



## ARTICLE 16 Tree Preservation

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### 16.01 PURPOSE.

Copley Township has determined that preserving existing trees is beneficial to the community. Therefore, in order to protect and further the public health, safety and general welfare and to promote the coexistence of development and the natural environment, this Article establishes regulations for tree preservation in connection with the clearing and grading of land in preparation for development of the property with new structures. More specifically the purposes of these regulations are to:

- A** Encourage responsible development and minimize the negative environmental impacts that can be associated with development.
- B** Encourage the preservation of trees in order to reduce air and water pollution and reduce noise pollution, reducing the quantity of storm water run-off, protecting natural stream assets; and protecting, and, where possible, enhancing valuable natural water resources.
- C** Ensure that commercial and industrial developments, residential subdivisions, Conservation Developments (CDs), Mixed Use Compact Developments (MUCDs), Planned Developments (PDDs) and Planned Residential Developments (PRDs) are carefully planned, designed and constructed to maintain and preserve the existing trees on the site, while exempting residential lots with an area less than ten (10) acres and occupied by a single-family or other residential dwelling.
- D** Ensure that development integrates the natural features of the site into the development to minimize destruction of trees so as to conserve to the extent practicable all natural features that contribute to the overall well-being and ecological balances necessary to preserve a healthy community.
- E** Improve property values by ensuring that mature trees are conserved, which studies show increase the value of real estate.

### 16.02 REGULATIONS FOR TREE PRESERVATION.

Existing ~~trees woodlands~~ shall be maintained and preserved on the site according to the following regulations:

**A** Definitions. The following terms are defined for the purposes of these regulations:

1. Diameter at breast height (DBH). The diameter of the trunk of a tree measured at a height of four and one-half (4.5) feet above the natural grade. If the tree splits into multiple trunks below four and one-half (4.5) feet, the trunk shall be measured at its most narrow point beneath the split.
2. ~~Mature Woodlands. A stand of trees in which there are ten (10) or more trees that have a DBH of at least twelve (12) inches whose combined canopies cover at least fifty percent (50%) of the area encompassed by the stand of trees.~~

**3.2.** Stand of Trees. A grouping of two or more trees with contiguous canopies.

**4.3. Young** Woodlands. A stand of trees in which there are ten (10) or more individual trees having a DBH of at least six (6) inches whose combined canopies cover at least fifty percent (50%) of the area encompassed by the stand.

**5.4.** Critical Root Zone. The area inscribed by an imaginary line on the ground beneath a tree having its center point at the center of the trunk of the tree and approximately one foot in radius for every diameter inch of trunk.

**B** Residential and Non-Residential Uses: In a residential subdivision, Conservation Development, Mixed Use Compact Development (MUCD), or Planned Residential Development (PRD), or on parcels devoted to non-residential uses, trees shall be retained maintained and preserved according to the following:

1. A minimum of fifty percent (50%) of ~~mature~~ woodlands shall be preserved.
2. ~~A minimum of twenty-five percent (25%) of any young woodland shall be preserved.~~

**3.2.** Any tree that is not classified as part of a mature woodland or young woodland shall be maintained and preserved, to the extent practicable, when the tree meets the following criteria:

- a. The DBH of the tree is ~~six (6) eight (8)~~ inches or more.

- b.** The tree is not located within the area to be occupied by a permanent structure together with fifteen (15) feet on all sides, subject to approval of the location of the structure.
- c.** The tree is not located within the area to be occupied by driveways, accessory buildings, sidewalks, utility installations and similar necessary development subject to approval of the location of said improvements.

**4.** ~~In order to implement the standards set forth in Subsection 16.02B.1. through B.3. above in the best manner possible, the applicant may seek a variance from the Board of Zoning Appeals to reduce the lot requirements or setback requirements set forth herein, in order to permit more of the proposed site to be preserved. In reviewing such a variance request, the Board of Zoning Appeals shall determine that:~~

~~— The total number of lots do not exceed the number of lots that could be developed if the tree preservation regulations were not imposed;~~

- ~~a. The design of the subdivision, Conservation Development, Mixed Use Compact Development (MUCD), or Planned Residential Development (PRD) substantially complies with the purposes, intent and basic objectives of the zoning district in which it is located;~~
- ~~a. The proposal results in a development of equivalent or greater quality than that which could be achieved through strict application of such standards and requirements; and~~
- ~~a. The proposed development shall have no adverse impact upon the surrounding properties or upon the health, safety or general welfare of the community.~~

**B. Nonresidential Uses:** On parcels devoted to nonresidential uses, trees shall be retained and preserved according to the following:

4. Trees that are located within the proposed development area of the site may be removed upon the Zoning Inspector's approval of the location of such structures and improvements. For the purposes of this section, the development area of the site shall include the area to be occupied by permanent structures, access roads, parking areas, sidewalks, utility installations, and similar necessary improvements, and an additional fifteen (15) feet on all sides of the proposed area to be occupied by such improvements.

