

Lake Elmo Tree and landscape ordinance language - proposed amendments
October 22, 2020 (With proposed additions underlined and deletions shown with ~~strikethrough~~).

§ 154.250. PURPOSE.

The purpose of this section is to provide regulations of general applicability for property throughout the City that are intended to protect or enhance natural resources and processes, and minimize conflicts among land uses.

(Ord. 08-077, passed 5-07-2013)

§ 154.257 TREE PRESERVATION.

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 builders, developers and subdividers shall comply with all the provisions in the Zoning Code which address the preservation of existing significant trees. All builders, developers and subdividers 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:

Common Tree. 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. 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.

Critical Root Zone (CRZ). 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 twenty-inch diameter has a critical root zone with a radius of twenty (20) feet.

Deciduous Hardwood Tree. A tree that loses its foliage or leaves in the winter. These include ~~includes~~ Birch, Cherry, Hickory, Ironwood, Hard Maples, Oak and Walnut.

Diameter Breast Height (DBH). The diameter of trees at breast height, measured 4 ½ feet (54 inches) above the ground.

Drip Line. 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.

New Construction. A land altering activity that creates impervious surface in an area where prior to the activity there was minimal or no impervious surface.

New Development. A land altering activity that creates impervious surface in an area where there was minimal or no impervious surface.

Nuisance Tree. (1) Any living or standing tree or part thereof infected to any degree with a shade tree disease (See Shade 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 buckthorn, boxelder, and cottonwood.

Ornamental Tree. 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. A construction or land altering activity that creates new or replaces existing impervious surface, buildings or structures on a parcel that is fully or partially occupied by buildings, structures and/or other impervious surfaces.

Shade Tree Disease. Dutch elm disease (*Ophiostoma ulmi* or *Ophiostoma novo-ulmi*), oak wilt (*Ceratocystis fagacearum*), Emerald Ash Borer or any other tree disease of epidemic nature.

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

Specimen Tree. 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. A large woody perennial plant normally with one main trunk and many branches that is usually 30 feet or more in height at maturity.

Tree Preservation Plan. A plan prepared by a certified landscape architect or forester indicating all of the significant trees in the proposed development or parcel. The Tree Preservation Plan includes a tree inventory which 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 trees to be saved.

Woodland Evaluation Report. A report prepared by a certified landscape architect, 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 Preservation Plan, or suitable alternatives as determined by the City, shall be submitted and approved for the following activities:

- i. New Development or redevelopment in Any Zoning District. A Tree Preservation Plan shall be required as part of any development, site redevelopment, large addition or subdivision application. When either full redevelopment of a site is proposed or an addition that would increase total floor area on a site by 25 percent or more, a tree preservation plan and a landscape plan for the entire site, demonstrating compliance with the requirements of this section and with Section 154.258 , must be submitted to the City for approval.
 - ii. Any grading or excavation project that result in the movement of greater than 400 cubic yards of material per acre of site per §151.017.
 - iii. If the applicant is able to demonstrate that the proposed development or major 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.
 - b. A Tree Preservation Plan is not required for the following activities:
 - i. This section does not apply to the issuance of a development approval for a single-family residence on an existing platted lot of record.
 - ii. This section does not apply to the harvesting of trees. For purposes of this section, “harvesting” means cutting or clearing trees for purposes relating to forestry operations, as defined in §154.012. “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.
 - iii. This section does not apply to building or construction projects with an addition that would increase total floor area on a site by less than 25 percent. However, if the project would physically impact existing landscaping, a modified landscape plan for the portion of the site affected by the addition, demonstrating compliance with the requirements of Section 154.258 (Landscaping and Screening) must be submitted to the City for approval.
2. Tree Preservation Plan. All applicants shall submit a tree preservation plan prepared by a certified forester or landscape architect in accordance with the provisions of this section. During the review of an application for a building permit, grading permit or Preliminary Plat, the tree preservation plan will be reviewed according to the best layout to preserve significant trees and the efforts of the subdivider to mitigate damage to significant trees.
3. Tree Preservation Plan Requirements. The Tree Preservation 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 Inventory through one of the following methods:
 - i. Tree Inventory Individual. An individual inventory including an identification system linked to metal field tags located four and one-half (4.5) feet from grade on all significant trees must be identified on a plan sheet in both graphic and tabular form.
 - ii. 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 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 (4.5) 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.
 - iii. Tree Inventory Combination. With the approval of the 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 (b) above. Dead, diseased 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 (b) above.
- 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 (b) above.
- 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 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 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.
4. Implementation. All new construction, new development and redevelopment sites shall be staked, as depicted in the approved Tree Preservation Plan, and the required tree protection fencing shall be installed 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.
 5. Allowable Tree Removal. Up to thirty (30) percent of the diameter inches of significant trees on any parcel of land being developed or redeveloped may be removed without 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, 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; 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.
 6. Mitigation Plan.
 - a. In any new development, redevelopment 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 Tree Replacement 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.
7. 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. Any percentage of trees removed over 30 shall be replaced. The following calculation procedure must be used to determine tree replacement requirements:
- Tally the total number of diameter inches of all significant trees on the site.
 - A calculation must be provided which breaks out the number of inches removed for hardwood, evergreen/deciduous, and common trees. The 30% removal figure applies to each category individually and trees are replaced according to the Tree Replacement Schedule in subsection 8.
8. 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:
- Common tree species shall be replaced with new trees at a rate of one-fourth (1/4) the diameter inches removed.
 - 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:

$$\text{Height of Replacement Coniferous Tree}/2 = \text{Diameter Inches of Credit}$$
 - Hardwood deciduous tree species shall be replaced with new hardwood deciduous trees at a rate of (1/2) the diameter inches removed.
 - Replacement Tree Size. Replacement trees must meet the minimum sizes listed in Section 154.258 B (Table 6-1). ~~be a minimum of one (1) inch in diameter.~~
9. Species Requirement. The City must approve all species used for tree replacement. Ornamental trees are not acceptable for use as replacement trees. Where ten 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 are encouraged, and hardiness and salt tolerance of the plants should be considered where applicable.
10. Warranty Requirement. Any replacement tree which is not alive or healthy, as determined by the City, or which subsequently dies due to construction activity within two (2) years after the date of project closure 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.

11. Protective Measures. The Tree Preservation Plan shall identify and require the following measures to be utilized to protect significant trees planned for preservation:

- a. Installation of snow fencing or polyethylene laminate safety netting placed 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, or storage of materials shall occur within this fenced in area.
- 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 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 trees located in areas to be preserved.

12. Compliance with the Tree Preservation Plan. The applicant shall implement the Tree Preservation Plan prior to and during any grading or construction. The tree protection measures shall remain in place until all land disturbance 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 a tree preservation plan is approved and except in accordance with the approved Tree Preservation Plan.
- b. The City shall have the right to inspect the development, redevelopment and/or building site in order to determine compliance with the approved Tree Preservation Plan. The City shall determine whether the Tree Preservation Plan has been met.
- c. Instances where (a) significant tree(s) is (are) removed due to new development, redevelopment, new construction or grading or were disturbed, which was not noted on the landscaping or tree removal plan will result in a one to one replacement penalty regardless if it is over the 30% allowance.

D. 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 work agreement or applicable permit to ensure compliance and performance of the Mitigation Plan. The financial security will be released to the applicant upon verification by the City that the Mitigation Plan was followed, and that all replacement trees are planted and in a reasonable state of health. The financial security may be used to replace any replacement trees that have become damaged or diseased after planting.

E. 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. Developers may ask the City for exceptions to the

City tree preservation standards through the variance process as indicated in 154.109. The City may grant Exceptions ~~may be granted~~ 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 Tree Preservation Ordinance 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 approves an exception to the tree preservation standards ~~is granted~~, relief from the requirements of the ordinance 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 Council may require payment of park dedication fees; the implementation of woodland management practices by the developer; or the planting of replacement trees on City property by the developer under direction of the Public Works Director; or a combination of these methods as a condition of the City approving relief or an exception from the tree preservation and planting requirements. ~~variance approval.~~

~~(Ord. 08-077, passed 5-07-2013)~~

§ 154.258 LANDSCAPE AND SCREENING REQUIREMENTS. (With proposed additions underlined and deletions shown with ~~strikethrough~~).

