City of Greensboro

Aycock Historical District

TREE INVENTORY

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INTRODUCTION

William H. Lock & Associates, Inc. was asked to perform a Tree Inventory for the Aycock Historical District in Greensboro, NC. We were directed to inventory and locate the trees located within the perimeter of the Historic District as indicated on maps provided by the City of Greensboro.

The purpose of this report is to provide an inventory of the trees showing:

1- Assigned tree number
2- Common name
3- Scientific name
4- Diameter breast height
5- Condition
6- Hazard tree rating
7- Conflicts the tree causes
8- Geographical location

The tree inventory provides a summary of the condition of the trees to help minimize the risks associated with older or declining trees and helps to predict current and future needs for tree maintenance and tree removal. Overall tree health and appearance should be improved throughout the neighborhood.

Properties that had fences with locked gates where the homeowners were not home were not inventoried. There is a large wooded area surrounding the Dunleith Community Garden area that was not inventoried. Due to landowner request several properties were not inventoried. These properties include:

509 Park
604 Park
521 Summit

PROCEDURES FOR TREE INVENTORY

The various trees were inventoried during September and October of 2013. The objectives of the inventory were to:

- number and define each tree $\geq$ 4" Diameter Breast Height and other smaller obvious significant landscape trees
- determine the common and scientific name of each tree, if possible
- make an assessment of the health and size class of each tree
- determine a hazard tree rating for each mature tree
- note possible conflicts with site issues

- provide a GPS location in digital format for future GIS integration.

The following data was collected:

1) Assigned number – Each tree or significant landscape plant was assigned a number for reference purposes. This number is indexed on the listing sheets and the digital format as ID_.

2) Common and scientific name – Each tree/plant was identified by its common and scientific name. Some species were listed by family or genus only if exact identification was not possible. There are some trees that were not able to be identified.

3) Diameter breast height (DBH) – Diameters were measured in inches with a standard diameter tape at 4.5 feet above the mean ground level. If the stem forked below DBH, individual measurements were taken for each main trunk. Caliper measurements were taken for trees and landscape significant plants where DBH was not feasible due to tree size or structure. Caliper estimates are designated with a "c" after the value. Trees that have many stems were labeled as "multi".

4) Health – This classification was identified in the following categories: Good, Fair, Poor, and Dead. This is a visual inspection of the health of the tree from the ground.

5) Size Class - Trees were classified as Over-mature, Mature, Intermediate, Juvenile, or Sapling size.

6) Hazard Tree Rating - Mature trees were given a hazard tree rating. Hazard tree ratings range from 3 (low hazard risk) – 12 (highest hazard risk). The hazard rating is calculated from the sum of the following three criteria:

Potential for Failure	Part Size	Target
1 - Low	1- <6"	1- Occasional
2 - Medium	2- 6"-18"	2- Intermittent
3 - High	3-18"-30"	3- Frequent
4- Severe	4- >30"	4- Constant

7) Conflicts - Any conflicts the tree caused were noted. Examples of a conflict would be utility lines, sidewalks, vehicular travel, etc.

8) GPS address – Trees/plants were located using a Trimble Geo-XT sub-meter unit. A specific northing/easting (x, y) can be printed for each item. This information is included on the enclosed disk to be used with ArcGIS.

MANAGEMENT OBJECTIVES FOR TREES

The management objectives for the trees in the College Hill Historical District are to:

- maintain and improve the health and vigor of the existing trees within the neighborhood
- reduce the risks associated with older or declining trees
- minimize the potential liability of hazard trees with proper care and/or removal
- maximize the neighborhood's aesthetics by maintaining a healthy and diverse tree population

Specific objectives:

High Hazard Trees- Identification and treatment of hazardous tree conditions should be a priority. A tree with a high hazard rating is one that not only has a structural defect but a target that could cause personal or property damage in the case of a failure. Situations should be assessed for possible immediate corrective measures. A tree in a forested area with a large broken limb (hanger) is not as great a risk as the same tree along a well-traveled sidewalk in the city.

Pruning – Trees should be pruned periodically to preserve their health, beauty, and appearance. Proper pruning can reduce damage to human life, structures, and private property. Pruning basically regulates and controls growth. Established landscape trees should be pruned when necessary to correct structural defects and possible storm damage. All pruning should be conducted according to the latest American National Standards Institute (ANSI) recommendations for tree care.

