

Section 6

Appendix

Appendix

6.1 Street Tree Inventory



The Saint Paul tree inventory is a map based record of tree species currently planted on city boulevards.

Forestry is currently creating a comprehensive street tree inventory to be used as a tool for urban forestry management. Once completed this information will assist the Forestry in establishing and measuring canopy cover, more accurately identify areas that are in need of reforestation, coordinate tree planting across the city to promote overall species diversity, and monitor the health of the changing urban forest.

Information will be updated as the inventory proceeds and trees are planted and removed. Data will be available by contacting Saint Paul Forestry or visiting the Forestry website at www.stpaul.gov/index.aspx?nid=2828

6.2 Tree Species List

The following tree species list outlines the trees currently considered for planting in the City of Saint Paul. This list will be reviewed to consider new trees available for the Minnesota climate as well as for species that may warrant removal due to emerging diseases or insect threats.

Contact Saint Paul Forestry for information on tree species currently being planted on city boulevards or visit the Forestry website at www.stpaul.gov/index.aspx?nid=2828

Figure 6.1: Tree List

| Common Name | Scientific Name | Code | Height | Form |
|---------------------------|--|------|--------|-----------|
| Balsam Fir | <i>Abies balsamea</i> | BF | 60 | Pyramidal |
| White Fir | <i>Abies concolor</i> | WF | 60 | Pyramidal |
| Korean Fir | <i>Abies koreana</i> | KF | 20-25 | Pyramidal |
| Siberian Fir | <i>Abies sibirica</i> | SF | 40 | Pyramidal |
| Veitch Fir | <i>Abies veitchii</i> | VF | 50-75 | Pyramidal |
| Sensation Boxelder | <i>Acer negundo</i> 'Sensation' | SBE | 45 | Irregular |
| Cleveland Norway Maple | <i>Acer platanoides</i> 'Cleveland' | CN | 60 | Upright |
| Columnar Norway Maple | <i>Acer platanoides</i> 'Columnar' | C | 50 | Columnar |
| Crimson King Norway Maple | <i>Acer platanoides</i> 'Crimson King' | CK | 50 | Rounded |

