22-03-23-01 Upper Hembree Arborist Report Alpharetta

Reference UDC Alpharetta, Georgia (Updated June 18, 2021)



All of the following information is based upon visual field observations and 30 years of practical horticultural experience. No scientific or lab tests have been performed. I certify that all information in this report is true and inclusive to the best of my knowledge and is prepared in good faith.

Outdoor Spaces, LLC

By Scott Hall, Owner

On Site Specimen Evaluation Date: June 6, 2022 Report Date: June 7, 2022 Revised Date: June 20, 2022



Outdoor Spaces, LLC Scott Hall, Owner RLA, Certified Arborist Certificate Number: SO-5434A 404-328-6561 Cell 678-965-4784 Fax scottandcyrena@bellsouth.net Warranty Disclaimer:

Although, this report will determine whether or not a tree is a specimen; it is provided as best judgment opinion. Ultimately, the governing body's (City of Alpharetta) arborist or representative shall determine whether a tree is classified as a specimen or not.

All specimen tree locations shall be approximate. The provided tree locations shall NOT be GPS located and in no manner shall the provided tree location plan be used or represented as a tree survey. It is the sole responsibility of the OWNER to have all tagged specimen trees located by a Certified Land Surveyor.

No warranties express or implied are made with respect to the report of aforementioned specimen trees. It is understood the OWNER makes use of this report by the ARBORIST at OWNER's sole risk and that the report is provided as best judgment opinion. In no manner does this report guarantee the life or imply any length of life span of the trees that are determined to be specimens.

Arborist Note:

Due to certain species and undesirable traits, some trees shall be considered in poor condition if the following is true. Numerous trees grown in a native setting may appear to grow as multi-trunk; however this is not desirable in most trees. Most trees that have multi-trunks at the base are usually created when two separate trees grow together or the tree branches off at an early age and they become Co-Dominate Leaders. Either scenario is an undesirable condition for most trees because they both create weak crotches, included bark and/or a prime place for debris and water to get trapped that will always cause decay. In this case these trees become a life safety issue and cannot be considered specimen trees.

Some trees are an exception to this rule, such as, but not limited to:

Crape Myrtles, Birches, Wax Myrtles, Red Buds, Fringe Trees, Dogwoods, Hollies, Cedars, Sourwoods, Sweet Bay Magnolias, Red Bays and Live Oaks.

These are an exception because they naturally create sucker growth from the roots and/or trunk or do not typically have the life safety issues because they are not large growing trees.

Reference: Sinclair, Wayne A., 1936. Diseases of Trees and Shrubs / Wayne A. Sinclair and Howard H. Lyon.-2nd Ed. Published 2005

Smiley, E. (2003). Does included bark reduce the strength of codominant stems?. Journal of Arboriculture 29.

One of the most common locations for the aboveground portion of a tree to fail is at the junction of two or more codominant stems. Due to the frequency of failures at this point, a study was undertaken to get a better understanding of the mechanical strength of this point and to determine if included bark reduces the strength of the union. Eightyfour codominant stems were removed from 26 felled maple trees. These crotches were securely anchored and split apart using measured force. Breaking force varied from 64 to 2,363 kg. The regression line produced from the comparison of stem diameter and force required for breaking the union when there was no included bark was Force = Diameter * 613 - 1388, r 2 = 0.92. When only those unions with included bark were

analyzed, the regression line was Force = Diameter * 537 - 1285, r 2 = 0.76. There was a significant difference between the regression lines (p < 0.05). Codominant stems that have bark trapped in the union are significantly weaker than those that do not have bark included. The differences appear to be greater with smaller-diameter stems than with larger stems.

SECTION 3.2 - TREE CONSERVATION, LANDSCAPE, AND BUFFER REQUIREMENTS (Adopted 05-15-17)

3.2.2 Definitions.

For the purposes of this Section, unless the context indicates otherwise, the following terms shall have the meaning set forth below:

- **Boundary Tree:** Any tree located on adjacent property with a critical root zone that will be impacted by proposed land disturbance activity.
- **Caliper:** A standard of trunk measurement for replacement trees. Caliper inches are measured at the height of 6 inches above the ground for trees up to and including 4 inch caliper and 12 inches above the ground for trees larger than 4 inch caliper.
- **Conifer Tree:** Any tree with needle leaves and a woody cone fruit including, but not limited to, pine, juniper and cedar species.
- **Critical Root Zone (CRZ):** The minimum area beneath a tree which must be left undisturbed in order to preserve a sufficient root mass to give a tree a reasonable chance of survival. The Critical Root Zone will typically be represented by a concentric circle centering on the tree's trunk with a radius equal in feet to one and three-tenths times the number of inches of the trunk diameter. EXAMPLE: The CRZ radius of a twenty (20) inch diameter tree is twenty-six (26) feet.
- **Dead Tree:** Any standing tree which is no longer alive or has the ability to sustain itself through natural processes as determined by a qualified professional.
- **Diameter Breast-Height (DBH):** The standard measure of tree size (for trees existing on a site). The tree trunk is measured at a height of 4 1/2 feet above the ground. If a tree splits into multiple trunks below 4 1/2 feet, the trunk is measured at its most narrow point beneath the split.
- **Guidance Document:** A document maintained by the City of Alpharetta Arborist that includes clarifications to requirements with examples and additional technical standards about tree protection, tree planting, species selection, and other information relevant to the protection and replanting of trees in the City of Alpharetta. The document may be revised by the City Arborist as conditions and technical standards evolve.
- Hardwood Tree: Any tree that is not coniferous (cone bearing). This definition is based on the colloquialism, and does not necessarily reflect any true qualities of the tree.
- **International Society of Arboriculture (ISA)**: A professional organization that promotes the professional practice of arboriculture, sets standards for obtaining professional credentials for arborist, and establishes best practices for tree care, pruning, and protection.
- Landscape Tree: A tree or trees that were planted or retained on a developed or previously developed site.

- **Ornamental Tree:** A tree that provides a visual impact in the landscape. The impact may be provided through form, bark, branching structure, leaf color, and / or flower color. Typically a small or medium size tree.
- **Overstory Tree:** Those trees that compose the top layer or canopy of vegetation and will generally reach a mature height greater than 40 feet and typically have a spreading canopy.
- Pine Tree: An evergreen coniferous tree that has clusters of needle-shaped leaves.
- **Pruning (Tree Pruning):** To cut away dead, overgrown, or undesirable branches or stems. Pruning of trees to be done in compliance with standard arboricultural practices as outlined in ANSI A300 and shall maintain the trees natural form and structure.
- **Qualified Professional:** An International Society of Arboriculture (ISA) Certified Arborist; an American Society of Consulting Arborists (ASCA) Registered Consulting Arborist, or a Registered Forester.
- **Shade Tree:** Any tree that has a spreading canopy that provides partial to full shade to the ground with a minimum height of 20 feet.
- **Softwood Tree:** Any coniferous (cone bearing) tree. This definition is based on the colloquialism, and does not necessarily reflect any true qualities of the tree.
- **Specimen Tree:** Any tree which qualifies for special consideration for preservation due to its size, type, condition, location or historical significance and which also meets the minimum size criteria set forth below.

Size Criteria:

Pine Trees: 30-inch diameter or larger for trees in the Pinus (Pine) genus.

- **Coniferous Trees**: 20" diameter or larger for trees in the *cedrus* (deodar cedar), *Thuja* (Arborvitae), or other ecologically similar trees,
- **Overstory Trees**: 30-inch diameter or larger for trees in the *Liquidambar* (Sweetgum) or *Liriodendron* (Tulip poplar) genus
 - 20-inch diameter or larger for trees in the *Fagus* (Beech), *Nyssa* (Tupelo), *Diospyros* (Persimmon), *Sassafras* (Sassafras), or other ecologically similar trees,
 - 20-inch diameter or larger for *Magnolia grandiflora* (Southern magnolia) and those cultivars that generally reach a mature height over 40'
 - 24-inch (24") diameter or larger for trees in all other genera

Understory Trees: 8-inch (8") diameter or larger.

• 10-inch (10") diameter or larger for *Oxydendron arboretum* (Sourwood).

See additional requirements for Specimen Trees in The Guidance Document

Street/Streetscape Tree: Any tree located or proposed to be located along a public or private street. The actual location will be determined by the specific zoning district or overlay. In situations where there is limited planting space in the right of way and or safety concerns, street trees may be located at the back of the sidewalk or within the landscape strip on private property and the discretion of the Director.