Maintenance – Fertilization and Pest Management should be incorporated into any long-term management plan. *Fertilization* programs should be developed annually based on soil tests, specific species requirements, and any specific plant conditions. Specimen trees can be given priority as should trees with obvious problems or deficiencies. Please see the General Fertilization Information later in the report.

Pest Management should be accomplished utilizing cultural, biological, and chemical treatments. This Integrated Pest Management system provides a very successful identification and treatment program using a wide scale approach. Situations and problems are ranked and treated according to their importance.

Inventory Summary

A total of 2,532 trees and/or plants of significant landscape value were evaluated during this inventory. Overall the trees in the Aycock Historic District are in Good condition. Almost 81 % (2,040) of the trees were classified as being in Good condition. Less than 7% (186) of the trees were classified as being in Poor or Dead condition.

Condition	#Trees	
Good	2040	81%
Fair	306	12%
Poor	158	6%
Dead	28	1%
Total	2532	

A total of 80 different species were inventoried in this project. There were 8 trees that were not able to be identified. The majority of the species inventoried are native to this area although some ornamental and exotics were noted. There were 35 Ailanthus altissima (Tree of Heaven) trees that were identified. These trees are exotic invasive species and measures should be taken to remove these trees. The 30 most occurring tree species are in the table below. A complete list of tree species identified can be found at the end of this report.

Crepe myrtle	334	13%
Pecan	286	11%
Willow oak	284	11%
Elm	167	7%
Mulberry	121	5%
Dogwood	109	4%
Red maple	86	3%
Leyland cypress	78	3%
Hackberry	73	3%
Sweetgum	71	3%
Southern magnolia	68	3%
Black walnut	63	2%
Cherry	60	2%
Silver maple	58	2%
Southern red oak	48	2%

Southern red oak	48	2%
Black cherry	41	2%
Sugar maple	40	2%
Holly	35	1%
Tree of heaven	35	1%
Eastern Red Cedar	26	1%
Post oak	24	1%
Japanese Cedar	23	1%
Redbud	19	1%
Apple	18	1%
Trident maple	18	1%
White oak	18	1%
Ash	17	1%
Pin Oak	17	1%
Loblolly Pine	16	1%

A size classification was given to each tree. The size classifications were assigned after a visual inspection of the tree. This may or may not indicate the true age of the tree. It represents the size of the tree for its given species. Almost half of the trees are considered to be mature or over-mature. Only 1% of the trees are of sapling size or newly planted.

Size Class	# Trees	
Sapling	16	1%
Juvenile	535	21%
Intermediate	919	36%
Mature	1009	40%
Over Mature	53	2%
Total	2532	

Mature tree species were given an ISA hazard tree rating. Trees that are not normally associated with being a hazard like dogwoods, Leyland cypress, etc. were not given a hazard rating even if they are in the mature size class. The hazard tree rating number is determined from three criteria. The first is the potential that a part of the tree will fail, the second is the size of the part that will fail, and the third is frequency that there will be a target when the tree fails. The higher the hazard rating, the higher the potential for property and/or personal damage or injury. It is important to note that just because a tree has a high rating doesn't mean that the tree will fail. It means that when it does fail it has a greater chance at causing damage. Trees that are immediately adjacent to a house inherently have a higher hazard rating than trees that are in heavily wooded areas because the potential to cause damage is greater when a tree is next to a house.

Hazard Rating	# Trees	
3	268	11%
4	154	6%
5	94	4%
6	279	11%
7	43	2%
8	39	2%
9	14	1%
10	6	0%
11	3	0%
12	0	0%
0	1632	63%
Total	2532	

Trees that exist in urban settings often have conflicts associated with them. These conflicts include, but are not limited to, utility lines, sidewalks, houses and buildings, pedestrian traffic, and vehicular traffic. Approximately 17% of the trees inventoried had some type of conflict. Most of the conflicts involved utility lines (power and phone) or buildings.

Conflicts		
Utility Lines	255	10%
Sidewalk	7	0%
Pedestrian Travel	7	0%
Vehicular Travel	7	0%
Other	144	5%
None	2150	85%

*some trees may have more than one conflict

New Planting Sites

Seven potential new planting sites were identified. The density of the existing canopy coupled with the proximity to houses, buildings, utility lines, and other infrastructure make for planting new canopy trees extremely difficult. Trees can be planted to replace dead trees and when damaged trees are removed.

