



TREE PRESERVATION DURING CONSTRUCTION



Learn How to Protect Your Trees During Home Construction

The trees around your home and on your lot are a valuable asset to your property. They are typically one of the main reasons you chose the lot you are going to build a new home on. Trees and landscaping can represent anywhere from 4% to 15% of your total property value, meaning individual trees can have values of over \$1,000 and in some cases approaching \$5,000. This is one reason you should consider protecting this investment during any construction projects on your property. You can not replace mature sized trees once they are gone, you can only plant new smaller trees that will take your lifetime to grow to the size of the trees lost due to inadequate planning at the beginning.

Mature trees tolerate very little disturbance and construction damage often leads to irreversible problems that cause premature mortality of the trees. They rarely die immediately, but rather show signs of decline many years later that result in a slow death.

Taking some simple protective measures prior to any work being performed can prevent mature tree loss from construction. The damage that kills these trees is rarely above ground, more often it occurs to the roots underground. Compaction, grade changes and cutting of roots are the causes that kill most trees on construction sites.

Tree roots need oxygen to live. When soil is filled over the roots or the ground is compacted from heavy equipment, oxygen is depleted in the soil and the roots slowly die. The food reserves of these large mature trees will keep them healthy in appearance for a few years following the damage, but eventually the injuries to the root system starts to show above ground. Dieback of branches begins to occur, usually commencing at the top of the crown first. This will eventually lead to a premature death of the trees, typically within 10 years.

How to Preserve Your Investment

Plan:

Prior to any home designing or construction planning, contact your local community forester or a professional arborist to schedule a consultation of your home site and for advice and direction on how to proceed with a tree preservation plan. You can also check the following websites for more information about protecting trees during construction:

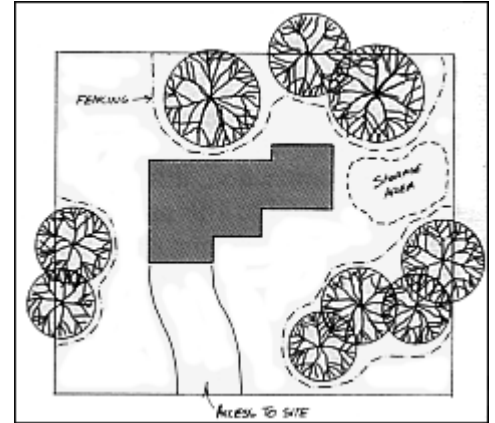
www.umass.edu/urbantree/publications/Construction.pdf

www.treesaregood.com

www.ext.colostate.edu/pubs/Garden/07420.html

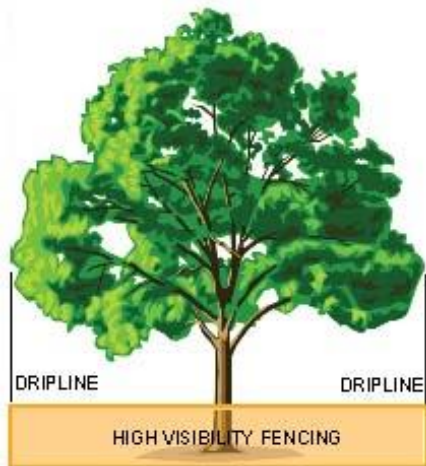
www.extension.umn.edu/distribution/housingandclothing/DK6135.html.

By simply taking the time at the beginning of the planning process to determine building locations, driveways, and which trees you would like to keep, you will be able to create a tree preservation plan that will benefit you, your contractors, and most importantly the trees. Mapping, tagging, and photographing the trees you wish to protect is a beneficial step that will prevent misunderstanding and problems throughout the construction process.



Prune/Remove:

Once you have determined the location of the home, driveway, and utility corridors you can then figure out the trees to keep and which to remove. At the same time the trees are being removed, have the trees that are to be saved pruned. This is much easier and cheaper to do before your home is under or near these trees. By removing the deadwood and pruning the branches that may be in the contractor's way you can eliminate the chance of damage or disfigurement of the trees by large construction equipment. Be sure to hire a certified arborist or another well trained tree care professional to perform this work.



Protect:

After you have protected the canopy of the trees, now it is time to protect the trunks and roots of the trees from damage. Tree roots extend out 2-3 times the height of the tree with the critical root zone being the area under the canopy or drip line of the tree. This is the area that must be protected from damage and disturbance of the soil. Protection can be accomplished by erecting high visibility fencing around the root zones of the trees to be preserved and placing waterproof signage periodically along the fence stating, "Tree Preservation Zone – KEEP OUT".

By doing this and talking with each of your contractors you can greatly alleviate the chance of damaging the trees. Explain the importance of not parking vehicles, placing building materials, driving, or remove the fencing in these areas. The nature of people in general is to perform their jobs in the simplest most convenient manner. Be sure to communicate to the contractors the importance of the tree preservation zones and that there are consequences if they do not abide by the zones. By protecting your trees you are not making their jobs impossible, just eliminate some of the convenience and force them to be more conscious of the end result. If you do not have the time, you can hire a professional arborist to oversee the tree preservation plan and work with contractors to protect your investment.

Go the Extra Mile

An example of going the extra mile: place the excavated soil from the foundation in the front of the lot near the road where there are no trees or haul it off site and not storing it on the back of the lot on the root systems of the trees you want to save. Even this temporary storage of backfill will compact the soil under the piles. When the soil is moved off the roots of the trees that are being preserved, the earth moving equipment used will cause more damage to the roots.

Another example is to pay extra for the contractors to use cranes, lift trucks, concrete pump trucks and other mechanical aids to assist them in moving material and preventing heavy equipment from treading on the root zones of your trees. You can also have utilities buried under or along side the driveway to eliminate the need for trenching and cutting roots in other locations around your lot. Limiting contractor access is an inconvenience, but it is not impossible. Choose professionals that understand and are willing to go the extra mile to save your investment.



To insure the preservation of trees may cost a little more when you build, however removal and replacement of dead trees often costs more in the end. Also remember that it may take generations for the replacement trees to grow the stature of the original wooded lot. The loss of the trees may also decrease your property value and increase energy costs as you lose the shade that cools your home in the summer.

Spending a little more now will pay off in many ways in the future, and remember the reason you spent more to purchase your lot – TREES.

**HOWARD PARKS, RECREATION and FORESTRY DEPARTMENT
FORESTRY DIVISION**

1336 Cornell Road * Green Bay, WI 54313

(920) 434-4640 * Email: mharris@villageofhoward.com * www.villageofhoward.com