- **Structural Root Plate:** The zone of rapid root taper that provides the tree stability against wind throw. The radius of the structural root plate is equal to 0.5 feet per inch of DBH.
- **Tree:** Any living, self-supporting woody or fibrous plant which normally obtains a diameter breast height of at least three (3) inches and typically has one (1) main stem or trunk and many branches.
- **Tree Care Plan:** A plan developed to provide an impacted tree the best possible chance of survival. A tree care plan should be prepared by a qualified professional and conform to the requirements of ANSI A300 and the Guidance Document
- **Tree Grouping:** A community of trees as determined by the Director to merit special consideration as an ecological feature based upon species composition, form, structure, age, and condition. Specimen trees and trees of quality may be included in tree groupings and every alternative should be evaluated to save these trees. Except as otherwise provided in Section 3.2., Tree Groupings will be treated as specimen trees for preservation credits and every alternative should be evaluated to save these trees.
- **Tree of Quality:** A tree that merits special consideration due to historical significance, ideal shape and structure, or uniqueness of the species as determined by the Director. Except as otherwise provided in Section 3.2., Trees of Quality will be treated as specimen trees for preservation credits and every alternative should be evaluated to save these trees.
- **Tree Planting List:** List of preferred tree species for use in the City of Alpharetta. Species not included on this list may be approved at the discretion of the Director. The Tree Planting List is included in the Arborist Guidance Document.
- **Tree Protection Area:** An area encompassing the critical root zone of a tree that shall remain in a pervious state.
- **Tree Save Area:** An area designated for the purpose of meeting tree density requirements, saving natural trees, and/or preserving natural buffers that shall remain in a previous state.
- **Understory Trees**: Those trees that grow beneath the overstory, and will generally reach a mature height less than 40 feet. Understory trees may include coniferous trees that meet these same height characteristics.



Notes:

-All specimen tree locations shall be approximate. -The provided tree locations are GPS located (+/- 30' Accuracy) and in no manner shall this Specimen Location Plan be used or represented as a tree survey. -It is the sole responsibility of the OWNER to have all tagged specimen trees located by a Certified Land Surveyor.



Boundary/ Landscape Tree North

Tree Not To Scale Loca

Location Plan

22-03-12-01 1110 Upper Hembree Arborist Report Alpharetta Part 2										
Tree #	Size/ Species	Health Condition	Structural Condition	Classification	Comments	Photo # (See Attached)	City of Alpharetta's Assessment			
3458	38"(27"- 14") Tulip Poplar	Good	Poor	Non-Specimen	2 Trees grown together creating 2 Co-Dominate Leaders with weak crotches and included bark. Due the species, a multi-stem tree is undesirable and could be a life safety issue.	1				
3459	39" Tulip Poplar	Poor	Poor	Non-Specimen	Numerous Trunk Cankers, an indication of possible trunk decay. 2 Co-Dominate Leaders with weak crotches and included bark. Due the species, a multi-stem tree is undesirable and could be a life safety issue.	2				
3460	11" Beech	Good	Good	Tree of Ouality						
3461	27" Hickory	Poor	Poor	Non-Specimen	3 Co-Dominate Leaders 40' up with 1 gone and included bark. Due the species, a multi-stem tree is undesirable and could be a life safety issue. Several main limbs dead/gone.	3				
3462	30" Southern Red Oak	Good	Fair	Specimen						
3463	26" Post Oak	Poor	Fair	Non- Specimen	Poor leader structure with severe curvature. Several main limbs dead/gone.	4				
3464	10" Beech	Good	Good	Tree of Quality						
3465	32"(24"- 8") Tulip Poplar	Fair	Poor	Non-Specimen	2 Co-Dominate Leaders with weak crotches and included bark. Due the species, a multi-stem tree is undesirable and could be a life safety issue.	5				
3466	13" Sourwood	Fair	Good	Specimen						
3467	11" Sourwood	Poor	Poor	Boundary Tree	Severe trunk distortion at base, an indication of Butt Rot	6				

22-03-12-01 1110 Upper Hembree Arborist Report Alpharetta Part 2										
Tree #	Size/ Species	Health Condition	Structural Condition	Classification	Comments	Photo # (See Attached)	City of Alpharetta's Assessment			
3468	29" Red Oak	Fair	Poor	Non-Specimen	Severe lean greater than 15°. 2 Co- Dominate Leaders 20' up with weak crotches and included bark. Due the species, a multi-stem tree is undesirable and could be a life safety issue.	7				
3469	28" Red Oak	Poor	Poor	Non-Specimen	Several main limbs dead/gone. 2 Co- Dominate Leaders 20' up with weak crotches and included bark. Due the species, a multi-stem tree is undesirable and could be a life safety issue.	8				
3470	27" Tulip Poplar	Not Evaluated		Boundary Tree						
3471	23" Tulip Poplar	Not Evaluated		Boundary Tree						
3472	23" Tulip Poplar	Not Evaluated		Boundary Tree						
3473	26" Sweet Gum	Not Evaluated		Boundary Tree						
3474	20" Hickory	Not Evaluated		Boundary Tree						
3475	21" Tulip Poplar	Not Evaluated		Boundary Tree						
3476	20" Tulip Poplar	Not Evaluated		Boundary Tree						
3477	21" Pine	Not Evaluated		Boundary Tree						
3478	27" Pine	Not Evaluated		Boundary Tree						
3479	21" Pine	Not Evaluated		Boundary Tree						
3480	19" Red Maple	Not Evaluated		Landscape Tree						
3481	20" Red Maple	Not Evaluated		Boundary Tree						







Photo 3









