

# City of Superior Wisconsin

## Tree Planting and Maintenance Standards

### Principles

Three objectives to follow during the planting and maintenance of City trees:

1. Public and Crew Health/Safety.
2. Healthy environment for City trees.
3. Aesthetics of the planting site.

Information outlined in this document, follow the ordinances outlined in Chapter 90 Article IV of the City of Superior's Municipal Codes.

City trees are defined as any tree planted on City-owned land, including the right-of-way, parks and recreational areas, and all City facilities. Regardless of whom has planted the tree (in the past), the City is responsible for the tree's health and maintenance if the tree is on City land.

Citizens may plant a tree on their boulevard by filling out and sending in the free permit available through the City website. A list of recommended street trees (appendix B) and tree planting standards are also listed below.

### Tree Maintenance Personnel

All Trees that fall under the responsibility of the City of Superior WI will be cared for and maintained by city staff that will have proper training, equipment and arborist oversight. The following document outlines in greater detail the practices and timeline city staff will follow for tree planting, watering, maintenance and inspection. For a complete list of personnel; reference appendix A.

It is noted that some staff are seasonally hired and will obtain additional training involving the standards outlined in this document as well as direct supervision by a full time employee.

### Planting Site

#### Line of Site

At the intersection of roadways, no vegetation of any kind shall be planted within a sight triangle measuring 30 feet along the boundary of each intersecting roadway, measured from the edge of the curb (See Figure 1). If they require removal, trees that presently exist in the sight triangle will not be replaced; however they will not deliberately be taken to create the sight triangle.

# **City of Superior Wisconsin Tree Planting and Maintenance Standards**

## Planting Site Cont.

### Overhead Lines

No street tree whose mature height is in excess of 20 feet shall be planted directly under any overhead power line or within 20 feet of either side of the power line center line excluding street light or service lines. For a complete list of recommended trees; reference Appendix B.

### Tree Spacing

Large trees (mature height of 40 feet or more) shall be planted a minimum of 45 feet apart on center. Medium trees (mature height of 25-40 feet tall) shall be planted a minimum of 35 feet apart on center. Small trees (mature height of 25 feet or less) shall be planted a minimum of 25 feet apart on center.

Spacing of trees may expand beyond the minimum requirements listed above, if the tree species and “Tree Space” will promote a larger “Drip Line” when mature. This will help to prevent future tangling of branches on neighboring trees.

### Street / curb offsets

Regardless of the design of the boulevard (curb, no curb, sidewalk and curb), a minimum “tree space” (see figure 2) of 5 feet wide is required for planting a city tree.

A tree planting in any boulevard shall be centered in the width of the boulevard.

No tree will be planted closer to the outside face of the curb than 30 inches. Where there is no curb, a tree shall not be planted closer than 24 inches from the edge of the compacted gravel/asphalt/paved portion of the street.

Where the sidewalk is attached to the curb, the tree shall be a minimum of 3 feet behind the sidewalk (Provided the tree remains in the right-of-Way).

The City will show a preference to plant behind the sidewalk in the right-of-ways where the width is enough to accommodate the planting without encroaching on private property.

Trees shall not be planted in any ditch or drainage way

For an example of the required overhead clearances on roadways and sidewalks; reference figures 2 and 3. This will help in determining the planting sites offset and tree species that best fits the situation.

# **City of Superior Wisconsin**

## **Tree Planting and Maintenance Standards**

### Planting Procedures

Planting procedures will follow the standard process outlined by the Wisconsin Department of Natural Resources. Some variations will occur with the difference in planting sites, size of tree and type of nursery stock received (i.e. bare root vs balled and Burlapped). The process is as follows and referencing figure 4 will help in the explanation of terms.

1. Locate and expose the root collar.
2. Create a planting space that is two times the width or larger of the root ball and no deeper than the height of the root collar.
3. Prepare the tree by removing transportation guards/ties and root ball containment.
  - a. Remove and loosen the root balls from any containers that the tree may have been planted and shipped in.
  - b. Once placed into the planting site then remove any wire/burlap from Balled and Burlapped trees.
  - c. Some root trimming may be required if “Circling roots” are observed upon the exposure of the root ball. This will promote outward growth of roots.
4. Ensure that when positioned; that the root collar is either level with or 1” to 2” above the finished soil grade.
5. Back fill the planting space with clean loose soil. Work in the soil around the roots; however avoid any compacting around the root ball.
6. Create a small trench around the planting site to contain water runoff and act as a border for future mulch.
7. Apply a trunk guard to the base of the tree. (Cut section of corrugated drain tile sized to allow for a minimum of 1 inch room for growth).
8. Cover the exposed soil up to the outer trench line with 2” to 4” of mulch.

