

**CITY OF LAKE ELMO  
COUNTY OF WASHINGTON  
STATE OF MINNESOTA**

**ORDINANCE NO. 2024-19**

**AN ORDINANCE AMENDING THE LAKE ELMO CITY CODE FOR  
ZONING LANDSCAPING SECTIONS 105.12.470 TREE PRESERVATION & 105.12.480  
LANDSCAPING REQUIREMENTS**

**SECTION 1. The City Council of the City of Lake Elmo hereby amends Title 105 Zoning; Chapter 105.12: Zoning Code, Section 470 Tree Preservation by changing the following section (Proposed language is underlined, deleted language is shown with ~~strikethrough~~):**

- a) *Purpose.* Within the City of Lake Elmo, trees and woodlands are considered a valuable asset to the community. The City places a priority on protecting this asset and finds that it is in the best interest to regulate the development and alteration of wooded areas within the community. All applicants shall comply with all the provisions in the Zoning Code which address the preservation of existing significant trees, including this section. All applicants shall demonstrate a good faith effort to maximize tree preservation during the development review phase and shall avoid a mass-grading approach to site development where possible. Applicants are encouraged to preserve all healthy trees of significant value even if the trees do not meet the size requirements to be considered significant trees.
- b) *Definitions.* The following words, terms and phrases, when used in this section, shall have the meanings ascribed to them in this subsection, except where the context clearly indicates a different meaning:

*Applicant* means any person or entity submitting an application to the City for approval of a land use permit including preliminary plat, final plat, conditional use permit, interim use permit, planned unit development, variance or grading permit.

*Common tree* means and includes Ash, Aspen, Basswood, Catalpa, Elm, Hackberry, Locust, Poplar, Silver Maple, Willow and any other tree not defined as a hardwood deciduous tree or a coniferous/evergreen tree.

*Coniferous/evergreen tree* means a wood plant, which, at maturity, having foliage on the outermost portion of the branches year-round. Tamaracks are included as a coniferous tree species.

*Construction area* means any area in which construction activity has or is occurring.

*Construction activity* means any disturbance to the land that results in the movement of earth, the alteration in the topography or existing soil cover (both vegetative and non-vegetative) that may result in accelerated stormwater runoff, leading to soil erosion and movement of sediment into surface water or drainage systems. Examples of construction activity may include clearing, grading, filling, excavating, building construction and landscaping.

*Construction damage* means any action such as filling, scraping, trenching, or compacting the soil around trees or wounding trees in such a manner that it may result in the eventual death of the tree.

*Critical root zone (CRZ)* means an imaginary circle surrounding the tree trunk with a radius distance of one (1) foot per one (1) inch of tree diameter. E.g., a 20-inch diameter has a critical root zone with a radius of twenty (20) feet.

*Deciduous hardwood tree* means a tree that loses its foliage or leaves annually such as Birch, Cherry, Hickory, Ironwood, Hard Maples, Oak and Walnut.

*Development* means any activity or proposal that requires City approval of a preliminary plat, final plat, building permit, demolition permit, conditional use permit, interim use permit, planned unit development, variance or grading permit.

*Diameter breast height (DBH)* means the diameter of trees at breast height, measured 4 1/2 feet (54 inches) above the ground.

*Drip line* means the farthest distance away from the trunk of a tree that rain or dew will fall directly to the ground from the leaves or the branches of the tree.

*Healthy tree* means a healthy tree has:

- 1) A live top (live crown) that is greater than one-third (1/3) the total tree height;
- 2) Dead branches that make up less than fifteen percent (15 %) of the total crown;
- 3) Less than fifteen percent (15%) of the tree crown with missing branches;
- 4) Consistent growth of foliage throughout the live portion of the crown; and
- 5) A tree trunk with no open wounds that are greater than one-third (1/3) the diameter of the tree, with no wounds in contact with the ground and no wounds that have soft, punky wood or other indication of decay.

*New development* means all sites with construction activity or development that are not defined as redevelopment.

*Nuisance tree* means:

- 1) Any living or standing tree or part thereof infected to any degree with a shade tree disease (see *Tree disease* below) or shade tree pest;
- 2) Any logs, stumps, branches, firewood or other part of dead or dying tree(s) infected with a shade tree disease or shade tree pest unless properly treated; and
- 3) Any standing dead trees or limbs which may threaten human health or property.

Also included are noxious or invasive trees such as Amur Maple, Japanese Barberry, Russian Olive, Siberian Elm, Buckthorn, Boxelder, and Cottonwood.

*Ornamental tree* means a small tree, usually less than thirty (30) feet in height at maturity, often planted for ornamental characteristics such as flowers or attractive bark.

*Redevelopment* means a site with construction activity that creates new or replaces existing impervious surface, buildings or structures on a parcel that is fully or partially occupied by buildings, structures, or other impervious surfaces.

*Tree disease or diseased* means Dutch elm disease (*Ophiostoma ulmi* or *Ophiostoma novo-ulmi*), oak wilt (*Ceratocystis fagacearum*) or any other tree disease of epidemic nature.

*Tree pest* means Emerald Ash Borer (*Agrilus plannipennis*), European elm bark beetle (*Scolytus multistriatus*), Native elm bark beetle (*Hylurgopinus rufipes*) or any other tree pest with potential to cause widespread damage.

*Significant tree* means a healthy tree measuring a minimum of six (6) inches in diameter for hardwood deciduous trees, nineteen (19) feet in height or eight (8) inches in diameter for coniferous/evergreen trees, or twelve (12) inches in diameter for common trees, as defined herein.

