

THE CITY OF GROSSE POINTE
URBAN FORESTRY
MASTER PLAN

2017





“The best time to plant a tree was 20 years ago.

The second best time is now.”

– *Chinese Proverb*

INTRODUCTION

CONTENTS

PAGE 4

Benefits of Urban Trees

PAGE 6

Our Forestry Goals

PAGE 9

Strategy

PAGE 10 | APPENDIX AResponsibilities of
The City of Grosse Pointe
Urban Forestry Commission**PAGE 11 | APPENDIX B**

Approved Species List

PAGE 12 | APPENDIX CSurvey of Canopy Gaps
And At-Risk Trees

A GROSSE POINTE CITY STREET IN 1960

Decades ago, Grosse Pointe was widely known for its huge tree canopy. Mostly comprised of American Elms, the trees lining both sides of the residential streets met at the center to form a cathedral-like canopy of green.

By the late 1950s, Dutch elm disease had spread to Michigan, eventually decimating Grosse Pointe's stately elms and gorgeous canopy. Maples and ash trees were planted to replace the elms, but the ash tree population also has been decimated by a disease, in this case the emerald ash borer, which invaded Michigan in the early 2000s.

As a result, The City of Grosse Pointe has significant gaps in its tree canopy. Even the remaining elms and ashes, as well as other individual trees, are likely to die in the coming years.

The City budget, which funds replacement of trees as they are removed, has been unable to keep pace with such a huge loss.

To address the City's forestry needs, the City Council in 2017 established The City of Grosse Pointe Urban Forestry Commission to help create and implement a Master Plan for the City's trees in coordination with a newly appointed City Forester.

The Commission's first task was to create a survey of the City's trees located on City-owned property such as the area between the sidewalks and the streets. The Commission's survey found that more than 100 trees are needed to fill existing gaps at an estimated cost of \$35,000. Some 50 additional trees are showing signs of stress and will need to be replaced within the next few years.

BENEFITS OF URBAN TREES

Trees can increase the property values of an entire neighborhood or business district.

According to the Arbor Day Foundation's Alliance for Community Trees, a healthy tree canopy in cities provides numerous benefits including:

Increased Property Values. Homes that are landscaped with trees are worth four to 15 percent more and sell faster than homes without trees. Trees can also increase the property values of an entire neighborhood or business district.

Reduced Energy Consumption. Carefully positioned trees can reduce a household's energy consumption for heating and cooling by up to 25 percent. Computer models devised by the U.S. Department of Energy predict that the proper placement of only three trees can save

an average household between \$100 and \$250 in energy costs annually.



Increased Consumer Spending.

Studies have shown that people walking or driving down a street lined with trees are willing to pay up to 12 percent more for goods and services. The presence of trees also encourages patrons to spend a longer time shopping.

Cleaner Communities. There is less graffiti, vandalism, and littering in outdoor spaces with trees as a part

of the natural landscape than in comparable tree-less spaces.

Cleaner Air. Trees clean the air by absorbing carbon dioxide, sulfur dioxide, nitrous oxides, and other pollutants. Trees also shade cars and parking lots, reducing ozone emissions from vehicles. They filter airborne pollutants and reduce the conditions that cause asthma and other respiratory problems.



Trees in a suburban landscape significantly reduced the cruising speed of drivers by an average of 3 miles per hour.

Reduced UV exposure. A person standing in direct sunlight will sunburn in 20 minutes. However, if that person stands under a tree providing 50 percent coverage, the burn rate lengthens to 50 minutes.

Noise Reduction. Trees reduce noise pollution by absorbing sounds. Planting big enough trees and earth berms can cut traffic noise by up to half.

Slower Driving Speeds. Trees in a suburban landscape significantly reduced the cruising speed of drivers by an average of 3 miles per hour. Faster drivers and slower drivers both slowed down in the presence of trees.

Reduced Infrastructure Costs. Tree shade has been proven to reduce pavement fatigue, cracking, rutting, shoving, and other distress, saving on repair costs.

Cooler Temperatures. A mature tree canopy reduces air temperatures by 5 to 10 degrees Fahrenheit.

Source: Arbor Day Foundation/Alliance for Community Trees www.arborday.org/programs/alliance-for-community-trees/

OUR FORESTRY GOALS



Homeowners will be encouraged to properly care for trees.