### Staking

All trees planted by the city will be staked according to the following standards.

For trees less than 3” caliper; utilize two stakes. For trees greater than 3” caliper; utilize three to four stakes positioned opposing of each other.

Place stakes outside of the planting area and utilize fabric tree straps folded over to secure the tree to the stakes. Secure the wire snug yet not tight to promote some movement of the tree in wind.

Position straps at the lower 1/3 of the height of the tree.

Stakes / Ties and any remaining identification tags will be removed after 1 year.

# City of Superior Wisconsin

## Tree Planting and Maintenance Standards

### Maintenance

#### Pruning (Reference Figure 5)

Pruning done within the first year will only be to remove dead or broken branches.

Basic pruning will start after the tree has been planted for 2 years. Continued pruning will be conducted with a goal to revisit trees at 2 year increments or as needed to allow for continued monitoring of the trees health.

Proper “Three Cut Method” will be utilized on branches needing to be removed by saw. All finish cuts shall be made just outside the branch collar, which may be at a slight outward angle, no branch stub shall be left. .

Continued Pruning – Established trees (6" DBH or 10 years from planting) should be put on an every 5 - 7 year routine pruning cycle to assure proper road/sidewalk clearance as well as removal of dead (2" and larger), broken, parallel and crossing/rubbing branches throughout the entire crown. During this process no more than 25% of the live crown shall be removed at any one pruning.

Disease Prevention Pruning – A window of “limited pruning” between April through August will exist as to lessen the chances and spread of Dutch Elm Disease or Oak Wilt.

Pruning Clearance Guidelines follow (Figure 3):

#### Sidewalks:

Americans with Disabilities Act *Accessibility Guidelines* (ADAAG), state that no limbs/branches can protrude: (1) lower than a height of 80 inches, (2) higher than 27 inches from the ground, and (3) outward more than 4 inches.

#### Roadways:

Limbs/branches should be cleared to allow for a 14' clearance whenever possible while preserving the health and stability of the tree. This clearance zone will be maintained in the area between face of curb (edge of hard surface) to face of curb (edge of hard surface).

## **City of Superior Wisconsin Tree Planting and Maintenance Standards**

### **Watering**

Continued supplementary water supply will be applied when needed for one year from planting or until the tree is established. This will ensure that water is supplied (by nature or scheduled application) two times a week for the first year from planting. Continued watering will be reduced the 2<sup>nd</sup> and 3<sup>rd</sup> years. City water will be utilized for this process and applied using a vehicle outfitted with a tank and pump.

### **Miscellaneous Care and Inspection**

It will be a goal to have a tree revisited with regularity for the first year during the watering schedule and then every two years as normal pruning occurs. This will allow for opportunity to check on the plantings health and to determine any further maintenance needs.

The tree protection collar (plastic drain tile pipe) will be removed or replaced with a larger diameter pipe as needed based on the encroachment of the trees growth. Any less room than 1 inch in difference of diameter will warrant removal or replacement.

