

CITY OF LEXINGTON VIRGINIA

TREE MANAGEMENT PLAN

2003



City of Lexington, Virginia

Tree Management Plan

2003

Tree Board Approval: October 30, 2003

City Council Adoption: December 4, 2003

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City Of Lexington, Virginia
Tree Management Plan

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Trees are assets that provide local government leaders with untapped opportunities to reduce the costs of managing the local infrastructure. Greener communities are measurably better in terms of air, water, energy, and public health. Trees are nonstructural stormwater management devices, air purifiers, and air conditioners. The benefits that trees provide are not just abstract ideas, but quantitative assets that can be measured using technical tools, given a dollar value, and placed on a budget sheet.

Trees: The Green Infrastructure. International City/County Management Association. IQ Report, Volume34:11. November 2002. page 4.

**Tree Management Plan
Lexington, Virginia
Adopted December 2003**

PURPOSE AND SCOPE

The purpose of the Lexington Tree Management Plan is to define goals and policies that will guide the City of Lexington in its actions and decisions affecting trees within the city limits. The Plan will recommend specific tree planting and maintenance activities to cost-effectively improve the public tree resource, and to provide for the education of citizens about public and private trees.

This plan will make site-specific, prioritized, inventory-based recommendations for managing Lexington's public tree resource for a five-year time period. It will include projected annual budgets for the five-year planning period. The plan will also define actions to improve care of private trees.

The City Arborist will report to the City Manager and Tree Board annually on the progress toward the goals of this Comprehensive Tree Plan. This plan will be updated in FY 2008.

INTRODUCTION

The term "urban forest" is used throughout this document. The urban forest includes all trees and associated vegetation within the city limits. This forest provides benefits to all its citizens such as thermal regulation, hydrological buffering, food and shelter for wildlife, and the human experiences with fragrance, sound, and visual interest. This plan focuses on the tree component of Lexington's urban forest, including trees along streets, in parks and yards, and by rivers and streams.

In developing this plan, the following assumptions were made:

- The people of Lexington believe that trees add to the quality of life.
- Trees help offset the detrimental effects caused by the pollution of air, water, noise, and sight.
- Trees contribute to the vitality of the community and enhance its appearance and attractiveness.
- With sufficient information, citizens will make sound choices with regard to trees.
- Public safety is vital to the community. It is essential to remove deadwood, remove low limbs over traffic ways, clear critical visual zones at intersections, and control planting so that a tree's growth does not interfere with safe traffic movement.

HISTORICAL BACKGROUND

City Tree Policy and Funding

The City has taken a number of steps to protect its trees and to expand its green spaces. The **City of Lexington Comprehensive Plan** (1995/2003) addresses trees in its *Natural Features* section noting the beneficial contributions of trees and recommending more planting and protection of trees. A **Corridor Study** in November 1996 provided design guidelines for the addition of major canopy trees and flowering trees as well as other landscaping to city entrance corridors. The **Physical Development Plan** for the Downtown Historic District developed in 1998 recommended that the downtown green space network be expanded. This study also noted the uniqueness of Lexington's downtown "pocket parks" and suggested enhancing gateways into the city with additional landscaping. Amendments to zoning laws in 1999 required the planting of street trees in new subdivisions, the addition of landscaping to commercial corridors, and the planting of trees and shrubs for screening and shading new parking areas. Refer to Appendix A for specific examples of these policies and plans.

A city tree ordinance was adopted in 2000. The ordinance created a Tree Board, provided special protection to trees in the Central Business District of Lexington, and mandated the creation of a comprehensive Tree Management Plan. The ordinance also created the position of City Arborist, and a part-time arborist was hired in 2000. Appendix B contains the tree ordinance.

Since 1996, funds from USDA Urban and Community Forestry Grants totaling close to \$60,000 have bolstered urban forestry efforts in Lexington. Grant funds from the Department of Conservation and Recreation have assisted with planting projects along Woods Creek and South Main Street.

Tree Planting and Care

Lexington has a long history of volunteer tree planting led chiefly by Garden Clubs. The city Public Works Department has planted trees through the downtown area and in the parks and cemeteries. The Planning and Development office has been responsible for a number of public tree and landscape plantings as part of corridor and downtown improvements.

A sub-committee of Historic Lexington Foundation, the Lexington Tree Committee (LTC), formed in 1996 to focus attention on the planting and care of trees in the City. This group facilitated the planting of a number of city and county trees and obtained grants to provide training to city workers and the public. It also organized the volunteer Tree Stewards in 1997, a group that assisted with the care of public trees.

Employees of Lexington's Public Works Department have been responsible for the care of trees in the past and continue this work today. Over the years, in conjunction with contracted help, they have planted and removed trees and pruned them for storm damage or road/sign clearance. The City Arborist has advised and assisted the City with tree planting and care.

Tree Inventories

LTC volunteers created an inventory of trees in the Historic District in 1996. The inventory included 340 public and private trees within 30 feet of the road and identified spaces for new tree plantings. Location, condition and work needs were described for each tree.

The City Arborist created an inventory of public trees in 2002. Although not listing every public tree, the inventory includes close to 900 trees in the cemeteries, most parks, schoolyards, and along streets. The inventory has a database component that tracks maintenance and a GIS component. Species, size, condition, hazard status, and work needs are described. See Appendix C for a partial database and map. An analysis of this inventory begins on page 8.

CURRENT SITUATION

Tree Planting and Care

Public Trees

New trees are planted either for replacement of ones removed, or as a part of a new landscaping project. The City attempts to replace trees especially if a large number of trees must be removed for hazard reasons.

A variety of city departments collaborate on tree care and planting. The City Arborist and landscape architect/designer (if any) collaborate on tree variety selection and the placement of new trees. The Planning and Development Department reviews activities that may affect trees including new development, landscaping requirements, or construction around existing trees. The Public Works Department (PWD) may request the removal of trees that affect vehicular or pedestrian safety. The Architecture Review Board and Tree Board may also have input on planting and removal decisions.

Planting, supervised by the City Arborist, may be done by city crews or outside contractors. Suggested maintenance of newly planted public trees is outlined in a *Tree Maintenance Schedule* described in Appendix J. New trees are mulched, watered until established (usually one to two growing seasons), and are structurally pruned at least twice in their first five years. While Public Works crews do much of the mulching and watering, the arborist does most pruning of younger trees.

Public Works crews have some pruning experience; several have received training in current pruning standards. Public Works Department crews do limited pruning of taller trees from a bucket truck. No city employees have the training to climb trees with ropes, so this work continues to be contracted. Within a 45-mile radius of Lexington, there are at least 5 tree care firms with arborists certified by The International Society of Arboriculture (ISA). The City Arborist is also ISA-certified.

The City Arborist advises Public Works on the care of various established city trees. This advice may include recommendations on pruning, removal, construction impacts, pests and other care issues. Public Works crews and the City Arborist coordinate tree work done on older trees. The arborist decides what work will be done on various trees and arranges for Public Works crews or outside contractors to do the work. The arborist writes work specifications, solicits bids, and reviews work done by contractors, and also keeps track of maintenance.

Some pest control is handled by the City Arborist, some by Public Works (herbicide applications), and some by contractors (spraying of larger trees.) The City Arborist and one PWD employee are Certified Pesticide Applicators, and two other PWD employees are Certified Pesticide Technicians.

Private Trees

The majority of Lexington trees are located on private property. They are in people's yards, on commercial property, college campuses, and on undeveloped land. The status of these trees and the care they receive are dependent on the owners.

The two main threats to the health of private trees are improper pruning and loss from development. Improper pruning includes poor cuts made by utility contractors, private tree care companies, and property owners themselves. Many citizens are not able to prune large trees, but knowing the how and why of pruning the sapling in their yard is important, as is recognizing the quality of pruning performed by someone they hire. One example of improper pruning is "topping", or the cutting of the vertical stem (leader) and upper primary limbs on mature trees to stubs at uniform height. People top trees for many reasons, all of them based on falsehoods and misconceptions. Some property owners and tree care companies seem unaware that topping trees injures bark, leaves large wounds, creates a hazard, and disfigures trees.

While utility easements allow for periodic pruning of trees impinging on wire space, citizens and utility contractors are often unhappy with the results. Utility companies have tried to change their pruning from one that "rounded over" trees toward "directional pruning", which may remove larger branches, but is better for tree health and results in a longer trim cycle. Citizens often do not understand the reasons for branches being cut, and utility contractors are often unwilling to make directional cuts because of public criticism. Some trees growing close to utility lines are simply too large, and the regular pruning they require can only result in a disfigured tree.

Developers recognize that trees add to the value of a property. Sometimes when development occurs, trees need to be removed and the ground disturbed. However, property owners and developers often do not realize the ways that trees can be damaged by construction, or that trees can take up to seven years to succumb to construction-related injuries. The retention of trees is not required in development that occurs in areas zoned residential (single-family or duplex). (Retaining a tree means taking steps to assure it remains healthy throughout its normal life span.) Commercial development requires a site plan that may require landscaping or encourage protection of existing trees. Trees on both public and private property in the Commercial Business District require Tree Board approval for their removal.

In Lexington, two of the most common trees are sugar maple and dogwood, species highly sensitive to poor pruning and root impacts. Dogwood (*Cornus florida* or flowering dogwood) also fights a losing battle with the anthracnose disease infecting wild dogwoods. As many of the city's older private trees succumb to age, they are replaced with smaller trees that will never reach the size of the original tree. Power line constraints, dwindling space because of infill, and concerns with infrastructure damage from roots may mean that some large trees are never replaced. Many property owners with limited space plant Bradford pear, a species vulnerable to ice or wind damage if not structurally pruned when young.

A large section of Lexington includes two college campuses, and the trees on these campuses are an integral part of the urban forest. The quality of tree care on these campuses is generally excellent, and this benefits citizens, visitors and the environmental health of the city.

Other Tree Impacts

A number of activities of the Public Works Department affect trees. Trees must be pruned for visibility of signs and intersections and for traffic egress. Tree roots are often affected when water, sewer lines, or sidewalks are replaced, and when graves are dug in the cemeteries. Tree roots may block older underground pipes in poor condition. City workers are often unaware of the damage they do to trees by severing roots with backhoes or compacting the ground with heavy equipment. There are ways to limit damage when roots must be cut, and likewise there are techniques to reduce compaction.

Both public and private trees are affected by a variety of pests. Some can be counted on to appear every year on certain trees. In other years, environmental conditions will affect their prevalence. Diseases common in this area include anthracnose of sycamores or dogwood, cedar-apple rust affecting cedars (*Juniperus* species) and crabapples, Dutch elm disease, and fireblight of trees in the Rose family. Common insect pests include hemlock wooly adelgid, gypsy moth, various tent caterpillars, and borers. In urban areas, however, many more trees are damaged by non-infectious agents (people's activities or the environment) than by insects and diseases.

There are a few exotic (imported) pests like hemlock wooly adelgid that have caused large losses in wild and city landscapes. Attempts to eradicate the Asian longhorned beetle in Chicago and New York City resulted in the removal of over 7000 trees. Another insect, the emerald ash borer, was found in Detroit in 2002, and most recently in Maryland in September 2003. The identification and management of these invasive pests will be a continuing challenge for those who care for trees.

Invasive plants also pose challenges to the local environment. Whether it is the English ivy on a tree trunk, the paradise tree (*Ailanthus* sp.) or multiflora rose spreading along the Woods Creek riparian corridor, or thickets of Mulberry (*Morus* sp.) taking over a small city lot, invasive plants are a distinct threat to local flora. When choosing species to plant, the city tries to avoid potentially invasive ones like Norway maple. Control of some invasive plants like honeysuckle will be an ongoing project, likely never to be completely successful.

One control strategy is to encourage or plant native species that grow well here. Native trees and other plants are well adapted to the climate and support native wildlife. However, the City

has no requirement that newly planted trees be native species. Many of the city soils are disturbed soils with little “native” soil remaining. Some introduced trees are more durable or more tolerant of stressful growing sites.

Public Awareness

A 5-member Tree Board meets several times a year to advise City Council and the City Arborist. The Tree Board acts on requests for planting or removal of trees, helps formulate tree policy, and assists with public education. The Tree Board has taken over some of the advocacy roles of the Lexington Tree Committee that disbanded in 2001. Currently there is no non-profit tree advocacy group. The volunteer Tree Stewards have been inactive since 2000. The City Arborist advises property owners and residents on the care of their trees and landscapes. Information is also available from Master Gardeners of Virginia Tech Cooperative Extension Service.

The National Arbor Day Foundation has recognized Lexington as a Tree City USA every year since 2000. Lexington also received Growth Awards from the same organization in 2001 and 2002 for its additional urban forestry efforts. Requirements for both of these awards are detailed in Appendix F. Tree City USA signs mark the entrances to the City and raise public awareness of city tree care efforts.

Funding and Equipment

The City of Lexington General Fund funds the Tree Board and City Arborist position. Urban and Community Forestry grants also augment management efforts, but are not specifically for planting projects. Garden Clubs have been another source of funds for various projects over the years. Historic Lexington Foundation maintains a Tree Fund that can supplement costs of public and private tree plantings either along entrances (Gateway Tree Grants) or to plant a commemorative tree (Landmark Tree Endowment Program). See Appendix G for descriptions of these programs.

The City Arborist office equipment includes a Dell Dimension PC (1999), Kodak Digital camera, and Palm M500. Tree care tools include a soil injector, backpack sprayer, 10-foot orchard ladder, and various pruning tools including shears, saws, and pole saws. The City Arborist uses a private vehicle and is reimbursed for mileage.