*Site* means a parcel or area of land within which construction activity, development, or redevelopment occurs or is to occur.

*Specimen tree* means a healthy, deciduous hardwood tree measuring equal to or greater than thirty (30) inches in diameter breast height or a healthy coniferous/evergreen tree measuring equal to or greater than twenty-five (25) feet in height.

*Tree Preservation Plan* means a plan prepared by a ~~certified~~ landscape architect licensed by the State of Minnesota or forester ~~indicating~~ identifying all of the significant and specimen trees in the proposed development or parcel. A Tree Preservation Plan must include a proposed site plan, a proposed grading plan including all custom graded lots, a tree inventory that includes the size, species, and location of all significant trees proposed to be saved and removed on the area of development, and the measures proposed to protect the significant and specimen trees that are to be saved. The applicant shall have the ~~Tree Preservation Plan~~ Tree Preservation Plan superimposed on the proposed development grading plan.

*Woodland evaluation report* means a report prepared by a certified ~~forester~~ forester, landscape architect licensed by the State of Minnesota, ~~forester~~ or land surveyor indicating the general location, condition, and species of significant trees on a parcel planned for future development or grading activity. The report must demonstrate that there will be no impact to existing significant trees as part of the development or grading activity. Finally, the report must include the measures proposed to protect significant trees on the site.

c) *Tree preservation standards for developing properties.*

- 1) *Applicability.*

- a. A ~~Tree p~~Preservation ~~p~~Plan, or suitable alternatives as determined by the City, shall be submitted and approved by the City for the following activities:
  1. New development or redevelopment in any Zoning District. A Tree Preservation Plan shall be required as part of any new development, redevelopment, or subdivision application.
  2. Any grading or excavation project that results in the movement of greater than 400 cubic yards of material per acre of site per Lake Elmo Code Section 105.08.060.
  3. If the applicant is able to demonstrate that the proposed development, redevelopment, construction activity or grading activity includes no impact to the significant trees on the site, then the applicant may be exempt from the requirement to submit a Tree Preservation Plan. It is the responsibility of the applicant to demonstrate that there are no impacts to significant trees through a Woodland Evaluation Report or some other form of tree survey or study.

~~The Tree Preservation Plan shall reflect the applicant's best effort to determine the most feasible and practical layout of lots, buildings, parking lots, driveways, streets, storage, storm water management facilities and other physical features, so the fewest significant and specimen trees are destroyed or damaged.~~

- b. A Tree Preservation Plan is not required for the following activities:
  1. The issuance of a development approval for the construction of a single-family residence on an existing platted lot of record.
  2. The harvesting of trees. For the purposes of this section, "harvesting" means cutting or clearing trees for purposes relating to forestry operations, as defined in Lake Elmo Code Section 105.12.110. "Harvesting" does not include the clearing of land for purposes of development, even where the trees are sold for purposes of creating lumber for related purposes.
  3. Additions to single-family homes, general homes improvements and the construction of accessory buildings (i.e., garages, sheds) on residential properties.
  4. Home gardens or an individual's home landscaping, installation, repairs, or maintenance work.
  5. Tree removal related to public improvement projects and maintenance or repairs to existing streets, roadways, sewers, parks, storm water facilities and utility infrastructure.
  6. Emergency removal of trees to protect the public health and safety or to alleviate immediate dangers to life, limb, property, or natural resources.
  7. Tree removal related to public improvement projects to restore or enhance woodlands, savannas, or prairies.
  8. Removal of dead or dying trees, unless those trees were planted as part of tree replacement in which case the property owner shall replace such trees based on the City-approved Tree Preservation Plan for the property.
  9. Removal of nonnative trees that the City deems as nuisance or as an invasive species.

- 2) ~~Tree p~~Preservation ~~p~~Plan. All applicants shall submit a Tree Preservation Plan prepared by a certified forester or landscape architect licensed by the State of Minnesota in accordance with the provisions of this section. The Tree Preservation Plan shall reflect the applicant's best effort to determine the most feasible and practical layout of lots, buildings, parking lots, driveways, streets, storage, storm water management facilities and other physical features, so that the maximum amount of significant and specimen trees are preserved and protected from development and construction. [ > ]
- 3) During the review of an application for a building permit, grading permit, site plan approval, planned unit development, conditional use permit, interim use permit, or preliminary plat, the City will review the project and the Tree Preservation Plans ~~according to~~ in order to ensure that the Tree Preservation Plan has the best available layout in order to preserve significant trees and to ensure that the applicant used the best possible design to mitigate and minimize construction damage to significant trees.
- 4) ~~Tree p~~Preservation ~~p~~Plan requirements. The ~~Tree p~~Preservation ~~p~~Plan shall be a separate plan sheet(s) that includes the following information:
  - a. The name(s), certification(s), telephone number(s) and address(es) of the person(s) responsible for tree preservation during the course of the development project.
  - b. Tree inventory. The Tree Preservation Plan must include a ~~Tree i~~nventory through one of the following methods:

1. *Individual tree inventory.* An individual tree inventory including an identification system linked to metal field tags located four and one-half (4 1/2) feet from grade on all significant trees must be identified on a plan sheet in both graphic and tabular form.
  2. *Tree inventory sampling.* In cases of sites with large tracts of significant trees, the City may approve the use of a sampling inventory for all or portions of a site as an alternative to an individual tree inventory. The sampling inventory must include the methodology for sampling, identification ribbon around the perimeter of the sampling areas, and metal field tags located four and one-half (4 1/2) feet from grade on all significant trees in the sampling area. Within the sampling area, the quantity, size, species, health and location of all significant trees must be identified on a plan sheet in both graphic and tabular form. Based on sampling, total estimates and locations of healthy significant trees shall be provided.
  3. *Combination tree inventory.* With the approval of the ~~city~~ City, sites that include both large tracts of significant trees and areas of individual significant trees may utilize a combination of the individual and sampling inventory methods.
- c. Trees that were planted as part of a commercial business such as a tree farm or nursery do not need to be inventoried on an individual tree basis. A general description of the trees and an outer boundary of the planted area must be provided. The burden of proof shall be on the applicant to provide evidence to support the finding that the trees were planted as part of a commercial business.
  - d. A listing of healthy significant trees inventoried in subsection (c)(3)b of this section. Dead, diseased, nuisance or dying trees do not need to be included in the totals.
  - e. A listing of the healthy significant trees removed, identified by the metal field tag or some other form of identification used in the tree inventory in subsection (c)(3)b of this section.
  - f. A listing of the healthy significant trees to remain, identified by the metal field tag or some other form of identification used in the tree inventory in subsection (c)(3)b of this section.
  - g. Outer boundary of all contiguous wooded areas, with a general description of trees not meeting the significant tree size threshold.
  - h. Locations of the proposed buildings, structures, or impervious surfaces.
  - i. Delineation of all areas to be graded and limits of land alteration and disturbance.
  - j. Identification of all significant trees proposed to be removed within the construction area. These significant trees should be identified in both graphic and tabular form.
  - k. Measures to protect significant and specimen trees and City standard tree protection detail.
  - l. Size, species, number and location of all replacement trees proposed to be planted on the property in accordance with the Mitigation Plan, if necessary.
  - m. Signature of the person(s) preparing the plan.
- 5) *Implementation.* All new construction areas, development sites, and redevelopment sites shall be staked, as depicted in the approved Tree Preservation Plan, and the required tree protection fencing shall be installed and approved by the City's Landscape Architect around the critical root zone before land disturbance is to commence. The City has the right to inspect the site at any time for compliance with the plan. No encroachment, land disturbance, trenching, filling, compaction, or change in soil chemistry shall occur within the fenced areas protecting the critical root zone of the trees to be saved.
- 6) *Allowable tree removal.* Up to thirty (30) percent of the diameter inches of significant trees on any parcel of land being developed, redeveloped, graded, or proposed for construction activity may be removed without having to adhere to the tree replacement requirements. Replacement according to the tree replacement schedule is required when removal exceeds more than thirty (30) percent of the total significant tree diameter inches. The following types of trees do not need to be included as part of the tally of tree removals:
- a. Dead, diseased, nuisance, or dying trees;
  - b. Trees that are transplanted from the site to another appropriate area within the City;
  - c. Trees that were planted as part of a commercial business, such as a tree farm or nursery (subject to verification by the City); or
  - d. Trees that were planted by the current property owner. In making such a determination, the City shall consider consistency of the age of the trees, any patterns in the location of trees, historical aerial photography and evidence of intentional planting such as invoices, formal planting plans or cost sharing agreements.
- 7) *Mitigation plan.*
- a. In any new development, redevelopment, new construction area, or grading project where the allowable tree removal is exceeded, the applicant shall mitigate the tree loss by planting replacement trees in appropriate areas within the development in accordance with the ~~Ttree R~~replacement ~~S~~schedule.
  - b. The form of mitigation to be provided by the applicant shall be determined by the City.

