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GUIDE TO URBAN TREE CARE



Chicago's Urban Forest



At 3.5 million trees, Chicago's canopy covers around 17% of the City's land area. Chicago's urban forest is comprised of trees on streets, in parks and on private land. Trees are one of the most critical parts of Chicago's infrastructure. They manage stormwater, reduce heating and cooling costs, moderate outdoor temperatures, and improve air quality. Trees also have a positive impact on property values and economic activity.

Because tree benefits grow exponentially with maturity, it is important to plant as early as possible and provide proper growing conditions and maintenance to ensure longevity. Trees face more stressful conditions in the city than in natural areas and need extra help from humans to survive and thrive. Watering, mulching and pruning helps protect trees from storms, droughts, infestation and disease.

Because the majority of Chicago's trees are on private land, property owners play an important role in keeping the canopy healthy. While four public agencies are responsible for planting and maintaining trees in the parks and on parkways, resources are limited. Chicago residents are encouraged to contribute routine maintenance and oversight to the trees in their communities. Active stewards of both public and private trees can improve the health of the urban forest and maximize the benefits it provides the Chicago's residents, neighborhoods and economy.

The Guide

The *Guide to Urban Tree Care* will provide a basic overview of Chicago's urban forest as well as proper planting and maintenance guidelines. Forestry contacts and links to further information on caring for trees is also provided. The topics covered in the guide are listed below:

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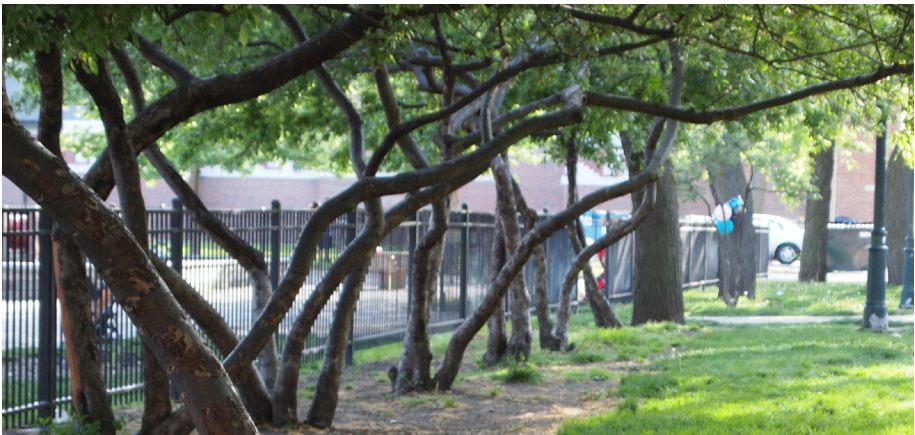
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Trees in the Public Way

Like streets and sewers, trees are an important part of Chicago's infrastructure. While property owners and managers maintain trees on private land, four public agencies handle those on public land. The chart below describes their responsibilities.

Public Agencies Responsible for Trees in the Public Way



Bureau of Forestry
(Chicago Department of
Streets and Sanitation)

Maintains all street trees; plants street
trees; issues tree-related
permits and citations



Chicago Department
of Transportation

Plants trees near the central business
district and as part of infrastructure
projects across Chicago



Chicago Park District

Plants and maintains trees in the
public parks



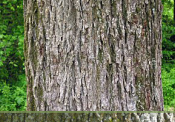
Forest Preserve District
of Cook County

Plants and maintains trees in the
forest preserves

Life Cycle of the Public Tree



Common Trees in Chicago

Common Name	Scientific Name	Shape	Leaf	Bark
White ash	<i>Fraxinus americana</i>			
Green ash	<i>Fraxinus pennsylvanica</i>			
Mulberry	<i>Morus species</i>			
Tree of heaven	<i>Ailanthus altissima</i>			
Common buckthorn	<i>Rhamnus cathartica</i>			
American elm	<i>Ulmus americana</i>			
Norway maple	<i>Acer platanoides</i>			
Ginkgo	<i>Ginkgo biloba</i>			
Honeylocust	<i>Gleditsia triacanthos</i>			
Kentucky coffeetree	<i>Gymnocladus dioica</i>			

Planting Trees



Where Do I Find A New Tree?

