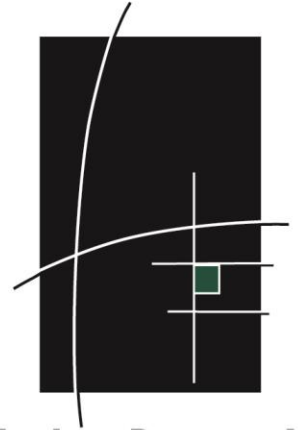


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**The Tennessee Fund
For Sustainability**

Help us “releaf”
Nashville at our
15th Annual
ReLeafing Day on
November 19

Sign up at the
Nashville Tree
Foundation table

Nashville Tree Foundation's ReLeafing Day

VOLUNTEERS NEEDED

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NTF is a member of the
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Thank you to our
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Trees 101: Nashville's Trees Belong to All of Us

*One tree alone is beautiful,
but many trees together
can produce infinite benefits.*

Carol Ashworth- RLA, ASLA
Ashworth Environmental Design, LLC

A Canopy at Risk



In 2010, Nashville had 47% tree coverage.

During the next 20 years, Middle Tennessee will absorb 1 million new residents.*

A conservative estimate show 10,000 to 30,000 trees a year being lost in Nashville since the development boom.**

Planting and survival of new trees has to exceed removal and death of existing trees.

Trees should be as valued as any other city 'utility' that provides services.

*Tennessee Ledger

** Nashville Tree Task force

Benefits of Trees



Environmental Benefits

- **Habitat** for wildlife.
- **Shade** reduces 'heat islands' in parking lots and public places.
- **Clean Air-** Trees remove pollutants and give back oxygen. *A mature tree can absorb 48 pounds of carbon dioxide a year.*
- Trees **reduce flooding** and **erosion**. *100 mature trees can catch up to 139,000 gallons of rainwater per year!*
- Trees **reduce noise pollution** by absorbing sound.

Energy Savings

- Tree **shade** cools your home in the summer. *One shade tree can reduce air-conditioning needs by 30%!*
- In winter, trees **windbreaks** can save on heating costs as much as 25 percent!

Social and Economic Benefits

- Trees **improve the mental and physical health** of residents and workers.
- Children with **ADHD** can benefit from the presence of trees.
- Trees **increase property values** much as **20%**. *A mature tree can have an appraised value of between \$1,000 and \$10,000.*
- Trees **improve resale** of houses.
- **Retail** and commercial areas with trees attract customers and **increase sales**.

What You Can Do

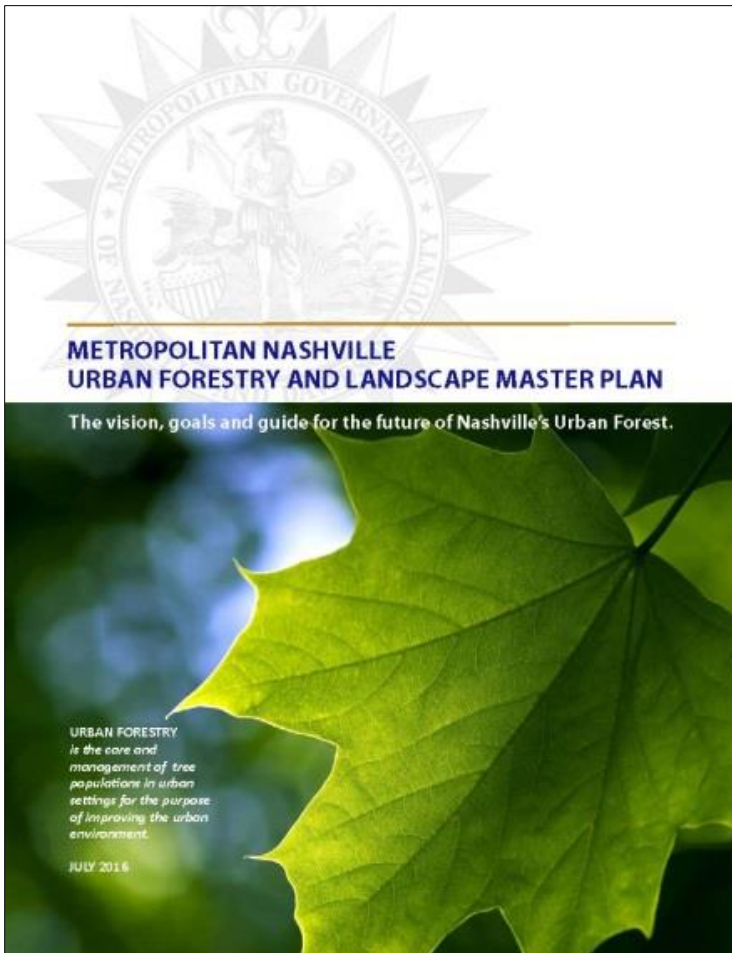
Only a small percentage, (4.3%) of Nashville's land is controlled by Metro Government, therefore we, *the citizens, must take the lead in preserving and growing Nashville's Urban Forest.*

