City of Wausau Tree Planting & Preservation Specifications Manual



Adopted by:

City of Wausau Parks and Recreation Committee October 7, 2019

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Introduction

Taking care of our Urban Forest means protecting our Wausau quality of life. Properly planned and managed, the urban forest provides significant ecological, social and economic benefits that promote the well-being of our community. Research proves that healthy trees beautify the community, increase property values, help improve air and water quality, reduce erosion and storm water runoff, reduce greenhouse gases by absorbing carbon dioxide, save energy, keep the city cooler, reduce noise, calm traffic, provide homes for wildlife and enhance livability.

The purpose of the following specifications is to help ensure all City of Wausau residents get to experience the tree benefits previously listed. These specifications will provide guidelines to improve and sustain the City of Wausau's urban forest health. An important aspect of these benefits is the presence of mature, healthy trees in the city, which can be appreciated through tree preservation methods, sound new planting specifications, and promoting species diversity.

Section 1.0 Authority, Policy, Function

1.1 Authority

Pursuant to authority granted under Municipal Code 12.56 STREET TREES (appendix F) of the City of Wausau and the review and assistance of the Marathon County Parks, Recreation and Forestry Department and the City of Wausau Public Works Department, the following serves as the arboricultural specifications and standards of practice for the City of Wausau, Wisconsin, hereinafter referred to as the **Tree Planting and Preservation Specifications Manual**.

1.2 Policy

The policy of the City of Wausau Municipal Code 12.56 STREET TREES is to regulate the planting, transplanting, maintenance, removal and protection of public trees and shrubs in the City in order to alleviate hazardous conditions which may result in injury to persons using the streets, sidewalks or other public property within the City. It is also a policy to promote and enhance the beauty and general welfare of the City by protecting trees and shrubs from undesirable treatment, maintenance practice, planting and removal.

1.3 Function

The general responsibility of the City Forester and the Wausau/Marathon County Parks, Recreation and Forestry Department is to maintain trees and shrubs located on all public properties, including, but not limited to, boulevards, medians, parks, and other public facilities and spaces. This involves all phases of arboricultural work from planting through removal. The City of Wausau Department of Public Works is charged with replacing and repairing streets and sidewalks, which can involve tree removal and conflicts with tree roots. It became evident that an arboriculture policy was necessary to help bridge the gap between these departments that impact the urban forest and work to enhance it. These specifications are to serve as a standard for the planting, preservation and maintenance of all public trees and will apply to City employees, contractors or private individuals performing work. In abiding by and enforcing these specifications, the Wausau/Marathon County Parks, Recreation and Forestry Department and the City of Wausau Department of Public Works makes every effort to maintain a safe and aesthetically pleasing community. The City Forester must approve any exceptions to these specifications. The Tree Planting and Preservation Specifications Manual should always be adhered to, but may be amended at any time that experience, new research, or laws indicate that improved methods or circumstances make it advisable.

Section 2.0 Tree Planting Standards

2.1 Newly Planted Tree Size Requirements

All trees planted within public spaces must be of sufficient size to absorb the abuse and conditions common to trees planted in urban areas. The minimum allowable size for shade trees is (2) inch caliper and (1 ¾) inch caliper for ornamental trees, however larger sizes may be required to ensure survival for specific situations. Tree caliper shall be measured six inches above the ground to the nearest (¼) inch.

2.2 Required Condition of Newly Planted Trees

Unless otherwise specified, all trees shall conform to the American Nursery and Landscape Association's *American Standard for Nursery Stock*, (ANSI Z60.1-2014). Each tree chosen for planting shall be a high-quality, healthy tree with evidence of vigorous growth during the previous year. All trees shall have a comparatively straight, single trunk, void of codominant leaders, exhibit well-developed leaders and crown, and the roots shall not only be characteristic of the species, cultivar or variety, but also exhibit evidence of proper nursery pruning practices. Ornamental trees may be multiple-stemmed if planted in parks or open green space and can be pruned for adequate clearance. At the time of planting, all trees must have a full healthy crown, be free of mechanical injuries and display no other objectionable features that will affect the future form, health, and beauty of the tree.

2.3 Planting Methods

Proper planting methods (Figure 1) are critical to ensuring a high level of transplanting success by encouraging proper root growth and reducing transplant shock.

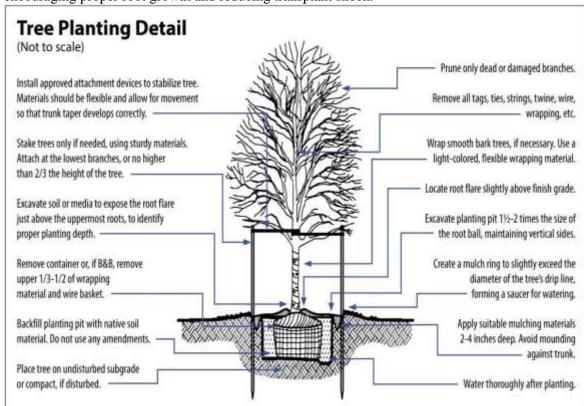


Figure 1 Proper Tree Planting Methods

- **2.3.1** Dig a large planting hole 2-3 times the diameter of the root ball. Leaving a pedestal of soil in the center of the hole on which to rest the tree. The root/trunk flare should be at or slightly above the finished grade. When using:
 - Balled and Burlapped planting stock: remove the wire, burlap and twine from at least the top one half of the root ball, thus minimizing disturbance to ensure the root ball's integrity.
 - **Potted planting stock:** remove pot, **box cut the root ball** on the outer most edges, thus removing and minimizing any future tree girdling roots.
 - Bare Root planting stock: maintain moisture in roots during transportation of the tree, dig irregular shaped planting hole to accept all available roots, thus minimizing root damage.
- **2.3.2** If necessary, use a sharp hand pruner to remove any damaged or trunk girdling roots as needed. Whenever possible, backfill the hole with native soil. Water the tree generously to eliminate large air pockets and firm the soil around the tree's roots.

2.4 General Maintenance

Since all trees suffer a certain amount of transplant shock, due to 95% of a tree's roots being cut when dug in the nursery, newly planted trees require special maintenance for one or two growing seasons following planting. Typically, it takes one year per caliper (diameter) inch for establishment. All newly planted tree maintenance practices shall follow approved American National Standards Institute's *Standard Practices for Tree Care Operations – Post Planting Care (ANSI A 300 (Part 6))*.

2.5 Watering

Regular watering is important to aid in the development of a strong new root system. Newly planted trees require approximately 10 gallons of water per caliper (diameter) inch per week. Residents are asked to help water the street trees planted in the boulevard adjacent to their house during the growing season. City staff will water all park and green space plantings, but only provide supplemental watering for plantings in residential areas.

2.6 Mulching

A layer of mulch around the newly planted tree is beneficial. It helps reduce competition from grass and weeds, retains soil moisture, improves soil fertility and structure and protects the trunk from damage caused by mowers and string trimmers. A (3-4) inch layer of mulch shall be placed at an even depth and 3' minimum diameter around the tree. Mulch shall be pulled away from the trunk so as not to be touching the trunk as this promotes fungal diseases and encourages rodents to girdle the bark at the base of the tree. Shredded bark or woods chips are recommended materials, but be sure the material is seasoned or composted before using. The use of stone or other inorganic material is discouraged and generally not recommended. Residents should leave mulch in place.