For My Property

There are several vendors in Chicago who supply trees and will provide instructions for proper planting. Plans should be discussed with the vendor to ensure location and species are an appropriate match. A list of vendors is provided on the contact page.

Chicago's Sustainable Backyards Program, sponsored by the Chicago Department of Transportation and managed by the Center for Neighborhood Technology, offers a rebate of up to \$100 for planting a tree on private property. *Learn more at www.sustainablebackyards.org.*

For My Park

The Chicago Park District's Green Deed Tree Dedication Program allows residents to purchase and plant trees in the parks to commemorate people and events. Donors must select species from a provided list of ornamental and shade trees. A Green Deed tree costs \$600 to \$800 and is accompanied by a two-year warranty. Park advisory councils can also make requests for new trees in parks through the Capital Improvement Program. Friends of the Parks partners with the Chicago Park District to plant over 200 trees in parks annually. *Learn more at www.chicagoparkdistrict.com.*

For My Parkway

While the City maintains a tree planting request page on its website, all sources of funding for tree plantings by the Bureau of Forestry were eliminated in 2013. The City's Department of Transportation continues to plant trees through its GreenStreets program and infrastructure projects, but residents are unable to make requests.

Right Tree, Right Place

Needs and tolerances vary among tree species. Growing conditions such as soil type, sunlight exposure and growing space also vary from site to site. Planting the right tree in the right place is essential. The City selects from an established urban tree planting list. Many considerations must be made when matching species with location:

- 🌿 What Hardiness Zone is the site located in?
- 🌿 How much space (horizontal and vertical) is available for growing?
- 🌿 What is the type and quality of soil present?
- 🌿 How much sun exposure does the site have?
- 🌿 Where are nearby utilities located?
- 🌿 What kind of trees are planted nearby?

Planting on Private Property

Chicago residents are allowed to plant trees on their own property, but planting in the parks and parkways is handled by contractors under the Chicago Park District, Bureau of Forestry and Department of Transportation. Trees can be installed on private property by either the property owner or a private contractor. If the planting is being performed without the assistance of a trained professional, it is important to follow proper procedure to ensure the tree will survive.

Because different planting techniques exist for bare root trees, balled and burlapped trees and container trees, research is essential. There are many online resources offering instructions for proper tree planting. Many non-profit organizations also offer workshops on how to plant trees. Some important tips include:

- 🌿 The property owner must call DIGGER, Chicago's Utility Alert Network (312-774-7000), 48 hours before digging begins. This notifies utilities of the work and prevents interference with underground utility lines.
- 🌿 Keep the roots and rootball moist and take care to avoid breakage.
- 🌿 Remove containers, wrappings, wires and ties from the rootball.
- 🌿 Plant the tree at the appropriate height. The trunk flare should be visible above the soil.
- 🌿 Remove the displaced dirt from the planting site.
- 🌿 Avoid staking young trees; natural flexing is necessary for healthy growth.

Maintaining Trees

Because trees in public parks and parkways belong to the public, Chicago residents are encouraged to “adopt” the trees in front of their homes and in neighborhood parks. With over 800,000 trees in the public way, there are not enough resources to provide every tree with proper maintenance. Giving trees the care they need leads to a stronger and healthier urban forest with greater benefits for everyone.

Mulching

Mulching is one of the best things to do to encourage healthy growth, especially for young and stressed trees. Mulch retains moisture, minimizes plant competition and improves soil quality. Organic mulch, such as wood chips, pine needles, bark and cocoa hulls, are preferred to inorganic mulches, including stone, lava rock, rubber and fabrics.



