

VIII. WOODLANDS AND TREES

Introduction

Trees are an important natural resource that offer both environmental and aesthetic benefits for people, animals, and plants. They produce oxygen, provide wildlife habitat, improve water quality, moderate temperature, reduce air and noise pollution, enhance aesthetics and property values, and are an important contributor to community image, pride, and quality of life. To protect and enhance valuable tree and woodland resources, a community can implement regulatory measures.

A tree protection ordinance is a common regulatory measure used by communities striving to attain healthy, vigorous, and well-managed trees. Ordinances can be used to protect individual trees, such as trees in an urban community, or tree-rows and woodlands in a more rural community. Tree protection ordinances can also be used to promote creative design and construction techniques that maximize preservation. To enhance its effectiveness, an ordinance should be supported by the goals and objectives of a community's Master Plan, and other report(s) or inventories that identify tree resources to be protected. Inventories, maps, and other information of a community's tree resources can be used to identify areas for priority protection and to measure the effectiveness of the ordinance based on the change in tree resources over time.



Regulatory Considerations

A woodland and/or tree protection ordinance is a common technique used by communities. To maintain a healthy woodland/tree resource a community should consider additional methods of protection beyond an ordinance. For example, protection efforts could be reinforced and enhanced by integrating woodland/tree standards and regulations into requirements for landscaping and/or site plan review. Once

implemented, this comprehensive, multi-layered approach should ensure a healthy and well-managed woodland/tree resource.

State and Federal laws protecting tree resources are limited, thus local planning and action are imperative. A tree protection ordinance may be established based on the paramount public concern for tree resources in the interest of the health, safety, and general welfare of the residents within a particular community in keeping with Article IV, Section 52 of the Michigan Constitution of 1963. The intent of the Michigan Natural Resources and Environmental Protection Act, PA 451 of 1994 can also be cited as a purpose for establishing a tree protection ordinance.

Oversight of woodlands can also be affected by the Federal Endangered Species Act of 1973. If a threatened or endangered species is located within a woodland area, this could result in limited disturbance and additional protection. Also, some area woodlands could also be protected if they are located within a state- or locally-regulated wetland area.

Example Ordinance Language

The following provides example language of the components of a broad-based tree and woodland protection ordinance. Like any example, this language should only be used as a guide. Each community has a unique set of natural features and existing ordinances that this regulation needs to compliment. Therefore, each ordinance section is accompanied by general considerations for individualizing the ordinance.

TREES AND WOODLANDS PROTECTION

(COMMUNITY NAME), MICHIGAN

Ordinance No. _____

SECTION 1 - GENERAL

Section 1.1 – Intent

Development of the (Community Name) could result in an unregulated and, in many cases, unnecessary removal of trees and related resources, and other forms of vegetation and natural resources and processes. Regulation of the removal of tree resources will achieve a preservation of important physical, aesthetic, recreational and economic assets for both present and future generations. Specifically, it is found that:

- A. Woodlands provide for public safety through the prevention of erosion, siltation, and flooding;
- B. Woodland growth protects public health through the absorption of air pollutants and contamination, including the reduction of excessive noise and mental and physical damage related to noise pollution;
- C. Trees, vegetation, and associated natural resources provide a material aspect of the character of the (Community Name); and
- D. Trees and woodland growth serve as an essential component of the general welfare by maintaining natural beauty, recreation, and irreplaceable natural heritage.
- E. Trees and woodlands increase the economic value of land for most uses.

SIDEBAR TEXT

∄# A municipality should establish short and long-term goals that address preservation of the physical, aesthetic, recreational, and economic benefits that trees/woodlands provide.

Section 1.2 - Purposes

The purposes of this Section are as follows, to be applied throughout the (Community Name):

- A. To prohibit the unnecessary removal of trees on undeveloped land.

- B. To discourage the unnecessary removal of trees and woodland resources in connection with the development of land.
- C. To provide for the protection, preservation, proper maintenance, and use of trees and woodlands in order to minimize disturbance to them and to prevent damage from erosion and siltation, a loss of wildlife and vegetation, and/or from the destruction of the natural habitat;
- D. To protect the woodlands (including woodland resources) for their economic support of local property values when allowed to remain uncleared and/or unharvested in whole or in significant part, and for their natural beauty, character, and geological, ecological, or historical significance;
- E. To provide for the paramount public concern for these natural resources in the interest of the health, safety and general welfare of the residents of this (Community Name), in keeping with Article IV, Section 52 of the Michigan Constitution of 1963, and the intent of the *Michigan Natural Resources and Environmental Protection Act*, PA 451 of 1994.

SECTION 2 – DEFINITIONS

Section 2.1 – Definitions

The following definitions shall apply in the interpretation of this Section.

