

Chapter 16.14 TREE CANOPY PRESERVATION AND ENHANCEMENT

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16.14.020 Purpose and intent.

The purpose and intent of this chapter is to:

- A. Implement certain strategies for the management and protection of Lake Forest Park’s urban forest resources described in those goals and policies of the Lake Forest Park community forest management plan that were accepted by the city council;
- B. Preserve and enhance the tree canopy of Lake Forest Park by encouraging the protection of existing trees and stands of trees, and the replanting of new trees to replace those lost to old age, storms, development and other maladies;
- C. Mitigate the economic, environmental, and aesthetic consequences of tree loss through protection and tree planting on public and private lands;
- D. Provide guidelines to protect trees from adverse impacts during construction;

E. Encourage project designs that utilize existing trees in the landscape, or allow replacement of select native tree species to maintain the forested feel of Lake Forest Park;

F. To protect private property rights and allow property owners to make reasonable use of their property while protecting suitable and appropriate trees for that site; and

G. Maintain and protect the public health, safety, and general welfare. (Ord. 1015 § 2, 2010)

16.14.030 Definitions.

For the purposes of this chapter, the following terms are defined as follows:

“Administrator” means the planning director or the planning director’s designee.

“Best management practices (BMPs)” means adherence to tree health care standards detailed in the current edition of the American National Standards Institute (ANSI) A300 and the current edition of the International Society of Arboriculture (ISA) BMPs, including but not restricted to the following elements of tree protection and care:

1. Avoidance of physical damage to tree roots, stem, branches, and foliage, including, but not limited to, topping;
2. Prevention of soil compaction from equipment operation and placement or storage of construction materials in the vicinity of the critical root zone (CRZ);
3. Protection of the critical root zone (CRZ) of saved trees from changes in drainage that impact soil moisture content;
4. Protection of existing trees from the impacts of exposure caused by removal of adjacent trees; and
5. Plant health care practices as published by the International Society of Arboriculture in their series of best management practices for the various aspects of tree care.

“Caliper” means the industry standard for measurement of nursery stock size. Caliper is measured six inches above the root collar for nursery stock four inches in diameter and smaller.

“Canopy” means the part of the tree crown composed of leaves and small twigs or the collective branches and foliage of a group of trees’ crowns.

“Canopy coverage” means a measure of the lot area that is covered by the canopies of existing trees and/or the canopy of the total of existing trees, immature trees, and newly planted trees. The canopy coverage of the immature trees and newly planted trees is determined using the projected canopy areas in the Lake Forest Park general tree list.

“Critical root zone (CRZ)” means the International Society of Arboriculture (ISA) definition of CRZ as an area equal to one-foot radius from the base of the tree’s trunk for each one inch of the tree’s diameter at 4.5 feet above grade (referred to as diameter at breast height). Example: A 24-inch diameter tree would have a critical root zone radius (CRZ) of 24 feet. The total protection zone, including trunk, would be 50 feet in diameter.

“Crown” means that portion of the trees stem that is occupied by branches with live foliage.

“DBH” is an acronym for tree diameter at breast height which means the diameter of existing trees measured 4.5 feet above the ground line on the high side of the tree. For the purposes of code enforcement, if a tree has been removed and only the stump remains, the size of the tree shall be the diameter of the top of the stump adjusted to DBH using published tables or regression curves.

“Dead Tree” means a tree with no live crown and no functioning vascular tissue.

“Demolition” means the complete tearing down, razing, or removal of a building or structure. A building is considered demolished even if the foundation remains.

“Dripline” for a tree is delineated by a vertical line extended from the outermost branch tips to the ground, or six-foot radius from the stem of the tree, whichever is greater.

“Exceptional Tree” means a tree, which because of its species, age, size or condition, is of significant cultural, landscape, or nature conservation value, as determined by the City’s Qualified Tree Professional.

“Five-Year Forest Management Plan” means a plan for tree removal, tree planting, tree maintenance and forest enhancement over the course of five years. A Five-Year Forest Management Plan cannot be associated with Major Development Activity.

“General tree list” means a list of trees species that is maintained by the city and approved by the city’s qualified tree professional for planting as replacement and mitigation trees. The general tree list also establishes which tree species that are prohibited from being planted as replacement and mitigation trees. The general tree list may also contain additional information that is deemed by the city to be the basis for determining how many replacement trees may be required to meet the standards of this chapter.

“Impact” means a condition or activity that affects a part of a tree including the trunk, branches, and roots within the dripline or critical root zone (CRZ).

“Landmark tree” means a tree that is at least 28 inches in diameter (DBH). For multi-stemmed trees, if the three largest stems, when summed, are at least 28 inches in diameter (DBH), the tree shall be considered a Landmark Tree. For trees with two stems, if the stems, when summed, are at least 28 inches in diameter (DBH), the tree shall be considered a Landmark Tree.

“Limits of disturbance” means the boundary between the area of minimum protection around a tree and the allowable site disturbance as determined by the city’s qualified tree professional.

“Live crown ratio” is the percentage of the total height of the tree that is occupied by the live green crown. For example, if the crown length, measured from the leader tip to the base of the live crown, is 55 feet and the total tree height is 100 feet, then the live crown ratio is 55 percent.

“Major Development Activity” means an activity that requires federal, state, or local approval for the use or modification of land or its resource. These activities include subdivision or short subdivision of lots; construction or demolition of single family, multi-family or commercial buildings; and redevelopment of non-conforming structures for more than 50% of fair market value as defined in LFPMC 18.66.050.

