



MAHTOMEDI TREE PRESERVATION AND REPLACEMENT PLAN

PROPERTY ADDRESS: _____

PROPERTY OWNER'S NAME: _____

DATE OF PLAN SUBMISSION _____

PLAN FILED BY: _____

Submit a tree preservation plan when your project involves removal of any significant (8" in diameter for deciduous trees and 6' and taller for evergreen trees) live trees or when any construction activities will occur within or near the critical rooting area of any significant trees (including trees on adjacent properties).

In a separate attachment include the following items:

1. Copy of site plan showing proposed construction along with a tree inventory including species, diameter at breast height and locations, a written tree inventory and a written list of trees to be removed and trees to be preserved.
2. A written preservation plan detailing measures that will be taken to protect preservation trees (including trees on adjacent properties) from impacts from construction including compaction from vehicle traffic, root cutting, piling of dirt and construction materials. The plan should include designated preservation zones, type of fencing to be used, duration of fencing as well as entry restriction measures to be taken and signage. (See extension info on PROTECTING TREES FROM CONSTRUCTION DAMAGE)
3. A planting plan including number and species (and common name) of replacement trees. (See City recommended tree planting list). Include the anticipated date for the planting of the replacement trees. Please see attached code provision for replacement requirements.

Name of filing agent: _____

Certifications/Licenses of filing agent: _____

Email: _____

Phone number: _____

PLAN APPROVED BY CITY FORESTER _____



RECOMMENDED TREE LIST

Tree species categorized as to their vulnerability to climate change:

LV-LOW VULNERABILITY, LMV-LOW TO MODERATE VULNERABILITY, MV-MODERATE VULNERABILITY

DECIDUOUS

Black Walnut *Juglans nigra* LMV
Bur Oak *Quercus macracarpa* LV
Chestnut Oak *Quercus prinus* LV
Chinese Catalpa *Catalpa ovata* LMV
Ginkgo *Ginkgo biloba* LV
Honey locust *Gleditsia triacanthos* LMV
Ironwood *Ostrya virginiana* LV
Kentucky Coffeetree *Gymnocladus dioicus* LV
Little Leaf linden *Tilia cordata* LV
Northern Hackberry *Celtis occidentalis* LV
Northern Pin oak *Quercus ellipsoidalis* LMV
Northern Red oak *Quercus rubra* MV
Pignut Hickory *Carya glabra* LMV
Red maple *Acer Rubrum* LMV
River Birch *Betula nigra* MV
Shagbark Hickory *Carya ovata* LMV
Shingle Oak *Quercus imbricaria* LV
Sourwood *Oxydenrum arboretum* LMV
White oak *Quercus alba* LMV
Yellowwood *Cladrastis kentukea* LV

FLOWERING

Allegheny Serviceberry *Amelanchier laevis* LV
Amur Cherry *Prunus maackii* LV
Canad. Serviceberry *Amelanchier Canadensis* LV
Cockspur Hawthorn *Crataegus acutifolia* MV
Downy Serviceberry *Amelanchier arborea* LV
Eastern Redbud *Cercis canadensis* LM
Flowering crabapple *Malus spp* MV
Japanese Tree lilac *Syringa reticulata* MV
Ohio Buckeye *Aesculus glabra* LM

EVERGREEN

Eastern Red Cedar *Juniperus virginiana* LV
Korean Fir *Abies koreana* LMV
Northern White Cedar *Thuja occidentalis* LMV
Norway Spruce *Picea abies* MV
Red Pine *Pinus resinosa* MV
White Spruce *Picea Canadensis (glauca)* MV

B. Woodland Preservation.

1. Findings and Purpose Statement.

- a. The City of Mahtomedi recognizes the value of trees and woodlands for absorbing air pollutants, captures carbon dioxide, reducing noise, having a cooling effect in the summer, providing wildlife habitat, providing visual amenity and preventing soil erosion and siltation.
- b. It is the policy of the City of Mahtomedi that land within the City be used in a manner that preserves significant trees and wooded areas and that the development of wooded areas be undertaken in a manner which protects and promotes these valuable resources.

2. As a condition of subdivision approval or the issuance of a grading or building permit, applicants must demonstrate, to the reasonable satisfaction of the City that the design and construction of streets, site improvements and buildings has and will be undertaken in a manner which avoids unnecessary damage to or destruction of trees of significant size, value and health.