BUILDING ENVELOPE means the area enclosed or to be enclosed by the exterior walls of the proposed structure on the property, plus an area beyond such walls of fifteen (15) feet so long as the building or structure is not in any required setback. With the objective of preserving trees, and also allowing reasonable development, the fifteen (15) feet beyond each wall may be reallocated so that the total distance on both sides of the exterior walls is thirty (30) feet (e.g., ten (10) feet on one side and twenty (20) feet on the other). The same treatment shall be authorized for areas beyond the front and back walls.

CLEAR-CUTTING means the removal within any five (5) year period of more than twenty percent (20%) of the total number of protected trees located on a parcel of land without a tree removal permit.

COMMERCIAL NURSERY means a licensed plant or tree nursery in relation to those trees planted and growing on the premises of the licensee, which are planted and grown for sale to the general public in the ordinary course of the licensee's business.

DIAMETER BREAST HEIGHT (d.b.h.) means a tree's diameter in inches measured by diameter tape at four and one-half (4 1/2) feet above the ground. On multi-stem trees, the largest diameter stem shall be measured.

DRIP LINE means an imaginary vertical line extending downward from the outermost tips of the tree branch to the ground.

FARM means the land, plants, animals, buildings, structures, including ponds used for agricultural or aqua-cultural activities, machinery, equipment, and other appurtenances used in the commercial production of farm products.

FARM OPERATION means the operation and management of a farm or a condition or activity that occurs at any time as necessary on a farm in connection with the commercial production, harvesting, and storage of farm products, and includes, but is not limited to:

- A. Marketing produce at roadside stands or farm markets;
- B. The generation of noise, odors, dust, fumes, and other associated conditions;
- C. The operation of machinery and equipment necessary for a farm including, but not limited to, irrigation and drainage systems and pumps and on-farm grain dryers, and the movement of vehicles, machinery, equipment, and farm products and associated inputs necessary for farm operations on the roadway as authorized by the Michigan vehicle code, Act No. 300 of the Public Acts of 1949, being sections 257.1 to 257.923 of the Michigan Compiled Laws;
- D. Field preparation and ground and aerial seeding and spraying;
- E. The application of chemical fertilizers or organic materials, conditioners, liming materials, or pesticides;
- F. Use of alternative pest management techniques;
- G. The fencing, feeding, watering, sheltering, transportation, treatment, use, handling and care of farm animals;
- H. The management, storage, transport, utilization, and application of farm by-products, including manure or agricultural wastes;
- I. The conversion from a farm operation activity to other farm operation activities; and
- J. The employment and use of labor.

The management and harvesting of a woodlot is not an accepted farm operation under this Ordinance.

LANDMARK TREE means any tree which stands apart from neighboring trees due to the size, form, species or historic significance. Criteria pertaining to the size of landmark trees is listed in section L of these regulations.

PARCEL means all contiguous land situated in a lot or plot of land owned by a person.

PERSON means an individual, partnership, corporation, association, or other legal entity. For the purposes of this definition, an individual or entity shall mean and include all individuals in an immediate family, and all entities in which an individual has more than a ten percent (10%) interest.

PROTECTED TREE means any tree having a diameter breast height (d.b.h.) of four (4) inches or greater and subject to the regulations of this ordinance.

REMOVE OR REMOVAL means the act of removing or terminating the life of a tree by digging up or cutting down, or the effective removal through damage that would reasonably be expected to ultimately terminate the life of a tree.

TRANSPLANT means the relocation of a tree from one place to another on the same property.

TREE means any self-supporting, woody plant of a species which normally grows to an overall height of fifteen (15) feet or more.

TREE SURVEY means a scaled drawing (one (1) inch shall not exceed one hundred (100) feet) which provides the following information: location of all protected trees (i.e., trees having four (4) inches or greater d.b.h.) plotted by accurate techniques, and the common or botanical name of those trees and their d.b.h.

UNDEVELOPED means a parcel of land that has not been improved. With respect to land which, is partially improved by virtue of a building(s) or other improvement(s) located on a portion of the land, the portion of the land which does not contain the building(s) or other improvements(s) shall be considered undeveloped.

WOODLAND means a stand of trees identified on the (Community Name) Woodland Area Map.

SECTION 3 – TREE REMOVAL PERMIT

Section 3.1 – Permit Requirements

A person shall not remove, transplant, or destroy, or cause to be removed, transplanted, or destroyed, on any undeveloped land in the (Community Name), any protected tree (i.e., a tree having a d.b.h. of four (4) inches or greater) without first obtaining a Tree Removal Permit subject to the exceptions enumerated in Section 4, "Exceptions." A tree removal permit shall be required for any of the following activities:

- A. Within a woodland area.
 - 1. The removal, transplanting or destruction of any tree within a woodland area; or
 - 2. Land clearing or grubbing within a woodland area.
- B. Outside a woodland area. The removal, transplanting or destruction of any tree with a d.b.h. of four (4) inches or greater outside of a woodland area.

