SUSTAINABLE FUTURE - GUARANTEED INVESTMENT =

TREES!!!

Can it be that simple? Absolutely

Trees Provide Economic Vitality

- •Trees attract people and therefore business to a community
- •Both provide tax revenue
- •Tax base supports basic community needs such as police, fire and public works

Trees Provide Ecological Benefits

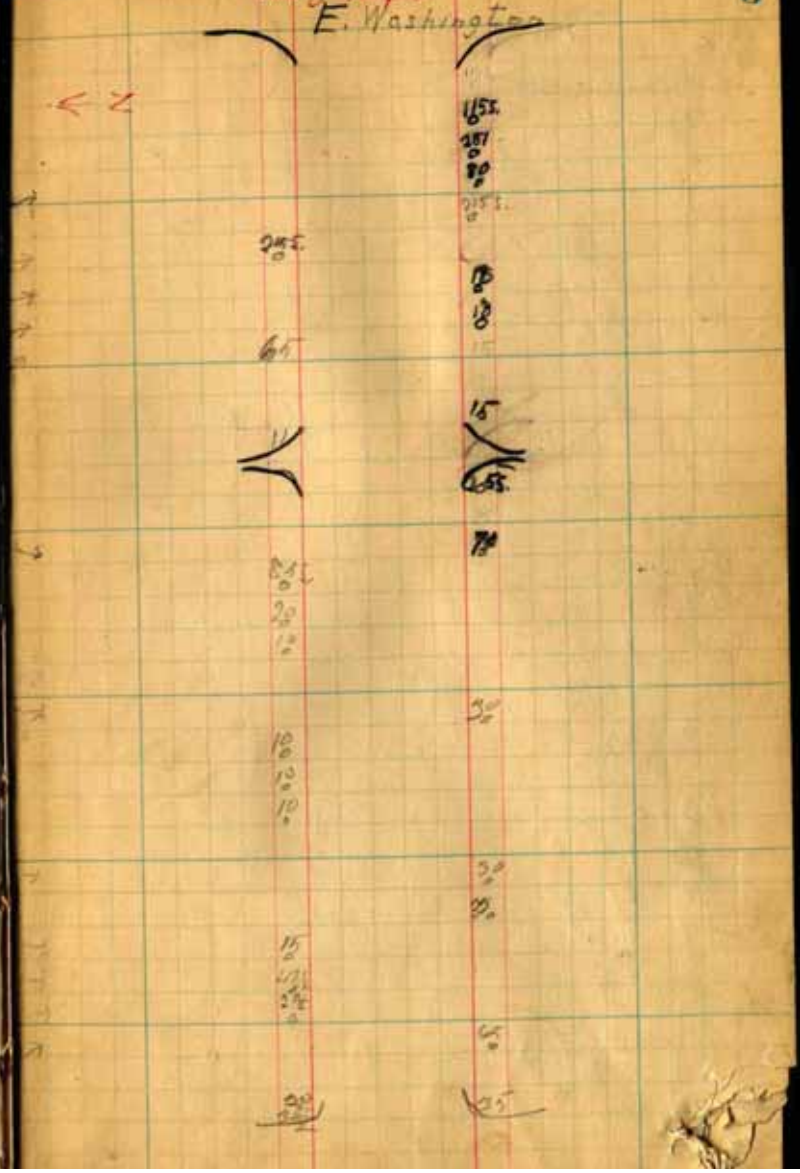
- • Urbana public trees are estimated to provide $2,635,931 in eco benefits
- • On a national scale trees provide a 3 to 1 return on investment when comparing annual eco benefits to annual maintenance costs. Urbana trees are providing a 4.5 to 1 return.
  (spend $38 /tree/yr for care; receive $173 per/tree/yr in eco benefits)

Trees are the only component of a City's infrastructure that increases in value over time!

Street E. Washington Date 2/26/52

Tree No.	Species	Diameter	Condition	Remarks
1	Elm	3"	Poor	Large scar
2	Elm	5"	Good	
3	Elm	6"	Med.	
28	Elm	1"	Good	
4	Elm	6"	GOOD	NEEDS Trimming
5	Elm	7"	Good	" "
29	Elm	2"	Good	
6	Elm	4"	Good	needs Trimming
7	CATALPA	3"	Good	
8	Elm	6"	Good	needs Trimming
30	Elm	2"	Good	
31	Elm	1"	Good	
32	Elm	1"	Good	
9	Elm	7 1/2"	Good	need Trimming
33	Elm	2"	Good	
34	Elm	1"	Good	
35	Elm	4"	Good	
10	Elm	5"	Good	needs Trimming
11	Elm	5"	Good	
36	Elm	2"	Good	
37	Elm	3"	Good	
38	Elm	4"	Good	
12	Elm	5"	Good	need Trimming
39	Elm	4"	Good	

E. Washington



Tree Frequency Report
By Species

Tree Site	count	%
vacant site large (vacant site, large)	2884	18.51
Acer rubrum (Red Maple)	844	5.42
Acer saccharum (Sugar Maple)	838	5.38
vacant site small (vacant site, small)	823	5.28
Malus spp. (crabapple, flowering)	709	4.55
Acer saccharinum (Silver Maple)	670	4.30
Quercus rubra (oak, northern red)	615	3.95
Tilia cordata (linden, littleleaf)	532	3.41
Pyrus calleryana (pear, Callery)	379	2.43
Acer platanoides (Norway Maple)	332	2.13
Fraxinus pennsylvanica (ash, green)	331	2.12
Platanus occidentalis (sycamore, American)	315	2.02
vacant site medium (vacant site, medium)	294	1.89
Celtis occidentalis (hackberry, common)	285	1.83
Liquidambar styraciflua (sweetgum, American)	279	1.79
Taxodium distichum (baldcypress, common)	276	1.77

City and Park District Trees

Tree Population = 15425

Genus

1. Maples make up %20
2. Oaks 11%
3. Crabapples 5%
4. Lindens 4%
5. Ash 3%
6. Callery Pears 2.5%
7. Sycamore 2%
8. Hackberry 2%
9. Sweetgum 1.8%
10. Bald Cypress 1.7%
11. Elms 1.5%
12. Tuliptree 1.2%
13. Serviceberry 1.2%
14. Ginkgo 1.2%
15. Redbud 1.1%