Waste Recycling

Most of the tree and brush waste generated by the City is either reused or recycled. Collected leaves are used on beds and around trees, distributed to citizens, or are left at Boxerwood Gardens for reuse. Most brush is chipped and spread on a local field. Tree removals sometimes result in usable saw logs or firewood. A small percentage of brush or wood waste cannot be chipped or easily used, and may go to the landfill. The City has no specific site or facility (for example, a tub grinder) for the recycling of its green and wood waste into compost products.

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INVENTORY ANALYSIS

An inventory of close to 900 public trees was done in August 2002. Analysis of the inventory provides insights into the general composition and condition of Lexington's tree resource. A limitation of this inventory is that it contains only public trees, and is probably not an accurate snapshot of the total city forest, since many of Lexington's trees are on private property.

How diverse is the city forest?

Diversity is important because it leads to greater stability and less wide-scale damage from insects or diseases. An overall goal is a balanced distribution with no more than ten percent of any particular species of tree. See the chart on the next page for a breakdown of tree species. Flowering dogwood (*Cornus florida*) is one species whose numbers are greater than 10 percent, reflecting the popularity of this Virginia state tree in Lexington.

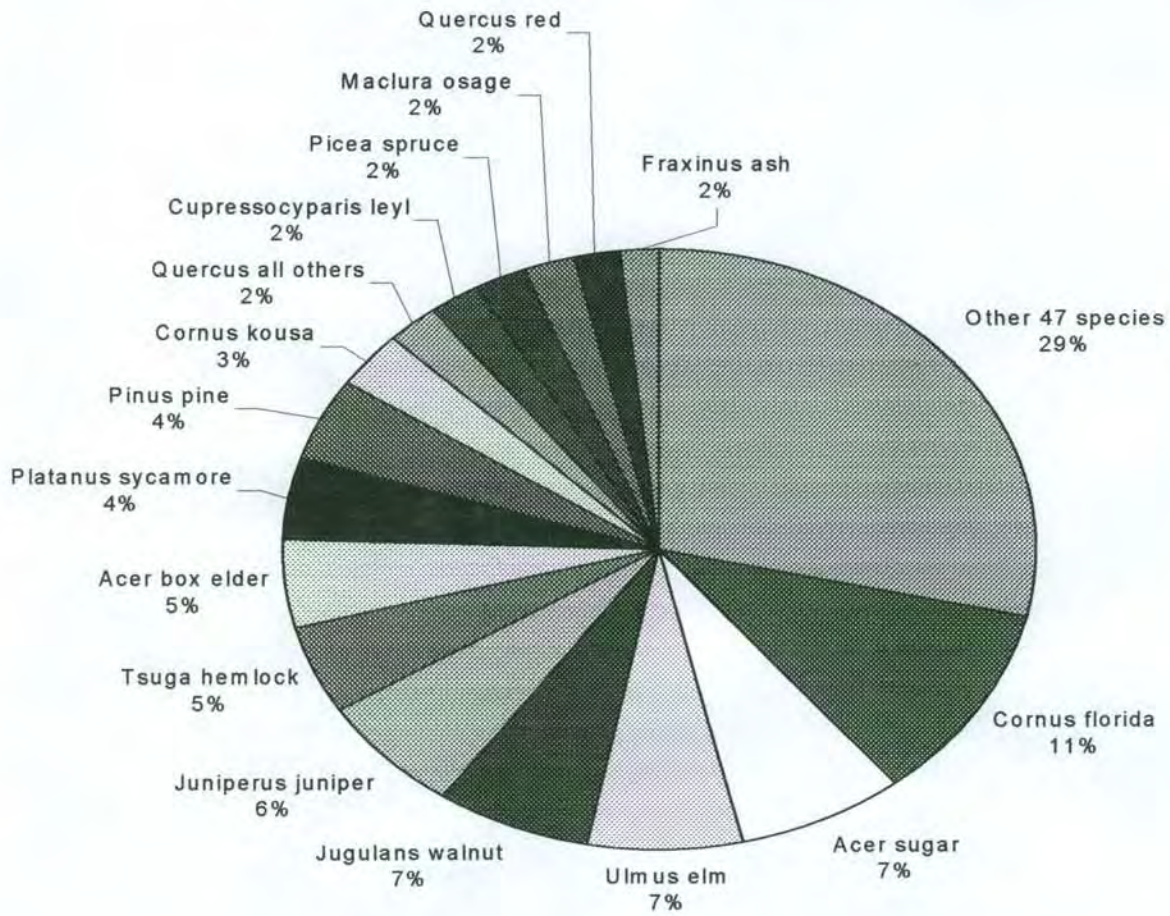
The five most common species are flowering dogwood (*Cornus florida*), sugar maple (*Acer saccharum*), elms (*Ulmus* spp.), walnut (*Juglans* spp.), and juniper (*Juniperus* spp.). The maple genus (*Acer*) comprised close to 16% of all trees inventoried, and 13.6% of trees were types of dogwoods.

In many public city areas, the established trees are simply volunteers that were allowed to grow. They succeeded because they were durable or fast growing. Woods Creek Park and Jordans Point contain many squirrel-planted black walnuts and self-sowers like box elder (*Acer negundo*) and mulberry as well as native sycamores. Red cedar (*Juniperus virginiana*), a common succession tree in fields, is common in Evergreen Cemetery. Richardson Park has many black locusts (*Robinia* spp.) and Siberian elms (*Ulmus pumila*), two species that tolerate most sites but have little ornamental value or else have "trashy" reputations. (Siberian elms shed branches constantly).

Public plantings of recent origin are better diversified, reflecting a trend to include some less common species in new plantings. Black gum, yellowwood, burr oak, pistache, and ginkgo are some of the tree types now found along streets or in parks or cemeteries.

A windshield survey of private trees would reflect the popularity of dogwoods, sugar maples (many older) and of more recently planted Bradford pears. Unfortunately, sugar maples are sensitive to root disturbance like compaction, root cutting, or fill, all common occurrences during development. Home additions, paving of driveways, and water/sewer line replacement will all accelerate the decline of these older shade trees. And while Bradford pears are popular spring bloomers, few of them receive the pruning during their early years that establishes a tree structure that is resistant to snow, ice and wind. This tree often lasts only 15 years before it is severely damaged.

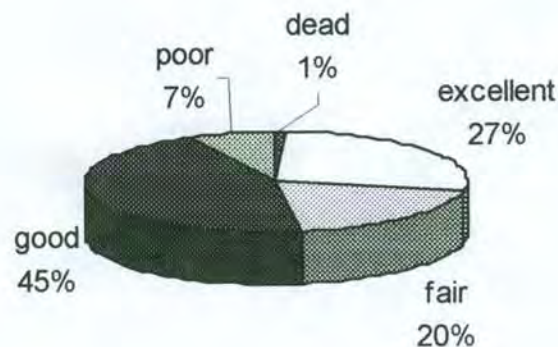
Lexington Trees Species Composition 2002



How healthy is the city forest?

Tree condition was rated as either *excellent*, *good*, *fair*, *poor* or *dead*. Appendix D lists the qualities or defects that went into compiling a tree's rating. *Excellent* trees were young and thrifty with no defects. A tree was rated *good* if it had only minor defects like small trunk wounds or co-dominant stems with no evidence of decay. A common defect that resulted in a lower condition rating was the presence of co-dominant stems – two stems competing with each other to be the main leader. Structural pruning of younger trees can reduce this defect. Trunk wounds, mower or string trimmer damage, or decay from poor pruning cuts downgraded the condition of some trees. Trees were also rated poorer if they had been topped or incorrectly pruned under utility lines.

Lexington Trees Condition 2002



Tree Condition: Why are trees rated *Poor* or *Fair*?

At both city cemeteries, dogwoods, especially older ones, show the combined effects of age, borers, and disease. Currently no dogwoods are sprayed for disease control. When flowering dogwood (*Cornus florida*) trees are infected by dogwood anthracnose, dieback occurs. The removal of large dead stems often opens a tree to decay. Japanese dogwood (*Cornus kousa*), a species more resistant to dogwood anthracnose, has been used in newer plantings to replace flowering dogwood. Borers affect stressed trees, and the effects of a 5-year drought have predisposed dogwoods to borer damage. Mulching of smaller trees over the last 3 years has helped to keep mowers and string trimmers from wounding lower trunks.

In Stonewall Jackson Cemetery, other lower-rated trees include maples with structural problems like co-dominant trunks, larger oaks, especially pin oaks with dieback, and hemlocks showing the effects of the hemlock wooly adelgid, an insect infesting all Eastern hemlocks. Over the last few years, sprays and soil injections for the insects on the hemlocks have improved the condition of many trees. However, some with extensive damage have been removed. There seems to be no single cause for the oak dieback observed in both

cemeteries; that is, no one agent like an insect or disease can account for the damage seen. The diseases that are found are known to be opportunists that affect trees under stress. Most likely, a combination of old age, cumulative drought stress, poor soil and intermittent root disturbance for grave openings is taking its toll on these mature trees.

At Evergreen Cemetery, trees in poorer condition include many of the red cedars and box elders. Some red cedars show wire damage from an old fence line, and the box elders are probably volunteer trees. Their location, under power lines where they have been topped, and their weak wood, account for the lower ratings. Richardson Park trees include many older volunteer trees like black locusts with co-dominant stems and old apple trees with trunk decay.

At City Hall, trees in fair or poor condition included large maples with poor structure and hemlocks with insect damage. (Recent new plantings at the Police Station and City Hall parking lot have improved the diversity and age distribution in this area).

Locations of Trees Rated Poor or Fair

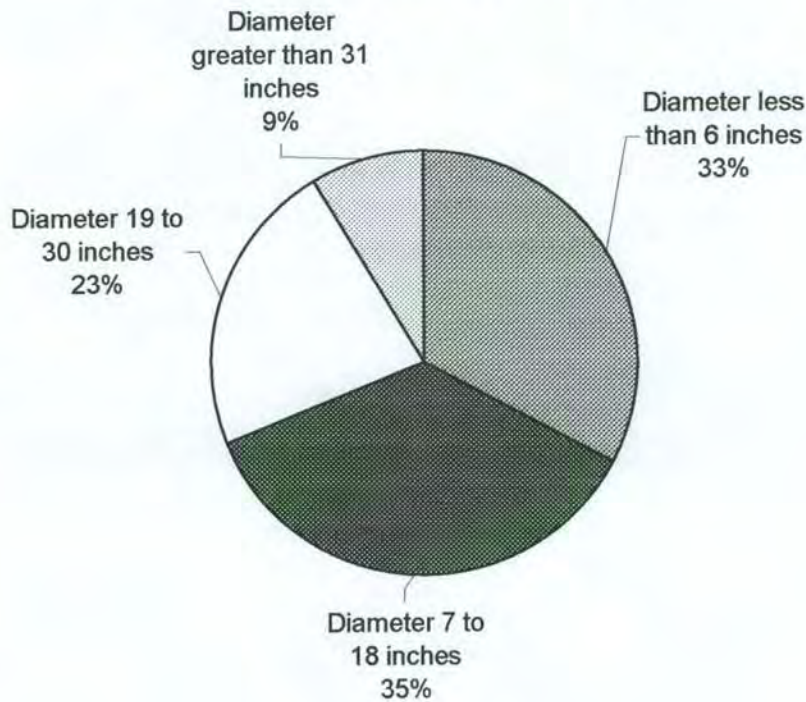
Location	Total Trees	Number poor or fair	Percent poor or fair
SJ Cemetery	253	67	26%
Woods Creek Park	175	53	30%
Evergreen Cemetery	82	16	19%
Brewbaker complex	67	16	24%
Jordans Point	41	8	20%
Richardson Park	35	17	49%
City Hall complex	13	7	54%

What is the age of the city forest?

Age of trees is hard to judge visually. Diameter serves as a general guide. The chart below breaks the inventoried trees down into 4 size classes based on their diameter. Smaller and slower growing trees (dogwoods, for example) are excluded from this chart because their diameters do not compare with larger growing trees like maples and oaks. The data reflected by the chart is skewed toward younger trees because the inventory measured separate diameters for multi-trunked trees. For example, a multi-trunked tree with trunks of 4, 6, and 7 inches would be recorded as a 7-inch tree, even though it would be much older than a 7-inch tree with a single trunk.

Lexington's community forest is relatively young with almost one third of trees being less than 6 inches in diameter. Ideally, the majority of the forest population should be in the smaller diameter categories as these represent the future forest.

Lexington Trees by Size 2002



How safe are the trees inventoried?

Every tree received a **Hazard Rating**. This rating defines the seriousness and extent of potential danger to site users, and assigns a level of risk to activity in and around an individual tree. This rating is a number from 3 to 12 with 3 being the least hazardous and 12 the most hazardous. There are three components of a hazard rating:

Failure Potential (1 to 4 points): *Failure potential* identifies the most likely part of the tree to fail and rates the likelihood that the structural defect(s) will result in failure before reinspection.

Size of defective part (1 to 4 points): *Size of defective part* rates the size of the part most likely to fail. The larger the part is, the greater the potential for damage.

Target rating (1 to 4 points): *Target rating* rates the use and occupancy of the area that would be struck by the defective part.

Appendix E provides details on how points are determined for each component of the hazard rating formula.