SIDEBAR TEXT

- ⚡ Most uses would be permitted in a wooded area provided the development proposal meets all the requirements set forth in the woodland ordinance and other applicable ordinances, unless granted a variance.
- ⚡ A community may want to place restrictions on certain types of land uses depending on the environmental sensitivity of a woodland.
- ⚡ For example, more intensive land uses such as manufacturing have greater impact on the land and should be restricted in sensitive woodland areas.
- ⚡ Less intensive uses such as residential (clustered), parkland, or greenways are more appropriate for environmentally sensitive woodlands.
- ⚡ Data and map(s) of a community's woodland/tree resources are particularly helpful when establishing permitted and prohibited uses.

Section 3.2 - Plat or Site Plan Approval

A final preliminary subdivision plat, and/ or a site condominium or site plan shall not be approved by the (Community Name) until it has been reviewed and approved based upon the requirements for a Tree Removal Permit.

Section 3.3 - Site Development Standards

In addition to other requirements of this Section, compliance with the following standards is required in all developments:

- A. *Structures.* The applicant shall designate the location of all proposed structures or building sites and the area around them to be disturbed. Such designation shall be made with the objective of preserving protected trees, and the Planning Commission or Building Official, as the case may be, shall have discretion to require reasonable adjustments in this regard during the approval process.
- B. *Activities Within Building Envelope.* A Tree Removal Permit shall not be required for construction of structures or improvements or other activities within a building envelope and for each building site in a development, the applicant shall designate the "building envelope."
- C. *Activities Outside Building Envelope.* Subject to the exceptions enumerated in this provision, and in Section 4 below, a tree removal permit shall be required to remove or cut a protected tree outside of the area designated for structures and building envelopes. The Planning Commission or Building Official, as the case may be, may issue an advanced written waiver of the requirement for a tree removal permit or mitigation when it is shown that tree removal is necessary and there is no reasonable alternative in connection with building location road access, driveways, utilities, septic fields or other disturbances customarily required for the particular development. The Planning Commission or Building Official may confer with other (Community Name) personnel and/or consultants in making decisions under this section.
- D. *Minimum Preservation Requirement.* For parcels five (5) acres or greater, the applicant shall preserve and leave standing and undamaged a minimum of eighty (80) percent of the total number of protected trees on the lot having a d.b.h. of 4" inches or greater. However, trees contained within the designated building envelope, streets, drives and parking areas, or within required drainage, or utility improvement areas, and/or driveway and sidewalk areas, as determined by the Building Official or designee, shall not be included in the calculation for determining the required minimum preservation percentage. If the minimum preservation requirement cannot be satisfied, the applicant shall be required to replace and/or relocate trees according to the requirements set forth in Section 8 (Tree Relocation or Replacement).

SECTION 4 – EXCEPTIONS

Notwithstanding the requirements of Section 3.3 above, the following activities shall be permitted without a Tree Removal Permit unless otherwise prohibited by statute or other ordinance provision.

Section 4.1 - Parcels Less Than Five Acres

No tree removal permit shall be required on a parcel containing five (5) acres or less. For the purpose of calculating the size of a parcel, all contiguous land owned in common by one owner, shall be included in determining total acreage. The term "one owner" in this provision shall include all persons in an immediate family, and all entities in which an individual has more than a ten percent (10%) interest. This provision shall not exempt residential parcels from regulations under the terms of this ordinance at the time of application for approval of plats, site plans, condominiums or other land divisions.

SIDEBAR TEXT

- ⚡# The point at which a property is exempt from a tree removal permit may depend on a community's character.
- ⚡# For example, a rural community, which typically consists of primarily large parcels, may consider establishing a parcel size that is higher relative to a more urban community.
- ⚡# This would provide greater flexibility for property owners/developers and also help maintain the rural character by protecting woodland/tree resources.
- ⚡# The opposite is true for more urban communities. An urban community would establish a lower minimum parcel size to ensure that most development proposals are subject to the community's tree/woodland protection ordinance.

Section 4.2 - Activities within Building Envelope or Building Site

No tree removal permit shall be required for construction of structures or other activities within a building envelope or building site. This shall include roads, road rights of way, driveways, essential utilities, retention / detention ponds or septic fields.

Section 4.3 - Bona Fide Farm Operation

Tree removal or transplanting occurring during use of land for bona fide farm operations as defined by the Michigan Right to Farm Act (Public Act 93, 1981); provided, however,

that the farm use (as defined in this Section) has previously been in operation for a continuous period of five (5) years.