“Minor Development Activity” means any activity that requires federal, state, or local approval for the use or modification of land or its resource, except those defined as “Major Development Activity.” These activities include, but are not limited to, additions, enlargements, or alterations to existing structures, construction of retaining walls, fences, driveways, and garages, clearing and grading activity, and right-of-way permits.

“Multi-stemmed Tree” means a tree that has one stem at ground level but that splits into two or more stems above ground level. Trees whose stems diverge below ground level are considered separate trees.

“Native” means trees and plants native to western Washington.

“Nuisance tree” means a tree that is causing obvious physical damage to structures, including but not limited to sidewalks, curbs, the surfaces of streets, parking lots, or driveways, or building foundations. The prescription to reduce the problem should include root or branch pruning, installation of root barriers, or other structures to eliminate or reduce potential for further damage. Tree removal should be considered as a last resort.

“Person” means an individual, corporation, municipal corporation, association, LLC (limited liability corporation), or any legal entity.

“Protected tree” means a tree and associated understory vegetation identified for retention and protection on an approved tree protection and replacement plan and/or permanently protected by easement, tract, or covenant restriction.

“Risk” in the context of trees, is the cross-referencing of the likelihood of a tree failure occurring and the severity of the associated consequences to a target.

“Qualified tree professional” is an individual who is a certified professional with academic and field experience that makes them a recognized expert in urban forestry and tree protection during development. A qualified tree professional shall be a member of the International Society of Arboriculture (ISA) and/or the Association of Consulting Arborists and shall have specific experience with urban tree management in the state of Washington. Additionally the City’s Qualified Tree Professional shall be a certified arborist or board certified master arborist, as certified by the International Society of Arboriculture, and be ISA Tree Risk Assessment Qualified and have the necessary training and experience to use and apply the appraisal methodology prescribed in the current edition of the ISA Plant Appraisal Guide.

“Significant Tree” means a tree six inches or greater in diameter (DBH). For multi-stemmed trees, if any one stem is six inches or greater in diameter (DBH), the tree shall be considered a Significant Tree.

“Street tree” means any planted tree on public rights-of-way.

“Target” or “Risk Target” means people, property, or activities that could be injured, damaged, or disrupted by a tree.

“Tree” means a self-supporting woody plant characterized by one main trunk or, for certain species, multiple trunks, typically reaching at least 12 to 15 feet in height at maturity, that is recognized as a tree in the nursery and arboricultural industries.

“Tree Risk Assessment” means the systematic process to identify, analyze and evaluate tree risk. Tree risk assessment shall be conducted in accordance with the latest version of the ISA Best Management Practices Guide.

“Tree Risk Assessor” means a qualified tree professional who identifies subject tree(s) and site conditions, evaluates and classifies the likelihood of failure, estimates the consequences of tree(s) hitting a target, and determines options for treatment or mitigation. The City of Lake Forest Park requires that Tree Risk Assessors be ISA Tree Risk Assessment Qualified.

“Tree Risk Manager” means the person who holds duty of care responsibility, defines tree risk policies, establishes budget, determines priorities, decides the level of acceptable risk, and chooses among mitigation options. Tree Risk Manager is assumed to be the property owner except in cases of permit denial.

“Tree removal” means the direct or indirect removal of a tree(s) or vegetation through actions including, but not limited to: clearing, cutting, girdling, topping, or causing irreversible damage to roots or stems; destroying the structural integrity of trees through improper pruning; poisoning; filling, excavating, grading, or trenching within the dripline that results in the loss of more than 20 percent of the tree’s root system; or the removal through any of these processes of greater than 50 percent of the live crown of the significant tree.

“Understory vegetation” means small trees, shrubs, and groundcover plants, growing within the dripline or critical root zone (CRZ) of a significant tree.

“Viable (tree)” means a significant tree that a qualified tree professional has determined to be in good health with a low risk of failure, is relatively windfirm if isolated or exposed, is a species that is suitable for its location, and is therefore worthy of long-term retention.

“Wildlife Habitat Tree ” means the remaining trunk of a dead, dying, diseased, or hazard tree that is reduced in height and stripped of all live branches. To be considered as a wildlife habitat tree , the tree must be at least 12 inches DBH and 20 feet tall. The actual wildlife habitat tree height must consider the surrounding targets.

“Windfirm” means a tree that is healthy and well-rooted and the city’s qualified tree professional has evaluated and determined that it can withstand normal winter storms in Lake Forest Park. (Ord. 1015 § 2, 2010)

16.14.040 Tree removal – Application for permits and posting required.

A. Permit Required. No person or their representative, directly or indirectly, shall remove or destroy any significant tree located within the city without first obtaining a tree permit in accordance with this chapter, unless exempted or receiving an exception listed in LFPMC [16.14.050](#).

B. Permit Requirements. Tree removal permits shall be reviewed according to the following standards:

1. Permits not Requiring Arborist Review. Removal of two or fewer significant trees within any 36-month period may be authorized without arborist review, unless the trees are located in an environmentally sensitive area or sensitive area buffer, or if Major Development Activity has occurred within the past five years. The Administrator may require that the proposed tree removal be reviewed by the City’s Qualified Tree Professional if the Administrator determines that the removal could result in a threat to persons or

damage of property, or if the tree removal may result in the property dropping below its canopy coverage goal as defined in Table 1 in LFPMC 16.14.080.

