## TREE PRESERVATION ORDINANCES:

## SMART PROTECTIONS FOR OUR COMMUNITIES' HERITAGE TREES

by

## LINDSEY K. KERR

(Under the Direction of James K. Reap)

### ABSTRACT

The number of heritage tree preservation ordinances is growing as cities face pressure from citizens outraged by the removal of community landmark trees. This thesis aims to provide interested individuals with a tool for developing heritage tree protections that fits their unique communities and their individual needs. To do so, it answers the questions of what are heritage trees, why are they important, and how can local laws be better crafted to preserve them. It looks at general tree ordinances, how they are constructed and their basic components, and critiques their ability to preserve heritage trees. It also studies three different tree preservation ordinances and answers questions about their differences and if they are successful in protecting heritage trees. Finally, it concludes with recommendations for ordinance provisions and areas for further research. The appendix includes an outline of a tree preservation ordinance to serve as a possible model.

# INDEX WORDS: heritage tree, historic tree, champion tree, landmark tree, significant tree, exceptional tree, majestic tree, protected tree, specimen tree, grand tree, tree preservation, tree protection, ordinance

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LINDSEY K. KERR

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# LINDSEY K. KERR

Major Professor:

James K. Reap

Committee:

John C. Waters Dr. Kim D. Coder Melanie L. Graham

Electronic Version Approved:

Maureen Grasso Dean of the Graduate School The University of Georgia August 2009

# DEDICATION

For my mother, Connie Kinder Kerr, who instilled within me a love of trees and all things green.

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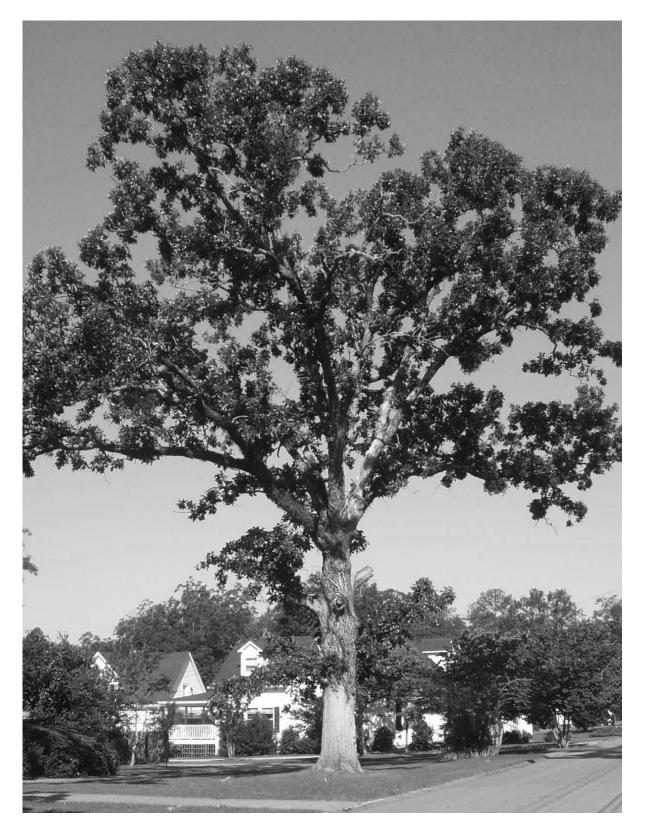


Figure 1. An unprotected landmark oak tree, Rutledge, Georgia. Photograph by the author.

## CHAPTER 1

### INTRODUCTION

On September 13, 2008, Hurricane Ike made landfall in Galveston, Texas. Storm surge covered the island in salty sea water. Many buildings on the island were damaged or destroyed. Six months after the storm, however, residents were concerned about their stately oak trees. Thousands of oak trees had been planted after a devastating hurricane in 1900 and they became a part of the identity of the island. So important were the oaks that they were considered a contributing element when the East End Historic District was included on the National Register of Historic Places in 1975.

Although covered in foliage at the time of the 2008 hurricane and very much alive, the trees dropped their leaves two weeks later as a result of absorbing too much salt water through their roots. In March 2009, the oak trees stood tall yet barren of leaves. Texas Forest Service arborists cautioned that it would be months, and perhaps years, before they would be able to tell if the trees were able to survive.<sup>1</sup> However, by June 2009, as homeowners anxiously watched their trees for signs of life and hoped that their trees would live for another hundred years, foresters began planning to take down over 10,000 dead trees on public property. More than 31,000 trees on private property will eventually have to be removed as well.<sup>2</sup>

As foresters examined trees in the Galveston neighborhoods, they found poems and black ribbons tied to the lifeless trees. One note read, "Thanks for keeping us cooler and cleaner and

<sup>&</sup>lt;sup>1</sup> Staff writer, "Broadway Trees May Still Show Signs of Life," *The Daily News*, March 31, 2009.

<sup>&</sup>lt;sup>2</sup> Leigh Jones, "Officials Ready to Cut Down Dead Trees," *The Daily News*, June 8, 2009.

standing without complaint for years and years...Goodbye."<sup>3</sup> A member of the city's tree committee described Galveston residents' attachment to the trees, "People think of them as human," she said.<sup>4</sup> The city tree commission asked neighborhoods to identify special trees in their area that could be left as public sculptures. The trees on Broadway Street, so iconic of the island and part of the historic district, are to be the very last trees removed.<sup>5</sup>

Why is it that in the face of extreme hardship, like that after a hurricane, we worry about beloved trees and their survival? Why do some individuals place their bodies in front of logging equipment or spend thousands of dollars in legal fees to protect neighborhood trees? Why are heritage trees so important to the American people? What is being done to protect these special trees? How can ordinances be better crafted to offer real protection for heritage trees?

The presence of trees is proven to be significantly advantageous to urban and suburban communities. Researchers have documented the positive psychological effects of trees and the deep personal, almost spiritual, connection urbanites have with trees and forests.<sup>6</sup> It is widely accepted that they provide a wide range of benefits to cities, from environmental to economic to social, and generally improve the quality of life for humans.

Many studies have been conducted on the contributions of urban trees and forests to the urban environment. Trees filter air pollutants and can help improve soil structure. Trees "clean" our air by helping to "settle out, trap and hold particle pollutants (dust, ash, pollen and smoke) that can damage human lungs."<sup>7</sup> Trees also absorb carbon dioxide and other dangerous gasses and release oxygen into the atmosphere. Their roots break up hard soils and rotting leaves add

<sup>&</sup>lt;sup>3</sup> Staff writer, "Texas Forest Service Assessing Hurricane Damaged Trees in Galveston," *Houston Chronicle*, June 11, 2009, online edition.

<sup>&</sup>lt;sup>4</sup> Ibid.

<sup>&</sup>lt;sup>5</sup> Leigh Jones, "Officials Ready to Cut Down Dead Trees," *The Daily News*, June 8, 2009, online edition.

<sup>&</sup>lt;sup>6</sup> John F. Dwyer, Herbert Schroeder, and Paul H. Gobster, "The Significance of Urban Trees and Forests: Toward a Deeper Understanding of Values," *Journal of Arboriculture* 17 (October 1991), 10.

<sup>&</sup>lt;sup>7</sup> USDA Forest Service, "Urban and Community Forestry: Improving Our Quality of Life," *Forestry Report R8-FR 17*, (USDA Forest Service., Southern Region, April 1997), online edition.

humus to the earth, significantly lessening surface water runoff and soil erosion. One study of Salt Lake City estimated that the existing urban forest reduced surface runoff by 11.3 million gallons, or 17 percent, during a one-inch rainstorm.<sup>8</sup> Trees provide habitat and food sources for birds and other animals. They can help create micro-climates that enable other plant species that are not normally present to live in the area.<sup>9</sup>

Trees and urban forests are vital to the success of any city. They help to offset or reduce problems associated with urban density, such as increased year-round temperatures, pollution problems, and noise levels. Large tree canopies provide shade for city dwellers and a certain amount of protection against extreme temperatures to nearby buildings, making cities more "livable" and reducing the need for residents to run energy consuming air conditioning systems in summer and heating in winter. Trees also work as sound buffers, reducing the impact of, and annoyance caused by, screaming car alarms and grating construction.

Tree and urban forests benefit local economies by making cities more attractive and habitable. Trees soften the harshness of buildings and streets and make the environment more appealing. Large numbers of trees leave positive impressions on visitors, increasing the likelihood of them returning to live, open businesses, or simply to shop. Residents and tourists alike are more likely to stay and shop longer in an area with significant tree cover.<sup>10</sup> Trees positively impact urban real estate markets, reportedly adding up to six percent to residential property values.<sup>11</sup> According to the Forestry Report R8-FR 17, released by the US Forest Service, "Apartments and offices in wooded areas rent more quickly, have higher occupancy

<sup>9</sup>USDA Forest Service, "Urban and Community Forestry: Improving Our Quality of Life." <sup>10</sup> Ibid.

<sup>&</sup>lt;sup>8</sup> Sara Ebenreck, "The Values of Trees," in *Shading Our Cities: A Resource Guide for Urban and Community Forests* (Washington, DC: Island Press, 1989), 51.

<sup>&</sup>lt;sup>11</sup> University of Washington College of Forest Resources, "Urban Forest Values: Economic Benefits of Trees in Cities," *Human Dimensions of the Urban Forest: Fact Sheet 3* (Seattle, WA: Center for Urban Horticulture, 1998).

rates, and tenants stay longer. Businesses leasing office space in wooded developments find their workers are more productive and absenteeism is reduced."<sup>12</sup>

Trees have a positive influence on the social wellbeing of urban residents and workers. They "provide privacy and a sense of solitude and security" to urban residents.<sup>13</sup> Parks or other community centers with trees feel more welcoming and thus encourage human interaction. City dwellers report feeling relaxed and at peace when surrounded by urban forests.<sup>14</sup> Trees have such an affirmative influence on humans that studies have even shown that surgery patients placed in rooms looking out on natural scenes had shorter hospital stays, received fewer negative evaluative comments from nurses, and took fewer painkillers than patients in similar rooms with windows facing brick walls.<sup>15</sup> Due to the powerful effects trees have on them, humans often develop emotional ties to particular trees in neighborhoods or cities.<sup>16</sup> There have been numerous news reports of the enormous efforts individuals have expended to save a tree or stand of trees from destruction.<sup>17</sup>

Recently, as the negative human impact on the natural environment has become more apparent and as the economic benefits of urban forests have been documented, more municipal governments have begun to enact ordinances to safeguard public and privately owned trees. A study published in 1984 revealed fewer than 100 communities with tree protection ordinances. By 1989, however, 159 cities in California alone had tree protection ordinances.<sup>18</sup> Today, at

<sup>&</sup>lt;sup>12</sup>USDA Forest Service, "Urban and Community Forestry: Improving Our Quality of Life."

<sup>&</sup>lt;sup>13</sup> Ibid.

<sup>&</sup>lt;sup>14</sup> Dwyer, 278.

 <sup>&</sup>lt;sup>15</sup> R.S. Ulrich, "View through a window may influence recovery from surgery," *Science* (April 1984), 420–421.
 <sup>16</sup> Dwyer, 276.

<sup>&</sup>lt;sup>17</sup> Kevin Courtney, "From Stand Off Over a Tree, a Local Movement Grows," *The Napa Valley Register*, February 15, 2009, online edition; Ann Fowler, "Local Outrage of Tree Kill Acquittal," *Oak Hill Gazette*, March 4, 2009, online edition; Jenna Hiller, "Arborists Volunteer Time for Historic Tree," *News8Austin.com*, January 24, 2009, online edition.

<sup>&</sup>lt;sup>18</sup> Tovah Redwood, "Tree Time," *Planning* 60, no. 9n (1994): 13.

least one city in every state has codified some type of tree ordinance and the Arbor Day Foundation now requires that cities adopt a tree ordinance in order to become a Tree City USA.<sup>19</sup>

Many books, articles, and pamphlets have been written on the codification of tree protection. Publications have argued why trees should be protected, while others discuss how to write tree protection legislation and present model ordinances. Most are concerned with trees on public property and trees in areas of new development. As communities have become more concerned with the preservation of their history and sense of place, however, some have realized the role of older trees in history and community identity and have therefore sought to protect them. Over one hundred cities across the nation have now adopted protections for heritage trees.

Heritage trees are community assets and often community landmarks. Living links to the past, they have witnessed history and become symbols of strength and permanence. Heritage trees go by many names: grand, noble, specimen, champion, landmark, historic, significant, exceptional, and majestic. For the purpose of this thesis, the word "heritage" was ultimately chosen because it is broader and more encompassing than "historic" and yet places an emphasis on the past.

Like historic buildings and landscapes, heritage trees tell us about the people who occupied the same land we do today. Some trees are older than the towns in which we live, and may be an illustration of the first settlers' respect for trees or may simply be an illustration of a need for shade or windbreaks. Other trees may have been planted by founders of towns or by residents as the land developed. These trees show a desire to "put down roots" and patterns of development, as well as trends in landscaping. Still other trees witnessed significant events, such as the signing of a treaty, a lecture by an important figure, or a tragic battle. Often heritage trees figure in local legends or have cultural meaning beyond a documented past.

<sup>&</sup>lt;sup>19</sup> Arbor Day Foundation, "What is Tree City USA?" http://www.arborday.org/programs/treeCityUSA/about.cfm.

Large trees can be points of reference for visitors or a favorite herald of the changing seasons for town residents. Many heritage trees become community landmarks because they have a prominent location in town, in the front yard of a historic house, in the town square, or at the entrance to an old cemetery. Others are located in neighborhood parks or in back yards of homeowners and are less well known to the wider community. Heritage trees are not always single specimen trees, but can also be a small patch of woods in the downtown area, the remnants of an old orchard, or the iconic long line of older trees marking a boulevard or avenue. Often heritage trees give a community a sense of place but, unfortunately, are not recognized until they are removed.

The number of cities with heritage tree preservation ordinances is growing as cities face pressure from citizens outraged by the felling of a significant specimen or a grove of trees that was a community landmark. Nevertheless, few publications address the protection of heritage trees. There is no literature to guide organizations who wish to write and enact a heritage tree preservation ordinance. The literature that is available generally lists examples of municipalities with such ordinances, but the lists are not comprehensive and they do not analyze the language of the ordinances or their ability to be enforced. There is nothing to help an organization understand what is a superior ordinance and why.

It is important to study heritage tree preservation ordinances not just because of the dearth of information on the subject, but more importantly because there is an urgent need as more and more communities are faced with the social decision of preserving their heritage trees or seeing them destroyed. As communities grapple with these issues, they are interested in learning from the experiences of others and understanding the methods and language used in

codifying historic tree protections. This thesis is a response to that need for analysis of heritage tree protections.

First and foremost, this thesis aims to help city officials and organizations seeking to protect heritage trees within their community. To do so, it answers the questions of what are heritage trees, why are they important, and how can local laws be crafted to preserve them. Chapter 2 is a review of literature relating to tree protection and an overview of the methods used to gather information for this thesis. Chapter 3 provides a context for tree protection in the United States and shows that the desire to protect trees is not something new, although it is a more recent development for cities to develop legal protection for trees. Chapter 4 looks at tree ordinances, how they are constructed and their basic components, and critiques their ability to preserve heritage trees. A case study of West University Place, Texas, is used to gain an understanding of tree ordinances, what they are, how they work, and why they fail to adequately protect heritage trees. Chapter 5 assesses three cities with tree preservation ordinances and answers questions about the differences between ordinances, and if they are successful in offering protection for heritage trees. Finally, this thesis concludes with recommendations for ordinance provisions and areas for further research. The appendix includes an outline of a tree preservation ordinance to serve as a possible model. Although it is impossible to analyze all ordinances across the nation that protect heritage trees-as ordinances are developed and amended regularly-the author hopes to provide interested individuals with a tool for developing better heritage tree protections that fits their unique communities and their individual needs.



Figure 2. Small trees do little to soften the acres of concrete, Tulsa, Oklahoma. Photograph by the author.

### CHAPTER 2

#### LITERATURE REVIEW AND RESEARCH METHODS

Although it appears that public interest in protecting significant trees is increasing, there continues to be a distinct shortage of literature regarding legal protections for heritage trees. The vast amount of previously published literature about tree preservation focuses on tree protections in general. There are many guides that address in depth urban tree protections, but few appear to include provisions for landmark trees, much less those with historic and cultural significance.

Christopher J. Duerksen's seminal *Tree Conservation Ordinances: Land-Use Regulations Go Green* is very valuable to those people developing tree protection ordinances which protect publicly owned trees. It also provides guidance to those creating ordinances to govern new development with regulations based on percentage of the number of trees on the lot, or on trunk measurements, or on the area of canopy coverage. Duerksen, however, devotes only one paragraph to the protection of heritage trees. Similarly, the index of Buck Abbey's *U.S. Landscape Ordinances: An Annotated Reference Handbook* lists approximately three cities out of three hundred that protect heritage trees in their landscape ordinances.

Texts like *Urban Forests and Trees*, *Shading Our Cities*, and *Trees in the Urban Landscape*, focus on the benefits of urban forests and landscape planning and how to properly care for trees in the city environment. They do not fully address the concept of heritage trees. However, they are useful to someone crafting a successful ordinance. *Urban Forests and Trees* gives a historic context for tree preservation. *Urban Forests and Trees* and *Shading Our Cities*  both explain why trees are important to the urban landscape and the wider relevance of urban forests. They also discuss creating partnerships between government and citizens to promote public appreciation of trees and awareness of regulations. *Trees in the Urban Landscape* as well as *Urban Forests and Trees* detail how to plant and care for trees so that they might live for generations.

Doctorate of Philosophy and masters theses are some of the most helpful resources. Brenda Maudine Allen's doctoral dissertation "Alabama Tree Ordinances, Protection and Preservation on Construction Sites" addresses tree protection regulations and whether they adequately protected trees during the construction process. Although her research does not directly focus on heritage trees, her study of the life expectancy of older trees after nearby clear cutting, earth moving, and building, is important to understanding the ultimate success—whether trees live or die—of an ordinance.

In her masters thesis titled "Protection of the Urban Tree Population: The Development of Tree Protection Regulations for the City of Campbell," Gloria M. Sciara analyzes commercial developments in the town of Campbell, California, and their visual and environmental impacts on the community. Sciara also studies the pressures for development facing Campbell and determines a need for increased regulations to protect trees and, thus, prevent poorly planned developments and their long lasting negative environmental and social effects. Sciara does not directly address heritage trees in the City of Campbell, but her work reinforces the idea of trees as creating a welcoming urban environment and instrumental to a sense of place.

Dorothy J. Luckie's masters thesis, "Historic Preservation: A Case Study of San Jose's Heritage Tree List," looks at the San Jose, California, heritage tree list and ordinance. Luckie determines shortcomings in the local ordinance and the City's internal practices of dealing with heritage trees and makes recommendations for improvements. Although less scholarly than the work done by Allen and Sciara, Luckie's thesis nevertheless makes it very clear that even the most well written ordinance will not be successful if it is not properly administered by the local governing body.

Several books have been written about heritage trees; some tell the stories of a specific tree, while others feature trees notable for their beauty, size or histories. *Wye Oak: The History of a Great Tree* by J. Preston Dickson and A. Aubrey Bodine is a glorified history of a single tree, the Wye Oak, a massive oak tree once located on the Eastern Shore of Maryland and the state's honorary State Tree (the tree fell in 2002). Colleen Kilner's book *Kenilworth Tree Stories: History Woven Around Its Trees* tells the stories—and through these stories the importance—of trees in her hometown of Kenilworth, Illinois. *Historic American Trees* by Katharine Stanley Nicholson, *America's Famous and Historic Trees* by Jeffrey G. Meyer, and *Famous and Historic Trees* by Charles E. Randall and Henry Clepper, give brief histories of notable specimens and groves of trees.

Heritage trees are also popular subjects of photographers. Thomas Pakenham's *Remarkable Trees of the World* is a photographic journey and features short essays on trees around the globe. Nancy Ross Hugo and Jeff Kirwan's *Remarkable Trees of Virginia* and Barbara Bosworth's *Trees: National Champions* are compilations of photographs. Hugo and Kirwan's book features trees in Virginia, some historic and some not remarkable for their size or beauty. Bosworth's photographs are of "champion trees," so called because they are the largest of their species in the United States. Essays by Douglas R. Nickel and John R. Stilgoe at the end of Bosworth's book give insight into America's fascination with big trees. Even though they are

not directly helpful in writing an ordinance protecting heritage trees, these books show the significance of trees in the landscape and in the individual and collective American psyche.

Several attempts were also made to locate law review articles, legal briefs or documents from litigation regarding heritage tree ordinances. A 2001 Mercer Law Review titled "Tree Preservation Ordinances: Sacrificing Private Timber Rights on the Diminutive Altar of Public Benefit" criticizes ordinances that are written as to exclude planned timber harvesting. Authors Brian E. Daughdrill and Kathryn M. Zickert argue that ordinances should not be drafted to "apply across the board" but instead should "provide for individual analysis of the burden imposed by each development rather than the current blanket mandates frequently imposed."<sup>20</sup> The authors make the valid point that ordinances need to take into account different businesses or land uses that necessitate the harvesting of wood or that frequently require trees to be removed.

Perhaps because heritage tree protection is a rather new legal approach there are few court cases challenging ordinances. Alternatively, maybe the presence of codified appeal procedures or the willingness of municipal boards or commissions to compromise with property owners in order to avoid taking claims has allowed them to avoid legal action. Those writing tree protection ordinances must have learned from forty years of litigation involving historic preservation. In the case of *Enayati v. City of Santa Monica*, plaintiff Hamid Enayati challenged the City of Santa Monica Landmark Commission's decision to designate a cedar tree on Enayati's property a historic landmark. However, in the judgment the Court affirms the Landmark Commission's actions because it determined that Enayati had not exhausted his

<sup>&</sup>lt;sup>20</sup> Brian E. Daughdrill and Kathryn M. Zickert, "Tree Preservation Ordinances: Sacrificing Private Timber Rights on the Diminutive Altar of Public Benefit," 52 Mercer L. Rev. 705. (Winter, 2001).

administrative remedies. Consequently, the Court did not analyze the legality of the Santa Monica ordinance or the Commission's decision to designate the tree a landmark.<sup>21</sup>

The case of *Balsz and Buddie v. Hall, Poirier and Does* involved citizens Kaia Balsz and Raymond Buddie bringing suit against the City of Sausalito, California, for failing to enforce the local tree protection ordinance. When several trees were removed next door to the plaintiffs' home without a required permit, the plaintiffs complained to the City. The City, however, failed to take action against the neighbors removing the trees. The plaintiffs then sued the City alleging the removal of the trees was to the detriment of their use and enjoyment of their property and that, in failing to stop the removal of the trees, the City had deprived them of the benefits of the Sausalito Tree Ordinance.<sup>22</sup> The brief that was available for examination argued to establish the standing of the plaintiffs, and the ultimate outcome of the suit is unclear. However, the case highlights the importance of local government enforcement of their ordinances as well as citizens' personal interest in seeing that ordinances are enforced. Undoubtedly there are more legal challenges to tree preservation ordinances, but they are mostly heard at a local level and are therefore not published by the larger court reporting organizations and not accessible to researchers.

In order to get the best understanding of ordinances that protect heritage trees, it was most necessary to read ordinances from cities and towns across the country. Municipal Code Corporation, an online host and library of city and county ordinances, was the most useful resource for finding and obtaining copies of tree protection ordinances. In this study, ordinances from 46 states were obtained through Municode.com, the website for the Municipal Code Corporation. Only the states of Hawaii, Idaho, Oregon, and Utah do not have any ordinances

<sup>&</sup>lt;sup>21</sup> Enayati v. City of Santa Monica, not reported in Cal.Rptr.3d.

<sup>&</sup>lt;sup>22</sup> Balsz and Buddie v. Hall, Poirier and Does, *Appellants' Opening Brief*, Appellate Court of the State of California, First Appellate District, Division 3, Appellate Case No AO 97949 (filed May 28, 2002).

posted in the online library. In all, over one hundred local ordinances were carefully read and analyzed for this study. Hundreds more were read and discarded if they appeared too similar to other ordinances which had already been studied or were too poorly constructed so as to not be useful.

The Multiple Code Search tool on Municode.com was used as a time saving measure to filter through city codes. Multiple Code Search made it possible to search through all the codes in a given state by key words. Key word pairings such as "historic tree," "heritage tree," "landmark tree," "tree protection," and "tree preservation," were used. The search tool returned any and all documents that included both words in the same section or chapter or table of contents, not necessarily documents that paired the words together or that included them in the same sentence or paragraph.

Each document then had to be read to evaluate its relevance to heritage tree protection. Most documents were not directly related enough to this study and were rejected. As stated earlier, others were copies of other ordinances in the same state and were consequently rejected. However, many zoning ordinances, subdivision planning ordinances, landscape ordinances, tree protection ordinances, historic preservation ordinances, and heritage tree ordinances, both well written and not as well written, were read, copied, and analyzed. The variety of titles, categorizations, and provisions shows the need for guidance and a degree of uniformity amongst ordinances attempting to protect heritage trees. The range of documents, however, also allowed this study to pull good ideas from many sources and to compile them in this guide.



Figure 3.A significant street tree, Seattle, Washington.<br/>Photograph courtesy of Lauren Kerr.

## **CHAPTER 3**

## A HISTORICAL CONTEXT

Trees link humans to both the past and the future. Older trees in the landscape help create a feeling of belonging and a relationship to the past so that humans can know where they have come from, who they are, and where they are going. Some trees, like the massive California redwoods, can live for thousands of years. Those who look upon them today cannot help but wonder about the time that has passed since the trees' germinations and the events they have witnessed. "A far as man is concerned they are the same yesterday, today, and forever, emblems of permanence" wrote naturalist John Muir.<sup>23</sup> The connection to the past that is forged at the moment of witnessing an ancient tree creates a feeling of rootedness, of stability, in today's ever changing world.

Americans' appreciation of heritage trees and trees in general is not a new development. Since ancient times, trees have played an important role in European culture. Legend has it that the olive tree was gifted to the Greeks by Athena in a contest with the god Poseidon; the city Athens was consequently named for her and sprang up around the Acropolis where the original tree was planted. Later Greek governing authorities encouraged the planting of fruit bearing trees. The biblical Tree of Knowledge of Good and Evil, described as growing in the Garden of Eden in the Book of Genesis, is a central theme in the Judeo-Christian tradition and is iconic in

<sup>&</sup>lt;sup>23</sup> John Muir, quoted in Peter Johnstone ed., *Giants in the Earth* (Berkeley, CA: Heyday Books, 2001), 89.

European cultures. Trees figured prominently in the traditions and artwork of the Celtic cultures of the British Isles as well as in Norse mythology.<sup>24</sup>

Other, non-Western cultures have also valued trees. The few remaining giant kauri trees in New Zealand have names like "Father of the Forest" and "Lord of the Forest" given to them by the Maori people long before the first European explorers arrived at the islands in 1770. Some Africans still today believe that the ancient baobab trees are the homes of their ancestral spirits. A Montezuma cypress in the state of Oaxaca, Mexico, is featured in Zapotec legends passed down for generations and is now estimated to be between 1400 and 2000 years old.<sup>25</sup> Tales of enormous trees in foreign lands like New Zealand and Africa were brought back by explorers to the European and North American continents.

Trees, particularly large or tall trees, have had a special place in the American psyche since at least the signing of the Declaration of Independence in 1776. George Washington and Thomas Jefferson both revered trees. Washington kept detailed records of his efforts to establish trees at Mount Vernon.<sup>26</sup> Among the trees he planted on his estate were hemlocks, buckeyes, elms, pecans, lindens, mulberries, and hollies.<sup>27</sup> Although most of the trees Washington planted are now deceased, two tulip poplars he had planted in 1785 still stand very near the main house.<sup>28</sup> George Washington was well known for his love of trees and he often noted receiving specimens from friends like Thomas Jefferson.