Section 4.4 - Commercial Nursery

Tree removal or transplanting occurring during use of land for the operation of a commercial nursery that is licensed with the State of Michigan and has previously been in operation on the property for three years or more, or the property owner records an affidavit that the commercial nursery shall continue in active operation for a period of no less than five (5) years.

Section 4.5 – Emergencies

Actions made necessary by an emergency, such as tornado, windstorm, flood, freeze, dangerous and infectious insect infestation or disease, or other disaster, in order to prevent injury or damage to persons or property or restore order, and where it would be contrary to the interest of the public, or to the health or safety of one or more persons, to defer cutting pending submission and processing of a permit application. Unless life and property would be threatened, this exception shall not apply unless and until the (Community Name) official, or designee, has approved the removal.

Section 4.6 - Governmental Agencies

Tree trimming, removal, or transplanting performed by, or on behalf of, governmental entities, Road Commission or agencies to the limited extent necessary to achieve authorized objectives of the entities or agencies.

Section 4.7 - Public Utilities

Repair or maintenance work performed by public utilities necessitating the trimming or cutting of trees to the limited extent necessary to achieve authorized objectives of the utility.

Section 4.8 - Dead or Damaged Trees

Removal or trimming of dead or damaged trees provided the (Community Name) has first confirmed in writing the dead or damaged condition upon request of the property owner.

Section 4.9 - Nominal Activity

Where the activity involves the removal or transplanting of three (3) or fewer trees having six (6) inches or greater d.b.h. within a one year period, and is not related to the development of a parcel or construction of a building or structure.

Section 4.10 - Tree Management

Where a tree management plan prepared by a State of Michigan registered forester or other natural resource professional who is qualified to prepare such a plan is submitted to and approved by the Building Official or designee who may confer with the (Community Name) expert at his or her discretion, tree cutting may occur in accordance with the plan without a permit. To qualify under this exception, tree management activity shall be for the purpose of reducing the density of trees so as to promote and maintain the health and viability of the remaining trees and/or for forest or woodland improvements generally; for promotion of wildlife habitat; for facilitation of appropriate forest-related or woodland related recreational activities, including but not limited to hunting; and for other similarly acceptable silvicultural practices. The management plan shall include the means by which cut trees shall be removed from the property with the least possible damage to remaining trees. The person seeking approval and exemption under this provision may be required to establish an escrow with the Building Official for the purpose of covering the costs of the (Community Name) expert.

SIDEBAR TEXT

≠# To provide greater flexibility, a community may consider providing an exemption for the following:

- An existing residential site development proposal that are under two (2) acres upon which there is an occupied residential structure.
- An existing residential site over two (2) acres where specific improvements are proposed upon which there is an occupied residential structure. Examples of improvements may include a fence, deck, pool, or accessory building.

SECTION 5 - APPLICATION FOR TREE REMOVAL PERMIT

Section 5.1 - Application and Fee

A person seeking a Tree Removal Permit must submit a written application to the (Community Name) Clerk and pay the application permit fee as established by resolution of the (Community Name) Board.

SIDEBAR TEXT

⚡ A community could use the following fee schedule for tree removal permits.

Trees Removed	Fee
1-3	\$75.00
4-6	\$125.00
7-25	\$250.00
25 or more	\$250.00 plus \$5.00 per tree in excess of 25

⚡ However, the community should allow modification of these standard fees on a project by project basis where unique circumstances justify a change.

⚡ Reasons to modify the fees could include but are not limited to, the number of trees to be removed or destroyed, unavailability of area to replace trees on the project site, lack of benefit to the community, exceptional or undue hardship on applicant, or public purpose of the project.

Section 5.2 - Time of Application

Application for a Tree Removal Permit shall be made before removing, cutting, or transplanting trees. Where the site is proposed for development necessitating site plan, site condominium or plat review, application for a Tree Removal Permit shall be made prior to or concurrent with site plan or final preliminary plat submittal. Where development of one single-family home is proposed on a parcel of five (5) acres or more, application for tree removal permit shall be made prior to or concurrent with the building permit application.

SIDEBAR TEXT

⚡ Some communities do not regulate the development of one (1) single-family home, regardless of the lot size. Usually only developments that require a site plan are subject to these regulations.

⚡ The decision to regulate these developments may depend on community character and how the community would like to develop.