2. Permits Requiring Arborist Review. Review by the City's Qualified Tree Professional shall be required under the following circumstances:

- a. When one or more Landmark Trees is proposed for removal.
- b. When three or more Significant Trees are proposed for removal within any 36-month period.
- c. When any tree proposed for removal, regardless of size, is located in an environmentally sensitive area or buffer as defined by LFPMC 16.16.
- d. When any Major Development Activity or Minor Development Activity is proposed, unless found to be an exception in LFPMC 16.14.050
- e. When trees are proposed for removal on a property on which Major Development Activity has occurred within the last five years.
- f. When an applicant has submitted a Five-Year Forest Management Plan for approval.

C. Tree removal permits expire one year (365 days) after the date the permit is issued, unless the Administrator and City's Qualified Tree Professional have approved a Five-Year Forest Management Plan, in which case the permit shall expire five years after the date the permit is issued. The Administrator may grant an extension of up to six months if the applicant provides a written request prior to expiration.

D. Posting Requirements.

1. Notice of Application. Notice of application shall be posted on-site, in a place where it can be read from the nearest public street. If the property is located on a private street, notices shall be posted on-site, in a place where it can be read from the private street, as well in a place where it can be read from the nearest public street.

- a. For permits not requiring arborist review, the notice of application shall be posted for a minimum of two business days prior to permit decision, and shall remain posted until a

decision is issued. The applicant must sign and attest that no landmark trees are being removed.

b. For permits requiring arborist review, the notice of application shall be posted for a minimum of 14 calendar days prior to permit decision, and shall remain posted until a decision is issued.

2. Notice of Decision. Tree removal may commence immediately upon posting of an approved tree permit on the subject site in the same manner described in LFPMC 16.14.040(D)(1). The tree permit shall remain posted at least one week (7 calendar days) after the approved activity has been completed.

a. For tree permits associated with a Five-Year Forest Management Plan, the permit must be posted on the subject site, in the same manner described in LFPMC 16.14.040(D)(1), each time tree removal occurs, and at least one week (7 calendar days) after the approved activity has been completed.

E. Appeals. Appeals of tree permit decisions shall follow Chapter [2.39](#) LFPMC. (Ord. 1015 § 2, 2010)

16.14.050 Tree Removal Criteria.

A. The following are exempt from the requirements of this chapter:

1. The removal of trees that are less than 6" DBH, provided that such trees are not located in an environmentally sensitive area or sensitive area buffer.

B. Exceptions. The following do not require an approved permit if the criteria associated with that activity have been met:

1. Emergency actions necessary to remedy an immediate threat to people or property, or public health, safety or welfare by a high-risk or extreme-risk tree may be undertaken without a permit. Any person undertaking such an action shall:

a. Notify the Administrator within one working day following commencement of the emergency action.

b. Complete a tree removal application within one week of the emergency action. Upon approval, notice of exception shall be posted on site for seven days in the same manner prescribed in LFPMC 16.14.040(D)(2).

c. LFPMC 16.14.050(B)(1)(a) and (b) do not apply to emergency actions taken by the city, or electric or other utilities.

2. The removal of Dead Trees does not require a permit, provided that the person undertaking such an action obtains Administrator approval prior to removal. Dead Trees located in steep slope or landslide hazard areas and their buffers should be kept as Wildlife Habitat Trees, or, at minimum, stumps shall be left in the ground unless approved by a qualified geologist or geotechnical engineer. Notice of exception shall be posted on site in the same manner prescribed in LFPMC 16.14.040(D)(2).

3. The removal of invasive tree species, as defined by King County's list of invasive species and noxious weeds, may be allowed without a permit, provided that the trees are not in a steep slope or landslide hazard area or their buffers, and provided that the person undertaking this action obtains Administrator approval prior to the action. Notice of exception shall be posted on site in the same manner prescribed in LFPMC 16.14.040(D)(2).

4. Minor Development Activity that does not occur within the dripline of any Significant or Landmark Tree does not require a tree permit, provided that the person undertaking such an action shall demonstrate this fact prior to approval of the Minor Development Activity. Notice of exception shall be posted on site in the same manner prescribed in LFPMC 16.14.040(D)(2).

5. The city, or electric or other utilities may remove trees without a permit for the normal course of maintenance of the utilities, street lights, sidewalks, signage or public rights-of-way. A utility must have an approved right-of-way permit. Agencies receiving this exception must follow the prohibition on topping trees in 16.14.100(B)(1).

C. Environmentally Sensitive Areas. Removal of trees in environmentally sensitive areas and their buffers is prohibited, except that permits may be issued in the circumstances listed below. If trees proposed for removal are located in steep slope or landslide hazard areas or their buffers, a qualified geologist or geotechnical engineer shall certify that the tree can be safely removed or the proposal can be designed so the landslide hazard risk to the property or adjacent property is eliminated or mitigated.

1. When the City's Qualified Tree Professional determines that the trees proposed for removal are medium-, high-, or extreme-risk.

2. When trees proposed for removal are Nuisance Trees in sensitive area buffers.

3. When trees proposed for removal are invasive trees, as defined in LFPMC 16.14.050(B)(4).

4. When trees proposed for removal are part of an approved enhancement plan as described in LFPMC 16.16.230(B). The City's Qualified Tree Professional shall undertake annual site visits at the expense of the applicant and submit annual progress reports to the Administrator for the five years after the work is completed.

5. When trees proposed for removal are part of an approved reasonable economic use request as described in LFPMC 16.16.250.

