



# A Generation of Canopy Loss:

## Tree Canopy Loss, Prevention and Protection

This report provides a summary of issues concerning the rapid loss of Metro's Nashville's tree canopy.

It is the result of countless hours of on-the-ground work, and hundreds of citizens' input, over the last 12 months, to identify and analyze the root causes of the decline, and propose reasonable and attainable solutions.

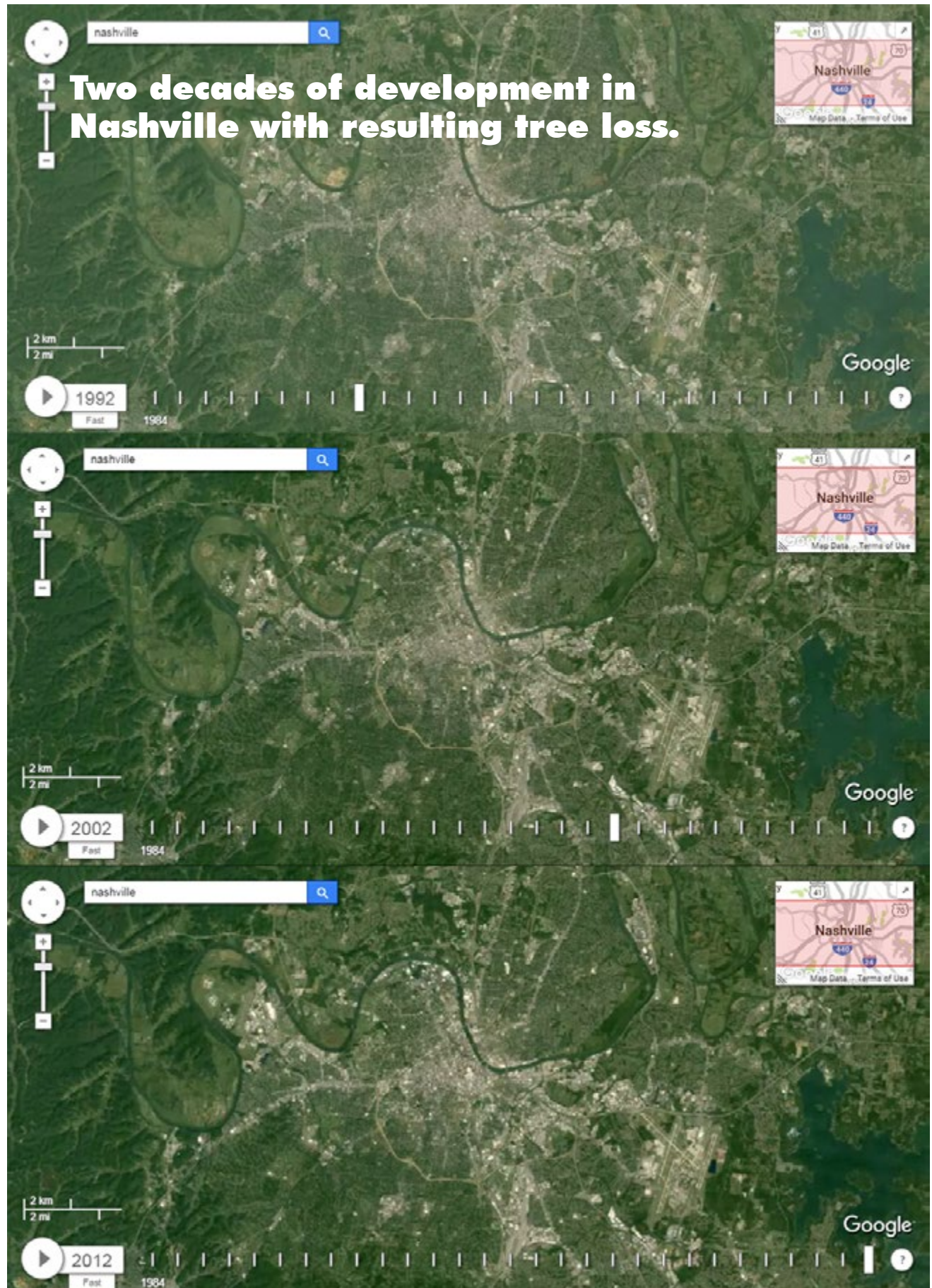
I am asking for your help, on behalf of countless concerned Nashvillians to support us in the effort to Protect, Restore, Preserve and Enhance Nashville's greatest natural asset, it's Urban Forest.