2.7 Pruning

No pruning should occur at the time of planting except to remove dead or broken branches. Unnecessary pruning at this time may reduce the amount of stored energy the plant holds and may stress the tree. A pruning schedule may be started two years after planting.

2.8 Fertilization

Adequate quantities of essential nutrients and elements are typically already available on site after new root growth starts. Provision of good drainage and adequate soil moisture are far more important

following planting than fertilization. Apply fertilizer sparingly and only to correct a specific deficiency. Since excessive fertilization can "burn" roots and stimulate crown growth faster than the roots can supply water, it is **best to wait until the third year after planting to begin applications**.

2.9 Staking

Only stake a newly planted tree if it is necessary to straighten the stem or provide additional support. When staking is necessary only use broad, soft strapping and leave some play for the tree to sway in the wind. All staking material should be removed within two years unless deemed necessary for continued stability.

2.10 Wrapping

Studies have found that trunk wrap often does more harm than good. However, wrap may be seasonally used to protect young trees from snow and ice damage or rodents, but should be removed every spring to prevent long-term damage.

Section 3.0 Location of Newly Planted Trees

All boulevard street trees shall be planted midway between the curb and sidewalk (or where the sidewalk would be if there is no sidewalk). Median trees should be centered between curbs. Both boulevard and median trees should be planted on center, unless in the opinion of the City Forester or City Engineer, there is enough reason to plant the trees off-center.

3.1 Determining Large or Small Tree Planting Spaces

Large-growing trees (Appendix B) shall be planted in boulevards or medians with a minimum width of 5'. No large trees should be planted under overhead secondary or primary electrical distribution lines. Trees planted to the side of power lines shall be carefully selected with mature height, spread and form in mind to minimize future conflicts.

Only **Small**-growing trees (Appendix A) shall be planted in boulevards or medians with a minimum of 4'-5' wide planting space.

Species selection for the City of Wausau downtown **Planting Pits** will be selected at City Forester or City Engineer discretion.

3.2 Spacing

Future maintenance problems can be minimized by careful and thoughtful placement of trees. Spacing of trees is a function of local site conditions, the species or cultivar used, and their mature height, spread and form. To promote urban forest canopy closure and provide a safe minimum spacing distance between trees, crown spread at species maturity should be determined. The spacing guideline for all newly planted trees requires a minimum distance of ¾ of the mature crown spread spacing for the selected variety (maximum crown spread x 0.75 = minimum spacing between trees). Appendix A and B should be referenced when determining mature crown spread and minimum ¾ crown spacing for selected species. The City Forester may make exceptions to this guideline when circumstances warrant, and public safety is not threatened.

3.3 Distance from Infrastructure

Newly Planted street trees shall be appropriately spaced from other public infrastructure to minimize infrastructure damage, allow for maintenance, avoid future conflicts and promote safety. All newly planted trees shall be spaced using the following Grey vs Green guidelines (Figure 2). The City Forester or City Engineer may make exceptions to these guidelines when circumstances warrant, and public safety is not threatened.

Existing Element	Min.
	Distance
	from Tree
Cross Street-Intersection	25'
Street Curb, Building	2'
Entrance or Doorway	
Stop Sign, Traffic Signal	20'
Street Light Base	12'
Pedestrian Level Light	10'
Base, Utility Pole, Fire	
Hydrant	
Crosswalk	7'
Alleys, Driveway, Carriage	6'
Walk	
Bike Rack, News Rack,	5'
Trash Can, Utility Box,	
Transit Shelter, Parking	
Meter	
Underground Utility	6'
Overhead Utility	Clear at Max
	Species
	Height
Loading Zone, Bus Stop	Clear of Zone

Figure 2 Grey vs Green guidelines

3.3.1 Park Spacing: All newly planted trees in maintained parklands should be a minimum of 8' or more away from other trees or infrastructure.

Section 4.0 Recommended Street Trees

Appendices A and B contain the lists of tree species approved for planting in the City based upon their mature size. The Wausau/Marathon County Parks, Recreation and Forestry Department shall periodically review the trees listed in these appendices to determine whether any species, cultivars or varieties should be added or removed from the lists. The City of Wausau continues to invest in the health of the urban forest by avoiding monocultures and planting a variety of native and other hardy non-invasive species.

4.1 Conifers

Conifers may only be selected for planting within city parks and open green spaces provided the trunk is no closer than 14 feet to the back of the curb or 10 feet behind the existing public sidewalk. Also, it may not be closer than 35 feet from the non – approach corner of the intersection of two right of way lines and no closer than 20 feet to the edge of the nearest driveway.

4.2 Undesirable Street Trees

Unacceptable species or their varieties, as listed in Appendix C, shall not be planted on City property, except in special locations where, because of characteristics of adaptability or landscape effect, they can be used advantageously. Their lack of suitability is based upon objectionable growth habits, fruiting habits, form, susceptibility to serious diseases, propensity to incur storm damage, and other limitations. The limitations listed for each tree or species are the more serious problems encountered locally.

Section 5.0 Tree Protection Policies

5.1 Reconstruction and Widened Streets

When trees are removed in preparation for reconstruction or widening of any established street, new trees will be planted provided there is adequate space in the boulevard and medians to support tree growth. The expense of this planting shall be borne by the City and incorporated into the project. Before planting and upon Landscape Plan Review the City Forester or City Engineer shall determine if the location and species of the trees selected meet urban forest goals.

- **5.1.1** For projects with trees identified on the Landscape Site Plan as remaining and in the project work area Tree Protection Zones (TPZ) (Appendix D) must be located and installed by contractors following approval by the City Forester or City Engineer.
- **5.1.2** It is the philosophy of the City to implement preservation measures where feasible to preserve public trees in and around construction projects.

5.2 Determining and Installing Tree Protection Zone (TPZ)

A critical step in retaining healthy trees during construction and development is the protection of tree roots from disturbance. Each tree has a critical root zone (CRZ) that varies by species and site conditions. The International Society of Arboriculture (ISA) defines CRZ as an area around a tree determined by the trees diameter at breast height (DBH). The City of Wausau defines this area as the Tree Protection Zone (TPZ) (Appendix D) and requires tree protection elements to be installed (Ord. 12.56.040).

- **5.2.1** The TPZ (Figure 3) radius equals 1' for each 1" of trunk diameter measured 4.5' above grade (DBH). Modifying TPZ requires prior approval by the City Forester or City Engineer.
- **5.2.2** Install tree protection fence around the TPZ 4' tall, supported with 2" x 6' steel posts or equivalent on minimum 8' spacing, made of high-density polyethylene fencing with 3.5" x 1.5" openings, color orange or approved equal, marked with 11" x 17" signs, spaced every 50', stating Tree Protection.
- **5.2.3** Maintain existing grade within the TPZ unless otherwise approved by the City Forester or City Engineer.
- **5.2.4** The Tree Protection Fence must be maintained until completion of work.

- **5.2.5** No tree pruning shall be done except by City of Wausau Pruning Permit.
- **5.2.6** No storage of materials or operations of equipment may take place inside the TPZ.
- **5.2.7** Contractors may only open trench with approval from the City Forester or City Engineer.