| Common Name | Scientific Name | Code | Height | Form |
|---------------------------------|--|------|--------|-----------|
| Deborah Norway Maple | <i>Acer platanoides</i> 'Deborah' | DNM | 50 | Oval |
| Emerald Lustre Norway Maple | <i>Acer platanoides</i> 'Emerald Lustre' | EL | 50 | Rounded |
| Globe Norway Maple | <i>Acer platanoides</i> 'Globe' | GN | 20-30 | Rounded |
| Armstrong Red Maple | <i>Acer x freemanii</i> 'Armstrong' | ARM | 55 | Upright |
| Autumn Blaze Maple | <i>Acer x freemanii</i> 'Jeffersred' | ABM | 55 | Upright |
| Sienna Glen Maple | <i>Acer x freemanii</i> 'Sienna' | SGM | 60 | Oval |
| Autumn Spire Maple | <i>Acer rubrum</i> 'Autumn Spire' | ARA | 50 | Upright |
| Burgundy Belle Maple | <i>Acer rubrum</i> 'Burgundy Belle' | BRM | 45 | Compact |
| Northwood Red Maple | <i>Acer rubrum</i> 'Northwood' | NRM | 50 | Oval |
| October Glory Red Maple | <i>Acer rubrum</i> 'October Glory' | ORM | 50 | Rounded |
| Fall Fiesta Sugar Maple | <i>Acer saccharum</i> 'Bailsta' | FFS | 50-75 | Oval |
| Flax Mill Majesty Sugar Maple | <i>Acer saccharum</i> 'Majesty' | FMMS | 65 | Oval |
| Green Mountain Sugar Maple | <i>Acer saccharum</i> 'Green Mountain' | GMS | 75 | Upright |
| Ohio Buckeye | <i>Aesculus glabra</i> | OB | 40 | Rounded |
| Autumn Splendor Buckeye | <i>Aesculus sylvatica</i> 'Autumn Splendor' | ASB | 20-40 | Oval |
| Black Alder | <i>Alnus glutinosa</i> | BA | 45 | Upright |
| Autumn Brilliance Service Berry | <i>Amelanchier x grandiflora</i> 'Autumn Brilliance' | ABSB | 25 | Upright |
| River Birch | <i>Betula nigra</i> | RB | 60 | Pyramidal |
| Blue Beech | <i>Carpinus caroliniana</i> | BB | 30 | Spreading |
| Bitternut Hickory | <i>Carya cordiformis</i> | BH | 50-70 | Irregular |
| Catalpa | <i>Catalpa speciosa</i> | CS | 60 | Oval |
| Hackberry | <i>Celtis occidentalis</i> | H | 60 | Spreading |
| Thornless Cockspur Hawthorne | <i>Crataegus crus-galli inermis</i> | TCH | 15-18 | Spreading |
| Sentry Ginkgo | <i>Ginkgo biloba</i> 'Sentry' | SG | 60 | Pyramidal |
| Imperial Honey locust | <i>Gleditsia triacanthos inermis</i> 'Impcole' | IL | 35 | Spreading |
| Moraine Locust | <i>Gleditsia triacanthos inermis</i> 'Moraine' | ML | 30-80 | Rounded |
| Shademaster Honey locust | <i>Gleditsia triacanthos inermis</i> 'Shademaster' | SHL | 40 | Upright |
| Sky line Locust | <i>Gleditsia triacanthos inermis</i> 'Skycole' | SL | 50 | Pyramidal |
| Kentucky Coffeetree | <i>Gymnocladus dioica</i> | KYC | 60-75 | Spreading |
| Butternut | <i>Juglans cinerea</i> | BN | 50 | Irregular |
| Black Walnut | <i>Juglans nigra</i> | BLW | 60 | Irregular |
| Eastern Red Cedar | <i>Juniperus virginiana</i> | ERC | 30-45 | Pyramidal |
| Larch/Tamarack | <i>Larix laricina</i> | TAM | 50 | Pyramidal |
| Adams Crab | <i>Malus</i> 'Adams' | AC | 20-25 | Rounded |
| Donald Wyman Flowering Crab | <i>Malus</i> 'Donald Wyman' | DWC | 20 | Rounded |
| Harvest Gold Flowering Crab | <i>Malus</i> 'Harvest Gold' | HG | 20 | Rounded |
| Madonna Flowering Crab | <i>Malus</i> 'Madonna' | MFC | 18-20 | Rounded |
| Pinkspire Flowering Crab | <i>Malus</i> 'Pinkspire' | PSC | 20 | Rounded |
| Prairie Rose Crab | <i>Malus</i> 'Prairie Rose' | PRF | 20 | Rounded |
| Prairiefire Flowering Crab | <i>Malus</i> 'Prairiefire' | PFC | 15-20 | Rounded |
| Purple Prince Flowering Crab | <i>Malus</i> 'Purple Prince' | PPC | 17-20 | Rounded |
| Red Baron Flowering Crab | <i>Malus</i> 'Red Baron' | RBC | 20 | Rounded |
| Red Jewel Flowering Crab | <i>Malus</i> 'Red Jewel' | RJC | 15 | Rounded |
| Snowdrift Flowering Crab | <i>Malus</i> 'Snowdrift' | SDC | 20 | Rounded |
| Spring Snow Flowering Crab | <i>Malus</i> 'Spring Snow' | SSC | 25 | Rounded |
| Thunderchild Flowering Crab | <i>Malus</i> 'Thunderchild' | TCC | 20 | Rounded |