D. Tree Removal Likely to Cause Injury or Damage. Removal of Significant Trees is prohibited if the removal is substantially likely to cause injury or damage to persons or property, as determined by the City's Qualified Tree Professional.

E. Viable Exceptional Trees. Removal of Viable Exceptional Trees, as defined by this chapter and determined by the City's Qualified Tree Professional, is prohibited.

F. 5-Year Major Development Activity Restriction. Removal of Viable Significant Trees is prohibited on properties that have undergone Major Development Activity within the last five years and for which no new Major Development Activity or Minor Development Activity is approved.

G. Removal of Viable Significant Trees in a tree tract as defined in LFPMC 16.14.080(C) is prohibited, unless part of an approved enhancement plan.

H. Reasonable Use Exception to Allow for Reasonable Economic Use.

1. If the application of this chapter will prevent any reasonable economic use of the owner's property, then the applicant may apply to the planning department for an exception from the requirements of this chapter; may be applied for in accordance with the provisions of Chapter [16.26](#) LFPMC.

2. The planning director shall forward the application, along with the record submitted to the city and the director's recommendation, to the hearing examiner for decision.

3. The hearing examiner shall grant an exception only if:

a. Application of the requirements of this chapter will deny all reasonable economic use of the property; and

- b. There is no other reasonable economic use with less impact on the sensitive area; and
 - c. The proposed development does not pose an unreasonable threat to the public health, safety, or welfare, on or off the proposed site, and is consistent with the general purposes of this chapter and the comprehensive plan; and
 - d. Any alteration is the minimum necessary to allow for reasonable economic use of the property.
4. The hearing examiner shall grant an exemption from the requirements of this chapter only to the minimum necessary extent to allow for reasonable economic use of the applicant's property.
5. The hearing examiner shall condition any exception from the requirements of this chapter upon conditions recommended by the city and upon compliance with any mitigation plan approved by the city.

16.14.070 Standards for permit approval.

An applicant for a tree removal permit must submit a tree plan that complies with this section prior to permit issuance. This tree plan (and replacement plan if required by the provisions below or by LFPMC [16.14.080](#)) shall be reviewed and approved by the Administrator and, in cases which require arborist review, by the City's Qualified Tree Professional. A. Tree Removals and Canopy Assessment. A tree removal and replacement permit not associated with Major Development Activity or Minor Development be approved based on the following:

1. The completed permit application supplemented by a general site plan showing:
 - a. The name, address, and phone number of the applicant and owner of the property.
 - b. The locations of tree(s) to be removed;
 - c. Nearby structures and streets;
 - d. Locations of other significant trees surrounding the tree(s) to be removed;
 - e. Locations of environmentally sensitive areas or buffers.
2. If arborist review is required, a report written or approved by the City's Qualified Tree Professional.

3. If the canopy coverage is below the minimum threshold established for the size of lot, the applicant shall be required to replace the removed significant tree(s) according to the standards set forth in LFPMC [16.14.080](#).

4. If tree replacement is necessary, then a tree replacement plan showing the location(s) and species of the new tree(s) shall be submitted prior to permit issuance.

5. In environmentally sensitive areas and sensitive area buffers, the Administrator may require review by a qualified geologist, geotechnical engineer, wetland biologist, wildlife biologist, or other qualified professional, at the applicant's expense, if the proposed removal is substantially likely to cause damage to the sensitive area or buffer. Permits may be conditioned based on the recommendations of these qualified professionals.

B. Tree Removal and Canopy Assessment related to Major Development Activity or Minor Development Activity. The tree assessment for the tree protection plan should be prepared as early in the project design process as possible to improve the applicant's ability to incorporate existing Viable trees into the project and to provide adequate protection. Tree removal applications associated with Major Development Activity or Minor Development Activity shall at a minimum include the following information:

1. The name, address, and phone number of the applicant and owner of the property.

2. Legal description of the property including parcel number.

3. A site map (to scale) with a north arrow depicting accurate location of site features including buildings, driveways, environmentally sensitive areas and buffers, forest stands or open-grown single or clusters of significant trees, the dripline of the stand, cluster, or individual tree, along with any other off-site trees that may be impacted by tree removal, excavation, grading, or other development activity during this project.

4. A tree inventory and assessment report prepared by a qualified tree professional. Individual trees to be removed or that are in the vicinity of construction and potentially could be impacted should be numbered (with corresponding numbers placed on trees). Information on tree species, diameter at breast height (DBH), condition (health), and the minimum required critical root zone (CRZ) should be collected.

5. A tree list showing which trees are to be protected and removed. Include the minimum critical root zone (CRZ) distances in the list.

6. Graphic detail of tree protection fence locations and any other special instructions for work that may or may not occur within critical root zone (CRZ).

7. A timeline for tree protection activity should be provided describing:

a. Attendance of the city's qualified tree professional at the pre-job conference to discuss tree protection activity.

b. Installation, inspection and maintenance of the tree protection fences.

c. Measures taken to ensure health of the tree(s) during construction.

d. Removal of fences at end of construction.

e. Final inspection of protected trees by city's qualified tree professional.

8. A description and location of tree protection measures during construction for trees to be retained must be shown on demolition and grading plans. Protection measures must be in accordance with LFPMC [16.14.090](#).

9. For subdivisions and short-subdivisions, the designation of a tree tract is required, in accordance with LFPMC 16.14.080(B).