TREE PROTECTION ZONE RADIUS EQUALS 1' FOR EACH 1" OF TRUNK DIAMETER MEASURED AT 4.5' ABOVE GRADE. MODIFIED -TPZ REQUIRES PRIOR APPROVAL.

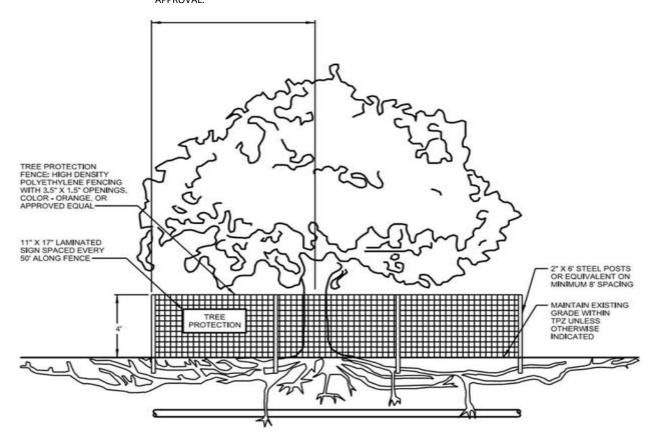


Figure 3 Tree Protection Zone (TPZ)

- **5.2.8** All roots over (1) inch in diameter that are part of trees being protected with a TPZ shall be cleanly cut immediately in back of any damaged section on the same day of excavation. Cuts may be made with lopping shears, chainsaw, or other means which will produce a clean cut. Exposed roots shall be covered the same day they are exposed by means acceptable to the City. Acceptable means include wooded bark mulch or similar to protect roots. The contractor shall not rip or pull roots toward the trunk of the tree while excavating with a backhoe. The use of a backhoe to cut roots is NOT acceptable.
- **5.2.9** Where **curb or sidewalk reconstruction** is being performed a TPZ does not have to be installed due to the fact most sidewalks are located within the TPZ. Close attention should be placed on a tree's Root Plate. A tree's Root Plate is determined by multiplying DBH X 3 (i.e. the Root Plate of a 10" DBH tree is 10" x 3 = 30"). This is the radius from the outer edge of the tree, around the tree, which determines the perimeter limits of the trees Root Plate and the most critical area for anchoring. The City Forester will inspect the curb and walk being replaced as branded by the City

Engineer to identify preservation measures (as listed below) or removals. Preservation measures should be communicated to contractors once identified and can be installed separate or in conjunction with one another on an individual basis. Contractors should then remove masonry work carefully and replace with as little disturbance as possible to existing roots. Roots within (6) inches of masonry to be replaced may be removed with a saw or pruning tool, however major scaffold roots within the trees Root Plate may be cut only with approval of the City Forester. All cut roots should be placed adjacent to the tree in which they belong to be inspected by the City Forester to determine future monitoring requirements.

The **Tree Preservation Measures** around sidewalk reconstruction include;

Shaving lifted concrete: Removing raised concrete to maintain minimum ADA compliance by reducing concrete thickness.

Jog sidewalk: By removing multiple slabs the sidewalk may be moved several feet away from scaffold roots and outside the root plate.

Arc sidewalk: Reducing sidewalk width but maintaining minimum ADA sidewalk width around scaffold roots or the root plate in an arc fashion.

Ramp sidewalk: Maintaining minimum required ADA sidewalk slope over scaffold roots that are at grade.

- **5.2.10** Contractors shall notify the Project Inspector or the Engineering staff the same day of any damage to trees resulting from construction activities.
- **5.2.11** Absolutely no concrete, slurry, gravel stone or other such materials shall be used as backfill directly around the tree.
- **5.2.12** Where construction damage occurs, the City Inspector will consult with the City Forester to assess any damages or removals. The contractor's failure to follow the proper safeguards of these specifications shall result in cost recovery charges and liquidated damages to be assigned against the contractor as set using the latest revision of "Guide for Plant Appraisal" as published by the International Society of Arboriculture.

5.3 New Development Tree Planting and Removal

In the development of new subdivisions or commercial property, the City Forester or City Engineer will review landscape plans provided by the developer and may require that, street trees be planted at developer's expense or payment in lieu of planting be made for any of the abutting streets, parking lots, parks and other public places before development takes place.

Note: It is a violation of Wausau Municipal Code 12.56 for any person to perform work under a permit contrary to the permit terms and provisions of Wausau Municipal Code 12.56.080. A permit violator shall be responsible for the repair and replacement of any tree damaged or destroyed due to defective work or non-compliance.

- **5.3.1** The developer must submit a tree inventory of the area to be developed.
- **5.3.2** The developer must submit a tree removal plan that shows exact trees to be removed.
- **5.3.3** The developer will be required to replace trees based on the City of Wausau's replacement requirements or payment in lieu of per City of Wausau Comprehensive Fee Schedule.
- **5.3.4** The developer must follow TPZ requirements for public trees outlined in Appendix D and illustrated in Figure 3 or provide a plan that specifies the method for protecting trees not listed for removal and the TPZ Plan must be approved by the City Forester or City Engineer.

5.4 Construction Tree Planting Soil Recommendations

- **5.4.1** An open boulevard is always the first choice for planting. However, tree grates may be used at openings for planting trees in hardscapes such as sidewalks or other paved areas that are high traffic areas or are required to meet American with Disabilities Act policy, provided an Engineered Root Space is provided for the growth of the tree. This should be done with the mutual consent of both the City Forester and the City Engineer.
- **5.4.2** A minimum Engineered Root Space (Figure 4) shall be used in planting pits, continuous trenches, and in other areas as necessary in order to provide a sustainable growing environment for the roots of public trees.
- **5.4.3** The City Forester may require changes to soil type, volume and opening required beyond the minimum engineered root space for the sustainability of specific tree types based on site characteristics and surrounding environment (Appendix F- Wausau Municipal Code 12.56.150 (3) Arboriculture Specifications and Standards). Exceptions to creating an engineered root space must be approved by the City Forester.

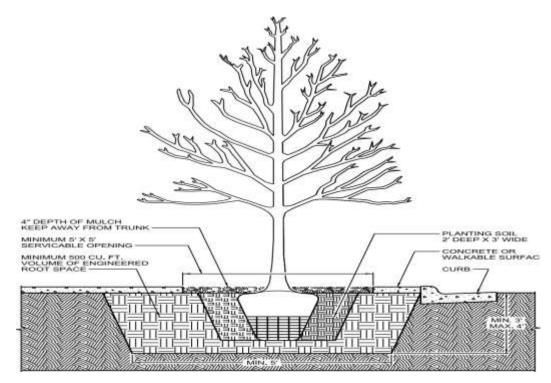


Figure 4 Minimum Engineered Root Space

5.5 Unimproved Street Plantings

Trees shall not be planted in the City right of way of unimproved streets or where no curb and gutter exist without approval from the City Engineer and City Forester.

5.6 Residential Boulevard Plantings

Residents or property owners who wish to plant trees in the City right of way are required to submit a free "Public Tree Permit Application" (Appendix E) to the Wausau/Marathon County Parks, Recreation and Forestry office prior to beginning work. The City Forester will review all applications with emphasis on planting the "right tree, in the right way, in the right place" and provide species options to meet urban forest goals.