<sup>27</sup> Charles E. Randall and D. Priscilla Edgerton, Famous Trees (Washington, DC: U.S. Department of Agriculture,

<sup>&</sup>lt;sup>24</sup>Cecil C. Konijnendijk, Kjell Nilsson, Thomas B. Randrup, and Jasper Schipperijn, eds. *Urban Forests and Trees*. (New York, NY: Springer, 2005), 24 and 30. See also Marie-Frances Boyer, *Tree-Talk: Memories, Myths and Timeless Customs*, (New York, NY: Thames and Hudson Inc, 1996), 14-23.

<sup>&</sup>lt;sup>25</sup> Thomas Pakenham, *Remarkable Trees of the World* (London: The Orion Publishing Group, 2002), 14-17, 19-22, 26-28.

<sup>&</sup>lt;sup>26</sup> Nancy Ross Hugo and Jeff Kirwan, *Remarkable Trees of Virginia* (Earlysville, VA: Albemarle Books, 2008), 138.

U.S. Government Printing Office, 1938), 2.

<sup>&</sup>lt;sup>28</sup> Pakenham, 100-101.

Jefferson was also a lover of trees and planted over 140 species of trees at his home Monticello, including many native to North America. In 1793, he wrote a friend from Philadelphia remarking, "I never before knew the full value of trees. My house is entirely embossed in high plane-trees, with good grass below; and under them I breakfast, dine, write, read and receive my company. What would I not give that the trees planted nearest round the house at Monticello were full grown."<sup>29</sup> Among the few trees that survive at Monticello from Jefferson's time is a tulip poplar that he planted in 1807 and which, at 120 feet tall, towers over the house.<sup>30</sup> Jefferson's love of trees was so strong that he is guoted as having said that "the unnecessary felling of a tree, perhaps the growth of centuries, seems to me a crime little short of murder."<sup>31</sup>

In the years following the Revolutionary War, ideas towards trees and natural landscapes in North America began to change. Trees were planted in the former colonies by citizens perhaps to symbolize a putting down of roots and commitment to the new country. As more people moved to the new country and into the growing cities, some individuals sought to improve their town landscape by planting trees along roadways and in squares.<sup>32</sup> The Lombardy poplar was particularly favored for its rapid growth and compact, columnar growth. Although it originally had some partisan political connotations in the new republic, by 1799 it was more widely planted as a memorial to George Washington because it had been one of his favorite trees.<sup>33</sup> Author Henry Lawrence describes the Lombardy poplar as a "pioneer species in the

<sup>&</sup>lt;sup>29</sup> Thomas Jefferson, quoted in Nancy Ross Hugo and Jeff Kirwan, *Remarkable Trees of Virginia* (Earlysville: Albemarle Books, 2008), 33.

<sup>&</sup>lt;sup>30</sup> Hugo and Kirwan, 33.

<sup>&</sup>lt;sup>31</sup> Thomas Jefferson, quoted Hugo and Kirwan, 33.

<sup>&</sup>lt;sup>32</sup> Henry W. Lawrence, City Trees: A Historical Geography from the Renaissance Through the Nineteenth Century (Charlottesville, VA: University of Virginia Press, 2006), 159. <sup>33</sup> Ibid., 163.

urban environment" and credits it with establishing street trees as an essential part of the urban landscape. <sup>34</sup>

Following the decline in popularity of the Lombardy poplar due to disease and its habit of sending roots into plumbing systems, citizens took it upon themselves to replace the trees with elms and other tree species. Individual citizens in cities such as New Haven, Boston, and the District of Columbia, led initiatives to have trees planted in common areas and along promenades. By the early 19<sup>th</sup> century, parks, squares, and boulevards were developed in the larger cities and frequently planted with trees, and greenery became seen as positive improvement in the urban landscape. Towns and villages soon followed suit and trees in communal areas became characteristic of the small American town.<sup>35</sup>

As settlers pressed westward across the plains during the middle of the 1800s they missed the trees that were typical of New England and the other eastern states. In 1854, J. Sterling Morton moved from Michigan to the Nebraska Territory. He and his wife quickly planted their property with trees to make it appear more like the landscape from which they came. As a journalist, Morton used his newspaper to educate the public about agriculture and arboriculture and encouraged individuals and community organizations to plant trees. As pioneers settled the Nebraska prairie, trees were necessary to help break the wind, stabilize the soil and prevent top soil from blowing away, provide building materials and fuel, as well as create shade.

In 1872, as Secretary of the Nebraska Territory, Morton proposed a tree-planting holiday called "Arbor Day" in an effort to see the state forested. It was estimated that over one million trees were planted in Nebraska on the first Arbor Day on April 10, 1872. Arbor Day was officially proclaimed a state holiday in 1874 and set for April 22. The holiday spread in

<sup>&</sup>lt;sup>34</sup> Ibid., 164.

<sup>&</sup>lt;sup>35</sup> Ibid., 165-168.

popularity in the late 1870s and many states declared it an official holiday; by 1920, all states in the union had declared Arbor Day a holiday. Several US presidents have declared April 22 as a national Arbor Day, although it is not a recognized federal holiday.<sup>36</sup>

By the late nineteenth century, railroads had crisscrossed America and industry was booming in cities. The timber industry, spurred by the advances in transportation technology and massive population growth, was changing the American landscape. Huge swaths of forests were destroyed and turned into inexpensive lumber for building. The negative impact of common timbering practices became more and more apparent as hillsides were denuded and the direct consequences, like sediment buildup in waterways, were felt by those living nearby. At the time, there were no schools of forestry in the United States and few trained foresters. State and national forests had not yet been created and there was little policy protecting forests or woodlands.

As a response, the American Forestry Association, now called American Forests, was founded in 1875 by John Aston Warder and like-minded citizens at a meeting in Chicago. The organization stated its goal as "the protection of the existing forests of the country from unnecessary waste," namely logging.<sup>37</sup> In 1883, American Forests created a committee to publicize and advance the observance of Arbor Day. Ten years later, J. Sterling Morton, who founded Arbor Day, became president of American Forests and served in that capacity for three years. Under Morton, the organization began the publication now known as American Forests to publish scholarly articles as well as forestry news.<sup>38</sup>

<sup>&</sup>lt;sup>36</sup> Arbor Day Foundation, "The History of Arbor Day," http://www.arborday.org/arborday/history.cfm. It is important to note that the Arbor Day Foundation is a separate entity from the Arbor Day holiday and was not founded until 1971

<sup>&</sup>lt;sup>37</sup> American Forests, "History of American Forests," http://www.americanforests.org/about\_us/history.php. <sup>38</sup> American Forests, "Timeline of American Forests,"

http://www.americanforests.org/about\_us/history\_timeline.php.

The early years of the twentieth century were a time for growing awareness of heritage trees. A few concerned citizens began paying attention to heritage trees and trying to engage the public. In July 1909, a letter by John M. Clarke, of Albany, NY, titled "The Protection of Natural Monuments" appeared in *Science* magazine. Mr. Clarke wrote:

It is not only the age of a tree that entitles it to guardianship; there are some which have especial associations with distinguished personages of the past, others may be the last survivors of a race which once abounded but whose companions have disappeared under the woodsman's axe.

Although Mr. Clarke's opinion was not widely accepted, it shows a growing awareness of individual trees as monuments and of the necessity of protection.

In 1920, Oren E. Frazee, a professor at Lacrosse State Teacher's College (now University of Wisconsin—Lacrosse) compiled a small book titled *Historic and Otherwise Noteworthy Trees*. Although the book was not widely recognized, Frazee continued to pursue his interest in historic trees. In 1918, he wrote to *The Wisconsin Magazine of History* requesting "information concerning trees in Wisconsin which have been associated with historical events or prominent people, or which are noteworthy for other reasons. I am collecting data about such trees in the United States..."<sup>39</sup> In an interview published in the Lacrosse State Teacher's College student newspaper in 1934, Frazee stated "I have been engaged about [fifteen years] writing up trees: large sized trees, those of great age, those having to do, with individuals, with literature, heredity, and environment."<sup>40</sup> Frazee's work appears to have been primarily for personal fulfillment and was not widely published. However, his interest, and that of Mr. Clarke almost

<sup>&</sup>lt;sup>39</sup> Oren E. Frazee, "Historic Trees in Wisconsin," *The Wisconsin Magazine of History*, Vol. 2, No. 1 (September 1918): 92.

<sup>&</sup>lt;sup>40</sup> Oren E. Frazee, quoted in "Geniality: An Interview with Mr. Oren Frazee, (*The Racquet* March 27, 1934).

twenty years earlier and of American Forests, shows a growing appreciation of trees as a part of and as players in history.

In 1940, American Forests helped launch the National Champion Tree program with the premise of finding and documenting "the largest known example of every native or naturalized tree in the United States: the most ample specimen produced is designated the champion tree of that species, and its general location registered."<sup>41</sup> The National Register of Big Trees served, and continues to serve, as a way to generate public interest in trees as well as to foster feelings of pride and responsibility amongst those living near national champion trees.

Although the National Register of Big Trees does not specifically aim to document heritage trees, the largest trees of a species are invariably witnesses to history. In 1975, however, American Forests published a book titled *Famous and Historic Trees* in honor of the national bicentennial. It followed closely along the lines of the 1938 book published by the US Department of Agriculture titled *Famous Trees*. Charles E. Randall was the primary author of both books which featured listings and descriptions of trees with substantiated historic backgrounds. The information on the trees was gathered from around the country and was a result of proud citizens and organizations writing to the authors about their local historic trees.<sup>42</sup>

An article in the *Wrightsville Beach Magazine* on Feb 25, 2009 celebrated the life and achievements of Louis T. Moore, resident of Wilmington, North Carolina. Moore was born in Wilmington in 1885 and remained there until his death in 1961. The article highlights Moore's "lifelong love and fascination with trees" and his contributions to preserving the character of his hometown. According to the article's author, "Trees were far more than regal beauty and grace

<sup>&</sup>lt;sup>41</sup> Douglas R. Nickel, "Seeing Through Trees," in *Trees: National Champions*, Barbara Bosworth (Cambridge, MA: The MIT Press, 2005), 153.

<sup>&</sup>lt;sup>42</sup>Charles E. Randall and Henry Clepper, *Famous and Historic Trees* (Washington, DC: The American Forestry Association, 1976), 3. See also Randall and Edgerton, *Famous Trees* (Washington, DC: U.S. Department of Agriculture, U.S. Government Printing Office, 1938).

to him. They marked time for us as humans and were community heirlooms. The oldest trees are silent witnesses to centuries of change, drama and sometimes, mindless development." As director of the local Chamber of Commerce, Moore worked to bring business to the town of Wilmington. At the same time, however, he objected to the removal of live oaks as development came to the area and streets were widened. In the late 1940s he led an unsuccessful effort to protect hundreds of live oaks which lined the streets of Wilmington and which were later cut down by the city. In 1959 he campaigned again to save additional live oaks on Market Street north of the downtown.

Ahead of his time, Moore called for a city-wide tree protection program and the replacement of all trees already destroyed. In a speech to the Mayor and City Council, Moore asserted that "Trees are a God-given asset which require a century to mature, and which can be destroyed within a half hour when there is a plan to do so." Thanks in part to Moore, some of the trees on Market and Third streets were saved and he is now credited with having "raised awareness and effected a change in attitude toward preserving these important sentinels" and having "secured their place of importance in the coastal city."<sup>43</sup> Today, concerned citizens across the country are following in the footsteps of men like Moore in trying to protect their local living landmarks.

In 1968 a historic tree grabbed national attention as it made news headlines. A cucumber magnolia tree, a local icon in West Caldwell, New Jersey, was to be felled for an ice cream shop. The tree, planted by a prominent local dairy farmer in 1888, was witness to the men returning from the wars who paraded by its location on Bloomfield Avenue, the main artery through town. The tree, already a large specimen, was protected when Bloomfield Avenue was widened in the 1930s.

<sup>&</sup>lt;sup>43</sup> Susan Taylor Block, "Out on a Limb," *Wrightsville Beach Magazine*, March 2009, onine edition.

The tree was not widely known, however, until the 1960s when the land around it was purchased and the tree was to be removed to make way for a Friendly's Ice Cream Shop. The local garden club and other concerned citizens began writing letters to save the tree. The campaign was so successful that even Lady Bird Johnson's office proclaimed its support for the tree. Succumbing to the pressure, the Friendly Ice Cream Corp. decided to leave the tree standing and constructed its new building behind it. Newspapers featured headline like "White House Urges Preservation of Tree" and "Magnolia Stays, 'Friendly' Unit Saves Tree." The tree became a symbol of West Caldwell and was even incorporated into the township logo. Today, the tree bears a plaque recognizing the tree as "a mute witness to local history and a living bridge to the past, present, and future of West Caldwell."<sup>44</sup>

In 1971, the Arbor Day Foundation was founded with the mission to "to inspire people to plant, nurture, and celebrate trees." Although the Foundation shares a similar name with the Arbor Day celebration, they are not directly associated. Using funds garnered from donations, selling trees and merchandise, and from corporate sponsors, the Foundation runs several programs. The Arbor Day Foundation hosts conferences and seminars, educates children about trees, and coordinates volunteer tree planting efforts. The Tree City USA program is one of the Foundation's most successful initiatives. To be recognized as a Tree City USA, a community must meet or exceed the four standards set by the Arbor Day Foundation: the community must have a tree board or department, it must establish a tree ordinance, it must have a forestry program with an annual budget of at least two dollars per capita, and it must observe and

<sup>&</sup>lt;sup>44</sup> Phillip Read, "Century-old West Caldwell Magnolia Tree Nearing Storied End," *The Star-Ledger*, March 18, 2009, online edition. See also information on the rededication of the tree on the West Caldwell Township website.

proclaim one day each year as Arbor Day.<sup>45</sup> As of June 7, 2009 there are 3,310 communities designated as a Tree City USA.<sup>46</sup>

Following Earth Day in 1970 and the creation of the Arbor Day Foundation, by the midto late-twentieth century there was an increased awareness of trees among Americans. In 1972, the City of Thousand Oaks, California, released an Emergency City Council Proclamation creating The Oak Tree Ordinance to protect the City's namesake trees. The ordinance came as a result of public outcry after many valley oaks were felled for development in the community.<sup>47</sup> Eleven years later, in 1983, Austin, Texas, took a significant step when it adopted a tree ordinance protecting all trees—public and private—over a specified size. The ordinance required a permit to remove any tree within city limits with a diameter at breast height larger than 19 inches.<sup>48</sup> One year later, University of Pennsylvania conducted a study of tree protection ordinances across the United States. Researchers found fewer than 100 tree ordinances. Just five years later, in 1989, however, a survey found 159 tree ordinances in California alone.<sup>49</sup> Although still not a top priority, trees in the last twenty years of the twentieth century saw increased recognition as community assets.

In 1987, Jeff Meyer, an arborist based in Florida, partnered with the American Forests to begin the Famous and Historic Trees project. A lifelong admirer of great trees, Meyer had the idea of gathering seeds and taking cuttings from historic trees and growing them in a nursery. He wanted to make the progeny of historic trees available to historic sites seeking to replace deceased specimens as well as to members of the general public wanting to plant pieces of

 <sup>&</sup>lt;sup>45</sup> Arbor Day Foundation, "Tree City Standards," http://www.arborday.org/programs/treeCityUSA/standards.cfm.
 <sup>46</sup> Arbor Day Foundation, "What is Tree City USA?"

<sup>&</sup>lt;sup>47</sup> William K. Elmendorf, "Oak Tree Preservation in Thousand Oaks, California", USDA Forest Service Gen. Tech. Rep. PSW-126 (1991), 262-265.

 $<sup>^{48}</sup>$  Redwood, 13.

<sup>&</sup>lt;sup>49</sup> Ibid.

history in their yards. Working closely with American Forests, the Historic Tree Nursery now sells trees associated with historic figures like George Washington, Amelia Earhart, and Elvis Presley. The Nursery has been very successful, with its trees planted across the US and even at the Russian White House in Moscow.<sup>50</sup>

Not all Americans respect heritage trees. Sometimes those who harm trees do so specifically because they understand the power of their actions. In Austin, Texas, stands The Treaty Oak, estimated as over 500 years old, and significant in local, state, and national history. Legend has it that Native Americans used the site of the tree, once covered by several more oak trees, as the location for war and peace parties. Stephen Austin allegedly signed the first Texas boundary treaty with area Native Americans underneath the branches of the tree sometime in the 1830s. In 1929, American Forests placed the Treaty Oak on its list of famous and historic trees.<sup>51</sup>

In 1989 The Treaty Oak was vandalized and poisoned with an herbicide. The tree—so beloved by Texans—received intensive care from arborists. The amount of herbicide poured at the base of the tree necessitated the careful removal and replacement of all the soil around the roots. Although the Treaty Oak survived the attack, large sections of tree died and arborists were forced to remove parts of tree's canopy. Texas industrialist Ross Perot paid for the treatment and DuPont offered a reward for information on the vandal. Eventually apprehended, the man who poisoned the tree was sentenced to nine years in prison. Today the tree grows in a one acre park and is surrounded by a fence to prevent further damage. A plaque, honoring its role in history, stands outside the fence. The City of Austin Parks and Recreation Department website states:

<sup>&</sup>lt;sup>50</sup> Jeff Meyer, America's Famous and Historic Trees: From George Washington's Tulip Poplar to Elvis Presley's Pin Oak (New York, NY: Houghton Mifflin Company, 2001), 16

<sup>&</sup>lt;sup>51</sup> City of Austin Parks and Recreation Department website, "Treaty Oak History," http://www.ci.austin.tx.us/treatyoak/hist1.htm.

With all of its worldwide fame, the Treaty Oak has truly become a symbol of our time. It is a symbol of nature versus our modern technology. It is a symbol of our compassion and concern. And it is a symbol of strength and permanence in an age of increasing vulnerability and change.<sup>52</sup>

Although smaller and more lopsided than it once stood, the Treaty Oak remains an icon and a representation of the commitment of the community that fought so hard to save it.

In 2005, the City of San Francisco officially recognized the importance of its heritage trees by codifying an ordinance that provides a procedure for awarding significant trees landmark status and extra protection, including requiring a special permit before any landmark trees may be cut down. On December 28, 2008 the *San Francisco Chronicle* newspaper featured an article on the landmark tree protection ordinance. Mike Boss, chairman of the committee that evaluates trees for landmark status stated:

They are an important component of the city. If you go down Folsom Street north of Bernal Heights, there is that arching canopy of Chinese elms that really define[s] the street - you know you're on Folsom, not Mission Street.<sup>53</sup>

To that date, thirty-three trees or groups of trees had been designated landmarks and protected. A loyal following has also been spawned among City residents who appreciate not only the beauty of landmark trees but their role in creating neighborhood character in the larger city of San Francisco.

In early 2009, several news stories were printed about efforts by citizens to protect heritage trees. In Napa, California, a December 2008 decision by the city to cut down a historic elm tree grew dramatic when a neighborhood man blocked the tree with his body to prevent it from being cut down. The *Napa Valley Register* quoted him as saying, "Trees represent a lot of

<sup>&</sup>lt;sup>52</sup> Ibid.

<sup>&</sup>lt;sup>53</sup> Marisa Lagos, "S.F. Landmark Law Preserves City's Special Trees," *San Francisco Chronicle*, December 28, 2008, online edition.

the spirit and the charm and the beauty that we have living here...When the city was going after that tree, it was going after a lot more than just a tree." Other area residents defended the tree as well, leading to a short reprieve. However, the city ultimately determined that the tree was a public hazard and, as of February 2009, the tree was still slated to be felled. The incident, however, spurred local residents into a movement. Originally incensed by efforts to remove the tree, neighbors have now united to solve other neighborhood problems.<sup>54</sup>

In February 2009, residents of Little River, North Carolina, were working to get a live oak tree on the Horry County list of historic places. The county supported the inclusion of the tree on the list of historic places but was required to hold a public meeting before confirming the listing. If confirmed by the council, it would be the second live oak recognized by the county as historic. The local newspaper quoted a county planner as saying, "A tree individually can be as important as a structure or a historical site or a cemetery...It's a different aspect of history that can be explored." Area residents expressed that the tree gave the neighborhood a sense of place, that the area would not be the same without the tree. <sup>55</sup>

In March 2009 townspeople in Oak Hill, Texas, were furious when a contractor was acquitted after bulldozing 150 protected trees during the development of an apartment complex. Oak Hill has an ordinance requiring a permit to remove any tree larger than 60 inches in circumference. Nevertheless, the contractor removed the large trees on a weekend without a permit. When the City became aware of the illegal activity, the contractor was charged and taken to trial. Even though the developer asserted that he did not give the contractor the go-

<sup>&</sup>lt;sup>54</sup> Kevin Courtney, "From Stand-Off Over a Tree, a Local Movement Grows," *The Napa Valley Register*, February 15, 2009, online edition.

<sup>&</sup>lt;sup>55</sup> Mike Cherney, "Little River Residents Aim to Get Oak Tree on Historic List," *The Sun News*, February 2, 2009, online edition.

ahead to take down the trees, the jury ultimately found the defendant not guilty of the charges that he acted without authorization.<sup>56</sup>

A March 2009 *Oak Hill Gazette* article featured the reactions of residents to the acquittal. Not only were they angry at the jury for its decision, but they worried that the incident would set a precedent and would encourage developers to ignore the city tree ordinance. One resident stated that,

Large old growth trees are a community asset...If we as a community want to preserve the character of Oak Hill then it is important that we insist that the city use the tools it has to help us preserve our beautiful old trees. Accidents like this tree destruction are less likely to happen if developers know there will be consequences.<sup>57</sup>

Other residents complained that the young trees planted as replacements would not provide the

same benefits as the older trees once did for many years to come. The Oak Hill Gazette quoted a

woman as saying the absence of the trees "will be felt for 200 years." Another commented that:

These regal trees give Oak Hill its character and remind us of our very sacred natural heritage...The puny baby trees now planted to replace the majestic trees we lost will not provide these benefits for one or more decades. We can't bring these trees back, but real effective enforcement of the tree ordinance can keep this from happening to other very valuable mature trees.<sup>58</sup>

The disappointment and frustration expressed in the newspaper by citizens highlights the need

for developers and contractors to be educated in the regulation imposed by ordinances, as well as

for local governments to stand behind their laws and ensure their enforcement. The furor caused

by the incident also illustrates the deep connection to trees felt by many local people.

Elsewhere, however, government officials are just as involved in protecting trees as

citizens. In Rehoboth Beach, Delaware, Mayor Samuel Cooper argued with the Delaware

<sup>&</sup>lt;sup>56</sup> Ann Fowler, "Local Outrage of Tree Kill Acquittal," *Oak Hill Gazette*, March 4, 2009, online edition.

<sup>&</sup>lt;sup>57</sup> Ibid.

<sup>&</sup>lt;sup>58</sup> Ibid.

Department of Transportation in an attempt to save sycamore trees near a city gateway. Rehoboth Beach already has a tree ordinance that requires a permit to remove city owned trees, but that did not stop the Department of Transportation from removing several trees which dated from a 1930s city beautification effort lead by a local woman. In news articles the mayor appeared skeptical of the Department's claims that the trees were diseased and created a safety hazard. Even though the work done by DelDOT that necessitated the removal of the trees is ultimately to improve local infrastructure, Mayor Cooper regretted the loss of the trees as they were a part of the image of Rehoboth Beach as an "eco-friendly, green place."<sup>59</sup>

Throughout American history, from the East Coast to the West, trees have played an important role in landscape and identity. Ironically, just as fervently as the first colonists cut down trees in cities to prevent fire and disease (or so they thought), today Americans plant trees to improve the urban environment and fight to save the older trees that make their communities distinct and make it feel like "home." The planting of a new tree is a commitment to a place; an act which says one plans to stay in one place for long enough to see the tree grow, and possibly mature. Mature trees, according to essayist John R. Silgoe, therefore "exemplify love of land, love of landscape, and love of permanence."<sup>60</sup> Although it was in direct reference to his beloved Wye Oak, J. Preston Dickson articulated a similar sentiment when he wrote "Quite aside from its physical beauty...[it] is a symbol of survival. In an age of mindless horrors, it stands for tranquility—and endurance."<sup>61</sup> Trees are living witnesses and reminders of the past that we look to for comfort as we face the uncertainty of the future and should therefore be revered and respected. In an age of constant expansion, development, and limited resources, it is imperative

<sup>&</sup>lt;sup>59</sup> Molly Murray, "Fighting for Sycamores Near Rehoboth," *The News Journal*, March 26, 2009, onine edition.

<sup>&</sup>lt;sup>60</sup> John R. Stilgoe, "Lone Trees as Plain Champions," in *Trees: National Champions*, Barbara Bosworth (Cambridge, MA: The MIT Press, 2005), 145. <sup>61</sup> J. Preston Dickson, *Wye Oak: The History of a Great Tree* (Cambridge, MD: Tidewater Publishers, 1972), 3.

that communities work together to protect their heritage trees in order to ensure their survival for the benefit of future generations.

Ordinances, local laws, crafted by citizens for the betterment of their own community, can be the strongest protection for trees. If well written, such ordinances give local authorities the power to prevent the removal of their communities' living landmarks. The following chapters are meant to serve those seeking guidance as they develop a tree preservation ordinance that specifically protects heritage trees.



Figure 4. The reportedly 900-year old Lovers Oak, Brunswick, Georgia. Photograph courtesy of Taylor P. Davis.

### **CHAPTER 4**

#### TREE ORDINANCES

Tree ordinances are becoming increasingly common throughout the nation. Many municipalities understand the necessity of codifying protections for trees within the incorporated limits of the city. Not only do tree ordinances protect the city's investment in trees along rightsof-way, boulevards, and in parks, but they also protect a specific asset which has been proven to make the city a more livable place.

Trees on publicly owned property are of the most obvious concern. All tree ordinances protect trees on city property. Less common, and more controversial, are those ordinances that regulate trees on private property. However, as the importance of trees to the urban environment becomes better documented, cities are more willing to extend their regulatory powers onto private land. Perhaps due to fear of angering the populace, cities often control development and its impact on trees, but cut their control short once buildings have become owner occupied. Fewer cities extend their authority beyond developing property to private homeowners.

All levels of protections are important to the preservation of trees. Many trees are found in city parks and need to be protected form errant vandalism. Heritage trees, however, are not just found on city property and those that are on private lands need to be protected as well. Trees on unimproved private property often face the axe during development, while trees on private residential lots may be felled by a frustrated homeowner who no longer cares to rake leaves or pick up seedpods. Tree ordinances are the most basic tree protections and often apply blanket regulations to all trees within the city. The Arbor Day Foundation requires that cities applying for the Tree City USA status implement a tree care ordinance. The Foundation requires that a city, in order to become at Tree City USA, in addition to having a tree ordinance, must have a tree board or arborist in charge of caring for city trees, an annual forestry budget of at least two dollars per capita, and issue a proclamation officially declaring one day each year as Arbor Day.<sup>62</sup> Seeking the recognition that comes with the Tree City USA label, thousands of cities across the nation have followed the Arbor Day Foundation's lead and codified tree protections. Many cities and towns, however, use only the most basic ordinance in order to fulfill the Arbor Day Foundation standard.