| Common Name | Scientific Name | Code | Height | Form |
|--------------------------------|--|--------|--------|-----------|
| Velvet Pillar Flowering Crab | <i>Malus 'Velvet Pillar'</i> | VPC | 20 | Rounded |
| Norway Spruce | <i>Picea abies</i> | NS | 60 | Pyramidal |
| Black Hills Spruce | <i>Picea glauca densata</i> | BHS | 40 | Pyramidal |
| White Spruce | <i>Picea glauca</i> | WS | 50 | Pyramidal |
| Meyer Spruce | <i>Picea meyeri</i> | MS | 40 | Pyramidal |
| Colorado Green Spruce | <i>Picea pungens</i> | CGS | 60 | Pyramidal |
| Colorado Blue Spruce | <i>Picea pungens var. glauca</i> | CBS | 60 | Pyramidal |
| Austrian Pine | <i>Pinus nigra</i> | AP | 40 | Pyramidal |
| Ponderosa Pine | <i>Pinus ponderosa var. scopulorum</i> | PP | 55 | Pyramidal |
| Red Pine | <i>Pinus resinosa</i> | RP | 60-80 | Pyramidal |
| White Pine | <i>Pinus strobus</i> | WP | 80 | Pyramidal |
| Scotch Pine | <i>Pinus sylvestris</i> | SP | 55 | Pyramidal |
| Sycamore | <i>Platanus occidentalis</i> | SYC | 80 | Rounded |
| Silver Leafed Poplar | <i>Populus alba</i> | POP | 70 | Upright |
| Siouxland Poplar | <i>Populus deltoides 'Siouxland'</i> | SLP | 90 | Rounded |
| Cottonwood | <i>Populus deltoides</i> | COT | 80 | Upright |
| Bigtooth Aspen | <i>Populus grandidentata</i> | BIA | 65 | Pyramidal |
| Trembling Aspen | <i>Populus tremuloides</i> | TA | 60 | Oval |
| Black Cherry | <i>Prunus serotina</i> | BC | 60 | Spreading |
| Douglas Fir | <i>Pseudotsuga menziesii</i> | DF | 60 | Pyramidal |
| White Oak | <i>Quercus alba</i> | WO | 60-80 | Rounded |
| Swamp White/ Bicolor Oak | <i>Quercus bicolor</i> | SWO | 60 | Columnar |
| Regal Prince Oak | <i>Quercus x warei 'Long'</i> | RPO | 40-60 | Upright |
| Northern Pin Oak | <i>Quercus ellipsoidalis</i> | NPO | 50-60 | Pyramidal |
| Bur Oak | <i>Quercus macrocarpa</i> | BO | 60-80 | Spreading |
| Fastigate English Oak | <i>Quercus robur 'Fastigiata'</i> | EO | 40-60 | Columnar |
| Red Oak | <i>Quercus rubra</i> | RO | 80 | Pyramidal |
| Weeping Willow | <i>Salix alba</i> | WW | 50 | Weeping |
| Korean Mountain Ash | <i>Sorbus alnifolia</i> | | 40 | Rounded |
| Showy Mountain Ash | <i>Sorbus decora</i> | MTA | 20-30 | Rounded |
| Japanese Tree Lilac-Ivory Silk | <i>Syringa reticulata 'Ivory Silk'</i> | JTL-IS | 20 | Upright |
| Japanese Tree Lilac | <i>Syringa reticulata</i> | JTL | 25 | Oval |
| Arborvitae | <i>Thuja occidentalis</i> | ARB | 40-50 | Pyramidal |
| Arborvitae 'Smaragd' | <i>Thuja occidentalis 'Smaragd'</i> | SAR | 15-20 | Pyramidal |
| Sentry American Linden | <i>Tilia americana 'McKSentry'</i> | SAL | 40-45 | Pyramidal |
| Boulevard Linden | <i>Tilia americana 'Boulevard'</i> | BL | 60 | Pyramidal |
| Redmond Linden | <i>Tilia americana 'Redmond'</i> | RL | 65-75 | Pyramidal |
| Accolade Elm | <i>Ulmus 'Accolade'</i> | AE | 75 | Spreading |
| Cathedral Elm | <i>Ulmus x 'Cathedral'</i> | CE | 50 | Spreading |
| Discovery Elm | <i>Ulmus davidiana japonica</i> | DE | 35-45 | Spreading |
| Homestead Elm | <i>Ulmus carpinifolia 'Homestead'</i> | HE | 55-60 | Upright |
| New Horizon Elm | <i>Ulmus x 'New Horizon'</i> | NHE | 50-60 | Upright |
| Princeton Elm | <i>Ulmus americana 'Princeton'</i> | PE | 60 | Spreading |
| Red Elm | <i>Ulmus rubra</i> | RE | 80 | Spreading |
| Triumph Elm | <i>Ulmus 'Morton Glossy'</i> | TE | 55 | Upright |
| Valley Forge Elm | <i>Ulmus americana 'Valley Forge'</i> | VFE | | Spreading |

Planting Guidelines

Forestry oversees the planting of boulevard and park trees throughout the city and coordinates with a number of contractors and organizations to implement planned tree planting operations.