10. The administrator may specify conditions for work, at any stage of the application or project, as is deemed necessary to ensure the proposal's compliance with requirements of this section, as well as the sensitive areas regulations, clearing, grading, and stormwater management regulations, or to protect public or private property. These conditions may include, but are not limited to, recommendation of specific work methods.

11. In environmentally sensitive areas and sensitive area buffers, the Administrator may require review by a qualified geologist, geotechnical engineer, wetland biologist, wildlife biologist, or other qualified professional, at the applicant's expense, if the proposed removal is substantially likely to cause damage to the sensitive area or buffer. Permits may be conditioned based on the recommendations of these qualified professionals.

12. If the canopy coverage after removal is below the minimum threshold established for the size of lot, the applicant shall be required to replace the removed Significant Tree(s) according to the standards set forth in LFPMC [16.14.080](#).

13. If tree replacement is necessary, then a tree replacement plan showing the location(s) and species of the new tree(s) shall be submitted prior to permit issuance.

C. Tree Removal and Canopy Assessment in Association with a Five-Year Forest Management Plan. The Administrator and City's Qualified Tree Professional may approve a five-year tree removal and replacement permit based on the following:

1. The completed permit application.
2. A tree inventory and assessment report prepared by a Qualified Tree Professional. Information on tree species, diameter at breast height (DBH), condition (health), location, and the minimum required critical root zone (CRZ) should be collected.
3. A timeline for tree-related activity, including tree removal, replacement, and maintenance.
4. The applicant shall be required to replace the removed Significant Tree(s) according to the standards set forth in LFPMC [16.14.080](#).
5. If tree replacement is necessary, then a tree replacement plan showing the location(s) and species of the new tree(s) shall be submitted prior to permit issuance.
6. The City's Qualified Tree Professional shall undertake annual site visits at the expense of the applicant and submit annual progress reports to the Administrator for the five years that the permit is valid. Changes to the approved plan may only be made with approval of both the Administrator and the City's Qualified Tree Professional.

16.14.080 Tree retention and replacement standards.

This section provides standards for determining when and how trees must be retained or replaced. The city will apply these standards when considering an application for a tree permit as described in LFPMC [16.14.040](#).

A. The minimum standard for tree retention is determined by tree canopy coverage goal for the lot sizes and land use types set forth in Table 1 below. Tree canopy coverage is measured by the percentage of canopy

provided by existing trees or the projected canopy coverage to be provided by newly planted or immature trees (when such trees reach 30 years of age).

Table 1

	Canopy Coverage Goal
Single-family lots greater than 15,000 square feet	58%
Single-family lots 10,000 – 15,000 square feet	39%
Single-family lots less than 10,000 square feet	28%
Multifamily	15%
Commercial	15%
Southern Gateway Single Family	15%
Southern Gateway Transition	10%
Southern Gateway Corridor	5%

B. Canopy coverage shall be defined by the City's Qualified Tree Professional for all permits requiring arborist review. For permits not requiring arborist review, the Administrator may waive replacement requirements only when he or she can determine that the remaining canopy after removal will exceed the canopy coverage goal by at least ten percent.

C. Tree Replacement Requirements.

1. For all permits requiring arborist review, the number of required replacement trees is determined by the number of trees that will, within thirty years, achieve tree canopy coverage equal to or greater than the minimum canopy coverage required by Table 1 above for the type of lot.

2. For permits not requiring arborist review, one tree shall be replaced for each tree removed, except as stated in (B) above.

3. The replacement tree species shall be selected from the approved general tree list for the city of Lake Forest Park which is maintained by the city. Trees listed as noxious or invasive species by King County, or prohibited in the general tree list are not acceptable for replacement or mitigation trees. In environmentally sensitive areas or their buffers, replacement trees must be native trees or acceptable substitutes, as defined by the general tree list. Any substitution of trees that are not on the general tree list, and any alternative methods of replacement, must be approved by the City's Qualified Tree Professional.

4. A person whose tree removal causes a lot's canopy coverage to fall below the canopy coverage goal shown in Table 1 above shall obtain administrator approval of and implement a tree replacement plan that brings canopy coverage to the applicable percentage specified in Table 1 above (when the replacement trees reach 30 years of age).

5. Where the lot on which tree removal occurs is below the canopy coverage goal shown in Table 1 prior to tree removal, the person removing the tree shall obtain administrator approval of and implement a tree replacement plan that brings canopy coverage to the percentage that existed prior to the proposed tree removal (when the replacement trees reach 30 years of age).

6. A person obtaining a tree removal permit associated with Major Development Activity or a Five-Year Forest Management Plan shall obtain administrator approval of and implement a tree replacement plan that achieves the applicable minimum canopy coverage specified in Table 1 above (when the replacement trees reach 30 years of age).

7. All Viable Landmark Trees removed shall require replacement of twice the canopy coverage removed (when the replacement trees reach 30 years of age), regardless of canopy coverage goal.

8. In environmentally sensitive areas and sensitive area buffers, trees removed shall be converted to wildlife habitat trees and all vegetation cut shall remain in the sensitive area or buffer, unless authorized in writing by the City's Qualified Tree Professional.

9. The minimum size of replacement trees should be:

a. Deciduous trees, two inches caliper.

b. Conifers, a minimum of four feet tall.

10. All trees must be containerized or balled and burlap stock and be planted according to industry standards.

11. All trees shall meet the minimum standards for size and quality according to the current edition of the ANSI Z60.1 standard for nursery stock.

