

## **Lower Makefield Township Ordinance 397**

### **178.85 (H) Tree replacement.**

(1) No tree shown to remain on an approved subdivision or land development plan shall be removed without prior Township approval unless it is the cause of immediate danger to life or property.

(2) No tree shown to remain on an approved subdivision or land development plan other than that which is the cause of immediate danger to life or property shall be removed without Township approval based upon a determination that any of the following considerations exist:

(a) Affliction by a disease which threatens injury or destruction of other trees.

(b) Federal, state or Township laws, ordinances or regulations superseding this chapter require removal.

(c) The tree has been substantially damaged or has died.

(3) In the event that a tree over three-inches caliper which is shown on an approved plan to remain and which must be removed in accordance with Subsection H(1) or (2) above, such tree shall be replaced with a tree a minimum of three inches in caliper of the same species or as approved by the Township at a rate of one new tree for every tree removed.

(4) Replacement sizes; alternatives.

(a) Trees of 10 inches caliper or more which are proposed to be removed during any stage of development, grading and/or

construction within a subdivision or land development shall be replaced with an approved tree or trees of the type provided for in this chapter. Said replacement trees shall meet the following size limitations:

[1] Trees with a diameter of 10 inches or more but less than 18 inches which are removed shall each be replaced with no less than four trees measuring 2 1/2 to three inches in caliper.

[2] Trees with a diameter of 18 inches or more but less than 30 inches which are removed shall each be replaced with no less than seven trees measuring 2 1/2 to three inches in caliper.

[3] Trees with a diameter of 30 inches or more which are removed shall each be replaced with no less than 10 trees measuring 2 1/2 to three inches in caliper.

(b) All trees to be removed shall be measured at a height of four feet above finished grade level. All replacement trees to be planted shall be measured at a height of six inches above the finished grade level in accordance with ANSI A300.

[Amended 11-5-2014 by Ord. No. 397]

(c) Replacement trees may be planted within, but not in place of, the required buffer trees as specified in § 178-82, the required street trees as specified in § 178-81, or the required parking lot trees as specified in Subsection § 178-57D.

[Added 11-5-2014 by Ord. No. 397]

(d) Replacement trees shall be selected in compliance with the Township's native plant ordinance. The priority shall be to plant the trees at the subdivision or land development site from which the trees are removed unless, with the Township's approval, the developer makes a payment to the Township in lieu of the onsite improvement.

[Added 11-5-2014 by Ord. No. 397]

[1] A replacement tree capital account ("tree bank") will be established by the Township where fees in lieu of on-site improvement shall be deposited. These funds shall be used for the purpose of planting replacement trees at approved locations in the Township.

[2] The contribution by the developer to the tree bank will be \$315 per replacement tree. Three years after adoption of this subsection, and every three years thereafter, the contribution per replacement tree will be adjusted to reflect the compounded annual changes in the All Urban Consumers Price Index (CPI-U) as reported by the U.S. Bureau of Labor Statistics. Any increase in the amount of the tree bank contribution shall be memorialized by the approval of a resolution by the Board of Supervisors.

[3] The contribution to the tree bank will be due at the time of the final execution of the development agreement with the Township.

[4] The amount of funds in the tree bank shall be specific at the Township's annual budget meeting and included in the budget as a line item.

[5] On an as-needed basis, the Environmental Advisory Council will advise the Township on possible uses of the tree bank funds, including where in the Township replacement trees can be planted and how they may be protected and maintained.

### **Revised 178.81 Street Trees**

[Amended 4-4-2007 by Ord. No. 368]

A. General requirements. Within any land development or subdivision, street trees shall be planted along both sides of all

streets where suitable existing street trees or natural wooded areas do not exist.

B. One of the following street tree planting concepts shall be used:

(1) Formal alley of street trees.

(a) Use a uniform street tree variety along each side of the right-of-way.

(b) Coordinate new plantings with existing street tree plantings where applicable. A uniform canopy from both sides shall be provided.

(c) The location of street trees shall be outside the right-of-way, 30 feet to 35 feet on center.

(d) Where a formal row of trees exists, the subdivision or land development shall be planned in a manner which will preserve it, where possible.

(e) Trees shall be a minimum of three-inch caliper when planted based on the standards of the American Standard for Nursery Stock (ANSI Z60.1) and American National Standards for Tree Care Operations (ANSI A300).

[Amended 11-5-2014 by Ord. No. 397]

(2) Naturalized street tree planting.

(a) Vary street tree varieties. The minimum size shall be three-inch caliper.

(b) An average of one street tree shall be installed for every 30 feet of curblin.

(c) Planting design shall accentuate views and integrate contrasting landscape elements.