### **Tree Warranty**

#### **Shipment of Trees**

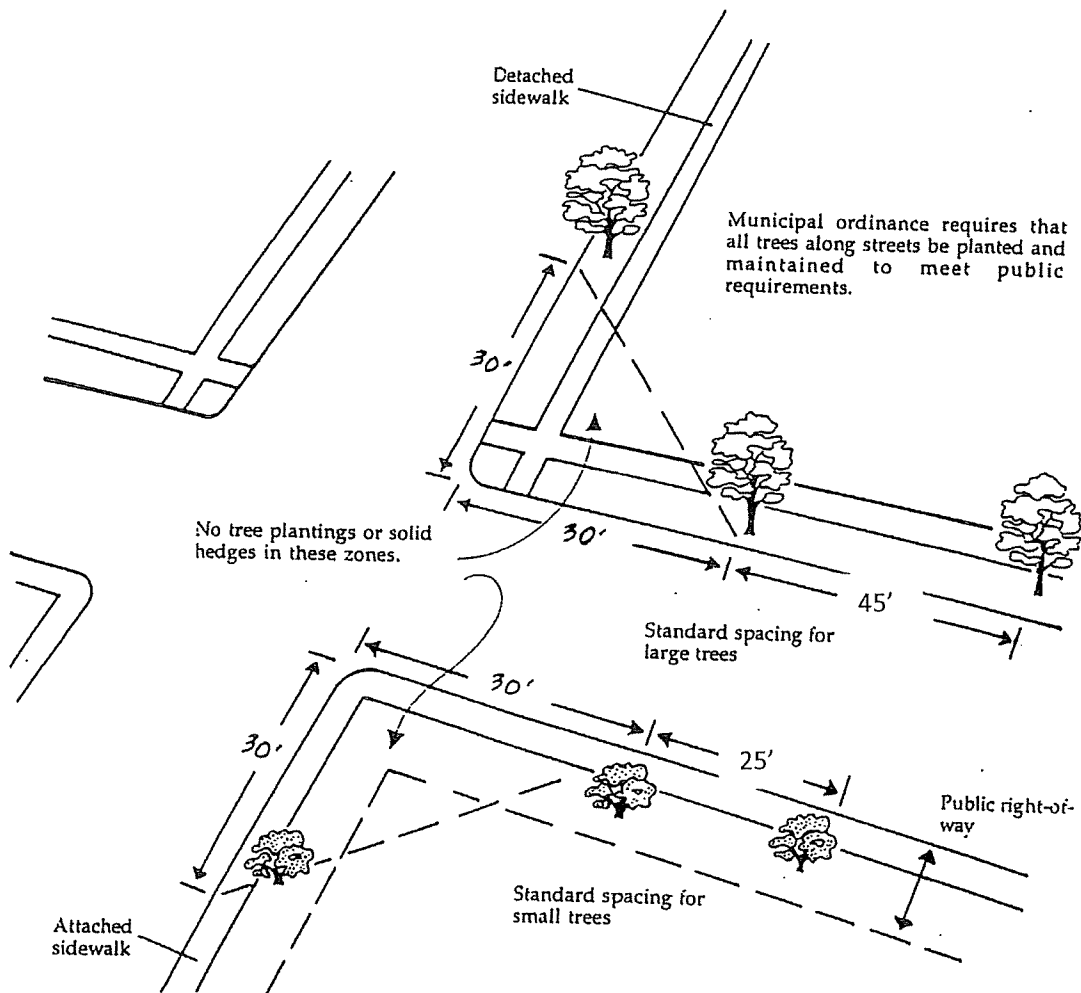
If accepted by the city the trees may carry any warranty offered by the nursery supplier. Such warranty will include the right to reject a delivery due to damaged stock upon arrival to the city staff.

#### **Grant Funded Trees**

Trees obtained through any grant process will carry a warranty for replacement (due to poor condition or mortality) that extends to the life of the grant. In such cases the city will be prepared to fully replace all trees that are in poor condition or die prior to inspection at the end of the project grant agreement, unless loss was due to natural disaster beyond the control of the project manager.

# City of Superior Wisconsin Tree Planting and Maintenance Standards

## Street Tree Spacing and Location Requirements Figure 1



Almost all streets within the city have rights-of-way that extend back of the curb line. This area is public property and is generally used for utilities, walks and landscaping. The width of this right-of-way area varies considerably in different sections of town.