12. A maintenance bond of 125 percent of the projected cost of tree replacement is required for required tree replacement on all Major Development Activity projects, unless a fee in lieu is paid into the City Tree Account. This bond will be maintained for 60 months after planting of the new trees.

13. The applicant is required to provide watering until replacement trees are independently viable. Replacement trees that die prior to meeting the definition of Significant Tree must be replaced by a replacement tree meeting the criteria of this section and any canopy coverage goal requirements that the expired tree was intended to provide.

D. Tree Tract. New subdivisions and short subdivisions are required to create a tree tract. This tract shall be selected to save existing high quality, windfirm, long-term existing trees on the site. If suitable trees are not present, then the tree tract should abut other existing stands of off-site trees, or sensitive areas. If all or portions of the tree tract are not treed, then the tract shall be replanted to achieve full canopy coverage when the newly planted trees reach 15 years of age.

1. Criteria. A tree tract shall meet the following criteria for approval:

- a. The tree tract shall equal five percent of the gross project area.
- b. A 15-foot setback shall be maintained from the edge of the tree tract and any structures.
- c. A 5-foot setback shall be maintained from side-yard lot lines, unless the tree tract is contiguous to an existing stand of mature trees on the adjacent property.
- d. The tract shall not overlap with a sensitive area tract.

2. Fee in Lieu. The Administrator may waive all or a portion of the tree tract requirement, provided that the applicant pay an amount into the City Tree Account equal to the valuation of trees that would provide full canopy coverage to the tract. An appraisal of the trees' value by the City's Qualified Tree Professional shall determine this amount, using the current edition of the International Society of Arboriculture's Guide for Plant Appraisal.

E. All subdivisions or short subdivisions receiving tree permits shall have a condition on the face of the subdivision or short subdivision plat stating that minimum canopy must be achieved and maintained on each lot.

F. For tree permits associated with any Major Development Activity, a notice on title in the form required by LFPMC [16.16.190](#) shall be recorded by the permittee disclosing the tree permit and associated tree retention conditions required by this subsection. (Ord. 1015 § 2, 2010)

G. The priority for protection of healthy trees in developing, redeveloping, or existing lots that are being modified is:

1. Existing Viable Trees in groups or stands;
2. Exceptional Trees or other high -quality open-grown, windfirm trees;
3. Landmark Trees;
4. Trees in sensitive area buffers, or adjacent to sensitive area buffers:
 5. Trees that are interdependent with and therefore critical to the integrity of stands of other protected trees;
 6. Other individual trees that will be windfirm, high quality trees if retained;
 7. Other trees that provide wildlife or riparian habitat, screening, buffering or other amenities;
 8. Trees that help to protect neighbors' trees from windthrow, or other trees within required yard setbacks or on the perimeter;
 9. Trees next to parks or other open space areas.

H. The Administrator may require an applicant to implement other measures designed to mitigate the loss of trees, such as requiring the restoration of all or parts of the forest landscape and its associated benefits, including but not limited to:

1. Creation of wildlife habitat trees from trees which would otherwise be removed;
2. Replacement of ornamental trees with native shrubs and groundcover;

3. Replacement of high-risk or short-lived trees with healthy new trees more likely to survive;
4. Restoration of stream corridors with native vegetation; or
5. Protection of nonsignificant trees to provide for the successional stages of forest development.

I. Measurement of Canopy Coverage.

1. Existing Open-Grown Trees.

- a. Measure the radius of the tree's canopy at its widest and narrowest points and calculate the average canopy radius for the tree.
- b. Calculate the tree's canopy coverage (ft²) using the average canopy radius and the formula: πr^2 where $\pi = 3.1416$ and $r =$ the canopy radius in feet.
- c. Add up the calculated canopy coverage for all trees on the parcel in square feet and divide by the total lot area to determine the percentage canopy cover.

2. For contiguous stands of trees, traverse the perimeter of the stand within the parcel to calculate the area under the tree canopy and the resulting canopy percentage. In some cases, use of high-resolution aerial photography may be used for larger stands.

3. For newly planted or immature trees less than 30 years old, calculate the projected canopy coverage at age 30 using the information provided in the approved general tree list for the city of Lake Forest Park. Sum these canopy coverage areas to project the lot canopy coverage as trees reach an age of 30 years.

.J. Fee-in-lieu of On-Site Replacement. Replacement trees shall be planted on the site from which significant trees are removed. The administrator may waive the on-site tree replacement requirement; provided, that the applicant pays an amount determined by a Qualified Tree Professional into the city tree account that is equivalent to the total cost for purchase and installation of each replacement tree and three years of maintenance for each replacement tree. (Ord. 1015 § 2, 2010)

K. Replacement Exemptions. Tree removals are exempt from replacement requirements when either of the following conditions are met:

1. The City's Qualified Tree Professional determines that the trees will be dead within the assessment period, typically three to five years from the date of the assessment.

2. Trees are removed in order to gain access for solar panels or other alternative energies, as approved by the Administrator. The following are required to receive this exception:

a. A site plan demonstrating that any trees proposed this exception would impede the function of the panels or other alternative energy source.

b. A contract for installation of the system, or receipt for purchase of the system.

16.14.090 Tree protection and design measures.

A. Tree Protection Measures. To ensure long-term viability of trees identified for protection:

1. All required tree protection measures shall be shown on the demolition, grading, and tree protection plan along with a timeline for tree protection activity.

2. All construction activities, including staging and traffic areas, shall be prohibited within five feet of the dripline of protected trees.