5.6.1 Trees, plants, or shrubs planted within any median or city right of way without the authorization and approval of the City Forester may be removed and the removal cost may be charged to the property owner.

Section 6.0 Tree Removal Policy

There are many factors that contribute to transforming a tree from an asset to a liability. They include: disease, decay, and mechanical damage, which can cause a tree to be structurally unsound, and therefore unsafe. It is the policy of the City to base tree removals on safety related criteria and liability.

6.1 Acceptable Reasons for Public Tree Removal

A tree may be removed when the City Forester concludes that any of the following conditions exist:

- 1. Any dead or dying tree;
- 2. Any otherwise healthy tree, which harbors insects or diseases, which could reasonably be expected to seriously injure or harm any other tree;
- 3. Any tree which, by reason of location or condition, constitutes an imminent danger to the health, safety or welfare of the general public. In the category of dangerous or hazardous trees are those with observable, critical structural defects that could cause the tree to fail during periods of stress, i.e. wind or ice storms. Included are extensive rot or cavity formations, weak forks or crotches, utility repair and/or other characteristics that would impose an immediate liability to the City.

6.2 Dangerous Trees - Private Land

Any private property tree which the City Forester, upon examination, finds to be infected or hazardous to the public or to city curb and gutter will be issued a (30) day written personal notice to remove or treat. Upon notice it is the responsibility of the property owner to remove or treat the tree. If the owner fails to comply the city shall remove such tree. Removal will be done using the lowest bid from approved city contractors and the cost will be assessed to the homeowner's property taxes.

6.2.1 Upon City removal, employees shall keep an accurate record of the labor and cost of treatment of the tree(s). The record will then be reported to the City Finance Director, who shall upon request enter the cost against the property owner and shall be a charged upon the real property on which said tree or shrub is located pursuant to Section 66.0627 of the Wisconsin Statutes. (Ord. 61-5758 '1, 2018; Ord. 61-4202 '1(part), 1972.) (Appendix F- Wausau Municipal Code 12.56.110 Abatement of Nuisance). Note: the property owner may submit a written notice within 8 days to appeal the decision of the City Forester (Appendix F- Wausau Municipal Code 12.56.130).

6.3 Unacceptable Reasons for Public Tree Removal

NOT included in the definition of a tree as a public nuisance or immediate hazard are the following:

- 1. Species of trees, that are in good health and structurally sound, currently listed on the Undesirable Species List (Appendix C);
- 2. Individual trees, regardless of species or kind, that pose either an imminent or potential hazard for which corrective actions can be taken:

- 3. Trees that constitute an inconvenience to the public by virtue of leaf, twig or fruit drop; that act as sources of allergies; that cause root blockage in sanitary or storm sewers; that inhibit or prevent the growing of turf beneath the canopy of the tree due to shading; that are subject to disease or insect problems, which cause only minor harm to trees;
- 4. Trees that constitute an inconvenience to the public by virtue of their location except those public trees that pose serious obstruction problems in terms of egress or access to private property or new construction projects. The removal of a public tree for purposes of accommodating private facilities will not be sanctioned unless the following conditions have been satisfied:
 - a. There are no other reasonable design alternatives.
 - b. The value of the tree(s) in question has been determined by the City of Wausau in accordance with the latest revision of "Guide for Plant Appraisal" as published by the International Society of Arboriculture.
 - c. Before removal is authorized the property owner must compensate the City for the loss of the tree(s).

6.4 Unauthorized Removals

If a tree is removed without prior Street Tree Permit Application (Appendix E) and written authorization from the City Forester or City Engineer, the City will need to be compensated for the tree's loss. The party removing the tree will be subject to a cost recovery charge and liquidated damages of the tree's value as determined using the latest revision of "Guide for Plant Appraisal" as published by the International Society of Arboriculture. Upon payment of the citation, the City may replace the street tree(s) at their discretion if the site is appropriate for replanting.

Section 7.0 Pruning Standards

All pruning shall follow the American National Standards Institute's Standard Practices for Tree Care Operations-Pruning Objectives (ANSI A 300 (Part 1) for the purpose of crown cleaning, crown thinning, crown raising, and structure development. Reasons for pruning include reducing risk, improving or maintaining health, developing desired structure and appearance, preventing interference with the built environment, and other specific objectives. Street Tree Planting Permit Application (Appendix E) is required before any pruning is done by a resident or contractor on City owned and maintained trees.

7.1 Pruning Cuts

All final cuts shall be "collar cuts" made sufficiently close to the trunk or parent limb, without cutting into the branch collar or leaving a protruding stub, so that closure can readily begin under normal conditions. The face of the "collar cut" or wound area shall be circular in form. "Flush" cuts to the main stem behind the branch collar and that leave oval exposed wounds shall not be made. Cuts shall be clean and made such that all wound sides are even edged and do not leave "dog ear" ridges on one side or another.

7.1.1 All limbs removed shall be cut in such a manner so as to prevent any ripping or tearing of the wood or bark on the parent or remaining stem. Large limbs shall be cut using the three-cut pruning method as shown in Figure 5. Limbs shall be brought to the ground as to prevent any damage to property, publicly or privately owned.

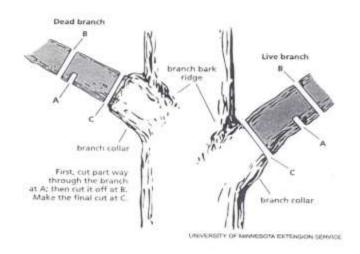


Figure 5 Proper Pruning Techniques – 3 Cut Method

7.2 Crown Cleaning

Crown cleaning should remove all dead, dying, diseased, crowded, weakly attached and low-vigor branches. Interior crowding and crossed or rubbing branches should be pruned where practical so as not to leave large holes in the general form of the tree. Trunk suckers and water sprouts, especially where they are present below the bottom 1/2 of the tree, should also be removed as part of crown cleaning. Suckers and sprouts that add to the shape of the tree above 14 feet may remain in mature trees that may not have an optimum crown or shape.

7.3 Crown Thinning

Crown thinning should selectively remove and/or prune branches back to large laterals to increase light penetration and air movement through the crown. After crown thinning, trees and branches shall have foliage and mechanical stress evenly distributed along a branch and throughout the crown. Not more than one-fourth of foliage on trees shall be removed unless approved by the City Forester. Species, growth, habitat and form need to be considered when thinning the crown, refer to the American National Standards Institute's *Standard Practices for Tree Care Operations-Pruning (ANSI A 300 (Part 1).*

7.4 Crown Raising

Crown raising should remove lower branches where practical (dependent on tree size) to obtain an eventual full foliage height clearance of 14 feet on the street side of the tree. Work shall maintain the crown shape and symmetry typical of the species being pruned, and should balance the tree evenly. Raising should also allow an eventual clearance over the pedestrian walk (or resident side of tree) of 10 feet. Pruning may include heading cuts on lower limbs or thinning cuts to lighten lower branch loads to achieve clearance if complete branch removal from the tree trunk is not practical.