Goal 1 - Preserve and maintain the health of the existing trees on City property and homeowner land

The City will continue to exercise regular tree maintenance in terms of removing dead and damaged limbs and regularly pruning lower branches to encourage upward growth and formation of a canopy.

Homeowners will be encouraged to properly care for trees. The Urban Forestry Commission will endeavor to educate the community about tree care focusing on:

Proper Watering. Most trees – as well as shrubs and lawns – need a minimum of 1 inch of water per week to survive. Newly planted trees should receive supplemental water throughout their first full year.

Correct Mulch Application. About 3 to 4 inches of mulch should be spread over the entire planting area. Mulch should be arranged in a doughnut or tire shape around the trunk of the tree, keeping the mulch 6 inches away from the trunk. Mulch conserves moisture, reduces weeds, and protects the trunk from lawnmowers and string trimmers.

Staking. If staking is needed, allow the tree to have some sway. Remove stakes after one year. Newly planted trees may need to be staked if: the root ball is much smaller than the above-ground growth making the tree unable to stay upright on its own, the main leader is too small and wispy to remain straight, or the site is too windy causing the tree to lean excessively or become uprooted without support.

Fertilizing. Do not fertilize newly planted trees in the first year. Fertilize trees only when plant growth and color are not meeting expectations, indicating a nutrient problem.

Pruning. During the first growing season, prune only branches that are dead or broken. Afterward, selectively prune branches to influence the shape and direction of branching.



Reformation of an over-
arching canopy requires
trees be planted both
on City-owned property
as well as on private
property as permitted
by homeowners.

Goal 2 - Restore canopy-deficient areas

Although it will take a generation, the City is committed to re-establishing the canopy over its streets. The Tree Survey (see Appendix C, page 12), notes individual properties where trees should be planted. Reformation of an overarching canopy requires trees be planted both on City-owned property as well as on private property as permitted by homeowners.

In addition to planting in existing gaps, it may be prudent to plant near existing large trees, such as elms and ashes that are showing signs of distress. Then, when those trees die, the canopy will be more readily replaced. This can be done in a way that prevents overcrowding and appropriately spaces trees to maximize crowns at maturity.

The timing and location of new trees will be prioritized considering the following factors:

- Available funds. The City's annual budget allows for replacement of trees that have been lost the previous year. This is not sufficient to fill all of the gaps created by Dutch elm disease and the emerald ash borer. The Commission will endeavor to raise funds to support more extensive planting with an initial goal of raising the \$35,000 needed to fill identified gaps. Donations to the campaign, ReLeaf Grosse Pointe, are tax deductible and will go through the City of Grosse Pointe Foundation. As funds are received, additional trees will be added to the City's spring and fall plantings.
- Size of canopy gaps. Locations that have larger gaps will most likely be replanted first.
- Road and utility work. Extensive work is planned by the City and by DTE over the next few years to repair streets and utility infrastructure. Tree planting will be scheduled to follow those repairs so newly planted trees are not damaged by construction.
- Resident interest. While the City maintains jurisdiction over city-owned property between the sidewalk and street, as a good practice the City will work with residents to make sure they are interested in having a tree in front of their house.



Goal 3 - Establish an urban forest stewardship ethic

Resident involvement is critical to the success of this Master Plan. The Urban Forestry Commission will endeavor to increase awareness of the value and proper care of trees through ongoing engagement with the community. We will work to inspire, engage and inform residents and to create opportunities for volunteers to participate in activities and education programs.

These activities are critical to the success of the Master Plan because the full benefits of this effort will not be seen for many years. Our efforts will need to be perpetuated across generations.

Our efforts will need
to be perpetuated
across generations..

