



MEMORANDUM

To: Planning Commission
Houghton Community Council

From: Dorian Collins, Senior Planner
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Date: October 14, 2016

Subject: JOINT HEARING ON AMENDMENTS TO THE KIRKLAND ZONING CODE TO INCORPORATE STORMWATER LOW IMPACT DEVELOPMENT (LID) PRINCIPLES AND TO ADDRESS NPDES STORMWATER PERMIT REQUIREMENTS (File No. CAM16-02154)

RECOMMENDATION:

- Conduct a joint public hearing to receive testimony on the proposed code amendments.
- Following the public comment portion of the hearing, the Planning Commission and Houghton Community Council should discuss issues of interest. After conclusion of the discussion, the following should occur:
 - Houghton Community Council by motion make a recommendation to the Planning Commission and City Council on the code amendments.
 - Planning Commission, by motion, make a recommendation to the City Council on the code amendments.

BACKGROUND

Stormwater is the largest source of pollution to Puget Sound (Puget Sound Partnership, 2009), often containing a toxic mix of metals, oil, nutrients, and pharmaceuticals. Low impact development (LID) stormwater facilities disperse runoff through vegetation and soil, cleaning and slowing down the flow of stormwater, and improving the quality of stormwater entering our lakes and streams. Stormwater design requirements that emphasize the use of LID principles and practices for development projects will complement city efforts to manage stormwater that include planning for and construction of facilities to treat runoff from existing development (retrofit facilities), pollution source control, education and outreach, and maintenance of the public stormwater system.

In addition to providing environmental benefits, Kirkland must facilitate the use of stormwater LID design principles and require LID facilities to comply with State and Federal requirements. Kirkland is one of at least 80 cities and portions of 5 counties covered by the Western

Washington Phase II Municipal Stormwater Permit (also known as the National Pollutant Discharge Elimination System Permit, or NPDES Permit) administered through the Washington State Department of Ecology. The NPDES Permit requires the City take action in six areas to improve the quality of stormwater, including Controlling Runoff from New Development, Redevelopment and Construction Sites (see [NPDES Permit](#) section S5.C.4 for details). For NPDES Permit compliance, this work must be complete by December 31, 2016 (non-compliance puts the City at risk of fines and other penalties).

The proposed LID code changes described below will support an associated project, the implementation of updated **surface water design regulations** that require LID facilities, which must also be adopted by December 31, 2016 (see [September 20th Council packet](#)). In addition, the **critical areas ordinance update** project (Chapter 90 KZC drainage basins) is a separate process occurring simultaneously, and staff is conducting an integrated review of all three projects to identify potential conflicts and synergies between the LID code revisions, adoption of new surface water design manual, and the critical areas ordinance update.

The Planning Commission and Houghton Community Council (HCC) held a joint study session on the proposed amendments on September 29, 2016. Additional background information about low impact development principles and the process the City used to evaluate potential gaps between current code regulations and LID code guidance provided by the Washington State Department of Ecology can be found in the [materials prepared for September 29th study session](#).

Responses to issues raised at the study session

At the joint study session on September 29, 2016, members of the Houghton Community Council and the Planning Commission requested additional information or suggested that changes be made in several areas. Staff's responses are provided below:

1. KZC Chapter 95 – Section 95.33.1, Table 95.33.1

- a. **Issue:** Members of the HCC asked how tree density credits were calculated when fractions occur, particularly if the 1.5 credits for conifers were used. If rounded up, the HCC requested the proposed Tree Density Credit example shown below Table 95.33.1 be simplified by using one 14" diameter conifer in order to meet the tree credits on a 7,200-square-foot lot.
- b. **Response:** Staff has revised the language to clarify that Tree Density Calculations are to be "rounded up" when fractions occur and the example shown below Table 95.33.1 was changed. See Attachment 1.

Staff recommends that the PC and/or HCC provide direction for any changes to this section to staff.

2. KZC Chapter 95 – Section 95.44

- a. **Issue:** Staff recommends a code revision to address a gap in KZC 95.44, allowing LID facilities to count as required landscaping in parking lots. Members of the HCC inquired about current parking lot planting and configuration requirements, suggesting that alternative approaches, such as the use of larger planted areas could result in a superior design than the current requirements for islands or peninsulas.