Section 5.3 - One (1) Single-Family Building Site

For one single-family building site on parcels of five (5) acres or more, the permit application shall include copies of a plan drawn to scale containing the following information:

- A. *Property Dimensions.* The boundaries and dimensions of the property, and the location of any existing and proposed structure or improvement, and a statement identifying the type of structure or improvement.
- B. *Inventory of Trees.* Location of all existing protected trees identified by common or botanical name. Trees proposed to remain, to be transplanted, or to be removed shall be so designated. The Building Official or designee may waive detailed tree inventory requirements for those areas of the site where proposed development will not impact regulated trees.
- C. *Tree Protection.* A statement describing how trees intended to remain will be protected during development.
- D. *Easements and Setbacks.* Location and dimension of existing and proposed easements, as well as all setbacks required by the Zoning Ordinance.
- E. *Grade Changes.* Designation and description of grade changes proposed for the property.
- F. *Intended Tree Replacement.* A cost estimate for any proposed tree replacement program with a detailed explanation including the number, size, and species.
- G. *Tree Identification.* A statement that all trees being retained will be identified by some method such as painting, flagging, etc., and, where protective barriers are necessary, that they will be erected before work starts.
- H. *Structures, Building Envelope, Utilities, and Driveway.* The plan shall show the structures, building envelope, utilities, and driveway as existing and/or proposed on the property.

Section 5.4 - Developments Other than Single-Family Home Sites

For other developments, including site plans, site condominiums or subdivisions, the permit applicant shall provide copies of a plan containing the same information required for one (1) single-family building site, and the following additional information:

- A. *Plan.* A topographical survey sealed by a registered engineer or registered surveyor shall be shown on the plat.

- B. Tree Survey. A tree survey prepared by a State of Michigan registered forester, arborist, or landscape architect for all areas for which a Tree Removal Permit is required.
- C. For larger sites over ten acres (10) in size containing more than one hundred (100) regulated trees, the Planning Commission may waive the detailed tree inventory requirements where it can be demonstrated that the proposed development will not impact woodland areas.

Section 5.5 - For All Developments

For all developments, any proposed tree relocation or replacement, consistent with Section 8, below shall be specified in the application, including a drawing and detailed explanation of the proposal.

SECTION 6 - APPLICATION REVIEW PROCEDURE

Section 6.1 - Staff Review

The Building Official or designee shall review the submitted Tree Removal Permit application to verify the applicant has provided all required information. Completed applications shall be referred to the appropriate consultants. Upon request of either the applicant or the (Community Name), the (Community Name) may conduct a field inspection or review meeting. The (Community Name) personnel involved in the review shall submit their report and recommendations to the Building Official, who shall forward them to the Planning Commission or (Community Name) Board, as appropriate, for further review.

Section 6.2 - Reviewing Authority

Where the site is proposed for development necessitating site plan review site condominium, or plat approval by the (Community Name) Planning Commission, the Planning Commission shall be responsible for granting or denying the application for a Tree Removal Permit (subject to affirmation, reversal, or modification by the (Community Name) Board with respect to plat approvals). Where site plan review or plat approval by the Planning Commission is not required by ordinance, the grant or denial of the Tree Removal Permit application shall be the responsibility of the Building Official or designee, following the right and opportunity of the Building Official or designee to confer with consultants. Where the use of a consultant is reasonably required, the property owner shall establish an escrow in an amount determined by (Community Name) Board resolution establishing fees, out of which the consultants' fee shall be paid.

The decision to grant or deny a permit shall be governed by the review standards enumerated in Section 7, below.

Section 6.3 - Denial of Tree Removal Permit

Whenever an application for a Tree Removal Permit is denied, the permit applicant shall be notified, in writing, of the reasons for denial. If such decision is made by the Planning Commission or (Community Name) Board, it shall be a part of the minutes of the meeting at which action on a site plan, site condominium or plat review. Denial of a tree removal permit may be appealed to the Zoning Board of Appeals in accordance with the provisions of this Ordinance.

Section 6.4 - Tree Removal Permit

Whenever an application for a Tree Removal Permit is granted, the reviewing authority shall:

- A. *Conditions.* Attach to the granting of the permit any reasonable conditions considered necessary by the reviewing authority to ensure the intent of this Ordinance will be fulfilled and to minimize damage to, encroachment in, or interference with natural resources and processes within wooded areas, including, without any limitation, the trees to be preserved.
- B. *Completion of Operations.* Fix a reasonable time, up to a maximum of eighteen months, to complete tree removal, transplanting, and replacement operations, ensuring that plantings occur at correct times of the year. Such time may be extended, upon written request submitted 30 days before expiration of the original permit, by the body or entity that approved the original permit
- C. *Security.* Require the permit grantee to file with the (Community Name) a cash or corporate surety bond or irrevocable bank letter of credit in an amount reasonably determined necessary by the (Community Name) to ensure compliance with the Tree Removal Permit conditions and this Ordinance in regard to transplanting and replacement of trees; provided, however, that security shall only be required if the developer is to perform the transplanting and/or replacement after six (6) months following grant of a permit, or to perform the transplanting and/or replacement after issuance of a Certificate of Occupancy. The security requirement may also be waived at the direction of the Planning Commission or Building Official.