General goal - 10% species, 20% genus, 30% family

http://urbana.mytreekeeper.com

Interactive map of Urbana street and park trees

Urbana
Tree City USA
39 years


4X4

Arbor Day 2013

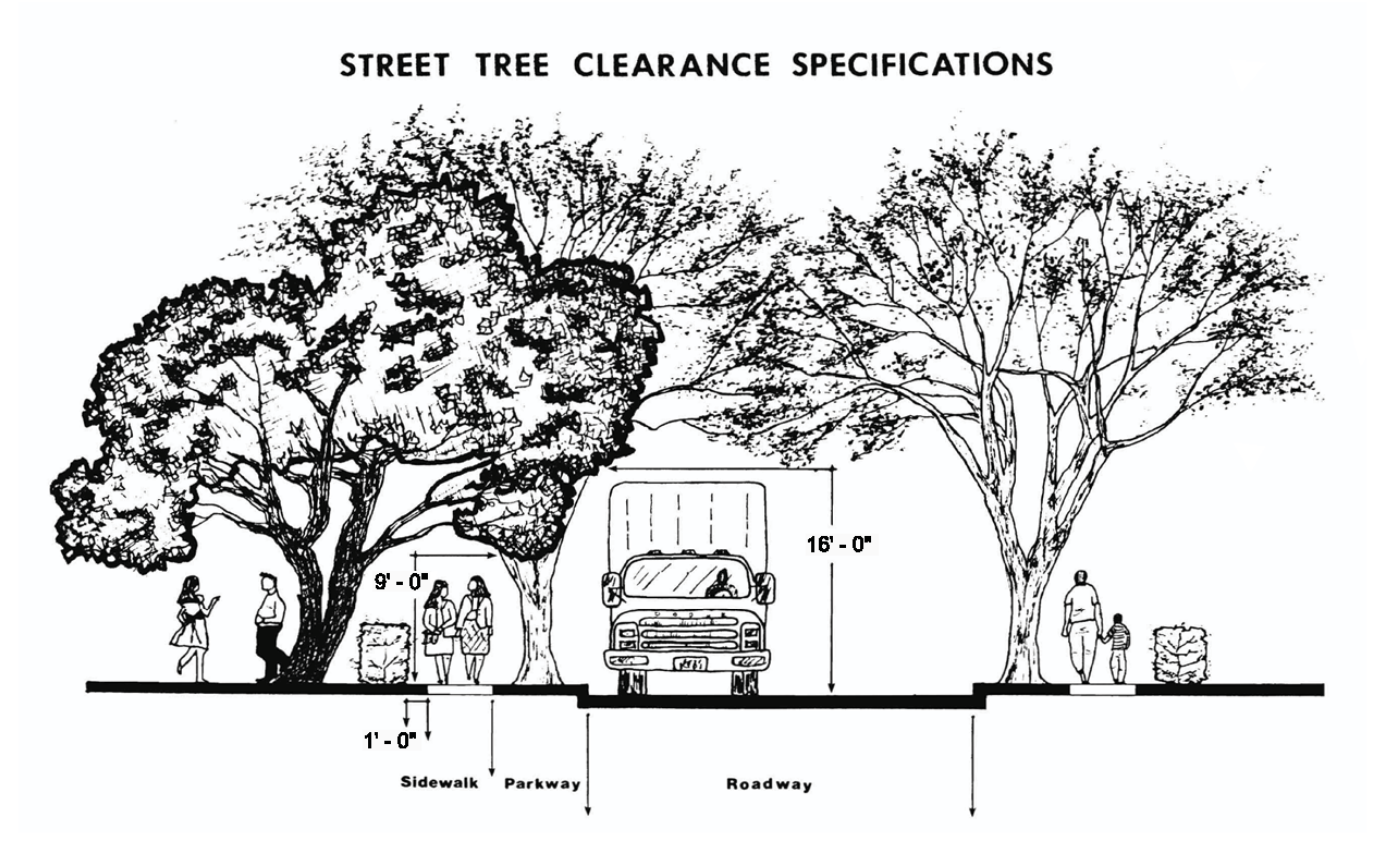
Signing of state utility tree trimming law

1975-1992

1000’s of citizen requests dictated our tree trimming schedule

REACTIONARY MANAGEMENT RULED SCHEDULE

1975-1996 cyclical tree pruning was limited to clearance pruning and one complete cycle through town had never been completed.



1992-2013

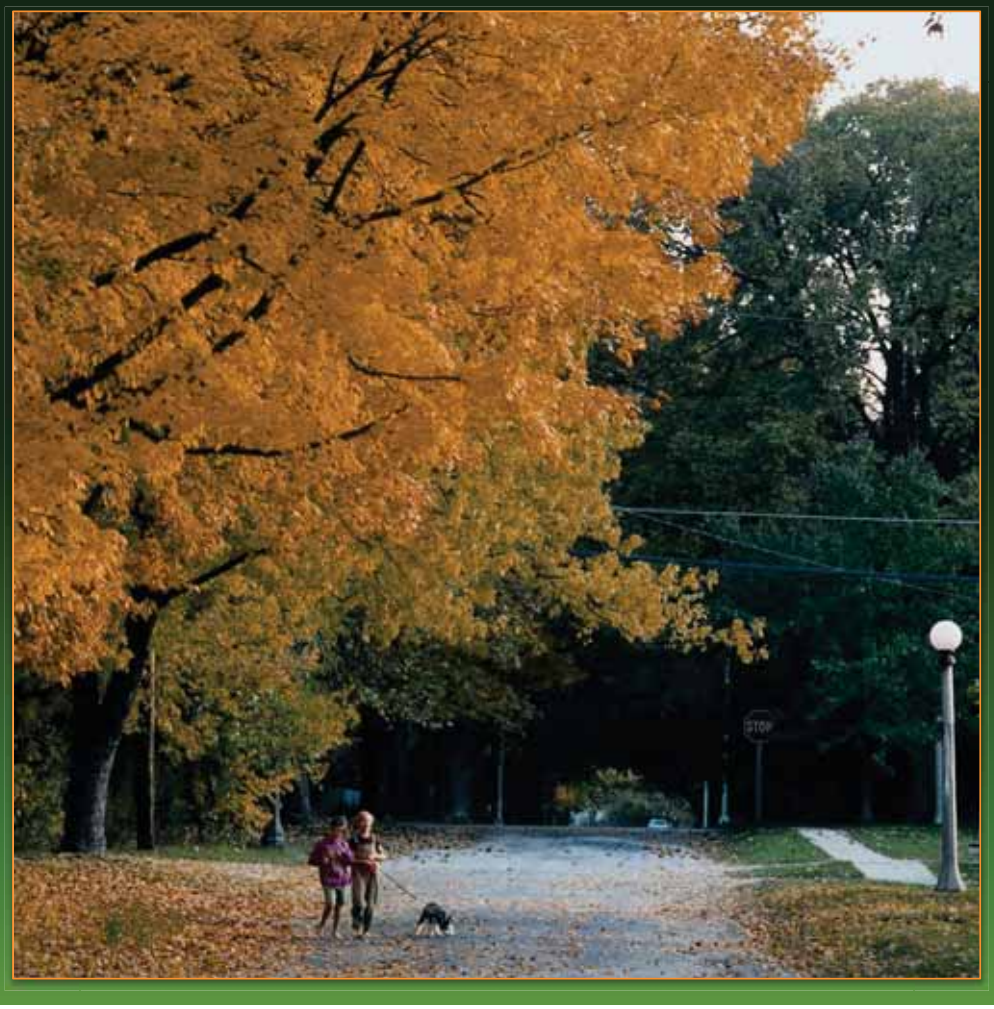
Limited citizen requests to hazard abatement