Purpose and Intent. The City of Lake Elmo recognizes the health, safety, aesthetic, ecological and economic value of landscaping and screening. The City intends the provisions of this section to:

- (1) Add visual interest to open spaces and blank facades;
- (2) Soften dominant building mass;
- (3) Provide definition for public walkways and open space areas;
- (4) Ensure significant tree canopy shading to reduce glare and heat build-up;
- (5) Improve the visual quality and continuity within and between developments;
- (6) Provide screening and mitigation of potential conflicts between activity areas and more passive areas;
- (7) Protect and improve property values;
- (8) Improve air quality and provide a buffer from air and noise pollution;
- (9) Ensure safe and aesthetic treatment of ponding areas;
- (10) Enhance the overall aesthetic conditions within the city;
- (11) Limit sight line obstructions and drainage conflicts;
- (12) Reduce the potential for criminal and illegal activities; and
- (13) Prevent conflicts with utilities.

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:

Berm. An earthen mound designed to provide visual interest, screen undesirable view and/or decrease noise.

Caliper. The diameter of a tree measured six inches above the ground for tree four inches in diameter or less and measured twelve inches above the ground for tree greater than four inches in diameter.

Coniferous/Evergreen Tree. 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.

Garden. A cultivated area dedicated to growing vegetables, fruits, flowers, ornamental grasses, shrubs and similar plants, planted and maintained in well-defined borders.

Landscape Plan. An integrated set of documents that may consist of both drawn and written materials whose purpose is to identify for a proposed development or redevelopment, the means of compliance with the landscaping and screening standards of the City Code.

Landscaping. Trees, shrubs, lawns, plants, turf covers, grasses and other natural and decorative site features including earth contouring, mounding and berms.

Land Altering Activity. Projects, permits or other activities or actions that result in ground disturbance or construction.

Long grass. Any grass that can reach a blade, stem or seed head height or length of at least one foot as a part of its intended normal growth and use and is not developed, sold or intended to be used as a grain or as manicured or semi-manicured lawn grass or ground cover that is normally intended to be maintained at a lower height by regular cutting.

Meadow Vegetation. Grasses and flowering broad-leaf plants, other than weeds, that are native to, or adapted to the State of Minnesota and are commonly found in meadow and prairie plant communities.

Mulch. A protective covering of materials placed around plants to control weeds and moderate evaporation of moisture or freezing. Examples of mulch include organic mulch such as wood chips, shredded hardwood and cocoa beans and inorganic mulch such as stones or rocks. The City does not consider materials creating an impermeable cover shall as mulch.

Native Plants. Plants including grasses and meadow vegetation, sedges (solid, triangular-stemmed plants resembling grasses) forbs (flowering broadleaf plants), trees and shrubs that are plant species native to or naturalized to the State of Minnesota, excluding prohibited exotic species defined by Minnesota Statutes.

Native Plant Landscape Areas. Areas where native plants are being or have been planted in a well-defined and maintained border. Native plant landscape areas do not include gardens.

Native Prairie. An area of landscaping containing a diversity of native flora species in associations typical of pre-settlement ecosystems.

Natural Areas. Undeveloped landscapes not changed, altered, moved, cultivated or planted by human or mechanical means and that do not contain turf grass.

Natural Soil. Soil that exists undisturbed in its natural state.

New Construction. A land altering activity that creates impervious surface in an area where prior to the activity there was minimal or no impervious surface.

New Development. A land altering activity that creates imperious surface in an area where there was minimal or no impervious surface.

Planting Bed. A designed area including, but not limited to trees, shrubs, perennials and ground covers that is typically defined by landscape edging along turf boundaries and has a mulched surface.

Rain Gardens. Depressed or shallow landscape features areas in the landscape with moisture-loving perennial native plant materials including wildflowers, grasses, shrubs and trees designed and constructed to provide natural filtration of water run-off and to help manage storm water run-off by allowing water to soak into the ground.