A simple tree ordinance includes several sections. Most begin with the "purpose" or a statement of "legislative findings" (sometimes ordinances include both). This first section is very important but sometimes is not given as much thought as the subsequent provisions. The "purpose" explains the intent of the ordinance and why the city has found it necessary to protect its trees. The reasons stated must be able to stand up in court and are generally based on scientific studies of the benefits of trees. Some states, like Virginia, have enabling legislation for the protection of trees. If possible, the "purpose" or "legislative findings" of a tree ordinance should tie directly into state legislation.

The second section is often a list of definitions that are keys to understanding the ordinance. Terms and words are both included in the definition section. It is seldom that definitions are left out of an ordinance; they help the city officials, citizens, and the judicial system to understand what precisely the ordinance means. For example, a word seemingly as basic as "tree" can be interpreted in many different ways, but the city must choose a definition

<sup>&</sup>lt;sup>62</sup> Arbor Day Foundation, "Tree City Standards," http://www.arborday.org/programs/treeCityUSA/standards.cfm.

that both reflects the extant vegetation as well as the vegetation and growth the city would like to see in the future. Ultimately, definitions should be carefully crafted to make sure that they support, and are supported by, the purpose of the ordinance.

A tree board or commission is also established by the ordinance. The number of commission members, their qualifications, and term limits, should be detailed. The number of members generally ranges from five to nine, and sometimes includes ex-officio members. Members should live within the city limits and are often made up of interested citizens, arborists, horticulturalists, developers, and the like. Term limits are often three years, and sometimes they are staggered to ensure that there is frequent turn-over on the board. How members are appointed to the commission should also be explained as well as the procedure for replacing a member should a seat become vacant before its term expires. It should also be set out whether or not commission members will be compensated for their service.

The duties and powers of the tree commission and its members are also mandated by the ordinance. Duties might include, but are not limited to, advising the city council on city tree matters, surveying city trees, formulating a management plan for city trees and updating it on a regular schedule, and attending meetings. If the commission is to review applications for permits or hear permit appeals, these powers must also be described in the ordinance. Lesser duties might be the taking of minutes or keeping a record of all proceedings. Rules and regulations that govern the commission members might be listed or it can be determined that the commission will make its own. It should be ascertained what number of members constitutes a quorum.

The applicability of the ordinance, or the extent of its reach, is also clearly delineated. It should be very clear whether the ordinance only applies to city owned trees or both publicly owned and privately owned trees. Exemptions may be explained in this section or later sections.

The most basic tree ordinances only apply to city owned streets on government property and the street right-of-way.

All tree ordinances protect trees on publicly owned property and require a permit before a tree can be removed from public property. Although private property owners in some cities are required to maintain the trees on the right-of-way at the street edge of their property, they must get approval from the city before taking down those trees.<sup>63</sup> Other cities assume complete care of public trees and require permits for pruning, removal, or any other activity affecting the trees.<sup>64</sup> The ordinance must therefore make it clear if a permit to remove or prune a tree is required, the procedure for obtaining a permit, and the standards and fees associated with permit approval. The city department, agent, or commission that reviews permits should also be determined.

When the ordinance requires permits, a procedure to appeal permit approvals or denials must also be established. Neighbors or others affected by the removal of a tree may want to appeal a permit and have it revoked. Alternatively, those whose permits have been denied must have an opportunity to argue on their own behalf. Where appeals are filed, what information is required in the appeal, and who hears the appeal must be laid out. A clear, concise procedure can help protect the city from lawsuits.

A basic ordinance also makes apparent what constitutes a violation of the ordinance and what penalties are associated with violations. It is imperative that a tree ordinance be enforced and violators penalized in order for it to be effective. Courts have found that cities cannot punish a violation unless the ordinance clearly and strictly forbids the activity.<sup>65</sup> Similarly, the city also

<sup>&</sup>lt;sup>63</sup> Maumelle, Arkansas, "Tree Board," City Code of Maumelle, Arkansas, (September 4, 2007).

<sup>&</sup>lt;sup>64</sup> Ann Arbor, Michigan, "Trees and Other Vegetation," *Code City of Ann Arbor, Michigan* (October 6, 2008).

<sup>&</sup>lt;sup>65</sup> City of Hannibal v. Minor, 224 S.W.2d 598 (Mo. Ct. App. 1949); Lark v. Whitehead, 28 Utah 2d 343, 502 P.2d 557 (1972).

cannot institute a penalty unless it is given that power in its charter. In Virginia, for example, the state Code explicitly controls the extent cities can punish violations of tree ordinances and states that "Violations of such local ordinance shall be punishable by civil penalties not to exceed \$2,500 for each violation."<sup>66</sup> It follows that the agency charged with enforcing the tree ordinance cannot impose a penalty unless that power is specifically given in the tree ordinance.

- Purpose/Findings
- Definitions
- Tree Board/Commission
  - **o** Members
  - o Term limits
  - **o** Powers and duties of tree board
- Applicability
  - Public property
  - **o** Private property
- Permits
  - **o** Application; required forms and information
  - **o** Exemptions
  - o Fee
  - o Review
  - **o** Appeal
- Violations and penalties
- Severability

Possible additional provisions

- Utility company
- Protections during development
- Mitigation for removal
- Variances

Figure 5. Typical Tree Ordinance Provisions

<sup>&</sup>lt;sup>66</sup> Code of Virginia, "Tree conservation ordinance; civil penalties," Sec. 10.1-1127.1.

Finally, the ordinance should include a section on severability. The severability clause should be written so as to allow the tree ordinance, larger chapter, or code, to stand if a court declares a section of the ordinance to be invalid. If a severability clause is not a part of the tree ordinance, then a court can throw out the entire ordinance if a small part of it is judged to be void.

Only the most simple, basic tree ordinances include only the previously mentioned provisions. Most ordinances go further to regulate and protect trees on city property and thus include more provisions and sections. Those cities that extend their regulatory powers into private property necessarily have more provisions. Some only go so far as to allow pruning or removing hazardous trees on private property; others require permits to remove any tree over a certain size.<sup>67</sup> Still others distinguish between what can be done to trees on private property during development and what can be done on the property of an occupied single family home. The following case study looks at the provisions of the West University Place, Texas, tree ordinance and how it is constructed to protect public and private trees. The West University Place ordinance both contains and lacks provisions typically seen in tree ordinances and serves as an interesting example of how a city might choose to protect its trees.

### West University Place, Texas.<sup>68</sup>

West University Place, Texas, regulates trees on public and private property in the "Urban Forest Preservation and Enhancement" chapter of its code of ordinances. The West

<sup>&</sup>lt;sup>67</sup> Ordinances allowing the city to prune trees on private property: Ann Arbor, Michigan, "Trees and Other Vegetation," *Code City of Ann Arbor, Michigan* (October 6, 2008); Northbrook, Illinois, "Tree Protection and Preservation, Vegetation," *Municipal Code Village of Northbrook, Illinois* (June 10, 2008).

Ordinances governing trees based on size: Waukegan, Illinois, "Tree Preservation and Landscaping," *Code of Ordinances City of Waukegan, Illinois* (September 2, 2008); Northville, Michigan, "Tree Preservation," *Code of Ordinances City of Northville, Michigan* (December 17, 2007).

<sup>&</sup>lt;sup>68</sup> West University Place, Texas, "Urban Forest Preservation and Enhancement," *Code of Ordinances City of West University Place, Texas* (November 10, 2008).

University Place tree ordinance is notable for its protections for trees of a certain size. Like other tree ordinances, it begins with a "purpose; findings" section. The "purpose" is simple: "to preserve and enhance the urban forest of the city." The "findings" are several determinations made by the city council regarding the urban forest's value in maintaining public health and welfare. As well as listing trees' contributions to the urban environment, the findings also state that "the urban forest can aid in the conservation of vital energy resources and natural resources and in the preservation of the city's heritage and quality of life." Finally, preserving and enhancing the urban forest should be "consistent with the property rights of its citizens."<sup>69</sup>

West University Place defines a tree as "a woody plant having one well-defined stem or trunk, a defined crown and a mature height of at least eight feet."<sup>70</sup> The ordinance defines a "large tree" as a tree with a circumference of 19 inches or more; large trees are protected in front yards, street side yards of corner lots and in the right-of-way. A "significant tree" is a tree with circumference of 36 inches or more and is protected "anywhere in the city."<sup>71</sup>

"Damage" to trees and "removal" of trees are terms also defined. "Damage" is "any action which could result in a tree's death, either immediately or at any time within two years following the action"<sup>72</sup> and examples of damaging actions are listed. The definition of "damage" is notable because it looks at both the current and future consequences of actions against trees. To "remove" is "to cut down, or remove a tree by any other means."<sup>73</sup>

Before development or predevelopment activity can occur on a site, the property owner must meet requirements outlined in the "tree disposition; surveys" section of the ordinance and receive a permit. This section explains "essential and mandatory conditions" which must be met,

<sup>&</sup>lt;sup>69</sup> Ibid., Sec. 82-1.

<sup>&</sup>lt;sup>70</sup> Ibid., "tree," Sec. 82-2.

<sup>&</sup>lt;sup>71</sup> Ibid., "significant tree," Sec. 82-2

 <sup>&</sup>lt;sup>72</sup> Ibid., "damage," Sec. 82-2.
 <sup>73</sup> Ibid., "remove," Sec. 82-2

the procedure for permit approval, and the exemption of development that will have no adverse effect on a larger tree. All properties must have a tree survey completed and tree disposition conditions approved by the urban forester.<sup>•</sup> As a part of tree disposition conditions, removal or damage of large trees is prohibited unless it is "diseased, severely damaged or dead," "causes an unreasonable impediment to the use and enjoyment of the applicant's property," or is a "low-value tree." There are additional requirements for tree replacements, protection of large tree root zones, and mitigation of authorized damage to trees. Major developments may have requirements for minimum tree densities on the site.<sup>74</sup>

The permit process and criteria for approval are also explained. A property owner must receive a permit to legally remove or damage a tree unless the tree falls under one of the authorized tree disposition conditions. An application for a permit must be filed by the property owner or, if the tree is on a property boundary, all owners. A permit will be issued without special conditions if the tree is determined to be hazardous or if it is a low-value tree. If a permit is issued to remove a tree because it prevents the owner from fully utilizing the property, the urban forester may attach requirements to the permit, such as that replacement trees must be planted. Alternatively, if the permit allows the owner to damage the tree in question, the urban forester may require the permit holder to adhere to certain conditions "to minimize the damage to the protected tree (and may require replacement trees)."<sup>75</sup>

The West University Place guidelines for replacement trees are extensive. Replacement trees should be planted on site but, if that is not feasible, trees may be planted and maintained within 1,000 feet of the site, at a tree trust, a payment made to the West University Place Urban Forest Enhancement Fund (UFEF), or some combination of the above. According to the

<sup>&</sup>lt;sup>74</sup> Ibid., Sec. 82-3.

<sup>&</sup>lt;sup>75</sup> Ibid., Sec. 82-4.

ordinance, "the number of replacement inches planted on the subject site, plus those provided by alternate methods, must equal or exceed the number calculated according to the replacement inch stipulations in the criteria manual."<sup>76</sup> The criteria manual is a reference manual "adopted and incorporated into this chapter" and is on file at city offices and available online.<sup>77</sup> Replacements must be of a minimum size and a certain species (information also available in the criteria manual). Further procedures are included for the replacement of street trees and the treatment of "replacement inch certificates" for trees planted elsewhere or payments made to the UFEF.

In this section, the ordinance also allows "replacement inch credits." If a property owner plants more or larger trees than required on his property, then he can use "eligible to receive a credit for future 'replacement inches'" and "may use the credit to offset the number of 'replacement inches' assessed for protected trees removed from the same site at any time in the future." The ordinance details the issuance of credits, how credits are calculated, transference of credits, and records of credits. Finally, this section establishes the Urban Forest Enhancement Fund.<sup>78</sup>

The West University Place ordinance also has several requirements for protecting trees during development and soil disturbance activities. A six-foot or higher fence must be erected around the critical root zone of each protected tree or group of protected trees, "effectively preventing people, machinery, trash, material and other items from occupying the area within the protective fencing." Additional directives such as to fencing material, intrusions, using walls as

<sup>&</sup>lt;sup>76</sup> Ibid., Sec. 82-5.

<sup>&</sup>lt;sup>77</sup> West University Place, "Criteria Manual for the Urban Forest of the City of West University Place, Texas," Department of Public Works, Forestry (1994). http://www.westu.org/upload/images/Web-Forestry-Tree%20Criteria%20Manual.pdf.

<sup>&</sup>lt;sup>78</sup> West University Place, Texas, Code of Ordinances City of West University Place, Texas, Sec. 82-5.

temporary fencing, and signage, are also delineated. No construction material, vehicles, or trash may be stored inside the fence.<sup>79</sup>

The section "visibility triangles" explains landscaping requirements at street corners. No plants taller than three feet are allowed in the visibility triangle or trees with leaves or branches that hang lower than fifteen feet above the street gutter. The person who owns the property must maintain the visibility triangle, although the City or citizens may remove prohibited plant material without liability.<sup>80</sup>

Administration of the tree ordinance is explained in the section "administration; appeals, etc." In this section, the hiring, qualifications, and duties of the urban forester are described. The building official is required to refer all tree surveys, dispositions, and permits to the urban forester. The urban forester has the authority to prioritize submissions and determine fees for applications. The urban forester evaluates documents for city projects that may impact large trees and makes recommendations to the city council. The City should, but is not required to, follow tree replacement standards. Those who enforce the tree ordinance may receive training and reference materials and should make reference materials available to the public. The City and departments should also work with interested individuals and the urban foresters should provide advice and assistance to the public.

The ordinance outlines how the urban forester and building official should make decisions and the procedure for variances and appeals of the urban forester's decisions. Appeals and variances are heard by the building and standards commission. There are specific considerations listed that the building and standards commission must take into account when hearing applications for variances.

<sup>&</sup>lt;sup>79</sup> Ibid., Sec. 82-6.

<sup>&</sup>lt;sup>80</sup> Ibid., Sec. 82-7.

Violation of the Urban Forest Preservation and Enhancement ordinance are also laid out. It is unlawful for "a person to remove or damage a protected tree intentionally or knowingly" or for "a person, who owns or controls any site, intentionally or knowingly to cause or allow a protected tree to be removed or damaged, if it is located within that site or the right-of-way area of that site." However, it is an "affirmative defense" if the tree removal was authorized by the tree disposition or if it was a hazard and a permit was applied for within ten days of the removal, obtained, and complied with. It is also unlawful for "any person who applies for or receives a permit...to fail or to refuse to comply with a condition of the permit or this chapter." Permits may be withheld or revoked if a person fails to meet the conditions.<sup>81</sup>

The final section of the ordinance is titled "other regulations; conditions." This section explains how conflicts with other city ordinances, rules or regulations should be approached. It also provides for liberal interpretations of other city ordinances, rules or regulations by city officials, boards and commissions, in order to protect as many large trees as possible. It also allows for the preservation of a large tree to be considered a sufficient "hardship" in order to receive a variance under city law.<sup>82</sup>

The West University Place "Urban Forest Preservation and Enhancement" ordinance is typical of many city tree protection ordinances, although it does present some innovative ideas and challenges. The "purpose; findings" section of the ordinance has many of the usual reasons for tree protection standards and appears to relate to environmental protection enabling legislation. The words and terms included in the "definitions" section are also standard, although their definitions are different than what might appear in another city. Minor differences in

<sup>&</sup>lt;sup>81</sup> Ibid., Sec. 82-9.

<sup>&</sup>lt;sup>82</sup> Ibid., Sec. 82-10.

definitions are common. For example, some cities define trees as plants of a certain minimum height, while others measure them in circumference and or in diameter.

Like other tree ordinances adopted across the country, the West University Place ordinance protects all city owned trees and requires permits for their removal. The ordinance also extends control to private properties, requiring permits for the removal of all trees larger than 36 inches in circumference or for the removal of trees that are larger than 19 inches in circumference and located in a front yard, in a side yard, or located in a right of way (during development or pre-development, permits are required to remove all trees larger than 19 inches in circumference no matter their location on the site). Not requiring a permit for the removal of trees in the back yards of private property owners is politically savvy and not uncommon. Unfortunately, it allows property owners to cut heritage trees without redress.

The application, review, and appeal process for permits is also typical. An application filed by the tree owner and a set reason for damaging or removing a tree are both standard criteria. The inclusion of a tree survey and plan for protecting the remaining trees on the property and for replacing those removed are also normal components of permit applications. Most cities allow a property owner to take down a potentially hazardous tree without any mitigation measures, although an arborist may have to inspect the tree before issuing the permit. In order to avoid takings claims by the property owners, most cities approve permits for the removal of a tree if it can be proven that the tree "causes an unreasonable impediment to use and enjoyment of property."<sup>83</sup> Similar to other communities, the West University Place ordinance has appeals and requests for variances heard by a commission. The ordinance also outlines what the commission must take into account when considering appeals and variances.

<sup>&</sup>lt;sup>83</sup> Ibid., Sec.82-4(b)(3).

The inclusion of a list of desirable and undesirable trees is frequently included in ordinances. The individual trees listed by West University Place as desirable and undesirable are also familiar. The practice of adopting a tree list or manual into an ordinance is not uncommon, although it is somewhat inconvenient to utilize a separate document alongside the ordinance.<sup>84</sup> It is most common that a list of trees and established tree care practices be written into the ordinance, but this causes most ordinances to be lengthy and onerous.

Protective fencing around trees has become standard during development. Fencing is essential to keep construction vehicles, materials, and trash away from the roots of trees to prevent soil compaction. Like West University Place, most cities require that the fencing be highly visible and durable, and that warning signs be attached to the fence. The placement of the fencing—how far away it is from the tree trunk—varies from city to city.

Most municipalities employ a forester or arborist to review permit applications, to advise the city council or commission on tree related issues, and to assist in the enforcement of their tree protection ordinances. West University Place's hiring of an urban forester and the powers and duties it awards the forester are representative. Allowing for administrative review on most projects, rather than commission or council review, may speed up the permit approval process.

Requiring replacement trees is a common tree removal mitigation tool. Many cities have different formulas for calculating the number and size of replacement trees. West University Place's practice of ranking trees based on type and size to calculate replacements is not an unusual practice. The option of paying into a city tree fund instead of planting trees is an accepted option when there is no suitable location for replacement trees on the property after

<sup>&</sup>lt;sup>84</sup> West University Place, "Criteria Manual for the Urban Forest of the City of West University Place, Texas," Department of Public Works, Forestry (1994). http://www.westu.org/upload/images/Web-Forestry-Tree%20Criteria%20Manual.pdf.

development is complete. The provision that allows a property owner to earn "replacement inch credits" for the planting of a larger, higher quality tree than is requisite is a noteworthy concept.

There are other differences between the West University Place ordinance and others. Most cities make provisions for utility companies in their tree ordinances. Sections either make an exemption or mandate that a utility company receive a permit before removing or drastically pruning city trees and other protected trees. Many cities require that utility company workers use the least invasive techniques when running wires or pipes under tree roots and follow proper pruning standards set out by the International Society of Arboriculture or ANSI.<sup>85</sup> It is unusual for West University Place to not regulate utility companies at all and, in not doing so, the city risks defeating the purpose of the tree ordinance.

Although permit appeals and requests for variances are heard by the building and standards commission, it is atypical that West University Place does not have a tree board or commission. All Tree City USAs have a tree board or commission to advise the city council and other departments as well as to either review permit applications or to hear appeals. A single arborist or forester fielding permit applications from developers and other property owners may become overwhelmed resulting in a back up of paper work or less well thought out site recommendations and mitigation measures.

The West University Place tree ordinance is notable for its protections for trees larger than 19 inches in circumference. The ordinance inadvertently protects some of the city's heritage trees by protecting most of those over a certain size that only older trees will have reached. In the criteria manual, historic trees are valued more and therefore given a higher

<sup>&</sup>lt;sup>85</sup> Ansonia, Connecticut, "Planting Trees Along Roadways, Etc.," *Code of City of Ansonia, Connecticut* (September 11, 2007); Jamestown, Rhode Island, "Tree Preservation and Protection," *Code of Ordinances Town of Jamestown, Rhode Island* (September 11, 2006); Purcellville, Virginia, "Tree Conservation," *Town Code Purcellville, Virginia* (August 12, 2008).

rating.<sup>86</sup> Consequently, when tree dispositions are formulated, there is an incentive to preserve heritage trees in that their replacements are required to be larger, and are therefore more expensive. Although West University Place should be commended for considering heritage trees, the replacement requirements for historic trees will not deter a major developer from removing the trees unless there are many "significant" trees on a site.

The penalties for violations of the West University Place chapter may also not act as a deterrent. Violations are not punished by fines or considered a misdemeanor. If ordinance conditions are not followed, "any related permit for the subject site in question may be withheld," <sup>87</sup> but this may not be an adequate deterrent for those situations that are not part of a larger project. For example, a homeowner may not feel compelled to comply with the ordinance if he has no other permits and is only felling the tree to allow more light into his yard. Most communities institute stronger penalties for code violations in order to improve the success of the ordinance and support its purpose.

Most tree ordinances do not adequately protect trees with historic or cultural significance. General tree protection ordinances that cover trees on public property will protect some heritage trees, but trees on private property will still be vulnerable. Ordinances that protect trees over a certain size, like that of West University Place, inadvertently protect some historic trees but smaller species of trees, like dogwoods, are often left out because they are unlikely to reach the requisite size. Similarly, communities that protect all trees of a specific species, such as live oaks, may be protecting trees that are historically associated with the community and have become a part of the community identity. At the same time, however, heritage trees that are not

<sup>&</sup>lt;sup>86</sup> West University Place, "Criteria Manual for the Urban Forest of the City of West University Place, Texas."

<sup>&</sup>lt;sup>87</sup> West University Place, Texas, Code of Ordinances City of West University Place, Texas, Sec. 82-9.

of the specified species will go unprotected unless all tree species are listed. Ordinances with blanket provisions inevitably end up offering inadequate protections to heritage trees.

The following chapter will explain how cities can craft ordinances to offer the strongest protections for the city's heritage trees.



Figure 6.Publicly owned iconic oak tree, Ann Arbor, Michigan.<br/>Photograph courtesy of Connie Kinder Kerr.

#### **CHAPTER 5**

### TREE PRESERVATION ORDINANCES

Well constructed tree preservation ordinances can help control the loss of heritage trees in the urban landscape as well as protect younger trees so that they can grow into the future. Heritage tree protections do not have to be in separate ordinance from generic tree protections. Instead, they can be combined into one larger "tree preservation ordinance" with heritage tree preservation as a stated part of the purpose of the ordinance and with special provisions written for heritage tree preservation.

In the previous chapter, generic tree ordinances and their provisions were closely examined. Tree preservation ordinances are very similar to tree ordinances in their make-up, with many of the same sections like findings, purpose, definitions, applicability, permits, appeals, violations, and penalties. However, because they acknowledge the importance of all trees—publicly and privately owned, heritage and newly planted—and seek to protect and maintain them, they generally include more provisions. Although owners are not necessarily required to water and fertilize a tree, they must keep a tree pruned so as to remain healthy and not become a safety hazard. They do not apply a blanket of protection to all trees, but recognize that some trees are more important than others to the local community. Backed by proof from academic disciplines, they seek to preserve trees to support not only the physical health and welfare of the town, but also its economic, environmental, and cultural interests. The following case studies look at different ordinances from across the country and analyze their provisions for heritage trees and their potential for success. In the preceding chapter, the West University Place, Texas, tree ordinance was broken down and each provision scrutinized. The subsequent case studies are less in depth. Instead of analyzing the entire ordinance and each provision, the case studies only look at the parts of the ordinances that are instrumental in the protection of heritage trees. Sometimes what is absent is just as important as what is present; thus, it is important to note the sections or provisions that are missing from an ordinance, as well as what is written.

## Hanover County, Virginia.<sup>88</sup>

The Hanover County "Tree Preservation" ordinance is an example of a basic heritage tree preservation ordinance.<sup>89</sup> Like many ordinances, it could be written more clearly to lessen the need for interpretation and to prevent law suits against the county. The ordinance defines "heritage tree" as "any tree which has been individually designated by the county board of supervisors to have notable historic or cultural interest."<sup>90</sup> "Specimen tree" is similarly as vague: "any tree which has been individually designated by the county board of supervisors to be notable by virtue of its outstanding size and quality for its particular species."<sup>91</sup>

Although an arborist or urban forester can designate a tree as a "heritage tree" or a "specimen tree," the designation is not formalized until it is made by ordinance. The owner of the tree is notified by certified mail of the proposed designation so that he or she can attend a public hearing of the ordinance, but the owner of the tree does not have to consent to the

<sup>&</sup>lt;sup>88</sup> Hanover County, Virginia, "Tree Preservation," Code County of Hanover, Virginia (March 11, 2009).

<sup>&</sup>lt;sup>89</sup> It should be noted that the Code of Virginia, Sec. 10.1-1127.1, is enabling legislation for the protection of trees and that counties and cities must write their ordinances within the parameters set by the Code.

<sup>&</sup>lt;sup>90</sup> Hanover County, Virginia, Code County of Hanover, Virginia, Sec. 22.5-2.

<sup>&</sup>lt;sup>91</sup> Ibid.

designation for it to take effect.<sup>92</sup> There are no further criteria for identifying heritage or specimen trees. The designating arborist or urban forester does not have to be a county employee, and the designation process is not described in detail. Although the lack of a strict procedure and definitive requirements for evaluating heritage and specimen trees allows the county to have more freedom in the trees they designate, it also means that there is subjectivity in the designation process which makes the ordinance more vulnerable to legal challenge.

Unless the planning director is notified in writing by the property owner at least fourteen days in advance, the removal, relocation, or alteration of designated trees is prohibited, as well as any development or land disturbing activities within the canopy coverage of the trees. Trees that have become a safety hazard or are diseased or weakened are exempt from the notification condition.<sup>93</sup> The "prohibitions" section is somewhat confusing as to whether the planning director must approve of the action taken against the tree or if he only needs to be notified. If trees are not inspected by a city official before removal, it would be easy for owners to remove trees then claim after the trees are cut that they were hazardous or diseased.

The "exceptions" section of the Hanover County ordinance is directly based on the Code of Virginia enabling legislation. It reads:

The provisions of this chapter shall not apply: (i) to work conducted on federal or state property; (ii) to emergency work to protect life, limb or property; (iii) to routine installation, maintenance and repair of cable and wires used to provide cable television, electric, gas or telephone service; (iv) to activities with minor effects on trees, including but not limited to home gardening and landscaping of individual homes; and (v) commercial silvicultural or horticultural activities, including but not limited to planting, managing or harvesting forest or tree crops.<sup>94</sup>

<sup>&</sup>lt;sup>92</sup> Ibid., Sec. 22.5-3.

<sup>&</sup>lt;sup>93</sup> Ibid., Sec. 22.5-4.

<sup>&</sup>lt;sup>94</sup> Ibid., Sec. 22.5-5

It is unfortunate that utility companies doing "routine installation, maintenance and repair" cannot be regulated by local ordinance due to the state code. Utility companies do great damage to heritage trees as they dig trenches through roots to lay down cables or top trees near overhead wires. Although utilities must be maintained near heritage trees, local ordinances should make sure that service companies follow standard practices established by reputable arboriculture organizations and utilize the least invasive procedures.

Hanover County is also required by the State Code to include a section on "compensation" if the designation of a tree results in a taking. The ordinances reads, "In the event that the application of this chapter regulating the removal of heritage, specimen, memorial or street trees results in any taking of private property for a public purpose or use, the county shall compensate the property owner by fee or other consideration for such taking. The provisions of chapter 1.1 of title 25 of the Code of Virginia shall apply to the taking of private property for a public purpose pursuant to this chapter."<sup>95</sup> The Virginia compensation clause is unusual; no other states reviewed for this thesis required a provision for takings.