C. At intersections, trees shall be located no closer than 30 feet from the intersection of the street right-of-way lines, except when governing standards increase the distance for clear sight.

D. Each tree must have a setback of at least four feet from curbs and sidewalks, but no more than 15 feet beyond the street right-of-way line and be planted outside any utility easements.

E. Street tree standards.

(1) Branching height. The height of branching shall bear a relationship to the size and kind of tree, so that the crown of the tree is in good balance with the trunk. Those trees selected for street tree usage shall have a minimum clearance height of seven feet above grade before branching begins.

(2) Caliper. The minimum trunk diameter shall be three inches. Caliper of the trunk shall be measured six inches above the ground level up to and including four-inch caliper size and 12 inches above the ground level for larger caliper sizes.

(3) Height. The table lists the approved range permitted:

| Caliper (inches) | Minimum Height Range (feet) |
|------------------|-----------------------------|
| 3 to 3 ½         | 14 to 16                    |
| 3 ½ to 4         | 14 to 16                    |
| 4 to 5           | 16 to 18                    |
| 5 to 6           | 18 and up                   |

(4) Root ball standards. All trees to be installed shall be balled and burlapped in accordance with ANSI Z60.1 and ANSI A300 specifications. The ball depth shall be not less than 60% of the ball diameter and in all cases contain the maximum of the fibrous roots of the tree. Bare root material is also acceptable (ANSI Z60.1 and ANSI A300 standards apply). The following standards shall apply to root ball diameters:

[Amended 11-5-2014 by Ord. No. 397]

| Caliper (inches) | Minimum Root Ball Diameter (inches) |
|------------------|-------------------------------------|
| 3 to 3 ½         | 32                                  |
| 3 ½ to 4         | 38                                  |
| 4 to 5           | 42                                  |
| 5 to 6           | 54                                  |

F. Trees should be planted outside any underground utility line easements. Also, trees planted under overhead utility lines shall be of a type that when mature shall not substantially grow through such lines. To help prevent tree branches from growing into wires, the following guidelines are recommended: low-growing trees (e.g., maximum of 25 to 30 feet high at maturity) can be planted within 15 feet of utility wires and in narrow planting areas (at least three feet wide); medium-sized trees (e.g., 45 feet maximum height) should be planted a sufficient distance from overhead wires such that their branches do not extend within 15 feet of, or grow over, utility wires; large trees (e.g., over 45 feet high) generally should not be planted within 40 to 50 feet of utility wires nor within 35 feet of a building.

G. Trees shall be planted according to the following procedures:

(1) Dig hole 2 1/2 to three times the width and as deep as the root

ball.

(2) Backfill with native/existing soil, removing any large debris.

(3) Create a circular ridge of soil at the edge of the root zone forming a saucer so that rainwater flows towards the tree roots.

(4) Always remove the nursery stake.

(5) Tree guying/staking. General tree staking/guying is not recommended except for the following:

(a) Where the tree falls over after the nursery stakes are removed.

(b) In high-wind areas.

(c) If required, guying/staking shall follow best current practices as approved by the Township's Plant Expert.

(6) If guyed, remove all tree guying material one year after planting.

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(7) All plantings should be mulched to a depth of three inches in a six-foot diameter ring around the base of each tree or continuous beds if trees or shrubs are less than six feet apart. Mulch should not be placed against tree trunks and should be placed four inches to six inches away from the tree trunk flare.

(8) Pruning. Based on best current ANSI A300 and ANSI Z60.1 practices, each plant shall be pruned to preserve the natural character of the plant.

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(9) Plant material. Trees shall be nursery grown stock of specimen

quality. They shall be of symmetrical growth or typical of the variety and supplied from sources in the same hardiness zone as the development is located and free of insect or disease problems.

(10) Alternate planting methods are acceptable upon approval of the Township's Plant Expert.

(11) Approved street tree list (see Exhibit 1 located at the end of this chapter). Other native species not listed and native cultivars may be used with prior approval of the Township's Plant Expert.

H. Applicable standards.

[Added 11-5-2014 by Ord. No. 397]

(1) American National Standards for Tree Care Operations, ANSI A300. American National Standards Institute, 11 West 42nd Street, New York, NY 10036.

(2) American Standard for Nursery Stock, ANSI Z60.1. American Nursery and Landscape Association, 1250 Eye Street NW, Suite 500, Washington, DC 20005.

(3) Hortus Third, the Staff of the L.H. Baily Hortorium. 1976. MacMillan Publishing Co., New York.

(4) All standards shall include the latest additions and amendments as of the date of advertisement for bids.

(5) Any standards necessary for and incidental to the execution and completion of planting not expressly addressed by this section shall be found in the applicable standards specified herein.