- b. Response: Beyond allowing LID features to count as required landscaping for parking lots, staff recommends that internal parking lot landscaping specifics be part of a broader study. If the Planning Commission or HCC would like to study this requirement, it could be included in a subsequent miscellaneous code amendment project.

Staff recommends that the PC and/or HCC provide direction for any other changes to this section to staff.

3. KZC Chapter 114 – Section 114.20.2.c and d:

- a. Issue: Members of the HCC requested information about the proposed requirement: “A Native Tree and Plant Plan that achieves 80% coverage within two (2) years must be included with the applicant’s submittal.” Staff understood that the HCC members were inquiring about both the requirement for the “Native Tree and Plant Plan”, and the requirement that landscaping cover 80% of the area within two years.

- b. Response:

- Requirement for Native Tree and Plant Plan (Section 114.20.2.c): Staff has revised the text to call for a “restoration plan”, rather than a “Native Tree and Plant Plan. The revised text is consistent with the approach used in subsection d.
- Requirement for 80% coverage: The requirement for “80% coverage within two years” is intended as a means to ensure that substantial planting occurs in LID projects approved through Chapter 114. Staff opted to use an existing 80% plant coverage requirement from Zoning Code Section 95.41.2.a. Currently, this standard applies to supplemental plantings required in commercial, multi-family and industrial properties and for all areas of a property that are not covered by a building or vehicle circulation area, within a critical area, or committed to a specific purpose.

Staff recommends that changes not be made to the planting requirement established in Section 95.41.2.a, since that would have implications beyond the scope of this current LID code review effort. If the Planning Commission or HCC would like to study this requirement, it could be included in a subsequent miscellaneous code amendment project.

Staff recommends that the PC and/or HCC provide direction for any changes to this section to staff.

4. KZC Chapter 115 – Discussion

- a. Issue: Members of the HCC inquired about the definition of Maximum Lot Coverage (from KZC, Chapter 5) that was provided in the staff memorandum for the study session. The definition is provided below:

“The maximum percentage of the surface of the subject property that may be covered with materials which will not allow for the percolation of water into the underlying soils”.

The members of the HCC asked that the definition be revised to refer to standards, for clarity regarding materials that are considered impervious.

- b. Response: Staff could revise the definition for Maximum Lot Coverage to read:

"The maximum percentage of the surface of the subject property that may be covered with materials, as defined in the surface water design manual adopted in KMC 15.52.060, which will not allow for the percolation of water into the underlying soils".

Staff recommends that the PC and/or HCC provide direction for any changes to this section to staff.

Recommendation

Proposed draft amendments are included in Attachments 1-4. Revisions suggested by the Planning Commission and HCC at the study session in September have been incorporated into the draft amendments, where noted above. The amendments are summarized below:

1. Chapter 95 – Tree Management and Required Landscaping (Attachment 1)

Currently the City requires tree retention with development as part of the City's overall goal to maintain its 40% canopy goal and to work towards a healthy, sustainable urban forest. To emphasize the connection between LID and trees, vegetation and soil, along with offering guidance in soil/vegetation preservation and restoration, additional language in Chapter 95 is needed. An LID approach emphasizes the retention of conifers due to a greater ability of conifers to intercept rainfall during the winter months in Western Washington.

In addition, the proposed revisions will result in greater consistency between City codes and policies. All of the proposed changes are shown in red-lined text in Attachment 1.

Proposed Amendments include:

- 95.33 Revise code to clarify credits can be rounded up when calculating tree density, revise Tree Credit Table to give extra tree credits for the retention of conifers, and revise example.
- 95.34 Revise code to include soil protection and reflect Best Available Science/Best Management Practices (BMPs); refer to Public Works (PW) Pre-Approved Plans.
- 95.40 Revise code to include preference for retaining native species and soil.
- 95.41 Revise code to include preference for native species.
- 95.44 Revise code to specify LID facilities count towards internal landscape requirements, but keep tree requirement; reference PW Pre-Approved Plans.
- 95.45 Revise code to specify that LID facilities count towards perimeter landscape requirements, but keep tree requirement; reference PW Pre-Approved Plans.
- 95.50 Revise code for consistency with surface water design manual and to reflect Best Available Science/BMPs; revise soil compaction density requirements; reference PW Pre-Approved Plans; specify "soil" in restoration code.