The Code of Virginia also controls penalties for violations of heritage tree protection ordinances. Provisions for penalties are common in ordinances, but the State of Virginia expressly limits punishment for violations to "civil penalties not to exceed two thousand five hundred dollars (\$2,500.00) for each violation."<sup>96</sup> The ordinance can also be "enforced by injunction." The ordinance charges the Hanover County planning director with developing the procedure to impose the penalties, but that procedure is not laid out in the actual ordinance. Again, it is important to codify such procedures or risk a legal challenge to the enforcement of the ordinance.

<sup>&</sup>lt;sup>95</sup>Ibid., Sec. 22.5-6.

<sup>&</sup>lt;sup>96</sup>Ibid., Sec. 22.5-7.

# **Rochester Hills, Michigan.**<sup>97</sup>

The Rochester Hills "Tree Conservation" ordinance begins with a section of definitions. In comparison to the West University Place tree ordinance discussed in the previous chapter, it is interesting that Rochester Hills defines a "tree" as "any living, self-supporting, woody plant of a species which normally grows to an overall height of 15 feet or more."<sup>98</sup> This definition will leave out many smaller tree species that do not reach a mature height of fifteen feet. A "regulated tree" is one "six inches or greater diameter at breast height, which is not otherwise exempt from regulation" of the ordinance.<sup>99</sup> To "remove" a tree "means the act of removing or destroying a tree by digging up or cutting down, or the effective removal or destruction through damage, poison, or other means."<sup>100</sup> The definition of tree removal is important because it can encompass more than just the cutting down of a tree, but any act that kills a tree or transfers it to a different location. "Historic" or "landmark" trees are not defined in this section but are described later in the ordinance.

The Rochester Hills city council finds that trees and vegetation, if preserved, "constitute important physical, aesthetic, recreation and economic assets to current and future residents of the city."<sup>101</sup> It makes three respective findings, that trees and vegetation protect public health, enhance public safety, and are an "essential component of general welfare."<sup>102</sup> Further, "trees and woodland areas are an essential component of the general welfare of the city, providing play

<sup>&</sup>lt;sup>97</sup> Rochester Hills, Michigan, "Tree Conservation," *Code of Ordinances City of Rochester Hills, Michigan* (December 15, 2008).

<sup>&</sup>lt;sup>98</sup> Ibid., Sec. 126-261. Trees in West University Place are defined as at least eight feet tall. See West University Place, Texas, "tree," *Code of Ordinances City of West University Place, Texas,* Sec. 82-2.

<sup>&</sup>lt;sup>99</sup> Rochester Hills, Michigan, "Tree Conservation," *Code of Ordinances City of Rochester Hills*, "regulated tree," Sec. 126-261.

<sup>&</sup>lt;sup>100</sup> Ibid., "remove or removal," Sec. 126-261.

<sup>&</sup>lt;sup>101</sup> Ibid., Sec. 126-262.

<sup>&</sup>lt;sup>102</sup> Ibid., Sec. 126-262(1)(2)(3).

and recreational areas, natural beauty, and an irreplaceable heritage for current and future city residents."<sup>103</sup>

The "purpose" section of the ordinance also supports the preservation of heritage trees. In order to prevent damage to wildlife, habitat, and vegetation, and to support local property values, the ordinance should "provide for the protection, preservation, proper maintenance and use of trees and woodlands."<sup>104</sup> The ordinance aims to protect and preserve trees and woodlands because of "their natural beauty, wilderness character, and their geological, ecological, or historical significance."<sup>105</sup> The incorporation of heritage—or in this case history—into the city council's findings and stated purpose of the article is significant because it supports the later provisions for the nomination and designation of historic trees.

Enforcement of the ordinance is the responsibility of the "the mayor, the county sheriff's department, the building department director and ordinance enforcement officers, and other enforcement officers as the mayor may designate."<sup>106</sup> It is important that someone in addition to the building department director or a city arborist be allowed to enforce a tree preservation ordinance. Department directors and arborists often do not have the time to patrol and make sure ordinances are followed. Giving code enforcement officers and the sheriff's department the ability and responsibility to enforce the ordinance makes it that much more likely that the ordinance will be enforced and successful in fulfilling its purpose. If code enforcement officers and the sheriff's department are to enforce the ordinance, however, they must be educated to understand both the provisions of the ordinance and basic arboricultural practices so that they can correctly identify when the ordinance is being violated.

<sup>&</sup>lt;sup>103</sup> Ibid., Sec. 126-262(3).

<sup>&</sup>lt;sup>104</sup> Ibid., Sec. 126-263.

<sup>&</sup>lt;sup>105</sup> Ibid., (2).

<sup>&</sup>lt;sup>106</sup> Ibid., Sec. 126-265.

There are several penalties for violating provisions of the tree conservation ordinance. A person may be charged with a civil infraction and face a fine and other sanctions.<sup>107</sup> The city may also seek injunctive relief, issue a stop work order, or withhold certificates of occupancy, permits or inspections from a person determined to have violated the ordinance.<sup>108</sup> A fee or mandated tree replacement, or a combination of the two, in addition to a civil fine and regardless of whether injunctive relief has been sought, can also be imposed for illegally removing trees.<sup>109</sup>

Several exceptions to the requirements of the ordinance are listed. Land that was developed before August 3, 1988, or had an approved or tentatively approved site plan prior to that date, does not have to go through the permitting process outlined in the ordinance.<sup>110</sup> Owners of land used for agriculture, nurseries, or tree farms do not need a permit to remove a tree planted as a part of the operation; naturally growing trees are not exempt.<sup>111</sup> All trees can also be removed without at permit in cases of emergency, such as tornadoes or ice storms, if the tree is interfering with utilities or if it is a potential hazard.<sup>112</sup> If an arborist agrees that a tree is dead, diseased or too damaged to survive, it does not need a removal permit; this includes historic and landmark trees.<sup>113</sup> Exemptions for nominal activity—the removal or transplanting of three or fewer trees within a six-month period—on small and large residential parcels do not apply to historic or landmark trees.<sup>114</sup>

<sup>113</sup> Ibid., Sec. 126-267(5).

<sup>&</sup>lt;sup>107</sup> Ibid., Sec. 126-266(a).

<sup>&</sup>lt;sup>108</sup> Ibid., (b) and (d).

<sup>&</sup>lt;sup>109</sup> Ibid., (c).

<sup>&</sup>lt;sup>110</sup> Ibid., Sec. 126-264.

<sup>&</sup>lt;sup>111</sup> Ibid., Sec. 126-267(1).

<sup>&</sup>lt;sup>112</sup> Ibid., Sec. 126-267(2)-(4).

<sup>&</sup>lt;sup>114</sup> Ibid., Sec. 126-267(6)-(8).

Division Two of the article details the procedure for granting of a variance if it is determined that "undue hardship may result from strict compliance" with the article.<sup>115</sup> The procedure includes provisions such as due notice must be given of the variance hearing and what circumstances the city council must find in order to grant the variance. Division Two is important in preventing takings claims and keeping the variance process standardized and orderly.

Division Three explains the general regulations and permit process for tree removal, relocation and replacement on land undergoing development.<sup>116</sup> All trees designated as historic or as a landmark must go through the permitting process (unless they are exempt). In order to remove a historic tree, an application must be submitted to the departments of parks, forestry, or facilities, before tree removal activity begins.<sup>117</sup> In addition, developers must explain how they are going to protect regulated trees during construction as well as how removed trees will be replaced.<sup>118</sup> Among the provisions are explanations of the departmental review of the permit application, notice to property owners, review standards for denial or approval of the permit, and the appeal process for denied permits.<sup>119</sup> According to the review standards, "The removal of trees designated under this article as historic or landmark trees shall not be permitted where there is a reasonable alternative that would allow preservation of the trees."<sup>120</sup> The detailed provisions of Division Three are important because they require property owners and developers to seriously consider the regulated trees they are removing. The provisions are also key because

<sup>&</sup>lt;sup>115</sup> Ibid., Sec. 126-296.

<sup>&</sup>lt;sup>116</sup> Ibid., Division 3 "Tree Removal."

<sup>&</sup>lt;sup>117</sup> Ibid., Sec. 126-358.

<sup>&</sup>lt;sup>118</sup> Ibid., Sec. 126-359.

<sup>&</sup>lt;sup>119</sup> Ibid., Sec. 126-359 - Sec. 126-369.

<sup>&</sup>lt;sup>120</sup> Ibid., Sec. 126-368(10).

they regiment the permit process and make it less likely that decisions will be judged "arbitrary and capricious" if challenged in court.

Division Four, "Historic and Landmark Trees," explains how trees are nominated and designated as historic or landmarks and the regulations for designated trees. Anyone can nominate a tree within the city for historic designation.<sup>121</sup> Historic tree nominations are reviewed by the historic districts commission. If a nomination is submitted by someone other than the owner of the tree, the owner is notified by certified mail of the nomination, the time at which the commission will review the nomination, and that "designation of the tree as an historic tree will make it unlawful to remove or damage the tree absent the granting of a tree removal permit by the city."<sup>122</sup> The owner must consent before the tree is formally designated.<sup>123</sup>

A historic tree must meet one of seven listed criteria, while landmark trees are designated based on their listing in registries of big trees.<sup>124</sup> To be designated historic, the historic districts commission must find that a tree possesses at least one of the following characteristics:

- (1) Associated with a notable person or historic figure;
- (2) Associated with the history or development of the nation, the state, or the city;
- (3) Associated with an eminent educator or education institution;
- (4) Associated with art, literature, law, music, science, or cultural life:
- (5) Associated with early forestry or conservation;
- (6) Associated with Native American history, legend, or lore; or
- (7) Has notable historic interest in the city because of its age, type, size, or historic association.<sup>125</sup>

After a tree is designated as historic or as a landmark, the owner is required to apply for a permit

before removing the tree.<sup>126</sup> A record of the historic or landmark tree designation is maintained

<sup>&</sup>lt;sup>121</sup> Ibid., Sec. 126-456.

<sup>&</sup>lt;sup>122</sup> Ibid., Sec. 126-457(c).

<sup>&</sup>lt;sup>123</sup> Ibid., Sec. 126-457.

<sup>&</sup>lt;sup>124</sup> Ibid., Sec. 126-458 and Sec. 126-461. Landmark trees are not nominated and therefore do not go through the same review process as historic trees. <sup>125</sup> Ibid., Sec. 126-458.

by the department of planning and is also recorded in the property deed; designation of the tree runs with the property.<sup>127</sup>

## Fremont, California.<sup>128</sup>

The Fremont, California "Tree Preservation Ordinance" is an excellent example of an ordinance crafted with the protection of heritage trees in mind. The ordinance not only protects heritage trees, but their protection is a key component of the ordinance. The ordinance is able to preserve more trees by regulating those on both public and private property.

The ordinance begins with a section of "Legislative Findings," which includes the stated purpose of the ordinance. The findings of facts support the ordinance and explain why Fremont believes it is necessary. Fremont finds that its trees "contribute to the attractiveness and livability of the City" and that "trees have significant psychological and tangible benefits for both residents and visitors to the city."<sup>129</sup> The ordinance states that trees in Fremont also contribute visually to the city, the city environment, and the local economy, while at the same time decreasing city infrastructure costs. It also finds that they "are often landmarks of the city's history"<sup>130</sup> and that:

The city's trees collectively constitute an urban forest, and removals or additions of even a single tree can negatively or positively affect the urban forest and the city as a whole. The loss or removal of a tree from one location in the city's urban forest can often be at least partially mitigated by planting a replacement tree or replacement trees in the same or a different location. However, the negative effect of the loss or removal of a mature tree may in

<sup>&</sup>lt;sup>126</sup> Ibid., Sec. 126-459. Normally, single-family residential property owners do not have to receive a permit before removing a tree on their property. Owners of property zoned other than residential do not have to receive a permit as long as the property is not undergoing development and as long as they do not remove more than three regulated trees within six months. Exemptions to the tree removal permit are found in Sec. 126-267.

<sup>&</sup>lt;sup>127</sup> Ibid., Sec. 126-460.

<sup>&</sup>lt;sup>128</sup> Fremont, California, "Tree Preservation." Municipal Code City of Fremont, California (January 27, 2009).

<sup>&</sup>lt;sup>129</sup> Ibid., Sec. 4-5101.

<sup>&</sup>lt;sup>130</sup> Ibid., (2).

some cases take generations to fully mitigate by the planting of immature replacement trees.<sup>131</sup>

The section finishes with a paragraph stating that the chapter is in "the interest of the public health, safety and welfare of the people of the City of Fremont" and that the purpose of the chapter is to—among other reasons—protect and preserve trees as well as to encourage public appreciation of trees.<sup>132</sup>

The Tree Preservation Ordinance also includes a section of definitions. Most of the definitions are standard. The list includes important words or terms like "damage," "landmark tree," "protected tree," "severely damaged," "tree," and "tree of exceptional adaptability to the Fremont area." A tree in Fremont, unlike in West University Place or Rochester Hills, is not defined by height but by its manner of growing and the species' "usual botanical nomenclature." This flexibility allows for more trees of a wider range of species and habits to be considered for protection designation.<sup>133</sup> It should also be noted that Fremont only has one class of designation—landmark—unlike Rochester Hills which has two.

The Fremont ordinance prohibits the removal or damage of regulated trees without a permit, with few exemptions.<sup>134</sup> A tree must fall under one of seven categories to require a permit for removal; four of the seven categories are based on size. Two examples of categories are any tree over eighteen inches in diameter at breast height (DBH) or any "native tree or tree of exceptional adaptability to the Fremont area having a DBH of ten inches or more."<sup>135</sup> The separate categories allow Fremont to protect a variety of trees that are worthy of preservation for different reasons. Exemptions do not apply to landmark trees, except when immediate removal

<sup>&</sup>lt;sup>131</sup> Ibid., (3).

<sup>&</sup>lt;sup>132</sup> Ibid., (4).

<sup>&</sup>lt;sup>133</sup> Ibid., Sec. 4-5102.

<sup>&</sup>lt;sup>134</sup> Ibid., Sec. 4-5103.

<sup>&</sup>lt;sup>135</sup> Ibid., Sec. 4-5104(a)(3) and (a)(4).

is necessary to prevent injury to a person or damage to property.<sup>136</sup> Under normal circumstances, the city council must authorize a landmark tree removal permit.<sup>137</sup>

Landmark trees are afforded special protection through a required application and permit before damage, removal or relocation. The criteria and process for designating a tree a landmark are detailed in the Tree Preservation Ordinance. The Fremont city council is the body that officially designates a landmark tree and does so by resolution.<sup>138</sup> Trees may be designated based on their fulfillment of specified criteria. If a tree has no particular cultural significance, it must meet all of five stringent criteria listed in the ordinance.<sup>139</sup> However, a tree with cultural significance may be designated based on its fulfillment of one of the following criteria:

- a. The tree has an important historic significance in that:
  - 1. It is associated with events that have made a significant contribution to local, state or national cultural heritage; or
  - 2. It is associated with the life of a person important to local, state or national history;
- b. The tree is a native tree or a tree of exceptional adaptability to the Fremont area which has a special significance to the community;
- c. The tree has an especially prominent and beautiful visual impact;
- d. The tree is one of a group of trees that as a group meets one or more of the criteria of this section for landmark tree designation; or
- e. Any other factor causing the tree to have a special and important significance to the community. <sup>140</sup>

Further, all trees that are designated primary historic resources in the general plan are also

designated landmark trees.<sup>141</sup>

<sup>&</sup>lt;sup>136</sup> Ibid., Sec. 4-5104(c).

<sup>&</sup>lt;sup>137</sup> Ibid., Sec. 4-5104(b).

<sup>&</sup>lt;sup>138</sup> Ibid., Sec. 4-5112.

<sup>&</sup>lt;sup>139</sup> Ibid., (a)(1).

<sup>&</sup>lt;sup>140</sup> Ibid., (a)(2).

<sup>&</sup>lt;sup>141</sup> Ibid., (b).

As laid out in the "Procedure for designation of landmark trees and removal of such designation" section, the city landscape architect, city council, or the tree's owner can nominate a tree for landmark designation or request that designation be removed. If a tree's owner nominates the tree or requests the removal of designation, they must file an application. In the case of removal of designation, the owner must pay a fee. After an application is filed, the city landscape architect or other designated official must inspect the tree. The city council then holds a public hearing and reviews the complete application and inspection report. The council's decision is then set as a resolution.<sup>142</sup>

Fremont landmark trees "are significant community resources" and therefore the removal or damage of a "tree shall be regarded as causing at least a potentially substantial adverse change in the environment" unless the probability of the tree surviving and remaining aesthetically appealing for the next five years is less than fifty percent or if the tree has already lost its original aesthetic appeal.<sup>143</sup> The city council will not authorize the damage or removal of a landmark tree if "its preservation intact is feasible in light of economic, environmental and technological factors."<sup>144</sup> Authorization for damage or removal can be given if it is determined that action taken against the tree will not cause a "substantial adverse change in the environment."<sup>145</sup> In order to help prevent the removal of landmark trees, the city council can consider approving variances, allowing transfer of development rights, or other measures to stop the removal from becoming necessary.<sup>146</sup>

There are separate procedures for submitting applications to remove, damage, or relocate a landmark tree on land where no development is planned and for land where a development

<sup>&</sup>lt;sup>142</sup> Ibid., Sec. 4-5113.

<sup>&</sup>lt;sup>143</sup> Ibid., Sec. 4-5114(b).

<sup>&</sup>lt;sup>144</sup> Ibid., (c)(1).

<sup>&</sup>lt;sup>145</sup> Ibid., (c)(2).

<sup>&</sup>lt;sup>146</sup> Ibid., (d).

project application is contemplated or pending. The different procedures are detailed in two separate sections of the ordinance. Property owners of both classifications of land must submit applications for authorization by the city council; however, property owners of land that is to undergo development must submit additional information and plans for review.<sup>147</sup> The procedures explain the fee for application, the ninety-day review time for applications and the required contents of the application.<sup>148</sup> A public hearing is held by the city council for each application for landmark tree removal. The council can approve, conditionally approve, or deny, the application and can require that the city help to preserve that landmark tree(s). Mitigation requirements are determined on a case-by-case basis.<sup>149</sup> The procedure for land where development is pending requires additional review by city departments, but the application for landmark tree removal, damage, relocation, or retention (with protection measures), is ultimately decided by the city council.<sup>150</sup>

Procedures for imposing mitigation measures for the illegal removal of trees are described in detail. Before a plan is established for mitigating the illegal removal of trees, the city landscape architect must conduct an investigation to determine if the trees were removed in violation of the chapter and who is responsible for the tree(s) removal.<sup>151</sup> Mitigation requirements for landmark tree removal are determined on a case-by-case basis.<sup>152</sup> In addition to the mitigation requirements, the violator of the chapter must pay the city for the cost of the investigation. The person who violated the ordinance may request an informal hearing with the

<sup>&</sup>lt;sup>147</sup> Ibid., Sec. 4-5115 and Sec. 4-5116.

<sup>&</sup>lt;sup>148</sup> Ibid., Sec. 4-5115(a).

<sup>&</sup>lt;sup>149</sup> Ibid., (c) and (d).

<sup>&</sup>lt;sup>150</sup> Ibid., Sec. 4-5116.

<sup>&</sup>lt;sup>151</sup> Ibid., Sec. 4-5118(a).

<sup>&</sup>lt;sup>152</sup> Ibid., (b).

landscape architect. The procedure for hearings and appeals of the landscape architect's decisions are clearly laid out.<sup>153</sup>

Penalties for violations are also outlined. All persons determined to have aided in the removal of a tree in violation of the chapter are considered to be "responsible and liable" for violations of the chapter; this can include the owner of a tree as well as the employees of a service company removing a tree.<sup>154</sup> A person is guilty of a separate criminal or civil offence for each tree damaged or removed in violation of the chapter, for each tree not replaced according to chapter requirements, for each day of non-compliance with a final order, and for each day of failure to comply with a tree replacement or cash payment requirement.<sup>155</sup> Penalties for violations of the chapter "shall be deemed non-exclusive, cumulative, and in addition to any other remedy the city may have at law or in equity, including but not limited to injunctive relief to prevent violation of this chapter and to enforce any requirement imposed pursuant to this chapter."<sup>156</sup>

#### **Comparison and Evaluation.**

The previous case studies give examples of different levels of protections given heritage trees in three different communities. The Hanover County, Virginia, ordinance is simple and its lack of explicit procedures opens it for legal challenges. Although it is fortunate that Virginia has enabling legislation to protect trees, it is unfortunate that communities like Hanover County only utilize the Code of Virginia to do the bare minimum to protect their heritage trees. The Hanover County ordinance does not expand on the possibilities created by the enabling

<sup>&</sup>lt;sup>153</sup> Ibid., (c)-(f).

<sup>&</sup>lt;sup>154</sup> Ibid., Sec. 4-5117.

<sup>&</sup>lt;sup>155</sup> Ibid., Sec. 4-5119(a).

<sup>&</sup>lt;sup>156</sup> Ibid., (b)

legislation but instead copies much of the state legislation's language.<sup>157</sup> The ordinance is most wanting in its vague definitions and absence of criteria and procedure for designation of trees. The inclusion of the compensation clause, required by the state, is noteworthy as it may help the county avoid lengthy litigation on takings claims.

The tree conservation ordinance of Rochester Hills, Michigan, is more complex and regulates trees on public and private property during both development and non-development activities. The Rochester Hills ordinance is well written with clear standards, procedures, and processes. Its "purpose" section acknowledges trees as a component of the heritage of city residents. The stiff penalties for violations and the apparent willingness of the city to seek alternatives during development reflect the city's value of trees. The criteria for historic or landmark trees allows for a broad range of significant trees to be designated. However, the definition of what is an eligible tree eliminates smaller species of trees that may be important to the community. Mandatory owner consent before a tree is designated also undoubtedly eliminates many trees from city protection as property owners refuse consent because they do not want to be restricted.

The Fremont ordinance places a strong emphasis on heritage trees. The "legislative findings" make it clear that the city council believes trees, especially mature trees, are a significant and positive part of the urban landscape. Fremont's definition of "tree" is broader and more encompassing than that of Hanover County and Rochester Hills. The criteria for landmark designation are also broad, allowing not just trees with documented histories to be designated, but also those that are worthy of saving for their significance to the community. As in most cities, there are undoubtedly trees in Fremont worthy of saving that do not fit the city's

<sup>&</sup>lt;sup>157</sup> Compare the Code of Virginia, Sec. 10.1-1127.1, and Hanover County, Virginia, Code County of Hanover, Virginia, Sec. 22.5-2.

criteria for landmark designation. However, in Fremont many trees that are not designated as landmarks are still protected and require a permit for removal. Fremont does not require property owners to give permission for trees to be landmarked which potentially allows the city to preserve more trees.

The ordinance is also strengthened by different permit processes for nominal activities and development. The permit and review process to remove a heritage tree in Fremont is detailed and lengthy, but appears to provide the necessary level of protection to fulfill the stated purpose of the ordinance. Finally, the mitigation standards and penalties imposed by the Fremont ordinance appear to be stringent enough to act as a deterrent to both developers and homeowners who might otherwise unlawfully remove a tree.

Each ordinance has its strengths and its weaknesses and can be refined. After analyzing over one hundred different ordinances, some conclusions can be drawn about ordinances that protect heritage trees. However, pointing out the shortcomings of ordinances is not always useful if something better is not suggested. In the following chapter, recommendations are given for provisions that can be included in tree preservation ordinances so that heritage trees can be most effectively protected. Areas of further research are also addressed.



Figure 7. Post Oaks mark the location of an old farm, Madison County, Georgia. Photograph by the author.

#### CHAPTER 6

#### CONCLUSIONS AND RECOMMENDATIONS

Tree preservation ordinances are not exclusive of tree ordinances or development standards. Instead, they have the potential to pull together in one location provisions from several different ordinances, such as those that cover historic preservation, zoning, trees, and parks and recreation. If properly cross-referenced, tree preservation ordinances can make tree preservation during the development process, and as a part of private homeownership, less cumbersome. Unless state enabling legislation dictates the placement of the ordinance as part of a larger code or title, the tree preservation ordinance is most accessible when created as its own chapter. However, it is also intuitive that a tree preservation ordinance might fall underneath a larger division of planning.

Tree preservation ordinances should not focus solely on individual heritage trees at the expense of groves of trees or the larger urban forest. Individual heritage trees should be seen as an essential part of the urban forest, not exclusive of the urban forest. Heritage trees, often by virtue of age and size, are well established and hold a significant amount of soil in place, create a large sound buffer, and help cleanse the air and soil of pollutants. Their individual contributions are often greater than many newly planted trees. However, younger, more vigorous trees, especially those planted in groupings, have the potential to make even greater contributions to the urban environment in the future and therefore also deserve protection. Heritage tree

preservation ordinances should not be at the cost of broader tree protections, and the converse is true as well.

#### Recommendations

1. Trees and heritage trees exist on publicly owned and privately owned property and deserve equal protections. If the purpose of the tree preservation ordinances is to protect the health and welfare of citizens, protect the urban environment, or preserve a sense of place and local history, it only makes sense that all trees within the city be regulated. It is, therefore, imperative that tree preservation ordinances protect tress on both public and private property.

2. The tree preservation ordinance should include in one place all the regulations, procedures, and criteria for tree protection and designation. It is much less straightforward and less foolproof if guidelines or criteria are located in a separate appendix or on file at a city department office. It also appears less likely that residents or city officials will take the time to locate and reference two separate documents. A separate manual or set of guidelines that is not codified is also more easily changed, which may lead to complaints of subjectivity in designation, permit approvals, or enforcement.

3. Ordinances, as a general rule, should protect the city from legal challenges. Tree preservation ordinances are intended to benefit the community and each individual citizen in the long term. A well written ordinance with clearly defined terms, criteria, and procedures, should help citizens and officials understand the ordinance and leave little open for interpretation. The ordinance should have a permit and review process with clear criteria for approval or denial of requests for tree damage, removal, or relocation. There should also be an appeal procedure for

those dissatisfied by the outcome of the permit process. Penalties for violations must also be written into the ordinance.

4. It is recommended that the implementation of the ordinance be overseen by a distinct body like a tree preservation commission. The commission should review applications for permits and for designations. The commission should be made up of citizens with interest in the preservation of trees and represent arborists, foresters, utilities, non-governmental organizations real estate agents, developers, and business leaders, as well as historians and historic preservationists. The commission should be largely made up of people with knowledge of trees and their part in the urban environment. However, because it is dealing with heritage trees, the commission needs input from citizens with knowledge of local history and preservation theories and practices. It is recommended that at least one member of the historic preservation commission serve in an advisory capacity when there are questions regarding heritage designation or the removal of a heritage tree. Ex-officio members should represent the city planning and development department as well as parks and recreation.

5. The tree preservation ordinance should apply to private property during and after development. Many ordinances only regulate private property that is undergoing development or construction; they do not regulate homeowners or residential lots. Restrictions from tree preservation ordinances should not cease effect, as they do in Coppell, Texas, after a building becomes owner occupied. It is unfortunate when heritage trees are protected during the development process but then are removed by a new homeowner. In fact, such incidents often defeat the purposes of the tree ordinance. At the very least, there should be some oversight when additions are made to houses. For example, Atlantic Beach, Florida, requires a permit when

improvements over \$10,000 are made to a house. Permits could also be required based on the addition of square footage.