STRATEGY

Achievement of the City's goals – especially restoration of the canopy – will require the following:

1. Community outreach, education, and engagement

The Commission will work to:

- Increase public awareness of the value and benefits of trees, and of the current state of the City's trees
- Educate the public about how to care for trees
- Schedule periodic events and programs to engage both adults and children
- Create a Forestry Commission page on the City's website to provide information for residents
- Establish the City Forester as a source for tree consultations and other related information for residents
- Encourage residents to plant trees on private property



2. Fundraising

Because the City's annual budget for tree replacement is not sufficient to make up for the huge loss of trees, the Commission will launch a fundraising campaign, ReLeaf Grosse Pointe, modeled after The Beautification Commission's Project Bloom. The initial fundraising goal is \$35,000. Donations to ReLeaf Grosse Pointe are tax deductible and will go through the City of Grosse Pointe Foundation. Donation checks should be made out to "The City of Grosse Pointe Foundation" and dropped off or mailed to the City offices in care of ReLeaf Grosse Pointe.

Funding sources include:

- Grants from public and private entities (e.g. DTE, Department of Agriculture)
- Private fundraising and donations

APPENDIX

Appendix A: Responsibilities of The City of Grosse Pointe Urban Forestry Commission

Among other things, the Commission will:

- Coordinate the City's Arbor Day program.
- Prepare the application for Tree City U.S.A. designation.
- Develop and annually review a list of tree species that are allowed for planting as street trees in the City. Trees will be selected based on durability; adaptability to location, climate, and soil conditions; resistance to disease and insects; type of foliage; and for root systems that will not damage or interfere with nearby sewers, drains, utility lines, sidewalks, or other paved areas.
- Make recommendations to City Council that certain trees be regulated or prohibited within the City or specific areas of the City.
- Review and make recommendations for spacing new street trees including distance from other trees, curbs, sidewalks, street corners, fireplugs, utilities, and other obstructions.
- Review and make recommendations for the standards for street tree maintenance and upkeep in accordance with best practices for urban forestry management.
- Establish, maintain, and update a tree inventory for street trees and trees on public property. Identify particular trees of significance for the purpose of preservation.
- Design and promote educational programs to inform the public about urban forestry.
- Seek grants, donations, and other sources of funding to enhance The City of Grosse Pointe's urban forest and to further the objectives of the City's Urban Forestry Master Plan.
- Create an annual proposed work plan and submit an annual report of activities to City Council.

APPENDIX

Appendix B: Approved Species List

Following is the list of species approved for planting on City streets. These species may also be recommended for planting on homeowner property. To avoid another major disease epidemic, a diversity of tree species is recommended. Tree species are selected based on width and height at maturity, soil conditions, light patterns, water availability, overhead obstacles, proximity to sidewalks and other impervious surfaces, aesthetics, required care, local availability, and cost. For example, along roadways where there are no overhanging wires, trees may be planted that at maturity will create a canopy across the road. Beneath wires, smaller species are more appropriate so wires will not be impacted by branches.

COMMON NAME	SCIENTIFIC NAME	NATIVE?	ATTRIBUTES
SMALL Under 30 feet at maturity			
Eastern Redbud	<i>Cercis canadensis</i>	Yes	Purple flowers cling to stem, bark
Japanese Tree Lilac	<i>Syringa reticulata</i>	No	Fragrant flowers; suitable under utility wires
Kousa Dogwood	<i>Cornus kousa</i>	No	Showy June flowers; hardier than native
Red Crabapple	<i>Malus</i> sp.	Some	Beautiful red spring flowers
White Crabapple	<i>Malus</i> sp.	Some	Beautiful white spring flowers
MEDIUM 25 to 40 feet at maturity			
Callery Pear	<i>Pyrus calleryana</i>	No	Known for white spring flowers
Hophornbeam	<i>Ostrya virginiana</i>	Yes	Unusual, underutilized street tree
Littleleaf Linden	<i>Tilia cordata</i>	No	Dense canopy with fragrant flowers
River Birch	<i>Betula nigra</i>	Yes	Beautiful exfoliating bark, single stem
LARGE Over 40 feet at maturity			
Bur Oak	<i>macrocarpa</i>	Yes	Impressive oak with woolly acorns
Ginkgo (males only)	<i>Ginkgo biloba</i>	No	A shade and ornamental with fan-shaped leaves. Endangered (IUCN)
Hackberry	<i>Celtis occidentalis</i>	Yes	Hardy with interesting bark
London Planetree	<i>Platanus acerfolia</i>	No	Less susceptible to anthracnose than native sycamore
Red Maple	<i>Acer rubrum</i>	Yes	Fast growing, brilliant red leaves in fall
Red Oak	<i>Quercus rubra</i>	Yes	Host to more than 500 native caterpillars
Sugar Maple	<i>Acer saccharum</i>	Yes	Native maple with fantastic fall color
Tuliptree	<i>Liriodendron tulipifera</i>	Yes	Tallest tree in Michigan
White Oak	<i>Quercus alba</i>	Yes	Slow growing majestic shade tree