*“One generation  
plants the trees;  
another gets the shade.”*

– Clarence Darrow

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# Two decades of development in Nashville with resulting tree loss.



# Issue 1: Inconsistent Tree Replacement Code Enforcement

**W**ithin the past six months, Will and I have documented over 101 newly built houses that are in violation of the Tree Replacement Code in District 6 alone. Many of these houses have zero trees, and altogether, these violations create a discrepancy of 295 trees that are missing from our urban core (*Attachment 1*). This is only one neighborhood and only what Will and I found on our free time.

In The Nations neighborhood (District 20), there are entire blocks that don't have a single tree planted or a single mature tree left standing. If we were to do an assessment of the total missing trees due to the inconsistent implementation and enforcement of the tree replacement code, it would reveal that there are thousands upon thousands of trees that should have been planted that are owed to our urban core. This is the only tree code that affects single and duplex properties and it is currently one of the least enforced. Our city's largest trees are falling during infill development and their canopy is not being replaced as required by code.

The Building Inspection Division of Metro Codes Administration has responsibility for enforcing this section of the code. Despite our relentless efforts since January 2016, implementation and enforcement continues to be spotty and inconsistent at best. Time and time again, we continue to observe occupancy permits issued to properties with zero trees, and in obvious noncompliance with the tree replacement code (*Attachment 1*). The rate of violations appears unchanged since we began reporting violations in January 2016.

In March 2016 during a round-table discussion with:

Metro Public Works,  
Metro Building Inspection,  
Metro Property Standards,  
Metro Urban Forester,  
Nashville Tree Foundation,  
Cumberland River Compact, and the  
Master Green Plan Committee and  
Metro Codes.

The Metro Codes representative informed us of the following challenges: (*Minutes: Attachment 3*):

- Building inspectors are currently over-capacity with 30-40 building permits submitted a day and the capacity to only issue 12-14 occupancy permits/day.
- Trees are not a "high priority" and often overlooked when inspecting a house for other code standards, such as electrical and plumbing.
- Tree code is not commonly understood and therefore not pursued.
- There was a turnover in District 6 which caused the discrepancy in our neighborhood alone and it has since been resolved.

The tree replacement code can be found in Article 4, Chapter 17.24.100, Section B, 2, b.

It states, "Individual single and two-family lots, other than those lots zoned AG or AR2a, shall include at least one two-inch caliper tree for each thirty feet of lot frontage (or portion thereof), excluding alley frontage. Such trees must be chosen from the Forestry Recommended and Prohibited Tree and Shrub List..."

Excerpt: *Attachment 2* Link to full text:

<http://bit.ly/D6trees>

In order to assist the understaffed Building Inspection Division, citizen volunteers have spent hundreds of hours of their free time documenting and reporting non-compliant properties to Metro Codes. Non-compliant properties have been regularly reported to the department since January 2016. Even with our support, the properties we report are inconsistently resolved, if at all. We have seen some success as trees have been planted at some of these properties, but many of these properties still have no trees. We continue to receive lukewarm response from Metro Codes. Some of our monthly violation reports have achieved a discouraging 0% resolution rate. In fact, we have received no acknowledgment of our residential noncompliance reports from Metro Codes since March 2016. (*Attachment 4*)

During a council budget hearing on May 11, 2016, Codes Director Terry Cobb denied issues with code enforcement within Metro Nashville. Despite repeated questioning by Council Members, he declined to request additional staff positions, which would help alleviate the obvious and well-documented issues with the department. Instead, he requested more customer service staff to answer questions faster and to approve even more building permits at a faster rate. See video here: <http://bit.ly/codebudget2016> .

Further, we have received information that positions remain vacant within the Codes Department. Codes personnel continue to inform us that the department is woefully understaffed and overworked. At the same time, our research has shown that positions remain unfilled and additional staffing is not pursued. Additional staffing plays an integral part in resolving the problems with implementation and enforcement of the tree code. (*Attachment 5*)

The ongoing, inconsistent enforcement of the existing tree replacement code results in incentivizing developers who choose to not plant trees, providing an unfair competitive advantage to those who are in noncompliance with the code. Code abiding builders, who plant the required trees, are left with additional landscaping costs, while builders who choose to disregard the tree planting code are rewarded with increased profits at the expense of Nashvillians and the tree canopy. Inconsistent enforcement is unfair to builders and to Nashvillians alike and provides indirect competitive advantage to those who disregard the tree code.