*"I speak for the trees,
for the trees have no tongues."
– Dr. Seuss, The Lorax*



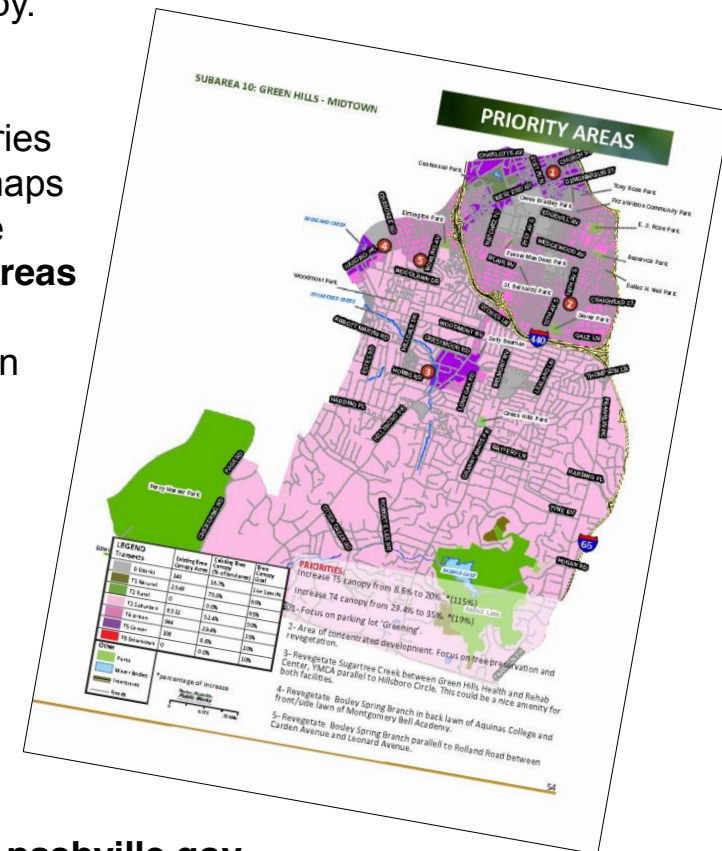
- Advocate to **enforce and update** existing **Landscape Ordinances** especially to include better **Tree Protection Laws** that include protection for trees on private residential property.
- Register your mature trees in **Metro Historic and Specimen** tree program.
- Report tree violations to **Metro Codes Department-** online **Report a Violation.**
- Advocate for a **current tree inventory** with **interactive citizen participation** in mapping and monitoring.
- Join tree advocacy groups like **Nashville Tree Task Force** and **Nashville Tree Foundation.**
- Educate yourself in **proper horticultural techniques** for tree care.
- Conduct **tree planting projects** in your area to implement **Tree Canopy Goals** found the Nashville Urban Forestry Master Plan.

Nashville Urban Forest Master Plan Tree Canopy Target Goals



The *Nashville Urban Forestry Master Plan* is a guide for protecting and rebuilding the city's tree canopy.

It contains a series of community maps that analyze the **High Priority Areas** for tree planting and preservation efforts.