3. Tree protective fencing shall be installed at the limits of disturbance and completely around trees to be protected prior to any land disturbance unless otherwise delineated by the qualified tree professional.

4. Tree protective fencing shall be a minimum of four feet high, constructed of chain link or polyethylene laminar safety fencing or similar material, subject to approval by the city. The fence must be constructed on steel posts with a minimum spacing of eight feet on center. "Tree Protection Area – Keep Out" signs shall be posted visibly on all sides of the fenced areas.

5. Where tree protection areas are remote from areas of land disturbance, and where approved by the city, alternative forms of tree protection may be used in lieu of tree protective fencing; provided, that the critical root zones of protected trees or stands of trees are clearly delineated with continuous rope or flagging and accompanied by "Tree Protection Area – Keep Out" signs.

B. Tree Health. In addition, the applicant shall support tree protection efforts by employing, as appropriate, the following preventative measures, consistent with best management practices (BMPs) for maintaining the health of the tree:

1. Pruning of visible deadwood on trees to be protected;

2. Application of fertilizer to enhance the vigor of stressed trees;

3. Use of soil amendments and soil aeration in tree protection and/or replanting areas;
4. Mulching over tree dripline areas; and
5. Providing watering during and immediately after construction.

C. Alternative Methods. The city may approve the use of alternative tree protection techniques if a protected tree will be protected to an equal or greater degree than through the techniques listed above, as determined by the city's qualified tree professional.

D. Grading and Proximity to Structures, Utilities, and Roadways.

1. Structures, utilities, and roadways shall be set back at least five feet from the dripline or critical root zone (CRZ), whichever is greater of a protected tree, except where such structure is a raised deck, bay window, or other structure cantilevered or otherwise raised above the ground's surface so as not to disrupt the tree's roots.
2. Sidewalks, driveways, structures and utilities may be located within the dripline or critical root zone (CRZ) of a protected tree; provided, that construction methods and materials used will result in minimal disruption of the tree's roots, and that tree protection measures are proposed and approved by the city's qualified tree professional.
3. The administrator may allow activities such as trenching, construction or an alteration of grades inside the five-foot setback from the dripline or critical root zone of a protected tree; provided, that the tree protection plan prepared by the qualified tree professional which demonstrates that the proposed activity will not adversely affect the long-term viability of the tree. Generally, no more than 20 percent of the root system of a tree should be impacted by this activity.

E. Site Development and Modification Guidelines. Site improvements shall be designed and constructed to:

1. Incorporate trees as a site amenity and to reflect a strong emphasis on tree protection.
2. Retain a forested look, value, and function after development or modification. Trees should be protected within vegetated islands and stands rather than as individual, isolated trees scattered throughout the site.

3. Building footprints, parking areas, roadways, utility corridors and other structures shall be designed and located taking into consideration tree protection opportunities.

4. The project grading plans shall accommodate existing trees and avoid alteration to grades around existing significant trees. (Ord. 1015 § 2, 2010)

16.14.100 Tree maintenance.

A. All protected trees, required replacement trees, and/or relocated trees so designated on an approved permit and replanting plan, shall be maintained in healthy condition by the property owner unless otherwise approved by the city in a subsequent permit. If the canopy coverage falls below the approved coverage granted by latest permit, the property owner will be required to plant replacement trees to achieve the approved canopy requirements.

B. Pruning.

1. Significant and other protected trees, as defined in this chapter, shall not be topped.

2. Street trees shall be pruned only under the supervision of the Lake Forest Park public works department.

3. Pruning and maintenance of protected trees shall be consistent with the ANSI A300 standards and ISA best management practices for proper pruning.

16.14.110 City tree account.

A. The city council shall establish in the budget ordinance a city tree account in the general fund.

B. The city shall credit to the city tree account:

1. All money paid to the city under LFP MC [16.14.080](#) and [16.14.120\(A\)](#); and

2. Other monies allocated by the city council.

C. The city shall use the city tree account funds for the following purposes:

1. Acquiring, maintaining, and preserving forested areas within the city;

2. Planting and maintaining trees within the city; or

3. Other purposes relating to trees as determined by the city council. (Ord. 1015 § 2, 2010)

16.14.120 Enforcement.

A. Violations. Violations of this chapter may be addressed by the administrator pursuant to the provisions set forth below. As an additional or alternative remedy and/or penalty, the administrator may also enforce the provisions of this chapter using the procedures set forth in Chapter [18.71](#) LFPMC.

1. Removal of existing trees in violation of this chapter will require an appraisal of the tree value by the qualified tree professional using the current edition of the International Society of Arboriculture's Guide for Plant Appraisal. The cost of the appraisal shall be paid by the person(s) who removed existing trees in violation of this chapter.
2. Tree replacement to the value of the appraised value of removed trees is required.
3. Trees can be planted on the lot where trees were removed or the monetary value of the unplanted trees can be paid into the city tree account.

B. Increased Permit Fees. In addition to or in place of any other remedy or penalty authorized by this code, the administrator may charge a fee equivalent to triple the fee determined for an after-the-fact permit to any person who conducts unpermitted activity requiring a tree removal permit, or who fails to provide sufficient evidence that such activity met the requirements of LFPMC [16.14.050](#), Exemptions and Exceptions.

C. Stop Work Order. If a violation of this chapter or an approved tree permit occurs on property on which work is taking place pursuant to a city of Lake Forest Park development or building permit, the building official may suspend some or all of the work as appropriate through issuance of a stop work order. The building official shall remove the stop work order when the city determines that the violation has been corrected or when the city has reached an agreement with the violator regarding rectification of the violation.