Using federal urban tree canopy reports, I have estimated that every tree saves our city an average of \$17/year on storm water alone (I removed outliers from this data in order to be most accurate) (*Attachment 6*). Focusing on this metric alone, the thousands of missing trees in our community will cost our city millions of dollars over time. Louisville, KY, where I used to live, recently commissioned a study which found that their city is losing a shocking 54,000 trees per year! In response, the city has launched an aggressive tree canopy restoration program that just got them in the *New Yorker* (*Attachment 7*) because they determined the lack of tree canopy is actually causing heat casualties and deaths by showing a correlation between the



hottest and most treeless parts of their city and the area a person suffered heat related illness. Nashville's summers are remarkably hotter than Louisville. I am not a doctor, but I am confident that we can save people's lives by simply enforcing the existing code and by planting trees in Nashville. If we can save even one life through our tree code, all this work is worth our time and effort.

## Recommendations

1. Conduct a comprehensive review of Nashville's existing tree-related codes, including implementation, enforcement procedures, and processes. Determine root causes of current implementation failures. Develop and implement solutions and streamlining procedures.
2. Develop and implement training of all staff.
3. Top-down emphasis to ensure adequate accountability and oversight within Metro departments.
4. Consider reorganization of departments responsible for Code enforcement.
5. Allocate additional staff dedicated solely to tree code implementation. (Note: Currently only one individual is dedicated solely to implementation of the tree code across the entirety of Davidson County.)
6. Ensure citizen reporting mechanisms for tree code (e.g., the NOTICE property standards program) are fully functional and adequately addressed/enforced by Metro personnel. Implement controls.
7. Mandatory retroactive enforcement/implementation of tree planting on currently non-compliant newly built residential properties. Preference for trees planted; fines issued as a last resort; the Code requires perpetual maintenance of code-mandated trees.



## Issue 2: Illegal Removal of Privately Owned Trees

The most emotionally disturbing event for many Nashvillians is having their property illegally destroyed and having no ability to pursue damages. I have helped more than ten community members navigate this situation, a few of whom I have had to connect to an attorney. Sadly, not many have the means to do anything about it. We, ourselves, had to go through a lengthy legal agreement process to have a boundary tree on our property protected during construction. Even after gaining agreement with the developer and builder, a crew was dispatched to take the tree down. Fortunately, we were able to intervene and the tree is now very well protected, including having the foundation of the new house built to float on top of the tree's roots versus cut through (Attachment 8).

A tree dispute may cost \$20-30k legal fees, so property damages must equate to more than the cost of a lawyer if a property owner takes the risk to pursue damages. The best thing people can do right now is clearly communicate to developers that they do not have permission to cut down any boundary trees, which are equally owned by both property owners, and show where their property lines are, and document correspondences. Many people without the means to hire an attorney or a surveyor must brave sometimes hot headed project managers. One day a single female small business owner called me crying because a builder of a house told her he will do whatever he pleases with an enormous boundary tree in her back yard.

It is truly disgraceful and morally repugnant that some individuals and businesses choose to destroy someone else's private property with no questions asked. These types of businesses should be prosecuted when their activities are found to be illegal and their business licenses revoked. I hope you have some ideas of how we can help our citizens and help steer the development community towards more sustainable and respectful actions. We definitely DO NOT think all developers are bad, there are just three types: those that care about trees and do the right thing, those who don't know about trees, and those who don't care.

### Recommendations

1. Conduct a review to determine the scope of illegal removal of privately owned trees within Nashville, and identify viable solutions.
2. Provide outreach to the development community and citizens regarding tree rights and responsibilities. Emphasis on property rights in regards to trees.
3. Prior to building permit approval, require on-the-ground boundary survey to determine precise boundary locations and presence of boundary trees.
4. Develop and implement training of Metro Police regarding tree disputes and property rights in regards to trees.

*“ One day in February 2016, a property just down our street began development.*

*The developer cut down every enormous tree on their lot—seven huge trees in total.*

*It took them an entire week to do it, and they did it all because of the view of downtown that our hill offers in Shelby Hills.*

*Shortly after this event, I saw a lady walking around on the street clearly distraught—I asked her what was wrong and she said her mother's trees were cut down.*

*I began to talk with her and found out that not only did the developer cut down all the trees on their lot, they cut down the neighbor's trees as well—one tree that her deceased mother had planted when she was a child.*

*What a travesty!”*

*-Jim Gregory*

## Issue 3: Lack of Mature Tree Protection Laws

Like many Nashvillians, Will and I moved to our neighborhood because of the beautiful streetscape filled with mature tree canopy and nature. Many Nashvillians are shocked to find out that the trees they love and cherish have no protection at all. At any time, all of the mature trees in their neighborhood may be legally removed for any reason. Most residents are unaware of this fact until it's too late. They may drive home from work one day and see the mature specimen trees removed indiscriminately from their neighborhood. Many will ask in disbelief, "Aren't there laws to protect the mature trees?" There aren't any such laws in Nashville. They may say to each other, "This isn't the neighborhood we fell in love with."