Apply only 2-3 inches of organic mulch to trees

When applying mulch, apply a layer only 2-3 inches thick on well-drained sites. A thinner layer should be applied to sites with drainage issues. Keep mulch at least three inches from the bark at the base of the tree. The mulch should cover as much of the root zone as possible, extending at least 3 to 6 feet from the tree base. Fluff any old mulch before adding additional mulch to avoid hardening.



Correct



Incorrect

Despite good intentions, poor mulching techniques can severely damage trees. Piling mulch up at the base of the tree is referred to as “volcano” mulching. The practice keeps moisture in direct contact with the bark, leading to rot and disease. Applying too thick a layer decreases oxygen supply, increases risk of disease and can cause roots to grow into the mulch rather than the soil.

Watering

Like all living things, trees need a continuous supply of water to survive. Excessive drought can lead to death. As most absorbing roots are in the top 8-12 inches of soil, this area should be monitored in dry weather. Check soil moisture by digging down a few inches. In the absence of rainfall, established trees should be watered once a week. As more trees are killed by an excess of water than by too little, stewards should be aware of how much water a tree needs. Slow, deep and less frequent watering promotes healthy roots. Cover the soil with mulch after watering to retain moisture. The amount of water needed depends on species and environment.



Slow-release watering bags are great for young trees

Watering Newly Transplanted Trees

Working hard to establish root systems, newly planted trees require more watering in the first 2-3 years. A newly transplanted tree should be watered immediately after planting. For the first few months, watering should be focused on the root ball, which will dry out quicker than the surrounding soil. Young trees are especially vulnerable in heat and drought during the first few summers after planting. Pay extra attention to the soil moisture of young trees in hot and dry weather.

Watering Techniques

Trees should receive 25 gallons of water every week, equal to 1.5 inches of rainfall. Water the soil directly beneath the foliage and do not water closer than 3 feet to the trunk of mature trees. The best time to water is at night, between 10 PM and 8 AM. To provide slow and deep watering and prevent waste, use one of three techniques:

- Turn a hose to low and place it at the base of a tree.
- Punch holes in the bottom of a bucket and fill it as needed.
- Use a slow-release watering bag.



Your tree should receive 25 gallons of water per week, the equivalent of 1.5 inches of rainfall

Pruning

Pruning is important when a tree is young because it can prevent many serious problems from developing later in life. Trimming improves a young tree's natural shape and structural strength. Routine pruning should begin in the first year after a tree is transplanted. How and when a tree should be pruned depends on the individual tree.

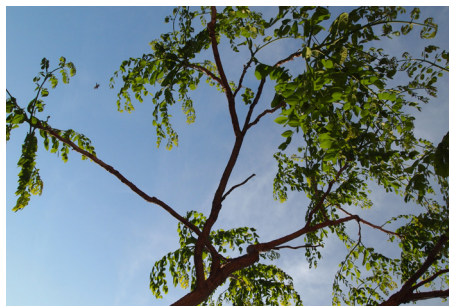
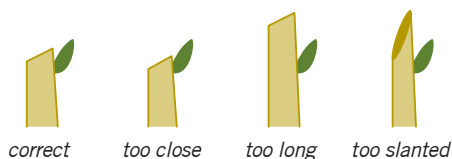
With training or the help of online resources, property owners can learn to successfully provide basic pruning for young trees. However, professional arborists should be hired to prune mature trees on private property. A brief list of private contractors who provide pruning services in Chicago is located at the end of the guide.

Chicagoans are allowed to prune trees in the public parks only if certified through a program called TreeKeepers. The 8-day course is offered by the environmental non-profit Openlands. Only City employees are allowed to prune trees on the parkways. While trees are trimmed by Bureau of Forestry crews on a grid-based system, requests for parkway tree trimmings can be made by calling 311. If a tree poses a threat to public safety, it is important to communicate that the request for service is an emergency.

Pruning Tips

- 🍃 Begin tree inspection at the top and move down.
- 🍃 Never remove more than 25% of a tree's canopy in one year.
- 🍃 Use sharp tools.
- 🍃 Do not cover pruning cuts.