Website- Trees.nashville.gov

Trees 101:

The Right Tree in the Right Place

SIX Basic Tree Requirements

1 Room for canopy to grow

2 Quality nursery stock

3 Room for trunk to grow

4 Sufficient soil volume and quality

5 Water in

6 Water out

- **Height and Spread.** Will the tree bump into anything such as power lines when mature?
- **Is the tree deciduous or coniferous?**
Will it lose its leaves in the winter?
- **Form or shape.** A columnar tree will grow in less space. *Round and V-Shaped species provide the most shade.*
- **Growth rate.** How long will it take for your tree to reach its full height? *Slow growing species typically live longer than fast growing species.*
- **Soil, sun, and moisture requirements.**
- **Hardiness zone** indicates the temperature extremes in which a tree can be expected to grow. Nashville is zone 6b.

NES Plant the RIGHT TREE in the RIGHT PLACE

Look UP first to avoid planting under power lines.

Use this guide to help you select the right tree for the right place on your property. By planning for the tree's growth, you're helping to prevent outages caused by limbs growing into power lines, and you're reducing the need for tree trimming in the future.

LARGE TREES
Height over 50 feet
45 feet

MEDIUM TREES
Height up to 50 feet
35 feet

SMALL TREES
Height up to 30 feet
15 feet

SHRUBS
Height up to 20 feet
10 feet

LARGE TREES

Mature Height over 50 feet

45' Minimum Planting Distance

Maple (Sugar, Red)
Poplar (Tulip, Yellow, Eastern, Swamp)
Leyland/Bald Cypress
Southern Magnolia
Oaks (Pin, Northern Red, White, Shumard)

MEDIUM TREES

Mature Height up to 50 feet

35' Minimum Planting Distance

Ornamental Pears
Virginia Pine
Pawpaw
Imperial Honeylocust
American/Foster Holly

SMALL "POWERLINE-FRIENDLY" TREES

Mature Height up to 30 feet

15' Minimum Planting Distance

Buttonbush
Trident Maple
Redbud
Dogwoods
Sweetbay Magnolia

SHRUBS

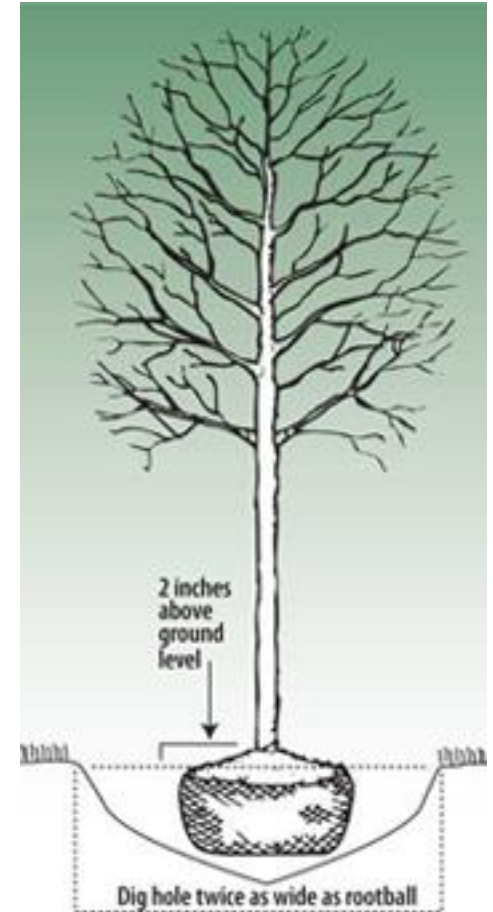
Mature Height up to 20 feet

10' Minimum Planting Distance

Natchez Crape Myrtle
Sumac
Emerald Green Arborvitae
American Plum
Nellie R. Stevens Holly

How to Plant a Tree

- **Dig a V shaped hole** two to three times as wide as your rootball. Dig deep enough that the rootball is about 2" above ground level.
- **Remove twine and burlap** as much as possible. Cut wire baskets if you can't remove them. Always remove tape or rope around the trunk.
- **Fill the hole with water** and let it drain before placing tree in the hole. Fill hole with soil. Water deeply to settle soil and remove air pockets.
- **Do not stake trees.** If the tree is very unstable, install two stakes at either side. Remove no later than one year after planting.
- **Do not prune at planting.** You can remove dead wood, suckers, and broken or damaged branches.
- **Add mulch** to a depth of three to four inches around the tree.