2. Chapter 114 – Low Impact Development (Attachment 2)

The proposed changes to Chapter 114 would remove the stormwater incentives from this chapter, since these measures would be required under the updated surface water design regulations. Language which calls for many beneficial items (such as requiring 40% common open space, clustering of houses, retention of native and undisturbed vegetation and planting of additional native conifers and plants) provided for through this voluntary process would still be retained. Proposed amendments would strengthen the standards through new text noted below. The proposed amendments also include an additional incentive for 2/3 unit homes, in simplifying the required review process for this housing type. All of the proposed changes are shown in red-lined text in Attachment 2.

Proposed amendments include:

- Various text changes to replace incentives with requirements, consistent with the updated surface water design regulations (see red-lined text, Attachment 2).
- Additional requirements, including:
 - 114.15: (within Required Open Space):
 - Requirement for the preservation of native and undisturbed vegetation.
 - 114.20.2.c:
 - Requirement that a restoration plan which would achieve 80% coverage within two (2) years be submitted with a development proposal.
 - 114.20.2.d:
 - New standards for a restoration plan in cases where no existing native vegetation exists.
 - 114.25.2.a and b:
 - Simplified review processes for 2/3 unit homes.
 - 114.35.1.d:
 - Requirement that a landscape plan for the required common open space which would achieve 80% coverage within two (2) years be submitted with a development proposal. The plan would be required to show planting with native conifers and native plants.

3. Section 115.90 – Calculating Lot Coverage (Attachment 3)

The proposed changes to Section [115.90](#) of the Zoning Code include two additional exceptions for features that would not be included in the calculation of lot coverage. In one case, the features allow for the percolation of water and would therefore not create impervious surface on a property. In the other, the proposed exception would eliminate a potential burden to a property owner that may occur due to the placement of a public sidewalk.

The proposed amendments would also eliminate the section devoted to exemptions from the lot coverage calculation, since this section provided incentives for the use of LID facilities that are now required. This change would ensure that the regulations are consistent with the new design manual, and support the use of LID design principles to the greatest extent possible. All of the proposed changes are shown in red-lined text in Attachment 3.

Proposed amendments include:

- Changes to exceptions from lot coverage calculation:
 - 115.90.2.d:
 - New exception to allow rockeries and retaining walls not to be included in the calculation of lot coverage.
 - 115.90.e:
 - New exception for public easements placed on private property to accommodate a public sidewalk, to not be included in the calculation of lot coverage.
- Elimination of LID incentives from exemptions to lot coverage calculation:
 - Section 115.90.3:
 - Removal of LID incentives since LID features would be required under the updated surface water design manual.

4. Other changes to City documents

a. Standard Details (Pre-Approved Plans)

The gap analysis for the LID code update identified the need for several changes to the standard details and policies within the Public Works Pre-Approved Plans. These changes will be included in the next annual update, to be effective on January 1, 2017.

b. Kirkland Municipal Code (KMC)

A minor housekeeping change is needed to provide consistency in referencing the Pre-Approved Plans in both the KZC and KMC.

CRITERIA FOR AMENDING THE ZONING CODE

Chapter 135 of the Zoning Code contains three criteria for amending the text of the Zoning Code that are applicable to this project. The proposed amendments satisfy the criteria as described below:

1. The proposed amendment is consistent with the applicable provisions of the Comprehensive Plan.

The recommended amendments are consistent with the Comprehensive Plan. The following goals and policies support the proposed amendments:

- *Goal E-1: Protect and enhance Kirkland's natural systems and features.*
- *Policy E-1.5: Work toward creating a culture of stewardship by fostering programs that support sound practices, such as low impact development and sustainable building techniques.*
- *Policy E-1.15: Improve management of stormwater runoff from impervious surfaces by employing low impact development practices through City projects, incentive programs, and development standards.*

2. The proposed amendment bears a substantial relation to public health, safety or welfare.

The recommended amendments bear a substantial relation to public health, safety and welfare. The amendments help ensure that Kirkland's regulations comply with State and Federal requirements in facilitating the use of LID design principles and facilities. The amendments will help to improve the quality of stormwater and help to control runoff from new development, redevelopment and construction sites.

3. The proposed amendment is in the best interests of the residents of Kirkland.

The recommended amendments are in the best interest of the community. The amendments will ensure that the City's regulations comply with NPDES Permit requirements, preventing risks of fines and other penalties. Through improving stormwater quality and controlling runoff, the amendments will also help to preserve the quality of streams, wetlands and associated habitat and to minimize flooding.