6. When a heritage designation is undergoing review, a moratorium on removal, pruning, or relocation should be automatically placed on the tree or trees being considered.<sup>158</sup> In Seattle, Washington, a weeping poplar was severely pruned immediately after it received heritage tree status. The co-owner of the tree opposed the designation and claimed that he did not know the tree had been approved as a heritage tree until after the damage had been done.<sup>159</sup> A moratorium for the duration of the process for designation as well as mailed notices to co-owners of trees might prevent such a tragedy from taking place elsewhere.

7. Clauses for economic or "undue" hardship also need to be written into the ordinance. If the tree preservation ordinance makes it impossible for a property owner to utilize their property, the ordinance must be crafted to allow that person a permit for tree removal or a variance for development. Similarly, a provision can be made to allow permit approval in instances where "all reasonable efforts" have been made to save a specimen tree and it appears that the benefits to the community out weight the harm done by its removal.

8. Heritage trees should survive for at least five years after development unless they are destroyed by natural forces. Guidelines for the care of heritage trees should be written to help ensure their survival during and after development. Such guidelines should be included in the actual ordinance and a copy given to owners at the time of designation and made available by the city to all property owners. The city forester or arborist should be in charge of developing the guidelines or manual of care. Regular inspections of heritage trees should also take place.

<sup>&</sup>lt;sup>158</sup> The Fairfax County, VA, ordinance places restrictions on tree removal during the designation process. Fairfax County, Virginia, "Heritage, Specimen, Memorial and Street Tree Ordinance," *Code County of Fairfax, Virginia* (December 8, 2008).

<sup>&</sup>lt;sup>159</sup> Brad Wong, "Neighbors split over Fremont tree's cutting," *Seattle Post-Intelligencer*, August 14, 2008, online edition.

Inspections will allow for better enforcement of the ordinance and also allow the city official to notify tree owners of potential problems with heritage trees.

9. Some cities recognize that tree preservation does not stop after development. New owners need to take care of their protected trees to insure their survival. The "Tree Preservation and Protection" ordinance of the City of Diamond Bar, California, requires developers to provide new property owners with information on how to care for protected trees on their property. The ordinance states that the "buyer's awareness package" must be "specific to different tree species and include information on proper pruning techniques, pest and disease control, fertilization requirements, watering needs, and other pertinent information about the particular tree species."<sup>160</sup> More cities should follow this example and create a tree owner's manual to better prepare property owners for the task of maintaining their trees.

10. In lieu of depending on homeowners to care for heritage trees, the act of designation could place a public easement on trees in order to allow city employees to care for trees on private property.<sup>161</sup> Two levels of designation, the lower level "heritage" and the upper "landmark," could distinguish between trees that are both worthy of preservation but have different levels of needs and visibility. Landmark trees should be highly aesthetic trees that need constant attention. An easement could be placed on landmark trees by the city at designation. The city would thereafter be in charge of care and upkeep of the landmark tree.

11. Tree preservation ordinances are more likely to gain popular support and will be more successful if the general public is educated about their provisions, regulations, and why tree preservation is important. If developers and homeowners are made aware of the ordinance and

<sup>&</sup>lt;sup>160</sup> Diamond Bar, California, "Tree Preservation and Protection," *Code City of Diamond Bar, California* (October 7, 2008), Sec. 22.38.170.

<sup>&</sup>lt;sup>161</sup> Champlin, Minnesota, "Zoning Districts Established; Zoning Map; Zoning District Regulations," *City Code*. Codified through Ordinance (September 22, 2008), Sec. 126-349(c)(2).

understand its requirements there will be fewer unintentional infractions and, thus, less animosity towards the ordinance. If cities want to remain attractive to developers, the two sides must work closely to make sure that not only is the ordinance followed but that it does not substantially hinder the development process.

12. Homeowners should also be informed of the tree preservation process. Real estate agents should be encouraged to disclose heritage tree designations to prospective buyers. Several cities, including Rochester Hills, Michigan, require that the tree designations be recorded in the deed of a property so that future owners know that they are stewards of heritage trees. General information about heritage trees and the tree preservation ordinance can be distributed to property owners through channels such as municipal utility bills. A flier included annually with a water bill may help inform property owners about the local ordinance and its regulations. City operated websites are an essential outlet for information on ordinance regulations as well as information on how to properly care for trees.

13. Success of tree preservation ordinances is critical for the preservation of elements of the natural environment and an urban environment in which we want to live. Success of ordinances, however, always depends on public support. The public must support an ordinance during its writing and after its enactment. An ordinance will be thrown out if no one wants it. Thus, it is imperative that preservationists or conservationists educate the general public about the benefits of tree preservation ordinances. Publications on advocacy for trees or for historic preservation would give guidance to those campaigning on behalf of heritage trees. *Shading Our Cities: A Resource Guide for Urban and Community Forests*, edited by Gary Moll and Sara Ebenreck, has several chapters on citizen activism and education. Surveys of local trees by volunteers or interns can also create awareness of problems in the urban forest or trends in

development. The preservation of heritage trees can actually bring positive attention to broader

tree protections. By requesting heritage tree nominations from the public, the city can create a

sense of pride as townspeople see their local landmarks recognized and protected for future

generations.

- 1. Ordinance should apply to both public and private properties.
- 2. Ordinance should include all regulations, procedures, and criteria in a single document.
- 3. Ordinances should protect the city from legal challenges.
- 4. Implementation should be overseen by a distinct body, such as a tree preservation commission.
- 5. Ordinances should apply to private properties both during and after development.
- 6. A moratorium on tree removal should be triggered by nomination for heritage designation.
- 7. Ordinances should provide for economic or "undue" hardship remedies.
- 8. Ordinances should include guidelines for heritage tree care during and after development.
- 9. New owners should be encouraged to care for protected trees.
- 10. Easements could be placed on heritage trees to allow city employees to care for trees on private property.
- 11. Cities should develop public education programs to teach residents about the ordinance.
- 12. Homeowners should be informed of the tree preservation process by various sources.
- 13. Local citizens must support an ordinance during its creation and after its enactment for it to be truly successful.

## Figure 8. Summary of Recommendations.

### **Further Research**

Further research should be done to determine the relative successes or failures of tree

preservation ordinances. Are some tree preservation ordinances idealistic and do they

consequently burden the city arborist with procedures and paperwork? Even the most well written ordinance will not be effective if its procedure cannot be followed by the local governing body. Likewise, an ordinance will not work as intended if it is not enforced. Further, inconsistent enforcement of an ordinance can lead to the city being legally challenged as acting arbitrarily and capriciously.

The differences between tree preservation ordinances and practices recommended by foresters and arborists should also be investigated. Do the care guidelines or manuals given to homeowners give proper tree care advice? Do ordinances state the correct preservation measures needed during development? Trees that are "saved" during construction activity may not survive more than a few years if their roots are negatively impacted. Cities must be careful that not only are roots protected from compaction during construction, but that a large enough area is left undeveloped around the root zone to allow the tree to continue growing. Tree preservation ordinances should be analyzed to see if their standards match those espoused by organizations like the International Society of Arboriculture (and supported by academic research).

Interviews can be done with city councils, city planners, arborists, commission members, and citizens, to gain a better understanding of whether or not tree preservation ordinances fulfill their purposes. Such interviews can be done by researchers or by city or county officials. If the city or county undertakes the venture, the interviews can be conducted by interns in a professional setting or in more informal sessions as part of the public forums held before the ordinance is revised. Interviews done in several different cities and as part of a larger research project, however, would allow for comparisons and deeper analysis. Also, when conducted by an outside professional, they may allow for city employees and commission members to be more candid and to talk openly about how the ordinance is or is not successful. Conclusions can then

be reached on what a county or city must do or what resources must be available make a tree preservation ordinance fulfill its potential.

Every day more trees are cut down to make way for commercial and residential development. As the "green" environmental movement gains followers, and as the consequences of unhindered development become obvious, more Americans are realizing the importance of their communities' trees. Not only do trees have positive effects on the environment, but they also define spaces and create a sense of place. Unfortunately, most communities do not realize the necessity of legally protecting their trees until it is too late and they are removed. Although new trees can be planted, they will take generations to mature and replace the trees that were cut down. When heritage trees are cut down, communities face a double loss as not only is the natural environment harmed but a piece of history is lost.

Now is the time for communities to act. Now is the time for preservationists and environmentalists to work together and write new or stronger ordinances that protect and preserve the trees and heritage trees that define their cities. For it is our responsibility to "take to our heart[s] trees, treasure them while life lasts, and hand them on, objects of lasting usefulness and beauty, and enduring legacy, to the generations that follow us."<sup>162</sup>

<sup>&</sup>lt;sup>162</sup> Ernest H. Wilson, Aristocrats of the Trees (New York: Dover Publications, Inc, 1974), v.

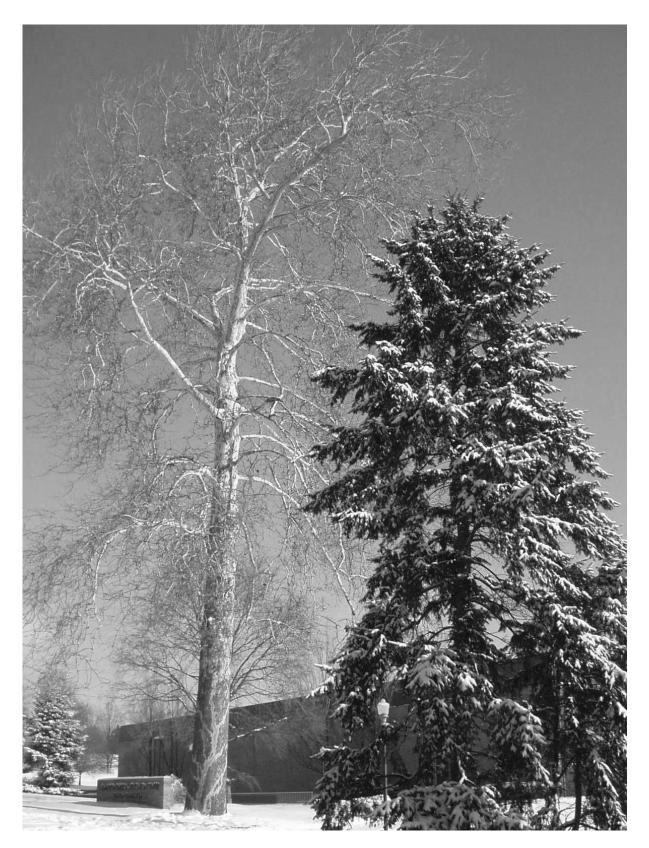


Figure 9. A striking specimen of an American sycamore tree, Wooster, Ohio. Photograph by the author.

### APPENDIX A

### TREE PRESERVATION ORDINANCE OUTLINE

This Tree Preservation Ordinance Outline was created by the author and based on research

conducted for this thesis. Many of the sections and provisions have been adapted from those

included in ordinances already codified by cities across the United States. If used as a model

Tree Preservation Ordinance, the order of sections and provisions and their exact content should

reflect the individual community for which the ordinance is written.

### **Purpose/Legislative findings**

- 1. Scientific evidence of trees contribution to the urban environment
- 2. Importance of trees in creating a sense of place
- 3. Trees promote the "health and welfare" of urban areas

## Definitions

### **Tree Board/ Tree Preservation Commission**

- 1. Members
  - a. Number of members
  - b. Qualifications
  - c. Ex-officio members
- 2. Terms
- 3. Authority

## Applicability

- 1. Public property
- 2. Private property
- 3. Utility Companies
  - a. Only when heritage trees are involved
- 4. City Departments
  - a. Only when heritage trees are involved

## **Utility Exemptions**

- 1. Nurseries
- 2. Silviculture
- 3. Farm or orchard
- 4. Botanical garden or arboretum
- 5. Dead, diseased, dying trees
- 6. Public hazards
- 7. Disrupting utilities

## Designation

- 1. Heritage tree
  - a. Criteria
  - b. Nomination procedure
  - c. Public hearing
  - d. Notice of designation
  - e. Record
    - i. In deed
    - ii. On city department list

## **Removal of heritage tree designation**

- 1. Application
- 2. Fee
- 3. Review procedure
- 4. Hearing
- 5. Approval
  - a. What the Tree Board/ Tree Preservation Commission must find
- 6. Denial
  - a. What the Tree Board/ Tree Preservation Commission must find
- 7. Notice of approval/denial

# Moratorium

- 1. No trees nominated for heritage designation may be removed
- 2. No trees on land pending development permits may be removed

## Permits

- 1. When a permit is required
- 2. Who must receive a permit
- 3. Land not undergoing development
  - a. Application
    - i. Required documents
    - ii. Fees
  - b. Who reviews the application
    - i. Department or Tree Preservation Commission
  - c. Procedure

- d. Approval
  - i. What the Tree Board/Commission must find
  - ii. Economic hardship
    - (a) Property owner cannot afford to maintain tree
- e. Denial
  - i. What the Tree Board/Commission must find
- f. Notice of approval/approval with modifications/denial
- 4. Land undergoing development
  - a. Application
    - i. Required documents
    - ii. Fees
  - b. Who reviews the application
    - i. Department or Tree Preservation Commission
  - c. Procedure
  - d. Approval
    - i. What the Tree Board/Commission must find
    - ii. Reasonable and economic use cannot be made of the land if the tree remains
  - e. Denial
    - i. What the Tree Board/Commission must find
  - f. Notice of approval/approval with modifications/denial

# **Appeal procedure**

- 1. Application
- 2. Who reviews the application
  - a. Tree Preservation Commission or city council
- 3. Procedure
- 4. Hearing
- 5. Approval
  - a. What the Tree Board/Commission must find
- 6. Denial
  - a. What the Tree Board/Commission must find
- 7. Notice of approval/approval with modifications/denial

## Variances

- 1. Application
- 2. Who reviews the application
  - a. Tree Preservation Commission or city council
- 3. Procedure
- 4. Hearing
- 5. Approval
  - a. What the Tree Board/Commission must find
- 6. Denial
  - a. What the Tree Board/Commission must find
- 7. Notice of approval/approval with modifications/denial

### Land Undergoing Development

- 1. Required protections for regulated trees
  - a. Fencing
  - b. Signage
  - c. Additional care
- 2. New trees
  - a. Must survive at least three years after planting or be replaced
  - b. Minimum space for root growth

## Mitigation measures

- 1. Land not undergoing development
  - a. Trees
    - i. Removal
    - ii. Damage
    - iii. Transplant
  - b. Heritage trees
    - i. Removal
    - ii. Damage
    - iii. Transplant
  - c. Replacement trees or transplanted trees must survive at least three years after planting
- 2. Land undergoing development
  - a. Trees
    - i. Removal
    - ii. Damage
    - iii. Transplant
  - b. Heritage trees
    - i. Removal
    - ii. Damage
    - iii. Transplant
  - c. Replacement trees or transplanted trees must survive at least three years after planting
- 3. Creation of city tree fund
- 4. Transfer of development rights

## Violations

- 1. What constitutes a violation
  - a. Violation for each day the situation is not corrected
  - b. Separate violation for each tree removed, damaged, transplanted
- 2. Penalties
  - a. Civil or criminal penalties
  - b. Fines
  - c. Mitigation measures

### APPENDIX B

#### CODE OF ORDINANCES CITY of WEST UNIVERSITY PLACE, TEXAS.

Codified through Ordinance No. 1883, enacted November 10, 2008. (Supplement No. 6)

#### PART II CODE OF ORDINANCES

Chapter 82 URBAN FOREST PRESERVATION AND ENHANCEMENT

- Sec. 82-1. Purpose; findings.
- Sec. 82-2. Definitions.
- Sec. 82-3. Tree disposition; surveys.
- Sec. 82-4. Tree permits.
- Sec. 82-5. Replacement trees.
- Sec. 82-6. Protective fencing.
- Sec. 82-7. Visibility triangles.
- Sec. 82-8. Administration; appeals, etc.
- Sec. 82-9. Violations.
- Sec. 82-10. Other regulations; conditions.

Sec. 82-1. Purpose; findings.

(a) *Purpose* . The purpose of this chapter is to preserve and enhance the urban forest of the city.

(b) *Findings* . The city council has determined the following: The urban forest is of great value in the maintenance of public health and welfare. The urban forest can aid in the conservation of vital energy resources and natural resources and in the preservation of the city's heritage and quality of life. Trees are a valuable amenity to the urban environment, creating greater human comfort by providing shade, cooling the air through evaporation, restoring oxygen to the atmosphere, reducing glare, reducing noise levels, providing an ecological habitat for songbirds and other animal and plant species, providing for more effective transitions between different land uses and breaking the monotony of urbanized development, pre-development, or construction. The urban forest of the city should be preserved and enhanced, to the maximum extent feasible, consistent with the property rights of its citizens. (Code 2003, § 22.001)

Sec. 82-2. Definitions.

Unless the context otherwise clearly requires a different meaning, the following terms, as used in this chapter, shall have the meanings indicated below.

*Circumference* of a tree means the circumference of its trunk, measured as prescribed in the criteria manual and in figure 1 attached to the criteria manual. For conversion to diameter, the circumference can be divided by 3.142.

*Criteria manual* means the "criteria manual" dated February 1994, a copy of which is on file in the office of the city secretary, which is hereby approved, adopted and incorporated into this chapter by reference.

*Critical root zone* means, for any given tree, the area within a circle centered on the trunk location. The circle's diameter is one-half the sum of the broadest and the narrowest drip line diameters. See figure 1b attached to the criteria manual.

*Damage a tree* means to take any action which could result in a tree's death, either immediately or at any time within two years following the action. Some examples of such action, which are not intended to limit this definition, are as follows: severing the main trunk or large branches or large roots, girdling, poisoning, carving, mutilating, touching with live wires, piercing with nails or spikes, crushing or exposing the roots, digging or drilling any hole larger than three cubic feet (or a trench) within the critical root zone, covering a substantial part of the critical root zone or compacting a substantial part of the soil in the critical root zone.

*Large tree* means a tree with a circumference of 19 inches or more. In case a tree is removed, it is presumed to have been a large tree if the diameter of the stump is six inches or greater, measured in any direction.

*Located* . A tree is "located" within an area if any part of its trunk is within the area at ground level.

*Low-value tree* means a tree included in "class IV" of the criteria manual (see appendix) which is evaluated by the urban forester under the criteria manual and assigned a total rating less than 30 (out of 40 possible points).

*Minimum planting standard* means the minimum standard for total number of trees which must be present on a site regardless of the number of pre-existing or replacement trees, as set forth in the criteria manual.

*Multiple-trunk tree* means a tree with two or more trunks visibly connected above the ground. *Protected tree* includes:

- (1) A significant tree anywhere in the city;
- (2) A large tree located within any of the following:
  - a. A front yard;
  - b. A street side yard (of corner sites); or
  - c. A right-of-way area ; and

(3) When there is a permit in effect for development or pre-development activity on any subject site, "protected tree" includes all large trees located on that subject site.

*Qualified tree* means any tree listed in Class I or II of the criteria manual which has a trunk diameter of at least two inches, measured six inches above the ground.

*Remove* means to cut down, or remove a tree by any other means.

*Replacement tree* means a tree meeting the minimum criteria for replacement trees as set out in the criteria manual and this chapter.

Right-of-way area includes all parts of a street area, including:

- (1) The paved or improved roadway;
- (2) The sidewalks;

(3) The curbs or ditches; and

(4) All other paved or unpaved areas in the street area. The "right-of-way area" for an individual site includes only the area between the property line of the site and the centerline of the street area (i.e., the directly abutting area in the street area). A corner site has a right-of-way area both in front and on the side.

*Significant tree* means a large tree with circumference of 36 inches or more. In case a tree is removed, it is presumed to have been a significant tree if the diameter of the stump is 12 inches or greater, measured in any direction (Also see definition of large tree.).

*Street gutter flow line* means the street gutter flow line of the curb adjacent to and bordering upon a visibility triangle. If there is no curb, the height restrictions set forth in this chapter shall be based upon the actual level of the street area adjacent to and bordering upon the visibility triangle.

*Street side yard* means the setback area required by the zoning ordinance and measured from the side street line of a building site or a potential building site.

Subject site , for any given development or pre-development activity, includes:

(1) The building site or other site, upon which the development or pre-development activity would occur; plus

(2) The right-of-way area for that site.

*Tree* means a woody plant having one well-defined stem or trunk, a defined crown and a mature height of at least eight feet.

*Tree disposition conditions* means conditions approved by the urban forester pertaining to the disposition and protection of trees when development or predevelopment activity occurs. See section 82-3.

*Tree permit* means a valid permit issued by the building official authorizing removal of or damage to a protected tree.

*Tree survey* is an on-the-ground survey containing the location of trees, their circumferences, types (species), crown areas (drip line) and other data, all as more particularly described in the criteria manual. Unless otherwise indicated in the criteria manual, the tree survey must depict for any given subject site:

(1) Every large tree located in the subject site; and

(2) Every large tree located elsewhere which has 30 percent or more of its critical root zone in such subject site.

Tree trust means any person or entity which meets all of the following criteria:

(1) It is operated on a profit-making or not-for-profit basis;

(2) The urban forester has determined that it has the resources, organization and expertise to plant and maintain trees successfully in an urban setting and in compliance with certificates issued to the city; and

(3) The urban forester's determination has not been revoked or suspended.

*Urban Forest Enhancement Fund* or "UFEF" means the fund established as such by this chapter.

Urban forester means a person so designated and acting under this chapter.

*Visibility triangle* means the area at a street corner lying within a triangle beginning at the precise intersection point of the curbs of each of the two streets forming the corner and extending 20 feet along each curb line away from the curb intersection point, with the third side being determined by drawing a straight line connecting the ends of such 20-foot extensions. If there is no curb on such a street, the 20-foot line defined in zoning ordinance shall follow the central

flow line of the ditch paralleling the uncurbed street. The visibility triangle may include both public and private property.

(Code 2003, § 22.002; Ord. No. 1772, app. A, 8-16-2004)

Sec. 82-3. Tree disposition; surveys.

(a) *General requirement*. Every permit for development or predevelopment activity must contain tree disposition conditions meeting the requirements of this section.

(b) *Essential and mandatory conditions*. Tree disposition conditions are the most important means of protecting the urban forest of the city from unreasonable harm during development and predevelopment activity. Tree disposition conditions shall:

(1) Prohibit removal of or damage to any large tree, except:

a. Removal of a tree which is diseased, severely damaged or dead may be authorized;

b. Damage to or removal of a tree which causes an unreasonable impediment to the use and enjoyment of the applicant's property may be authorized; and

c. Damage to or removal of a low-value tree may be authorized.

(2) Require replacement trees, to the extent provided in the criteria manual, for any large trees authorized to be damaged or removed. Exception: No replacement is required for low-value trees.

(3) Require protection for large trees (and critical root zones). The conditions may specify the methods of protection to be used.

(4) Require that any authorized damage to trees be minimized and mitigated. The conditions may specify methods of mitigation to be used.

(5) Require, if there is major development, that the affected subject site attain a minimum planting standard of tree density as set forth in the criteria manual.

(c) *Procedure* . The building official shall not issue any permit for any development or predevelopment activity unless all of the following have first occurred:

(1) *Tree survey*. The applicant must have filed a tree survey, and the urban forester must have approved it for compliance with this chapter.

(2) *Tree disposition conditions* . Tree disposition conditions approved by the urban forester must have been inserted into the permit. The urban forester may require all persons owning land where a tree is located to agree to any removal of or damage to the tree authorized by the conditions.

(d) "*Low-impact" exception* . Except for the requirement to insert the mandatory conditions, this section does not apply to a subject site, project or other activity that will not have any significant, adverse effect upon any large tree, as determined by the urban forester. (Code 2003, § 22.003)

Sec. 82-4. Tree permits.

(a) *Permit required*. A tree permit is required for removal of or damage to any protected tree, unless the damage is separately authorized by tree disposition conditions as described above. See section 18-5 for a more particular description of the requirement for a tree permit.

(b) *Criteria for issuance of permits*. The building official shall only issue a tree permit if subsections (1) and either (2) or (3) are present:

(1) *Application* . An application for the permit must be filed by the owner of the area where the tree is located. If the tree is located on a property boundary, all owners must join in the application.

(2) *Tree in poor condition; hazards; low-value trees*. The tree in question is diseased, severely damaged or dead, or the tree creates a hazard to human life or an existing building, or the tree is a low-value tree. In any of these cases, the permit shall be issued without special conditions or replacement requirement.

(3) *Tree as impediment to proposed use of the subject site*. The tree in question causes an unreasonable impediment to use and enjoyment of property. Any permit issued in this case shall be reviewed by the urban forester and shall require that any replacement trees required by this chapter be planted. If replacement trees are to be located on a subject site controlled by the permittee, the permit shall also require that they be thereafter maintained. If the permit would authorize damage to a protected tree, but not removal, the permit must contain conditions reasonably calculated to minimize the damage to the protected tree (and may require replacement trees).

(Code 2003, § 22.004)

Sec. 82-5. Replacement trees.

(a) *Number of replacement trees*. Tree disposition conditions and tree permits authorizing removal of or damage to large trees or protected trees shall normally require replacement by one or more newly-planted trees on the same subject site according to the "replacement inch" stipulations in the criteria manual. To the extent on-site replacement is not feasible, the permittee may choose to:

(1) Plant and maintain off-site replacement trees within 1,000-feet of the subject site, subject to the provisions of the criteria manual;

(2) Provide a replacement-inch certificate from a tree trust or the UFEF, as provided in this section and the criteria manual; or

(3) Provide replacement inches by some combination of the foregoing methods.

Regardless of the method or methods chosen, the number of replacement inches planted on the subject site, plus those provided by alternate methods, must equal or exceed the number calculated according to the replacement inch stipulations in the criteria manual.

(b) *Minimum size*. Replacement trees must normally have a trunk diameter of at least two inches measured six inches from the ground. If ten inches or more of replacement inches are required by a permit, one replacement tree for each ten inches must have a trunk diameter of at least four inches, measured six inches from the ground. Example: If 24 replacement inches are required, there must be at least two replacement trees with a trunk diameter of four inches or more. The urban forester may prescribe proportionally smaller trunk diameters for species of trees typically smaller than normal.

(c) Qualified trees under zoning ordinance. To be a "qualified tree" under the zoning ordinance, a tree must comply with the definition of "qualified tree" set out in section 82-2.
(d) Standard of review . The urban forester shall use reasonable best efforts to determine the type and number of replacement trees required in an attempt to minimize any undue burden resulting from this chapter.

(e) *Trees in street areas*. Before authorizing the establishment or maintenance of a tree or decorative landscaping (or any related appurtenances such as lighting or a watering system) in a street area, the building official must:

(1) Be satisfied that V.T.C.A., Transportation Code ch. 316 has been complied with; and

(2) Determine there would be no violation of the provisions of this chapter relating to visibility triangles.

The building official is designated by the city council to make the determinations contemplated by V.T.C.A., Transportation Code § 316.003.

(f) *Replacement inch certificates*. If a tree trust or the UFEF issues an effective "replacement inch" certificate to the city, as provided in the criteria manual, the "replacement inches" described in the certificate are treated the same as replacement tree inches actually planted as of the date of the certificate.

(g) *Replacement inch credits*. An owner of a site in the city who plants a class I or class II tree on that site is eligible to receive a credit for future "replacement inches." The owner may use the credit to offset the number of "replacement inches" assessed for protected trees removed from the same site at any time in the future. Credits are subject to the following:

(1) *Issuance* . Credits are only available for trees registered with the urban forester within 30 days following the day they are planted. Registration requires application and proof of planting. The registration form shall specify the size and species of each tree planted and its location on the site.

(2) *Measurement*. The number of replacement inches actually credited is determined by the urban forester at the time an offset in requested, based on the health and size of the previously-registered trees and applying the provisions of the criteria manual regarding calculation of replacement inches.