13 Calendar	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
JAN	Removals (Contract and in house) Sectional Pruning (In house)		HOLIDAY	2	3	Hazard Abate	5
	6	7	8	9	10	Hazard Abate	12
	13	14	15	16	17	Hazard Abate	19
	20	HOLIDAY	22	23	24	Aerial Rescue	26
FEB	27	28	29	30	31	Hazard Abate	2
	3	4	5	6	7	Hazard Abate	9
	10	11	12	13	14	Hazard Abate	16
	17	18	19	20	21	Hazard Abate	23
	24	25	26	27	28	Hazard Abate	
MARCH	2	Stump grinding	4	5	6	7	9
	9	10	11	12	13	14	15
	16	17	18	19	20	HOLIDAY	22
	23	24	25	26	27	28	29
APRIL	30	Tree Planting	1	2	3	4	5
	6	7	8	9	10	Aerial Rescue	12
	13	14	15	16	17	18	19
	20	21	22	23	24	Arbor Day	26
MAY	27	Eng.project clearance pruning	29	30	1	Hazard Abate	3
	4	5	6	7	8	Hazard Abate	10
	11	Sectional Pruning	13	14	15	Hazard Abate	17
	18	19	20	21	22	Hazard Abate	24
	25	HOLIDAY	27	28	29	Hazard Abate	31
JUNE	1	2	3	4	5	Hazard Abate	7
	8	9	10	11	12	Hazard Abate	14
	15	16	17	18	19	Hazard Abate	21
	22	23	24	25	26	Hazard Abate	28
	29	30					

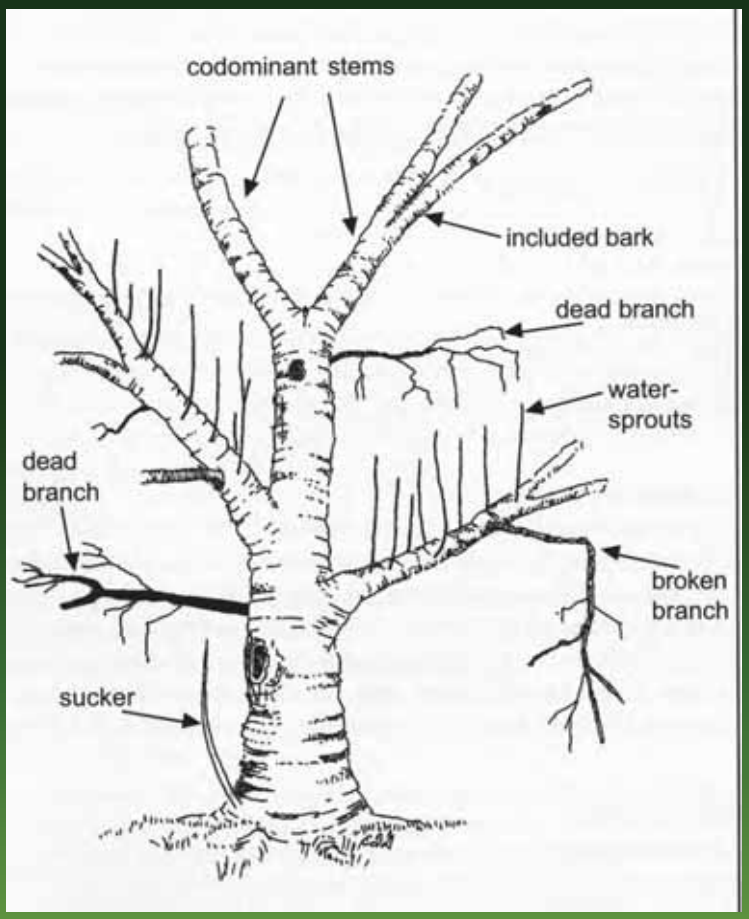
13 Calendar	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
JULY	Triangle Visibility Clearance		1	2	3	HOLIDAY	OT Watering
	6	7	8	9	10	11	OT Watering
	13	14	15	16	17	12	OT Watering
	20	21	22	23	24	Aerial Rescue	OT Watering
	Sectional pruning	28	29	30	31	Hazard Abate	OT Watering
AUGUST	3	Fall tree order	5	6	7	Hazard Abate	OT Watering
	10	11	12	13	14	Hazard Abate	OT Watering
	17	18	19	20	21	Hazard Abate	OT Watering
	24	25	26	27	28	Hazard Abate	OT Watering
	31	HOLIDAY	Stump grinding	3	4	5	OT Watering
SEPT	7	8	9	10	11	12	OT Watering
	14	15	16	17	18	19	OT Watering
	21	Tree repair	23	24	25	26	OT Watering
	28	29	30	1	2	Aerial Rescue	4
OCT	5	Tree planting	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	1
NOV	2	Removals (Contract and in house) Sectional Pruning (In house)	4	5	6	Hazard Abate	8
	9	10	HOLIDAY	12	13	Hazard Abate	15
	16	17	18	19	20	Hazard Abate	22
	23	24	25	26	HOLIDAY	HOLIDAY	29
	30	1	2	3	4	Hazard Abate	6
DEC	7	8	9	10	11	Hazard Abate	13
	14	15	16	17	18	Hazard Abate	20
	21	22	23	24	HOLIDAY	Hazard Abate	27
	28	29	30	31			