Making Cuts to Small Branches



When to Prune

Light trimming and the removal of dead branches can be done any time of year. In winter, pruning during dormancy elevates the rate of growth in spring. Pruning trees in the summer slows the growth of unwanted branches. Avoid pruning in fall when fungi spore levels are high and tree wounds are slow to heal.



Make safety a priority. When in doubt, call a professional.

Other Ways To Help Your Tree

- Loosen the top 2-3 inches of soil to prevent compaction. This helps oxygen and water reach the tree's roots.
- Remove weeds and other plants that compete for soil nutrients and water.
- Keep rock salt out of tree pits. Try using alternatives. If necessary, flush the tree with water in spring to dilute the salt buildup.
- Place fencing around the tree pit perimeter to discourage pedestrians and dogs from damaging the tree and surrounding soil. Keep the guard as far as possible from the tree's trunk.

What Not To Do



Litter and weeds block flow of oxygen and water

Excess soil keeps oxygen from roots



Old holiday lights girdle trees



Bricks hinder growth and access to oxygen



- Do not install raised decorative planters around trees. These smother roots and encourage unhealthy growth.
- Do not add soil to the tree's growing area.
- Do not plant grass close to the tree trunk. Keep flowers to a minimum.
- Do not "top" trees. "Topping" refers to cutting large branches from a tree's top.
- Do not lock bikes to trees.
- Do not nail signs into tree trunks.
- Do not leave holiday lights on trees past February.
- Do not let lawn mowers come into contact with tree bark or roots.
- Do not let the water from pressure washers seep into tree pits. The chemicals in the water are damaging to trees.

Tree Care Calendar



January

Prune shade trees
Inspect for storm damage to trees
Remove heavy snow from trees



March

Remove winter protective coverings
Call a professional to repair damaged trees
Plant new trees



May

Examine trees for infestation and disease
Water young trees in the absence of rain
Mulch planting areas



July

Examine trees for stress from drought
Have mature trees professionally pruned
Have infestation professionally handled



September

Continue watering until the ground freezes
Rake leaves for compost
Refresh mulch in planting areas



November

Apply mulch to prevent erosion
Rake leaves for compost
Request professional dormant pruning



February

Prune fruit trees
Identify structural problems to correct
Plan for spring plantings



April

Water young trees in the absence of rain
Mulch planting areas
Celebrate trees on Arbor Day



June

Examine trees for infestation and disease
Water young trees in the absence of rain
Mulch planting areas



August

Start a compost
Water young trees in the absence of rain
Have mature trees professionally pruned



October

Plant new trees
Apply shredded leaves to planting areas
Plant bulbs around the base of trees



December

Prune deciduous trees through February
Remove deadwood from trees
Remove heavy snow from trees

Natural Threats

Chicago is home to a variety of insects and disease that can cause trees significant stress and lead to death. Knowing what symptoms to look for is critical to diagnosing problems and taking appropriate action.



Tag indicating EAB inoculation

Emerald Ash Borer

Since 2002, the emerald ash borer (EAB) has killed over 20 million trees nationally. While the Bureau of Foresty and Park District have distinct plans for action, the insect will take a large toll on the City's large ash population. Larvae feed from under the bark of ash trees and limit the transport of nutrients and water. Symptoms of infestation are canopy dieback, branch thinning and visible exit holes in the trunk. Call the City's EAB hotline if you suspect nearby trees are infested. Contact a private tree service company for more information on inoculating or removing ash trees on private property.

Dutch Elm Disease

The Dutch elm fungus can be carried by the elm bark beetle, through root systems, or by contaminated pruning tools. To control the spread of disease, infected limbs must be removed. Inoculation is also available through licensed services. While the disease remains a threat to elms, resistant and hybrid elm varieties are now available.

Gypsy Moth

The gypsy moth feasts on Chicago's oak, poplar, willow, beech, crabapple and linden trees. In spring, the larvae create small holes in leaves. While the gypsy moth is typically not life-threatening, extreme infestation increases a tree's vulnerability to other problems. Repeated defoliation will lead to tree death.