Hazard ratings do not define “danger.” While a tree with a rating of 12 could be considered more dangerous than one with a rating of 3, a tree does not become dangerous at a given rating. One cannot say that all trees above 6 are dangerous and those below 6 are not. Assessing the danger of a particular tree is more dependent on its context. For example, both of these trees may have a rating of 8:

- A. A large tree with a large trunk cavity but with a minor target: (4 + 3 + 1)
- B. Long, small-diameter branches that are weakly attached below a decayed heading cut in the crown of a tree overhanging a heavily used area (1 + 3 + 4)

Even though the rating values are the same, the character of the danger is different as well as the abatement options available. Hazard ratings can assist with prioritizing work, but they do not strictly define a line for action. The table below breaks the inventoried trees down into various hazard ratings. There were no trees that had a hazard rating higher than 9.

Hazard Rating	Number of Trees
3	459
4	164
5	119
6	87
7	27
8	5
9	1
10	0
11	0
12	0

What type of maintenance do these trees require?

The inventory identified first and second priority work needs for each tree. Many trees have multiple needs; however the inventory only recorded the two most pressing maintenance needs.

As the chart on the facing page indicates, nearly one third of trees require either crown cleaning and/or structural pruning. Crown cleaning is the removal of deadwood and crossing or rubbing branches. Structural pruning is the removal of wood to make the tree structure stronger. Chief goals of structural pruning include the establishment of a central leader with properly spaced lateral branches. If the tree is mature, structural pruning means the removal of wood to reduce the weight on co-dominant stems.

Trees required *inspection* for a number of reasons. The tree might have cabling installed; all cabling requires periodic inspection. The tree might have had a cavity or decayed area that demanded a more time-consuming examination than the inventory process allowed.

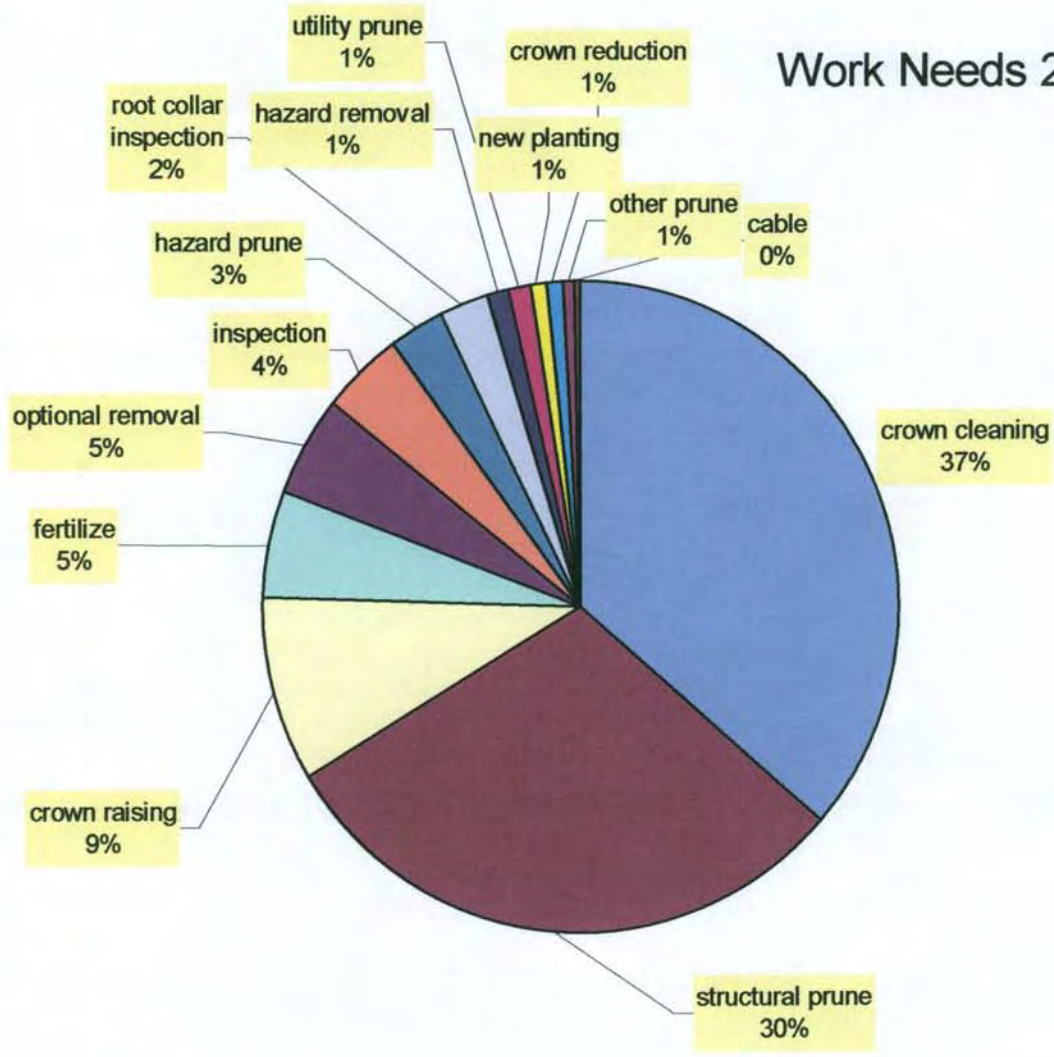
Twenty-two trees required high priority maintenance like *hazard pruning* or *hazard removal*. Six of these trees are located at or near schools. *Optional removal* referred to trees in poor or dead condition, but whose failure would be unlikely to endanger persons or property.

Because it may vary from year to year, a maintenance need not identified in the inventory was insect or disease control. However, many of the hemlocks are infested with an insect, the hemlock wooly adelgid (a type of aphid), and the poor health of many of the native dogwoods is undoubtedly due to dogwood anthracnose. These insect and disease problems are widespread throughout the state, and city trees have not escaped them.

New planting referred to 6 trees that had either died or were in such poor condition (most often because of utility pruning) and whose removal would open a likely spot for a replacement tree. Besides these trees, the inventory did not enumerate any other planting spaces.

This maintenance work has been underway since 2001. Efforts focused first on the city cemeteries, and are currently focused on parks, beginning with the most frequently used parks.

Work Needs 2002



MANAGEMENT NEEDS

General Goals of this Tree Management Plan include:

- Developing an integrated, coordinated approach to the management of city trees.
- Ensuring that the protection and management of city trees are citywide priorities.
- Maximizing and expanding the urban tree canopy and producing a multi-aged and diverse forest.
- Securing stable funding and management resources to maintain and enhance the urban forest.
- Raising citizen awareness of the benefits of a healthy and diverse urban forest, proper tree selection, and care.
- Implementing the plan using education as the primary means of implementation, incentives as the next, and regulations as the last resort.

TREE RESOURCE MANAGEMENT

Community forests need to be managed. Many people don't realize that trees in cities require a different kind of care than trees in rural areas. Management of the urban forest involves an inventory as well as planning scheduled maintenance and replacement just like other city infrastructure components. Ideally, maintenance is proactive and not crisis-driven. While some tree-damaging events like ice storms and pest outbreaks cannot be predicted, planned tree maintenance can limit liability, prevent problems, and simplify budgeting. Funding for maintenance should be built into planting budgets, just as is done for any other component of infrastructure (roads, bridges, utilities, etc).

Priorities of maintenance activities for both public and private trees include:

1. Public Safety. Remove hazardous trees and limbs.
2. Maintain what is already planted.
3. Plant after maintenance needs have been met.

According to the USDA Forest Service, new programs or those in which routine maintenance and removals have been neglected should spend approximately 80% of their operations budget on maintenance and removals. Lexington is still moving through this "catch-up" phase that began in FY2001. For example, in 2002, work focused on the two city cemeteries. Removals and other hazard pruning equaled almost 79% of the total money spent there for tree care and planting.

At the current pace of remedial tree work, all public trees will have been inspected and pruned (either for safety or structure) by FY2007. The City is also catching up on other maintenance tasks like mulching, pest control, and fertilization. Once initial heavy maintenance and hazard tree removals have been performed, this percentage should drop to the more typical budget of 60% for this component of care, and around 30% for planting. With greater emphasis on maintenance, the tree population should become healthier and longer-lived, decreasing removal costs.

The **Five-Year Tree Maintenance Plan** outlined on page 19 prioritizes inspection, pruning, planting, and removals for city trees. High priority pruning (HP) is for public safety – removal of hazardous and/or potentially hazardous limbs (those which are dead, dying diseased, decayed or structurally unsound). *Routine or maintenance pruning* (MP) indicates trees that are pruned on a regular cycle of around 5 years. Some maintenance-prune trees may not need any work even though, according to the pruning cycle, they are due for pruning. Once the immediate and high priority pruning have been completed, all mature trees will fall within the maintenance-prune category. This work will be done on a contractual basis unless city crews can assist with a bucket truck.

The plan also includes maintenance for newly planted trees. This includes *training or structural pruning* (SP) – the systematic corrective and directional pruning of newly planted trees, typically done several times in the first ten years. Structural pruning will eliminate 90% of all structural problems throughout the life of the tree. Pruning small trees with small limbs is far less costly to do and will save a lot of money long term, while greatly increasing the health and value of the tree. The City Arborist can do some of this pruning with the assistance of a

ladder. Once the trees reach a certain height, this work will be contracted. Mulching and watering are done with the assistance of DPW crews, and their costs are not included in this maintenance plan.

The Maintenance Plan attempts to estimate costs for each fiscal year. For ease of budgeting, amounts requested each year will be similar. Costs are broken down into money for maintenance and for new plantings. A Parks Master Plan scheduled for FY2006 should help prioritize planting needs in city recreation areas. The next 5-year Tree Plan (FY2009 to 2013) will have a greater emphasis on new tree planting.

The pace of this remedial work could be accelerated with additional funding. The City should research the cost of a yearlong contract with a qualified tree care company or a part-time qualified arborist position in Public Works to move faster through this work list. Time spent getting bids for each specific job could be greatly reduced. An arborist trained in bucket truck operation could possibly prune some city trees at a lower cost than outside contractors.

Cooperation among the many agencies whose activities affect trees is vital. Care of both public and private trees is important. City departments including Public Works, School Board, Planning and Development, and RARO, along with local contractors of public utilities should operate with common goals and objectives regarding all city trees. Anyone who prunes trees should be following the latest safety standards for tree work (ANSI Z133.3) and the most recent pruning standards (ANSI A300). More communication between Planning and Development and the City Arborist could promote better tree preservation during development. The City should consider additional tree preservation strategies like those described in Appendix H.

Since a large percentage of Lexington's community forest is privately owned, its successful management also depends on *education*. Both the City Arborist and the Tree Board are charged with educating the public about Lexington's tree resource, and education efforts figure largely in this Tree Management Plan. Tree Board members should be well versed in urban forestry issues to most ably fulfill their educational role.

Education is crucial to dealing with the two main threats to private trees described on page 4. Both citizens and power line companies need to communicate better. If property owners understood the value of good pruning, they would be more likely to undertake it themselves on their younger trees, and to demand it from tree care companies for their larger trees. Property owners should be aware of the value their yard tree makes to reducing energy costs and increasing the value of their property. Anyone contemplating or involved in development should understand how surrounding trees could be affected and how to prevent or limit construction damage.

The **Arborist Five-Year Work Plan** on page 20 outlines the maintenance, administrative and educational tasks of the arborist who currently works 20 to 25 hours per week. The plan also lists possible grant funding for some of the activities, and how the activities will fit into Lexington continuing to receive a Tree City USA Growth Award for that year. Specific activities are described in detail in Goals and Activities section of this Plan beginning on page 21.

FIVE-YEAR TREE MAINTENANCE PLAN

Location	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
Cemeteries					
Stonewall Jackson Cemetery	Boxwood reduc.	I / HP / MP NT	HP / MP NT	MP / SP	
Evergreen Cemetery		I / HP / MP NT	HP / MP NT	MP / SP	
Parks					
Brewbaker Park	I / HP				MP
Chess Park		MP			
Fairwinds Park			SP		
Hopkins Green			MP		
Jordans Point		NT		SP / I	HP / MP
Kids Place		SP		MP	
Lime Kiln Bridge Park			SP		SP
Richardson Park	NT		SP	MP	SP
Skate Park		SP	R		
Woods Creek Park	HP NT			SP	
Gateways					
East (Rock Sq, etc.)			SP		
North (Triangle, etc.)				SP	
South (Rain Gardens)		SP			SP
West	---	---	---	---	---
Public Buildings					
City Hall		I	HP / MP NT?		
Fire House		SP		SP	
Lylburn Downing School	---	---	---	---	---
Lylburn Downing Comm. Ctr.	I	HP / MP			
Police Station		SP		SP	
Pool		SP		MP	
RARA Building			MP		
Rescue Squad			MP		
Waddell School parking lot			I	MP	
Parking Areas					
McCrum's lot	I / HP / SP				MP
Roy Smith lot	SP				MP
Street Areas – See Map Appendix J					
Area 1: South	I	HP			MP
Area 2: Center	I	HP			MP
Area 3: North	I	HP			MP
Budget Request					
	(Currently budgeted) Maint=\$5000 Planting=\$1000	Maint= \$6500 Planting= \$650	Maint= \$6500 Planting= \$650	Maint= \$6500 Planting= \$650	Maint: \$6500 Planting: \$650

Codes:

HP = Hazard Prune
 MP = Maintenance Prune
 SP = Structural Prune

NT = New Trees
 R = Removal
 I = Inspection / Survey

ARBORIST FIVE-YEAR WORK PLAN FY2004 TO 2008

	FY2004	FY2005	FY2006	FY2007	FY2008
Maintenance Focus	Woods Creek Park, Brewbaker Park, McCrum's Lot Roy Smith Lot, Cemetery boxwoods	Streets 1/2/3, Kids Place, Chess Park, Cemeteries, LD Comm. Ctr	Hopkins Green, City Hall , Rockbridge Square , Skate Park, Cemeteries, Fairwinds Park	Firehouse, Police Station, Pool, Cemeteries, Kids Place	Richardson Park, Jordans Point, Lime Kiln Bridge Park, South Gateway
New Plantings	Richardson Park, Jefferson St., Woods Creek riparian area	Cemeteries, Jordans Point	City Hall Cemeteries	Parks	Lime Kiln Bridge Park, Jordans Point riparian plantings
Education & Administrative Projects*	Tree Ordinance publicity, Construction impact education	Tree Board education, Newspaper column	Parks Master Plan	Update Inventory,	Evaluate and update Comprehensive Tree Plan
Property Owner Visits	80	90	100	100	100
Anticipated Grants	Jefferson Street tree replacement	Tree Board Education	Parks Master Plan, Equipment Purchase	Inventory Update Emergency Plan	Unknown at time of plan
Tree City USA Growth Award**	Comprehensive Tree Plan, Wildlife Habitat at Woods Creek	Street Tree Pruning, Tree Board Education	Parks Master Plan	Emergency Plan	Unknown at time of plan
Budget Request***	Maint: \$5000 Planting: \$1000 (Currently budgeted)	Maint: 6500 Planting: \$650	Maint: \$6500 Planting: \$650	Maint: \$6500 Planting: \$650	Maint: \$6500 Planting: \$650

*For details or justification, see "Goals" section of this plan.