Redevelopment. A construction or land altering activity that creates new or replaces existing impervious surface, buildings or structures on a parcel that is fully or partially occupied by buildings, structures and/or other impervious surfaces.

Screening. A method of blocking direct visual access of a structure, building, feature or the use of a combination of methods including fencing, walls, berms, densely planted evergreen vegetation to block the direct visual access. Screening is usually at least five feet high but the City may require taller screening in cases where it determines the taller screening is necessary.

Shrub. A low, usually several stemmed woody plant.

Soil. The unconsolidated mineral and organic mineral material on the immediate surface of the earth.

Topsoil. The uppermost layer of soil, containing organic matter and micro-organisms.

Tree. A large woody perennial plant normally with one main trunk and many branches that is usually 30 feet or more in height at maturity.

Turf grass. Commercially available cultured grass varieties that are grown to create turf, including bluegrass, fescue and ryegrass blends commonly used in regularly cut lawn areas.

Xeriscaping. Landscaping with slow-growing, drought tolerant vegetation or other decorative features for the purpose of conserving water and reducing yard waste.

All new development and redevelopment sites shall be landscaped as provided in this section in order to control erosion and runoff, 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.

The City requires landscaping for all new commercial and industrial development, mixed-use and multiple-family residential developments, for small-lot single-family development with private common grounds or berms and for redevelopment sites.

A. *Landscape Plan Required.* A detailed landscaping and screening plan is required for all new commercial, industrial, institutional, mixed-use and multi-family development or redevelopment, all planned unit developments, and all subdivisions, with the exception of minor subdivisions and lot divisions, as defined in Chapter 154. The City also requires the submittal and approval of a landscape plan for any application for additions or modifications to existing development that physically impacts existing landscaping or screening or when a developer or property owner proposes changes to an existing landscaping or screening plan as approved by the City. The landscape and screening plan shall be prepared by a certified licensed landscape architect and shall include the following:

1. The location, size, quantity, and species of all existing and proposed plant materials. The plans shall show which plants are proposed to be removed and which plants are to be retained as part of the final landscaping. These plans shall include details of all proposed landscaping materials including Latin name, common name, caliper/height/size and quantity of each plant.
2. A detailed natural land analysis including existing vegetation, soil types and slopes.
3. A site analysis that includes the boundary lines of the property with dimensions based upon a certified survey with the name and alignment of proposed and existing adjacent streets, roads trails and sidewalks, the location of a proposed utility easements and rights-of-way, the location of existing and proposed buildings, topographic contours at two-foot contour intervals, location of parking and drive areas, water bodies, sidewalks and trails.

4. All manmade features.
5. Methods for protecting existing trees and other landscape material, consistent with §154.257.
6. Structural and ground cover materials.
7. Provisions for irrigation (with sprinkler system details) and other water supplies.
8. Details (including location height and materials) and cross sections of all required and proposed screening, retaining walls and berms.
9. Special planting instructions.
10. City standard plan notes and drawings.
11. Utilities, light and power poles and fixtures, sidewalks, trails and driveways shall also be clearly shown on the plans.
12. Above and below ground utilities and easements.
13. Location, width and height of all berms and retaining walls.
14. Location and methods of screening to be installed on the site.
15. Areas planned for snow storage. These locations shall only be turf grass areas and shall not be medians nor areas with plantings, shrubs or trees.
16. A design narrative that includes text and/or graphics that provide detail on the design concept employed and key features of the landscape design. The narrative should address, but not be limited to, the relationship of the pattern and species of plants to buildings and other structures on the site, the relationship of the proposed design with surrounding properties a description of special purpose plantings such as screening, erosion control and the proposed methods of attaining year-round seasonal interest in the landscaping.

The City will review the landscape and screening plan in conjunction with other project plans (site plan, grading plan, utility plans, etc.). The City may set conditions of approval that apply specifically to the landscape and screening plan. The final landscaping and screening plan must be approved the City Landscape Architect before the City will issue permits for the proposed new development, redevelopment or new construction.