PREVENTATIVE MANAGEMENT

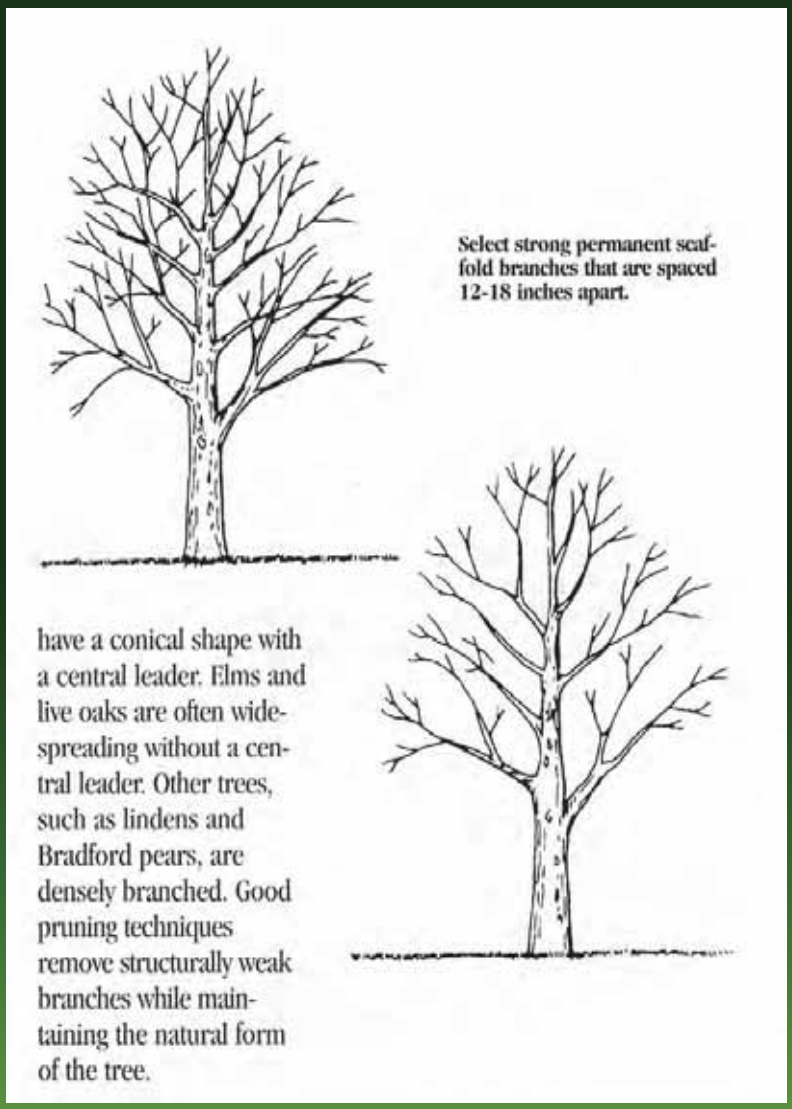
Tree Preservation and Public Safety Go Hand in Hand

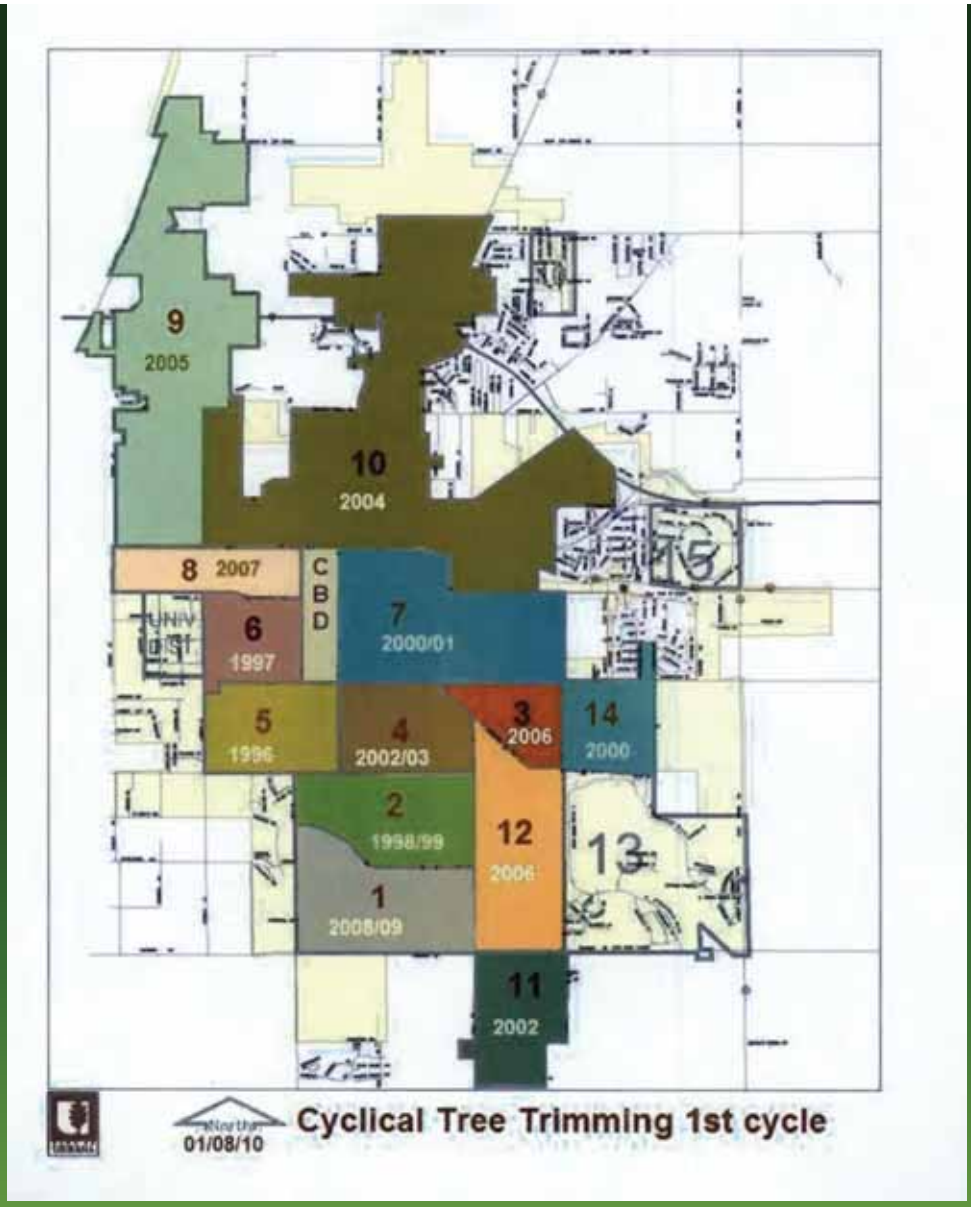


Correct Reasons to Prune a Tree



- Strong Central Leader
- Scaffold Branches with Proper spacing
- Remove Structurally Weak Branches
- Maintain Natural Form