Link to Tree Planting Videos

<https://www.arborday.org/trees/tips/planting.cfm>

Tree Maintenance



Don't make a mulch volcano!

Also leave several inches of clear space around the trunk so the mulch doesn't touch it.

- **Water your new tree regularly** for the first two years of life, especially during periods of drought.
- **Do not fertilize your tree** for the first year after planting.
- **Add mulch** to a depth of three to four inches around the tree.
- **Prune** to remove dead wood anytime. Most pruning should be done during the winter while dormant. Do not prune in the fall. Learn about basic pruning.
- Look for **Pest and Disease** problems and take corrective actions.



DO NOT TOP TREES !!!
It's ugly, causes decay, and weak limbs.

Call a **Certified Arborist** instead. Arborist specialize in tree care and are trained and equipped to work safely.

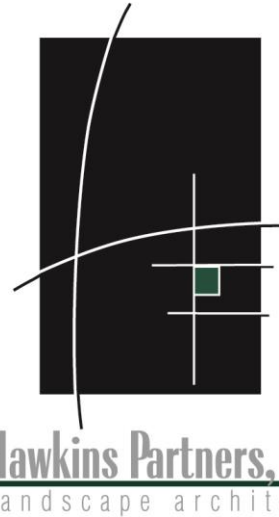
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Construction and the Canopy