- D.** *Term of Permit.* A tree removal permit issued under this paragraph shall be null and void if commencement of work permitted under the permit has not been commenced within a reasonable time, not to exceed twelve (12) months. In addition, a permit shall be void after the expiration of eighteen (18) months from the date of issuance. A six (6) month extension may be granted upon written request to the body or entity that approved the original permit. The request must be received 45 days before expiration of the original permit.

Section 6.5 - Time for Decision

Where a single one-family home on a parcel of five (5) acres or more is proposed, or where a site plan, site condominium or plat review is required, the (Community Name) decision on the application shall be issued within 60 days of the date of the (Community Name) receipt of a complete application for a Tree Removal Permit or from the time that the application is considered administratively complete, or if the application under Section is being considered in conjunction with a companion application for development approval involving the same property, the (Community Name) decision on the application under this Section shall be made concurrent with the decision on the other development proposal.

SECTION 7 - APPLICATION REVIEW STANDARDS

The following standards shall govern the granting or denial of an application for Tree Removal Permit:

Section 7.1 - Limitation

Removal or transplanting of protected trees shall be subject to the Minimum Preservation Requirement set forth in Section 3.3(E) above for site development, and removal or transplanting of protected trees shall otherwise be limited to instances where:

- A.** *Necessary for Construction.* Removal or transplanting is necessary for the construction of a building, structure, or other site improvement, and the permit applicant has shown there is no feasible and prudent location alternative on site for improvement; or
- B.** *Disease, Damage, Etc.* The tree(s) is demonstrated to the (Community Name) Building Official to: be diseased, damaged, or in danger of falling; be located too close to existing or proposed buildings or structures; interfere with existing utility service or drainage; create unsafe vision clearance; or be in violation of other ordinances or regulations.

Section 7.2 - Minimum Preservation Requirements

Unless otherwise exempt from the regulations of this ordinance, all sites shall maintain a minimum preservation as required in Section 3.3(E) above.

Section 7.3 - Preservation and Conservation

Tree preservation and conservation shall be of paramount concern and importance; provided, however, that an application shall not be denied solely because of the presence of trees on the site.

Section 7.4 - Developmental Alternatives

Preservation and conservation of wooded areas, trees, woody vegetation, wildlife, and related natural resources and processes shall have priority over development when there are feasible and prudent location alternatives on site for proposed buildings, structures, or other site improvements.

SIDEBAR TEXT

⚡ A community may require the applicant to submit with the permit application, alternative developments that were considered in optimizing the development for tree/woodland preservation.

Section 7.5 - Diversity of Species

A diversity of tree species shall be maintained where feasible.

Section 7.6 - Clear Cutting

Where the proposed activity consists of land clearing, or clear cutting, it shall be limited to areas to be improved for roadways, sidewalks, drainage, and utilities and areas necessary for the construction of buildings, structures, or other site improvements as shown on an approved site plan, site condominium or subdivision plat. Clear cutting of more than twenty percent of a site (excluding areas essential for development such as roads, drainage utilities, buildings etc.) shall be prohibited.

Section 7.7 - Relocation or Replacement

The proposed activity shall include necessary provisions for tree relocation or replacement, in accordance with Section 8, and tree protection, in accordance with Section 9.

SECTION 8 – TREE RELOCATION OR REPLACEMENT

Section 8.1 - Requirement Established

For each protected tree required to be preserved under the terms and standards set forth above, and which is permitted to be removed by permit granted under this section, the applicant shall replace or relocate trees according to the replacement tree requirements set forth below.

Section 8.2 - Replacement Tree Requirements

- A.** Replacement trees shall have shade potential and/or other characteristics comparable to the removed trees, shall be State Department of Agriculture Nursery Grade No. 1 or better, and must be approved by the (Community Name) prior to planting. Replacement trees must be staked, fertilized, and mulched, and watered, and shall be guaranteed by the applicant for two (2) years. An agreement together with appropriate security (cash or letter of credit) in a form approved by the (Community Name) shall be provided in connection with such guaranty.
- B.** Trees usable for replacement trees may be transplanted on site using appropriate and accepted procedures and precautions.
- C.** For deciduous trees, replacement shall be on a one for one basis. For example, for each tree removed, a replacement tree shall be planted. All replacement trees shall have a d.b.h. of at least two (2) inches. All evergreen replacement trees shall be at least six (6) feet tall.
- D.** One (1) landmark tree shall be replaced at a rate of one (1) inch of replacement tree for each d.b.h. inch of landmark tree removed.
- E.** The Planning Commission shall be authorized to waive a portion or all of the tree replacement requirements when site factors, tree conditions or development requirements preclude reasonable actions to conform with this Section, and the applicant proposes a contribution to the Tree Fund, created in Section 13 below, in an amount reasonably related to the cost of the tree replacement being waived.