4. On all other portions of the site:

- a. A minimum of fifty percent (50%) of the mature woodlands shall be preserved.
- a. A minimum of twenty five percent (25%) of any young woodland shall be preserved.
- a. Individual trees that are not within a mature or young woodland but which have a DBH of eight (8) inches or greater shall be preserved to the extent practicable, as determined by the Zoning Inspector.

B. Reforestation. Upon the approval of the Architectural Review Board, a property owner or developer may clear more area than permitted in Subsections B and C above by agreeing to reforest another part of the site at a ratio of 1.2 times the area or the diameter of the trees otherwise required to be preserved. Such approval shall be granted only when it has been determined that alternative measures to preserve these trees are not feasible.

### **16.03 TREE RESTORATION AND RELIEF**

As an alternative to implement the standard set forth in Subsection 16.02 B and only with the recommendation and/or approval of the Architectural Review Board and/or Board of Zoning Appeals, the developer may engage in Tree Restoration by using one of or a combination of the options indicated below should:

A useable parcel of land does not exist or for some other reason, tree preservation is inappropriate or infeasible; or

The Architectural Review Board recommends the payment of a fee-in lieu of tree preservation or the granting of a variance for relief of tree preservation standards.

Copley Township reserves the right to engage with a Certified Arborist, at the applicant's expense, to verify the proposed Tree Restoration Plan as presented by the applicant.

#### **A. Fee-in-Lieu of Tree Preservation**

1. Fair Market Value Calculation
  - a. Identify the total number of woodland acres present on site.
  - b. Identify the total number of woodland acres reduction permitted.
  - c. Identify the total number of woodland acres reduction requested.
  - d. Apply the Fair Market Acreage Value as determined by the Summit County Fiscal Property Tax Records Assessed Land Value Acreage Value to the total number of woodland acres reduction requested above the total number of woodland acres reduction permitted. To determine the

Fair Market Acreage Value, take the total Assessed Land Value and divide by the total number of acres.

- e. The determined fee will be deposited into the Copley Township Tree Fund.

## 2. Cost to Restore Calculation

- a. Retain a Certified Arborist qualified in tree and plant appraisal.
- b. Identify the total number of woodland acres present on site.
- c. Identify the total number of woodland acres reduction permitted.
- d. Identify the total number of woodland acres reduction requested.
- e. Determine the cost to restore the amount of woodland acres reduction requested by using the Cost Approach as defined in the most recent version of the Guide for Plant Appraisal published by the International Society of Arboriculture.
- f. The determined fee will be deposited into the Copley Township Tree Fund.

## **B. Reforestation**

The applicant agrees to reforest another part of the site at a ratio of 1.2 times the area or the diameter of the trees otherwise required to be preserved. All replacement trees shall be of a like kind species which is indigenous to the region. Replacements shall be made within one year of the date of the removal of any trees for which such replacement is required. The Reforestation Plan must be submitted and managed by a Certified Arborist.

## **C. Variance Relief**

The applicant may seek a variance from the Board of Zoning Appeals, with recommendation of the Architectural Review Board, to reduce the lot requirements or setback requirements set forth herein, in order to permit more of the proposed site to be preserved. In reviewing such a variance request, the Board of Zoning Appeals shall determine that:

1. The total number of lots do not exceed the number of lots that could be developed if the tree preservation regulations were not imposed;
2. The design of the subdivision, Conservation Development, Mixed Use Compact Development (MUCD), or Planned Residential Development (PRD) substantially complies with the purposes, intent and basic objectives of the zoning district in which it is located;
3. The proposal results in a development of equivalent or greater quality than that which could be achieved through strict application of such standards and requirements; and

4. The proposed development shall have no adverse impact upon the surrounding properties or upon the health, safety or general welfare of the community.