Street trees are planted on boulevards that are a minimum of 36 inches wide and where street improvements have already been completed. Trees are planted during the spring and fall by licensed contractors following city specifications and standards. Forestry staff verify the establishment of new trees within one year of planting with dead trees replaced by the contractor.

Planting the right tree for the right location is crucial for the long term survival of the urban forest. Tree selection is guided by the Street and Park Tree Master Plan and based on the existing or proposed site conditions. Spring planting is recommended for species including oaks, birch, hawthorns, serviceberry, and red maple to ensure establishment and increase survival rates through the first winter.

The following criteria are followed as closely as possible by Forestry staff when determining tree placement:

- Trees are planted on boulevards that have a minimum width of 36 inches.
- Large, medium, and small trees will not be planted closer than 40, 30, and 20 feet from each other respectively, unless the shape of the tree warrants a deviation in spacing.
- Conifer trees will be considered where boulevards are wide enough to accommodate full form mature trees without interrupting sight lines or public safety.
- Trees that bear large fruits or nuts will be considered for planting in parks and wide parkways where fruit debris will not disrupt public safety nor require additional right of way maintenance to clean up fallen fruit.
- If trees on private or public property are growing too close to a potential planting site and will hinder the development of a new tree, no new trees will be planted.
- When planting beneath overhead wires, selection of species will be made to minimize interference with those wires and to reduce maintenance needs. Required line clearance and trimming near overhead wires will be

6.3



Utilities, lighting, and street signage are a few of the obstacles that must be considered when planting trees

Refer to Section 6.14 in the appendix for further information on planting a tree in the public boulevard.

done by Forestry.

- No trees will be placed within 30 feet of a stop sign, traffic sign or signal, nor within 15 feet of a street light.
- New trees will not be planted within 5 feet of identifiable underground gas utility nor within 10 feet of an underground water utility.
- New trees will not be placed within 10 feet of a fire hydrant, driveway or utility pole.
- When possible, new trees will be planted near old stumps that have not yet been removed. However, due to woody material underground this is not always possible and planting decisions are left to the discretion of Forestry.
- No tree will be planted on a street that does not yet have curb and gutters. When the public works department installs curbs tree roots can be damaged, and therefore Forestry waits to plant the area until curbs are installed.

Boulevard tree planting by individual property owners is allowed and a free permit available through Forestry is required. Forestry staff will check the conditions of the site and recommend appropriate species for the planting site.

| FACTOR | RECOMMENDED OFFSETS | EXPLANATION |
|------------------|---------------------|--|
| Street Light | 15 to 20 feet | Variable based on luminary mounting height, overhang from curb and angle of light distribution. |
| Utility Pole | 10 to 15 feet | Generally, trees should not be in the same alignment as utility poles. Dependent on cross arms and transformers. |
| Fire Hydrant | 10 feet | Allows for hose attachments and maintenance work. |
| Water Gate Valve | 5 to 15 feet | Allows for maintenance work. |
| Gas Shut Off | 5 feet | Allows for maintenance work. Most are located on the meter outside of the house. |
| Driveway | 10 feet | Allows driver visibility. |
| Sidewalk | 5 feet | Delays root damage. |
| Street Sign | 5 feet | Signage should be located between the tree and curb for maximum visibility. |
| Intersections | 15 to 40 feet | Depends on boulevard width, traffic volume and position of traffic lights, opticon and other safety conditions. |
| Yard Trees | 20 to 40 feet | Dependent on mature sizes of the yard tree and the boulevard tree. |

Figure 6.2: Spacing Chart

Planting and Replacement Schedule

6.4

Trees are planted by district on an annually rotating basis and will be scheduled based on the planting plan. Due to this rotational planting there may be a delay between the time a failing tree is removed and scheduled replacement of the tree.