7.5 Clearance Pruning

Clearance of houses and buildings should be such that branches are a minimum of (6) years typical growth from rooftops. Trees and other vegetation shall be pruned to maintain a clear line of sight when approaching all traffic control devices and intersections.

7.6 Tools

Proper tools such as hand pruners, pole saws, handsaws, and chain saws shall be used for each cut. The cutting edge of each tool shall be positioned to obtain a proper pruning cut so it will not cut, rip, or harm adjacent bark areas. At no time shall any person working in trees for pruning purposes, wear spurs or any other footwear which, in the opinion of the City Forester, may injure the tree being pruned.

7.7 Site Appearance and Clean Up

Pruned limbs and branches temporarily placed in a public area shall be placed in such a manner as to eliminate any obstruction to motor vehicles and pedestrians. Site cleanup shall include removal of large twigs, chips, leaves and limbs from the street, curb, terrace, sidewalk, private lawns and driveways with the appropriate tools for the job.

7.8 Topping

It is an unacceptable practice to top any public tree in the City and it is not recommended for any private tree. Topping is the indiscriminate cutting back of tree branches to stubs or lateral branches that are not large enough to assume the terminal role of growth. Topping, however, is not a viable method of height reduction and will make a tree more hazardous in the long term by encouraging excessive growth and extensive decay.

7.8.1 Topping trees for utility clearance purposes should not be the standard operating procedure. Pruning trees for line clearance is necessary and understandable. However, proper pruning cuts need to be made and only those limbs necessary for proper clearance should be pruned. Trees located under utility lines that require excessive pruning or pruning needs beyond what is acceptable for proper pruning, should be considered for outright removal and replaced with a suitable tree species for under utility lines. Topping trees is not an acceptable method of pruning under any circumstances and should not be done by City personnel, homeowners or contracted services to any tree or part of within the City right of way.

7.8.2 Trees damaged by storms or other causes, or trees under utility lines or other obstructions where other pruning practices are not practical may be exempt from these specifications as deemed by the City Forester.

7.9 Timed Pruning to Avoid Spread of Disease

7.9.1 Oak, Elm, and Fruit Trees In an effort to minimize the spread of disease should not be pruned from April 15th to September 1st. Trees damaged by storms or other causes during this time may be pruned after authorization from the City Forester. Final pruning cuts should be made in dormant season to remove the stub.

7.10 Wound Dressings

Under normal circumstances, wound dressings or pruning paints shall not be applied to pruning cuts. Research has shown that they may actually interfere with the protective benefits of tree gums and resins, and prevent wound surfaces from closing as quickly as they might under natural conditions.

Section 8.0 Miscellaneous Maintenance Practices

8.1 Stump Removal

The stumps of all removed trees shall be ground to a depth of at least eight inches (8") below the surrounding ground level. The excess stump chips shall be removed, the hole filled with clean topsoil, and the site graded and seeded. All costs associated with stump removal shall be borne by whoever bears the cost of tree removal.

8.2 Fertilization

The City does not, in general, fertilize public trees. A resident who wishes to fertilize the boulevard tree(s) adjacent to their property shall request written permission from the City. The City Forester has the authority to approve or deny a fertilization request. All fertilization shall adhere to the American National Standards Institute's *Standard Practices for Tree Care Operations – Fertilization (ANSI A 300 (Part 2)*.

8.3 Cabling and Bracing

Tree support systems are used to provide supplemental support to leaders, individual branches, and/or entire trees by limiting their movement. When a tree has a structural defect or condition that poses a high risk of failure, a supplemental support system can often reduce the risk. **However, not all potential hazards can be mitigated by their installation and cabling and bracing will be prohibited in terraces**. It is essential that each tree be carefully examined for risk of failure by a qualified arborist to ensure that the system will achieve its objective of providing added support, without increasing the risk of tree failure.

8.3.1 As a general rule, cables should be located above the crotch at a point approximately two-thirds (2/3) of the distance between the crotch and tops of the branch ends. Static support systems should use rust-resistant cables, thimbles and lags. Thimbles must be used in the eye splice in each end of the cable. Under no circumstances shall cable be wrapped around a branch. Installation of dynamic support systems shall be installed according to manufacturer specifications. All cabling and bracing practices shall follow the American National Standards Institute's *Standard Practices for Tree Care Operations – Support Systems, Cabling, Bracing, and Guying (ANSI A300 (Part 3)* and the International Society of Arboriculture's companion publication *Best Management Practices – Tree Support Systems: Cabling, Bracing, and Guying* (2014).

8.4 Spraying

The City, in general, limits the use of pesticides on its public trees. Applications may be done for the control of specific diseases or insects with the proper timing and materials to obtain the desired level of control. Suitable precautions shall be taken to protect and warn the public that spraying is being done. All application practices shall conform to the appropriate State and Federal regulations.

8.4.1 A resident who wishes to apply pesticides to the terrace tree(s) adjacent to their property shall request written permission from the City. The City Forester has the authority to approve or deny a pesticide application request. Residents applying for permission to apply pesticides must submit the following information: type of pesticide, timing (weeks(s) to be applied), quantity to be used, application method, and reason for pesticide use. If the application is done by a commercial contractor or is a restricted use pesticide (RUP), proof of a valid Wisconsin Department of Agriculture Trade and Consumer Protection Commercial Applicator License Number is also required.

Digger's Hotline and Local Utilities

Digger's Hotline (800-242-8511) and all appropriate local utility companies must be notified prior to any underground excavation, including but not limited to: tree planting, stump removal and root repair. Three business days are customarily required as sufficient notice for the processing of locates. Proper marking of excavation sites prior to calling ensures that no resident, employee or utility are at risk from damage to unmarked utilities. Work within 18" of any underground utility requires hand digging to expose the facility and prevent unnecessary damage to utilities. Private utilities (i.e. irrigation, pet fences, private lighting etc.) located within the public right-of-way shall be marked by the adjacent property owner at their expense. The City cannot assume responsibility for any damage as a result of unmarked private utilities in the right of way as they are prohibited.

References

American National Standards Institute. *American National Standards for Arboricultural Operations-Pruning, Repairing, Maintaining and Removing Trees, and Cutting Brush-Safety Requirements* (Z133.1-2017). International Society of Arboriculture, Champaign, IL.

American National Standards Institute. *American Standard for Nursery Stock*, (Z60.1-2014). American Nursery and Landscape Association, Columbus, OH.

American National Standards Institute. *American National Standards for Tree Care Operations-Tree, Shrub, and Other Woody Plant Maintenance-Standard Practices (Pruning)* (A300, Part 1-2017). National Arborist Association, Manchester, NH.

American National Standards Institute. *American National Standards for Tree Care Operations-Tree, Shrub, and Other Woody Plant Maintenance-Standard Practices (Fertilization)* (A300, Part 2-2018). National Arborist Association, Manchester, NH.

American National Standards Institute. *American National Standards for Tree Care Operations-Tree, Shrub, and Other Woody Plant Maintenance-Standard Practices (Support Systems a. Cabling, Bracing, and Guying* (A300, Part 3-2013). National Arborist Association, Manchester, NH.