D. Any person who removes a tree in violation of the conditions of a tree removal permit or in violation of this chapter may be required to perform remedial measures ordered by the administrator. The following provisions shall apply in instances where such remedial measures are required:

1. All work shall be performed in accordance with permits obtained pursuant to this chapter.
2. Remedial measures must conform to the purposes and intent of this chapter and meet all requirements and standards of this chapter.

3. Remedial measures must be completed within the time frame specified by the administrator.

4. The cost of any remedial measures necessary to correct violation(s) of this chapter shall be borne by the property owner and/or applicant.

E. Penalties. The administrator may, in addition to the replacement tree requirement, impose a penalty of up to \$5,000 per tree for removal of or damage to significant trees in violation of this chapter. This penalty may be imposed in addition to or in lieu of any penalty imposed pursuant to the procedures of Chapter [18.71](#) LFPMC. A person may obtain administrative review of a penalty imposed under this subsection in accordance with the provisions of LFPMC [18.71.070](#). (Ord. 1015 § 2, 2010)

16.14.130 Requirements for tree services and others doing land clearing and tree removal.

A. In order to assure compliance with the standards and requirements of this chapter, private foresters, arborists, and logging and land clearing contractors or others and heavy equipment operators involved in land clearing operations in the city of Lake Forest Park shall be required to sign and submit a statement of tree canopy preservation and enhancement acknowledgment to the city of Lake Forest Park. This statement shall attest such arborist, forester, or contractor's knowledge of the city of Lake Forest Park's tree protection requirements. This statement shall be required in addition to the city business licensing requirements set forth in Chapter [5.02](#) LFPMC and applicable to persons performing work in the city of Lake Forest Park. The required statement shall be in substantially the following form:

1. I, _____, a duly licensed professional contractor in the State of Washington, or professional forester, hereby attest that I have read and am knowledgeable of Chapter [16.14](#), Tree Canopy Preservation and Enhancement, of the City of Lake Forest Park Municipal Code.

2. I further attest that, as a professional doing land clearing work in the City of Lake Forest Park, I am accountable for following the City's Tree Canopy Preservation and Enhancement requirements, including obtaining a tree removal permit, exemption, or exception prior to performing tree removal or clearing work, as defined by Chapter [16.14](#) of the Lake Forest Park Municipal Code, as well as following all conditions and requirements of said permit, exemption, or exception. I agree to adhere to the tree maintenance standards of this chapter, the International Society of Arboriculture, and ANSI 300, including a prohibition on topping trees.

3. I attest that if I fail to follow tree protection requirements, I will be held jointly responsible with the landowner for any restitution required as a result of environmental damage determined by the City Qualified Tree Professional to be the result of improper tree removal or land clearing activities at the site. This may result in claims against my bond pursuant to Section [18.27.040](#) of the Revised Code of Washington and other monetary penalties as allowed by this Chapter or State law.

B. Private professionals involved in land clearing operations who do not provide the above statement shall be prohibited from performing tree removal and land clearing services in the city of Lake Forest Park. Said professionals who do not provide this statement and perform land clearing services in the city of Lake Forest Park shall be considered in violation of this chapter and may be prosecuted under this chapter, the city's civil penalties ordinance, or as otherwise provided by law. All professional arborists, foresters, loggers, or other land clearing contractors or heavy equipment operators involved in land clearing operations shall be jointly responsible with the landowner for any land clearing violation and restitution required at a site as a result of improper land clearing activity. (Ord. 1015 § 2, 2010)

16.14.140 Liability.

A. Liability for any adverse impacts, damages or injury resulting from work performed in accordance with any permit issued by the city under LFPMC [16.14.040](#)(B) shall be the sole responsibility of the permit applicant and/or owner of the property or site for which the permit was issued, and shall not be the responsibility of the city of Lake Forest Park. Issuance by the city of any permit under this chapter shall not be construed as an assumption of any risk or liability by the city of Lake Forest Park, nor as a warranty or guarantee that the work authorized by the permit will have no adverse impact or will cause no damages or injury to any person or property.

B. Issuance by the city of a permit under LFPMC [16.14.040](#)(B) and/or compliance by the applicant and/or property owner with any permit conditions therein shall not relieve an applicant and/or property owner from any responsibility otherwise imposed by law for any adverse impacts, injury or damage to persons or property resulting from the work authorized by any permit issued under this chapter.

C. Nothing contained in this chapter shall be deemed to relieve any property owner within the city limits from the duties imposed under Chapter [8.12](#) LFPMC to keep any tree or vegetation upon his or her property or under his or her control in such condition as to prevent it from constituting a hazard or a nuisance.

D. The amount of any security required as part of any land development permit with which tree removal is associated shall not serve as a gauge or limit to the compensation that may be owed by a property owner as a

result of injury or damages to persons or property resulting from any tree removal authorized under this chapter. (Ord. 1015 § 2, 2010)

16.14.150 Qualified tree professional.

A. The city shall contract with one or more professionals that qualify as a qualified tree professional under the definition of this chapter. Said professional or professionals shall be responsible for providing the information and services required of the City's Qualified Tree Professional described herein.

B. Individual applicants will be responsible for payment of the costs and fees of the City's Qualified Tree Professional for projects necessitating work to be performed by the City's Qualified Tree Professional. (Ord. 1015 § 2, 2010)

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