- c. The planting of trees for mitigation on residential projects shall be in addition to any other landscape requirements of the City.
  - d. All trees, with the exception of ornamental trees, planted as landscaping on commercial or mixed-use projects may be counted towards tree replacement requirements.
- 8) *Tree replacement calculations.* Thirty (30) percent of the total diameter inches of significant trees on the site of new construction, new development, or redevelopment may be removed without replacement. The applicant shall plant all required replacement trees on the site of the proposed new construction, new development, or redevelopment. The following calculation procedure must be used to determine tree replacement requirements:
- a. Tally the total number of diameter inches of all significant trees on the site.
  - b. A calculation must be provided which breaks out the number of inches removed for hardwood, evergreen/deciduous, and common trees. The thirty (30) percent removal figure applies to each category individually and trees are replaced according to the Tree Replacement Schedule in subsection (c)(8) of this section.
- 9) *Tree replacement schedule.* Tree removals over the allowable tree removal limit on the parcel or site of new construction, new development, or redevelopment shall be replaced according to the following schedule:
- a. Common tree species shall be replaced with new trees at a rate of one-fourth (1/4) the diameter inches removed.
  - b. Coniferous/evergreen tree species shall be replaced with new coniferous or evergreen trees at a rate of one-half (1/2) the diameter inches removed. Since coniferous species are often sold by height rather than diameter inch, the following conversion formula can be used: Height of Replacement Coniferous Tree/2 equals Diameter Inches of Credit.
  - c. Hardwood deciduous tree species shall be replaced with new hardwood deciduous trees at a rate of one-half (1/2) the diameter inches removed.
  - d. Replacement tree size. Replacement trees must meet the minimum sizes listed in Lake Elmo Code Section 105.12.480.
- 10) *Species requirement.* The City must approve all species used for tree replacement. Ornamental trees are not acceptable for use as replacement trees. Where ten (10) or more replacement trees are required, not more than thirty (30) percent of the replacement trees shall be of the same species of tree. The planting of native species is encouraged, and hardiness and salt tolerance of the plants should be considered where applicable.
- ~~11) *Warranty requirement.* Any replacement tree which is not alive or healthy, as determined by the City, or which subsequently dies within two (2) years after the date of the initial landscape inspection and acceptance by the City or of the project closure, whichever occurs later shall be removed by the applicant and replaced with a new healthy tree meeting the same minimum size requirement within eight (8) months of removal.~~
- 10-11) *Protective measures.* The Tree Preservation Plan requires the following measures to be utilized to protect significant trees planned for preservation:
- a. Before any grading or construction activity, the applicant shall install snow fencing or polyethylene laminate safety netting at the drip line or at the perimeter of the critical root zone, whichever is greater, of significant trees, specimen trees and significant woodlands to be preserved. No grade change, construction activity, parking, or storage of materials shall occur within this fenced in area.
    - 1. See Minnesota Department of Transportation Standard Plan 5-297.301 and Minnesota Department of Transportation Specification Section 2572 for specific requirements related to tree protection and restoration.
  - b. Measures to be taken so that oak trees are not wounded, trimmed, pruned, or damaged in any way (root, bark, branches, etc.) between the dates of March 15 and October 31. Measures to be taken to ensure that any oak trees pruned or trimmed have any cut areas sealed with an appropriate nontoxic tree wound sealant.
  - c. Prevention of change in soil chemistry due to concrete washout and leakage or spillage of toxic materials, such as fuels or paints.
  - d. Removal of any nuisance or dead trees located in areas to be preserved.
  - e. Installation of erosion control methods.
- 12) *Additional protective measures.* The City encourages applicants to use the following tree protection measures to protect the root zones and to prevent damage to significant and specimen trees that the applicant intends to preserve;
- a. Installation of retaining walls or tree wells to preserve trees.

- b. Placement of utilities in common trenches outside of the drip line of significant and specimen trees or use of tunneled utility installation.
- c. Use of tree root aeration, fertilization, or irrigation systems.

13) *Compliance with the ~~#Tree~~ ~~p~~Preservation ~~p~~Plan.* The applicant shall implement the Tree Preservation Plan and receive confirmation of acceptance from the City's Landscape Architect prior to the start of and during any grading or construction activities. The tree protection measures shall remain in place until all grading, and construction activity is terminated or until a request to remove the tree protection measures is made to, and approved by, the City.

- a. No significant trees shall be removed until the Tree Preservation Plan is approved by the City and except in accordance with the approved Tree Preservation Plan.
- b. If an applicant damages or removes a significant tree that is intended to be preserved to the point that City staff believes the tree will not survive, the applicant must remit to the City a cash mitigation, calculated per diameter inch of the removed or damaged tree in the amount set forth in the City fee schedule.
- c. The City shall have the right to inspect the site in order to determine compliance with the approved Tree Preservation Plan. The ~~e~~City shall determine whether the Tree Preservation Plan has been met prior to the release of any financial security obtained for tree preservation.
- d. Instances where a significant tree is removed due to new development, redevelopment, new construction activity or were disturbed, and the removal was not noted on the landscaping or tree removal plan will result in a one-to-one replacement penalty regardless of if the removal is over the thirty percent (30%) allowance.

d) *Tree protection standards for non-developing properties.*

1) Existing developed commercial, industrial, and mixed-use properties.

- a. *Trees that are removed in an existing commercial, industrial, or mixed-use development must be replaced in accordance with the original landscaping plan, unless the property owner has obtained City approval for an alternative landscaping plan. If the original landscaping plan is not able to be found, trees identified by the most recent aerial photo of the property will be assumed to be part of the original landscape plan.*
- b. *Trees that are removed that were part of a designated tree preservation area must be replaced in accordance with the tree replacement requirements outlined in Lake Elmo Code Section 105.12.470. The thirty percent (30%) allowable tree removal limit does not apply in these situations.*

e) Warranty requirement. Any tree installed as a required replacement tree shall have the same two year warranty requirements as trees required by Lake Elmo Code Section 105.12.480

f) *Financial security.* In cases where mitigation or tree replacement is required, the City may require that a financial security, in a form acceptable to the City, be provided as part of a development agreement, site improvement agreement or applicable permit to ensure compliance and performance of the ~~M~~mitigation ~~P~~plan. The financial security will be released to the applicant upon verification by the City that the ~~M~~mitigation ~~P~~plan was followed, and that all replacement trees have been installed in accordance with the approved landscaping plan, match or exceed approved plan quantities, and meet City acceptance requirements to begin the two year landscape warranty. ~~are planted and are healthy~~ The financial security may be used to replace any replacement trees that ~~have become damaged, are not healthy, or are diseased after planting.~~ do not satisfy the warranty criteria.

g) *Exceptions.*

- 1) *Exception standards.* Notwithstanding the City's desire to accomplish tree preservation and protection goals, there may be instances where these goals are in conflict with other City objectives. These conflicts will most likely occur on small, heavily-wooded parcels. The City recognizes there may be instances where it is not practical or reasonable to have an applicant plant the total required replacement trees on the site. The City ~~encourages~~ ~~enters~~ applicants to have the required number of tree replacements ~~trees~~ planted entirely on the site to the extent this is of as much as possible. The City will only approve the use of fee-in-lieu of tree replacement or other mitigation methods when all the required tree replacements cannot practically or reasonably occur on the site in the judgement of the City.