American National Standards Institute. *American National Standards for Tree Care Operations-Tree, Shrub, and Other Woody Plant Maintenance-Standard Practices (Post-Planting Care)* (A300, Part 6-2018). National Arborist Association, Manchester, NH.

Council of Tree and Landscape appraisers, 2018. *Guide for Plant Appraisal*. International Society of Arboriculture, Champaign, IL. 170 pp.

Smiley, E.T. and S. Lilly. 2014. *Best Management Practices Tree Support Systems: Cabling, Bracing and Guying.* International Society of Arboriculture, Champaign, IL. 50 pp.

APPENDIX A - SMALL TREE PLANTING LIST

SPACING: Minimum ¾ of the Maximum Crown Spread

BOULEVARD OR MEDIAN WIDTH: 4-5'

Common Name	Cultivars	Max Crown Spread	Special Notes
		(W)	
Callery Pear		W=30'	Very Tolerant
	Chanticleer		H=40'
Crabapple		W=20'	Small Fruit
	Pinkspire		
	Spring Snow		
	Royal Raindrops		H=25'
	Velvet Pillar		
Hawthorn		W=30'	Spring planting only
	Cockspur		-Thornless
	Winter King		-Few Thorns
			H=30'
Ironwood		W=30'	Plant in partial shade
			H=20'
Japanese Tree Lilac		W=15'	Tolerant
	Beijing Gold		
	Ivory Silk		
	Summer Charm		H=20'
Maackia Amur		W=30'	Tolerant to dry, alkaline
	Starburst		soils. Intolerant of salt
	Summertime		spray
			H=30'
Magnolia		W=30'	Flowering
	Merrill		H=40'
Pear		W=20	Fruitless to small
	Flowering Prairie Gem		rounded pome.
			H=25'
Serviceberry		W=20'	-Single Stem Only
	Autumn Brilliance		3/8" berries
			H=25'
Tatarian Maple		W=20'	Very tolerant
	Hot Wings		
	Summer Splendor		H=25'

APPENDIX B - LARGE TREES PLANTING LIST

SPACING: Minimum $\frac{3}{4}$ of the Maximum Crown Spread

BOULIVARD WIDTH: 5' MINIMUM

Common Name	Cultivars	Max Crown Spread	Special Notes
		(W)	
Manchurian Alder		W=30'	Drought Tolerant
	Prairie Horizon		H=40
Buckeye		W=30'	Tolerant of Soil Type
	Autumn Splendor		and PH
	Prairie Torch		H=35'
Kentucky Coffeetree		W=50'	Seedless Cultivars, Very
	Espresso		Tolerant
	Prairie Titan		
	Stately Manor		H=70'
Amur Cork Tree		W=50'	Some Drought
	Macho		Tolerance,
	His Majesty		Seedless Cultivars
			H=45'
Elm		W=50'	Cultivars Resistant To
	Homestead		Dutch Elm Disease
	New Horizon		
	Patriot		
	Princeton		
	Prospector		
	Regal		H=60'
	Triumph		
Ginkgo		W=30'	Fruitless Cultivar
	Autumn Gold		H=50'
Hackberry		W=50'	Native
	Chicagoland		H=60'
Honeylocust		W=50'	Thornless cultivars
	Skyline		
	Shademaster		H=70'
Linden		W=30'	OVER 10% city wide
	Glenleven		distribution
	Greenspire		
	Redmond		
	Shamrock		H=50'

Maple		W=50'	OVER 10% city wide
	Autumn Blaze		distribution
	Autumn Spire		H=60'
	Burgundy Bell	(cont.)	(cont.)
Maple (cont.)	Emerald Lustre	W=50'	OVER 10% city wide
	Northwood		distribution.
	Red Sunset		
	Sienna Glen		
	Shangtung		
	Sugar Maple		H=60'
Northern Catalpa		W=40'	Long seed pods
			H=60'
Oaks			
	Beacon (columnar)	W=15'	H=40'
	Heritage	W=50'	H=80'
	Northern Red	W=50'	H=75'
	Pin	W=50'	H=70'
	Regal Prince (columnar)	W=15'	H=40'
	Swamp White	W=50'	H=60'
River Birch (single stem)		W=50'	H=60'
Turkish Filbert		W=30'	Tolerant once
			established
			H=50'
Spruce			ONLY -Parks or Open
			Space
	Black Hills	W=20'	H=40'
	White	W=20'	H=60'
	Norway	W=30'	H=60'
Tamarack		W=50'	ONLY -Parks or Open
			Space
			H=70'
Pine			ONLY -Parks or Open
			Space
	White	W=40'	H=80'
	Red	W=40'	H=80'

APPENDIX C - UNDESIRABLE SPECIES

Acer negundo Boxelder Weak wooded, female

attracts the Boxelder bug.

Acer saccharinum Silver Maple Weak wooded, susceptible to

storm damage, aggressive

root system

Alianthus altissima Tree of Heaven Weak wooded

Eleagnus angustifolia Russian olive Invasive

Fraxinus spp. Ash Susceptible, Emerald Ash Borer

Populus alba White Poplar Roots block sewers, weak

wooded, cotton type seeds

Populus nigra italicia Lombardy Poplar weak wooded

Rhamnus pseudacaia Buckthorn Invasive

Robina spp. Black Locust Shallow rooted, borers

Ulmus pumila Siberian Elm Weak wooded

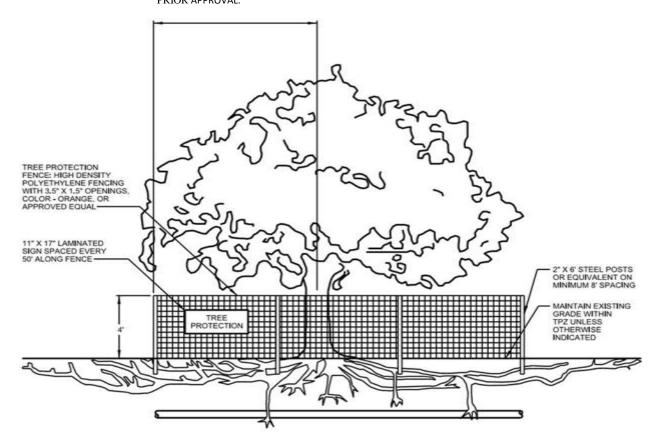
Ulmus Americana American Elm Disease prone (Dutch Elm)

APPENDIX D - TREE PROTECTION ZONE (TPZ)

NOTES:

- SEE SPECIFICATIONS FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
- TREE PROTECTION FENCE MUST BE MAINTAINED UNTIL COMPLETION OF WORK.
- NO TREE PRUNING SHALL BE DONE EXCEPT BY CITY OF WAUSAU PRUNING PERMIT.
- NO STORAGE OF MATERIALS OR OPERATION OF EQUIPMENT MAY TAKE PLACE INSIDE TPZ.
- CONTRACTORS MAY ONLY OPEN TRENCH WITH APPROVAL FROM CITY FORESTER.

TREE PROTECTION ZONE RADIUS EQUALS 1' FOR EACH 1" OF TRUNK DIAMETER MEASURED AT 4.5' ABOVE GRADE. MODIFIED -TPZ REQUIRES PRIOR APPROVAL.