#### **16.04 QUALITY DEVELOPMENT CHARACTERISTICS**

Common characteristics of quality development include the preservation of uninterrupted natural areas which protect mature woodlands and blends new development with existing natural features. New construction improvements are designed with the natural landscape in mind. Quality development is a model supported by the community and Comprehensive Land Use Plan. Quality development seeks to enhance the aesthetics and experience of a site by implementing design characteristics which foster and attract investment.

#### **RESIDENTIAL MODELS**



#### **COMMERCIAL AND MIXED USE MODELS**



## **INDUSTRIAL MODEL**



### **16.0316.05 PERMIT REQUIRED.**

Any tree removal, other than permissible removal of damaged or diseased trees shall be permitted only when an application for a tree removal permit is approved by the Zoning Inspector in accordance with Article 13 of this Resolution and the following procedures.

**A** The property owner shall file a Ttree removal/Ppreservation Pplan, which has been approved by a Certified Arborist, with the Architectural Review Board illustrating tree protection and root protection zones, methods and details for protecting existing vegetation during construction and that clearly indicates the following:

1. The location, species name, health common name and size of the following individual trees and groups of trees:

a. The limits of any mature woodlands and young woodlands, as defined in Sec. 16.0102A.

- b.** Trees that have a DBH of six (6) eight (8) inches or greater, ~~and which are not otherwise included within the limits of a mature woodlands or young woodlands.~~
- c.** All existing trees and woodlands identified in Subsection a. above that are to remain on the site after construction.
- d.** All existing trees and woodlands identified in Subsection a. above that are to be removed from the proposed site.
- e.** The location, species name and size of all new trees to be planted on the proposed site.
- f.** Classification of the tree condition (Good, Fair, Poor, Dead)
- g.** Show the existing and proposed topography in drawings scaled at 1:12.

2. The plan shall minimize the loss of soil and roots that will compromise the health and structural stability of trees. Compaction, soil structure damage and water diversion shall be avoided. Roots and infrastructure conflicts shall be minimized. All existing trees and woodlands identified in Subsection a. above that are to remain on the site after construction.

3. Tree and Root Protection Methods. The Plan shall illustrate tree protection and root protection zones, methods, and details for protecting existing vegetation during construction shall be required as part of any site modifications. All existing trees and woodlands identified in Subsection a. above that are to be removed from the proposed site.

- a. Tree Protection Zone (TPZ). Each group of trees to be retained shall have a TPZ around the drip line of the tree(s), the area which may vary depending on species, factors, age and health of the plant, soil conditions, and proposed construction. The TPZ shall be established prior to any excavating, grading, trenching or boring, or demolition work, and remain in place until the completion of grading, landscaping, irrigation, or other work that may impact the tree or Critical Root Zone.
- b. Critical Root Zone (CRZ). The Critical Root Zone shall include any tree roots present on the property to be disturbed, including roots from adjacent properties. No more than 33% of a single tree's CRZ shall be disturbed with the Tree Protection Zone. If more than 33% of a single tree's CRZ is disturbed the tree will not be counted towards meeting minimum tree preservation standards.
- c. Barriers. Tree protection fencing, notes and details shall be shown on the required Tree Preservation Plan. The zone may be accomplished by physical barriers or soil protection layers or treatments. Barriers shall be erected before demolition, grading or construction begins and remain in place until final inspection. The fencing or other protective barrier must be located a distance from the trunk that equals, at a minimum, the distance of the critical root zone or 5 feet, whichever is greater. The fencing or other physical barrier must remain in place and be secure in an upright position during the entire construction period to prevent impingement of construction vehicles, materials, spoils, and equipment into or upon the tree preservation area.

3.d. Tree protection signs must be located along the fencing.

4. Show the existing and proposed topography with contours no greater than 2'. The location, common name and size of all new trees to be planted on the proposed site.

4.5. A post construction tree inventory survey must be submitted at the conclusion of the project to ensure the goals of the plan have been met.

~~Appropriate professional consultants may be retained by the Township to review the tree removal plan and provide expert advice to the Architectural Review Board. The applicant shall pay the cost of review by the consultant.~~

**EB.** Immediately upon completion of its review of the tree removal plan, the Architectural Review Board shall inform the Zoning Inspector whether it recommends approval or disapproval of the plan.