Applicants may ask the City to approve exceptions to the City's tree preservation and replacement standards. The City Council may grant exceptions if all of the following conditions exist:

- a. It is not feasible to combine the subject parcel with adjacent parcels that could use the parcel as required green space;
  - b. Strict adherence to the City's tree preservation and replacement standards would prevent reasonable development that is consistent with the Comprehensive Plan and desirable to the City on the parcel; and
  - c. The exception requested is the minimum needed to accomplish the desired development or redevelopment.
- 2) *Reduced mitigation for exceptions.* If the City Council approves an exception to the tree preservation standards, relief from the requirements of the standards may take the form of reduced mitigation requirements, greater allowable tree removal, higher thresholds for determining significant trees, or any combination of the above. The City Council will determine which form of relief best balances the objectives of the City and tree preservation.

The City Council may require payment to the City of a fee-in-lieu of tree replacement, payment of additional park dedication fees; the implementation of woodland management practices by the applicant; or the planting of replacement trees on City property by the applicant under direction of the City Public Works Director; or a combination of these methods as a condition of the City approving relief or an exception from the City tree preservation and replacement standards. The amount of the fee-in-lieu of tree replacement is set forth in the City's fee schedule.

**SECTION 2. The City Council of the City of Lake Elmo hereby amends Title 105 Zoning; Chapter 105.12: Zoning Code, Section 480 Landscape Requirements by changing the following section (Proposed language is underlined; deleted language is shown with ~~strikethrough~~):**

All development sites shall be landscaped, as provided in this section, in order to control erosion and runoff, promote conservation of water, moderate extremes of temperature and provide shade, aid in energy conservation, preserve habitat, provide visual softening of, especially, urban development, and generally enhance the quality of the physical environment within the ~~city~~City.

- a) *Landscape plan requirements*~~d~~. A landscaping plan is required for all new commercial, industrial, institutional, and multifamily developments, all planned unit developments, and all subdivisions, with the exception of minor subdivisions, as defined in this chapter. The landscape plan shall be prepared by a ~~certified~~ landscape architect licensed by the State of Minnesota, shall be drawn to a scale identified on the plan, and include the following:
  1. ~~The location, size, quantity, and species of all existing and proposed plant materials.~~ Landscape plan(s) must include a legend with all line types and hatch patterns depicted on the plan and backgrounds. Legend items shall match the hatch and line type, and scale depicted on the plans.
  2. The landscaping plan(s) shall locate and label all existing and proposed plant materials and ground covers.~~ion.~~
  3. The landscaping plan(s) shall provide a plant schedule which includes the following information:
    - a. Common Name This name shall align with the corresponding plan symbol or hatch pattern in the legend
    - b. Scientific Name
    - c. Trees shall be ordered in the plant schedule by genus
    - d. Total quantities for deciduous, coniferous, and ornamental trees
    - e. Quantity by species
    - f. Size
    - g. Root ball type
    - h. Height and spread of each plant:
      1. at the time of planting and
      2. at the time of anticipated maturity.
  4. ~~size, quantity, and species of all existing and proposed plant materials.~~
4. Location and Methods for protecting existing trees and other landscape material, consistent with Lake Elmo Tree Preservation Code Section 105.12.470.
3. ~~The plant schedule shall depict the height and spread of each plant type at the time of planting and at the time of maturity.~~

5. All existing and proposed features such as buildings, structures, parking areas, pervious and impervious pavement, signs, fences, walls, enclosures, natural features, grading, property lines, easements, utilities, and driveways shall ~~shall~~ be clearly shown on the plans.
  6. Seeding, sodding, and ground cover materials shall be identified in the landscaping plan with hatching.
  7. Provisions for irrigation and other water supplies. A watering plan and schedule shall be provided for all areas where an irrigation system is not included.
  8. Elevation view, details, and cross-sections of all required screening.
  9. City standard plan notes and planting details, ~~and as well as any additional~~ project specific planting instructions and notes.
  10. Topsoil preservation plan that includes: stockpile location, calculations that a sufficient amount of topsoil will be set aside to restore the site with a depth of four (4) inches, erosion control requirements, and a soil report prepared by an independent party verifying topsoil borrow meets or has been altered to meet the composition requirements of Minnesota Department of Transportation MN-DOT Specification 3877 as modified to contain no less than ~~than~~ 6% organic matter.
- b) *Design considerations.* The following design concepts and requirements shall be considered when developing a landscape plan.
1. To the maximum extent possible, the landscape plan shall incorporate, preserve and protect, existing significant trees and other healthy, non-invasive vegetation on the site.
  2. Landscaped areas should be of adequate size to allow for healthy plant growth, to a typical mature size without impeding ~~on~~ roads, walks, trails, buildings or other areas needed for service access or public safety. Planting areas should provide adequate areas for plant maintenance.
  3. A variety of trees and shrubs should be used to provide visual interest year-round. No more than 25 percent of the required number of trees and shrubs may consist of any one taxonomic genus. A minimum of 25 percent of the required number of trees shall be deciduous shade trees, and a minimum of 25 percent shall be coniferous trees. Ornamental trees may be used when applied towards landscaping requirements. However, the number of trees shall not exceed 15 percent of the required amount.
  4. Final slopes greater than 3:1 will not be permitted without special treatment such as terracing, retaining walls, erosion control blankets, or special ground covers.
  5. All plant materials, except trees planted per the tree replacement schedule, shall meet the following minimum size standards in Table 6-1. Trees planted per the tree replacement schedule shall meet the minimum requirements outlined in Lake Elmo Code Section 105.12.470(c)(8)d.