- 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 existing trees and other vegetation on the site.
 2. Landscaped areas should be of adequate size to allow proper plant growth, protect plantings from vehicular and pedestrian traffic, and provide adequate areas for plant maintenance, plant growth and for snow storage. Snow storage areas shall not include medians and shall not have shrubs or trees planted in those areas.

3. A variety of trees and shrubs should be used to provide visual interest year round. No more than fifty percent (50%) of the required number of trees and shrubs may consist of any one species. A minimum of twenty-five percent (25%) of the required number of trees shall be deciduous shade trees, and a minimum of twenty-five percent (25%) shall be coniferous trees. Ornamental trees may be used when applied towards landscaping requirements. However, the number of ornamental trees shall not exceed 15% of the required amount.
4. Final slopes greater than 3:1 will not be permitted without special treatment such as terracing, retaining walls, or special ground covers.
5. All plant materials, except trees planted per the Tree Replacement Schedule (Section 154.257 C8), 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 Section 154.257 (C) (8) (d.).

Table 6-1. Minimum Size Standards for Landscape Materials

| Plant Type | Minimum size at planting |
|--|---|
| Trees: | |
| Evergreen | 6 feet in height |
| Deciduous – shade | <u>2.0</u> 2.5 inches caliper, measured 6 inches from base |
| Deciduous - ornamental | <u>1.5</u> 2 inches caliper, measured 6 inches from base |
| Shrubs: | |
| Evergreen | # 5 container* |
| Deciduous | # 5 container* |
| Shrubs used for screening (evergreen or deciduous) | # 5 container* |

* Approximately 5 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 licensed landscape architect ~~qualified professional~~ certifying that said plan will meet the intent of this Section may be submitted.
7. ~~As a general rule, trees should~~ Planting plans must consider the location of underground utilities and storm water drainage systems. All trees shall be planted a sufficient distance ten feet away from all utilities including water lines and mains and sewer stubs, sanitary and storm sewer lines, curbs, trails, sidewalks, pavement edges, property lines, centerlines of drainage swales and from easements lines to ensure they will not cause conflicts (Refer to the setback standards listed in Section C 1 for more details). unless approved by the The City’s Landscape Architect or the City Engineer may approve a reduced planting setback on a case by case basis. Trees shall not be placed in drainage or utility easements.
8. Trees shall be planted to the following standards:
 - a. Each tree must be planted with an approved engineered root space of 500 cubic feet with a minimum serviceable opening of 5 feet by 5 feet. The engineered root space profile must have a minimum width of 5 feet, a

- minimum depth of 3 feet and a maximum depth of 4 feet to ensure proper growth.
- b. Types of engineered root space include suspended pavement systems (systems that suspend pavement and are filled with uncompacted planting soil) or structural soil (systems that include rock or sand based structural soil). Structural soils are compacted to support pavement and allow root growth through connect voids between particles.
 - c. The maximum depth for calculating the suitable soil volume shall be two feet.
 - d. The minimum width of the planting area at the trunk of the tree shall be eight feet.
9. Planting areas should be large enough for specified plantings in order to avoid overhang problems. This includes accommodating vehicle overhang (2.5 -3 feet) when placing plants around parking areas.
 10. Planting locations should be coordinated with the location of irrigation controls, utility boxes, electrical hand holes and similar obstructions. Where possible, locate such above-ground obstructions in planting beds rather in in turf areas in order to avoid trip points.
 11. Designers of landscape plans shall coordinate planting plans with lighting plans to avoid conflicts.
 12. Median islands shall be landscaped with ornamental grasses, shrubs, and/or ornamental trees. Deciduous shade and coniferous trees shall not be planted in median islands.
 13. Berms should have a minimum crown width of three feet and should be planted with vegetation. Slopes on berms should be no greater than 3:1. The height, slope and area of the berm should be appropriate to prevent erosion and to facilitate safe maintenance of the berm.
 14. Landscape plans shall be designed so mature landscaping will not interfere with vehicular and pedestrian sight lines. Shrub and perennial plantings should be maintained below driver eye-level (generally 3 feet). Massed tree plantings should not obstruct sight lines nor interfere with required clear sight triangles.
 15. Designers shall select plant materials based on site conditions and shall consider the susceptibility of plants and materials to salt damage, drought tolerance, shade tolerance, soil types, winter wind exposure and moisture tolerance.
 16. All plants should be mulched. The City prefers the use of organic mulch but the City allows the use of loose stones or stones as mulch. No impermeable material, such as plastic, shall be used over soil in a landscape plan.
 17. The City encourages the use of ornamental grasses in landscape plans as a method to add visual interest to a site.
 18. The City may allow the use of rain gardens to assist in the efficient control and treatment of storm water and to promote groundwater recharge. Any plan proposing to use rain gardens will be subject to approval by the applicable Watershed District.
 19. The City promotes the use of xeriscaping design strategies in landscape plans as a method to promote water conservation. Such plans may include the use of