(3) *Transferability* . Credits are not transferable to another site but may be claimed by subsequent owners of the same site.

(4) *Records* . The city is not responsible for keeping registration or other records of credits. A person claiming a credit must present documents to show that the credit is available and applicable.

(h) *Urban Forest Enhancement Fund*. The urban forest enhancement fund (UFEF) of the city is hereby established. The UFEF is subject to all restrictions on public funds and other funds of the city, including the requirement for annual budgeting. However, money in the UFEF may only be budgeted and spent for the following purposes:

(1) Purchasing, planting or otherwise providing trees in public spaces in the city;

(2) Maintaining or otherwise enhancing trees in public spaces in the city; or

(3) Matters necessary or incidental to the above.

Deposits may be made into the UFEF by gift or other transfer. The director of finance is authorized to accept such deposits on behalf of the city and to issue:

(1) Acknowledgments in the name of the city; and

(2) "Replacement inch" certificates as provided in the criteria manual.

(Code 2003, § 22.005; Ord. No. 1772, app. A, 8-16-2004)

Sec. 82-6. Protective fencing.

(a) *Fences required*. Unless otherwise specified in the applicable tree disposition conditions, each protected tree to be preserved must be fenced during development or predevelopment activity.

(b) *Fence criteria*. The tree disposition conditions shall specify protective fencing of the critical root zone whenever reasonably practicable, unless a different area is prescribed in accordance with the criteria manual. Unless the tree disposition conditions specify otherwise:

(1) A six-foot or higher fence must surround each protected tree or group of protected trees, effectively preventing people, machinery, trash, material and other items from occupying the area within the protective fencing;

(2) The fence must be constructed of durable, highly visible materials supported on poles firmly set in the ground;

(3) The fence must be able to resist intrusions and impacts likely to be encountered on a construction site;

(4) The fence may incorporate existing fences or walls as well as temporary fencing; and

(5) Each fence must display a prominent warning sign as set forth in the criteria manual.

(c) *Fence permit*. A separate fence permit is not required for construction of a fence under this section, if a permit for the work is in effect and includes tree disposition conditions.

(d) *Trash, storage prohibited*. It shall be unlawful for any person to use the area within the protective fencing, required by this section, for trash disposal, storage, vehicle parking or any other use that could adversely affect tree roots.

(Code 2003, § 22.006)

### Sec. 82-7. Visibility triangles.

It shall be unlawful for any person to plant, grow or maintain any plant, except a tree, within a visibility triangle, if the plant has (or probably will have) a height greater than three feet above the street gutter flow line. It shall be unlawful for any person to plant, grow or maintain a tree which has branches or foliage within or above a visibility triangle at a height lower than 15 feet above the street gutter flow line. It is presumed that a person who owns or controls real property within the city maintains all trees and plants on that property. The city may enter a visibility triangle and remove growths prohibited by this section, and there shall be no liability to others for taking or not taking such action.

(Code 2003, § 22.007)

### Sec. 82-8. Administration; appeals, etc.

(a) *Urban forester*. The city manager shall appoint an experienced and qualified person to be chief urban forester for the city. The city manager may designate one or more other urban foresters to act in the absence of the chief; persons so designated may not necessarily be employees of the city, but the city manager shall make an adequate provision for obtaining their services by contract if they are not city employees. A person designated as urban forester must hold at least a bachelor's degree from an accredited four-year college or university in urban forestry or arboriculture or must have equivalent skills and experience.

(b) *Referral; duties*. The building official shall refer tree surveys, tree disposition conditions and applications for tree permits to a designated urban forester, who shall work with the applicant and other city departments as required to administer the provisions of this chapter. The urban forester may establish categories of simple, routine or low-risk surveys, plans and applications, which may be handled summarily, without submission to the urban forester. The fees for such applications may be reduced accordingly, if so provided in the fee schedule.
(c) *Applicability to city projects*. For all city projects that may impact large trees, the appropriate documents (tree permits, tree surveys and tree disposition conditions) shall, whenever practicable, be submitted to the urban forester for evaluation and recommendations, prior to public hearings (if held) or final decisions taken by city council or city staff. City approval of a city-owned subject site or project shall constitute approval for actions affecting the trees. City-owned subject sites or projects shall follow the same guidelines for tree replacement as private subject sites or projects, except as authorized by the city council.

(d) *Reference and training*. The city manager is authorized to obtain training and reference materials for the building official and other city staff members who may be called upon to enforce this chapter. The building official is authorized to maintain reference materials on file and to make them available, without charge, to persons who request information in connection with construction or other activities within the city that could affect the urban forest.

(e) *Cooperation*. It is the desire of the city to establish a cooperative working relationship with persons seeking to improve property within the city. Interested persons are invited and encouraged to meet and confer with city staff and to retain the services of expert foresters to provide advice and assistance to themselves and the city. The urban forester shall use reasonable best efforts to determine the type and amount of replacement trees required in an attempt to minimize any undue burden resulting from this chapter.

(f) *Decisions and appeals* . When making decisions or performing other duties under this chapter, the urban forest and the building official both shall be subject to the standards and procedures generally applicable to the building official under this chapter. Appeals of decisions made by either the building official or the urban forester, and applications for variances, are heard by the building and standards commission, in accordance with this chapter. Notwithstanding any other provision to the contrary, the commission, when considering an application for a variance:

(1) Shall take into account efforts to avoid or mitigate removal of and damage to trees, particularly trees highly-evaluated under the criteria manual; and

(2) May take into account the financial cost of compliance with this chapter, particularly as it compares to the cost of other work the applicant may be proposing.

(Code 2003, § 22.008; Ord. No. 1826, § 1(App. A), 4-24-2006)

Sec. 82-9. Violations.

(a) *Removal, damaging, killing of protected trees.* Except as authorized by a tree permit, it shall be unlawful, within the city:

(1) For a person to remove or damage a protected tree intentionally or knowingly;

(2) For a person, who owns or controls any site, intentionally or knowingly to cause or allow a protected tree to be removed or damaged, if it is located within that site or the right-of-way area of that site.

(b) *Affirmative defenses*. It shall be an affirmative defense to prosecution under this chapter for removing, damaging or killing a tree, that:

(1) Tree disposition conditions (contained in a building or other permit) authorized the conduct in question;

(2) All of the following four circumstances were present:

a. Immediate action to remove, damage or kill the tree in question was necessary to prevent harm to people or property;

b. A permit application was filed within ten days thereafter;

c. An appropriate permit or amendment was obtained; and

d. There was full compliance with all conditions of the permit or amendment.

(c) *Conditions* . It shall be unlawful for any person who applies for or receives a permit regulated by this chapter to fail or to refuse to comply with a condition of the permit or this chapter. Any related permit for the subject site in question may be withheld until the condition is complied with to the satisfaction of the urban forester, building official or any other city staff

members who are called upon to enforce this chapter. All permits are subject to revocation or suspension as provided for in chapter 18. (Code 2003, § 22.509)

Sec. 82-10. Other regulations; conditions.

(a) *Conflicts with other regulations*. In any case where another city ordinance, rule or regulation would require the removal, damage or death of a large tree, under circumstances where this chapter would prohibit such action, it is the intent of the city council that all of the applicable regulations shall be read together and harmonized so that, if reasonably practicable, the large tree is not removed, damaged or killed.

(b) *Liberal interpretations authorized*. All city officials, boards and commissions are authorized and encouraged to interpret other ordinances, rules and regulations liberally in order to minimize conflicts with this chapter and to protect existing large trees, except in circumstances where there might be hazards to persons or property.

(c) *Variances* . The need to protect or preserve a large tree shall be considered a sufficient "hardship" in all cases where a hardship is required for the issuance of a variance under city ordinances, unless additional grounds are required by state law. (Code 2003, § 22.510)

#### APPENDIX C

#### CODE County of HANOVER, VIRGINIA.

Codified through Ordinance No. 09-15, enacted March 11, 2009. (Supplement No. 58, Update 1)

Chapter 22.5 TREE PRESERVATION\*

Sec. 22.5-1. Applicability.

This chapter regulates preservation and removal of heritage, specimen, memorial and street trees, as defined in section 22.5-2, when such preservation and removal are not commercial silvicultural or horticultural activities, including but not limited to planting, managing, or harvesting forest or tree crops.

(Ord. No. 89-16, § 1, 7-26-89)

Sec. 22.5-2. Definitions.

For the purpose of this chapter, the following definitions shall apply:

*Arborist* or *urban forester* shall mean a person trained in arboriculture, forestry, landscape architecture, horticulture, or related fields and experienced in the conservation and preservation of native and ornamental trees.

Development or development activity shall mean:

(2) Clearing, scraping, grubbing or otherwise removing or destroying the vegetation of a site; or

**<sup>\*</sup>Editor's note:** Ordinance No. 89-16, § 1, adopted July 26, 1989, added provisions designated as Chapter 25, §§ 25-1--25-7; in order to maintain the alphabetical arrangement of chapters used herein, said provisions have been redesignated as Chapter 22.5, §§ 22.5-1--22.5-7, at the discretion of the editor.

**Cross references:** Planning commission, § 2-16 et seq.; buildings and construction regulations, Ch. 6; erosion and sediment control, Ch. 10; open fires, § 11-48 et seq.; floodplain and drainage control, Ch. 12; disposal of trees and lumber at county landfill, § 18-18(b); cutting weeds required, §§ 18-83--18-85; zoning ordinance, App., Title I.

<sup>(1)</sup> The construction, installation, alteration, demolition or removal of a structure, impervious surface, or drainage facility; or

(3) Adding, removing, exposing, excavating, leveling, grading, digging, burrowing, dumping, piling, dredging, or otherwise significantly disturbing the soil, mud, sand or rock of a site. *Heritage tree* means any tree which has been individually designated by the county board of supervisors to have notable historic or cultural interest.

*Memorial tree* means any tree which has been individually designated by the county board of supervisors to be a special commemorating memorial.

*Specimen tree* means any tree which has been individually designated by the county board of supervisors to be notable by virtue of its outstanding size and quality for its particular species. *Street tree* means any tree which has been individually designated by the county board of supervisors and which grows in the street right-of-way or on private property as authorized by the owner and placed or planted there by the county.

(Ord. No. 89-16, § 1, 7-26-89)

## Sec. 22.5-3. Designation.

The designation of such trees shall be by an arborist or urban forester and shall be made by ordinance. The individual property owner of such trees shall be notified by certified mail of such proposed designation prior to the hearing on the adoption of such ordinance. (Ord. No. 89-16, § 1, 7-26-89)

## Sec. 22.5-4. Prohibitions.

No tree designated pursuant to this chapter shall be removed, relocated, or altered nor shall any development, or land disturbing activities occur within the canopy coverage of the tree unless the planning director is notified in writing by the property owner at least fourteen (14) days in advance, and unless the action is required by one of the following conditions:

(1) *Safety hazard*. Necessity to remove, relocate or alter trees which pose a traffic hazard or threaten to cause disruption of public services; or which pose a safety hazard to persons or buildings.

(2) *Diseased or weakened trees*. Necessity to remove, relocate or alter diseased trees or trees weakened by age, storm, fire or other injury.

(Ord. No. 89-16, § 1, 7-26-89)

## Sec. 22.5-5. Exceptions.

The provisions of this chapter shall not apply: (i) to work conducted on federal or state property; (ii) to emergency work to protect life, limb or property; (iii) to routine installation, maintenance and repair of cable and wires used to provide cable television, electric, gas or telephone service; (iv) to activities with minor effects on trees, including but not limited to home gardening and landscaping of individual homes; and (v) commercial silvicultural or horticultural activities, including but not limited to planting, managing or harvesting forest or tree crops. (Ord. No. 89-16, § 1, 7-26-89)

### Sec. 22.5-6. Compensation.

In the event that the application of this chapter regulating the removal of heritage, specimen, memorial or street trees results in any taking of private property for a public purpose or use, the county shall compensate the property owner by fee or other consideration for such taking. The provisions of chapter 1.1 of title 25 of the Code of Virginia shall apply to the taking of private property for a public purpose pursuant to this chapter.

(Ord. No. 89-16, § 1, 7-26-89)

Sec. 22.5-7. Penalties.

Violations of this chapter shall be punishable by civil penalties not to exceed two thousand five hundred dollars (\$2,500.00) for each violation. The procedure for imposing such civil penalties shall be established by the planning director. In addition, this chapter may be enforced by injunction.

(Ord. No. 89-16, § 1, 7-26-89)

#### APPENDIX D

#### CODE OF ORDINANCES City of ROCHESTER HILLS, MICHIGAN

Codified through Ord. No. 527, enacted Dec. 15, 2008. (Supplement No. 19)

Chapter 126. NATURAL RESOURCES\*

ARTICLE III. TREE CONSERVATION\*

\*Cross references: Vegetation, ch. 106.

DIVISION 1. GENERALLY

Sec. 126-261. Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning: *Agriculture* means the use of land for the primary purpose of deriving income from growing plants or trees on land, including but not limited to land used principally for fruit or timber production, but not including land used principally for another use and only incidentally for growing trees or plants for income.

*Commercial nursery or tree farm* means a licensed plant or tree nursery or farm in relation to those trees planted and growing on the premises of the licensee, which are planted and grown for sale to the general public in the ordinary course of the licensee's business.

*Diameter at breast height (dbh)* means a tree's diameter in inches measured by diameter tape at 4 1/2 feet above the ground. On multistem trees, the largest diameter stem shall be measured. *Drip line* means an imaginary vertical line extending downward from the outermost tips of the tree branches to the ground.

*Regulated tree* means a tree having six inches or greater diameter at breast height, which is not otherwise exempt from regulation under this article.

*Remove* or *removal* means the act of removing or destroying a tree by digging up or cutting down, or the effective removal or destruction through damage, poison, or other means.

*Transplant* means the relocation of a tree from one place to another on the same property. *Tree* means any living, self-supporting, woody plant of a species which normally grows to an overall height of 15 feet or more.

*Undeveloped* means a parcel of land which is unplatted and substantially unimproved. With respect to land that is partially improved by virtue of a building or other improvement located on a portion of the land, the portion of the land that does not contain the building or improvement shall be considered undeveloped.

(Code 1976, § 4-12.03)

Cross references: Definitions generally, § 1-2.

Sec. 126-262. Findings.

Rapid growth, the spread of development, and increasing demands upon natural resources have the effect of encroaching upon, despoiling, or eliminating many of the trees and other forms of vegetation and natural resources and processes associated therewith, which, if preserved and maintained in an undisturbed and natural condition, constitute important physical, aesthetic, recreation and economic assets to current and future residents of the city. Specifically, the city council finds that:

(1) *Public health protected.* Tree and woodland growth protects public health through the absorption of air pollutants and contamination, through the reduction of excessive noise and mental and physical damage related to noise pollution, and through its cooling effect in the summer months;

(2) *Public safety enhanced.* Trees and woodlands enhance public safety through the prevention of erosion, siltation, and flooding; and

(3) *Essential component of general welfare*. Trees and woodland areas are an essential component of the general welfare of the city, providing play and recreational areas, natural beauty, and an irreplaceable heritage for current and future city residents. (Code 1976, § 4-12.01)

Sec. 126-263. Purpose.

The purposes of this article are to:

 Provide for the protection, preservation, proper maintenance and use of trees and woodlands located in this city in order to minimize disturbance to them and to prevent damage from erosion and siltation, a loss of wildlife and vegetation, and/or from the destruction of the natural habitat.
 Protect the woodlands, including trees and other forms of vegetation, of this city for their economic support of local property values when allowed to remain uncleared and/or unharvested and for their natural beauty, wilderness character, and their geological, ecological, or historical significance.

(3) Provide for the paramount public concern for these natural resources in the interest of health, safety and general welfare of the residents of this city. (Code 1976, § 4-12.02)

Sec. 126-264. Applicability of article.

(a) *Undeveloped land*. This article shall apply to all land in the city which was undeveloped on August 3, 1988.

(b) *Approved site plans and plats.* This article shall apply to all land included within a site plan, preliminary subdivision plat, or condominium plan submitted to the city for approval, except this article shall not apply to land included within a site plan which received final approval or a preliminary subdivision plat which received tentative approval prior to August 3, 1988, provided

the site plan or plat approval remains in effect and in good standing under article III of chapter 122 or under chapter 138 of this Code. (Code 1976, § 4-12.04)

Sec. 126-265. Responsibility for enforcement.

Compliance with this article shall be enforced by the mayor, the county sheriff's department, the building department director and ordinance enforcement officers, and other enforcement officers as the mayor may designate.

(Code 1976, § 4-12.17.05)

Sec. 126-266. Enforcement.

(a) *Municipal civil infraction*. Any person who violates any section of this article shall be responsible for a municipal civil infraction, subject to a fine as provided in section 66-37, plus costs and other sanctions for each infraction.

(b) *Injunctive relief.* Any activity conducted in violation of this article is declared to be a nuisance per se, and the city may commence a civil suit in any court of competent jurisdiction for an order abating or enjoining the violation.

(c) *Fee for illegally removed trees.* In addition to any civil fine or sanction provided for a determination of responsibility for violation of this article, and notwithstanding whether or not the city has commenced a civil suit for injunctive relief:

(1) *Payment to city tree fund.* Any person who removes or causes any tree to be removed except in accordance with this article shall forfeit and pay to the city a civil fee equal to the total value of trees illegally removed or damaged, as computed from the International Society of Arboriculture Shade Tree Evaluation Guide or The Michigan Shade Tree Evaluation Guide. The fee shall accrue to the city, and, if necessary, the city may file a civil action to recover the fee. The city shall place any sum collected in the city tree fund.

(2) *Tree replacement.* Alternatively the city may require replacement of illegally removed or damaged trees as restitution in lieu of the fee. Replacement will be on an inch-for-inch basis computed by adding the total diameter measured at the diameter at breast height in inches of the illegally removed or damaged trees, unless an alternative basis of replacement or restitution is approved by the city. The city may use other reasonable means to estimate the tree loss if destruction of the illegally removed or damaged trees prevents exact measurement.

(3) *Fee payment and tree replacement.* The city may also require a combination of fee payment and tree replacement.

(d) *Stop work order*. The city may also issue a stop work order or withhold issuance of a certificate of occupancy, permits or inspections until the sections of this article, including any conditions attached to a tree removal permit, have been fully met. Failure to obey a stop work order shall constitute a violation of this article.

(Code 1976, § 4-12.17)

Sec. 126-267. Exceptions to tree removal permit requirement.

Notwithstanding the requirements of subdivisions I and II of division 3 of this article, the following activities are allowed without a tree removal permit, unless otherwise prohibited by statute or ordinance:

(1) *Agriculture, nursery business, tree farm.* Tree removal or transplanting occurring during use of land for agriculture or the operation of a commercial nursery or tree farm, but only in

regard to trees planted for commercial nursery or tree farm purposes, and not in regard to naturally occurring trees.

(2) *Emergencies.* Actions made necessary by an emergency, such as tornado, windstorm, flood, freeze, dangerous and infectious insect infestation or disease, or other disaster, in order to prevent injury or damage to persons or property or to restore order.

(3) *Road right-of-way.* Tree removal or transplanting performed by or on behalf of the city, the county road commission or the state department of transportation within a road right-of-way, where the trees pose a safety hazard to pedestrian or vehicular traffic or threaten to disrupt public utility services or where necessary for road improvement or maintenance, provided that all feasible and prudent efforts have been made to prevent or minimize tree damage or loss and, further provided, that prior written notice is given to the department of parks, forestry, and facilities.

(4) Utilities. Tree removal by the city or public or private utility companies which is necessary in connection with the installation, repair or maintenance of utilities, provided that all feasible and prudent efforts have been made to prevent or minimize tree damage or loss and, further provided, that prior written notice is given to the department of parks, forestry, and facilities. For purposes of this subsection, utilities shall include water, sewer and stormwater drainage systems and facilities, as well as electric, gas, telephone, telecommunications, and cable television lines.
(5) Dead, diseased or damaged trees. Removal of dead, diseased, or damaged trees, where the damage resulted from an accident or nonhuman cause and where the department of parks,

forestry, and facilities concurs the nature or extent of the disease or damage warrants removal.
(6) *Nominal activity*. Where the activity involves the removal or transplanting of three or fewer regulated trees within a six-month period and is not related to the development of a parcel or construction of a building or structure. This subsection shall not apply to trees designated as

historic or landmark trees pursuant to division 4 of this article.

(7) *Residential (small parcels)*. Removal or transplanting of trees growing on occupied one-family residential parcels of less than one acre. This subsection shall not apply to trees located in the public right-of-way or to trees designated as historic or landmark trees pursuant to division 4 of this article.

(8) *Residential (large parcels).* On occupied one-family residential parcels of one acre or more, the removal or transplanting of trees due to construction of appurtenances or structures accessory to existing structures. This subsection shall not apply to trees located in the public right-of-way or to trees designated as historic or landmark trees pursuant to division 4 of this article.

(Code 1976, § 4-12.06)

Secs. 126-268--126-295. Reserved.

#### **DIVISION 2. VARIANCE**

Sec. 126-296. Authority. The city council may grant a variance from this article when undue hardship may result from strict compliance. (Code 1976, § 4-12.16.01)

Sec. 126-297. Notice.

(a) *Adjoining property owners*. The city shall send notice of a request for a variance from this article by regular mail to the owners, according to the city's tax roll, of all property immediately

adjoining the property for which the variance is requested, including property directly across public rights-of-way and easements.

(b) *Timing and content.* The notice shall be sent at least seven days before the meeting at which the city council will consider the variance request and shall include a statement that interested persons may examine the application for a variance at the planning department. (Code 1976, § 4-12.16.02)

Sec. 126-298. Conditions.

In granting any variance from this article, the city council may prescribe conditions that it deems necessary or desirable for the public interest. (7 + 1076) (5 + 1026)

(Code 1976, § 4-12.16.03)

Sec. 126-299. Findings.

No variance from this article shall be granted unless the city council finds as follows:

(1) There are special circumstances or conditions affecting the property such that the strict

application of this article would deprive the applicant of the reasonable use of his land.

(2) The variance is necessary for the preservation and enjoyment of a substantial property right of the petitioner.

(3) The variance will further the objectives and policies of this article, this Code, the zoning ordinance in chapter 138, and the master land use plan.

(Code 1976, § 4-12.16.04)

Secs. 126-300--126-325. Reserved.

## DIVISION 3. TREE REMOVAL

Subdivision I. In General

Sec. 126-326. Plat or site plan approval.

A regulated tree that is to be removed as part of land clearing, construction or development activity which requires site plan or subdivision plat approval may be removed only after final approval of the site plan or preliminary subdivision plat. Such final approval must precede issuance of the tree removal permit.

(Code 1976, § 4-12.05.02)

Sec. 126-327. One-family residential developments.

In addition to other requirements of this article, there shall be compliance with the following requirements in all one-family residential developments which, as proposed, will result in two or more lots or building sites through land division, subdivision, or condominiums:

(1) *Building envelopes*. The developer shall designate building envelopes for all structures as follows:

a. *One-family residential developments*. The building envelope for lots and building sites in one-family residential subdivisions, site condominiums, and other one-family residential developments which, as proposed, will result in two or more lots or building sites shall be the buildable area remaining on a lot or building site after satisfying the setback requirements in chapter 138.

b. *Activities within building envelope*. Once building envelopes have been designated in accordance with subsection (1)a of this section and a tree removal permit has been approved for the development, it shall not be necessary to obtain a tree removal permit for the subsequent construction of structures or improvements or for other activities occurring within a building envelope.

c. *Activities outside building envelope*. Subject to the exceptions enumerated in section 126-267, a separate, additional tree removal permit shall be required for construction or development activities conducted by the developer or builder outside of the building envelope designated in accordance with subsection (1)a of this section.

(2) *Minimum preservation percentage*. For one-family residential developments which, as proposed, will result in two or more lots or building sites through land division, subdivision, or condominiums, the developer shall preserve and leave standing and undamaged a minimum of 37 percent of the total number of regulated trees which exist within the land area being developed, prior to development. However, trees contained within the designated building envelopes shall not count toward the required minimum preservation percentage. (Code 1976, § 4-12.05.03)

Sec. 126-328. Inspections.

Under this article, the permit applicant or permit holder shall allow city inspectors to enter and inspect the premises at any reasonable time during the application process and land clearing, construction, development, and tree removal activities to verify compliance with this article. Failure to allow inspection shall constitute a violation of this article. (Code 1976, § 4-12.13)

Secs. 126-329--126-355. Reserved.

### Subdivision II. Permits

### Sec. 126-356. Required.

Subject to the exceptions enumerated in section 126-267, and further subject to section 126-327 relative to forest management permits, no person shall remove, cause to be removed, transplant, damage, or destroy, on any land in the city to which this article applies, any regulated tree without first obtaining a tree removal permit. In addition, a tree removal permit shall be required for the construction of any structure, land clearing, grubbing, trenching, grading, excavating, filling, or placement within the drip line of any regulated tree of any material which may cause harm to the tree.

(Code 1976, § 4-12.05.01)

Sec. 126-357. Forest management permit.

(a) *Required.* Where the proposed tree removal is not related to land clearing, development of a parcel, or construction of a structure or other improvement, but rather is for the purpose of maintaining and enhancing a wooded area in accordance with professional forestry management methods, the director of the department of parks, forestry, and facilities may grant a forest management permit in lieu of a tree removal permit.

(b) *Application*. An application for a forest management permit must be accompanied by the fee prescribed in division 3 of article IV of chapter 110 and a forest management plan prepared by a registered or certified professional forester. The forest management plan shall, at a

minimum, include a description of the management program, a schedule for the work to be performed, reasons for the proposed tree removal, and an explanation of benefits to be obtained through the proposed tree removal.

(c) *Minimum duration*. The area under a forest management permit must remain under forest management for a minimum of five years.

(d) *Supervision*. The forest management permit holder shall retain a registered or certified professional forester to supervise and direct all work under a forest management permit. (Code 1976, § 4-12.05.04)

# Sec. 126-358. Application and fee.

(a) *Required.* A person seeking a tree removal permit must submit a written application to the department of planning when the permit is requested in connection with a development requiring site plan, plat, or condominium plan review or to the department of parks, forestry, and facilities for any other requests. The applicant shall pay a nonrefundable application/permit fee in accordance with division 3 of article IV of chapter 110.

(b) *Time of application.* Application for a tree removal permit shall be made before commencement of the activity for which the tree removal permit is required. Where the site is proposed for development or other activity necessitating a building permit or site plan or plat review, application for a tree removal permit shall be made prior to or concurrent with building permit application or site plan or plat submittal.

# Sec. 126-359. Tree survey.

The permit applicant shall provide four copies (ten copies when accompanying a plat, site plan, or condominium plan) of a tree survey at a minimum scale of one inch equals 100 feet and containing the following additional information:

(1) *Property dimensions*. The shape and dimensions of the property, and the location of any existing and proposed structure or improvement. The location of proposed structures or improvements must also be staked at the site;

(2) *Location of trees.* The Location of all existing regulated trees identified by their diameter at breast height and their common and botanical name. Trees proposed to remain, to be transplanted, or to be removed shall be so designated on the tree survey, and all regulated trees must be numbered and marked in the field;

(3) *Tree protection.* A description and depiction on the tree survey of how regulated trees intended to remain or to be relocated will be protected during construction or development activity, and the location of protective barriers;

(4) *Easements and setbacks*. Location and dimension of existing and proposed easements, as well as all setbacks required by chapter 138;

(5) *Grade changes.* Designation of existing topography and any grade changes proposed for the property, and an explanation of how proposed grade changes may affect regulated trees intended to remain or to be located, including a topographic elevation at the base of all trees to be saved within 20 feet of any proposed construction or development activity;

(6) *Replacement*. A landscape plan and cost estimate for the proposed tree replacement program with a detailed explanation including the number, size and species; and

(7) *Tree identification.* A statement that all trees being retained will be identified by painting, flagging, or some other approved method and, where protective barriers are necessary, that they will be erected before work starts.

