



## KENT COUNTY ROAD COMMISSION

### POLICY

No.  
506

Effective Date  
On Going

Revised Date  
11/25/09

## Tree Planting

Policy authored by Maintenance and Traffic and Safety Divisions

Kent County is known for its beautiful rolling countryside and lush vegetation. The tree-lined system of roads throughout the County has played a major role in supporting this reputation. The tree planting policy and program that follows provides guidelines for the Kent County Road Commission (the Commission) to follow in planting and maintaining trees within its highway right-of-way.

The Board of Kent County Road Commissioners has full authority over all planted or naturally growing trees, plants, and shrubs within the road right-of-way for the following purposes.

1. To replace those removed during road construction or maintenance
2. For safety issues
3. For roadside beautification

A Roadside Tree Guide that lists the acceptable species to be planted is included with this policy.

Property owners may plant trees within highway right-of-ways and highway easements under the jurisdiction of the Commission only after a permit has been issued by its Engineering Division. All trees planted must meet the specifications outlined in this policy with regard to species, distance from the roadway, and spacing. Necessary spacing requirements will correspond to the crown spread listed with the desirable species. The location of trees will also conform to the standards of spacing. Locations in relation to intersections will be based on individual intersection design, sight distance, and safety standards. Generally, trees will be located no closer than 50 feet from each other between intersections and outside of any vision corners at intersections.

This Tree Planting Policy will result in many benefits to the people of Kent County. The tree varieties selected are hardy and resistant to disease and, therefore, will vigorously grow to maturity. It will enhance the air quality throughout the County, and help ensure continued compliance with Federal and State air quality standards. The trees planted will also provide shelter and food for the wildlife in the County.

These are just a few of the benefits which will arise from this policy, but, above all, it will preserve the natural beauty inherent with Kent County's tree-lined roads for the enjoyment of its future generations.

## **Planting Program**

### **Planting and Replacement Policy:**

Approved tree planting will be performed by successful contractors after competitive bids are received for each project. The planting program will be planned and supervised by the project engineer in coordination with this policy. Trees, plants, and shrubs will be planted only on County right-of-ways and easements unless an agreement between the property owner and the Kent County Road Commission is authorized to include areas outside of these areas.

A landscape design plan will be prepared during the design phase and will be included in the normal set of plans for each construction project. The preparation of the landscape design plan will be coordinated between the Engineering Division and the Planning Division. All tree planting on road projects will be performed after the shoulder construction has been completed.

Trees planted under contract will have a minimum diameter of one and one-half inches (1-1/2"), measured one foot above the root collar. This will include all new plantings and replacements. Trees planted in developing commercial, industrial, or residential areas must not be disturbed by the developer during construction. In accordance with the Kent County Road Commission "Tree Removal Policy, all requests for tree removal within the highway right-of-way or highway easement must be reviewed and approved by the Traffic and Safety Division.

Trees destroyed by natural phenomena such as disease, wind, or lightening, will not necessarily be replaced. Those damages that can be traced to human negligence will be computed and the damaging party will be billed for full restitution on a replacement basis or for an amount equal to the value of the destroyed tree. This value will be determined from the "Michigan Tree Evaluation Guide" of the Michigan Forestry and Park Association. Trees fewer than four inches (measured one foot above the root collar) will be replaced with an equal sized tree.

### **Contract Policy:**

Plants will be trimmed, mulched, wrapped, and braced if necessary, thoroughly watered, and properly fertilized by the contract at the time of planting. This policy will be in keeping with the specifications outlined in the project contract. The contractor will guarantee all plants for a period of one year after the date of planting. The contractor free of charge to the Road Commission shall replace any plants, which die during that one-year period. Replacements will not be made after the contractor's guarantee has expired.

### **Resident Information:**

Adjacent property owners will be given information at the time of planting requesting their assistance in tree care. The information will try to generate a true interest with residents by including information about "their trees".

A list of desirable species allowed for planting within the right-of-way will be included in the information to correspond with identification tags placed on the trees at the time of planting. Proper care instruction and information on maximum height, spread, and shape at maturity will also be included. This will allow the residents to know and respect "their trees".

## **Site Selection:**

Ideally, trees should be placed in an area where they will not be disturbed for any highway reconstruction or improvements for the next twenty to thirty year period. In order to assure this, coordinated efforts should be maintained between the Engineering, Permit, and Right-of-Way Divisions during the design phase of a project.

The main consideration in all plantings should be the safety of the motorists and pedestrians. Proper location of all planted trees will insure this safety. These locations will vary, however, depending on the type of roadway, width of right-of-way, and placement of utilities.

On four lane urban area roads with curb and gutter drainage, trees should not be planted any closer than ten feet to the curb. Two lane roads in rural areas normally have a maximum legal speed limit of 55 miles per hour. This high rate of speed necessitates trees being planted not closer than 30 feet to the traveled portion of the road. Trees should be kept away from sidewalks or separate (Class I) non-motorized pathways whenever it is possible.

Exhibit A shows typical placement of trees along urban roads with curb and gutter drainage. Rural roads with ditch drainage are shown in Exhibit B. Exhibit C shows the typical location of utilities in new platted streets to be used as guides for tree placement. These cross sections should be used as a guide to the actual landscape design plan because each project will have its own individual restrictions and design limitations based on right-of-way width and centerline location within the right-of-way. In each case, trees will be planted in such a manner as to avoid the "row effect" whenever possible.