decorative rock as ground cover, limiting turf areas, selecting low-water-use plants, the installation of efficient irrigation systems and using mulch.

20. All open areas of any site not occupied by designated landscape areas, building, parking, driveways, trails or sidewalks shall be sodded or seeded over 6 inches of topsoil. An exception to this are undisturbed areas containing existing natural vegetation that can be maintained free of foreign and noxious plants and materials.
21. Developers, designers and Landscape Architects preparing plans for development or redevelopment sites in Lake Elmo also should refer to the latest version of the following design standards for guidance when preparing project plans:
 - a. City of Lake Elmo Engineering Design Standards.
 - b. City of Lake Elmo Landscape and Irrigation Standards.
 - c. 5th Street Landscape design standards.
 - d. Village Parkway design standards.
 - e. Hudson Boulevard Engineering Design Standards.
 - f. Lake Elmo Landscape Development calculator.

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. The landscaping in setback areas and along the site perimeter of a site should be designed to add visual interest, contribute to visual quality and continuity within and between sites and provide a transitional area between different uses and help define the property boundary.

1. A minimum of one (1) tree shall be planted for every fifty (50) feet of street frontage, lake shore or stream frontage, or fraction thereof.
 - 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. Tree planting locations must take into account the width of the lot and boulevard and the location of utilities, easements, driveways, trails and sidewalks. On lots with a street or driveway frontage of less than 50 feet, the City may approve alternative locations for tree planting if the designer can show the proposed improvements will make tree planting in the boulevard of that lot impractical due to required setbacks from improvements and the amount of space available for tree planting. This placement alternative for tree planting does not reduce the total number of trees that must be planted with a development or redevelopment project.
 - c. Ornamental trees shall be placed at least 12 feet from utilities, curbs, sidewalks, trails, driveways and buildings.
 - d. Over story trees shall be placed at least 15 feet from utilities, curbs, sidewalks, trails, driveways and buildings.
 - e. Coniferous or evergreen trees shall be placed at least 20 feet from utilities, curbs, sidewalks, trails, driveways and buildings.

- f. Salt tolerance and root structure should be considered when selecting tree species adjacent to streets, driveways, trails, sidewalks and parking areas.
 - g. Where property abuts a lake or stream, trees shall be planted at intervals of no more than fifty (50) feet along the shoreline, except where natural vegetation is sufficient to meet this requirement.
 - h. Areas to have turf grass shall have at least six inches of topsoil spread evenly on those areas prior to the contractor sodding or seeding.
2. In addition to the requirements of C.1 above, a minimum of five (5) trees shall be planted for every one (1) 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 below.

D. *Interior Parking Lot Landscaping.* The purpose of interior parking lot landscaping is to minimize the expansive appearance of parking lots by visually breaking up large areas of paving and provide shaded parking areas. Landscaping shall consist of planting islands, medians and borders, comprising the required planting area specified under item (1) below.