APPENDIX

Appendix C: Survey of Canopy Gaps and At-Risk Trees

Streets were surveyed to identify existing gaps in the canopy that could be filled by planting trees on City-owned property, which on some streets extends on both sides of the sidewalk. Gaps were also noted on the front lawns of homes. Cross streets were not included. This survey will be updated as needed.

STREET	ADDRESS/LOCATION	NUMBER OF TREES NEEDED		NOTES
		ON FRONT LAWN	BETWEEN SIDE-WALK & STREET	
Cadiuex	602/4	2		
Cadiuex	650	2		2 elms dying
Cadiuex	878	1		
Cadiuex	890			Norway maple in poor health
Cadiuex	872			Elm dying
Cadiuex	GP Manor			2 elms in OK health
Lorraine	873	1		
Lorraine	867	1		
Lorraine	856	1		
Lorraine	799	1		
Notre Dame	748	1		
Notre Dame	757		1	
Notre Dame	769		1	
Notre Dame	819		1	
Notre Dame	831		1	
Notre Dame	861		1	
Notre Dame	540			Elm in OK health
Notre Dame	545			Elm in poor health
Notre Dame	622			Elm in poor health
Notre Dame	624			Elm in poor health
Notre Dame	843			Elm in poor health
Notre Dame	874			Elm in OK health
St. Clair	789		1	
St. Clair	765			Dying pin oak
St. Clair	741		1	
St. Clair	571	1		
St. Clair	533		2	
St. Clair	430		1	Trees in need of lower trimming

STREET	ADDRESS/LOCATION	NUMBER OF TREES NEEDED		NOTES
		ON FRONT LAWN	BETWEEN SIDE-WALK & STREET	
St. Clair	840			Dying ash
St. Clair	Elworthy field			At least 2 dying ash
St. Clair	Trader Joe's			Dying ash
St. Clair	Across the street from Trader Joe's parking			2 dying ash
St. Clair	589			Sugar maple in OK shape
St. Clair	520			2 elm in OK health
St. Clair	480			2 elm in OK health
Neff	328-across street	1	2	
Neff	350	1	1	
Neff	386-88	2	1	
Neff	382	1		
Neff	416	1		
Neff	370			Elm in OK health
Neff	394			Elm in OK health
Neff	393			2 ash in poor health
Neff	408			Elm in OK health
Neff	Corner Maumee			1 Elm dying; 1 ash dying
Neff	502	2		
Neff	513	1		2 pear trees on City property strip
Neff	541	1		
Neff	542		1	
Neff	579		1	
Neff	607	1		
Neff	620	1		
Neff	630	1		Elm in OK health
Neff	662	1	1	
Neff	666	1	1	Half dead elm on front lawn
Neff	667	1		
Neff	651			Elm in OK health
Neff	668			Elm dying
Neff	698			Elm in OK health
Neff	780			Elm dying
Neff	838			Elm in OK health
Neff	875			Elm in OK health
Neff	915			Elm in OK health

STREET	ADDRESS/LOCATION	NUMBER OF TREES NEEDED		NOTES
		ON FRONT LAWN	BETWEEN SIDE-WALK & STREET	
Neff	Along Elworthy field	4		By tennis courts
Neff	Along Elworthy field	4		By baseball diamonds
Neff	859	2		
Neff	899	4		
Lakeland	17540	2		
Lakeland	801		1	
Lakeland	796	1	1	
Lakeland	753	1		
Lakeland	736		1	
Lakeland	615	1	2	Little red maple planted in strip
Lakeland	607	1		
Lakeland	575		1	
Lakeland	572		1	Trimming needed on this block
Lakeland	550			Sugar maple in OK health
Lakeland	532		1	Elm in poor health
Lakeland	536		1	
Lakeland	520		1	
Lakeland	510		1	
Lakeland	500		1	Sugar maple dying; Norway maple dying; mature oaks present
Lakeland	493			Ash in poor health
Lakeland	487			Sugar maple in poor health
Lakeland	472		1	In strip between driveways
Lakeland	466		1	
Lakeland	467		1	
Lakeland	433	1	1	Elm dying (on lawn); Norway maple on strip in poor health
Lakeland	437	1		Ash dying
Lakeland	417		1	
Lakeland	415		1	
Lakeland	416			2 pear trees; could add one between the two
Lakeland	405	1		
Lakeland	395	1		Between 395 and 393
Lakeland	341		2	Dying Norway maple in strip
Lakeland	325		1	Dying Norway maple in strip
Lakeland	315		1	