** Tree City USA Growth Awards recognize a city for continued growth and improvement in its community forestry program. See Appendix F for details.

***Budgets include funds for tree removal, planting, pruning, fertilization, pest control, and cabling, but do not include funds for watering or mulching.

GOALS AND ACTIVITIES

The following section defines more specific goals and the strategies and actions to be used over the next five years to reach the goals. Goals are divided into three main groups:

Administrative and Management refers to activities undertaken by city personnel to increase funding and coordinate tree care.

Public Awareness refers to activities undertaken by city personnel and the Tree Board to increase public knowledge about trees and foster improved tree care, especially of private trees.

Tree Resource refers to activities undertaken by city personnel to improve the care of both public and private trees.

Administrative and Management

Goal 1: Management of the urban forest is cost-effective and efficient.

Follow Five-year Tree maintenance Plan and adjust as needed to allow for efficient use of budgeted funds.

Research the cost of a yearlong contract with a qualified tree care company to accelerate pace of remedial tree work.

Research adding part-time person to Public Works Department skilled in both bucket truck operation and tree pruning to reduce outside contractor costs.

Apply for grant funds to supplement city funds.

Investigate methods to increase the recycling and reuse of city green and wood waste.

Goal 2: Management strategies are acknowledged, understood and cooperatively implemented by appropriate municipal departments.

Work with Planning and Development Department to facilitate means to locate nearby trees on development plans and to encourage their protection.

Work with Parks and Cemetery crews to restrict root damage to trees when graves are opened.

Educate Public Works Department crews on ways to make proper cuts to limbs, limit root damage, and prevent compaction around trees.

Public Awareness

Goal 1: Citizens are aware of the benefits of trees.

Continue Lexington's involvement with Tree City USA and Tree City USA Growth Awards.

Goal 2: Citizens are encouraged to care for and preserve trees.

Educate Tree Board members about current tree care and tree issues.

Increase number of property-owner advice visits by City Arborist.

Use newspaper, web site and other resources to publicize this service.

Develop a newspaper column with tree advice.

Provide information to property owners and builders about reducing construction effects on trees.

Encourage the replanting of trees on private property when development results in tree removal.

Update City website to publicize Tree Ordinance.

Coordinate a mailing to business and property owners in the CBD regarding Tree Ordinance provisions for planting and removal.

Consider amending ordinance to provide for civil penalties for unapproved removal of trees in the CBD.

Tree Resource

Goal 1: Trees are appropriately selected, situated and maintained to minimize hazard, nuisance, hardscape damage and maintenance costs.

Update the tree inventory every three to four years.

Explore a program of replacement of inappropriate trees under utility lines.

Prioritize hemlock woolly adelgid control efforts so spraying efforts are not wasted on trees with extensive defoliation.

Goal 2: Optimum tree cover is established and maintained.

Choose large canopy trees for replanting wherever space allows.

Encourage the replanting of trees on private property when development results in tree removal.

Continue involvement in restoration of Woods Creek riparian area.

Goal 3: Optimum level of age and species diversity is established and maintained

Develop a master plan for landscaping of city parks. The plan should consider area use, maintenance constraints and existing plantings.

Whenever possible, choose tree species to maximize diversity.

Provide information to residents on less commonly used tree species.

Continue the removal of invasive plant species on all public property.

Goal 4: Conservation of tree resources is promoted.

Review development plans for tree impacts and recommend protection, mitigation and site plan changes to protect trees.

Take steps to protect trees near development from construction impacts.

Consider incentives to encourage protection of private trees during development. (See Appendix H for some potential strategies.)

Encourage the use of industry standards by all companies and agencies that work with trees.

APPENDICES

Appendix A – Tree-Related Policies and Recommendations from City Ordinances, Plans and Studies

General Development

Protect existing tree stands and encourage tree planting, especially along streets. (Comprehensive Plan, 1995, page 3-9.)

Utilize the City's development regulations to require that new development identifies, preserves and protects important natural features. (Comprehensive Plan, 1995, page 3-10.)

Protect and enhance the City's open space system. (Comprehensive Plan, 1995, page 3-10.)

The City should use its development tools such as site plan and subdivision review to carefully monitor development on steep slopes to minimize soil erosion and the loss of significant natural environmental features (Comprehensive Plan, 1995, page 3-9.)

The City should encourage owners and developers to utilize the Planned Unit Development (PUD) process to stimulate creative use of tracts of land . . . that encourages preserving natural landscape features through clustering development and leaving open space. (Comprehensive Plan, 1995, page 7-35.)

The siting of buildings, access roads, and parking lots shall respect and enhance existing landforms, natural features, cultural and historical qualities and visual characteristics. (Rockbridge County and City of Lexington Entrance Corridors and Interstate Interchanges Plan, 1996, page 124)

Small, landscaped, and interconnected parking lots, rather than large, central parking areas will be encouraged. (Rockbridge County and City of Lexington Entrance Corridors and Interstate Interchanges Plan, 1996, page 26)

Site plans are required and shall be submitted for all new structures, all renovated structures and all additions to existing structures, with the following exceptions: a) single-family dwellings b) two-family dwellings. . . and shall contain the following information . . . a landscape plan if requested by the city manager, his authorized agent of the Planning Commission. (City of Lexington Zoning Ordinance, Sec. 28-136-137, Site Plans, 2000.)

Development Within or Preservation of Riparian Areas

Where a subdivision is traversed by stream or other natural drainage way, the agent may require the subdivider to dedicate a suitable right-of-way or easement for storm water drainage or to construct adequate water drains. (City of Lexington Code, Section 22-15, 2000)

For PUDs (Planned Unit Developments) consisting of two contiguous acres or more, total usable open space shall be at least twenty percent of the gross acreage of the development. No more than twenty-five percent of the required percentage of usable open space shall be in the form of water surfaces or wetlands. (City of Lexington Zoning Ordinance, Sec. 28-102.06, Planned Unit Development, 2000)

Landscape Design, Installation, and Maintenance

Application for a certificate of appropriateness shall be filed with the zoning administrator. Materials submitted shall include a preliminary site plan, landscaping plan . . . (City of Lexington Zoning Ordinance, Sec. 28-86.7, Entrance Corridor Overlay District, 2000.)

1) Landscaping shall be used to soften the visual impact of development and enhance the appearance of the area. 2) Landscaping shall be sufficient to soften the visual effects of parking lots, reduce the effective visual mass of large buildings and provide screening between development, the street and surrounding lots. 3) Landscape buffers shall be provided adjacent to public streets of sufficient size to permit street trees and plantings to be installed to reduce the visibility into parking lots. (City of Lexington Zoning Ordinance, Sec. 28-86.8. Entrance Corridor Overlay District, 2000.)

Landscaping buffers and/or fences may be designated as a permit condition, in order to mitigate potentially negative impacts on adjoining properties. (City of Lexington Zoning Ordinance, Sec. 28-16.1. Care Homes, 2000.)

Existing structures and landscaping determined to contribute to the character of the neighborhood shall not be removed. (City of Lexington Zoning Ordinance, Sec. 28-16.3. Bed and breakfast establishments, 2000.)

Tower facilities shall be landscaped with a buffer of plant materials that effectively permanently screens the view of the support buildings from adjacent property. The standard buffer shall consist of a landscaped strip at least four feet wide outside the perimeter of the compound. Landscaping shall provide an effective buffer throughout the year. . . Existing mature tree growth and natural landforms on the sites shall be preserved to maximum extent possible. (City of Lexington Zoning Ordinance, Sec. 28-23.2. Telecommunication towers, 2000.)

As a requirement of subdivision approval the applicant shall plant shade trees within five feet of the right-of-way of the street or streets within and abutting the subdivision. One tree shall be planted for every forty feet of frontage along such roads unless the Planning Commission grants a waiver. A waiver shall be granted only if there are trees growing along the right-of-way or on abutting property which, in the opinion of the Planning Commission, comply with these regulations. **Trees shall have a minimum caliper of two inches. The species shall be submitted to the Zoning Administrator for approval prior to planting.** (City of Lexington Code, Section 22-11, Requirements Generally, 1999.)

Landscape plantings must provide continuity and identity within the Corridors.

- Existing vegetation will be preserved and enhanced.
- New plantings will be compatible with the existing vegetation.
- Trees will be planted in clusters and under planted with low evergreen shrubs and groundcovers.
- Plantings will frame businesses and their signs.

(Rockbridge County and City of Lexington Entrance Corridors and Interstate Interchanges Plan, 1996, page 27)

A FRAMEWORK FOR FUTURE GROWTH AND DEVELOPMENT . . . Expansion and Integration of Greenways . . . While downtown's streets do not have many trees lining them, there are numerous public and private greenspaces setback into the building fabric. These front yards to churches and civic buildings, vest pocket parks, and courtyards are wonderful surprise finds as one walks around downtown. Future development should expand on this network. (Physical Development Plan, Downtown Historic District, 1997, page 8)

Arrival Corridors . . . Arrival corridors are considered to be the two-block area preceding each gateway to downtown. They are, in essence, downtown's welcome mats.

Utilizing the existing district boundaries as termini, four arrival corridor zones are proposed to protect and enhance the first impression of downtown.

In each direction, a zone is proposed to be preserved and enhanced as an Arrival Corridor. These zones will contain regulations on entrances and signage, and be empowered with finances to create tree-lined roads that will maintain the current parkway-like experience over the long term. . .

It is proposed that along the 600 feet leading to a gateway intersection, canopy trees be installed by the public sector. Easements should be acquired into adjacent properties to secure the trees' long-term survival.

It is further recommended that municipal plantings be installed in the Arrival Corridor areas that will help frame the entry way views to downtown.

(Physical Development Plan, Downtown Historic District, 1997, pages 11-12)

Gateways to Downtown . . .Route 11 North Gateway . . . Street trees would be added along the sidewalks with minimal loss of existing parking spaces. (Physical Development Plan, Downtown Historic District, 1997, pages 14-15)

Secondary Pathways: Alleys and Other Short Cuts . . . Landscaping . . . Existing mid-block sidewalks and alleyway pathways can be connected with redevelopment of interior lots. On these lots, proper landscaping can make these places more welcoming for visitors and residents. Care should be taken to prevent growth in the viewing zone, from approximately 3' to 7' above the ground. With this in mind, canopy trees are desirable, as only their trunks are in this zone, as well as small shrubs and flowers to partially screen cars, as they are below this visibility comfort zone. (Physical Development Plan, Downtown Historic District, 1997, page 36)

Ambience . . . Patterns On Which to Build . . . Main Street . . . exhibits solid groups of storefront buildings, punctuated by the occasional institution – courthouse, church or library – set back several feet. These private-sector setback areas are the appropriate areas along Main Street for trees, as they will tend to prevent blocking the axial view as they grow, while still softening the surface areas of the larger institutions. (Physical Development Plan, Downtown Historic District, 1997, pages 39-40)

Stopping Places . . . Expand and Enhance Downtown Greenspace Network . . . In addition to the larger public squares and shared parking, Lexington has the potential to offer a second level of greenspaces in the form of courtyards. Truly great American cities use their outdoor spaces effectively, whether they are publicly or privately owned. . . A second type of outdoor space proposal is the further development of institutional and ecclesiastical spaces around buildings . . . It is recommended that the public and semi-public institutions continue to work with the Tree Committee to enhance Lexington's landscape through trees on these lands. An easement could be considered for the sustainability of the trees, similar to the one authored for the entrance corridor plantings. (Physical Development Plan, Downtown Historic District, 1997, page 42)

Appendix B: Lexington City Tree Ordinance

Ordinance 2000-01

AN ORDINANCE ADOPTING CITY CODE CHAPTER 25.1 REGARDING TREES

WHEREAS, the Council has prepared a new Chapter to the Code, Chapter 25.1 which deals with the establishment and maintenance of trees on public lands and rights of way; and,

WHEREAS, Said Chapter shall be entitled, "TREES" and added to the Code in its entirety.

BE IT ORDAINED AND ENACTED by the Mayor and Council of the City of Lexington, Virginia, that the following Chapter, Chapter 25.1 be added to the Code as follows:

Chapter 25.1 TREES

Sec. 25.1 - 1. Purpose and Intent.