- 1. At least five (5) percent of the interior area of parking lots with more than thirty (30) spaces shall be devoted to landscape planting areas. Areas may consist of islands or corner planting beds. Parking lot landscape islands should include an 18-inch area clear of trees, shrubs or perennials along each curb edge.
- 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

| Number of Parking Spaces | Minimum Required Tree Planting |
|--------------------------|--|
| 0 – 30 | None required |
| 31 - 100 | 1 tree per 10 spaces or fraction thereof |
| 101+ | 1 tree per 15 spaces or fraction thereof |

E. *Perimeter Parking Lot Landscaping.* Parking areas shall be screened from public streets and sidewalks, public open space, and adjacent residential properties to reduce the visual impact of the parking surfaces, to mitigate glare from headlights, improve the aesthetic quality of users of the site, adjacent site roadways, trails and sidewalks. The perimeter of parking areas shall be screened as follows:

- 1. With the exception of properties located in the VMX zoning district, a landscaped frontage strip at least five (5) feet wide shall be provided between parking areas and public streets, sidewalks, or paths. If a parking area contains over one hundred (100) spaces, the frontage strip shall be increased to eight (8) 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 three and one-half (3.5) and a maximum of four (4) feet in height, and not less than fifty percent (50%) opaque on a year-round basis. When shrubs are used to

provide the screen, such shrubs must be at least two feet tall at planting and expected to grow to at least 3.5 feet tall at maturity.

- b. Trees shall be planted at a minimum of one deciduous tree per fifty (50) linear feet within the frontage strip.
 - c. The City may waive parking lot screening requirements in circumstances where perimeter screening is provided or where the elevation of the parking area relative to the elevation of the street and sidewalk or trail would make the screening ineffectual as determined by the City's Landscape Architect or Planning Director.
2. Alongside and rear property lines abutting residential properties or districts, screening shall be provided, consisting of either a architecturally compatible masonry wall, fence or berm in combination with landscape material that forms a screen a minimum of four (4) feet in height, a maximum of six (6) feet in height, and not less than ninety percent (90%) opaque on a year-round basis. Landscape material in screening areas shall include trees, planted at a minimum of one deciduous or coniferous tree per forty (40) linear feet along the property line.
- F. *Screening.* Screening shall be used to provide visual and noise separation of intensive uses from less intensive uses or to provide a buffer between incompatible land uses. Where screening is required in the City Code between uses or districts, it shall consist of sufficient landscape materials and/or either a wall or fence that is architecturally compatible with the principal building, or a berm a masonry wall or fence in combination with landscape material that forms a screen at least six (6) feet in height above grade, and not less than ninety percent (90%) opaque on a year-round basis. If the developer or contractor uses evergreen or coniferous trees as part or all of the screening, the trees shall be planted in two staggered rows with the trunks of the trees in each row spaced at a maximum of 12 feet. Landscape material shall include trees, planted at a minimum of one deciduous or coniferous tree per forty (40) linear feet along the property line. Additional landscape material such as shade trees or trellises may be required to partially screen views from above. All screening devices, materials and methods shall be included on the project site and/or landscaping plans.
- G. *Special Design Features.* The City allows and encourages the use of xeriscaping, rain gardens, native prairie materials and long grasses in appropriate locations.
- H. *Redevelopment Compliance.*
- (1) Redevelopment or large addition. When either full redevelopment of a site is proposed or an addition that would increase total floor area on a site by 25% or more, a landscape plan for the entire site, demonstrating compliance with the requirements of this section, must be submitted to the City for approval.
 - (1) Small addition. When an addition is proposed that would increase total floor area on a site by less than 25%, but would physically impact existing landscaping, a modified landscape plan for the portion of the site affected by the addition, demonstrating compliance with the requirements of this section, must be submitted to the City for approval.

(2) Constrained Sites. The City recognizes that highly constrained redevelopment sites may have difficulty meeting the requirements of Section 154.258. Given the City wants to encourage rather than impede redevelopment, owners or developers of highly constrained redevelopment site may seek relief from City tree preservation and/or landscape standards. When considering granting flexibility to required tree preservation and/or landscape standards, the City shall:

- a. Balance the public interest in promoting redevelopment with the public interest in preserving trees and providing landscaping; and
- b. Consider whether the reduced tree preservation or landscaping levels are balanced by alternative methods of providing visual interest to the site including but not limited to sculpture, public art or higher quality landscape materials.