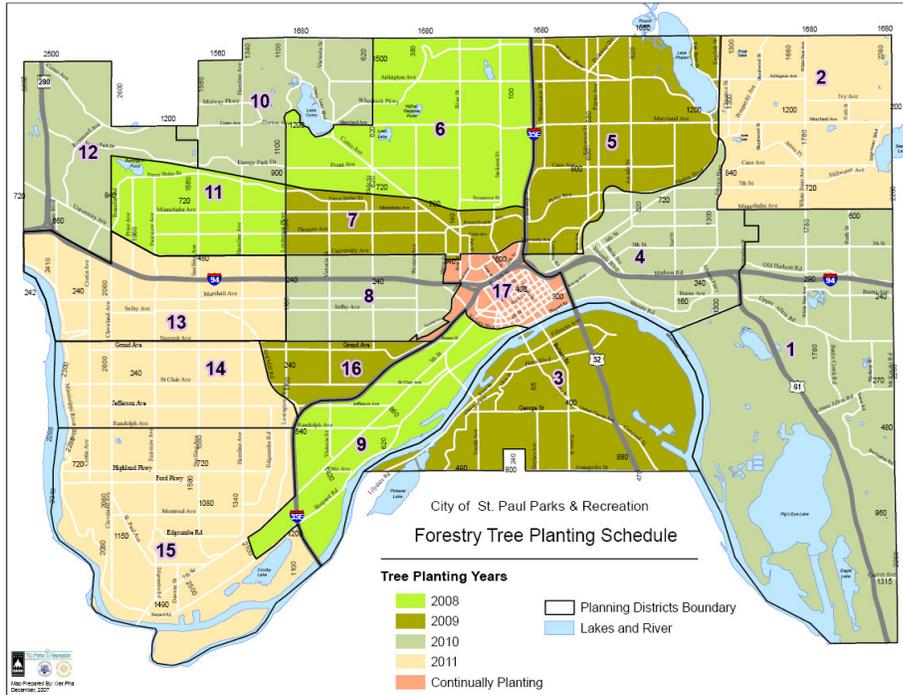


Figure 6.3: District Planting Map

Park trees are supported in two primary ways and are either funded and planted by the city or through private donations. City planting of park trees is based on the planning goals for a park or in response to other needs such as replacing storm damaged trees. Planting schedules and locations for privately donated trees are based on the request that has been made, the availability of space, and the need for additional trees within city parks.

Memorial trees are planted in parks or other locations by request when a community member places a special order with the city. These trees are planted in a location selected during the donation process as long as a planting space that doesn't interfere with infrastructure, safety, surrounding trees, or other designated land uses is available.

Individuals and groups can donate trees to the city through Tree Saint Paul which uses donations to reforest public lands. Donations can be made by contacting Saint Paul Parks and Recreation.

Memorial trees can be ordered through the Saint Paul Department of Parks and Recreation Amenity Donation Program.

Tree selection is based on tree location criteria mentioned above and section 4 of this master plan which outlines the tree selection criteria. Forestry staff will use the site conditions, tree characteristics, and guidelines of this master plan to determine the proper tree for the location.

6.5 Notification of Planting

Residents will be notified up to one month before planting begins that a new tree will be planted on the boulevard.

Forestry staff will leave a pamphlet or flyer in the door of each house where a new tree will be placed letting citizens know what type of tree will be planted and general care instruction.

Up to one month prior to planting Forestry staff will paint a white “T” on the curb to show the approximate location of the tree. This may change by a few feet as utilities are located after the “T” is put on the curb.

6.6 Specifications and Standards

The city of Saint Paul requires adherence to the city-wide tree planting specifications when new trees are installed. Tree specifications cover the following:

- Materials and Standards
- Plant Preparation
- Plant Installation
- Inspections and Initial Acceptance
- Maintenance and Warranties
- Final Acceptance

For more information or to obtain a copy of these specifications contact Saint Paul Forestry.

Refer to ANSI A-300 Part 6 for more information on proper tree planting and transplanting

General Maintenance and Removal

6.7

The city of Saint Paul's Forestry section is responsible for the maintenance of all publicly owned trees. Monitoring the condition, trimming and removal of trees on public property is Forestry's primary objective to ensure continued health of the urban forest.