9
2005
10
2004
8 2007
C
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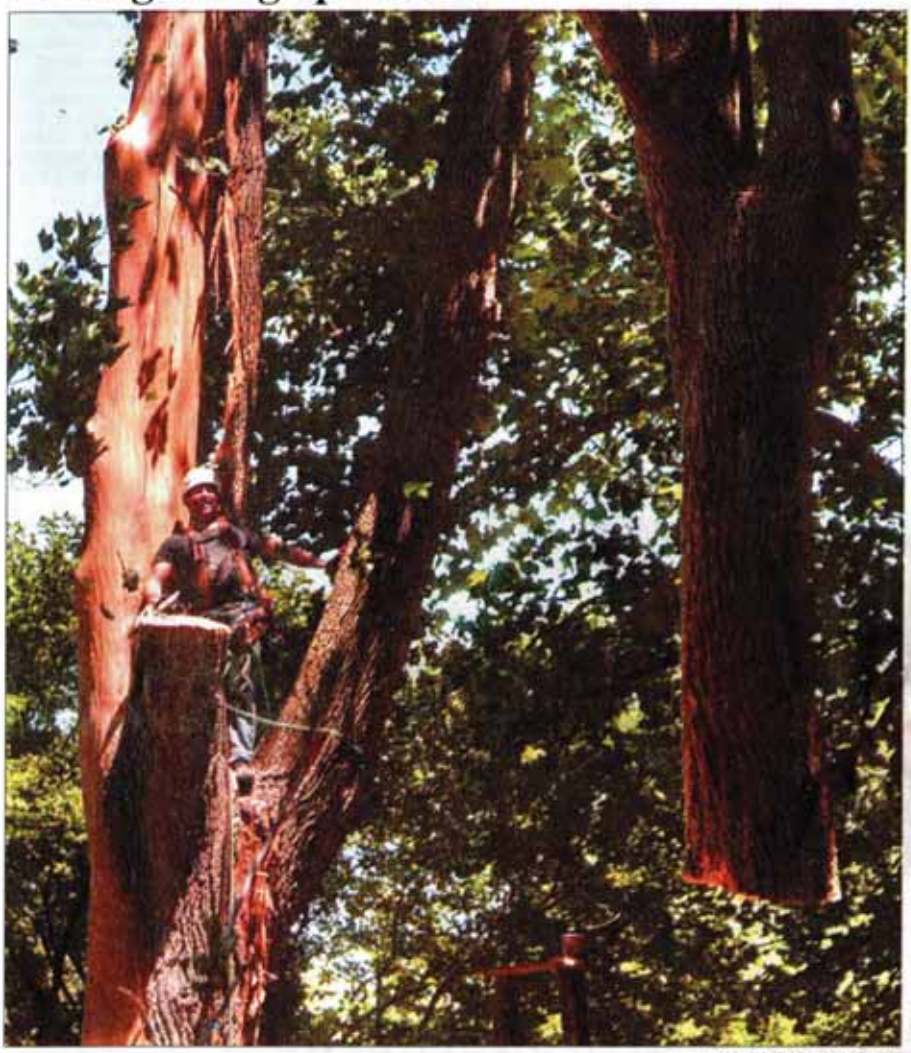
1997
7
2000/01
5
1996
4
2002/03
3
2006
14
2000
2
1998/99
12
2006
13
1
2008/09
11
2002
Cyclical Tree Trimming 1st cycle
01/08/10

Post-lightning operation



Robin Scholz/The News-Gazette

Antonio Valdarez of Urbana stands in the fork of a tree and watches as the branch he just cut is removed. A crew from Rice Tree Service of Fisher was on Pennsylvania Avenue in Urbana on Thursday to remove a 85- to 90-foot tulip tree that had been hit by lightning.

1997 = 816 priority tree hazards

2013 = 135 Priority tree hazards (75% reduction)

❖ 1996-2009 completed first city wide preventative cycle prune

Prevent maintenance prune - 11500 trees

- Street, sidewalk, st light, house and drive clearance
- Clean out dead, decayed, failed limbs
- Remove codominant, rubbing and conflicting limbs
- Train for future structure

❖ Completed an average of 880 trees per year = 13.5 years to complete 11,500 trees (400-500 trees per full time trimmer)

❖ Preferred trim cycle is 4-5 years as per Miller and Sylvester study

3 year cycle for young tree training

❖ Need to prioritize an increase in forestry staff. Forestry needs to add **two full time Arbor technician**s to its current staff to achieve a 6-7 year prune cycle.

❖ Need to maintain a minimum ratio of one full time Arbor Technician for every 2,800-2,900 trees

year	Trees Removed	Trees Planted	Net Gain loss
2013	100	126	26
2012	75	80	5
2011	125	175	50
2010	118	178	60
2009	95	151	56
2008	101	72	-29
2007	126	124	-2
2006	135	133	-2
2005	114	122	8
2004	115	113	-2
10 year summary	**1104**	**1274**	**170 net gain**

1997 Tree Population = **11,225**
116 linear street miles = 96 trees per linear mile of street

2013 Tree Population = **11,579** +354
135 linear street miles = 85 trees per linear mile of street

Gray and Green infrastructure need to viewed as symbiotic rather than separate entities.

How can we best increase our tree population?

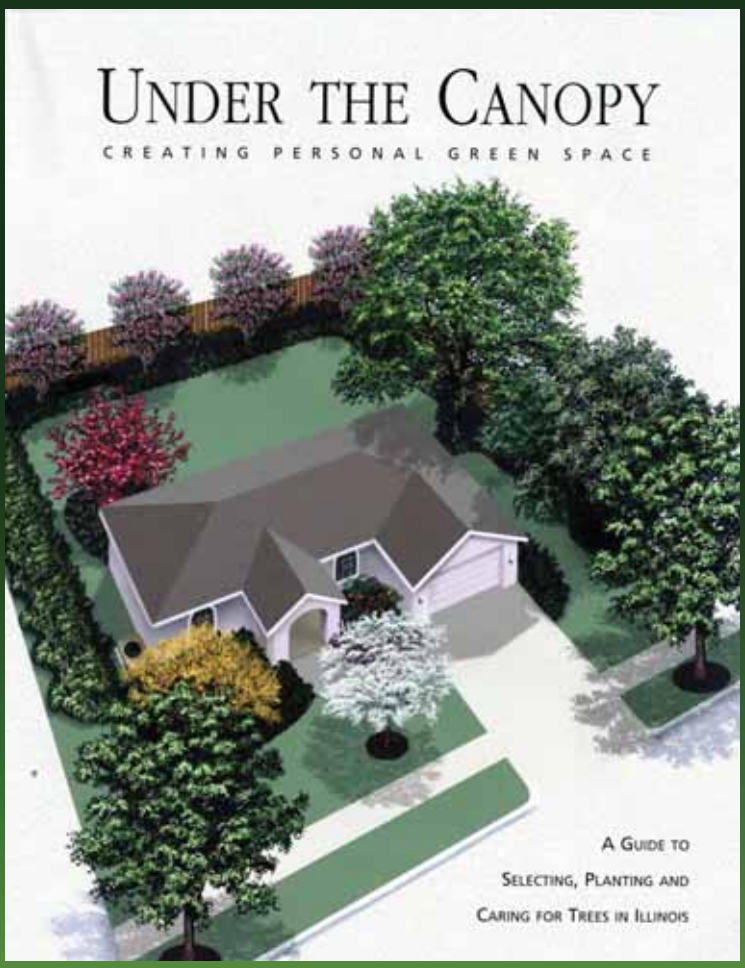
Best Answer?