PUBLIC COMMENTS

No written public comments have been received.

PUBLIC OUTREACH

Public outreach efforts for the LID code revision project were discussed in the [materials prepared for study session](#). Since that time, staff has also presented the draft amendments to the two City Council subcommittees (Public Works, Parks and Human Services, and Planning and Economic Development).

A public open house is scheduled from 6:00 – 7:00 pm at City Hall prior to the October 24th public hearing for interested parties to find out more information about the LID code revisions, general education regarding LID, and new stormwater design regulations to be considered by the City Council on November 15th.

Notice of the public hearing has been published in the official City newspaper, posted on official notice boards and posted on the City websites for the Planning Commission and Houghton Community Council, and on the LID project website. Notice of the public hearing has also been provided to the Kirkland Alliance of Neighborhoods, all of the Neighborhood Associations, Cascade Water Alliance, the Chamber of Commerce and the Developers Forum. The notice included public notice of the Open House for the community, scheduled to occur prior to the public hearing.

NEXT STEPS

Following the public hearing, the Planning Commission and Houghton Community Council will deliberate and forward a combined or two separate recommendations to the City Council. The Council will receive a presentation on the LID code revision project and the recommended amendments on November 15, 2016. The Council will either take action that night, or at the

Council meeting on December 16, 2016. The adopted amendments will be presented at a meeting of the Houghton Community Council in December or January, 2017.

Attachments

1. Proposed Zoning Code Amendments – Chapter 95
2. Proposed Zoning Code Amendments – Chapter 114
3. Proposed Zoning Code Amendments – Section 115.90
4. Proposed KMC Amendments – Section 19.12.130

cc: Jenny Gaus, Surface Water Engineering Supervisor
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Kirkland Zoning Code
Chapter 95 – TREE MANAGEMENT AND
REQUIRED LANDSCAPING

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Kirkland Zoning Code
Chapter 95 – TREE MANAGEMENT AND
REQUIRED LANDSCAPING

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.05 Purpose and Intent

1. Trees and other vegetation are important elements of the physical environment. They are integral to Kirkland's community character and protect public health, safety and general welfare. Protecting, enhancing, and maintaining healthy trees and vegetation are key community values. Comprehensive Plan Policy NE-3.1 describes working towards achieving a City-wide tree canopy coverage of 40 percent. The many benefits of healthy trees and vegetation contribute to Kirkland's quality of life by:

- a. Minimizing the adverse impacts of land disturbing activities and impervious surfaces such as runoff, soil erosion, land instability, sedimentation and pollution of waterways, thus reducing the public and private costs for storm water control/treatment and utility maintenance;
- b. Improving the air quality by absorbing air pollutants, mitigating the urban heat island effect, assimilating carbon dioxide and generating oxygen, and decreasing the impacts of climate change;
- c. Reducing the effects of excessive noise pollution;
- d. Providing cost-effective protection from severe weather conditions with cooling effects in the summer months and insulating effects in winter;
- e. Providing visual relief and screening buffers;
- f. Providing recreational benefits;
- g. Providing habitat, cover, food supply and corridors for a diversity of fish and wildlife; and
- h. Providing economic benefit by enhancing local property values and contributing to the region's natural beauty, aesthetic character, and livability of the community.

2. Tree and vegetation removal in urban areas has resulted in the loss to the public of these beneficial functions. The purpose of this chapter is to establish a process and standards to provide for the protection, preservation, replacement, proper maintenance, and use of significant trees, associated vegetation, and woodlands located in the City of Kirkland.

The intent of this chapter is to:

- a. Maintain and enhance canopy coverage provided by trees for their functions as identified in KZC 95.05(1);
- b. Preserve and enhance the City of Kirkland's environmental, economic, and community character with mature landscapes;
- c. Promote site planning, building, and development practices that work to avoid removal or destruction of trees and vegetation, that avoid unnecessary disturbance to the City's natural vegetation, and that provide landscaping to buffer the effects of built and paved areas;
- d. Mitigate the consequences of required tree removal in land development through on- and off-site tree replacement with the goals of halting net loss and enhancing Kirkland's tree canopy to achieve an overall healthy tree canopy cover of 40 percent City-wide over time;
- e. Encourage tree retention efforts by providing flexibility with respect to certain other development requirements;
- f. Implement the goals and objectives of the City's Comprehensive Plan;
- g. Implement the goals and objectives of the State Environmental Policy Act (SEPA); and
- h. Manage trees and other vegetation in a manner consistent with the City's Natural Resource Management Plan.