Trees that Forestry maintains include those growing:

- On public street boulevards
- On park land
- On easements behind sidewalks
- In the public right of way of streets and alleys
- On other municipal property such as golf courses and natural areas

Reasons for removal:

- Dead or declining health
- Disease
- Unsound or damaged structure
- Invasive species
- Construction

Notice of removal:

- Trees are marked for removal with a red paint ring and a number signifying the tree's diameter at breast height (D.B.H.)
- Notice will be provided 48 hours prior to removal unless the tree has been deemed dangerous or for emergency situations
- No parking signs are posted 24 hours in advance when necessary
- Forestry arborists or supervisors will explain the rationale behind the decision to remove a tree that is marked. However, the final decision as to whether a tree is removed rests with the Forestry
- Diseased trees marked for removal in a given year will be removed as soon as possible, or by April 1 of the following year

Stump Removal:

- The scheduling and number of stump removals done per year will be dependant on the priority level of other forestry work and subject to available budgets
- Stumps will be ground out during tree planting if they effect the placement of new trees
- Utilities must be located prior to stump removal



Removal of Nuisance and Dangerous Trees:

Dutch Elm Disease

Dutch elm disease had a devastating impact on the urban canopy of Saint Paul in the 1970's and remaining American elm populations are still being affected. Identification and removal of infected trees can slow the spread of DED and control the population of the beetle that acts as the primary vector for this fungal disease.



This elm is showing signs of decline associated with DED

Elm trees are surveyed each summer by trained and licensed tree inspectors to locate and mark diseased, dead, and dangerous trees. Trees found to have DED will be marked for removal when the infection has progressed beyond a treatable stage. Property owners may receive a permit for private trimming and treatment if the infection is in the early stages and less than 5% of the canopy is affected. Removal work will be performed by Forestry crews and notice of removal will be provided to the adjacent property owner.

Private property trees identified as having DED will be subject to removal pursuant to city ordinance, Chapter 175, which gives Forestry the right to act on dangerous and nuisance trees. Once DED is identified, a letter will be sent to the property owner and one month given for removal of the infected tree. Any work not completed within the allotted time will be abated by the city and the cost of removal assessed to the property owner.

Treatment of public trees through private tree care companies is an option for property owners with elm trees in the early stages of infection. A free city permit is required and fungicide injections must be administered by a permitted tree care company. Saint Paul Forestry does not treat public elm trees for DED.

For more information on Dutch elm disease visit the Forestry website at www.stpaul.gov/index.aspx?NID=2493. Information regarding the diseased tree removal ordinance can be found under chapter 175 of the city code, available at www.stpaul.gov.

Emerald Ash Borer

With the arrival of EAB additional management plans have been put in place to slow the spread of this pest, avoid the development of hazardous conditions, and spread the projected costs of dealing with EAB over a number of years. Ash trees will be removed when certain criteria are met. These include:

- Known and suspected infestations of EAB
- When 30% or more of the canopy is in decline
- Structured removal to reduce the ash tree population

Trees and stumps will be removed during the abatement process. Wood debris will be managed in accordance to the EAB management plan and transferred to the Pigs Eye Wood Recycling Center for further treatment and utilization. Ash management procedures will adapt and respond to recommendations by the Minnesota Department of Agriculture and the changing status of this infestation.

Private property trees identified as having EAB will be subject to removal pursuant to city ordinance, Chapter 175, which gives Forestry the right to act on dangerous and nuisance trees. Once EAB is identified, a letter will be sent to the property owner and one month given for removal of the infected tree. Any work not completed within the allotted time will be completed by Forestry and the cost of removal assessed to the property owner.

Treatment through private tree care companies is an option for property owners with ash trees in the early stages of infestation. A free city permit is required and pesticide injections must be administered by a permitted tree care company. Saint Paul Forestry only chemically treats public ash trees for EAB when trees meet the standards outlined in the “EAB Management Plan.”

For more information including EAB storm procedures, tree replacement, and chemical treatment options refer to the “Emerald Ash Borer Management Plan” available on the Forestry website www.stpaul.gov/index.aspx?nid=2828. Additional resources are available on the Forestry website or from the Minnesota Department of Agriculture. Information regarding the diseased tree removal ordinance can be found under chapter 175 of the city code, available at www.stpaul.gov.



Adult borer
Image: David Cappaert



S-shaped galleries caused by feeding larva



Girdled trap trees are used to slow the spread of EAB

6.9

Trimming

Public property trees are trimmed by Saint Paul Forestry in accordance with national standards and care is taken to ensure the health of the trees and the urban forest as a whole.