This ordinance establishes policies, regulations and standards necessary to ensure that the City of Lexington will continue to realize the benefits provided by its trees. The provisions of this ordinance are enacted to:

- (a) Establish and maintain the maximum sustainable amount of tree cover on public and private lands in the City;
- (b) Maintain City trees in a healthy and non-hazardous condition through good arboricultural practices;
- (c) Establish and maintain an optimal level of age and species diversity;
- (d) Promote conservation of tree resources;
- (e) Select, situate and maintain public trees to maximize benefits and minimize hazard, nuisance, hardscape damage, and manage costs at an appropriate level;
- (f) Coordinate tree management under a person or agency with the necessary expertise;
- (g) Foster community awareness and support for a local urban forestry program, and foster good tree management on privately owned properties.

Sec. 25.1 - 2. Definitions.

For the purpose of this chapter, the following words and phrases shall have the meanings respectively ascribed to them by this section:

- (a) **City**: The City administration and/or City Council unless the context in which the term is used indicates otherwise.
- (b) **City Arborist**: A person receiving training or trained in arboriculture, forestry, horticulture, and/or landscape architecture in the employ of or under contract to the City, duly appointed by the City Manager, and charged with the responsibility of enforcing the provisions of this chapter.
- (c) **Critical Root Zone**: That area which falls within a tree's drip line (a vertical line extending from the outermost portion of the canopy to the ground).
- (d) **DBH**: Diameter of a tree trunk at 4.5 feet above grade.
- (e) **Hazard tree**: Any tree which by virtue of its condition, surroundings, and tendency to fail constitutes a risk to life, health, or property.
- (f) **Maintenance**: Includes all operations of trimming, pruning, spraying, injecting, fertilizing, treating, bracing, and cutting above or below the ground.
- (g) **Park**: Public parks or public open spaces having instituted names.

(h) **Public area:** All public land and rights-of-way within the corporate limits of the City, owned or held by the City including rights-of-way for streets, alleys, sidewalks, utility lines and facilities, median strips and other City facilities including parks and cemeteries.

(i) **Public trees:** Trees planted in public areas.

(j) **Public Utility company:** Any corporation, company, individual, association, or cooperative that is a "public utility" as defined in Section 56-232 of the Code of Virginia, 1950, as amended.

(k) **Tree:** Any self-supporting woody plant growing upon the earth that usually possesses one main trunk and produces a more or less distinct and elevated head with many branches.

Sec. 25.1 - 3 Policies Regarding Trees.

It shall be the policy of the City to:

- (a) Recognize that trees are a vital part of the urban infrastructure.
- (b) Promote the planting of site-appropriate trees along City streets.
- (c) Plant trees in "pocket parks" in the downtown area to preserve views and reduce conflicts between buildings and trees.
- (d) Properly plant and maintain trees to promote their longevity and safety.
- (e) Conduct a consistent and adequate program for maintaining and preserving trees.
- (f) Promote the involvement of both the public and private sectors in maintaining the health of the "community forest" of the City.

Sec. 25.1 - 4 City Arborist.

This ordinance hereby establishes the position of City Arborist whose authority and responsibilities are defined in Section 15 of this ordinance. The City Arborist shall be appointed by and shall act under the direction and control of the City Manager or his designee.

Sec. 25.1 - 5 Tree Board.

This ordinance hereby establishes a City Council-appointed Tree Board with comment authority to serve as an advisory board to the City Council, Planning Department, and City Arborist. The Tree Board shall consist of 5 members appointed for 3-year staggered terms.

Sec. 25.1- 6 Comprehensive Tree Management Plan.

The City Arborist shall have the authority to formulate, revise, and administer a Comprehensive Tree Management Plan known hereafter as the Plan. The Plan shall be reviewed and approved by the Tree Board and the City Council. The Plan shall govern tree planting, maintenance and removal of trees planted along City streets and in public areas, and make provisions for educating the public about trees.

Sec. 25.1 - 7 City Plantings

(a) All plantings existing or installed on any public area located within the corporate limits and owned by the City shall become the property of the City, and be under the control of the City and subject to all regulations of the City.

(b) No person, except authorized employees of the City, shall remove intentionally planted trees, shrubs or plantings from land owned by the City or within a City right-of-way without first procuring authorization from the City Arborist. The person who obtains such authorization shall bear the cost of removal if it is determined that the tree, shrub or planting does not present a hazard to person or property.

Sec. 25.1 - 8 Protection of Trees.

(a) Any tree on any land owned by the City or within a City right-of-way which is near any excavation or construction of any building, structure, or street work, shall, if feasible, have its critical root zone protected with an effective fence, frame, shield, or box not less than three (3) feet high, and all building material, dirt or other debris shall be kept outside this barrier.

(b) No person, including public utility companies and City Departments, shall excavate any ditches, tunnels, trenches, or lay any line within the critical root zone of any tree on land owned by the City or within a City right-of-way without notification of and discussion with the City Arborist. In the event of a disagreement between the public utilities, City departments and the City Arborist, the decision regarding the location of excavation will be made by the City Manager.

(c) Any person performing emergency work to restore, but not increase beyond the original capacity of, underground utilities, and within the same trench as existing utilities, shall be exempt from this notification, provided that the City Arborist is notified as soon as practical should excavation necessitate severing roots in excess of three (3) inches in diameter.

(d) All trees on public areas shall, to the degree practical, be pruned or trimmed in accordance with the standards described in the American National Standards Institute's A300 Pruning Standard. This applies to all public utility companies and City Departments involved in maintenance of easements.

Sec. 25.1 - 9 Damage Prohibited.

(a) Unless specifically authorized by the City Arborist, or by the City Manager as detailed in Section 25.1-8 (b) no person shall intentionally damage, cut, carve, disturb, transplant or remove any public tree or planting; allow any gas, liquid or solid substance which is harmful to such trees to come in contact with them; set fire to or allow the heat thereof to injure any portion of any such tree; change the natural grade of the critical root zone of such trees either by excavating or filling. Any person violating the provisions of this section shall be guilty of an unclassified misdemeanor punishable with a fine of up to \$100.00, and, in addition thereto, shall be responsible for the cost of repair or replacement of any such tree so damaged.

(b) It shall be unlawful as a normal practice to top any public tree. "Topping" is defined as the severe cutting back of limbs to stubs larger than three (3) inches in diameter within the tree's crown to such a degree so as to remove the normal canopy, disfigure the tree, and create a public hazard. Trees severely damaged by storms or other causes, or certain trees under utility wires or other obstructions where other pruning practices are impractical, may be exempted from this subsection as determined by the City Arborist.

Sec. 25.1 - 10 Prior Notice For Removal.

(a) For public safety, and to avoid damage to public utilities, owners considering the removal of trees greater than 6 inches DBH and growing within 15 ft. of the City right-of-way should notify the City Arborist of their removal plans.

(b) In the Central Business District, there shall be no planting or removal of intentionally planted trees without prior notification, review, and approval of the Tree Board

Sec. 25.1 - 11 Remedies for Hazard Trees.

(a) The City shall provide for removal of dead, diseased, or hazard trees or shrubs on land owned by the City or within a City right-of-way when such trees are determined by the City Arborist to constitute a hazard to life, health, or property.

(b) If a hazard tree is located on private property, and if the tree constitutes a hazard to the general public, the City Arborist shall notify the owner of the premises as follows:

1. Such notification shall be:
 - (i) in writing,
 - (ii) by certified mail, return receipt requested,
 - (iii) mailed to the address of the owner shown on the records in the office of the Commissioner of Revenue, and
 - (iv) cite the tree's condition and the corrective action required to remedy the hazard tree.
2. If such owner cannot be found, a copy of such notice shall be placed next to said tree or part thereof.
3. Written notice shall also be given to any tenant occupying such property.

(c) Upon receipt of the written notice described above, the property owner may appeal the order to the City Manager. Such appeal must be made in writing within fifteen (15) days of notification from the City Arborist. Any actions required in the notice shall be delayed pending the City Manager's response to the appeal.

(d) If any work required to be done by the City Arborist is not accomplished within the time specified, the City Attorney may institute a suit to compel the responsible party to remedy or remove the hazard tree and to recover the necessary costs incurred for the provision of emergency services reasonably required to remedy or remove any such hazard tree.

(e) The term "responsible party" shall include, but not be limited to, the owner of the premises where the hazard tree is located.

Sec. 25.1 - 12 Appeals Process.

Any action of the City Arborist or his or her designee may be appealed to and heard by the Tree Board. An appeal, to be effective, must be filed within 15 days after the action of the City Arborist or his or her designee. The appeal shall be in writing and shall clearly specify the reason or reasons for which a hearing is requested. After a hearing, the Tree Board shall render its decision. Any action of the Tree Board may be appealed to and heard by the City Manager. This appeal must be filed within 15 days after the decision of the Tree Board, must be in writing, and must clearly specify the reasons for which a hearing is requested. Decisions of the City Manager shall be final.

Sec. 25.1 - 13 Penalties for Violation.

Unless specified elsewhere, violation of any section of this chapter shall be an unclassified misdemeanor punishable by a fine as set forth in the annual appropriations resolution.

Sec. 25.1 - 14 Enforcement.

The City Arborist is hereby charged with the responsibility for the enforcement of this ordinance and may serve notice to any person in violation of it, or may recommend the institution of legal proceedings as may be required. The City Manager may request the City Attorney to institute appropriate legal proceedings to that end.

Sec. 25.1 - 15. Performance Evaluation.

The City Arborist shall collect and maintain all records and data necessary to evaluate whether progress is being made toward the stated goals of this ordinance. An annual summary and analysis of the evaluation, and recommendations for action shall be prepared and presented to the City Council.

Sec. 25.1 -16. Severability.

Should any part or provision of this ordinance be declared by a court of competent jurisdiction to be invalid, the same shall not affect the validity of the ordinance as a whole or any part thereof other than the part held to be invalid.

Sec. 25.1 - 16. Administrative Responsibilities.

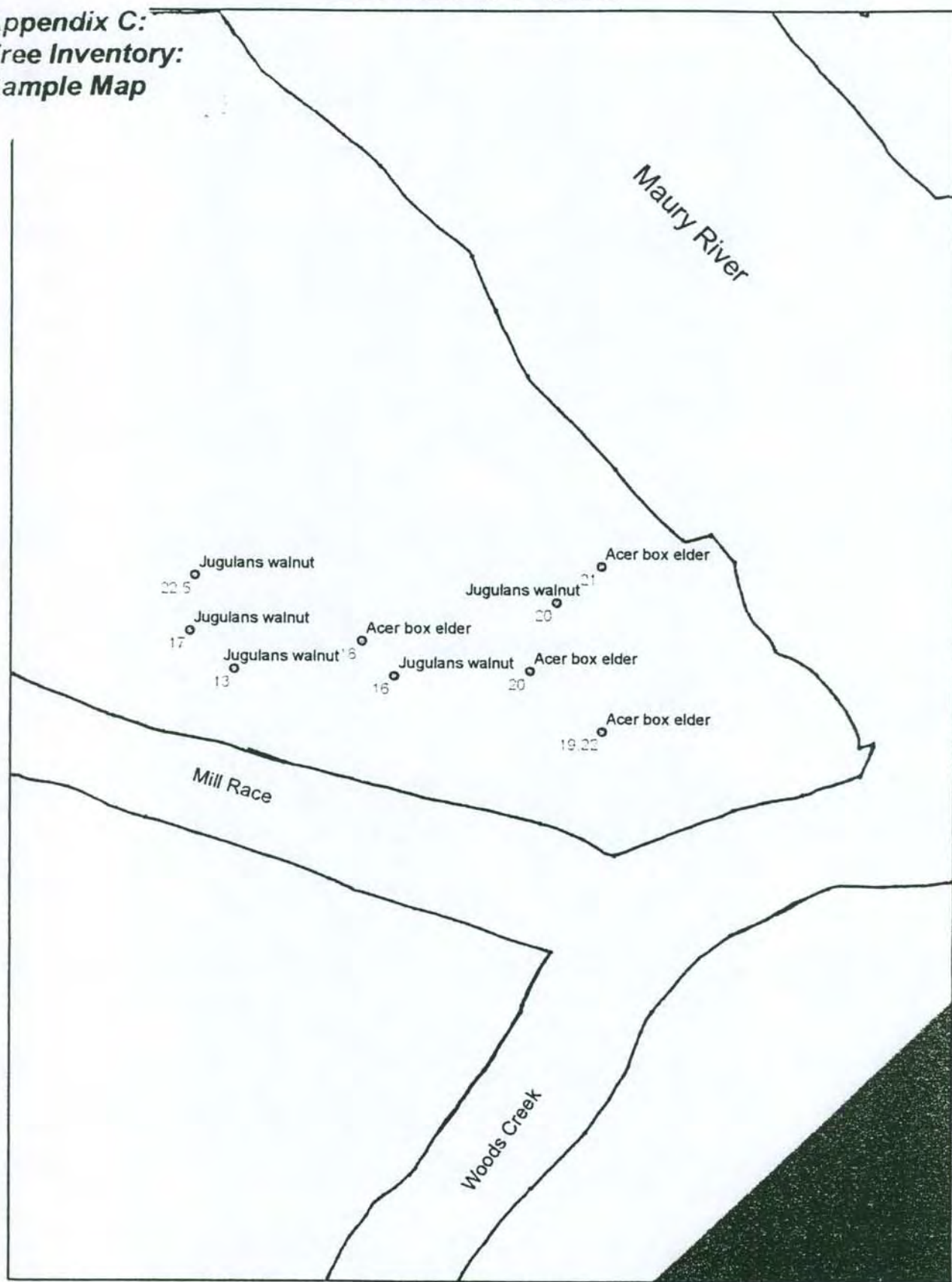
- (a) The City Arborist or designee is hereby vested with the authority to carry out the following responsibilities:
- (1) Develop and revise the Comprehensive Tree Management Plan for Tree Board and City Council approval;
 - (2) Implement a monitoring program to evaluate whether goals are being met;
 - (3) Direct municipal tree-care operations;
 - (4) Assist with the preparation of, or review, the municipal tree care budget;
 - (5) Review and prepare comments for proposed site plan work that involves trees;
 - (6) Seek funding from state, federal or other granting agencies or resources;
 - (7) Conduct community outreach and education programs;
 - (8) Enforce ordinance provisions;
 - (9) Prepare and maintain all necessary current maps, plans and records relating to the various functions of this ordinance;
 - (10) Report to the City Council annually on the work and activities related to the provisions of this ordinance;
 - (11) Preserve historical records of the Arborist and the Tree Board.
 - (12) Provide limited advice to City residents concerning the care and maintenance of privately owned trees.
- (b) The Tree Board is hereby vested with the authority to carry out the following responsibilities:
- (1) Review notifications for activities that affect trees within the Central Business District;
 - (2) Conduct community outreach and education programs;
 - (3) Assist with the development, revision and evaluation of the Comprehensive Tree Management Plan;
 - (4) Seek funding from state, federal or other granting agencies;
 - (5) Evaluate yearly whether progress is being made toward the goals of this ordinance.