- i. Preserve and protect street trees, trees in public parks and trees on other City property.

(Ord. 4238 § 2, 2010; Ord. 4010 § 2, 2005)

.10 Definitions

The following definitions shall apply throughout this chapter unless the context clearly indicates otherwise. Definitions that apply throughout this code are also located in Chapter 5 KZC.

1. Caliper – The American Association of Nurserymen standard for trunk measurement of nursery stock. Caliper of the trunk shall be the trunk diameter measured six (6) inches above the ground for up to and including 4-inch caliper size and 12 inches above the ground for larger sizes.
2. Critical Root Zone – The area surrounding a tree at a distance from the trunk, which is equal to one (1) foot for every inch of trunk diameter measured at 4.5 feet from grade or otherwise determined by a qualified professional (example: one (1) foot radius per one (1) inch DBH).
3. Crown – The area of a tree containing leaf- or needle-bearing branches.
4. Diameter at Breast Height (DBH) – The diameter or thickness of a tree trunk measured at 4.5 feet from the ground. DBH is also known as Diameter at Standard Height (DSH).
5. Dripline – The distance from the tree trunk, that is equal to the furthest extent of the tree's crown.
6. Grove – A group of three (3) or more significant trees with overlapping or touching crowns.
7. Hazard Tree – A tree that meets all the following criteria:
 - a. A tree with a combination of structural defects and/or disease which makes it subject to a high probability of failure;
 - b. Is in proximity to moderate to high frequency targets (persons or property that can be damaged by tree failure); and
 - c. The hazard condition of the tree cannot be lessened with reasonable and proper arboricultural practices nor can the target be removed.
8. Impact – A condition or activity that affects a part of a tree including the trunk, branches, and critical root zone.
9. Limit of Disturbance – The boundary between the protected area around a tree and the allowable site disturbance as determined by a qualified professional measured in feet from the trunk.
10. Nuisance Tree – A tree that meets either of the following criteria:
 - a. Is causing obvious physical damage to private or public structures, including but not limited to: sidewalk, curb, road, driveway, parking lot, building foundation, or roof; or
 - b. Has sustained damage from past maintenance practices.

The problems associated with the tree must be such that they cannot be corrected by reasonable practices including but not limited to: pruning of the crown or roots of the tree, bracing, and/or cabling to reconstruct a healthy crown.
11. Public Works Official – Designee of the Public Works Director.
12. Qualified Professional – An individual with relevant education and training in arboriculture or urban forestry, having two (2) or more of the following credentials:
 - International Society of Arboriculture (ISA) Certified Arborist;

- Tree Risk Assessor Certification (TRACE) as established by the Pacific Northwest Chapter of ISA (or equivalent);
- American Society of Consulting Arborists (ASCA) registered Consulting Arborist;
- Society of American Foresters (SAF) Certified Forester for Forest Management Plans;

For tree retention associated with a development permit, a qualified professional must have, in addition to the above credentials, a minimum of three (3) years' experience working directly with the protection of trees during construction and have experience with the likelihood of tree survival after construction. A qualified professional must also be able to prescribe appropriate measures for the preservation of trees during land development.

13. Retention Value – The Planning Official's designation of a tree based on information provided by a qualified professional that is one (1) of the following:

a. High, a viable tree, located within required yards and/or required landscape areas. Tree retention efforts shall be directed to the following trees if they are determined to be healthy and windfirm by a qualified professional, and provided the trees can be safely retained when pursuing alternatives to development standards pursuant to KZC 95.32:

- 1) Specimen trees;
- 2) Tree groves and associated vegetation that are to be set aside as preserved groves pursuant to KZC 95.51(3);
- 3) Trees on slopes of at least 10 percent; or
- 4) Trees that are a part of a grove that extends into adjacent property, such as in a public park, open space, sensitive area buffer or otherwise preserved group of trees on adjacent private property. If significant trees must be removed in these situations, an adequate buffer of trees may be required to be retained or planted on the edge of the remaining grove to help stabilize;

b. Moderate, a viable tree that is to be retained if feasible; or

c. Low, a tree that is either (1) not viable or (2) is in an area where removal is unavoidable due to the anticipated development activity.