Compared to many cities of our size or smaller, Nashville has fallen far behind on creating laws and programs that ensure our city stays full of trees. Peer cities such as Atlanta, Austin, Portland, and Raleigh have well established and successful mature tree protection laws.

- A model program, for example, would be Atlanta's Tree Conservation Commission, which has the authority to enforce tree code violations with small fines and mitigation fees that go into a Tree Trust Fund, which is then used to regenerate and maintain the city's urban canopy, as well as educate communities about the importance of the tree canopy. When a mature tree is removed during construction, the builder must replace a number of trees equal to the tree's size within the lot; if they don't all fit, they must plant the trees elsewhere in the community, or pay a mitigation fee into the trust fund. Also, like Nashville, only a small fraction of the land in Atlanta is publicly owned, so power was granted to the mayor to ask for tree easements on private properties, which helped solve for the issue of limitations on where the city can plant. (Link to Atlanta's Tree Ordinance: <http://bit.ly/treecodeatlanta>) (Attachment 9)

It's worth noting that Metro Nashville's Code does require a tree removal permit to be issued prior to removal of mature trees. The Metro Codes website states that this permitting procedure is not applicable to single family or duplex properties. According to the website, only commercial and multifamily properties need a tree removal permit. During our review of the code, we have found no such exemption for single family and duplex residential properties. This would indicate that the code does, in fact, require these properties to obtain a tree removal permit for removal activities. In practice, the Metro Urban Forester is so short-staffed that tree removal permits are never required for single family and duplex residential properties. The office appears to implement the tree removal permitting procedure by simply providing evidence of an approved building permit in lieu of a tree removal permit. (Attachment 10)

The Tree Replacement Code was implemented in 2009, a year after the recession, in a very different city, with very different problems. Chapter 17.24.100 is not the simplest body of text to interpret and there are several contradictions, gray areas, and loopholes. It could



definitely use some re-tooling and clarification, in our opinion, and we have several Metro Council Members who are already on board with our efforts and willing to sponsor new legislation. I am hoping you will also consider advancing some common sense ways to help our city slow down the storm of chainsaws in our neighborhoods, which inflict a loss of canopy that will take generations to restore.

## Recommendations

1. Promote the newly developed Metro Historic and Specimen Tree Program to all residents. To date, not one tree has been included in this newly developed voluntary program. Inaugurate the program through inclusion of the Tennessee State Champion northern red oak, located in the urban core on Glenview Drive. This tree is the largest of its kind in all of Tennessee and is in grave danger of removal from development (Attachment 11).
2. Explore options for revising the existing tree replacement code and creating a new mature tree protection code. Task a new committee or consultant to review "model code" and established codes already existing in peer cities such as Atlanta, Austin, Portland, and Raleigh. Propose and implement reasonable solutions for Nashville. A cost/benefit analysis will likely show that benefits far outweigh the costs.

Tennessee State Champion  
Northern Red Oak-  
Glenview Drive





# Our Accomplishments

Since March 2016, we realized that if we and the thousands of people who care a whole awful lot about the trees in our city wanted to make progress, we would have to organize our voices in order to influence better outcomes. Here is what we've accomplished so far as volunteers:

- Compiled and submitted monthly tree code violation reports to Metro Codes since January 2016. Documented over 101 non-compliant properties representing a deficit of over 295 trees. *(Attachments 1 & 4)*
- Regularly alerted Metro departments of inconsistent tree code implementation since March 2016. *(Attachment 4)*
- Successfully worked with the Property Standards Division to implement a citizen reporting mechanism for tree code violations on the Metro Codes "Report a Codes Violation" website. *(Attachment 4)*
- Filed formal requests for information to Metro Codes for wrongfully issuing occupancy permits at properties that are clearly in noncompliance with the tree replacement code, with zero trees on the lot. Requests were filed in accordance with the Tennessee Public Records Act and postmarked October 1, 2016. No response has been received to date. The lack of response is in noncompliance with Tennessee Public Records Act and Metro Nashville Executive Order No. 032: Open Data Policy. *(Attachment 12)*
- Developed an 18-page document that serves as an FAQ for the tree replacement code. Link: <http://bit.ly/treereplacementguide> *(Attachment 13)*
- Organized small groups of people to post "Project Manager" letters to the door of nearly finished single and duplex properties. These letters contain verbatim the Tree Replacement Code, an estimate of the number of trees that the lot is required to plant, and a list of metro approved urban trees. This awareness tactic has resulted in many successes! Link: <http://bit.ly/treeloveletter> *(Attachment 14)*
- Organized a closed Facebook Group, Nashville Tree Task Force (NTTF), which has grown to over 480 members within two months of launching. Urban tree canopy topics, educational material, tree discounts, and other tree resources are shared within this group. Several council members have also joined the conversation! Link: <http://bit.ly/FBNTTF> *(Attachment 15)*
- Reached out and attended all neighborhood council meetings within District 6. By far, the most consistent and pressing topic is the loss of mature tree canopy in our neighborhoods.