(Code 1976, § 4-12.07.01)

Sec. 126-360. Large tracts.

For construction or development activities necessitating plat, site plan, or condominium plan approval or for any tracts of ten acres or larger, the applicant for a tree removal permit shall provide copies of the following additional information:

(1) The required tree survey which must be prepared by a registered engineer, registered landscape architect, or registered land surveyor; and

(2) All regulated trees shall be numbered and marked in the field.

(Code 1976, § 4-12.07.04)

Sec. 126-361. Departmental review.

(a) *Generally*. The department of planning shall review the submitted tree removal permit application to verify the applicant has provided all required information.

(b) *Referral to appropriate departments*. Completed applications shall be referred by the planning department to other appropriate city departments and consultants for review and comment.

(c) *Field inspection or review meeting*. The city may conduct a field inspection or review meeting.

(d) *Results forwarded to reviewing authority*. City departments involved in the review shall submit their report and recommendations to the director of the department of planning who shall forward them to the appropriate reviewing authority.

(Code 1976, § 4-12.08.01)

Sec. 126-362. Decision to approve or deny.

(a) *Standards*. The decision to approve or deny a tree removal permit shall be governed by the review standards enumerated in section 126-368.

(b) *Site plans.* Where the site is proposed for development necessitating site plan, subdivision plat, or condominium plan review by the planning commission, the planning commission shall be responsible for approving or denying the application for a tree removal permit.

(c) *Other*. Where neither site plan, subdivision plat, nor condominium plan review is required by city ordinance, the director of the department of parks, forestry, and facilities shall be responsible for approving or denying the application for a tree removal permit.

(Code 1976, § 4-12.08.02)

Sec. 126-363. Notice.

Before the reviewing authority makes a decision on a tree removal permit application, notice of the tree removal permit application shall be sent by regular mail to the owners, according to the city's tax roll, of all property immediately adjoining the property for which the tree removal permit is requested, including property directly across public rights-of-way and easements. The notice shall be sent at least seven days before the reviewing authority is to make its decision and shall include a statement that interested persons may examine the application at the planning department or parks, forestry, and facilities department. Where the planning commission's recommendation is required pursuant to section 126-362, notice to adjoining property owners shall be required before the planning commission meeting only.

(Code 1976, § 4-12.08.03)

Sec. 126-364. Denial. Whenever an application for a tree removal permit is denied, the permit applicant shall be notified, in writing, of the reasons for denial. (Code 1976, § 4-12.08.04)

Sec. 126-365. Approval.

Whenever an application for a tree removal permit is approved, the reviewing authority shall: (1) *Conditions*. Attach to the approval of the permit any reasonable conditions considered necessary by the reviewing authority to ensure the intent of this article will be fulfilled and to minimize damage to, encroachment upon, or interference with natural resources and processes within wooded areas; and

(2) *Performance guarantee*. Require the permit grantee to file with the city a cash or corporate surety bond or irrevocable bank letter of credit in an amount, if any, necessary to guarantee compliance with tree removal permit conditions and this article. (Code 1976, § 4-12.08.05)

Sec. 126-366. Site plans, condominium plans and plats.

With respect to land which is the subject of a site plan, condominium plan, subdivision plat, or land division submitted to the city for approval, a tree removal permit shall not be effective nor shall the permit holder remove, cause to be removed, transplant, or damage any regulated tree until after both final approval of the site plan, condominium plan, preliminary subdivision plat, or land division and approval by the city engineer of construction and engineering plans for the proposed construction or development activity have occurred.

(Code 1976, § 4-12.08.06)

Sec. 126-367. Duration.

Tree removal permits shall remain in effect for one year or the duration of the approved site plan, preliminary subdivision plat, or condominium plan, if any, they relate to, whichever period is less.

(Code 1976, § 4-12.08.07)

Sec. 126-368. Application review standards.

The following standards shall govern the approval or denial of an application for a tree removal permit:

(1) *Preservation and conservation.* No application shall be denied solely because some trees grow on the site. Nevertheless, tree preservation and conservation, especially with respect to trees designated as historic or landmark trees pursuant to division 4 of this article, shall be of paramount concern and importance.

(2) *Developmental alternatives*. Preservation and conservation of wooded areas, trees, similar woody vegetation, wildlife and related natural resources and processes shall have priority over development when there are feasible and prudent location alternatives on site for proposed buildings, structures, or other site improvements.

(3) *Diversity of species*. Diversity of tree species shall be maintained where essential to preserving a wooded area.

(4) *Quality of trees.* Quality trees shall be preserved whenever it is feasible to do so. In evaluating quality of trees, the reviewing authority shall consider the following:

- a. Soil and habitat quality;
- b. Tree species;
- c. Tree size and density;
- d. Health and vigor;
- e. Understory size, density, quality, and type;
- f. Wildlife presence; and

g. Other factors such as function as wind block, noise buffer, cooling or heating effect, and scenic value.

(5) *Land clearing*. Where the proposed activity consists of land clearing, it shall be limited to designated street rights-of-way, drainage and utility areas, and areas necessary for the construction of buildings, structures, or other site improvements.

(6) *Residential development*. Where the proposed activity involves residential development, residential units shall, to the extent reasonably feasible, be designed and constructed to blend into the natural setting of the landscape.

(7) *Compliance with statutes and ordinances*. The proposed activity shall comply with all applicable statutes and ordinances.

(8) *Relocation or replacement.* The proposed activity shall include necessary provisions for tree relocation or replacement, in accordance with subdivision III of this division and tree protection, in accordance with subdivision IV of this division.

(9) *Limitation*. Tree removal or transplanting shall be limited to instances where:

a. *Necessary for construction*. Removal or transplanting is necessary for the construction of a building, structure or other site improvement, and the permit applicant has shown there is no feasible and prudent location alternative on site for a proposed building, structure or other site improvement; or

b. *Disease, damage, etc.* The tree is diseased, damaged or in danger of falling; is located too close to existing or proposed buildings or structures; interferes with existing utility service or drainage; creates unsafe vision clearance; or does not conform to other city ordinances or regulations.

(10) *Historic and landmark trees*. The removal of trees designated under this article as historic or landmark trees shall not be permitted where there is a reasonable alternative that would allow preservation of the trees.

(Code 1976, § 4-12.09)

Sec. 126-369. Issuance; appeal of denial.

(a) *Waiting period before issuing permit.* The city shall not issue a tree removal permit approved by the planning commission or director of the department of parks, forestry, and facilities until ten calendar days following the approval. There shall be no waiting period relative to permits approved by the city council.

(b) *Right of appeal.* Relative to the decision of the planning commission or the director of the park, forestry, and facilities department to approve or deny a tree removal permit, any person denied a tree removal permit or any aggrieved owner of property contiguous to property for which a tree removal permit has been approved, including property directly across public rights-of-way and easements, may appeal such decision to the city council as follows:

(1) *Time to appeal.* An appeal must be filed with the city clerk, in writing, within the tencalendar-day period following the approval or denial being appealed.

(2) *Issuance of permit suspended*. The timely filing of an appeal shall have the effect of suspending the issuance of a permit pending the city council's decision on appeal. The city council, upon review, may affirm, reverse, or modify the decision rendered by the planning commission or director of the department of parks, forestry, and facilities.

(c) *City council decisions*. A decision of the city council to approve or deny a tree removal permit is not appealable to the city council.

(Code 1976, § 4-12.12)

Secs. 126-370--126-395. Reserved.

Subdivision III. Tree Relocation or Replacement

Sec. 126-396. Required.

A tree removal permit holder shall replace or relocate each regulated tree removed pursuant to a tree removal permit.

(Code 1976, § 4-12.10.01)

Sec. 126-397. Basis for relocation or replacement credit.

The permit holder shall relocate or replace trees removed pursuant to a tree removal permit on a one-for-one basis, subject to the following:

(1) *Deciduous trees.* All deciduous replacement trees must measure two inches in diameter or greater, measured at six inches above ground. However, for every additional one-half inch increment a replacement tree exceeds two inches in diameter, the city shall credit the permit holder with having replaced an additional one-half of a tree.

a. *Example*. For example, if the permit holder uses replacement trees measuring 2 1/2 inches in diameter, for each replacement tree measuring 2 1/2 inches in diameter the city shall credit the permit holder as having replaced 1 1/2 trees.

b. Trees greater than three inches in diameter. If the permit holder uses replacement trees measuring three inches in diameter or greater, for each replacement tree measuring three inches in diameter or greater the city shall credit the permit holder as having replaced two trees.

(2) *Coniferous trees.* All coniferous replacement trees must measure eight feet in height or greater. However, for every additional one-foot increment a replacement tree exceeds eight feet in height, the city shall credit the permit holder with having replaced an additional one-half of a tree.

a. *Example*. For example, if the permit holder uses replacement trees measuring nine feet in height, for each replacement tree measuring nine feet in height the city shall credit the permit holder as having replaced 1 1/2 trees.

b. *Trees greater than ten feet in height*. If the permit holder uses replacement trees measuring ten feet in height or greater, for each replacement tree measuring ten feet in height or greater the city shall credit the permit holder as having replaced two trees. (Code 1976, § 4-12.10.02)

Sec. 126-398. Replacement tree requirements.

(a) *Quality*. Trees replaced under this subdivision shall have shade potential and other characteristics comparable to the removed trees, shall conform to the guidelines established in

the most recent edition of the American Standard for Nursery Stock (ANSI Z60.1-1990), and must be approved by the city prior to planting.

(b) *Planting and guarantee.* Replacement and relocated trees must be staked, fertilized, and mulched and shall be guaranteed by the tree removal permit holder to exhibit a normal growth cycle for at least one year following planting.

(c) *Suggested tree species*. A list of suggested replacement tree species shall be kept on file in the department of parks, forestry, and facilities.

(Code 1976, § 4-12.10.03)

Sec. 126-399. Replacement tree location.

(a) *City approval required.* The city shall approve tree relocation or replacement locations in order to provide optimum enhancement, preservation, and protection of wooded areas. To the extent feasible and desirable, trees shall be relocated or replaced on site and within the same general area as trees removed, but such trees shall not be relocated or replaced in the building envelope of a one-family residential lot or building site, nor shall such trees count towards landscape screening and buffer requirements of division 5 of article VIII of chapter 138.

(b) *Relocation or replacement off site.* Where it is not feasible and desirable to relocate or replace trees on site, relocation or replacement may be made at another approved location in the city.

(c) *City tree fund.* Where it is not feasible and desirable to relocate or replace trees on site or at another approved location in the city, the tree removal permit holder shall pay into the city tree fund, which fund is hereby created, an amount of money approximating the current market value of the replacement trees that would otherwise be required. The city shall use the city tree fund for the purpose of maintaining and preserving wooded areas and for planting and maintaining trees within the city.

(Code 1976, § 4-12.10.04)

# Sec. 126-400. Exceptions.

(a) *Unplatted residential parcel.* For any unplatted residential parcel, trees located within the area of the footprint of only one proposed principal dwelling or any additions thereto and within 30 feet around the dwelling or addition are not required to be relocated or replaced. Furthermore, trees located within any proposed driveway, utility or other site improvement necessary to support the principal dwelling or addition and the area within ten feet of any such improvement are also not required to be relocated or replaced.

(b) *Effect of other requirements.* The exception in subsection (a) of this section shall not be construed to waive or supersede any other requirement of this article, and the applicant must still obtain a tree removal permit.

(Ord. No. 423, § 1, 11-5-1997)

Secs. 126-401--126-425. Reserved.

Subdivision IV. Tree Protection During Construction

Sec. 126-426. Placing materials near tree.

No person may conduct any construction or development activity within the drip line of any regulated tree not approved for removal, including but not limited to land clearing, grubbing, trenching, grading, or filling, nor shall any person place solvents, building material, construction

equipment, soil deposits, or other harmful materials within the drip line unless authorized by the department of parks, forestry, and facilities. (Code 1976, § 4-12.11.01)

Sec. 126-427. Attachments to trees.

During construction or development activity, no person shall attach any device or wire to any regulated tree not approved for removal. (Code 1976, § 4-12.11.02)

Sec. 126-428. Identification and protective barrier.

Before development, land clearing, filling, or any other land alteration or activity for which a tree removal permit is required, the permit holder shall clearly mark by painting, flagging, or other approved method all trees to be removed and shall erect and maintain suitable barriers to protect remaining trees. Protective barriers must be inspected and approved by the city before the work begins. Protective barriers shall remain in place until the city authorizes their removal or issues a final certificate of occupancy, whichever occurs first. Wood, metal, or other approved material shall be utilized in the construction of barriers. Barriers are required for all trees not approved for removal, except for the following:

(1) *Rights-of-way and easements*. Street rights-of-way and utility easements may be cordoned by placing stakes a minimum of 50 feet apart and tying ribbon, plastic tape, rope, etc., from stake to stake along the outside perimeters of areas to be cleared.

(2) *Large, separate areas.* Large property areas separate from the construction or land clearing area onto which no equipment will venture may also be cordoned off as described in subsection (1) of this section.

(Code 1976, § 4-12.11.03)

Sec. 126-429. Protective barrier when no permit required.

With respect to construction or development activity for which no tree removal permit is required under this article but which, in the city's judgment, may adversely affect regulated trees located on or off site, the person conducting such activity shall erect and maintain a suitable protective barrier for such trees. (Code 1976, § 4-12.11.04)

Secs. 126-430--126-455. Reserved.

# DIVISION 4. HISTORIC AND LANDMARK TREES

Sec. 126-456. Nomination for historic trees.

Any person may nominate a tree within the city for designation as an historic tree based upon its age, type, size, or historical or cultural significance. (Code 1976, § 4-12.14.01)

Sec. 126-457. Review of nomination for historic trees by historic districts commission.(a) *Generally*. Nominations for designation of an historic tree shall be considered by the historic districts commission. A copy of the nomination, which shall include supporting documentation, shall be referred to the historic districts commission for review.

(b) *Nominee other than owner*. Where the nomination is made by someone other than the owner of the property where the tree is located, the owner shall be notified in writing, by certified mail, at least seven days in advance of the time, date, and place that the historic districts commission will consider the designation.

(c) *Notice*. The notice shall notify the owner that the designation of the tree as an historic tree will make it unlawful to remove or damage the tree absent the granting of a tree removal permit by the city. The notice shall further advise the owner that his agreement is necessary in order for the tree to be designated as an historic tree.

(Code 1976, § 4-12.14.02)

Sec. 126-458. Designation of historic tree.

Provided the owner agrees with the designation of an historic tree, the historic districts commission may designate a tree as a historic tree upon determining that, because of one or more of the following unique characteristics, the tree should be preserved as an historic tree because the tree is:

(1) Associated with a notable person or historic figure;

(2) Associated with the history or development of the nation, the state, or the city;

(3) Associated with an eminent educator or education institution;

(4) Associated with art, literature, law, music, science, or cultural life;

(5) Associated with early forestry or conservation;

(6) Associated with native American history, legend, or lore; or

(7) Has notable historic interest in the city because of its age, type, size, or historic association. (Code 1976, § 4-12.14.03)

Sec. 126-459. Effects of historic tree designation.

Upon designation of a tree as an historic tree, it shall be unlawful, subject to the exceptions in section 126-267, for any person to remove or damage the tree without first obtaining a tree removal permit.

(Code 1976, § 4-12.14.04)

Sec. 126-460. Record of designation of historic trees; recorded notice.

The department of planning shall maintain a record of historic tree designations, and for every designation, the city shall record a notice with the register of deeds identifying the land and advising that the land contains a designated historic tree which is regulated under this division and which may not be removed without a tree removal permit. (Code 1976, § 4-12.14.05)

Sec. 126-461. Criteria for landmark trees.

All trees listed in the American Forestry Association's National Registry of Big Trees, the Michigan Botanist's Champion Trees of Michigan, or in the city's Big Tree Registry are considered landmark trees. (Code 1976, § 4-12.15.01)

Sec. 126-462. Removal of landmark trees.

Subject to the exceptions in section 126-267, a landmark tree shall not be removed without a tree removal permit.

(Code 1976, § 4-12.15.02)

Sec. 126-463. Replacement of landmark trees.

When landmark trees are permitted to be removed, replacement trees shall be provided to a minimum of 50 percent of the diameter at breast height of the tree to be removed. Replacement trees shall be provided either individually or on an accumulative basis to meet the 50 percent diameter-at-breast-height requirement.

(Code 1976, § 4-12.15.03)

Secs. 126-464--126-490. Reserved.

## APPENDIX E

### MUNICIPAL CODE City of FREMONT, CALIFORNIA

Codified through Ord. No. 19-2008, adopted October 28, 2008. (Included in Title VIII, Planning and Zoning is: Ordinance No. 19-2008, adopted October 28, 2008.) (Supp. No. 2-08, Update 1)

### FREMONT MUNICIPAL CODE

Title IV Sanitation and Health

## CHAPTER 5. TREE PRESERVATION\*

\*Editor's note: Ord. No. 2481, § 1, adopted July 23, 2002, amended ch. 5 in its entirety to read as herein set out. Formerly, said chapter pertained to the same subject matter as enacted by Ord. No. 577, as amended. See the Table of Amendments for a detailed analysis of inclusion. Pursuant to Section 25985, Public Resources Code, the city, by Ord. No. 1316, adopted March 27, 1979, declared the City of Fremont exempt from Ch. 12, Div. 15 of the Public Resources Code, also known as the Solar Shade Control Act.

## TABLE INSET:

§ 4- 5100.	Title.
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§ 4- 5104.	Trees subject to or exempt from permit requirements.

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§ 4- 5108.	Standards for mitigation of unauthorized removal of private protected trees.
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§ 4- 5119.	Penalties.
§ 4- 5120.	Severability.

Sec. 4-5100. Title. This chapter shall be known as the "Tree Preservation Ordinance." (Ord. No. 2481, § 1, 7-23-02.)

Sec. 4-5101. Legislative findings.

This chapter is enacted in recognition of the following facts:

(1) Among the features that contribute to the attractiveness and livability of the City of Fremont are its trees, both indigenous and introduced, growing as single specimens, in clusters, or in woodland situations. These trees have significant psychological and tangible benefits for both residents and visitors to the city.

(2) Trees contribute to the visual framework of the city by providing scale, color, silhouette and mass. Trees contribute beneficially to the climate of the city by reducing heat buildup and providing shade, moisture, and wind control. Trees contribute to the protection of other natural resources by providing erosion control for the soil, oxygen for the air and habitat for wildlife. Trees contribute to the economy of the city by increasing and sustaining property values. Trees reduce the cost of storm water systems by increasing the water retention capacity of soils. Trees provide screens and buffers to separate land uses, are often landmarks of the city's history, and are a critical element of nature in the midst of an urban setting.

(3) The city's trees collectively constitute an urban forest, and removals or additions of even a single tree can negatively or positively affect the urban forest and the city as a whole. The loss or removal of a tree from one location in the city's urban forest can often be at least partially mitigated by planting a replacement tree or replacement trees in the same or a different location. However, the negative effect of the loss or removal of a mature tree may in some cases take generations to fully mitigate by the planting of immature replacement trees.

(4) For all these reasons, it is the purpose of this chapter, and in the interest of the public health, safety and welfare of the people of the City of Fremont, while recognizing private rights to develop and use property in a manner not prejudicial to the public interest, to protect and preserve trees by regulating their removal and damage to them; to prevent unnecessary tree loss and damage; to minimize environmental damage from improper tree removal or pruning; to encourage or, when appropriate, to require tree replacement plantings; to effectively enforce tree preservation regulations; and to promote the appreciation and understanding of trees. (Ord. No. 2481, § 1, 7-23-02.)

## Sec. 4-5102. Definitions.

"*Arborist*," means a person with at least three years experience in the practice of arboricultural analysis, and certified by and in good standing with the International Society of Arboriculture (ISA).

"Container tree" means any tree whose roots are entirely contained in an above-ground container.

"Contemplated development project application," means an application for development project approval that an applicant intends to file and for which he or she has already done preparatory planning. Development project applications filed within one hundred twenty days after removal of a tree from a lot which is the subject of the application shall be presumed in any city enforcement action to have been contemplated at the time of tree removal.

"*Cutting*," means the detaching or separating from a tree any limb, branch or root. Cutting shall include pruning and trimming.

"Damage," means any action taken which causes or may cause death or significant injury to a tree or its roots, or which places the tree in an irreversible state of decline. This includes, but is not limited to, cutting, topping (i.e. cutting of the main leader branch), removal or stubbing of major scaffold branches, girdling, poisoning, and trenching or excavating within the drip line. Normal pruning, as prescribed by currently adopted standards of the International Society of

Arborculture, which are on file and available for review in the engineering division of the city, does not constitute damage.

"DBH," means diameter at breast height, which in turn means trunk diameter measured at four and one-half feet above a tree's natural grade. For multi-trunked trees, DBH means the DBH of all individual trunks added together.

"Developed lot," means a lot which is neither an underdeveloped lot nor a vacant lot as these terms are defined in this section.

*"Development project,"* has the meaning given this term by section 8-2135.3 of this Code, except that, for the purposes of this chapter, removing, damaging or relocating any tree shall not in itself constitute a development project.

"*Drip line*" means the outermost edge of a tree's canopy. When depicted on a map, the drip line will appear as a line that follows the contour of the tree's branches as seen from overhead. At a minimum, the drip line is a circle whose diameter is fifteen times a tree's DBH.

*"Landmark tree"* means a tree that has been so designated by resolution of the city council as well as any tree that has been designated in the general plan as a primary historic resource.

"Landscape architect," means the city's landscape architect or his or her or the city manager's designee.

*"Native tree,"* means any of the following trees native to the San Francisco Bay area: Oak, Redwood, Buckeye, Madrone, Sycamore, Big-Leaf Maple, Red-Bud, and Bay.

"*Person*," means any natural person, partnership, firm, corporation, governmental agency or other legal entity.

"*Private tree*," means any tree growing on private land or planted in the public right-of-way by an owner of adjacent property.

"*Protected tree*," means any tree which under section 4-5104 may be removed, damaged or relocated only subject to a permit or other authorization conferred pursuant to the provisions of this chapter; except for landmark trees, which are protected by special regulations set out in this chapter.

*"Removal,"* means the physical removal of a tree; causing the death of a tree through damaging, poisoning or other direct or indirect action; or severely damaging a tree.

*"Severely damage,"* means any action constituting damage as defined in this chapter that destroys the natural character of a tree to such an extent that the tree has irreparably lost most of the beauty characteristic of its species or other valuable attributes referenced in the above-stated legislative findings.

"*Tree*," means a perennial plant having a self-supporting, woody main stem or trunk usually characterized by the ability to grow to considerable height and size, and the development of woody branches at some distance above the ground. Usually distinguished from a bush or shrub by size, manner of growth, and usual botanical nomenclature. Perennial shrubs are not classified as trees in this chapter.

"*Tree of exceptional adaptability to the Fremont area*" means, but is not limited to, a tree of the following species: Fremont Cottonwood, California Pepper, European Olive, Black Walnut, and Deodar Cedar. A list of other trees of exceptional adaptability to the Fremont area is on file and available for review in the engineering division of the city.

*"Tree protection zone,"* means the limit of undisturbed space that is required to be maintained around an existing tree or grove of trees to ensure a tree or its roots are not damaged during grading or construction. The city may require that a tree protection zone be fenced or marked to further its protective purpose.

"Underdeveloped lot," means any lot that:

(1) Is currently lawfully used for commercial agriculture or arboriculture or zoned (A), Agricultural District;

(2) If subject to floor area ratio regulations, is not built out to the maximum building floor area allowed by those regulations; or

(3) Is zoned to allow residential use and can lawfully accommodate an additional dwelling, other than a secondary dwelling as this term is defined in section 8-2141.2.1 and used in section 8-22159.5.

"*Vacant lot*," means a lot that is not occupied by a principal building as this term is defined in section 8-2115.2.

(Ord. No. 2481, § 1, 7-23-02.)

Sec. 4-5103. Prohibition on removal of or damage to trees except when expressly permitted. No person shall remove, damage or relocate a private tree or any landmark tree, whether publicly or privately owned, except as follows:

(1) When authorized by a permit issued by the landscape architect, which permit shall, while any person is removing or damaging the subject tree, be posted on the lot by the applicant so as to be prominently visible from the street;

(2) When removal, damage or relocation is allowed without permit under section 4-5104;

(3) When expressly authorized as part of a city-issued entitlement or permit for a development project; or

(4) In the case of a landmark tree, when authorized by the city council in accordance with this chapter.

(Ord. No. 2481, § 1, 7-23-02.)

Sec. 4-5104. Trees subject to or exempt from permit requirements.

(a) *Permit or other authorization required for private trees other than landmark trees.* A permit or other authorization conferred in accordance with this chapter is required to remove, damage or relocate a private tree if it is:

(1) A tree having a DBH of six inches or more and located on a vacant or underdeveloped lot;

(2) A tree having a DBH of six inches or more and located on a developed lot which is the subject of a contemplated or pending application for a development project;

(3) A native tree or tree of exceptional adaptability to the Fremont area having a DBH of ten inches or more;

(4) A tree having a DBH of eighteen inches or more;

(5) A tree that was required by the city to be planted or retained as mitigation for the removal of a tree;

(6) A tree planted or retained as a condition of any city-conferred development project approval, including approvals conferred prior to adoption of this chapter; or

(7) One of six or more trees of the same species that are located on the same lot and that each have six or more inches in DBH.

(b) *Permit or other authorization required for all landmark trees.* Authorization conferred in accordance with this chapter is required to remove, damage or relocate any landmark tree, whether privately or publicly owned.

(c) *Trees exempt from permit requirements*. Except as provided in this subsection (c), no permit or other authorization conferred in accordance with this chapter and no mitigation is required to remove, damage or relocate a private tree if it is:

(1) A tree on a developed lot not greater than ten thousand square feet in area and zoned either R-1, or single family detached Planned District, when the tree is behind the forward-most face of the front of the principal building. Any architectural feature that is allowed to project into a required front yard under section 8-22207 of this Code shall not constitute any part of the face of a building for the purposes of this subsection. This exemption shall not apply to any landmark tree or to any tree planted or retained in accordance with any city-imposed requirement;

(2) A container tree;

(3) A fruit or nut tree of a species grown for commercial food production, except a black walnut or olive tree; or

(4) A tree removed or damaged under emergency circumstances as follows:

a. The tree has been damaged by storms, floods, earthquakes, or by any other cause; and a city official has determined that its immediate removal or further damage is necessary to protect persons from imminent personal injury or to prevent imminent and substantial damage to property;

b. When immediate removal or damage is determined to be necessary by fire department personnel actively engaged in fighting a fire; or

c. When immediate removal or damage is determined by the landscape architect to be necessary to protect persons from imminent personal injury or to prevent imminent and substantial damage to property; or

(5) A tree, other than a landmark tree, removed or damaged by a public utility to the extent that such removal or damage is necessary for building or maintaining the public utility's facilities. (Ord. No. 2481, § 1, 7-23-02.)

Sec. 4-5105. Status of retained, added, replaced or relocated trees.