APPENDIX E – PUBLIC TREE PERMIT APPLIATION



CITY OF WAUSAU

PUBLIC TREE PERMIT APPLICATION

REQUIRED PER WAUSAU MUNICIPAL CODE 12.56.080

NAME or BUISNESS:				
ADDRESS:				
CITY:	ZIP:	PHC	NE:	
Application to (circle one): PLANT	PRUNE	REMOVE	PESTICIDE TREAT	MENT
Description of public tree location and wor	rk to be performed:			
SPECIES PLANTING:				
Illustrate Location				
			id d Giv CVV	
f permit is granted, I hereby agree that an Planting and Preservation Specifications M				
Property Owner's Signature X			Dete	
_	_	_		
Public Tree Permit has been:	lgranted	□DF	ENIED	
FORESTRY DEPARTMENT X			Date	
ORESTRI DEI ARTMENT A				

After completing this form, please return to the Wausau and Marathon County Parks, Recreation, and Forestry Department, 212 River Dr. #2, Wausau, WI 54403, Phone: (715) 261-1550. Upon approval, a copy of the permit will be returned to you.

Call Digger's Hotline 72 Hours Before You Dig. – (800) 242-8511

APPENDIX F- Wausau Municipal Code Chapter 12.56 STREET TREES

Sections:

12.56.010 Purpose.

12.56.020 Definitions.

12.56.030 City forester.

12.56.040 Damage to trees and shrubs.

12.56.050 Fastening materials to trees and shrubs.

12.56.060 Permit to move buildings on streets.

12.56.070 Permit to public utilities.

12.56.080 Permit to plant, remove, maintain and protect trees and shrubs.

12.56.090 Power to plant, remove, maintain and protect trees and shrubs.

12.56.100 Public nuisance.

12.56.110 Abatement of nuisance.

12.56.120 Interference with the city forester.

12.56.130 Appeal from order of city forester.

12.56.140 Master street tree plan.

12.56.150 Arboricultural specifications and standards.

12.56.160 Dutch elm disease.

12.56.170 Authority of city forester to enter private premises.

12.56.180 Severability.

12.56.190 Cost of planting, removing, maintaining and protecting trees and shrubs.

12.56.010 Purpose. It is the policy of the city to regulate and control the planting, removal, maintenance, and protection of trees and shrubs in the city; to eliminate and guard against dangerous conditions which may result in injury to persons using the public areas of the city; to promote and enhance the beauty of the city; to prevent damage to any public sewer or water main, street, sidewalk, or other public property; to protect trees and shrubs located in public areas from undesirable and unsafe planting, removal, maintenance, and protection practices; and to guard all trees and shrubs within the city against the spread of disease or pests. The provisions of this chapter shall apply:

- (a) To all trees and shrubs presently or hereafter planted in or upon any public area; and
- (b) To all trees and shrubs presently or hereafter planted in or upon any private premises which shall endanger the life, health or safety of persons or property. (Ord. 61-4202 '1(part), 1972.)

12.56.020 Definitions. (a) "Public Way" includes all public streets, roads, boulevards, alleys and sidewalks.

For statutory provisions defining the powers and duties of the city forester, see ' 27.09, Wis. Stats. As to the removal of fallen trees from highways, see ' 86.03, Wis. Stats.

- (b) "Public Area" includes all public ways, parks, and other lands owned or leased by the city.
- (c) "Trees and/or Shrubs" includes all woody vegetation presently or hereafter planted on any public area.
- (d) "Maintenance" and "Protection" include all operations of: trimming, pruning, spraying, injecting, fertilizing, treating, bracing, doing surgery work, cutting above or below ground. (Ord. 61-4202 '1(part), 1972.)
- 12.56.030 City forester. (a) Appointment: The Wausau park and recreation committee may employ a city forester (' 27.09, Wis. Stats.).
 - (b) Powers and Duties: The city forester shall have the following general powers and duties:
- (1) To direct, manage, supervise, and control the city street tree program to include all planting, removal, maintenance, and protection of all trees and shrubs on all public areas; to supervise park department personnel in the planting, removal, maintenance, and protection of said trees and shrubs.
- (2) To guard all trees and shrubs within the city so as to prevent the spread of disease or pests and to eliminate dangerous conditions which may affect the life, health or safety of persons or property.
- (3) Such other powers and duties as are provided by the laws of Wisconsin, particularly Sections 27.08 and 27.09 of the Wisconsin Statutes; by ordinances of the city; and by the Wausau park and recreation committee. (Ord. 61-5339 '5, 2007, File No. 07-0718; Ord. 61-4202 '1(part), 1972.)

12.56.040 Damage to trees and shrubs. No person shall in any public area of the city: break, injure, mutilate, kill, or destroy any tree or shrub; permit any animal under his control to do so; permit any fire to injure any portion of any tree or shrub; permit any leak to exist in any gas line within the root zone of any tree or shrub; permit any toxic chemical to seep, drain, or be emptied on or about any tree or shrub; or permit electric wires to come in contact with any tree or shrub. During building operations, the builder shall erect suitable protective barriers around public trees and shrubs which may be injured, after first giving written notice to the city forester. (Ord. 61-4202 '1(part), 1972.)

12.56.050 Fastening materials to trees and shrubs. No person shall fasten any sign, rope, wire, or other materials to or around or through any public trees or shrub without obtaining a written permit from the city forester, except in emergencies such as storms or accidents. (Ord. 61-4202 '1(part), 1972.) 12.56.060 Permit to move buildings on streets. For provisions relating to moving buildings, see Chapter 15.40 of this code. (Ord. 61-4202 '1(part), 1972.)

12.56.070 Permit to public utilities. No permit shall be issued by the city for the installation of public utilities until it is endorsed in writing by the city forester. When a permit is given by the city forester to a telephone, telegraph, electric power, gas or other public service corporation or utility to trim trees or perform other operations affecting trees or shrubs, the amount or extent of such work shall be limited to the actual necessities of the services of the company and such work shall be done in a neat and professional manner and according to the arboricultural specifications and standards set forth in the written permit. The city forester may assign an inspector to supervise the work performed under the permit. The expense of such service shall be charged to the permittee at the usual city rate. (Ord. 61-4202 '1(part), 1972.)

12.56.080 Permit to plant, remove, maintain and protect trees and shrubs. No person shall plant trees or shrubs in any public area unless a written permit is first obtained from the city forester. No person shall trim, prune, remove, treat, spray, inject, fertilize, brace, do surgery work, cut above or below ground, or otherwise disturb any tree or shrub in any public area without obtaining a written permit from the city forester. The permittee shall adhere to the arboricultural specifications and standards of workmanship set forth in the permit. A permit shall not be required to water trees and shrubs. (Ord. 61-4202 '1(part), 1972.)

12.56.090 Power to plant, remove, maintain and protect trees and shrubs. The city forester shall have the authority to plant, remove, maintain, and protect trees and shrubs on all public areas as may be necessary to ensure safety or preserve the symmetry and beauty or such grounds. (Ord. 61-4202 '1(part), 1972.)

