to changes to their environment.
- ✿ Our actions in and around trees do not obviously and immediately impact the trees.
- ✿ The tree has been there for years, so nothing will affect it.

The truth is that established, mature trees are less tolerant of change than newly-planted young trees. Adaptability varies greatly by species.

Construction activities in and near trees can change their environment both directly and indirectly.

- ✿ Change in grade due to addition or removal of soil around tree root systems.
- ✿ Soil compaction by heavy equipment, construction materials stored under trees, vehicles parked under trees and heavy foot traffic.
- ✿ Change to water drainage patterns, light exposure, pedestrian and vehicular traffic and other stresses such as severed roots and deicing salts.

VILLAGE OF EAST AURORA
TREE BOARD



Contact the Tree Board via email:
TreesPleaseEA@Yahoo.com

Further information may be found on
the Village of East Aurora Website
www.east-aurora.ny.us
click on *Tree Planting*

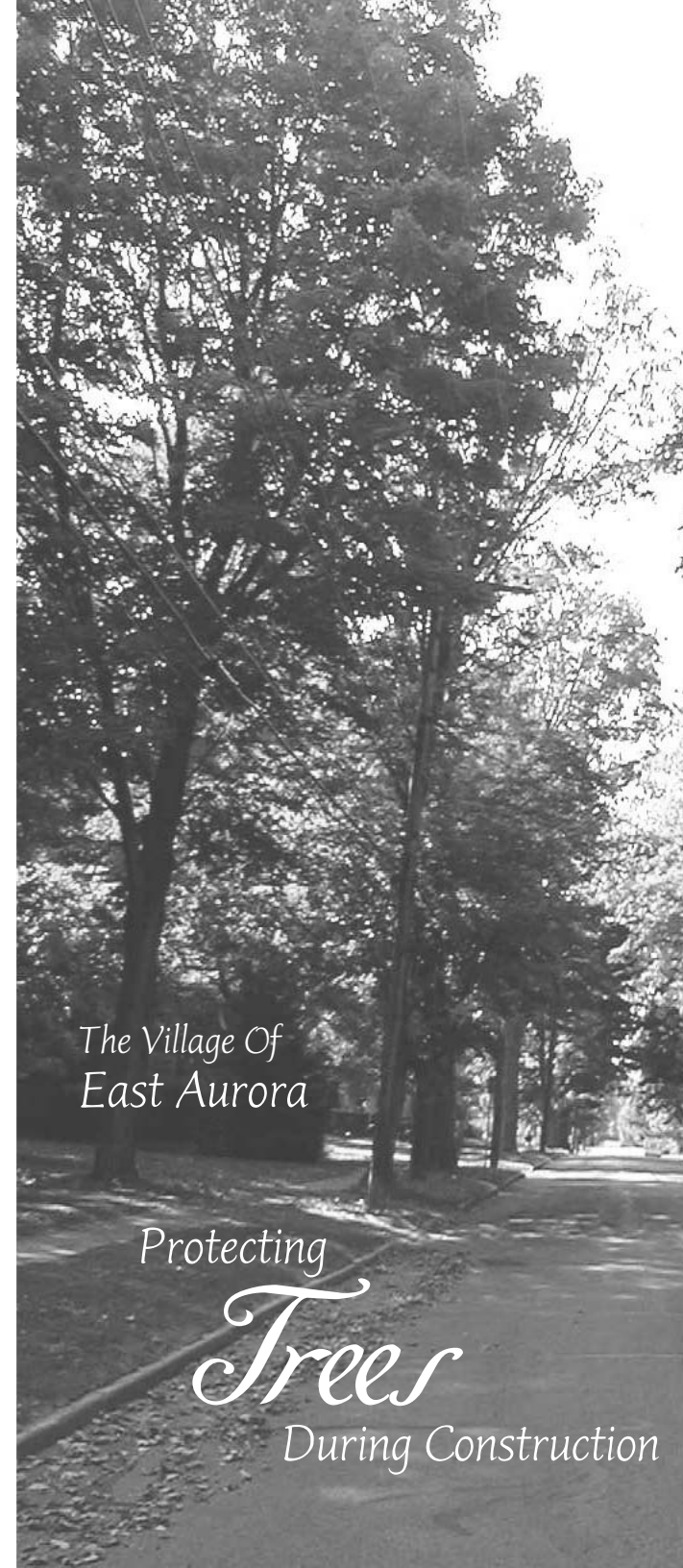
and on the Tree Board Blog at
TreesPlease-EastAurora.blogspot.com

*The Village Of
East Aurora*

Protecting

Trees

During Construction



Planning for Construction:

In order to protect established trees on your property, start with a plan. Choose a builder who shares your commitment to trees and discuss your tree preservation goals with him.