14. Significant Tree – A tree that is at least six (6) inches in diameter at breast height (DBH) as measured at 4.5 feet from the ground.

15. Significantly Wooded Site – A subject property that has a number of significant trees with crowns that cover at least 40 percent of the property.

16. Site Disturbance – Any development, construction, or related operation that could alter the subject property, including, but not limited to, soil compaction, tree or tree stump removal, road, driveway or building construction, installation of utilities, or grading.

17. Specimen Tree – A viable tree that is considered in very good to excellent health and free of major defects, as determined by the City's Urban Forester.

18. Street Tree – A tree located within the public right-of-way; provided, that if the trunk of the tree straddles the boundary line of the public right-of-way and the abutting property, it shall be considered to be on the abutting property and subject to the provisions of this chapter.

19. Tree Removal – The removal of a tree, through either direct or indirect actions, including but not limited to: (1) clearing, damaging or poisoning resulting in an unhealthy or dead tree; (2) removal of at

least half of the live crown; or (3) damage to roots or trunk that is likely to destroy the tree's structural integrity.

20. **Viable Tree** – A significant tree that a qualified professional has determined to be in good health, with a low risk of failure due to structural defects, is windfirm if isolated or remains as part of a grove, and is a species that is suitable for its location.

21. **Wildlife Snag** – The remaining trunk of a tree that is intentionally reduced in height and usually stripped of its live branches.

22. **Windfirm** – A condition of a tree in which it withstands average peak local wind speeds and gusts.

(Ord. 4238 § 2, 2010; Ord. 4193 § 1, 2009; Ord. 4010 § 2, 2005)

.20 Exemptions

The following activities are exempt from the provisions of this chapter:

1. **Emergency Tree Removal.** Any tree that poses an imminent threat to life or property may be removed. The City must be notified within seven (7) days of the emergency tree removal with evidence of the threat for removing the tree to be considered exempt from this chapter. If the Planning Official determines that the emergency tree removal was not warranted or if the removed tree was required by a development permit, the Planning Official may require that the party obtain a permit and/or require that replacement trees and vegetation be replanted as mitigation.

2. **Utility Maintenance.** Trees may be removed by the City or utility provider in situations involving interruption of services provided by a utility only if pruning cannot solve utility service problems. Utility maintenance shall conform to a City-approved Utility Vegetation Management Plan.

3. **Commercial Nurseries or Tree Farms.** A nursery or tree farm owner may remove trees that are being grown to be sold as Christmas or landscape trees.

(Ord. 4238 § 2, 2010; Ord. 4010 § 2, 2005)

.21 Tree Pruning

1. **Tree Pruning of Street Trees.** It is the responsibility of the abutting property owner to maintain street trees abutting their property, which may include pruning, watering, and mulching. In order to prune, trim, modify, or alter a street tree, the abutting property owner shall apply for a permit by filing a written application with the City. Pruning shall conform to the most recent version of the American National Standards Institute (ANSI) A300 Part 1 – 2001 pruning standards or as outlined in an approved Utility Vegetation Management Plan. The City reserves the right to have City or utility crews perform routine pruning and maintenance of street trees.

2. **Tree Pruning on Private Property.** A permit is not required to prune trees on private property. Pruning which results in the removal of at least half of the live crown will be considered tree removal and subject to the provisions in KZC 95.23.

Tree topping is not allowed. If a tree required by this chapter is smaller than six (6) inches in diameter and is topped, it must be replaced pursuant to the standards in Chapter 1.12 KMC. If a tree six (6) inches or larger in diameter is topped, the owner must have a qualified professional develop and implement a 5-year restoration pruning program.

(Ord. 4281 § 1, 2011; Ord. 4238 § 2, 2010)

.23 Tree Removal – Not Associated with Development Activity

1. **Introduction.** Tree and vegetation removal in urban areas has resulted in the loss of beneficial functions provided by trees to the public. The majority of tree canopy within the City of Kirkland is on private property. The purpose of this section is to establish a process and standards to slow the loss of

tree canopy on private property, contributing towards the City's canopy goals and a more sustainable urban forest.

2. Permit Required for Removal of Trees on Private Property or City Right-of-Way. It is unlawful for any person (other than City crews) to remove, prune, trim, modify, alter or damage a tree in a public park or on any other City property.