STREET	ADDRESS/LOCATION	NUMBER OF TREES NEEDED		NOTES
		ON FRONT LAWN	BETWEEN SIDE-WALK & STREET	
Lakeland (south of Jefferson)	West corner of Jefferson		2	
Lakeland (south of Jefferson)	Adjacent to Neff Park		4	
Lakeland (south of Jefferson)	273		1	
Lakeland (south of Jefferson)	203		2	
Lakeland (south of Jefferson)				Could plant a few trees at base of street by the lake
University	298	2	2	
University	302		1	
University	281		3	Back yard has 1 elm in OK health; could plant 2 more trees
University	325		2	Sugar maple in poor health
University	334		2	
University	344	1	3	
University	343	1	1	Sugar maple in poor health
University	354			3 elms (2 strip, 1 lawn): 2 in OK health, 1 questionable
University	364			2 elms in OK health
University	365			1 elm in OK health
University	374		1	
University	369		2	
University	416			Sugar maple in OK health
University	440			Red maple needs lower pruning to grow taller
University	445		1	Blackgum needs replacing
University	460			Sugar maple in poor shape
University	466			Blackgum needs replacing
University	467			Red Maple needs lower pruning to foster growth
University	485		1	
University	515		1	
University	520			Elm in poor health
University	615			Elm in OK health
University	616		1	
University	640			Sugar maple in OK health
University	686			2 sugar maples in OK health

STREET	ADDRESS/LOCATION	NUMBER OF TREES NEEDED		NOTES
		ON FRONT LAWN	BETWEEN SIDE-WALK & STREET	
University	751		1	
University	754			Elm in OK health
University	774			Elm in OK health
University	775		1	
University	808			Sugar maple in poor shape
University	833		1	
University	867			Elm in OK health
University	891		1	
University	926		1	
Rivard	374		2	Dying ash; will leave 2 spaces
Rivard	321			Dying elm and dying ash at condos
Rivard	465		3	
Rivard	459		1	Dying ash; will leave big hole
Rivard	512			Dying sugar maple
Rivard	629			Elm in OK health
Rivard	617			2 sugar maples in OK health
Rivard	593		1	
Rivard	721			Dying ash
Rivard	656			Elm in OK health
Rivard	767		1	
Rivard	763		1	
Rivard	754			Dying sugar maple
Rivard	968			Dying sugar maple
Rivard	943		1	
Rivard	936			Dying basswood
Rivard	893			Sugar maple in poor shape
Rivard	888		2	
Rivard	879			Elm in OK health
Rivard	873		1	Elm on lawn dying
Rivard	869		1	
Rivard	840	1		
Washington	285			Elm in OK health
Washington	305			Sugar maple in OK health
Washington	315			Sugar maple in poor health; Elm in OK health
Washington	355		1	Blackgum

STREET	ADDRESS/LOCATION	NUMBER OF TREES NEEDED		NOTES
		ON FRONT LAWN	BETWEEN SIDE-WALK & STREET	
Washington	375			Sugar maple dying
Washington	424			Elm in OK health
Washington	547		2	
Washington	571		1	
Washington	601		1	
Washington	608			Sugar maple in poor health
Washington	680			Elm in OK health
Washington	692			Elm in OK health
Washington	710			Elm in poor health
Washington	719			Elm in good health
Washington	725		2	
Washington	729			Sugar maple in poor health
Washington	749		1	
Washington	765		2	
Washington	811			Elm in poor health
Washington	881			Elm dead
Washington	887		2	
Washington	982	1	1	
Washington	988			Elm dead
TOTAL		57	102	