Forestry crews trim publicly owned trees for a variety of reasons including:

- To improve the aesthetic appearance of the trees and the streetscape
- To improve the health of the tree, removal of diseased or failing limbs, correction of growth defects and reduction of wind resistance
- To remove dead limbs that could fall and cause damage or injuries
- To lessen interference with vehicle traffic, pedestrians, and buildings

Refer to ANSI A-300 Part 1 standards on pruning

6.10

Storm Damage and Emergency Response

Storm Cleanup

Storm damage is categorized into three levels depending on the severity of the storm event and is managed by Forestry. A level 3 storm event includes coordination by the Emergency Operations Center (EOC).

Level 1:

A storm event having no significant over riding impact on community issues; can usually be mitigated by a single forestry crew.

Level 2:

A storm event characterized by association with community issues transcending simple debris clean up and disposal; may entail the utilization of more than one forestry crew.

Level 3:

A severe or catastrophic storm event that has widespread impact on public safety.



Storms can cause various levels of damage to trees and property

Forestry provides 24 hour response to tree damage and debris clean up from storm events on publicly owned park lands and public street right of ways. Storm management priority will depend on the severity of the storm event and will follow these general procedures.

- Assist with life threatening situations or tasks
- Reopen emergency street corridors
- Reopen arterial, collector, and residential street corridors
- Removal of trees from structures
- Removal of damaged and dangerous trees
- Removal of destroyed but non-threatening trees
- Park clean up
- Stump removal and tree replanting

When storm damage is wide spread or severe additional park maintenance staff or independent contractors may be retained to assist with debris clean up, debris hauling, non-right of way tree removals, stump removals, and storm mitigation pruning.

Storm debris is transported to the Pigs Eye Wood Recycling Center for utilization. Refer to the Storm Management Plan for complete information on storm response.

Emergency Maintenance or Removal

Trees within the public right of way or on city park lands that pose a public safety threat due to root, trunk, or branch damage or structural deficiencies will be repaired or removed depending on the severity of the damage. Trees that have minor damage that can be restored through trimming, cabling, or other maintenance to the point where they are no longer a threat will be repaired. Trees that are damaged beyond the point of repair and threaten public safety will be removed as determined by Forestry.

Dangerous Trees

Trees on private property that have been determined to be dangerous or unsafe by Forestry inspectors are removed under chapter 177 of the Code of Ordinances. Notice will be provided and 10 days given for the removal of the tree by the property owner. If the tree is not removed within the specified period the city will remove the tree and assess the property for the expense of the tree removal.

For complete information on dangerous trees refer to Title 17, Chapter 177 of the Saint Paul Code of Ordinances

6.11 Drought Management

Drought is a complex natural event that can have serious impacts on the long term health of the urban forest. Watering procedures have been established to minimize the stressful impacts on trees and alleviate or prevent drought damage.

Drought severity is determined through the National Weather Service using drought models that measure general conditions across the region and not isolated rain events. Once the drought stage is determined established watering procedures are followed. High profile trees, recently planted trees, and special areas such as Harriet Island and Shepard Road will receive priority.

Implementation of the drought plan will be made public through press releases and internal city notification. Public trees will be watered by city crews with additional assistance from private contractors if drought conditions become extremely severe. Property owners are encouraged to water boulevard and private trees to reduce the overall impact of the drought and maintain city-wide tree health.

For more information on the procedures and resources available to mitigate the effects of drought refer to the Saint Paul Drought Plan available through www.stpaul.gov

6.12 Wood Utilization

Wood waste generated from trees removed in Saint Paul is transported to the Pigs Eye Wood Recycling Center currently managed by Environmental Wood Supply. EWS prepares the material for reuse by District Energy's cogeneration power plant in downtown Saint Paul.

New pathways for wood utilization will be evaluated as supplies change and opportunities emerge.