Adopted: _____ H.E. Derrick, Jr., Mayor

Penni F. McMichael, Clerk

Tree Data - Jordan's Point

Appendix C:
Tree Inventory:
Sample Map



showing species and DBH

Appendix C: Tree Inventory: Sample Database

TreeID	GPS Easting	GPS Northing	Location	Species	DBH	Condition	Height
371	11210220.254	3810263.845	Street or Roadside	Platanus sycamore	15	excellent	48
372	11210178.019	3810214.832	Street or Roadside	Platanus sycamore	14	excellent	48
373	11210191.011	3810234.881	Street or Roadside	Platanus sycamore	12	excellent	46
374	11210419.354	3810711.619	Parking Lot	Zelkova	6, 7.5	good	18
375	11210395.945	3810735.555	Parking Lot	Celtis hackberry	9	fair	25
376	11210426.13	3810754.89	Parking Lot	Celtis hackberry	9	good	20
377	11210404.117	3810776.011	Parking Lot	Celtis hackberry	6	fair	20
378	11210434.362	3810785.373	Parking Lot	Celtis hackberry	9	good	30
379	11210462.09	3810757.446	Parking Lot	Celtis hackberry	12	good	40
380	11210483.243	3810788.742	Parking Lot	Celtis hackberry	13	excellent	40
381	11210459.965	3810808.365	Parking Lot	Celtis hackberry	10	good	30
382	11210492.495	3810821.346	Parking Lot	Celtis hackberry	9.5	fair	25
383	11210465.718	3810847.596	Parking Lot	Celtis hackberry	10	good	30
384	11210469.987	3810897.706	Street or Roadside	Tilia linden basswoo	9, 7	good	20
385	11210436.364	3810867.442	Street or Roadside	Tilia linden basswoo	3,3,2	fair	15
386	11210423.624	3810851.047	Street or Roadside	Tilia linden basswoo	3,3	poor	15
387	11210410.402	3810839.275	Street or Roadside	Tilia linden basswoo	3,3,2	poor	10
388	11210398.046	3810821.556	Street or Roadside	Tilia linden basswoo	3,3,2	poor	12
389	11210384.417	3810807.657	Street or Roadside	Tilia linden basswoo	2	good	10
390	11210348.208	3810767.853	Street or Roadside	Tilia linden basswoo	5,5,3	good	16
391	11210373.752	3809700.441	Parking Lot	Pinus pine	5	good	12
392	11210396.488	3809704.598	Parking Lot	Acer other	2,2	excellent	110
393	11210407.479	3809712.466	Parking Lot	Acer other	2,2	excellent	10
394	11210420.946	3809722.611	Parking Lot	Acer other	2,2	excellent	10
395	11210557.471	3809827.612	Parking Lot	Acer sugar	4	excellent	22
396	11210632.541	3809883.486	Parking Lot	Acer sugar	3	excellent	20
397	11210657.406	3809902.092	Parking Lot	Acer sugar	3	excellent	20
398	11210703.89	3809940.723	Parking Lot	Ulmus elm	5	excellent	20
399	11210714.376	3809953.779	Parking Lot	Ulmus elm	5	excellent	20
400	11210706.736	3809988.168	Parking Lot	Ulmus elm	5	excellent	22
401	11210693.271	3810060.542	Parking Lot	Cladrastis yellowood	1	excellent	8
402	11210698.191	3810067.09	Parking Lot	Cercis redbud	2	excellent	10
403	11210716.103	3810082.638	Parking Lot	Cercis redbud	2	excellent	10
404	11210708.384	3810075.968	Parking Lot	Cornus florida	1	good	6
405	11210726.313	3810097.311	Parking Lot	Cornus florida	1	good	6
406	11210732.776	3810101.438	Parking Lot	Cornus florida	1	good	6
407	11210743.457	3810118.204	Parking Lot	Malus crabapple	2	excellent	8
408	11214576.204	3813685.746	Jordans Point	Acer silver	16,24,28	good	60
409	11214519.47	3813671.332	Jordans Point	Platanus sycamore	42.5	good	100
410	11214473.876	3813596.184	Jordans Point	Platanus sycamore	38.5	excellent	114
411	11214192.155	3813821.385	Jordans Point	Platanus sycamore	.5	good	8
412	11214031.297	3813767.267	Jordans Point	Platanus sycamore	.5	good	6
413	11213887.428	3813768	Jordans Point	Cornus florida	1	good	5
414	11214042.597	3813781.249	Jordans Point	Betula birch	1	good	5
415	11214048.473	3813813.067	Jordans Point	Betula birch	1	good	6
416	11214157.291	3813818.485	Jordans Point	Ostrya hophornbea	.5	good	5

Spread	FailurePo	SizeofD	TargetRati	HazardComme	Work1	Work2	Other Comments
45	1	1	3		crown raising		CHESS PARK
45	1	1	3		crown raising		CHESS PARK
38	1	1	3		crown raising		CHESS PARK
16	1	1	4		fertilize		mccrums
25	1	1	4		fertilize	other prune	mccrums pkg lot crown restor
20	1	1	4		fertilize	other prune	mccrums pkg lot crown restor
14	1	1	4		fertilize	other prune	mccrums pkg lot crown restor
16	1	1	4		fertilize	other prune	mccrums pkg lot crown restor
30	1	1	4		fertilize	other prune	mccrums pkg lot crown restor
40	2	2	4		fertilize	other prune	mccrums pkg lot crown restor
30	1	1	4		fertilize	other prune	mccrums pkg lot crown restor
20	1	1	4		fertilize	other prune	mccrums pkg lot crown restor
30	1	1	4		fertilize	other prune	mccrums pkg lot crown restor
16	1	1	3	codoms	structural prune		mccrums pkg lot
15	2	1	3	codoms	structural prune optional remov		mccrums pkg lot/ along st in b
8	3	1	3	codoms	structural prune optional remov		mccrums pkg lot/ along st in b
8	3	1	3	codoms	structural prune optional remov		mccrums pkg lot/ along st in b
10	3	1	3	codoms split de	structural prune optional remov		mccrums pkg lot/ along st in b
6	1	1	3		structural prune fertilize		mccrums pkg lot/ along st in b
16	2	1	3		structural prune fertilize		mccrums pkg lot/ along st in b
10	1	1	1				roy smith pkg lot blk pine
10	1	1	3		fertilize	structural prune	roy smith pkg trident maple
10	1	1	3		fertilize	structural prune	roy smith pkg trident maple
10	1	1	3		fertilize	structural prune	roy smith pkg trident maple
10	1	1	3		crown raising	structural prune	roy smith pkg bowhall cv
10	1	1	3		crown raising	structural prune	roy smith pkg bowhall cv
10	1	1	3		crown raising	structural prune	roy smith pkg bowhall cv
16	1	1	1		structural prune miscellaneous		roy smith pkg lacebark elm
16	1	1	1		structural prune miscellaneous		roy smith pkg lacebark elm
20	1	1	1		structural prune miscellaneous		roy smith pkg lacebark elm
3	1	1	3		structural prune		roy smith pkg
6	1	1	3		structural prune		roy smith pkg
6	1	1	3		structural prune		roy smith pkg
4	1	1	3		structural prune		roy smith pkg
4	1	1	3		structural prune		roy smith pkg
4	1	1	3		structural prune		roy smith pkg
5	1	1	1		structural prune		roy smith pkg cv candy apple
42	2	3	1	codoms next to hazard	prune		
50	1	1	2				
60	1	1	2				
2	1	1	1				
1	1	1	1				
2	1	1	1				
2	1	1	1				
3	1	1	1				
2	1	1	1				

Appendix D: Tree Inventory: Condition Rating

5 = Excellent: Young thrifty tree

4 = Good: Healthy tree with minor defects such as:

- Small girdling roots
- Small trunk wounds
- Minor basal wound from string trimmer or lawn mower
- Restricted soil volume
- Co-dominant stems without evidence of decay
- Small pruning wounds

3 = Fair: Tree with one major defect:

- Severed roots close to trunk
- Girdling root (>1/3 circumference with evidence of root death)
- Evidence of butt rot
- Young tree with large (>1/3 circumference) basal wound
- Large bole wound (>1/3 circumference) with evidence of decay
- Co-dominant stems with evidence of decay
- Main stems topped
- Low vigor (<2" shoot extension per year)
- Small or disfigured leaves throughout crown

2 = Poor: Declining tree with at least two of the above major defects

1 = Dead: dead tree

(Condition Rating Source: Jerry Bond, Cornell Cooperative Extension)

Appendix E: Tree Inventory: Hazard Rating

Hazard Rating = Failure Potential + Size of Part + Target Rating

Failure Potential (4 points): *Failure potential* identifies the most likely part of the tree to fail and rates the likelihood the structural defect(s) will result in failure before reinspection. Examples of ratings are:

- 1 – low: defects are minor (e.g. dieback of twigs, small wounds with good woundwood development)
- 2 – medium: defects are present and obvious (e.g. cavity encompassing 10-25% of the circumference of the trunk, multiple pruning wounds with decay along a branch)
- 3 – high: numerous and/or significant defects present (e.g. cavity encompassing 30-50% of the circumference of the trunk, multiple pruning wounds with decay along a branch)
- 4 – severe: defects are very severe: (e.g. heart rot decay, conks along main stem, cavity encompassing more than 50% of the trunk)

Size of defective part (4 points): *Size of defective part* rates the size of the part most likely to fail. The larger the part is, the greater the potential for damage. Therefore, the size of the failure affects the hazard potential. Examples of ratings are:

- 1 – most likely failure less than 6 inches in diameter
- 2 – most likely failure 6 to 18 inches in diameter
- 3 – most likely failure 18 to 30 inches in diameter
- 4 – most likely failure greater than 30 inches in diameter

Target rating (4 points) *Target rating* rates the use and occupancy of the area that would be struck by the defective part.

- 1 – occasional use: (e.g. jogging/cycling trail, sidewalk, driveway entrance, street)
- 2 – intermittent use: (e.g. picnic area, day-use parking, main road)
- 3 – frequent use, secondary structure (e.g. seasonal camping area, storage facilities, busy intersection)
- 4 – constant use, structures: (e.g. year-round use for a number of hours each day, residences)

Hazard Rating Source: Matheny/Clark, 1994. A Photographic Guide to Evaluation of Hazard Trees in Urban Areas. 2nd ed. Savoy, IL: ISA

Tree City Growth Awards Can Help Your Community GROW A BETTER

By James R. Fazio

What would happen to a Boy Scout if all he did was earn the basic badges – Tenderfoot, Second Class and First Class? He would certainly have a start in scouting, but he would probably get bored, possibly drop out, and definitely not reach his full potential. Instead, most scouts strive for merit badges and keep earning awards right up to Eagle Scout. The possibilities are almost endless and the activities are varied enough to provide something for every young man's interests.

So it is with The National Arbor Day Foundation's Tree City USA® Growth Awards program. Once a community has met the four basic standards for a Tree City USA award, it is eligible to try for a Growth Award. This program includes four categories, each with a long list of related activities with points assigned to each. When a Tree City USA community completes enough activities to earn ten points, this demonstration of progress qualifies it for the Growth Award. Since inception of the program in 1991, 50 percent of the

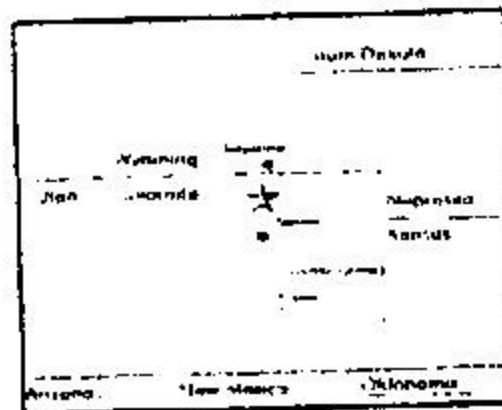
Education and Public Relations



Workshops about tree care are among the many educational projects that are eligible to meet the requirements in this category. The sessions may be for the general public or specific groups like tree workers, tree boards, youth or home owners. Award programs for 'best landscaping' or service on volunteer projects also qualify, as do exemplary efforts to publicize the local tree program. This category has proved to be the most popular of the four activity groupings.