"Approach needs to be multifaceted"

- **Increase tree planting** only as much as we can train on a 3 year schedule = 150-200 trees per year (net gain 850/10yr)
- **Reduce tree removals** through shorter prune cycles and additional tree repair work
  minimum 7 year prune cycle goal
- **Increase staff**
- intensify maintenance on the significant trees of the community, Legacy Trees
- improve tree sensitivity during infrastructure maintenance and development
- less road salt use

Plan and Permit Review

Public Education



Planning Your Landscape

What a difference trees make in our communities! Stately and beautiful sentries, they clean our air and provide shady respite for our homes and outdoor family activities while inviting songbirds into our yards and gardens.

Working together, we can maximize the benefits trees provide to you and your community. This guide will assist you in planning your landscape, planting new trees and providing our leafy friends with proper care and maintenance. Please recycle this brochure by sharing it with a friend.

In Your Planning, Consider:

Season: For best results, plant trees from mid-March through May or from mid-September through November. Spring-dug trees can be planted from June to early September, but require a more attentive watering program. Attentive watering also helps conifers transplant well in mid-summer, but only after candle/shoot elongation is complete.

Site: Soil conditions dictate how well or poorly your tree will grow. Compacted clay—common in newer subdivisions—can limit proper drainage. Sandy soils or those on a slope may drain more quickly and require a more drought-tolerant species. Low areas that are often wet may require a tree tolerant to flooding or wet soil conditions. In addition, consider the amount of sunlight needed and tolerance to extremely hot or cold temperatures.

Space: Give your tree sufficient room to grow, both above the ground for canopy and below the ground for its root system. Consider proximity to buildings, driveways, sidewalks, pools, patios and overhead, underground and ground-level utilities.

Selection: Once you have determined your purpose, planting site and space requirements, use the tree species selection guide for urban trees recommended by local arborists. By carefully selecting the right tree for your location, you can avoid the need for fertilization, which is a major source of water pollution.

Have a Purpose

- Create a privacy buffer or winter windbreak. Dense evergreens north and northwest of a home block winter winds.
- Cool your home and conserve energy by shading roof, walls, patios, driveways and air conditioning unit. Deciduous trees on the east, southeast, west and southwest sides of homes provide cooling summer shade and allow warming winter sun.
- Preserve special views from within your home.
- Attract birds and other wildlife.
- Beautify your property.

Right Tree/Right Place Checklist

Soil
Most new subdivision soils have been disturbed and are poorly drained clay.
- ☐ Well drained/Dry
- ☐ Poorly drained/Wet
- ☐ Shallow soil depth
- ☐ Sandy
- ☐ Loam
- ☐ Clay

Space
Consider the mature height and spread of the tree.
- ☐ Open space
- ☐ Important views
- ☐ Overhead and underground utilities
- ☐ Road signs or streetlights
- ☐ Adjacent building
- ☐ Other landscaping/trees

Sunlight
Most trees require partial to full sun.
- ☐ Full sun
- ☐ Full shade
- ☐ Partial sunlight

Characteristics
Unique attributes of trees can be attractive in all seasons.
- ☐ Flowering
- ☐ Fruiting
- ☐ Bark texture and color
- ☐ Fall leaf color
- ☐ Unique shape

Types of Trees
Only evergreen trees hold foliage throughout winter.
- ☐ Deciduous
- ☐ Evergreen

Special Situations
You may have additional site considerations.
- ☐ Salt burn from street and sidewalk de-icers
- ☐ Root space restrictions
- ☐ Disturbed soils from construction
- ☐ Future landscape or hardscape development

Always Avoid:

- blocking traffic signs, fire hydrants, views of oncoming traffic, pedestrian crosswalks and desirable night lighting. City ordinances may require planting permits and dictate corner planting setbacks.
- planting too close to sidewalks, foundations or other pavement areas.
- planting trees or shrubs around underground utilities.
- planting flowers in root areas of young trees.
- planting trees too close together. Allow room for mature spread of each adjacent tree.
- blocking desirable views from within a home or frequented area of the yard.
- shading gardens.
- encroaching on neighbor's gardens or yard space without consultation.
- planting too many of the same species.
- planting evergreen trees on parkways.

TIP

In areas of new home construction, it's best to establish lawns before planting trees since irrigating new turf can easily over-water newly planted trees. Plan to plant new trees the year following a new lawn.

Proper Tree Spacing

Above-ground space for canopy
Small trees = 20 feet minimum
Medium trees = 30 feet minimum
Large trees = 40 feet minimum

Below-ground space for roots (minimum 3 foot soil depth)
Small trees = 100 to 200 square feet
Medium trees = 150 to 300 square feet
Large trees = 200 to 400 square feet

Planting Near Utility Lines

Plant only utility-friendly trees (mature height of 20 feet or less) within 15 feet of utility lines; no closer than 8 feet to power poles and 5 feet from center of utility easement when access to utility is limited.

Some narrow-shaped trees may be able to survive closer than 30 feet to utility lines without creating a conflict, but in no case should trees that grow to or above utility lines be planted closer than a distance equal to one-half their mature spread.

Suggested tree setbacks from power lines are for typical overhead residential distribution lines and do not apply to high-voltage transmission rights-of-way.

Public Education

Tree Removal has never been easier


SAVE OUR TREES

Urbana's Legacy Tree Program

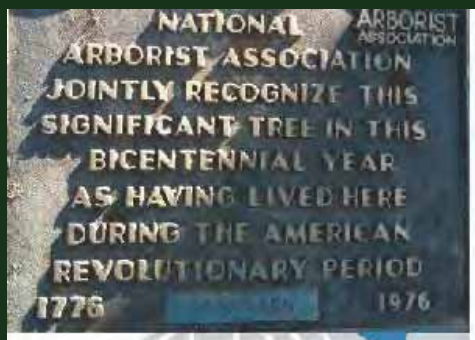
An opportunity to celebrate, learn about and preserve our most notable trees.

One of only 13 charter Tree City USA communities, Urbana is recognized as one of the most diverse urban forests in the Midwest.

Some of our trees are historic, some are unique and others are one-of-a kind specimens. To preserve them, the City of Urbana has started a *Legacy Tree Program* which will also commemorate our community's notable trees.