Any decision made under this chapter, or as part of a development project approval, which requires the retention, addition, replacement or relocation of any tree shall confer on such tree the status of a tree which, under section 4-5104, may not be damaged or removed except in accordance with this chapter. Further, all such trees shall be maintained in a healthy condition and, except for landmark trees, shall be replaced by the then current owner of the lot in accordance with the standards set out in section 4-5108 if they die or are removed substantially before expiration of their normal life span. Replacement requirements for landmark trees shall be established on a case by case basis and shall reflect the special quality and importance of any such tree.

(Ord. No. 2481, § 1, 7-23-02.)

Sec. 4-5106. Standards for evaluation of applications to remove, damage or relocate private protected trees.

An application for authorization to remove, damage or relocate a private protected tree shall be approved, denied or conditionally approved so as to further the public welfare and based upon a balancing of the following criteria in light of the above-stated legislative findings. Applicability of any of the criteria set out under subsection (1) supports authorization of a tree's removal or damage, while the applicability of any of the criteria set out under subsection (2) supports denial of such authorization.

(1) Criteria supporting authorized removal or damage:

a. Because of disease, age or damage, the tree or a part of the tree is in danger of falling and injuring persons or causing substantial damage to property; and the tree cannot otherwise be returned to a safe condition through reasonable preservation or preventive practices not requiring damage to or removal of the tree.

b. The tree has a relatively short life expectancy.

c. The tree is a host to a plant, insect, or other parasitic organism, which condition endangers other healthy trees; and reasonable treatment to rid the tree of the infestation would not eliminate an unacceptable level of endangerment to other trees.

d. The portion of the lot on which the tree is located is overcrowded with trees in that the number of healthy trees that can be supported is exceeded, and the subject tree contributes to this condition of overcrowding so that its removal would contribute to the health and vigor of nearby trees whose preservation is more desirable under the above stated legislative findings and under a balancing the applicable criteria of this section.

e. Development project plans currently filed for the lot indicate that it is necessary to damage, remove or relocate the tree to enable reasonable and conforming use of the property or to achieve a superior project; and the tree cannot be preserved or left undamaged by a reasonably required redesign of the project.

f. The tree substantially interferes with full enjoyment of an existing structure, with utility services, or with other uses of real property; and this interference cannot be adequately remedied through reasonable measures not requiring damage to or removal of the tree.

g. The tree has lost most of the aesthetic value generally possessed by trees of the same size and species, which value cannot be feasibly restored.

(2) Criteria supporting denial of authorization to remove:

a. The tree is an important asset to the community based on such factors as its service as part of a windbreak system, its assistance in drainage or in the avoidance of soil erosion, its service as a component of a wildlife habitat, its role in maintaining the existing urban forest or its contribution to reducing reflective glare from buildings and pavement.

b. The tree contributes substantially to the aesthetic beauty of an area, and its removal would adversely affect the appearance of the area. The tree's potential, or lack thereof, for a long life and for a substantial increase over time of its contribution to the city's urban forest shall be taken into consideration in making this determination.

c. The tree is located on a vacant or undeveloped lot and, if left undisturbed, has the potential for becoming a community asset of substantial aesthetic value.

d. The tree is a member of a group of trees mutually dependent on each other for survival, structural integrity or aesthetics.

(Ord. No. 2481, § 1, 7-23-02.)

Sec. 4-5107. Standards for mitigation of authorized removal of private protected trees. When a private protected tree's removal is authorized in accordance with this chapter, mitigation shall be required as follows:

(1) Required mitigation for each tree removed shall be the planting of one twenty-four inch box replacement tree of a species and in a location approved by the person or entity imposing mitigation requirements under this chapter. When, because of lot size, configuration or development, the property cannot fully accommodate the mitigation that would otherwise be required under this subsection (1), the applicant shall pay the city a fee in lieu of on site

replacement for each tree that is not replaced on site. The amount of the fee shall be equal to the per unit cost to the city for a planted twenty-four inch box tree as established by the city's last award of a contract following a competitive bid for such work.

(2) Replacement requirements for trees removed from a lot which is the subject of a development project application shall be imposed in addition to any requirement for planting trees that would otherwise be imposed as a condition of project approval.

(3) Replacement trees shall be planted in accordance with standard details that are on file with the engineering division of the city.

(4) The mitigation required by this section may be waived or reduced in the following circumstances:

a. Removal of the tree has a beneficial effect on the city's urban forest, or

b. The cost of mitigation is disproportionately large when contrasted to the loss to the city's urban forest caused by tree removal.

(Ord. No. 2481, § 1, 7-23-02.)

Sec. 4-5108. Standards for mitigation of unauthorized removal of private protected trees. Requirements for mitigation of unauthorized removal of private protected trees shall be imposed in accordance with the following policies and standards:

(1) Replacements for trees removed shall, if reasonably possible, provide total beneficial attributes at least equivalent to those of the tree(s) to be replaced. For example, when replacing a tree whose principal beneficial attribute is aesthetic, the replacement tree(s) should provide equivalent aesthetic quality in terms of size, height, location and other beneficial aesthetic attributes.

(2) Replacement requirements for trees removed from a lot that is the subject of a development project application shall be imposed in addition to any requirement for planting trees that would otherwise be required or imposed as a condition of project approval.

(3) Subject to the provisions of subsection (5), replacement trees shall generally be planted on the same lot as were the trees removed, and the species and location of the replacement tree(s) shall be approved by the city.

(4) When the value of a tree must be established to apply the provisions of this section, such value shall be calculated by the landscape architect in accordance with the latest edition of the Guide for Plant Appraisal as prepared by the Council of Tree and Landscape Appraisers or a similar successor resource.

(5) When, because of lot size, configuration or development, or size, age or other characteristics of the tree to be replaced, it is not reasonably possible to provide an equivalent on-site replacement tree or trees, replacement equivalency may be established, at the discretion of the city, using one or a combination of the following standards:

a. The total DBH of the replacement tree(s) is at least equal to the DBH of the tree(s) to be replaced, and the replacement tree(s) will at maturity be similar in size and character to the tree(s) to be replaced.

b. The total value of the replacement tree(s), or cash payment to the city in lieu of replacement, or a combination of the total value of the replacement tree(s) plus such cash payment is at least equal to the value of the tree(s) to be replaced.

(6) Notwithstanding any other provision of this section, in the case of removal of a tree from a vacant or underdeveloped lot, the city may require mitigation to be made entirely by cash payment. In such cases, if an application for a development project for the lot is filed within one

hundred twenty days of the date of such payment and if the project is completed within two years of such date, the cash payment may be used to reimburse the project applicant for on site tree replacement meeting the requirements of this section.

(7) Replacement trees shall be planted in accordance with standard details that are on file and available for review in the engineering division of the city.

(8) The mitigation required by this section may be waived or reduced in the following circumstances:

a. Removal of the tree has a beneficial effect on the city's urban forest;

b. The cost of mitigation is disproportionately large when contrasted to the loss to the city's urban forest caused by tree removal; or

c. Following an unauthorized tree removal, the landscape architect determines that removal would have been authorized had timely application been made. The burden of proving that removal would have been authorized is on the person(s) responsible for mitigation. (Ord. No. 2481, § 1, 7-23-02.)

Sec. 4-5109. Use of cash payments.

When a cash payment is received in accordance with section 4-5107 or 4-5108, the city shall use the proceeds as follows:

(1) To plant or upgrade street trees throughout the city;

(2) To beautify or enhance public places, including parks and open spaces, by the planting of trees;

(3) To fund any administrative activity directly related to the advertising, promotion and execution of the provisions of this chapter as well as any other activities that will benefit the city's urban forest; or

(4) In accordance with subsection (6) of section 4-5108.

(Ord. No. 2481, § 1, 7-23-02.)

Sec. 4-5110. Procedure for applications to remove, damage or relocate private protected trees when no development project application is contemplated or pending.

(a) *Application*. A person desiring to remove, damage or relocate a private protected tree when no development project application is contemplated or pending for the lot shall apply for a permit from the landscape architect.

(1) *Fee for application*. There shall be no fee charged for the application except for the cost of any required arborist's report, for which an advance deposit of the estimated cost shall be made.

(2) *Time for application*. Applications shall be made at least fifteen days prior to the proposed date of tree removal, damage or relocation.

(3) *Contents of application*. Applications shall be made on a form provided by the city or shall otherwise contain the following information:

a. The number, location(s), size(s), quality, species of the protected tree(s) proposed to be removed, damaged or relocated;

b. A written explanation of why authorization is sought to remove, damage or relocate the protected tree(s);

c. A time schedule for the proposed work;

d. Any other information the landscape architect deems necessary including, when appropriate, a report by an arborist selected by the city and a tree survey prepared by a civil engineer or landscape architect indicating buildings, paved areas, the size and species of all existing

protected trees on the subject lot and those protected trees which are proposed to be removed, damaged, relocated or retained;

e. A written proposal for mitigating the proposed removal of or damage to the protected tree(s) in accordance with section 4-5107, indicating the size, species and location of any proposed replacement tree(s) and the amount of any payment proposed in lieu of replacement; and

f. The applicant's written authorization for city staff or persons retained by the city to enter the subject property to conduct an on site inspection of trees.

(b) Action on application.

(1) When decision is that removal, damage or relocation should not be authorized. When the landscape architect decides that all or some part of the application should not be approved, it shall be denied in whole or in part.

(2) When decision is that removal, damage or relocation should be authorized. When the landscape architect decides that a tree's removal, damage or relocation should be authorized, a permit shall be granted subject to conditions that mitigation for removal of trees be provided in accordance with section 4-5107. If relocation of a tree is approved, the landscape architect may impose conditions to assure its health and survival.

(3) *Decision must be in writing.* The landscape architect's decision and the reasons supporting it shall be written.

(4) *Notice of decision and appeal rights.* The landscape architect's decision and a notification that it is appealable under this section shall be mailed to the applicant.

(c) Appeal of landscape architect's decision.

(1) *Landscape architect's decision appealable*. The landscape architect's decision is appealable to the city council only by the applicant and is final and conclusive as to other persons.

(2) *Form and time of appeal.* The appeal shall be made in writing and filed in the office of the city clerk no later than ten days after mailing of the decision of the landscape architect. The basis of the appeal shall be completely stated. The city council may refuse to consider matters not set forth in the written appeal.

(3) *Notice of appeal hearing.* At least ten days mailed notice of the hearing of an appeal shall be given to the applicant and to all owners of real property as shown on the latest equalized assessment roll whose properties are contiguous to or directly across the street from the subject lot. In lieu of utilizing the assessment roll, the city may utilize records of the county assessor or tax collector which contain more recent information than the assessment roll.

(4) *Hearing on appeal.* The appeal hearing shall be conducted de novo and generally in accordance with Chapter 5 of Title I as supplemented by this section.

(5) *Notice of decision on appeal*. Notice of the decision on appeal and reasons supporting it shall be in writing and shall be mailed to the appellant and to persons who have requested copies.

(Ord. No. 2481, § 1, 7-23-02.)

Sec. 4-5111. Procedure for applications to remove, damage, relocate or retain private protected trees when a development project application is contemplated or pending.

(a) *Applications*. A person desiring to remove, damage, relocate or retain a private protected tree in connection with a development project for which an application is contemplated or pending shall submit an application to the landscape architect. The application shall meet the following requirements:

(1) Application an essential part of a development project application. Applications proposing removal, damage, relocation or retention of protected trees shall be required as essential components of applications for development project approval, which shall not be deemed complete until the requirements of this subsection (a) have been satisfied.

(2) *Fees and costs.* All fees and other costs associated with applications made under this section shall be charged as components of the fees and costs charged for the entire development project application. The cost of any inspection or report required under this section shall be borne by the applicant.

(3) *Contents of application*. Applications shall include, but not be limited to, the following:

a. The number, location(s), size(s), quality and species of the protected tree(s) proposed to be removed, damaged, relocated or retained;

b. A written explanation of why authorization is sought to remove, damage or relocate any protected tree;

c. A time schedule for the proposed work;

d. A tree survey in the same scale as the development plans prepared by a civil engineer or landscape architect indicating:

1. The size and species of all existing protected trees on the subject lot;

2. Those protected trees which are proposed to be removed, damaged, relocated or retained in place;

3. Protective measures (including designated protection zones) proposed for any tree to be relocated or for protection of any protected tree that is to remain in place during grading or construction operations; and

4. The locations of all proposed or existing buildings, paved areas, and utilities;

e. When required by the landscape architect, a report by an arborist selected by the city;

f. A written proposal for mitigating the removal of any protected tree(s) in accordance with section 4-5107, indicating the proposed size, species and location of the replacement tree(s) and the amount of any payment proposed in lieu of replacement; and

g. The applicant's written authorization for city staff or persons retained by the city to enter the subject property to conduct on-site inspections of trees.

(b) *Landscape architect's recommendation*. The landscape architect shall prepare a written recommendation which shall be considered by any official authorized to approve or disapprove the project or summarized or included in the agenda report(s) prepared for the body or bodies who will review and make recommendations or who will approve, conditionally approve or disapprove the development project application.

(c) *Action on application*. Action on any protected tree related matter shall be made part of any recommendatory action and of any action to approve, conditionally approve or disapprove the development project application. Such action shall include mitigation requirements imposed in accordance with section 4-5107 for any authorized removal of protected trees.

(d) Inclusion of tree maintenance requirement in CC&Rs. The obligations imposed under this section and by section 4-5105 shall be stated in any CC&R's for the project required by the city.

(e) *Effect of appeal provisions*. During the pendancy of any appeal of an approval of a development project application and during any period in which a timely appeal may be filed, the effectiveness of any such approval shall be stayed insofar as it pertains to trees.

(f) *Exemptions*. The landscape architect may waive any requirement of this section when (s)he determines that that full compliance is not necessary to allow effective application of the tree protection provisions of this chapter.

(Ord. No. 2481, § 1, 7-23-02.)

Sec. 4-5112. Designation and listing of landmark trees.

(a) *City council designation of landmark trees.* Any tree meeting the following criteria may be designated by resolution of the city council as a landmark tree. All trees so designated shall be placed on a landmark tree list which may be updated from time to time by subsequent city council resolutions.

(1) *Presumptive qualification for landmark tree designation*. A tree meeting all of the following criteria presumptively qualifies for designation as a landmark tree:

a. DBH is fifty-four inches or greater;

b. The tree's structure and character exemplify its species or it has an extraordinary form caused by environmental influences;

c. The tree is free, or can practicably be made to be free, of any structural defect posing a threat of either injury to persons or of substantial damage to property;

d. The tree has substantial aesthetic appeal, or its lack of such appeal can be remedied by standard arboricultural practices; and

e. Probability that the tree will survive more than five years from date of landmarking while retaining substantial aesthetic appeal is at least fifty percent.

(2) Other factors supporting landmark tree designation. Whether or not a tree meets the criteria of subsection (A)(1), it may qualify for landmark tree designation based on any of the following criteria:

a. The tree has an important historic significance in that:

1. It is associated with events that have made a significant contribution to local, state or national cultural heritage; or

2. It is associated with the life of a person important to local, state or national history;

b. The tree is a native tree or a tree of exceptional adaptability to the Fremont area which has a special significance to the community;

c. The tree has an especially prominent and beautiful visual impact;

d. The tree is one of a group of trees that as a group meets one or more of the criteria of this section for landmark tree designation; or

e. Any other factor causing the tree to have a special and important significance to the community.

(b) *Trees that are primary historic resources*. Trees which have been and which in the future are designated in the general plan as primary historical resources are hereby further designated as landmark trees.

(Ord. No. 2481, § 1, 7-23-02.)

Sec. 4-5113. Procedure for designation of landmark trees and removal of such designation. (a) *Initiation of the process*. The landscape architect shall from time to time propose landmark tree designation or removal of such designation based on the criteria of section 4-5112, and the proposal shall be acted upon as provided in this section. Such proposals may include city-owned trees, which proposals shall be exempt from the payment of fees and costs. Additionally, the process for landmark tree designation or removal of such designation may be commenced by motion of the city council or by the tree's owner filing an application for such action.

(b) *Fee and cost for application to remove landmark tree designation.* A fee in an amount established by resolution of the city council and an advance deposit to cover estimated cost of

inspection and any required report(s) shall be charged for an owner's application for removal of a landmark tree designation. In all other cases, no fee or costs shall be charged.

(c) Inspection and reports. Following initiation of the process, the tree shall be inspected by the landscape architect or by a qualified arborist selected by the landscape architect and retained by the city. The landscape architect shall prepare a city council agenda report applying the above stated legislative findings and the applicable criteria set out in section 4-5112. The report shall set out the landscape architect's recommendation on the proposal and reasons supporting it.
(d) Notice of hearing. Notice of any hearing conducted pursuant to this section shall comply with section 8-23121, as though the matter were an application under Title VIII of this Code.
(e) Action by the city council. The city council shall conduct a noticed public hearing and shall review the proposal, any written inspection report, and the recommendation of the landscape architect, all in light of the above-stated legislative findings and the applicable criteria of section 4-5112. The council's decision shall be set out in a resolution.

(Ord. No. 2481, § 1, 7-23-02.)

Sec. 4-5114. Policy for protection of landmark trees.

(a) *Special status of landmark trees.* Landmark trees, including those on city-owned property may be removed, damaged, or relocated only in accordance with the provisions of this chapter which specifically pertain to them.

(b) *Environmental significance of landmark trees*. Landmark trees are significant community resources, and the damaging or removing of any landmark tree shall be regarded as causing at least a potentially substantial adverse change in the environment unless either of the following criteria is met:

(1) Probability that the tree will survive while retaining most of its aesthetic appeal for an additional five years is less than fifty percent; or

(2) Because of disease, age or damage, the tree has lost most of its original aesthetic appeal, which cannot feasibly be restored.

(c) Preservation standards for landmark trees.

(1) When damage or removal would constitute a substantial adverse change in the

*environment.* When removal of a landmark tree would constitute a substantial adverse change in the environment, authorization to either damage or remove the tree shall not be given if its preservation intact is feasible in light of economic, environmental and technological factors. Provided however, that authorization to damage or remove a landmark tree may be given if the tree meets the criteria of section 4-5106, subsections (1)a. or (1)c.

(2) When removal would not constitute a potentially substantial adverse change in the environment. Damage or removal of landmark trees which would not constitute a potentially substantial adverse change in the environment may be authorized when such action is found to be appropriate after balancing the above-stated legislative findings and the criteria of section 4-5106.

(d) *Measures available to preserve landmark trees.* In order to accommodate the preservation of landmark trees in cases where authorization of removal or damage might otherwise appear warranted, the city council may, in its discretion, consider the following measures to make feasible the preservation of a tree:

(1) Directing an application for variance of zoning regulations;

(2) Transfer of development rights to offset any substantial economic burden or loss that cityrequired preservation of the tree might place on its owner; or (3) Any other reasonable means of avoiding removal or damage of the tree. (Ord. No. 2481, § 1, 7-23-02.)

Sec. 4-5115. Procedure for applications to remove, damage or relocate a landmark tree when no development project application is contemplated or pending.

(a) *Application: city council authorization required.* Removal, damage or relocation of a landmark tree requires authorization by the city council. When no development project application is contemplated or pending for the lot, application for such authorization shall be filed initially with the landscape architect.

(1) *Fee for application*. Except for landmark trees owned by the city, a fee in an amount established by resolution of the city council and an advance deposit to cover estimated costs of inspection and any required report(s) shall be paid by the applicant.

(2) *Time for application*. Applications shall be made at least ninety days prior to the proposed date of tree removal, damage, or relocation.

(3) Contents of application.

a. The application shall set out a complete description of the proposed action including the applicant's statement as to why it should be granted and any information, drawings or reports the landscape architect may deem necessary.

b. The applicant shall provide a proposal for mitigating the effects of the proposed action, which shall reflect the difficulty or impossibility of achieving full mitigation for removal of or damage to a landmark tree and which shall therefore provide for very extensive mitigation for such an action. In cases where the landmark tree is owned by the city, any public benefit resulting from its damage or removal shall be considered as contributing to mitigation for removal.

(b) *Inspection and report*. The tree(s) will be inspected by the Landscape Architect or by a qualified arborist selected by the landscape architect and retained by the city. The landscape architect's recommendation on the application and the reasons supporting it shall be set out in a report (s)he shall prepare for the city council.

(c) *Notice of hearing*. Notice of any hearing conducted pursuant to this section shall comply with section 8-23121 as though the matter were an application under Title VIII.

(d) Action by the city council. The city council shall conduct a noticed public hearing and shall review the application, any written inspection report and the recommendations of the landscape architect in light of the above-stated legislative findings and the applicable criteria and policies set out in sections 4-5106 and 4-5114. The council may approve, conditionally approve or deny the application and may, in its discretion, order measures to be taken by the city to assist in preservation of the landmark tree(s). Mitigation requirements for removal, damage or relocation of landmark trees shall be established on a case by case basis and shall reflect the special quality and importance of any such tree. The council's decision shall be set out in a resolution.

(e) *Notice of decision*. The city council's decision and written findings supporting it shall be mailed to the applicant.

(f) Applications to remove, damage or relocate protected trees from the site must be filed *contemporaneously*. If the applicant also desires to remove, damage or relocate any protected tree(s) on the site, (s)he shall also contemporaneously file an application in accordance with section 4-5110.

(Ord. No. 2481, § 1, 7-23-02.)

Sec. 4-5116. Procedure for applications to remove, damage, relocate or retain landmark trees when a development project application is contemplated or pending.

(a) *Section 4-5115 procedures incorporated.* Applications to remove, damage, relocate or retain landmark trees on lots for which development project applications are contemplated or pending shall be processed in accordance with section 4-5115 as supplemented or modified by this section.

(b) *Recommendation of the landscape architect.* The landscape architect shall make a recommendation on the proposal, which shall be included in the agenda report(s) prepared for the city council and for any subordinate body whose recommendation on the entire development project application is required by this Code.

(c) *Procedures for city council authorization*. City council authorization to remove, damage or relocate a landmark tree in connection with a development project for which an application is contemplated or pending shall be given as follows:

(1) When city council approval of a development project application is otherwise required. When city council approval of an entire development project application is otherwise required by this Code, the council's decision regarding the landmark tree shall be made as part of its action on the entire development project.

If the council's action on the entire development project application is required to be preceded by a recommendation of any subordinate official or body, such recommendation(s) shall encompass the proposal regarding the landmark tree.

(2) When city council approval of a development project is not otherwise required. When city council approval of an entire development project is not otherwise required by this Code, the development project shall be processed in accordance with the procedures that would be followed in the absence of a landmark tree proposal, except that:

a. Review by officials or bodies subordinate to the council shall end with the official or body that would have had authority to approve the development project in the absence of a landmark tree proposal;

b. The action of the last official or body to review the project shall be a recommendation that the city council approve, conditionally approve or deny the entire development project, including the proposal pertaining to the landmark tree(s); and

c. The city council shall approve, conditionally approve, or disapprove the entire development project, including the proposal pertaining to the landmark tree(s).

(3) *Optional procedure*. In lieu of the procedure prescribed by subsection (c)(2), the applicant may, prior to the commencement of any public hearing conducted on the application, elect that the landmark tree proposal be processed in advance of a decision on the entire development project application as follows:

a. The city council shall make the city's final decision on the landmark tree proposal prior to any decision by a subordinate official, board or commission to approve, conditionally approve or disapprove the entire development project or to recommend any such action.

The authority of subordinate officials or bodies to approve, conditionally approve or disapprove the development project or to recommend any such action shall be exercised in a manner consistent with the city council's prior landmark tree decision.

(d) *Fees and costs.* All fees and other costs associated with applications made under this section shall be charged as components of the fees and costs charged for the entire development

project application. The cost of any inspection or report required under this section shall be borne by the applicant.

(e) *Tree applications an essential part of development project application.* Applications for removal, damage or relocation of any landmark tree(s) shall be required as essential components of applications for development project approval, which shall not be deemed complete until the applications required by this chapter has been completed and filed. (Ord. No. 2481, § 1, 7-23-02.)

Sec. 4-5117. Responsibility and liability for unauthorized tree removal or damage. All persons who, in violation of this chapter, removes or damages a tree, including proprietors and employees of tree service businesses, owners of the lot on which the tree is located, and persons who direct such removal or damage, shall be jointly and severally responsible and liable for violations of this chapter.

(Ord. No. 2481, § 1, 7-23-02.)

Sec. 4-5118. Procedures for imposition of mitigation requirements for trees unlawfully removed. (a) *Investigation and preliminary imposition of mitigation requirement*. When the landscape architect has cause to believe that a tree has been removed in violation of this chapter, (s)he shall conduct an investigation. If the investigation establishes that such removal has occurred and the identity of the responsible person(s) is preliminarily established, the landscape architect shall notify such person(s) by mail of his or her intent to impose on him or her specified mitigation requirements and investigation costs as authorized by this section.

(b) *Mitigation requirements*. A person who removes a tree in violation of this chapter shall be required to provide mitigation in accordance with section 4-5108, or, in the case of a landmark tree, as established on a case by case basis by the landscape architect.

(c) *Cost of investigation*. In addition to the above-stated mitigation requirements, the person(s) found to have violated this chapter shall pay the city's cost of investigation of the violation.

(d) *Request for hearing*. The person(s) notified of the landscape architect's intent to impose mitigation requirements and payment of investigation costs shall have ten days from the mailing of the notice to file a written request for a[n] informal hearing before the landscape architect. Unless such a request is made, the landscape architect may order the earlier specified mitigation plus payment of investigation costs, which order shall not be subject to appeal. Any such order and the reasons supporting it shall be written and mailed to the person(s) affected. Time(s) for performance shall be specified.

(e) *Hearing*. If a timely request for a hearing is made, the landscape architect will conduct an informal hearing. If on the basis of the hearing and the city's investigation, it is established that a tree has been removed in violation of this chapter, the landscape architect shall order mitigation and payment of costs in accordance with this section. The landscape architect's order and the reasons supporting it shall be made in writing and shall be mailed to the person responsible. Time(s) for performance shall be specified.

(f) Appeal of landscape architect's decision.

(1) *Landscape architect's decision appealable*. The landscape architect's order made under this section is appealable to the city council by the person(s) affected by the order.

(2) *Form and time of appeal.* The appeal shall be made in writing and filed in the office of the city clerk no later than ten days after mailing of the order of the landscape architect. The basis of

the appeal shall be completely stated. The city council may refuse to consider not set forth in the written appeal.

(3) *Notice of appeal hearing*. Notice of the hearing of an appeal, whether by the director or the city council, shall be given by mail to the appellant at least ten days prior to the hearing date.

(4) *Hearing on appeal.* The appeal hearing shall be conducted de novo and generally in accordance with Chapter 5 of Title I, as supplemented by this section.

(5) *Notice of decision on appeal.* Notice of the city council's decision on appeal and findings supporting it shall be mailed to the appellant.

(Ord. No. 2481, § 1, 7-23-02.)

Sec. 4-5119. Penalties.

(a) *Separate offences*. A person shall be guilty of a separate and distinct criminal or civil offense as follows:

(1) For each tree damaged or removed in violation of this chapter:

(2) For each tree not replaced as required by section 4-5105.

(3) For each day's failure to comply with a final order issued pursuant to section 4-5118.

(4) For each day's failure to comply with a requirement imposed under this chapter for tree replacement or payment in cash in lieu of replacement.

(b) *Cumulative remedies.* Penalties for the foregoing offences shall be deemed non-exclusive, cumulative, and in addition to any other remedy the city may have at law or in equity, including but not limited to injunctive relief to prevent violation of this chapter and to enforce any requirement imposed pursuant to this chapter.

(Ord. No. 2481, § 1, 7-23-02.)

Sec. 4-5120. Severability.

If any section, subsection, sentence, clause or phrase of this chapter is, for any reason, held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this chapter.

(Ord. No. 2481, § 1, 7-23-02.)

#### APPENDIX F

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