3. **Application Process.** Applications for subdivision / minor subdivision, building permits or grading permits shall submit to the City, along with required application, the following:

- a. For Developers: Unless otherwise determined by the city council, the following process for preserving trees shall be required from the developer:
 - (1) Prepare a tree preservation plan which shall be incorporated on the grading plan.
 - (2) Implement the tree preservation plan prior to and during site development.
 - (3) Submit a performance of financial guarantee for compliance with the approved tree preservation plan.
 - (4) Comply with the city's tree replacement procedure.

Sustainability Tip

A sustainable community reduces its encroachment on nature. Tree protection, planting, maintenance, and removal provisions help maintain healthy ecosystems and provide social and economic benefits.

- (5) The tree preservation plan shall be submitted with preliminary plat plans or as part of the application for a grading permit. The tree preservation plan must be certified by a forester, landscape architect, or nurseryman retained by the developer.
 - (6) The plat and grading plans will not be approved by the city without an approved tree preservation plan. In the case of grading permit applications, the tree preservation plan will be approved by the city staff. This decision may be appealed directly to the city council.
- b. For Home and Business Owners: The following process for preserving trees shall be required from the home and business owner if trees are being removed during grading or construction:
- (1) Identify the significant trees and heritage trees on the property.
 - (2) Identify the significant trees and/or heritage trees removed due to grading or construction.
 - (3) Identify the protection measures used to protect the preserved trees during grading or construction.
 - (4) Comply with the city's tree replacement procedure.
 - (5) The tree preservation plan shall be submitted with the grading permit or building permit application. The tree preservation plan may be prepared by the applicant of the grading permit or the building permit. The tree preservation plan will be approved by city staff. This decision may be appealed directly to the board of appeal and adjustments.
- 4. Tree Preservation Plan.** The developer shall be responsible for implementing the tree preservation plan prior to and during site grading and plan development. The tree preservation plan will be reviewed by city staff to assess the best overall design for the project taking into account significant trees and ways to enhance the efforts of the developer to mitigate corresponding damage. The developer is encouraged to meet with staff prior to submission of the preliminary plat application or prior to application for the grading permit, whichever is sooner, to determine the placement of buildings, parking, driveways, streets, storage and other physical features which result in the fewest significant trees being destroyed or damaged. The tree preservation plan shall include the following items:
- a. The name(s) and address(es) of property owners and developers.
 - b. Delineation of the buildings, structures, or impervious surfaces situated thereon or contemplated to be built thereon.
 - c. Delineation of all areas to be graded and limits of land disturbances.
 - d. Size, species, and location of all significant trees located within the area to be platted or the parcel of record.
 - e. Identification of all significant trees on all individual lots. (The developer shall be required to submit a list of all lot and block numbers identifying those lots.)
 - f. Measures to protect significant trees.
 - g. Identification of all significant trees proposed to be removed within the construction area, including the contouring of all areas to be clear cut.

- h. Size, species, and location of all replacement trees to be planted on the property in accordance with the tree replacement schedule.
- i. Signature of the person preparing the plan and statement which includes acknowledgement of the fact the trees to be used as replacements are appropriate species with respect to survival of the replacement trees.

5. Mandatory Protection. Measures to protect heritage and significant trees shall include:

- a. Installation of snow fencing or polyethylene laminate safety netting placed at the drip line of significant trees to be preserved.
- b. Identification of any oak trees requiring pruning between April 15 and July 1; any oak trees so pruned shall be required to have any cut areas sealed with an appropriate tree wound sealant.

6. Discretionary Protection. Measures to preserve or protect heritage and significant trees, which may be required by the city, include, but are not limited to:

- a. Installation of retaining walls or tree wells to preserve trees by eliminating the filling or cutting of soil within drip zones.
- b. Placement of utilities in common trenches outside of the drip line of significant trees, or use of tunneled installation.
- c. Prevention of change in soil chemistry due to concrete washout and leakage or spillage of toxic materials, such as fuels or paints.
- d. Use of tree root aeration, fertilization, and/or irrigation systems.
- e. Transplanting of significant trees into a protected area for later moving into permanent sites within the construction area.
- f. Safety pruning.