6.13 Saint Paul Tree Ordinances

The following table provides an overview of city ordinances related to the management of public trees. For complete information refer to the Saint Paul Code of Ordinances available online at www.stpaul.gov.

| | |
|---|--|
| Part II- Legislative Code | |
| Title 8: Zoning Code | |
| Chapter 66 Sec.66.343 (b)23 | Requires street trees in traditional neighborhood development |
| Chapter 67 Article II 67.200 | Tree Preservation Overlay District |
| Title 17: Trees | |
| Chapter 175 | Dutch Elm Disease |
| Chapter 176 | Preservation and Protection of Trees |
| Chapter 177 | Dangerous Tree Ordinance |
| Chapter 178 | Private tree planting, trimming, and removal on public property |
| Chapter 178 | Planters in Commercial Areas |
| Title 29: Licenses | |
| Chapter 362 | Tree trimming by private contractors |
| Part III- Administrative Code | |
| Title 1: General Provisions | |
| Chapter 7A | Department of Parks and Recreation |
| 7A.02 (3) | Care of trees on public lands |
| 7A.02 (4) | Disease and pest control programs, reforestation and nursery program |
| Title 4: Policies and Procedures | |
| Chapter 61 | Tree Maintenance and Assessments |

Figure 6.4: City Tree Ordinances

6.14**Saint Paul Tree Advisory Panel**

The Tree Advisory Panel (TAP) was created in November 2008 to fill a need for a citizen advisory group to provide feedback and advice in regard to the management of Saint Paul’s urban forest. The mission of TAP is “to serve as a link between the Forestry unit and the citizens of Saint Paul to preserve, promote, and enhance the urban forest.” The main duties of TAP is to relay citizen expectations; review and advise Forestry on its policies, procedures, and operations; assist in lobbying for resources needed to protect and enhance the urban forest; help set long term goals to help build and sustain a healthy, diverse urban forest; and assist with public education and outreach.

TAP consists of Saint Paul residents representing each of the seven City Council wards, city staff, and members of the business community, University of Minnesota, and Friends of the Parks and Trails of St. Paul and Ramsey County. The panel holds monthly meetings and has dealt with various urban forestry issues since their inception. Major activities undertaken thus far have been addressing green infrastructure opportunities of the proposed Central Corridor Light Rail Transit line and supporting outreach efforts for the emerald ash borer. To find out the latest information about TAP, please visit: www.ci.stpaul.mn.us/index.aspx?nid=3571

6.15**Public Permits**

City ordinance requires a written permit from Saint Paul Forestry before citizens perform any tree work within the public right of way. This includes tree trimming, stump removal, chemical treatment, the creation of tree sculptures, and any other boulevard work not done by Forestry. Permits are free and can be obtained by calling (651) 632-5129.

When requesting a permit to plant a boulevard tree Forestry staff will inspect the boulevard to determine if a tree will grow successfully in the location. Tree species most likely to survive and least likely to cause problems in a specific location will be recommended. Spacing recommendations will also be made to ensure that each tree has room to grow to maturity. Factors used to determine tree placement and selection are the same as for city planted trees. Gopher State One is required to locate utilities prior to planting to ensure safety to those digging and to avoid damage to underground facilities.

For more information on tree planting and ways to give newly planted trees the best start for a long and healthy life visit the Saint Paul Forestry website for information and links.

- **Saint Paul Parks and Recreation Department**
www.stpaul.gov/index.aspx?nid=243
Find information on Saint Paul parks and activities happening around the city.
- **Saint Paul Forestry**
www.stpaul.gov/index.aspx?nid=2828
Find the latest information on forestry management in Saint Paul including tree planting, tree care, and emerald ash borer. View district planting maps and find information on requesting a public permit for tree planting on public boulevards.
- **Saint Paul Tree Advisory Panel**
www.stpaul.gov/index.aspx?NID=3571
- **National Emerald Ash Borer Website**
www.emeraldashborer.info
This website contains the latest national information and research on EAB as well as educational materials for local governments and homeowners.

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- City of Saint Paul Neighborhood Plans,
www.stpaul.gov/index.aspx?NID=3446
 - Sunray-Battlecreek-Highwood (District 1) Plan, 2004
 - West Side Community Plan and the Riverview Commercial Corridor Revitalization Program (District 3), 2001
 - District 4 Plan Update, 1986
 - District 5 Plan, 1979
 - District 6 North End-South Como Community Plan, 2004
 - District 7 Plan, 2007
 - District 9 Plan, 1980
 - District 14 Macalester-Groveland Community Plan, 2001
 - Downtown Development Strategy, 2003 (Updated 2005)