Learn the Tree Codes

Enforce the Laws that Exist

Advocate & Communicate

Find Your Council Member

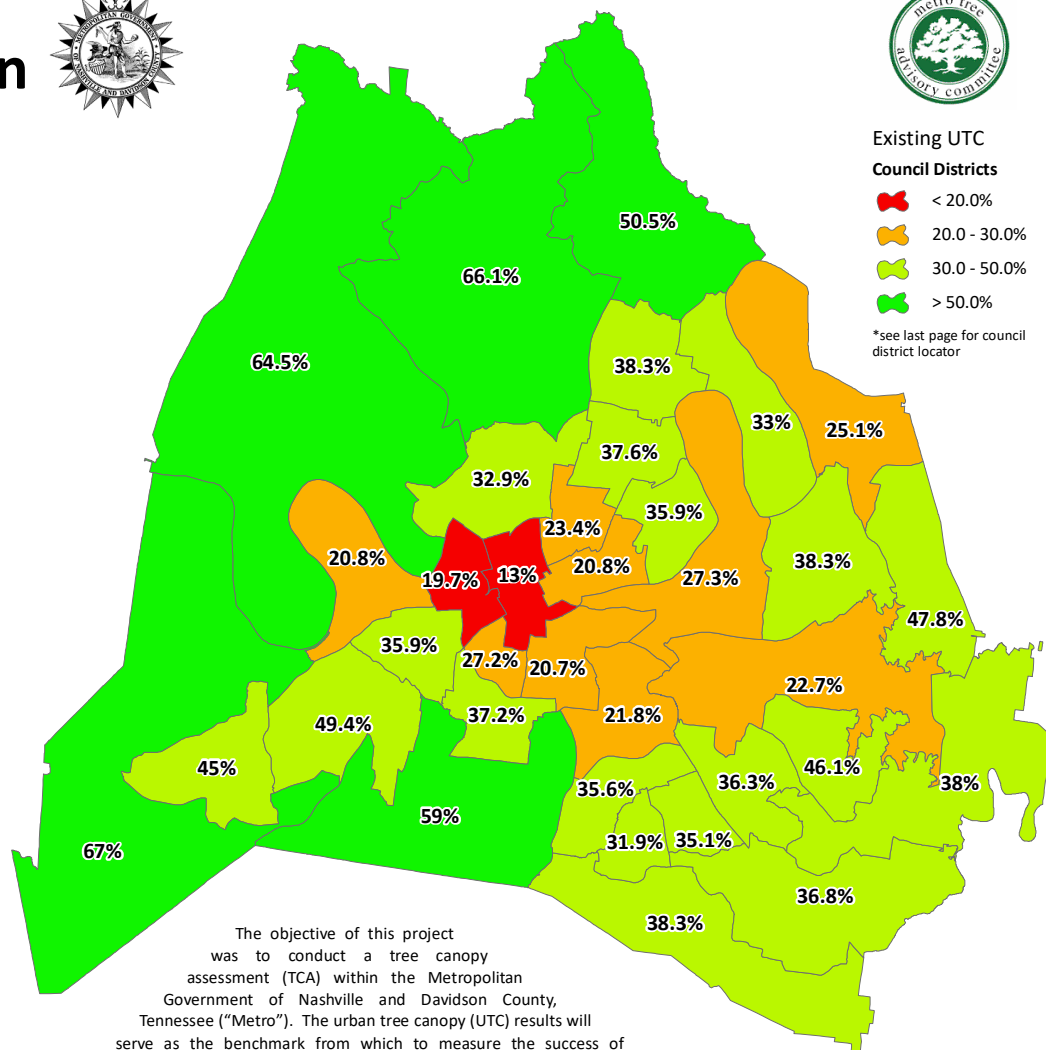
Jim E. Gregory
William E. Worrall

What's Going On With Our Trees?

Metro Nashville and Davidson County Urban Tree Canopy Assessment April 2010



- **Trees: 47%**
- **No Trees: 53%**
 - *Could Have Trees: 35%*
- **Public Right-of-Way With Trees: 15%**



The objective of this project was to conduct a tree canopy assessment (TCA) within the Metropolitan Government of Nashville and Davidson County, Tennessee ("Metro"). The urban tree canopy (UTC) results will serve as the benchmark from which to measure the success of planning and urban forestry programs and to educate the public about

An Unprecedented Tree Canopy Loss...

Hard Hit Neighborhoods:

- East Nashville (D5, D6, D7)
- The Nations (D20)
- Antioch (D4, D28, D30, D31, D32)

At Risk Neighborhoods:

- Bordeaux (D1)



Conservative Estimate: Ten-Thousand Trees/Year

It's difficult to know right now, but we do have some known data points.

City Building Permits (CRE + Residential)

2014: 3,500

2015: 4,900

2016: 3,700

District Six Inconsistent Tree Replacement

2016:

101 Violations; 295

Trees Owed

Sub-Division Developments Thousands of Trees Lost



Louisville's Tree Canopy Study

\$115k Study by Davey Group

→ 54,000 Trees/Year!

Population Growth Since 2010:

a. Louisville, KY: 2.8%

b. Nashville, TN: 7.3%

What Impact Do Missing Trees Have On Our City?

Storm Water Prevention is the easiest impact to quantify. According to the EPA's study of 18 cities across the U.S., a tree saves a city an average of \$17/year in Storm Water Interception.

Losing 10,000 Trees/Year			
Years Passing	1 Year	5 Year	10 Year
Trees Lost	10k	50k	100K
Tree Gained	4k	20k	40k
Discrepancy	6k	30k	60k
Discrepancy Cost Each Year (\$17/Tree)	\$102k	\$510K	\$1.02MM

Losing 54,000 Trees/Year			
Years Passing	1 Year	5 Year	10 Year
Trees Lost	54k	270k	540K
Tree Gained	4k	20k	40k
Discrepancy	50k	250k	500k
Discrepancy Cost Each Year (\$17/Tree)	\$850k	\$4.2M	\$8.5MM

Cumulative Cost at Year 10: \$5.6MM

Cumulative Cost at Year 10: \$46.7MM

So What Can We Do?

Start **L.E.A.F.**ing and
shoveling!