Table 6-1: Minimum Size Standards for Landscape Materials

<i>Plant Type</i>	<i>Minimum Size at Planting **</i>
Trees:	
Evergreen	6 feet in height
Deciduous--shade	2.5 inches caliper, measured six inches from base
Deciduous--ornamental	2 inches caliper, measured six inches from base
Shrubs:	
Evergreen	# five container*
Deciduous	# five container*
Shrubs used for screening (evergreen or deciduous)	# five container*

\* Approximately five gallons.

\*\* See American Standards for Nursery Stock, ANSI 260.1-2004 for exact specifications.

\* This table and its requirements do not apply to the tree replacement schedule.

6. As an alternative to the minimum standards for landscape materials, a landscape plan prepared by a qualified professional certifying that said plan will meet the intent of this section may be submitted.
  7. ~~As a general rule, trees should~~ must be planted a minimum of ten feet away from all utilities including water and sewer stubs unless approved by the ~~e~~City. No plantings may be placed in or within 5 feet of a drainage and utility easement, unless approved by the Public Works Director.
- c) *Landscaping of setback areas.* All required setbacks not occupied by buildings, parking, paths or plazas shall be landscaped with turf grass, native grass, trees, shrubs, vines, perennial flowering plants, and surrounding pervious ground cover.
1. A minimum of one tree per lot or one tree for every 50 feet of street footage, lake shore or stream frontage, or fraction thereof shall be planted at the time of development. The total tree requirement will be whichever quantity is greater.

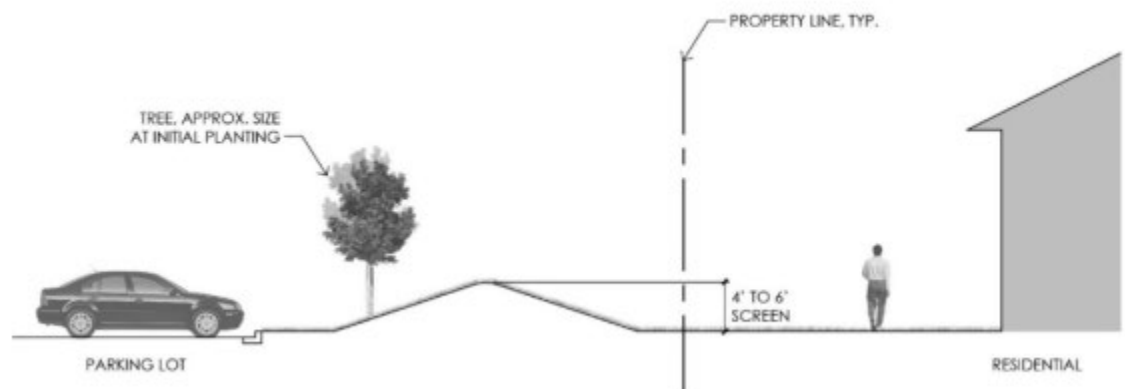


- a. Trees adjacent to streets shall be planted within the front yard and may be arranged in a cluster or placed at regular intervals to best complement existing landscape design patterns in the area.
  - b. Salt tolerance, species soil compatibility, and root structure should be considered when selecting tree species adjacent to streets, sidewalks and parking areas.
  - c. Where property abuts a lake or stream, trees shall be planted at intervals of no more than 50 feet along the shoreline, except where natural vegetation is sufficient to meet this requirement.
2. In addition to the requirements of subsection (c)(1) of this section, a minimum of five trees shall be planted for every one acre of land that is disturbed by development activity. Such trees may be used for parking lot landscaping or screening as specified in subsections (d) and (e) of this section.
- d) *Interior parking lot landscaping.* The purpose of interior parking lot landscaping is to minimize the expansive appearance of parking lots and provide shaded parking areas. Landscaping shall consist of planting islands, medians and borders, comprising the required planting area specified under subsection (d)(1) of this section.
1. At least five percent of the interior area of parking lots with more than 30 spaces shall be devoted to landscape planting areas. Areas may consist of islands or corner planting beds.
  2. Shade trees shall be provided within the interior of parking lots (in islands or corner planting beds) in accordance with the following table:

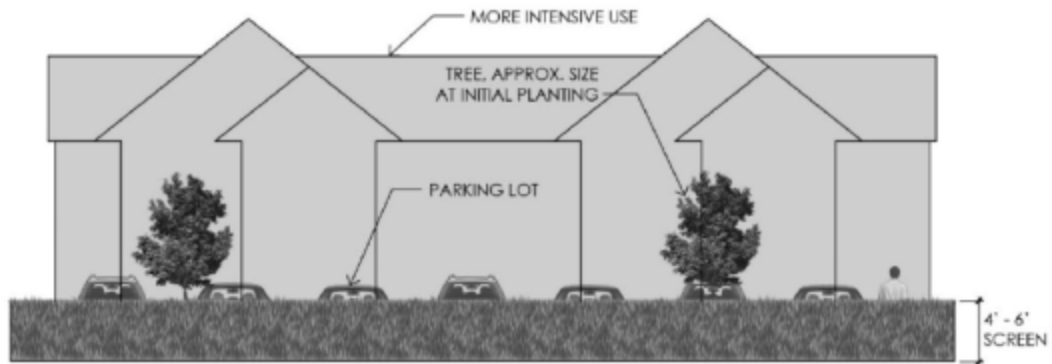
Table 6-2: Minimum Required Tree Planting for Parking Lots