- Hosted multiple off-line meetings at local venues with folks who joined our on-line community to talk about how to spot tree replacement violations, tree laws, and the overall state of tree canopy in our neighborhoods. Usually 10-20 people show up to these meetings each time with council attendance.
- Worked closely with the Nashville Tree Foundation (NTF). As a result of our advocacy efforts, NTF created the new advocacy-focused Take Root Subcommittee. Will and I became co-chairs of the subcommittee.
- Worked with established non-profit organizations and news outlets, to generate various communication campaigns targeting the community and private sectors. Examples of these campaigns include (Attachment 16).
- Nashville Public Radio – *“Nashville’s Tree Canopy Threatened by Development, so Metro Hands out Seedlings”* – published March 11, 2016.
- Nashville Public Television – Volunteer Gardener Episode 2446 – *“Big Ol’ Tree Contest Winners and Historic and Tree Specimen Program”* – Aired May 12, 2016
- The Tennessean – *“Nashville Residents Worry about Trees as City Grows”* – Published July 23, 2016.
- Fox 17 News – *“As Metro Grows, Some Residents Say They’re Stumped over Lack of Trees”* – Published September 30, 2016.
- *“How to Water Your New Tree”* community campaign, in coordination with NTF.
- In coordination with NTF, mailed letters to 110 private, licensed home inspection businesses within the metro area informing them of the Tree Replacement Code and asking them to address the tree code within their home inspection reports.
- Instrumental in developing the first annual community tree workshop, *“Taking Root- A Community Tree Workshop”*, in conjunction with the Nashville Tree Foundation, which will take place on Saturday, October 29. Topics include: Trees 101, Construction and the Canopy, Tree Rights and Laws, and Tree Pests. (Attachment 16)



# Top Priority Issue Facing the Urban Canopy of Nashville

I understand Nashville's tree issue is one of many problems facing our growing city and I recognize that we have provided a thorough list of issues causing our city's unprecedented decline in urban canopy. I hope each of our issues and recommendations are addressed equally because they each contribute to the whole problem.

All of these recommendations and the essence of what we propose in this report fit within the Metropolitan Nashville Urban Forestry And Landscape Master Plan (*Attachment 18*).

Trees should also be of particularly significant interest to Metro Storm and Water Department and the various departments focusing on the health and wellness of our city and State because trees are not just a beautification component of our city, they are a cost-saving and potentially life-saving asset for our city. For every dollar we invest in trees, the Return On Investment is 10x the amount we invest according to *Gear Up 2020* report released in July, 2016 (*Attachment 17*).

If I had to prioritize which issue would be the most worthy issue to pursue, it would be for the advancement of **legislation that systemically protects the desirable mature tree specimens** of our city. I would define desirable as any healthy, non-hazardous tree that is of a certain size and on the metro tree advisory committee's list of recommended trees.

We have a great tree replacement code, and although we have clearly shown that there are issues with consistent enforcement of the tree replacement code today, tomorrow the tree replacement code will still be a law and the issues with inconsistent enforcement of a law can always be solved in many ways.

Until we have mature tree protection laws, our city's urban canopy decline will correlate to our city's growth, because nothing will influence the change in the mindset or behavior that views a large desirable healthy non-hazardous tree as something in the way of building equipment and a hassle versus something that is valuable to our city and State.

I would also encourage that we propose some common-sense measures with trees. Such as giving a developer the option to plant their required replacement trees in the fall versus at the time of house completion. Such a measure would reduce the number of new tree deaths significantly because planting a tree in the middle of Nashville's summer is extremely stressful for a new tree and requires a lot of maintenance from the new tree owner in order to keep it alive.

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