Exotic Invasive Species

There were 32 Ailanthus altissima trees that were inventoried. These trees are considered to be exotic and invasive trees and should be removed. Bamboo was present in a lot of the backyards throughout the neighborhood. There are also a lot of trees that are being strangled by English ivy, wisteria, and other vines. Measures should be taken to remove the vines from these trees. Trees that have vines present are noted in the comments section for each tree.

AycockTree Inventory
Possible Planting Sites

1 inch equals 400 feet

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AycockTree Inventory

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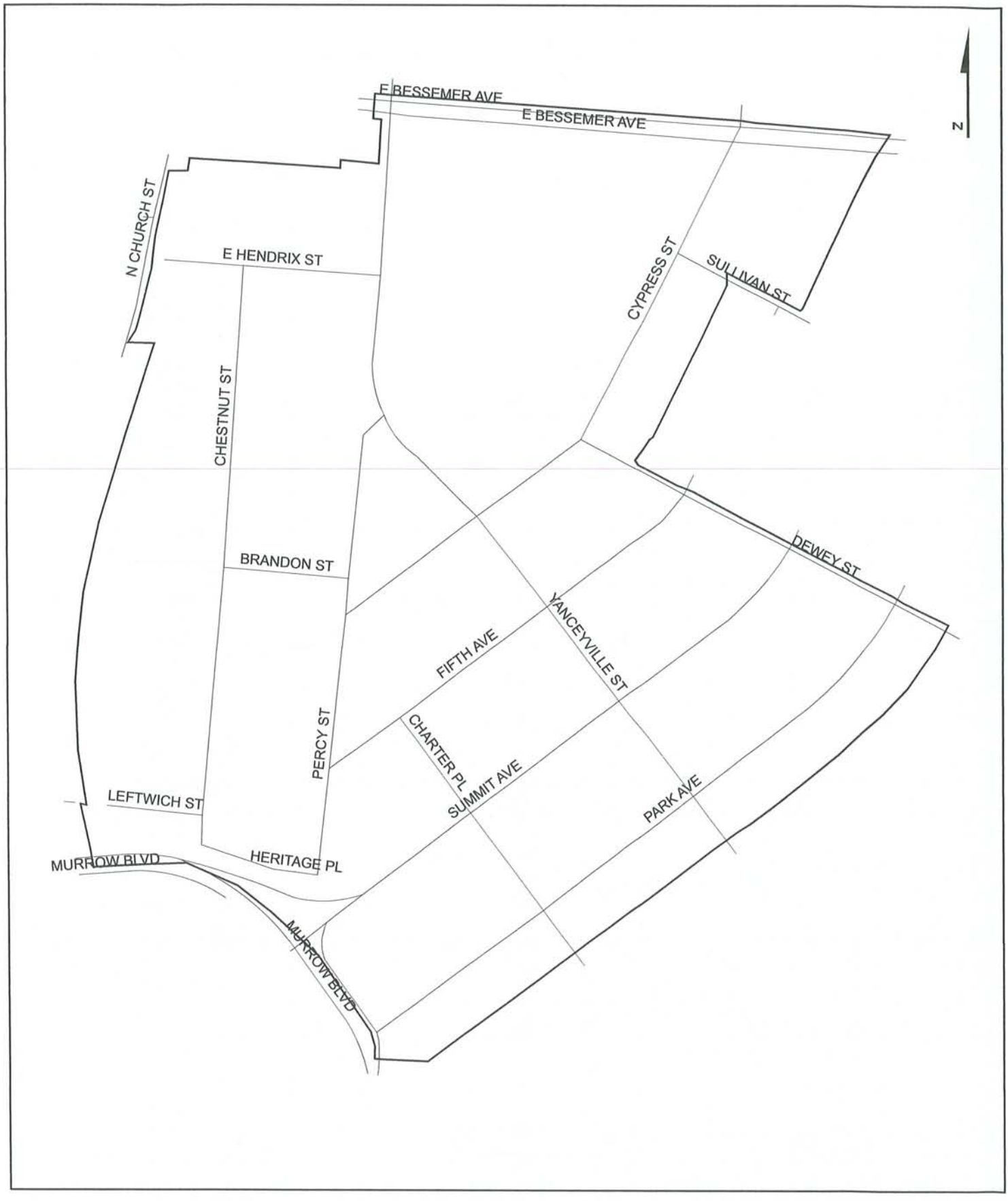
AycockTree Inventory
Aycock Historic District



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