<i>Number of Parking Spaces</i>	<i>Minimum Required Tree Planting</i>
0--30	None required
31--100	1 tree per ten spaces or fraction thereof
101+	1 tree per 15 spaces or fraction thereof

- e) *Perimeter parking lot landscaping.* Parking areas, and especially vehicle headlights, shall be screened from public streets and sidewalks, public open space, and adjacent residential properties. Where applicable an applicant may demonstrate that distance and/or finished grades would achieve this objective, whereupon this requirement may be waived by the Community Development Director. The perimeter of parking areas shall be screened as follows:
1. With the exception of the VMX area, a landscaped frontage strip at least eight feet wide shall be provided between parking areas and road right-of-way. If a parking area contains over 100 spaces, the frontage strip shall be increased to twelve feet in width.
    - a. Within the frontage strip, screening shall consist of either a masonry wall, fence, berm, or hedge or combination that forms a screen a minimum of 3 1/2 and a maximum of four feet in height, and not less than 50 percent opaque on a year-round basis.
    - b. Trees shall be planted at a minimum of one deciduous tree per 50 linear feet within the frontage strip.
  2. Along side and rear property lines abutting residential properties or districts, screening shall be provided, consisting of either a masonry wall, fence or berm in combination with landscape material that forms a screen a minimum of four feet in height, a maximum of six feet in height, and not less than 90 percent opaque on a year-round basis. Landscape material shall include trees, planted at a minimum of one deciduous or coniferous tree per 40 linear feet along the property line.
    - a. Figure A: Example cross-section view of perimeter parking lot landscape screening.

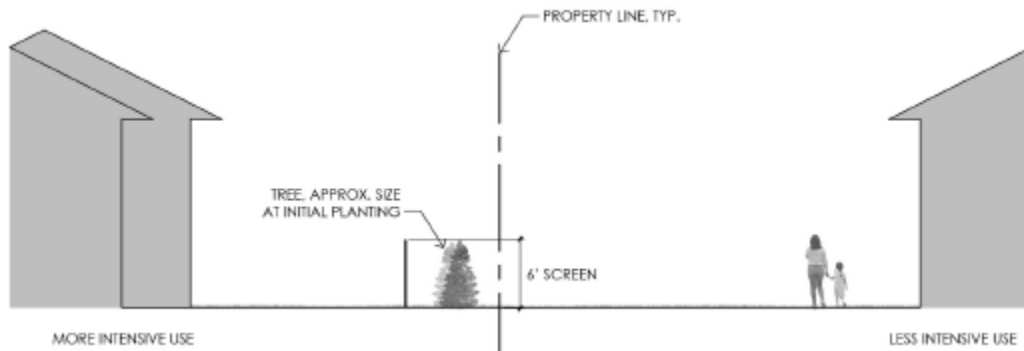


- b. Figure B: Example elevation view of perimeter parking lot landscape screening.

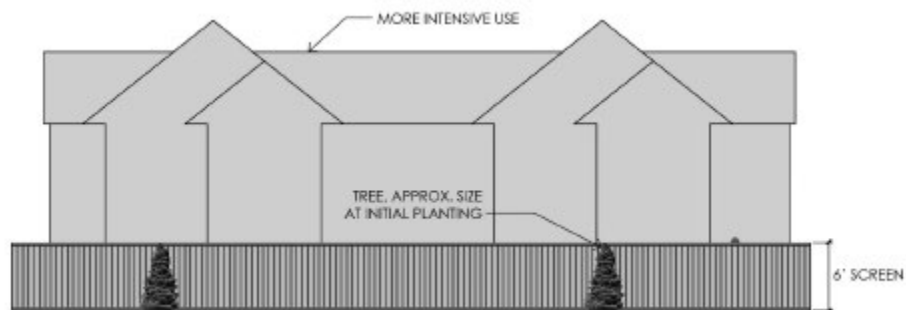


- f) *Screening.* Screening shall be used to provide visual and noise separation of more intensive uses from less intensive uses. Where screening is required in the City Code between uses or districts, it shall consist of either a wall or fence, or berm in combination with landscape material that forms a screen at least six feet in height, and not less than 90 percent opaque on a year-round basis. Top-of-wall or fence shall be a minimum of six feet above the elevation along the property line(s) from which screening of the less intensive use is required. The City may require screening at least eight feet in height where the difference in intensity of uses is greater, such as between lots planned for development with single-family attached and detached residential development and certain service uses such as self-service storage and trade shops, automotive/vehicular uses, or industrial and extractive uses. Landscape material shall include trees, planted at a minimum of one deciduous or coniferous tree per 25 linear feet along the property line. Screening trees shall be adequately sized and offset from the property line so as not to overhang adjacent properties upon reaching mature size. Additional landscape material, such as shade trees or trellises, may be required to partially screen views from above.