SIDEBAR TEXT

⚡ A list of tree species not allowed as replacement trees may be provided in this, or any other ordinance. Trees on this list are typically non-native species.

Section 8.3 - Replacement Tree Location

- A. *(Community Name) Approval Required.* The (Community Name) shall approve tree relocation or replacement locations. To the extent feasible and desirable, trees shall be relocated or replaced on site and within the same general area as trees removed, provided that survival shall not be jeopardized by improvements or activities.
- B. *Relocation or Replacement Off-site.* Where it is not feasible and desirable to relocate or replace trees on site, as determined by the (Community Name) decision-maker under this Section, relocation or replacement may be made at another location in the (Community Name) approved as part of the permit. This shall not preclude reasonable actions to conform with this Section or contributions to the Tree Fund, created in Section 13 below in an amount reasonably related to the cost of the tree replacement being waived.

SIDEBAR TEXT

⚡ Efforts to minimize the loss of trees must be explored because newly-planted tree(s) (replaced and/or relocated) does not have the same habitat value or ecological diversity found in a mature stand of trees.

⚡ Replacement of trees should be promoted for long-term resource conservation.

⚡ A community may consider targeting certain critical areas for acquisition as permanent forest/woodland reserves.

SECTION 9 - TREE PROTECTION DURING CONSTRUCTION

Section 9.1 - Placing Materials Near Tree

No person may conduct any activity within the drip line of any protected tree designated to remain, including, but not limited to, placing solvents, building material, construction equipment, or soil deposits within the drip line.

SIDE BAR TEXT

- ⚡ Protection of the drip line is important because that is the area which contains the majority of a tree's root system.
- ⚡ Damage to the root system, or compacting the soil above the roots, can lead to stunted tree growth or even loss of the tree.
- ⚡ Ideally, there should be no disturbance within the drip line such as grading, digging, trenching, paving, or operation/parking heavy equipment and vehicles on the area.

Section 9.2 - Attachments to Trees

During construction, no person shall attach any device to any remaining protected tree except for the protection of a tree in accordance with forestry procedures.

Section 9.3 - Protective Barrier

Before development, land clearing, filling, or any land alteration for which a Tree Removal Permit is required, the applicant shall erect and maintain suitable barriers to protect remaining trees. Protective barriers shall remain in place until the (Community Name) authorizes their removal or issues a final certificate of occupancy, whichever occurs first. Wood, metal or other substantial material shall be utilized in the construction of barriers. Barriers are required for all trees designated to remain, except in the following cases:

- A. *Rights-of-Way and Easements.* Street right-of-way and utility easements may be cordoned by placing stakes a minimum of fifty (50) feet apart and tying ribbon, plastic tape, rope, etc., from stake to stake along the outside perimeters of areas to be cleared.
- B. *Large, Separate Areas.* Large property areas separate from the construction or land clearing area, onto which no equipment will travel or be stored, may also be cordoned off as described in subparagraph (A) above.

SECTION 10 - DISPLAY OF PERMIT: STOP WORK. CERTIFICATE OF OCCUPANCY

Section 10.1 - Display of Permit

The tree removal permit grantee shall conspicuously display the permit on site. The permit grantee shall display the permit continuously while trees are being removed or replaced or while activities authorized under the permit are performed. The permit grantee shall allow (Community Name) representatives to enter and inspect the premises at any reasonable time, and failure to allow inspection shall constitute a violation of this Section.

Section 10.2 - Stop Work: Withholding Certificate of Occupancy

The Building Official may issue a stop work order if this Section is being violated, or if the Permittee is failing to conform with any conditions attached to a Tree Removal Permit. In addition, the Building Official may withhold issuance of a Certificate of Occupancy until a violation or conformance with a condition has been cured, provided however the Building Official may in his or her discretion issue a temporary certificate of occupancy conditioned upon the posting of reasonable security coupled with an agreement in a form approved by the (Community Name) guaranteeing the cure of a violation or condition.

Section 10.3 - Pursuit of Court Relief

In addition to all other remedies available, the (Community Name) may issue a citation or initiate Circuit Court litigation to achieve compliance with this Section.

SECTION 11 - HISTORIC OR LANDMARK TREES

A nomination for designation shall be brought up for consideration by the Planning Commission.