Learn the Tree Codes

Enforce the Laws that Exist

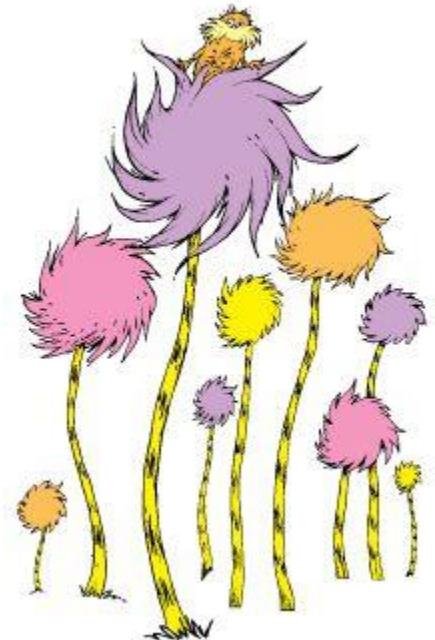
Advocate & Communicate

Find Your Council Member

Pick up a shovel and get active!

“It’s not about what it is, it’s about what it can become.”

-The Lorax



Learn the Tree Codes: Three Codes



LEAF.

A Breakdown of the Tree Codes for Nashville

	Commercial (CRE) & Industrial	Multi-Family Residential (MFR)	Special Projects (SP)	NEW 1 & 2 Family Residential	Pre-2006 1 & 2 Family Residential
Historic & Specimen Tree Registry	YES	YES	YES	YES	YES
Tree Removal Ordinance	YES	YES	YES	NO	NO
Tree Replacement Code	YES	YES	YES	YES	NO

Important! The Historic & Specimen Tree Registry is the only code that protects mature trees in Davidson County.

Learn the Tree Codes: Historic & Specimen Tree Registry

 **L.E.A.F.** The Only Tree Code That Can Protect
Mature Trees...



- **Recognizes and protects special trees that are historic or specimen quality.**
 - Newly unveiled voluntary program.
 - **You must have landowner permission to enter trees into the program**
 - Registered trees are protected via deed restriction.
 - Removal must be approved by the Metro Beautification & Environment Commission.
 - (Metro Code § 17.40.450)

Learn the Tree Codes: Tree Removal Ordinance

(Commercial, Multi-Family, & Special Projects)

 L.E.A.F.



- It is unlawful to remove a “protected tree” without first obtaining a **Tree Removal Permit**.
 - Protected trees are trees six (6”) inches or more in diameter on any property other than a property platted for a 1 or 2 family residential development.
 - Removal of protected trees may require ‘replacement trees’ based on an acceptable tree plan provided at the time of issuance of a Tree Removal Permit.
 - The tree removal penalty will be determined by the Environmental Court Judge (Division IV of the Metropolitan General Sessions Court).
 - (Ord. BL2008-328 § 3, 2009; Ord. 96-555 § 6.3(A), 1997)

Learn the Tree Codes: Tree Replacement Code



Commercial, Multifamily, And Industrial Tree Replacement



- Landscape plan is required; must satisfy Metro's tree density requirements.
- Approved by the Metro Urban Forester. Implemented by the builder.
- Following construction, properties are inspected for compliance with the landscape plan.
- Required trees must ***be maintained into perpetuity***
- (Ord. BL2008-328 § 3, 2009; Ord. 96-555 § 6.3(A), 1997)

The approved Landscape Plan satisfies the requirements of the Tree Removal Permit

Learn the Tree Codes: Tree Replacement Code

(Single and Two-Family Residential)