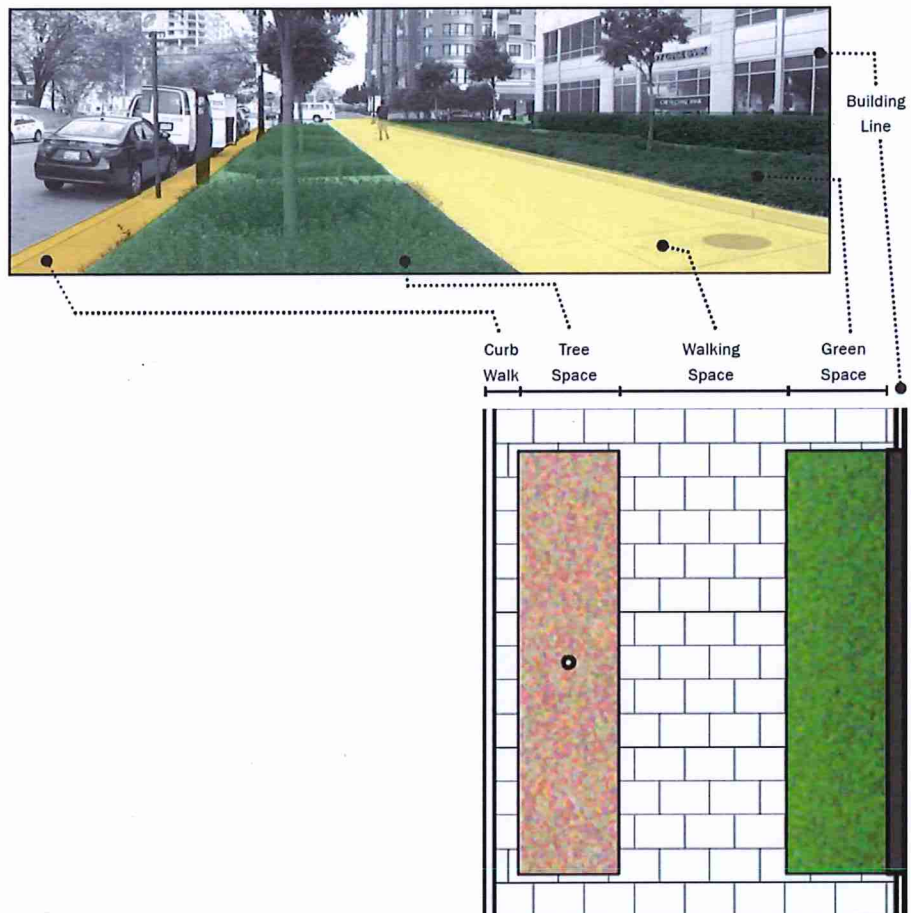
*This figure was taken from the City of Fort Collins, Colorado, Standards and Specifications Guide and modified for the City of Superior's use.*

# City of Superior Wisconsin Tree Planting and Maintenance Standards

Figure 2

## Source

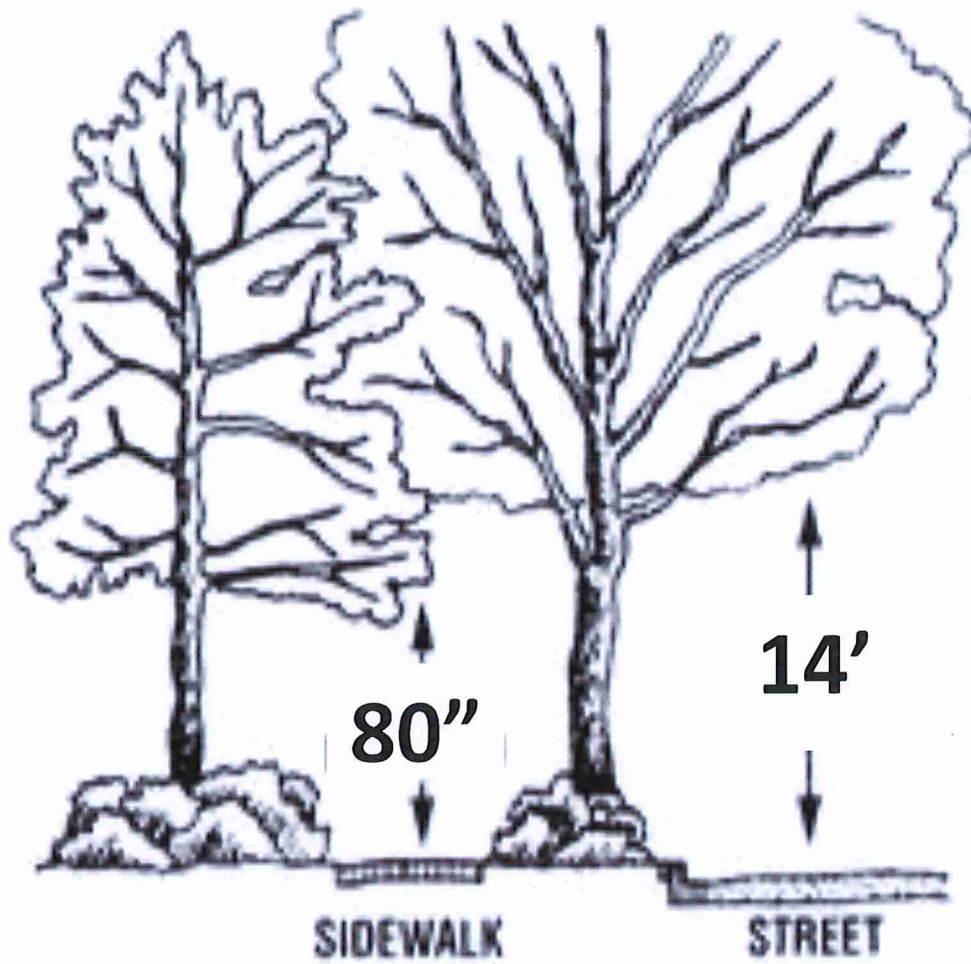
DC, C. T.-W. (2008). *Tree Space Design - Growing the Tree Out of the Box*. 3030 12th Street NE Washington, DC 20017: Casey Trees - Washington DC.