## **Planting Season and Type:**

Balled and burlapped stock will be used exclusively as specified by contract. This stock will usually be planted in the fall (October or until the ground freezes) and in the spring (April or until the leaves are out). Trees planted with the frozen ball method will naturally be planted during the winter months.

## **Location and Spacing:**

Each variety of tree has a definite environmental niche. Before developing the landscape plan for a project, the following factors should be taken into account in order to determine the most appropriate tree variety for the site.

1. Spacing needed
2. Drainage
3. Topography
4. Soil Type
5. Physical obstructions
6. Exposure and slope
7. Root spread
8. Shade tolerance
9. Mature height

## ROAD SIDE TREE GUIDE

### **Acer platanoides – Emerald Queen Norway Maple**

This hardy maple cultivar has been one of the most widely used tree species. It grows well in a wide range of soil types and its umbrella shaped crown does accommodate low utility wires. Poorly drained clay soils and areas that receive heavy winter salting should be avoided. The tree also should only be planted in terraces larger than five feet in width.

### **Acer platanoides – Crimson King Norway Maple**

The deep maroon foliage of this tree makes it very striking. It is somewhat small than other varieties of Norway Maple, reaching a mature height of only 35 feet. This allows it to grow very well under low utility lines. As with other Norway Maples, it is sensitive to road de-icing salts and to poorly drained clay soils. Its slow growth and small size do make it a good choice for planting in narrow terraces.

### **Acer platanoides – Columnare Norway Maple**

This Norway Maple cultivar is ideally suited for planting in extremely narrow terraces or where screening is desired. It grows to a height of 40 feet, but its upright branch habit gives a crown spread of only twelve to fifteen feet. Low utility lines are difficult to trim around with this species and should be avoided, as should poorly drained clay soils and heavily salted areas.

### **Acer rubrum – Red Sunset Red Maple**

Best known for its brilliant fall color, this maple is becoming a real favorite. It grows rapidly, reaching a mature height of sixty feet and has an upright branch habit. It is extremely hardy and grows well in all soil types. The Red Maple is however, salt sensitive and does require a large planting area. Terraces smaller than six feet in width should be avoided. Trimming can be done around utility lines with relative ease.

### **Gleditsia triacanthos inermis – Skyline Locust**

This is a stately and graceful tree that withstands all urban conditions. Its wide branching habit makes it a good choice under low utility lines. It is salt tolerant and able to survive in a wide range of soil conditions. The locust does have a large root system that requires ample terrace space.

### **Ostryva virginiana – Hop Hornbeam**

The Hornbeam is a relatively slow growing medium sized shade tree. It grows best in a light sandy soil where it can receive periodic watering throughout its first few years. After it is established, it withstands drought conditions very well. The slender upright branches have a beech like foliage that is attractive in the fall. It can be planted in terraces larger than four feet in width with no difficulty.

### **Pyrus colleryana – Bradford Pear**

The Bradford Pear is an exceptionally hardy and attractive tree. It will tolerate most soil conditions, is not salt sensitive, and is virtually pest free. During the spring a small white flower is produced and during the fall the leaves turn yellow, orange, and maroon. The branch habit is upright, but the tree should not be planted under low utility lines. The tree does have a wide and low crown and is best used in a large terrace. Best transplantation success is realized in the spring.

### **Tolia cordata – Greenspire**

This Linden variety grows well only in a rich, well-drained soil. Its crown is very compact and conical shaped. At maturity it stands about fifty feet tall. The Greenspire Linden is best used in a medium sized terrace where no trimming for overhead wires will have to be done. The tree is also extremely salt sensitive and streets receiving periodic salting should be avoided.

### **Tilia x euchlora – Crimean Linden**

This Linden variety has a larger leaf than the Greenspire and seems to be somewhat hardier. It still requires a well-drained soil and a medium sized terrace for best growth. It is also very salt sensitive like the Greenspire cultivar. The Crimean Linden grows to a sixty-foot height and has an open conical crown that is much less compact than Greenspire. Both cultivars are best suited to spring plantings.

### **Zelkova serrata – Village Green**

Japan has introduced this Elm-like shade tree to us. It grows best in a large terrace with a well-drained clay soil. Its vase shaped crown does allow for easy line clearance. To most people this tree is a carbon copy of our American Elm, but the species is not in the Elm family and, therefore, not susceptible to Dutch Elm disease.

### **Sophora japonica – Regent**

Often called a pagoda tree, this small shade tree is extremely hardy. It has a large oval crown of dark green foliage that bears a small white flower in mid summer. Its large crown dictates a large terrace area and it may be difficult to allow for vehicular clearance on terraces less than eight feet in width. The pagoda tree also has a low salt tolerance. Transplant survival is much better in the spring than it is in the fall.

## **Unacceptable Species**

These species may not be planted within the Kent County right-of-way:

Willow Species  
Box Elder  
Poplar Species  
Fruit Trees  
Ash Species

Silver Maple  
Chinese Elm  
Elm Species  
Oak Species