**DC.** A tree removal permit may be issued simultaneously with a site plan, when required, pursuant to Article 13.

## **16.06 MONITORING AND ENFORCEMENT**

**A. Tree Damage.** The Zoning Inspector shall require any damage to preserved trees during construction to be mitigated, which may include limb pruning, root pruning, wound cleaning, watering, fertilizing, and any other industry accepted methods as determined by the Township. Any damage that is determined to be lethal and not correctable through mitigation shall cause the tree to be removed and replaced. Removal of more than 25% of the leaf surface of a tree within an annual growing period shall be considered tree removal and necessitate replacement.

**B. Replacement Trees.** Should any tree designated for preservation and included as part of a minimum required landscaping under this Resolution fail to thrive as a result of pre-construction, construction or post-construction activities, the owner shall:

1. Calculate the caliper of the lost tree. The tree shall be replaced on an inch by inch basis.
2. Develop a replacement plan for an equivalent caliper of new trees to be planted. Replacement trees shall be planted within the Tree Protection Zone or where soils have not been compacted by development activities.
3. Plant replacement trees of similar species which, at maturity, will obtain the same height, spread and growth characteristics of the lost tree.
4. At the time of planting, any replacement trees shall be a minimum of 2  $\frac{1}{2}$  inches caliper.

**C. Administrative Departures.** The following Administrative Departures may be considered following consultation with the Architectural Review Board as appropriate.

1. Tree removal may be permitted where at least one of the following conditions exist.
  - a. The Township has determined the tree to be unhealthy; or
  - b. A nuisance or threat to an existing structure, underground utility or to public health, safety or welfare exists; or
  - c. Removal is required by the Township or authorized agent within the public right-of-way.
2. In areas where large tree groupings (more than 10,000 square feet of contiguous tree canopy) exist, thinning is possible so long as the overall canopy

percentage for the groupings is not reduced.

3. A change in tree species or reduction in size, not to exceed  $\frac{1}{2}$  inch per tree may be permitted where new trees will provide a greater tree canopy benefit than the lost tree.

#### **16.0416.07 EXEMPTIONS.**

The following are exempt from the regulations of this Article.

- A.** Trees, woodlands or portions thereof which do not comply with the definitions in Sec. 16.02A.
- B.** The removal of dead trees and diseased or damaged trees that threaten life or property or that cannot be revived.
- C.** The removal of trees in time of emergency or which pose potential danger to life or property.
- D.** Any lot in a Residential District with an area less than 10 acres and occupied by a single-family dwelling.

#### **16.0516.08 CONSTRUCTION ACTIVITIES**

~~Protective fencing. The applicant shall be responsible for the construction, erection, and maintenance of temporary fencing or other physical barrier around the tree preservation areas so that all protected trees shall be preserved. The fencing or other protective barrier must be located a distance from the trunk that equals, at a minimum, the distance of the critical root zone or 5 feet whichever is greater. The fencing or other physical barrier must remain in place and be secured in an upright position during the entire~~

~~construction period to prevent impingement of construction vehicles, materials, spoils, and equipment into or upon the tree preservation area. Tree protection signs must be located along the fencing.~~

**BA** Tree preservation plan. The approved tree preservation plan shall be available on the building site before work commences and at all times during construction of the project. The applicant shall be responsible for notifying all contractors and utilities involved and sending them a copy of the tree preservation plan.

**CB** Construction measures. During all phases of construction, all steps necessary to prevent the destruction or damage to protected trees shall be taken, including but not limited to the following:

1. No construction activity, movement and/or placement of equipment, vehicles, or materials or spoils storage shall be permitted within the tree preservation area. No excess soil, additional fill, liquids, or construction debris shall be placed within the critical root zone of any tree that is to be preserved.
2. All required protective fencing or other physical barrier must be in place around the tree preservation area prior to the beginning of construction, including site clearing. The fencing or other protective barrier must be located a distance from the trunk that equals, at a minimum, the distance of the critical root zone or 5 feet, whichever is greater. The fencing or other physical barrier must remain in place and be secured in an upright position during the entire construction period to prevent impingement of construction vehicles, materials, spoils, and equipment into or upon the tree preservation area.
3. No attachments, including but not limited to ropes, nails, advertising posters, signs, fences or wires (other than those previously approved for bracing, guying or wrapping) shall be attached to any trees.
4. No gaseous liquids or solid substances which are harmful to trees shall be permitted within the tree preservation area.
5. No fire or heat shall be permitted within the tree preservation area.
6. All utilities, including service lines, shall be installed in accordance with the tree preservation plan.