(DC, 2008)

**City of Superior Wisconsin  
Tree Planting and Maintenance Standards**

Figure 3

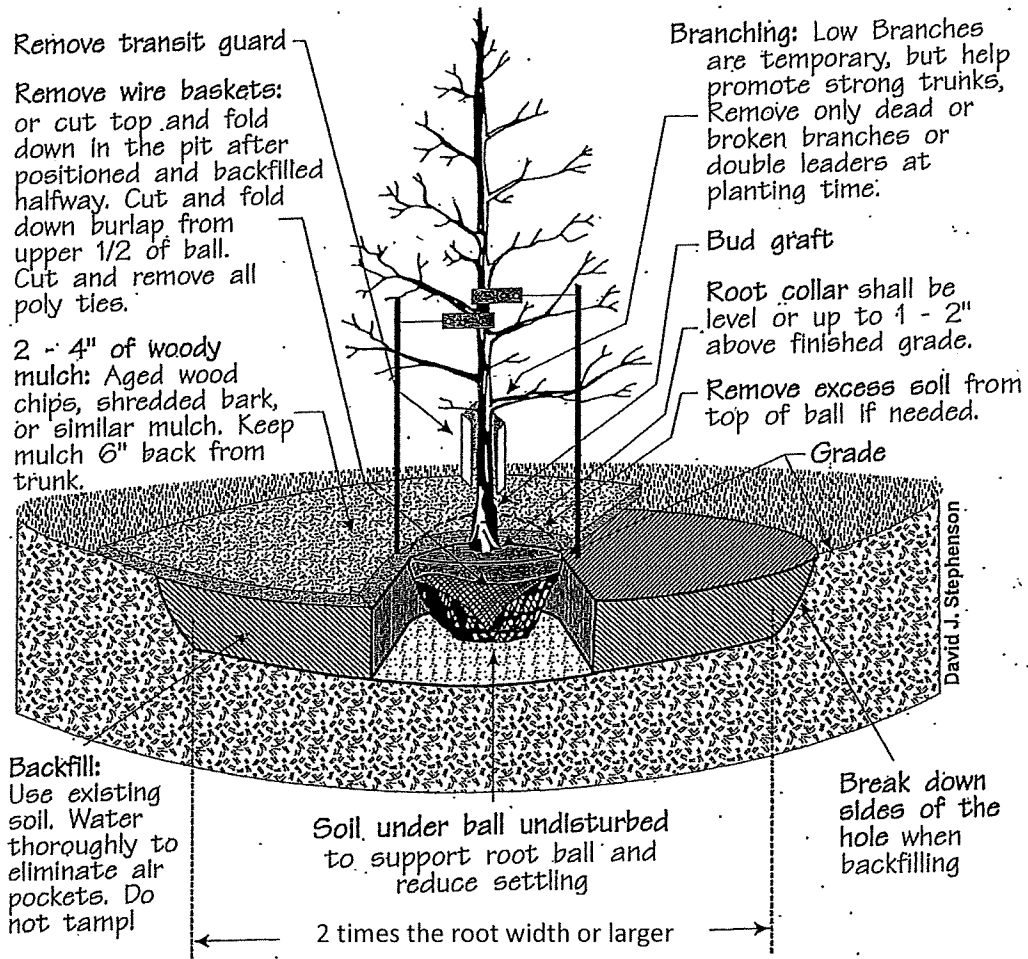




**City of Superior Wisconsin  
Tree Planting and Maintenance Standards**

Figure 4

# Proper Tree Planting Diagram



Stake only if you have to. Use 2-3"-wide webbing straps and secure to stakes with heavy gauge wire. The wire should be able to stick straight out from the stake and hold the webbing strap up, preventing it from sliding down the tree. Do not stake tightly - trees gain strength from movement. Remove all stakes after one year.

Use of tree wrap is not recommended, as it causes a number of problems for the tree.

Wisconsin Dept. Of Natural Resources - Oct. 2000

City of Superior Wisconsin  
Tree Planting and Maintenance Standards

Figure 5