Please help give this program a strong start by becoming a charter Friend, Sponsor, Partner, Steward or Founder toward our initial goal of raising $20,000 for the *Legacy Tree Program*. With your help, we can identify all Legacy trees as part of the City's natural inventory, and also feature them on a city-wide map accessible to everyone.

We hope you'll become part of a time-spanning community celebration for trees.



Program Goals

1. Recognition
2. Public awareness
3. Sensitive development
4. **Community involvement**


Burr Oak at Long's Garage
Approximate age: 200+ years
Heritage / Historic trees
Prime example of a Burr Oak which is locally indigenous to our area and constitutes a historical remnant of 'The Big Woods' or the 'Big Grove' that once occupied the immediate area

Interesting Public and private trees

Exceptional or interesting Trees

Size (English Oak champion in Carle park)

Rarity

Variegated Elm

Tuliptree ‘ardis’ compact form

Valued Focal Point

White Oak at main and SPFLD

Age

Black Maple

(Rarity or special ecological value)

Quercus x schochiana? (rare cross between willow oak and pin oak)

Aesthetics

Tree Groups (Historic Big grove Bur Oak grouping)

Legacy Standards

1. **Size** - The tree is in the top one percent of tree sizes of its inventoried species in Urbana.
2. **Rarity** - One of a kind type tree due to species type, characteristic and/or a species of less than one percent of all inventoried trees in Urbana.
3. **Trees Associated w/ Historic or Notable event** - There is a documented association with a historic event of 75 or more years and/or a more recent event of notable worth.
4. **Age** - The tree is more than 100 years old or a minimum of 75 years old when adjacent to a historically designated home.
5. **Special Ecological Value** - The tree is shown to provide soil stabilization, important genetic resource, or provides critical habitat for important plant or animal species.
6. **Location** – The tree is considered to be of public value as a prominent visual focal point as viewed from public streets and ways.
7. **Aesthetics** – The tree has a distinct or unusually appealing visual characteristic.
8. **On Illinois or National Register of Big Trees** – The tree is included in the Illinois or National register of Big Trees.

Notable trees

Notable Trees:
Clockwise from top left
Lincoln Heritage Tree
Small Grafted Dogwood
Old Black Maple
Lightening Strike Tree
100 year old Yew

Program Overview

- Nomination → *All residents, any tree*
- Consent → *Property owner*
- Legacy Tree Assessment → *Locale, Health and Condition, Risk, Legacy Standards*
- Recommendation → *City Arborist*
- Tree Commission vote → *Majority Vote*
- Participation benefits → *Mulch, Tree-care Advice, Parking, Recognition*
- Public awareness programs → *Markers, maps and trails*
- Process for removal of designated trees →

  Tree removal permit

  - Unhealthy designated trees: 7 day review and approval, hazard clause

  - All other designated trees: 45 day notice period, advisory input

Evaluation / tree assessment

- Section 11. Legacy Tree Assessment. In the event that the Property Owner on which the nominated Tree is located provides written consent to participate in the Legacy Tree Program, the City Arborist shall conduct a Legacy Tree Assessment which shall include:

1. **A Locale Assessment to ensure the tree is visible from the public-right-of-way and note distance from overhead utilities;**
2. **A Condition Assessment to ensure the tree is in good or better condition and assess tree safety.**
3. **A Legacy Standards Assessment to ascertain whether the nominated tree meets one or more of the Legacy Tree standards as specified below:**

Delisting an unhealthy Legacy tree

1. Owner can withdraw consent in writing at any time prior to Tree Commission approval
2. Removal of an unhealthy Legacy Tree is allowed by permit (no fee)

   a) **Permit shall be issued within 7 days of receipt of tree removal application**

   b) **Application requires a certified arborist recommendation to remove the tree if decline, damage or poor health are not obvious**

   c) **If a Legacy Tree poses imminent or serious danger the Legacy Tree may be removed prior to issuance of permit**

Delisting a healthy Legacy tree

Removal of a healthy Legacy Tree requires:

1. Tree removal application upon which a tree removal permit (no fee) will be provided **after a 45 day public notice and input period**

   a) **Posting of a yard sign in public right of way 15-30 days prior to a scheduled Tree Commission Meeting at which public comments on tree removal may be heard**

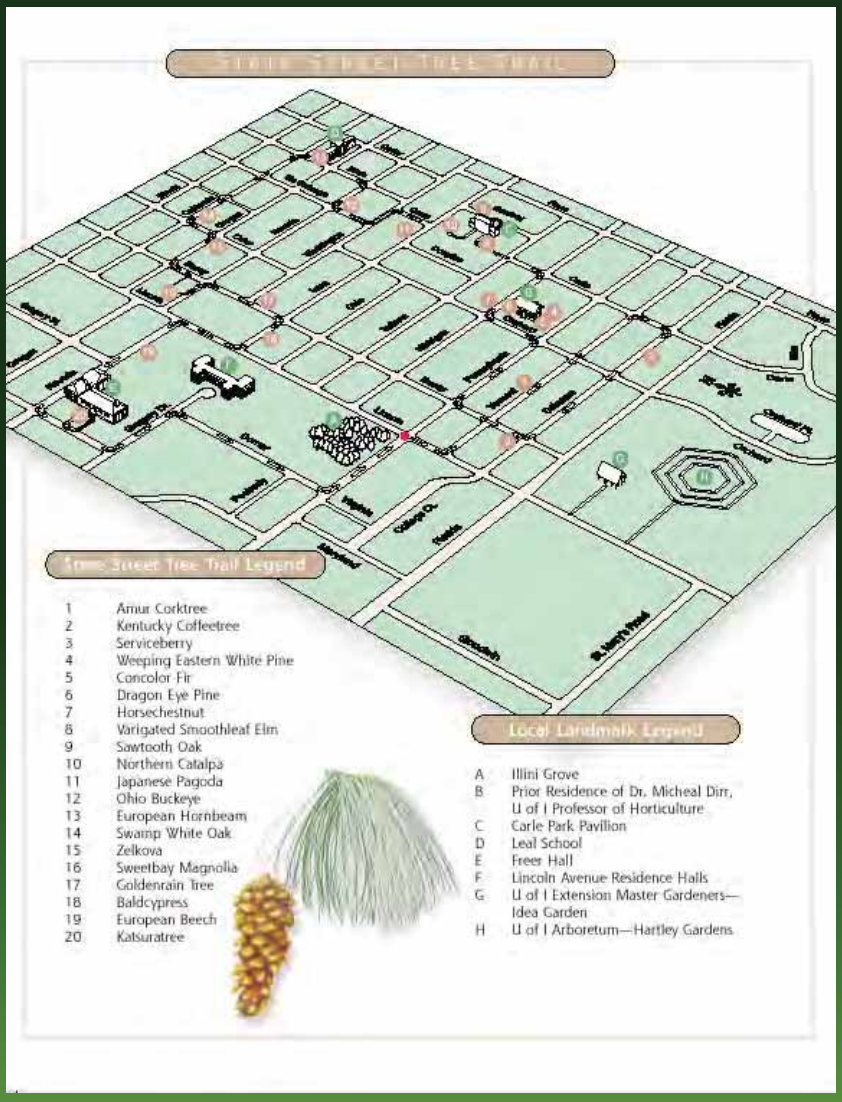
   b) **All public comments on the requested delisting permit / removal will be advisory to the applicant**

   c) **The Urbana Tree Commission shall have no authority to deny a Legacy Tree Delisting Permit application.**

Public Awarness

- Legacy Tree Ordinance
- City website
- Contractor permits
- Annual Legacy Tree Publication
  - listing new trees and sponsors
- Tree trail guides and web maps
- Plaques
- Legacy Tree Certificates
  - Framed?