I. *Maintenance and Installation of Materials.* Installation and maintenance of all landscape materials shall comply with the following standards:

1. All landscape materials shall be installed to current industry standards.
2. Irrigation or other water supply adequate to support the specified plant materials shall be provided.
 - a. All automatic lawn and irrigation system controllers must be U. S. EPA WaterSense certified.
 - b. All automatic lawn and irrigation systems shall have furnished and installed technology such as a rain sensor/detection device that inhibits or prevents the operation of the irrigation system during periods of rain or sufficient moisture.
 - c. Furnished and installed technology inhibiting or preventing the operation of irrigation systems shall be maintained in operating condition and replaced as necessary to keep the system operational.
 - d. The irrigation system shall not spray water on streets, driveways, sidewalks or trails.
3. All required landscaping and screening features shall be kept free of refuse and debris.
4. All landscape materials shall be guaranteed for two (2) years. Any landscape material that dies or becomes diseased before the end of the second (2nd) year after installation shall be replaced by the developer.
5. ~~Continuing maintenance and replacement of landscape materials shall be the responsibility of the property owner beyond two years of initial installation.~~
6. It shall be the responsibility of the current property owner to maintain the approved landscaping and screening plan in an attractive and well-kept condition beyond two years of the initial installation. Maintenance shall include the replacement of dead or damaged plant material at the next appropriate planting period with new materials in conformance with the approved landscape plan and applicable City Code standards; the furnishing and installation of mulch; weeding; mowing of grass, cleaning of litter; or any other action deemed necessary by the City to insure

that the requirements of this ordinance are met. Any action that reduces the canopy cover and/or landscaping below the minimum that is required by the City shall require in-kind replacement.

7. Structure Maintenance. Property owners must maintain landscaping and screening structures such as fences and walls in good condition, free of graffiti, peeling paint, decay or warping. Property owners must repair and replace structures when needed to keep them structurally sound and safe.
8. Property owners must not remove landscaping and screening materials or structures as were included on a City-approved landscape plan unless the City has approved a revised landscape and screening plan for the site or for the property or development.
9. The City may remove without compensation landscaping features placed in a public easement if it is necessary to install, replace or maintain a public utility, sidewalk or drainage way within the easement. Trees, irrigation lines, berms, walls or fences must not be placed in a public easement where are public improvements are located without the written approval of the City (with an encroachment agreement).
10. The City may require the owner of occupant of a property who has planted, or has allowed to be planted, native plants or other vegetation within a drainage or utility easement to remove the native plants or other vegetation from the easement at their expense (and at no expense to the City) if the City determines the native plants or vegetation interferes with the purpose and function of the utility or drainage easement. The City will not be responsible for damage to turf grass and/or landscaped areas resulting from public works improvements or snow removal activities within drainage and utility easements.
11. Landscaping and screening shall not interfere with clear view or site triangles at street intersections.
12. Property owners must keep the area three feet in radius around all fire hydrants, fire hose connections and utility boxes free from any trees, shrubs or other landscape feature that could impede access to or the use of the fire hydrant, fire hose connection or utility box.
13. Owners of the property abutting the right-of-way of a public street or road shall properly maintain the grass and landscaping on the property and on the public right-of-way to the curb line or to the traveled portion of the street or road. Proper maintenance shall include, but not be limited to, sodding, planting, mowing or weed abatement whenever necessary.
14. Property owners shall prune and trim trees and shrubs located on private property so they will not obstruct pedestrian sidewalk traffic nor obstruct the view of any traffic sign, lights, street or intersection. Overhanging portions of trees and shrubs shall be pruned or trimmed to maintain a minimum clearance of eight feet over sidewalks, trails and ditches and 20 feet over all streets and driveways.
15. Warranty Requirement. Any replacement tree which is not alive or healthy, as determined by the City, or which subsequently dies due to construction activity

within two (2) years after the date of project closure 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.

- J. *Financial Security.* The City will require that a financial security, in a form acceptable to the 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 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.

~~(Ord. 08-087, passed 8-20-2013)~~

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