An adult emerald ash borer
*Image courtesy of the National
Park Service*

Other Threats

- Rust
- Apple scab
- Oak wilt
- Fire blight
- Powdery mildew
- Wetwood
- Invasive trees
- Deer
- Rabbits

Get Involved

Chicago's trees need your help. Due to tight City budgets and costs associated with the emerald ash borer, funding for new trees and the maintenance of existing trees is limited. Contact your Alderman and elected officials to advocate for greater protection of and investment in Chicago's trees. Get involved as an active steward of the urban forest. Several local programs offer unique opportunities to work outdoors, learn about trees, and give back to the urban forest.

Friends of the Parks

Friends of the Parks' Volunteers In Parks Program engages thousands of park volunteers throughout the year to improve parks, playgrounds and preserves. The organization plants 200 trees in Chicago's parks every year. From tree planting to litter removal, FOTP's Volunteers In Parks Program offers participants the opportunity to promote community pride and a chance to become directly involved in the protection, preservation, and maintenance of Chicago's trees.

Learn more at www.fotp.org.

Chicago Park District

The Park District offers volunteer opportunities in the parks at every level of commitment. From tree mulching to litter removal, neighborhood parks are convenient and rewarding places to care for trees. *Learn more at www.chicagoparkdistrict.org.*

TreeKeepers

Openlands' TreeKeeper program trains volunteers to prune, plant and care for trees in urban areas. The 8-day course is taught by local foresters and experts. Some of the topics covered include tree biology, soils, tree identification, pruning, tree selection, planting and mulching, and invasive species. *Learn more at www.openlands.org/treekeepers.*



Tree Contacts

311

Request tree trimming and debris removal, report tree emergencies **311**

Bureau of Forestry, Department of Streets and Sanitation

Obtain permits for parkway work **312-746-5254**

Emerald Ash Borer Reporting

Report Emerald Ash Borer infestation **312-742-3385**

Chicago Department of Transportation

Obtain information on
GreenStreets program **312-744-3600**

Chicago Park District Green Deed Program

Learn more about planting a tree in a public park **312-742-5414**

Friends of the Parks

Learn about our tree planting program **312-857-2757 x13**

TreeKeepers

Volunteer and get certified to prune trees in the parks **312-863-6250**

Education

Chicago Botanic Garden
www.chicagobotanic.org

Chicago Trees Initiative
www.chicagotrees.net

City of Chicago
www.cityofchicago.org

Morton Arboretum
www.mortonarbo.org

U.S.D.A. Urban Forestry
www.fs.fed/us/ucf/

Tree Services

Bartlett Tree Experts
www.bartlett.com

Christy Webber Landscapes
www.christywebber.com

Crosstown Tree Service
www.crosstowntreeservice.com

Possibility Place Nursery
www.possibilityplace.com

The Care of Trees
www.thecareoftrees.com



Chicago's Best Friend

Friends of the Parks

17 N State Street, Suite 1450

Chicago, Illinois 60602

Phone 312.857.2757

Fax 312.857.0656

www.fotp.org



The mission of Friends of the Parks is to preserve, protect, improve and promote the use of Chicago parks, forest preserves and recreational areas for the benefit of all neighborhoods and residents.

Friends of the park is the strongest voice for the protection, preservation, expansion and improvement of the City's 8,100 parks and Cook County's 68,000 acres of forest preserves. Friends of the Parks remains independent through the generosity of our members, donors, grants and fundraising events.

I want to help preserve, protect and improve Chicago's treasured parks by making a contribution of:

- ☐ \$1,000 Fredrick Law Olmsted Society
☐ \$500 Benefactor
☐ \$250 Conservor
☐ \$100 Patron
☐ \$75 Protector
☐ \$50 Family
☐ \$35 Individual / Park Advocate
☐ \$25 Student / Senior

☐ I have enclosed my check payable to Friends of the Parks

☐ Please charge my account:

☐ VISA ☐ Mastercard

Account number _____

Expiration _____

Name _____

Address _____

City _____ State _____ Zip _____