Tree Trails


Local Landmark Legend
A Illini Grove
B Prior Residence of Dr. Micheal Dirr, U of I Professor of Horticulture
C Carle Park Pavilion
D Leal School
E Freer Hall
F Lincoln Avenue Residence Halls
G U of I Extension Master Gardeners—Idea Garden
H U of I Arboretum—Hartley Gardens
1 Amur Corktree
2 Kentucky Coffeetree
3 Serviceberry
4 Weeping Eastern White Pine
5 Concolor Fir
6 Dragon Eye Pine
7 Horsechestnut
8 Variegated Smoothleaf Elm
9 Sawtooth Oak
10 Northern Catalpa
11 Japanese Pagoda
12 Ohio Buckeye
13 European Hornbeam
14 Swamp White Oak
15 Zelkova
16 Sweetbay Magnolia
17 Goldenrain Tree
18 Baldcypress
19 European Beech
20 Katsuratree

http://urbana.mytreekeeper.com

Interactive map of Urbana street and park trees

Plaque ideas

Fiscal Impact

- Limited to 12 trees per calendar year.
- Web map and mobile application part of the public tree inventory.
- Staff commitment for designation process is between 6 and 14 hours per tree.
- Markers : $120 per marker
- Plaque : $300-$400
- 5 cubic yards mulch from LRC: Retail value $150
- Design and marketing – in house

Funding

community supported program is key to success

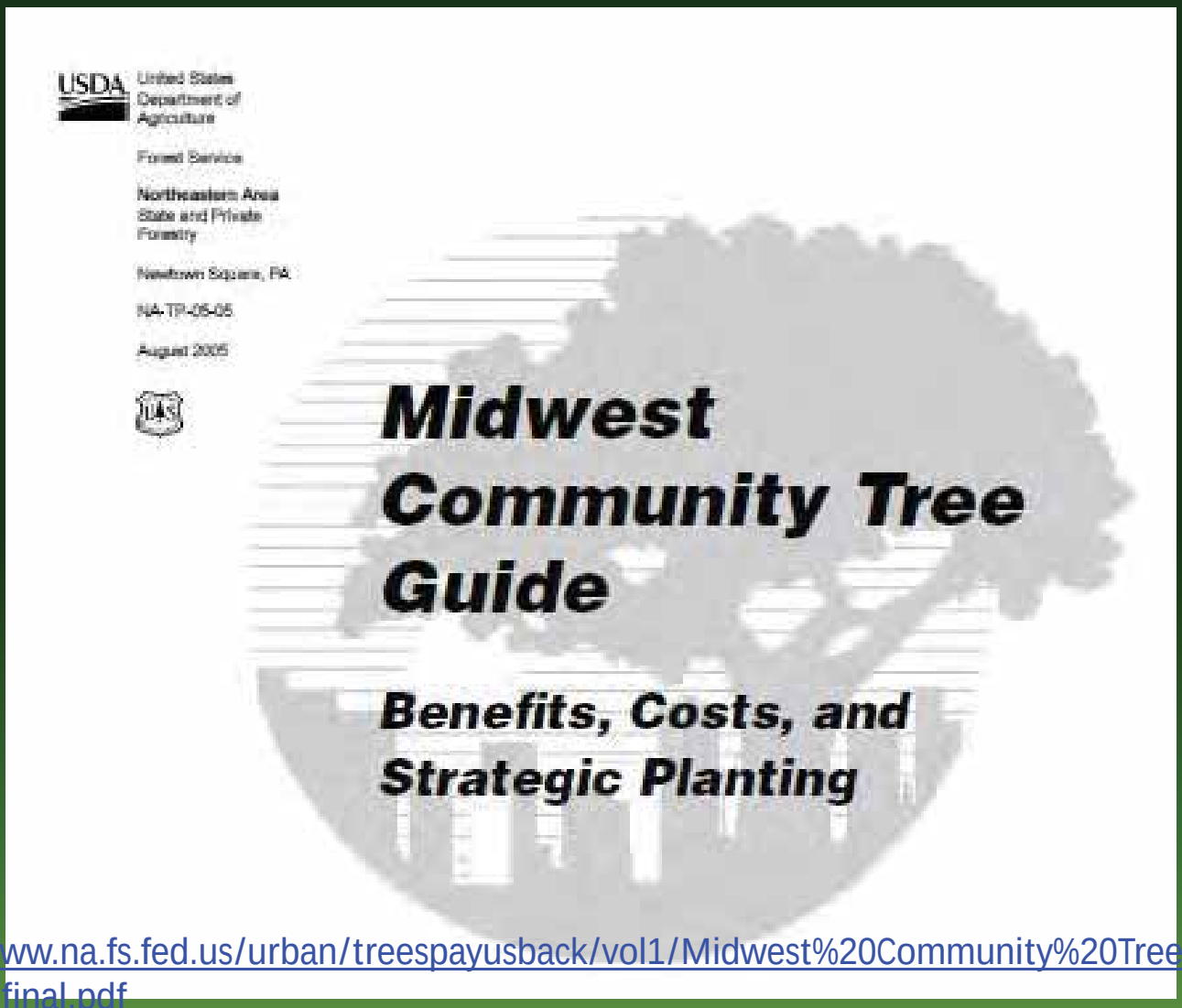
- Provide avenue for donation with nomination form
- Fundraising campaign
  - Seek Partners for start up funds
  - Create Individual and Corporate Donor levels
- Federal and State Grants

Have had past success in working without tax dollars

- $40,000 sponsorships / donations acquired for past educational campaigns
- $170,000 tree related grants
- $self sustaining landscape recycling program for 22 years

Enhance tree preservation through community involvement and support

Legacy Tree Program



http://www.na.fs.fed.us/urban/treespayusback/vol1/Midwest%20Community%20Tree%20Guide%20final.pdf