1. Figure C: Example cross-section of screening between land uses.



2. Figure D: Example elevation view of screening between land uses.



- g) *Standards, installation, and maintenance, and installation of plant and landscape materials.* The preparation, installation, and maintenance of all landscape materials shall comply with the following standards unless otherwise stipulated in the City's Landscape Special Provisions:
1. All landscape materials, installation and maintenance shall be installed to current comply with industry the City's Landscape Special Provisions and the Minnesota Department of Transportation Standard Specifications Section

2571 and Standard Plan 5-297.301 Standard Planting Details A-C. Special attention must be paid to initial soil preparation, drainage, and proper initial planting of plant root mass.

2. A pre-installation conference between the City's Landscape Architect, developer/builder, and landscape contractor shall be required prior to the installation of any code required plantings or seeding. Any landscaping material not required for erosion control installed without a pre-installation conference will be rejected.
  - a. Prior to the conference, both developer and the developer's contractor shall have reviewed the pre-installation checklist included in the City's Landscape Special Provisions to gain familiarity with the requirements and identify areas needing clarification.
3. Irrigation or other water supply to support the specified plant materials adequate watering of all plant materials and ground cover in the approved development plan shall be provided at the time of or immediately after, plant installation to support establishment and shall continue through the entire warranty period. The watering requirements are set forth in the Minnesota Department of Transportation Specification Section 2571.
4. All required landscaping and screening features shall be kept free of refuse, and debris, and noxious weeds.
5. All landscape landscaping, mulch depth beds, plantings, and seeded, and sodded areas shall be maintained to manage noxious weeds and ensure establishment of intended plant materials.
6. All landscape materials shall be guaranteed for two years. Any landscape material that dies, has a dead or broken central leader, exhibits 30% or more crown death, is damaged by construction, or becomes diseased before the end of the second year after acceptance shall be replaced by the developer.

6. For nonresidential projects, continuing maintenance and replacement of landscape materials shall be the responsibility of the property owner, including after two years of initial installation. Improvements identified on the landscape plan, including non-plant materials, such as fencing, shall be maintained for the life of the project for which the plan was required.

h) *Topsoil Borrow Requirements. Earthwork and topsoil shall comply with the following standards:*

1. *The topsoil ~~stock pile~~ stockpile location and erosion controls shall be called out in the plan set when building permit for new residential or commercial construction is submitted to the eCity. All areas disturbed, outside of paved areas, shall be excavated to a depth of four (4) inches and tilled to a depth of six (6) inches ~~to~~ to remove compaction. The depth of the topsoil borrow shall be no less than four (4) inches, not including sod depth.*
2. *Only topsoil borrow meeting Minnesota Department of Transportation ~~OF~~ Specification 3877 as modified to contain no less than 6% organic matter, is to be placed as the final soil layer on a site to provide the required depth of topsoil borrow cover ~~an~~ and to bring the entire site to grade.*
3. *Confirmation of topsoil depth and quality shall be submitted as written confirmation from a licensed party before a full ~~Certificate of Occupancy~~ is issued.*

i) Warranty

1. All landscape materials shall be guaranteed for a period of at least two years.
  - a. The warranty begins when all approved development plan landscaping meets all required acceptance criteria, as determined by the City's Landscape Architect, from the Lake Elmo Code Section 105.12.480, the City's Landscape Special Provisions and in the Minnesota Department of Transportation Standard Specifications Section 2571 and Standard Plan 5-297.301 Standard Planting Details A-C.
  - b. The warranty period ends when all approved development plan landscaping meets the requirements, as determined by the City's Landscape Architect, listed in Lake Elmo Code Section 105.12.480(i)(1)(a).
  - c. Meeting the above requirements (i)(1)(a) and (i)(1)(b) may include replacements and corrections to existing plant, tree, seed, sod, and landscaping installations, as well as new installations of any landscaping material in the approved development plan not installed.
2. The developer is required to correct all non-compliant landscaping within 60 days of notification.
3. Warranty compliance inspections will be performed at the initial installation phase and to close out the project at the end of the two year warranty period. Any landscape material that dies, has a dead or broken central leader, exhibits 30% or more crown death or defoliation, is damaged by construction or maintenance, becomes diseased or infested, or is not planted in compliance with the Minnesota Department of Transportation Specification and Standard Planting Details A-C will not be accepted. Acceptance is a requirement to secure release of the financial security portion allocated to that phase of the warranty.
  - a. The developer is responsible for notifying the City when the project is ready for inspection.

j) *Financial security. The city City will require that a financial security, in a form acceptable to the city City, be provided as part of a development agreement or applicable permit to ensure compliance and performance of the landscape plan. The financial security will be released to the applicant upon verification by the city City that the landscape plan was followed, and that all landscape materials are planted and in a reasonable state of health. The financial security may be used to replace any landscape materials that have become damaged or diseased after planting. Adequate security must be retained to ensure performance for at least two years after the installations have been completed the required landscaping from the approved development plan meets all City requirements and receives both initial acceptance start the two year landscape warranty period and final acceptance to complete the two year landscape warranty period.*

**SECTION 3. Effective Date.** This ordinance shall become effective immediately upon adoption and publication in the official newspaper of the City of Lake Elmo.

**SECTION 4. Adoption Date.** This Ordinance 2024-19 was adopted on this 3<sup>rd</sup> day of December, 2024, by a vote of \_\_ Ayes and \_\_Nays.

**LAKE ELMO CITY COUNCIL**

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Charles Cadenhead, Mayor

ATTEST:

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Julie Johnson, City Clerk

This Ordinance 2024-19 was published on the \_\_\_\_ day of \_\_\_\_\_, 2024.