Section 11.1 Tree Nominations

Any (Community Name) property owner may nominate a tree within their own property boundaries for designation as a landmark tree or historic tree. If nominated, the Planning Commission shall review the nomination request and if determined to meet the criteria listed below, shall be placed on the (Community Name) Landmark Tree inventory.

Section 11.2 Tree Designations by Planning Commission

The Planning Commission may designate a tree, upon nomination, as a historic tree upon a finding that, one or more of the following unique characteristics exist:

- A.** The tree is the predominant tree within a distinct scenic or aesthetically valued setting.
- B.** The tree is of unusual age or size for that species in this climatic and geographic location. (Examples include trees listed on the Register of Big Trees or the Michigan Botanical Club as large trees.)
- C.** The tree has gained prominence due to unusual form or botanical characteristics.
- D.** The tree has some historical significance to the (Community Name).

Section 11.3 Inventory of Nominated/Designated Trees

The Building Department shall maintain an inventory of all nominated and designated Historic Landmark Trees.

Section 11.4 Historic Trees

A permit shall be required to remove any landmark or historic tree. Any historic tree shall be replaced on a 1 to 1 caliper inch basis. For example, a 48" landmark tree shall be replaced by 24 two inch trees. This replacement requirement may be waived if in the opinion of the Planning Commission, and after review by the (Community Name) consultant, the health/condition of the tree is such that it should not be counted.

SECTION 12 - LANDMARK TREES

Section 12.1 Landmark Trees

The following landmark trees with a specified D.B.H. or greater shall be protected under this Section.

Common name	Species	D.B.H. (inches)
American basswood (Linden)	Tilia americana	24

American beech	<i>Fagus grandifolia</i>	18
American chestnut	<i>Castanea dentate</i>	8
American elm	<i>Ulmus americana</i>	18
Arborvitae	<i>Thuja occidentalis</i>	18
Ash	<i>Fraxinus spp.</i>	18
Birch	<i>Betula spp.</i>	18
Black alder	<i>Alnus glutinosa</i>	12
Black tupelo	<i>Nyssa sylvatica</i>	12
Black walnut	<i>Juglans nigra</i>	20
Buckeye (Horse chestnut)	<i>Aesculus spp.</i>	18
Cedar, red	<i>Juniperus spp.</i>	12
Crabapple (cultivar)	<i>Malus spp.</i>	12
Douglas fir	<i>Pseudotsuga menziesii</i>	18
Eastern hemlock	<i>Tsuga canadensis</i>	12
Flowering dogwood	<i>Cornus florida</i>	8
Ginkgo	<i>Ginkgo biloba</i>	18
Hickory	<i>Carya spp.</i>	18
Kentucky coffeetree	<i>Gymnocladus dioicus</i>	18
Larch/tamarack	<i>Larix laricina (eastern)</i>	12
Locust	<i>Gleditsia triacanthos</i>	24
Maple	<i>Acer spp. (except negundo)</i>	18
Oak	<i>Quercus spp.</i>	20
Pine	<i>Pinus spp.</i>	15
Spruce	<i>Picea spp.</i>	18
Sycamore (London plane tree)	<i>Platanus spp.</i>	18
Tuliptree	<i>Liriodendron tulipifera</i>	18
White walnut	<i>Juglans cinerea</i>	20
Wild cherry	<i>Prunus spp.</i>	18

SECTION 13 - TREE FUND

Section 13.1 Tree Fund

A Tree Fund is hereby created as the depository for all monies proposed to be paid by applicants in lieu of tree replacement or relocation, as provided in this Section. On site replacement and/or relocation shall be required for permitted activities. If lot coverage or site characteristics prohibit on-site mitigation, contribution to the (Community Name) Tree Fund may be permitted. In lieu of replacing regulated trees, the applicant has the option to contribute money to the (Community Name) Tree Fund. Payment to the Tree Fund per removed tree(s) shall be in accordance with replacement fee schedules as established by the (Community Name) Board.

Section 13.2 Tree Fund Administration

The (Community Name) Board/Council shall administer the Tree Fund with the objective of pursuing the planting of trees within the (Community Name). In the administration of the Tree Fund, the (Community Name) Board/Council shall, if reasonably feasible, attempt to purchase and install trees within a reasonable proximity of the development in connection with which funds have been paid to the Tree Fund.

Macomb County Communities with a Tree/Woodlands Ordinance

The following communities in Macomb County are considering or have adopted a tree/woodlands ordinance:

- 1) **Shelby Township.** Contact: Clerk, (586) 731-5100.

Additional Resources

- 1) **Guidelines for Developing and Evaluating Tree Ordinances.** 2001. International Society of Arboriculture.
- 2) **U.S. Forest Service.** www.fs.fed.us/.