- ✿ Identify and map trees on the grounds on a copy of the plan.
- ✿ Know your tree species. Trees vary in their tolerance to construction and environmental change.
- ✿ Prioritize the trees based on health and overall landscape value. If you are uncertain about how to evaluate your trees, consult with an arborist or other tree-care expert.

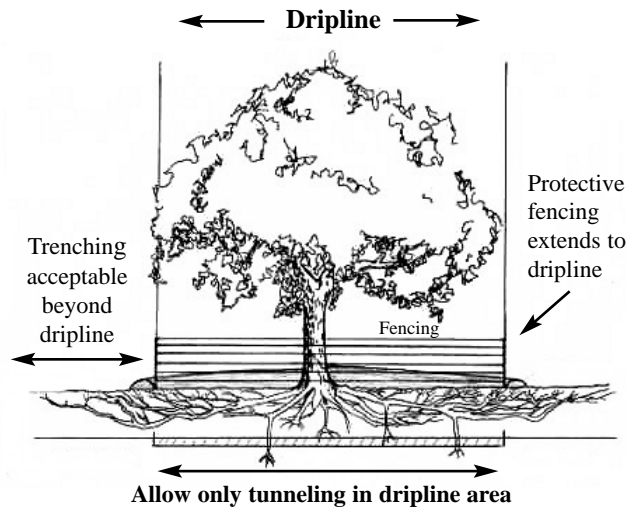
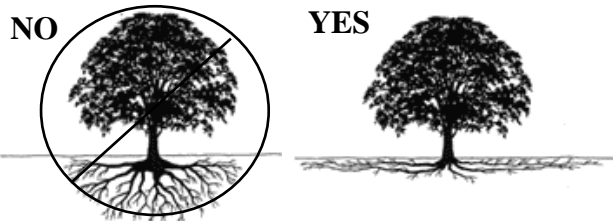
Once the trees to be protected are identified, a clear set of plans should be developed for proper protection.

Avoiding Construction Damage

Construction damage can occur both above and below ground. Examples of below ground damage include severing roots, soil compaction, and changes in grade, drainage and soil chemistry. Above ground damage includes breaking limbs, gouging trunks, changes in light exposure and bark damage from chains and signs attached to trees.

A tree's most important roots are within the top 6 to 18 inches of soil, and often extend beyond the drip line.

How a Tree Grows



Protecting Your Trees

- ✿ Use signs, flags and flexible snow fencing to mark trees to be saved, identify vehicle throughways, parking sites and material storage areas.
- ✿ Stake out utility lines and try to route around tree dripline. Where this is not feasible, recommend tunneling under trees rather than trenching through the root zone. The further away from the base of the tree, the better.
- ✿ Use highly visible snow fencing to create protective barriers. The barrier areas should be large enough to protect established feeder root systems.
- ✿ Where traffic patterns can't be controlled, spread several inches of wood chips over traffic zones. Bridges can be made over roots with steel plates or boards.
- ✿ Use of pit, post, pier and pillar construction methods will prevent root severing.
- ✿ Avoid changes in grade from adding or removing soil under the dripline. Piling soil on roots deprives them of oxygen and water, and removing soil will damage feeder roots and subject roots to drying out.
- ✿ If the drainage pattern has changed be aware that irrigation may now be necessary.

- ✿ Changes in soil chemistry resulting from mixing of concrete and cutting sheet rock. Heavy plastic tarps on the ground can provide protection. Painting tools should not be cleaned under trees. Remove the plastic tarps as soon as possible.

Post-Construction Care

Broken branches and tree wounds are immediately apparent. Other symptoms of construction damage may take years to manifest. Symptoms of root damage include:

- ✿ Branch die-back and/or reduced leaf size and cover in subsequent years.
- ✿ Yellowing foliage due to nutrient deficiency, lack of water or change in soil chemistry.
- ✿ Overall slowing of growth rate.

If not tended to, trees stressed from construction damage will continue to decline. It may be possible to revitalize a tree which is suffering from construction damage by the following:

- ✿ **Increase care and observation of trees.** Treat trees as if they are stressed, whether showing signs or not. **Water trees, especially during dry spells.** Watering is THE most important thing. Add a layer of compost to the the root area and apply mulch. Organic mulch such as wood chips or shredded bark encourage feeder root growth.
- ✿ **Remove broken branches.** Use proper pruning practices as shown on the village website. This will reduce insect and disease invasion. A tree with damaged root systems can't sustain all of its branches. Removing dead or dying branches helps; however, don't remove healthy branches.
- ✿ **Repair ragged edges of gouges or ripped bark.** Shape the wound with a chisel or sharp knife in the form of an ellipse with rounded ends. Smooth wound edges promote healing. Do not apply tree paints or wound dressings, as these products can interfere with the natural repair process.