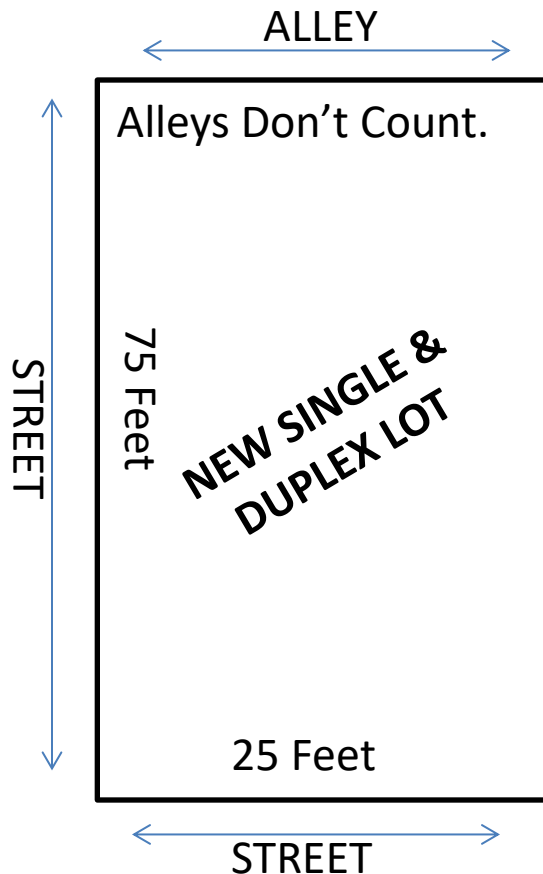
L.E.A.F Single and Two-Family Residential

- **The Tree Replacement Code** governs tree planting requirements for single family and two-family residential, but is specifically written for home builders and developers of new housing.
 - Applies to all new houses built since 2009.
 - Applies to every house with substantial renovation and addition since 2009.
 - Applies when >25% increase in square footage and >25% increase in home value.
 - All required trees must be maintained into perpetuity! If they die, they must be replaced
 - (Metro Code § 17.24.100).

Learn the Tree Codes: Tree Replacement Code



Single and Two-Family Residential Tree Replacement Code Continued...



- The builder is required to plant the following:
 - One tree for every 30 feet of frontage (“or portion thereof” - meaning you must round-up).
 - Must be 2-inch caliper (when measured at 6 inches above grade).
 - Must be 6 feet tall.
 - Species must be selected from the Urban Forestry Recommended and Prohibited Tree list.
 - (Metro Code § 17.24.100)
- For example, a lot with **100** feet of street frontage must plant **4** trees.

Learn the Tree Codes: One, Two, TREE

 **L.E.A.F** Remembering how many trees to replace is as easy as One, Two, Three!

ONE: 1 Tree from Metro's Urban Tree List

TWO: 2 inches in caliper (diameter)

THREE: For every **30** feet of lot frontage



DON'T BE FOOLED

Arborvitae Don't Count!
Crape Myrtle Don't Count!
Hackberries Don't Count!



Enforce the Laws: Metro Codes



Metro Codes Needs More Resources

- **New Single & Two Family Properties:** Building Inspector Dept.
 - Building Inspectors are responsible for the Tree Replacement Code (and all other building codes) and issue certificates of occupancy permit upon compliance.
- **Commercial, Multifamily, Industrial Properties:** Urban Forester
 - The **ONE** Urban Forester in metro is responsible for tree removal permitting on CRE, MFR, and Industrial properties.
- You can report violations on Metro Codes website or call their hotline; **Phone Number:** [615-862-6590](tel:615-862-6590) **Shortlink:** bit.ly/nashcode

“Proof of compliance...shall be provided prior to the issuance of a certificate of occupancy.”

Enforce the Laws: Neighborhood Watch

L.E.A.F Need Trees? Report THESE!



Advocate & Communicate: Be Proactive!

L.E.A.F How to Help Your Neighborhood

- Developers often say, “We didn't know!”
- Print this letter and hang it on a newly developed house that is almost finished (as close to landscaping installation as possible).
 - If you want to estimate the number of trees they are required to plant, go to www.maps.nashville.gov and look up the address of the property and find the "lot frontage" and divide by 30)

FOR PROJECT MANAGER

Dear Builder,

Attached is a friendly reminder of the tree planting requirements within our city. Thank you for beautifying our neighborhood! Please be sure to regularly water any new trees during the hot summer months. New trees need lots of water to survive their first season.

Sincerely,

Address: _____

Street Frontage: _____ feet

Trees Required: _____

Reach out to the Development & Real Estate Businesses Working in Your Neighborhood.

Find Your Council Member: The Legislative Fix

L.E.A.F.