7. Tree Removal.

- a. Heritage Trees: Heritage trees are unique trees to Mahtomedi due to their size and age. All possible measures will be taken to preserve these trees. Heritage tree removal may occur only when there is not a practical alternative, such as the alignment of a collector or arterial street or the installation of a trunk utility corridor. There is a zero percent (0%) removal threshold on heritage trees, meaning every caliper inch of heritage tree removed will require replacement in accordance with the standards of subsection 9 of this section.
- b. Significant Tree Removal for Developments: Although the applicant must retain the maximum amount of woodland possible, the city recognizes that a certain amount of significant trees and tree cover removal is an inevitable consequence of the urban development process. Therefore, ten percent (10%) of the existing caliper inches of trees can be removed during development without obligation of replacement. Any removal beyond ten percent (10%) will require replacement as described in subsection 9 of this section.
- c. Significant Tree Removal for Home and Business Owners: the majority of tree removal occurs during the grading and installation of infrastructure during subdivision. The city recognizes that additional tree removal may occur after subdivision to construct new houses or business, or the expansion of existing homes or business, but to a lesser degree than the original subdivision. Therefore,

ten percent (10%) of the existing caliper inches of trees can be removed during home or business construction without obligation of replacement. Any removal beyond ten percent (10%) will require replacement as described in subsection 9 of this section.

- d. **Trees Exempt from Replacement:** The following types of trees do not need to be included as part of the tally of tree removals:
 - (1) Dead, diseased, or dying trees; or
 - (2) Trees that are transplanted from the site to another appropriate area within the city; or
 - (3) Trees that were planted as part of a commercial business such as a tree farm or nursery.
- 8. Tree Replacement Formula.** Replacement of removed or disturbed trees in excess of the percentage allowed by this subsection shall be according to the following guidelines:
 - a. For development which exceeds the percentage of allowable removal of significant trees, all significant trees shall be replaced at the ratio of one-half (0.5) caliper inch per one caliper inch removed.
 - b. For each heritage tree removed by the developer, all heritage trees shall be replaced at the ratio of one caliper inch per one caliper inch removed.
- 9. Sizes, Types and Diversification Of Replacement Trees.** Replacement trees shall be a minimum of twenty five percent (25%) conifers and twenty five percent (25%) deciduous hardwoods. Required heritage tree replacement must be of the same species as the heritage tree removed and flowering trees removed are to be replaced with a flowering tree species. Replacement trees must be no less than the following sizes:
 - a. Deciduous trees shall be no less than two and one-half (2.5) caliper inches; and
 - b. Coniferous trees shall be no less than six feet (6') high.
- 10. Acceptable Tree Replacement Species.** The replacement trees shall be species identified on the City Forester's Recommended Tree List.
- 11. Other Replacement Tree Requirements.** Choice of replacement trees species and location of the trees should also be contingent on the following information:
 - a. Soil Composition: Comparisons should be made between soil conditions and the ecology of the proposed species to make sure they are compatible.
 - b. Spatial Requirements: The potential height and crown spread of the proposed replacement trees should be known. Usually, half of the adult tree crown diameter is the amount of distance a tree should be planted from any aboveground objects.
 - c. Diseases And Insect Problems: Appropriate replacement choices shall also consider insect and disease problems that may be common with species in the part of the state in which the City of Mahtomedi is located.
- 12. Fee In Lieu Of Tree Replacement Or Replacement Trees Planted in Public Areas.** The city recognizes that there may be instances where the total amount of tree replacement required cannot occur on site or that there are some land uses (such as refining) that are not compatible with trees. In those instances, the city may, at its

option, accept a fee in lieu of tree placement or allow the planting of replacement trees in public areas. Tree replacement is encouraged to happen on site as much as possible and fee in lieu of tree replacement should be use only when replacement cannot occur on site. The fee in lieu of tree replacement will be determined annually by the city council through the city fee schedule.

- 13. Tree Replacement Performance Security.** The city may, at its option, withhold occupancy certification or require cash, a letter of credit, or a bond satisfactory to the city in the amount of one hundred twenty-five percent (125%) of the value of the landscaping, securing the full performance of landscaping requirements. The amount of the security shall be determined by the contract value of the required improvements and may be held by the city for three years from the date the improvements were completed.