Windsor, Colorado

Last year, the Windsor Tree Board published an Arbor Day Poster Calendar. The colorful calendar featured posters from the Windsor School District's elementary students and twelve "Trees of the Month," complete with leaf art and tree facts and care tips.

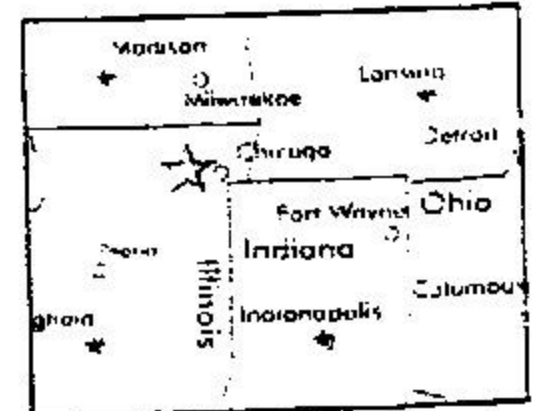


Partnerships

The purpose of suggested activities in this category is to improve efficiency, save money and create 'synergy' (that is, results greater than those of the individual partners alone) by promoting collaboration between stakeholders. This might be a partnership between property owners and a construction company to save trees during a building project. It could be having two or more groups or communities join together in purchasing trees or sharing a consultant or full-time forester. It might mean fostering cooperation between the city engineering department and the forestry staff so that construction plans are reviewed and approved by both. The possibilities are endless, and so are the benefits that can come from partnerships.

Glendale Heights, Illinois

Through an Illinois Serve and Learn Grant, the Village of Glendale Heights' Parks and Recreation Department and the Glendale Middle School have created a tree nursery. In this unique nursery, eighth-grade students care for seedlings destined to be transplanted throughout the community.



Tree Program

nation's 2,776 Tree City USA communities have at one time or another earned the right to add the Growth Award distinction to their signs, plaques, and publicity materials. Fifty-four communities have earned Growth Awards for ten years or more, qualifying them for yet another distinction - Sterling Tree City USA recognition. One community, Paramus, New Jersey, has received the Tree City USA award each of the 26 years the award has existed, and the Growth Award every year since it was first offered!

The underlying theme of these incentive programs is "Take Pride in Your Progress." Here are some examples of how Tree City USA communities can meet requirements for a Growth Award and make progress toward better tree care.

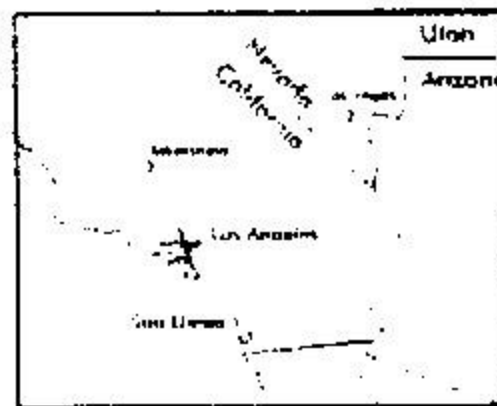
For complete information about Growth Awards, contact your state forester's office or The National Arbor Day Foundation for a copy of the Tree City USA Growth Awards application that explains this program in detail and includes a complete list of eligible activities, also available at arborday.org/treecitygrowth.

Planning and Management

This is a broad category that includes efforts undertaken to improve the planning and management of a local tree program. Projects that qualify include but are not limited to: inventories, sidewalk/curb replacement policies, management plans, improved tree ordinances, protecting or creating wildlife habitat, developing a disaster plan, or hiring a full-time city forester for the first time.

Glendale, California

The health of trees comes first in Glendale, thanks to the community's innovative sidewalk installation guidelines. The city requires evaluation by the urban forester whenever roots will be significantly affected. Guidelines also allow for alternatives, including reduced sidewalk width, ramping of sidewalks over tree roots, and reconfiguring sidewalks to curve around trees.

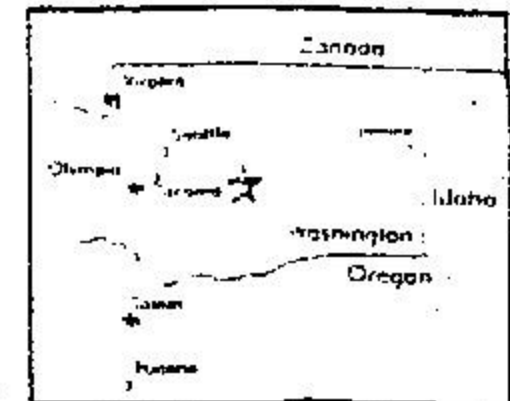


Tree Planting and Maintenance

Special tree planting or pruning projects can earn points in this category. So can creating a recycling program to responsibly handle tree wastes, or adopting an environmentally friendly pest management program. Projects to assess tree hazards or to eliminate topping are other examples.

Fairchild Air Force Base, Washington

To celebrate Arbor Day 2001, volunteers planted 1,600 hybrid poplars in a project to help clean up ground water contamination. The one-acre test site will explore the use of trees to remove, break down, or sequester pollutants in soil and water.



Appendix F: National Arbor Day Foundation: Tree City USA

The Four Standards of a Tree City USA

1. A Tree Board or Department
2. A Tree Care Ordinance
3. A Community Forestry Program With an Annual Budget of at Least \$2 Per Capita
4. An Arbor Day Observance and Proclamation

To qualify for Tree City USA, a town or city must meet four standards established by The National Arbor Day Foundation and the National Association of State Foresters. These standards were established to ensure that every qualifying community would have a viable tree management plan and program. It is important to note that they were also designed so that no community would be excluded because of size.

1. A Tree Board or Department

Someone must be legally responsible for the care and management of the community's trees. This may be a professional forester or arborist, an entire forestry department, or a volunteer tree board. Often, both a professional staff and advisory tree board are present, which is a good goal for most communities. A tree board, or commission, is a group of concerned volunteer citizens charged by ordinance with developing and administering a comprehensive tree management program. Balanced, broad-based community involvement is encouraged. Boards function best if not composed entirely of tree-related professionals such as forestry professors, nursery operators, arborists, etc. Fresh ideas and different perspectives are added by citizens with an interest in trees that is entirely avocational. Limited, staggered terms of service will prevent stagnation or burnout, while at the same time assuring continuity.

2. A Tree Care Ordinance

The tree ordinance must designate the establishment of a tree board or forestry department and give this body the responsibility for writing and implementing an annual community forestry work plan. Beyond that, the ordinance should be flexible enough to fit the needs and circumstances of the particular community. A tree ordinance provides an opportunity to set good policy and back it with the force of law when necessary. Ideally, it will provide clear guidance for planting, maintaining and removing trees from streets, parks and other public places. For tips and a checklist of important items to consider in writing or improving a tree ordinance, see Bulletin No. 9.

3. A Community Forestry Program With An Annual Budget Of At Least \$2 Per Capita

Evidence is required that the community has established a community forestry program that is supported by an annual budget of at least \$2 per capita. At first, this may seem like an impossible barrier to some communities. However, a little investigation usually reveals that more than this amount is already being spent by the municipality on its trees. If not, this may signal serious neglect that will cost far more in the long run. In such a case, working toward Tree City USA recognition can be used to re-examine the community's budget priorities and re-direct funds to properly care for its tree resource before it is too late. Ideally, this standard will be met by focusing funding on an annual work plan developed after an inventory is completed and a report is approved by the city council. Such a plan will address species diversity, planting needs, hazardous trees, insect and disease problems and a pattern of regular care such as pruning and watering.

4. An Arbor Day Observance and Proclamation

This is the least challenging and probably the most enjoyable standard to accomplish. An Arbor Day celebration can be simple and brief or an all-day or all-week observation. It can be a simple tree planting event or an award ceremony that honors leading tree planters. For children, Arbor Day may be their only exposure to the green world or a springboard to discussions about the complex issue of environmental quality. The benefits of Arbor Day go far beyond the shade and beauty of new trees for the next generation. Arbor Day is a golden opportunity for publicity and to educate homeowners about proper tree care. Utility companies can join in to promote planting small trees beneath power lines or being careful when digging. Smokey Bear's fire prevention messages can be worked into the event, as can conservation education about soil erosion or the need to protect wildlife habitat. Still another way to develop Arbor Day is to link it with a tree-related festival.

Appendix G: Gateway Tree Grants / Landmark Tree Endowment Program

Historic Lexington Foundation sponsors the Gateway Tree Grant and Landmark Tree Endowment Programs. These two programs help defray the cost of planting a tree on private or public property. The Lexington Tree Board has replaced the Lexington Tree Committee mentioned in the program information.

Lexington Tree Committee's



Gateway Tree Grant Program

for the City of Lexington
*The Lexington Tree
Committee aspires to plant
shade trees in the Historic
Downtown and along the
four Gateways into the
city, either through the*

Landmark Tree Endowment Program or through the:

GATEWAY TREE GRANTS

Tree planting grants are available if you own property or a business in the Downtown Historic District or along either one of the four Gateways into Lexington. The four Gateways into Lexington are designated as:

Main Street (Lee Highway north and south)
Nelson Street (Midland Trail east and west)

LTC offers grants to help subsidize Gateway property owners in their tree planting efforts. These grants will range in size from \$50 to \$500 depending on:

tree selection / the planting site
property owner's resources

In exchange for the grant, the property owner must agree to the terms of a LTC Maintenance Agreement. This agreement outlines both the commitment that LTC and the property owner will make towards the tree, and includes necessary short and long term care to keep the tree flourishing and safe.

For more information contact the LTC office:
540-464-1310
Second Floor of the 1st Union Bank
101 South Main Street

THE ESSENTIALS OF PROPER TREE PLANTING



Tree Selection

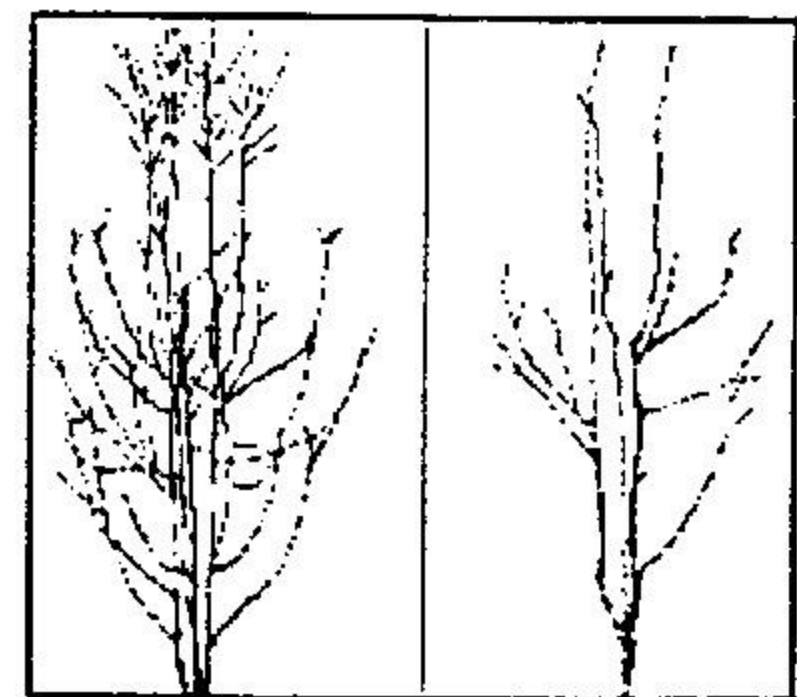
The right tree for the right site



Preparation & Planting

Excavation & utility relocation [if necessary]

Proper drainage & soil amendments

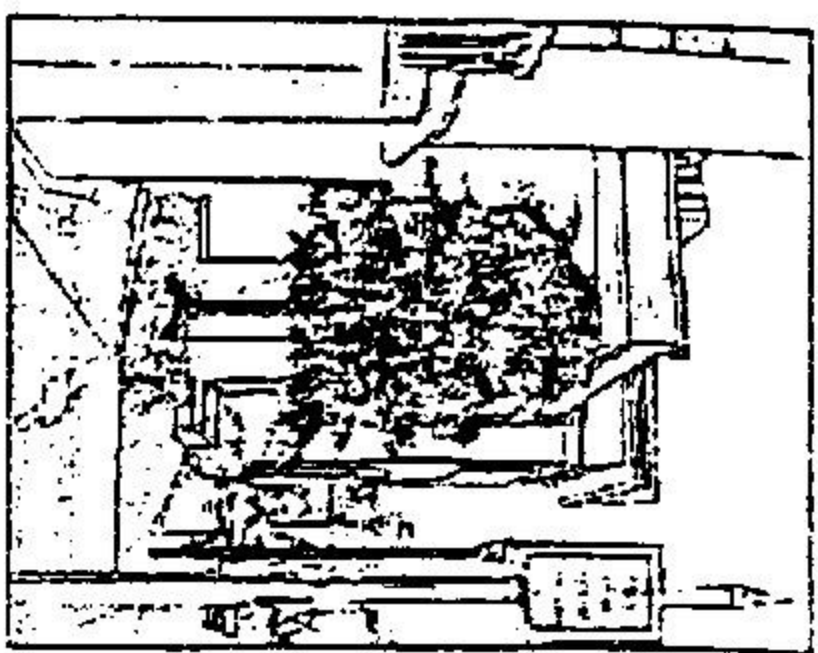


Establishment & Maintenance

Adequate watering during first year

Annual pruning if necessary

Lexington Tree Committee's



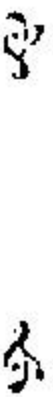
Landmark Tree Endowment Program for Downtown Lexington

Some Community Trees will commemorate a certain person or occasion. Planting a tree is a wonderful way to remember a loved one, to celebrate a life, or to recognize a significant event.