We Need to Advance Our City's
Tree Protection Code



- **Atlanta's Tree Ordinance is a good example of how to protect an urban canopy:**
 - Permit to Remove, Destroy, or Injure Mature Tree
 - Must replace a desirable mature tree with smaller trees equivalent to size of the mature tree taken down
 - Tree Trust Fund for Tree Canopy Restoration, Maintenance, and Education
 - Penalties go into the Tree Trust Fund
- **Other Nashville peer cities with model urban tree canopy protection codes:**
 - Raleigh, NC
 - Austin, TX
 - Portland, OR

PICK UP THE SHOVEL: Embrace Your Inner Lorax!

- **Two guys** in East Nashville found a hundred tree replacement code violations in six months... how many tree replacement code violations are happening in your neighborhood?
- **One street** came together around an idea to plant over thirty two-inch caliper trees on their street this fall...could your neighborhood be the next?
- **In 1998**, a few citizens organized the planting of over 8,000 trees after a devastating tornado...what can this room of people do TODAY?!

“Unless someone like you cares a whole awful lot, nothing is going to get better. It’s not.

-The Lorax



PICK UP THE SHOVEL: Embrace Your Inner Lorax!

BEFORE



“Unless someone like you cares a whole awful lot, nothing is going to get better. It’s not.

-The Lorax



PICK UP THE SHOVEL: Embrace Your Inner Lorax!



PICK UP THE SHOVEL: Embrace Your Inner Lorax!



Join Nashville Tree Task Force!

Let's not be the generation that let our city's environment fall apart for the next generation to fix.

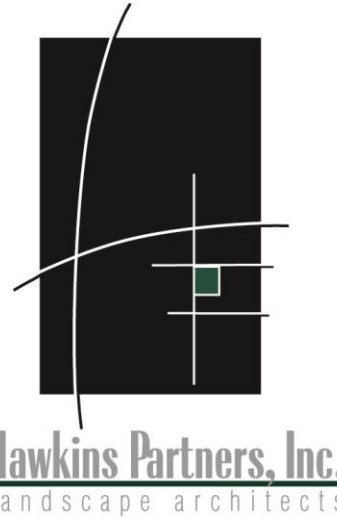
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Trees, Neighbors, and the Law

Laura Mallory, Attorney
King & Ballow



Scenario: There is a tree growing on your property, but its branches protrude into your neighbors' back yard and over their pool. They have complained that they want the branches of your tree trimmed back because they are annoyed by all the leaves dropping into their pool.

***Lane v. W.J. Curry & Sons*, 92 S.W.3d 355 (Tenn. 2002)**

- Self-help is no longer the sole remedy of an adjoining landowner; Nuisance actions may be brought.
- Encroaching trees and plants “may be regarded as a nuisance when they cause actual harm or pose an imminent danger of actual harm to adjoining property.”
- Nuisance here:
Clogged sewer pipes,
hole in roof, damaged
ceilings and floors.



***Cathcart v. Malone*, 33 Tenn App. 93 (1950)**

- Boundary tree: “A tree standing on the division line between adjoining proprietors, so that the line passes through the trunk or body of the tree above the surface of the soil, is the common property of both proprietors as tenants in common.”



Takeaways

- ✓ Litigation is expensive. Be proactive.
- ✓ Obtain a survey.
- ✓ If necessary, you may want to obtain an expert to determine the value of the destroyed trees.
- ✓ Contact an attorney to discuss your rights.

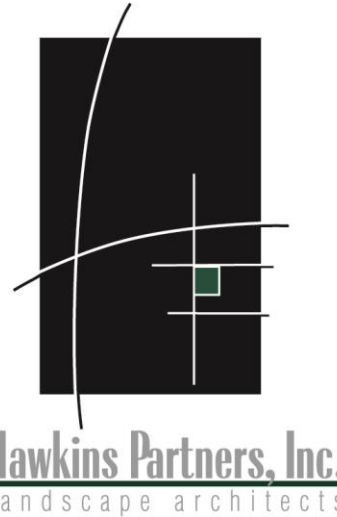
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Pests and Diseases

Scott Johnson
Davey Tree

Neil Letson
Metro Tree Advisory Committee