12.56.100 Public nuisance. Any tree or shrub or part thereof growing upon private or public property which is:

- (a) Interfering with the use of any public area;
- (b) Infected with an infectious plant disease;
- (c) Infested with injurious insects;
- (d) Injurious to public improvements; or
- (e) Endangers the life, health, or safety of persons on public property is declared a public nuisance. (Ord. 61-5627 '1(part), 2014, Ord. 61-4202 '1(part), 1972.)
- 12.56.110 Abatement of nuisance. (a) Trees and Shrubs on Public Areas. If the city forester determines, with reasonable certainty upon inspection or examination, any nuisance tree or shrub, as herein defined, exists in or upon any public area in the city, he shall immediately cause it to be treated, trimmed, removed, or otherwise abated in such manner as to destroy or prevent the spread of the nuisance. The manner in which the nuisance shall be abated, shall be determined by the city forester.
- (b) Trees and Shrubs on Private Premises. If the city forester determines with reasonable certainty upon inspection or examination that any nuisance tree or shrub, as herein defined, exists in or upon any private premises, he shall in writing notify the owner or tenant having charge of such premises. Within thirty days after the issuance of said notice, said person shall cause the treatment, trimming, or removal and destruction of said nuisance tree or shrub as directed in the written notice. No damage shall be awarded the owner for the destruction of trees or shrubs destroyed pursuant to this chapter. In case the owner or tenant having charge of such premises shall refuse or neglect to comply with the terms of the written notice within thirty days after receiving it, the city forester shall cause the removal, treatment, or trimming of said nuisance tree or shrub. The expense thereof shall be a charge upon the real property on which said tree or shrub is located pursuant to Section 66.0627 of the Wisconsin Statutes. (Ord. 61-5758 '1, 2018; Ord. 61-4202 '1(part), 1972.)

12.56.120 Interference with the city forester. No person shall prevent, delay, or interfere with the city forester or his assistants in the execution or enforcement of this chapter. (Ord. 61-4202 '1(part), 1972.)

12.56.130 Appeal from order of city forester. A person who objects to all or a part of an order or decision of the city forester may, within eight days of receipt thereof, notify the park and recreation committee and the city forester, in writing, of the nature of the objection and request a hearing thereon. Upon receipt of such objection, the city forester shall stay the order or work pending the outcome of the appeal process. Within eight days of the receipt of such notice of appeal, the park and recreation committee shall schedule a hearing before the committee or its designated subcommittee to hear the objection. The hearing shall be held within eight days of notice to the appellant. The city forester shall be present at such hearing. The appellant is entitled to be represented by counsel at appellant's expense. Within eight days after such hearing, the park and recreation committee shall, in writing, notify the appellant and the city forester of its decision. The park and recreation committee may affirm, cancel or modify the order, in its discretion, to best conform such order to the intent of this chapter and make its report thereon to the common council. If the appellant objects to the decision of the park and recreation committee, the appellant may, within eight days of receipt thereof, notify the city clerk, in writing, of the nature of the objection and request a hearing before the common council thereon. The council may adopt, reject or amend the park and recreation committee's recommendation. The city clerk shall notify the appellant, park and recreation committee, and city forester, in writing, of the council's decision. (Ord. 61-5627 '2(part), 2014; Ord. 61-4290 '1, 1975.)

12.56.140 Master street tree plan. The master street tree plan shall consist of city-wide, street-by-street written evaluation of all space and site factors which will aid in the determination of the tree species best suited to a particular planting site in regard to growth habits, shape, form, health, disease and pest resistance, conflicts with wires, lights, pavement, traffic, pedestrians, sidewalks, environmental pollution, sewers and space availability. The evaluation of the space and site factors and the species selection for a particular street shall be made by the city forester. (Ord. 61-4202 '1(part), 1972.)

12.56.150 Arboricultural specifications and standards. The following specifications and standards are established for the planting, trimming, and removal of trees and shrubs in the streets, parks and public places of the city:

(a) Planting:

- (1) All trees will be not less than one inch in diameter of trunk, at six inches above ground level.
- (2) No tree shall be planted closer than two feet from the curb line or outer line of the sidewalk. All trees shall be planted in line with each other and at a spacing of between forty and sixty feet from each other depending on the species of the tree. The exact planting location of each tree and shrub shall be determined by the city forester.
- (3) Where the soil is of poor quality, good soil shall be provided in an amount sufficient to insure proper growth.
- (4) The following species and varieties are prohibited for planting on the boulevards of public streets in the city: female trees of the genus Populus and female trees of boxelder.
 - (5) No tree shall hereafter be planted at or within twenty feet of an intersection.

(b) Trimming:

- (1) All trees and shrubs, on public or private property, which have branches overhanging a public street, shall have said branches trimmed to a clearance height of fourteen feet; all trees and shrubs, on public or private property, which have branches overhanging a public sidewalk, shall have said branches trimmed to a clearance height of ten feet. The city forester may waive the provisions of this section for newly planted trees if he determines they do not interfere with public travel, obstruct the light of any street light, or endanger public safety. Any tree or shrub not trimmed as herein provided shall be subject to the provisions of section 12.56.110.
 - (2) All saw cuts exceeding one inch in diameter shall be waterproofed with proper paint.
- (3) All dead wood, stubs, broken branches, badly formed branches, disease infected and insect infested branches and branches interfering with public travel, lighting, existing buildings, and traffic signs shall be removed during the trimming operation, with consideration given to the symmetry and beauty of the tree or shrub.

(c) Removing:

All public trees and shrubs which are marked for cutting shall be completely removed from the growing site and disposed of in an authorized manner. The stump shall be ground out to a depth suitable for future planting of trees or turf. (Ord. 61-4202 '1(part), 1972.)

- 12.56.160 Dutch elm disease. (a) Public Nuisances Declared. The common council having determined the health of the elm trees within the city is threatened by a fatal disease known as Dutch elm disease@declares the following to be public nuisances:
- (1) Any living or standing elm tree or part thereof infected with the Dutch elm disease fungus Ceratocystis ulmi (Buisman) Moreau or which harbors any of the elm bark beetles Scolytus multistriatus (Eichh) or Hylurgopinus rufipes (Marsh);
- (2) Any dead elm tree or part thereof, including logs, branches, stumps, firewood or other elm material not buried, burned, sprayed with an effective elm bark beetle destroying insecticide, or from which the bark has not been removed.
- (b) Nuisances Prohibited. No person shall permit any public nuisance as defined in subsection (a) of this section to remain on any premises owned or leased by him within the city.
- (c) Abatement of Dutch Elm Disease Nuisance. Abatement of Dutch elm disease nuisance shall be pursuant to section 12.56.110. (Ord. 61-4202 '1(part), 1972.)
- 12.56.170 Authority of city forester to enter private premises. The city forester or his representatives, after giving advance notice to the owner or tenant having charge, shall have the authority to enter upon private premises at reasonable times for the purposes of examining or inspecting any suspected nuisance tree or shrub. All nuisance trees and shrubs to be removed under the provision of section 12.56.110 may be appropriately marked by the city forester. (Ord. 61-4202 '1(part), 1972.)
- 12.56.180 Severability. If any provision of this chapter is declared invalid or unconstitutional by any court of competent jurisdiction, such declaration shall not invalidate any other provision of this chapter. The common council of the city declares they would have adopted each and every provision of this chapter separately regardless of the possible invalidity of any part thereof. (Ord. 61-4202 '1(part), 1972.)