The LTC's Landmark Tree Program offers individuals or groups the opportunity to plant a prominent tree for such occasions.

All Landmark Trees will receive a permanent plaque and will be marked on a new City map available through the Visitor's Center.

A Landmark Tree needs an endowment of \$1000. This will cover all the costs of planting and maintaining the Landmark Tree.



Landmark Trees provide other benefits to the Lexington Community. Are you a downtown business or property owner with a potential site for planting a tree? A well-chosen and carefully planted tree will add value to your property and enrich the Lexington Community.



Trees cool sight-seers and shoppers alike, as they linger at shop windows enticing them inside.



Trees shade parking lots and keep cars cooler as their owners browse the downtown area.



Trees can reduce a building's heating and cooling costs.

The Lexington Tree Committee provides assistance for planting a downtown Landmark Tree—whether to groups or individuals—in choosing a site, selecting the appropriate tree, or by helping raise funds.



for more information on

The Landmark Tree Endowment Program



Mailing address:

LEXINGTON TREE COMMITTEE
P. O. BOX 1304
LEXINGTON, VA 24450

Phone number:

540-464-1310

Office location:

LEXINGTON DOWNTOWN
DEVELOPMENT
ASSOCIATION'S OFFICES
at
101 SOUTH MAIN STREET

LTC Mission Statement

To foster tree planting and care of community shade trees throughout Lexington and its environs.

Appendix H – Tree Protection Measures

This appendix describes additional measures that might be used to protect trees on private property. They are measures that have been used by other cities to address natural resource issues such as protection of waterways, wetlands, and wildlife habitat. Further analysis will be necessary to determine which of these measures could be crafted to apply to retaining trees on private property.

Site Planning/Design Standards. Develop design standards that can be used as incentives to retain trees.

Riparian Setbacks. Options include a standard building setback that is applied to all streams and a variable building setback based on stream classifications or application of performance standards.

Best Management Practices (BMPs). Develop a list of ideal management practices for developments or activities in sensitive areas, such as steep slopes or near waterways.

Environmental Or Natural Resources Zoning District. Develop a new zoning district designed to limit uses on natural resource sites.

Acquisition By Outside Organizations. The City could establish relationships with private nonprofit conservation organizations to encourage acquisition and cooperation for purchase and subsequent management. For example, a Lexington heritage tree trust could be formed to raise and receive money for the acquisition of heritage trees.

Strengthen Existing Regulations.

- City Tree Ordinance
- Subdivision Regulations
- Site Plan Regulations
- Planned Unit Development Site Review

Public Education. All protection and planting programs could be accompanied by an educational program that discusses protection and planting, the value of trees, and those activities that damage trees.

Incentives For Gifts Or Donations. These are usually tax incentives, such as rebates, lowered rates, credits, or deductions.

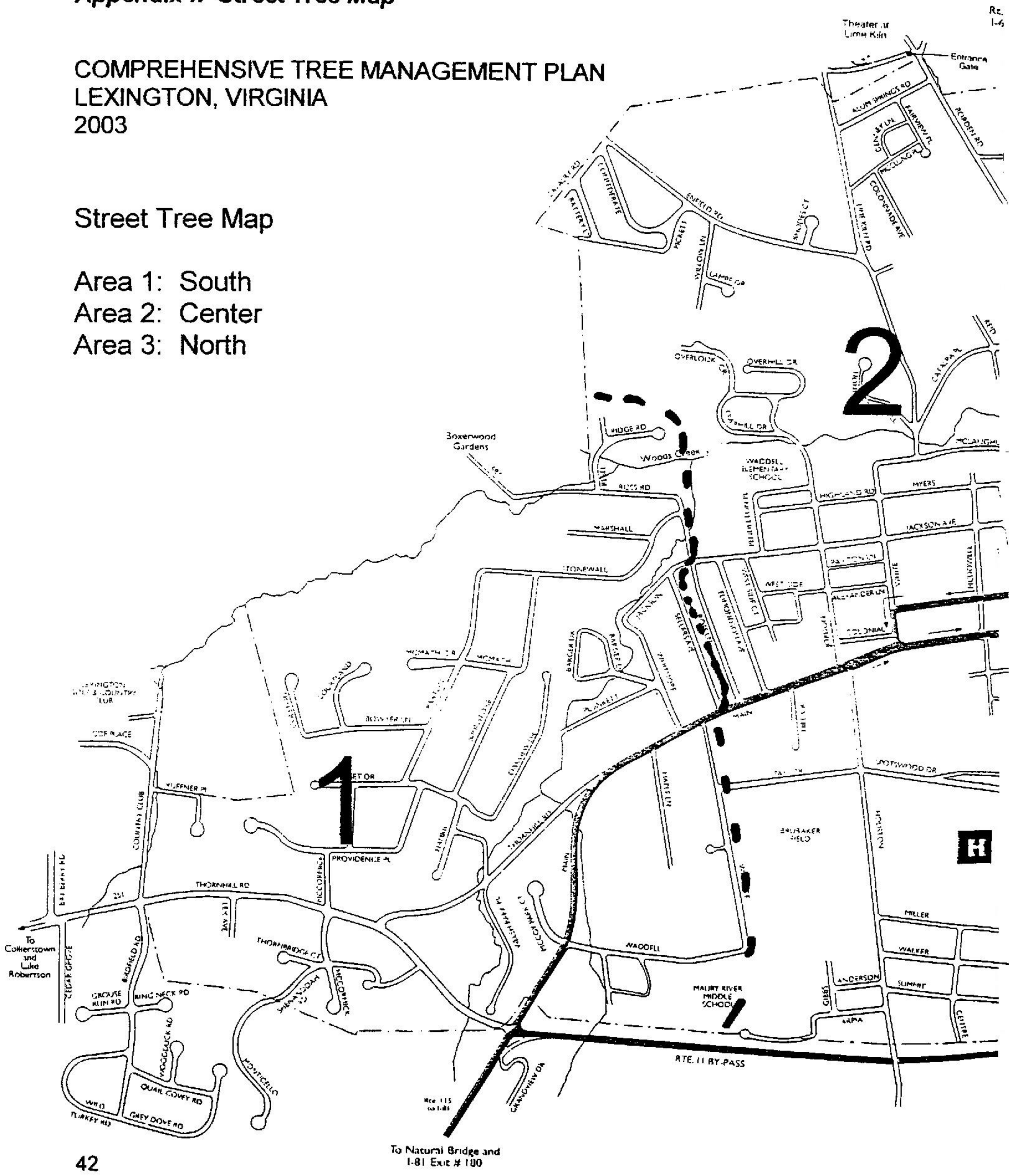
Conservation Easements. The City would acquire easements through gifts or purchase. An easement would restrict the property owner's right to conduct certain uses or activities. Easements that could be applied to significant tree areas include conservation easements and scenic easements.

Appendix I: Street Tree Map

COMPREHENSIVE TREE MANAGEMENT PLAN LEXINGTON, VIRGINIA 2003

Street Tree Map

- Area 1: South
- Area 2: Center
- Area 3: North



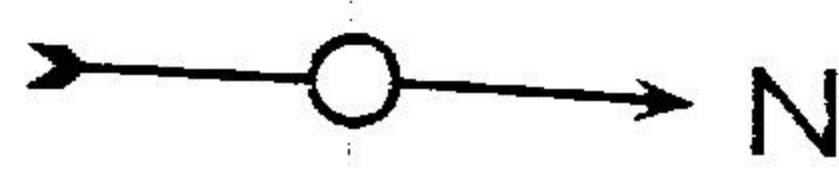
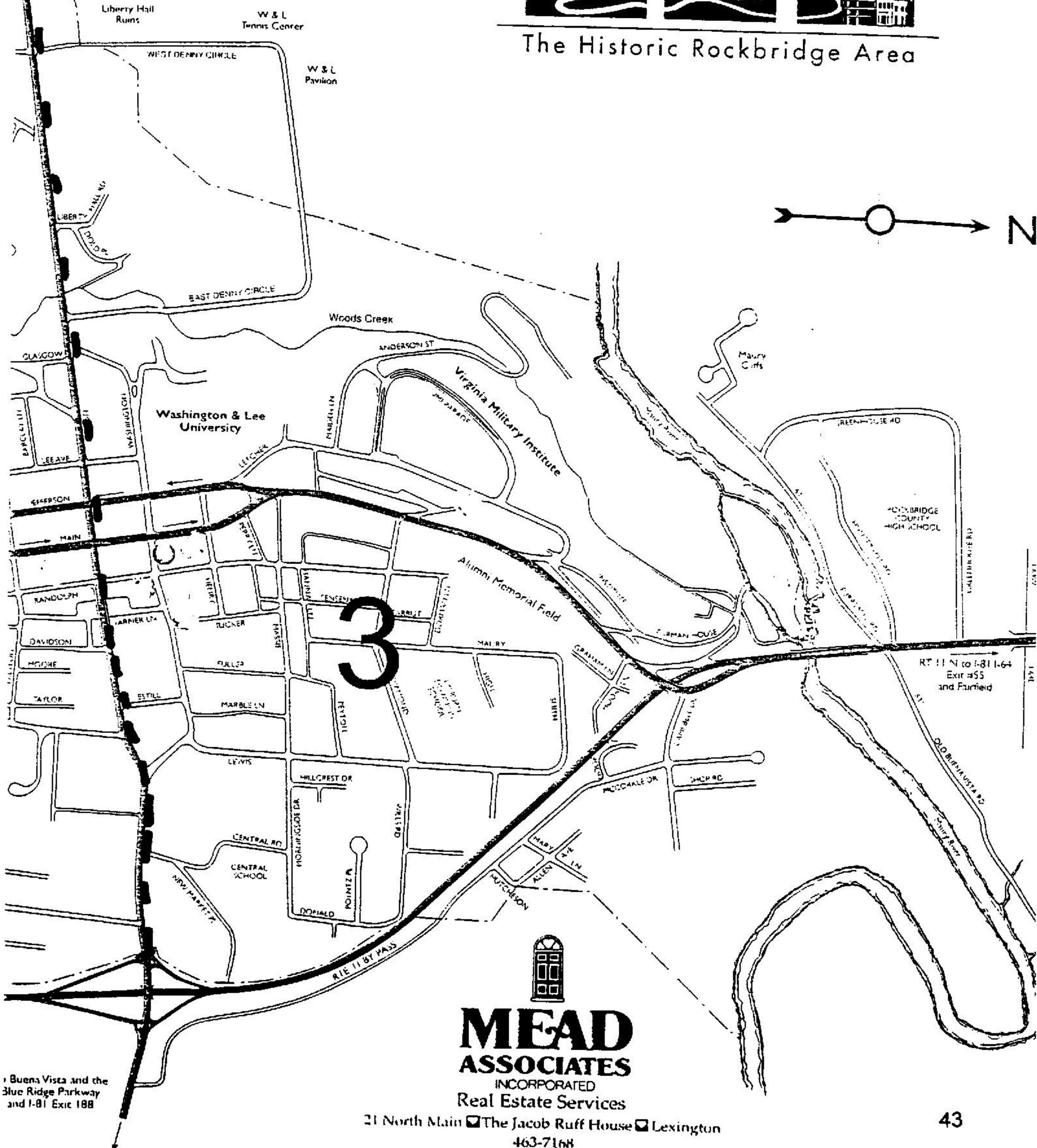
Kerry Creek

Lexington



The Historic Rockbridge Area

Vest To
ic #50



3


MEAD
ASSOCIATES
INCORPORATED
Real Estate Services

21 North Main The Jacob Ruff House Lexington
463-7168

Buena Vista and the
Blue Ridge Parkway
and I-81 Exit 188

Appendix J: New Tree Maintenance Schedule

Newly Planted Trees

TASKS	YEAR 1	YEAR 2	YEAR 3	Responsible Party
Watering	Bi-weekly from May to end of September if rainfall is limited	Same as Year 1 for 2-inch caliper trees. Smaller trees: every 10 to 14 days if rainfall is limited for 21 days or more	Same as Yr 1 if 3-inch caliper trees; otherwise water only if rainfall is limited for 21 days or more	Public Works Department
Pruning	Remove only dead, dying, and crossing branches and multiple leaders	Same as Year 1. Begin structural pruning.	Same as Year 1. Continue structural pruning.	City Arborist, Public Works, contractor.
Mulching/ Weed Control	Chip mulch or shredded hardwood bark, 2 to 4 inches deep. Not against trunks. Round-up 3 times per growing season.	Same as year 1. Supplement with shredded leaves if available.	Same as Year 1.	Public Works
Fertilization	None, unless soil tests recommend otherwise.	Compost, shredded leaves, or 1-2 lbs N /1000 ft. sq. root area	Same as Year 2	City Arborist, Public Works
Replacement	As necessary.	Same as Year 1	Same as Year 1.	Public Works, planting entity (non-profit) or contractor.
Inspection	At least monthly, for pests and general health	Monthly, for pests and general health	Same as Year 2.	City Arborist, contractor, or Public Works
Other	No string-trimming at trunks.	Remove guying and stakes, if any. No string-trimming at trunks.	No string-trimming at trunks.	

Developed September, 2000
 Betty Besal
 City Arborist