No person, directly or indirectly, shall remove any significant tree on any property within the City, or any tree in the public right-of-way, without first obtaining a tree removal permit as provided in this chapter, unless the activity is exempted in KZC 95.20 and subsection (5) of this section.

3. Tree Removal Permit Application Form. The Planning and Building Department and Public Works Department shall establish and maintain a tree removal permit application form to allow property owners to request City review of tree removal for compliance with applicable City regulations. The tree removal application form shall include at a minimum the following:

a. A site plan showing the approximate location of significant trees, their size (DBH) and their species, along with the location of structures, driveways, access ways and easements.

b. For required replacement trees, a planting plan showing location, size and species of the new trees in accordance to standards set forth in KZC 95.33(3).

4. Tree Removal Permit Application Procedure and Appeals.

a. Applicants requesting to remove trees must submit a completed permit application on a form provided by the City. The City shall review the application within 21 calendar days and either approve, approve with conditions or modifications, deny the application or request additional information. Any decision to deny the application shall be in writing along with the reasons for the denial and the appeal process.

b. The decision of the Planning Official is appealable using the applicable appeal provisions of Chapter 145 KZC.

c. Time Limit. The removal shall be completed within one (1) year from the date of permit approval.

5. Tree Removal Allowances.

a. Except in the Holmes Point Overlay zone, any private property owner of developed property may remove up to two (2) significant trees from their property within a 12-month period without having to apply for a tree removal permit; provided, that:

1) There is no active application for development activity for the site;

2) The trees were not required to be retained or planted as a condition of previous development activity; and

3) All of the additional standards for tree removal and tree removal permits as described in subsections (5)(b) through (e) of this section are met.

The Planning and Building Department shall establish and maintain a tree removal request form. The form may be used by property owners to request Department review of tree removal for compliance with applicable City regulations.

b. Tree Retention and Replacement Requirements.

1) Tree Retention. For single-family homes, cottages, carriage units, two/three-unit homes, two (2) trees shall be required to remain on the subject property.

- 2) Tree Replacement.
- a) For every significant tree that is removed and is not required to remain based on subsection (5)(b)(1) of this section, the City encourages the planting of a tree that is appropriate to the site.
 - b) If a tree removal request is for one (1) or both of the trees required to remain, a tree removal permit and one-for-one replacement is required. The replacement tree shall be six (6) feet tall for a conifer and 2-inch caliper for deciduous or broad-leaf evergreen tree.
 - c) For all other uses not listed in subsection (5)(b)(1) of this section, a tree removal permit is required and the required tree replacement will be based on the required landscaping standards in KZC 95.40 through 95.45.
- c. Shoreline Jurisdiction. Properties located within the City’s shoreline jurisdiction are subject to additional tree removal and replacement standards if the tree(s) to be removed are located within the required shoreline setback. See Chapter 83 KZC for additional standards.
- d. Removal of Hazard or Nuisance Trees. Any private property owner seeking to remove any number of significant trees which are a hazard or nuisance from developed or undeveloped property or the public right-of-way shall first obtain approval of a tree removal permit and meet the requirements of this subsection.
- 1) Tree Risk Assessment. If the nuisance or hazard condition is not obvious, a tree risk assessment prepared by a qualified professional explaining how the tree(s) meet the definition of a nuisance or hazard tree is required. Removal of nuisance or hazard trees does not count toward the tree removal limit if the nuisance or hazard is supported by a report prepared by a qualified professional and approved by the City.
 - 2) Trees in Critical Areas or Critical Areas Buffers. For hazard or nuisance trees in (a) easements dedicated to ensure the protection of vegetation; (b) critical areas; or (c) critical area buffers, a planting plan is required to mitigate the removal of the hazard or nuisance tree. The priority action is to create a “snag” or wildlife tree with the subject tree. If creation of a snag is not feasible, then the felled tree shall be left in place unless the Planning Official permits its removal in writing.

The intent of preserving vegetation in and near streams and wetlands and in geologically hazardous areas is to support the functions of healthy sensitive areas and sensitive area buffers (see Chapter 90 KZC) and/or avoid disturbance of geologically hazardous areas (see Chapter 85 KZC).

The removal of any tree in a critical area or native growth protective easement will require the planting of a native tree of a minimum of six (6) feet in height in close proximity to where the removed tree was located. Selection of native species and timing of installation shall be coordinated with the Planning Official.
 - 3) The removal of any tree in the Holmes Point Overlay Zone requires the planting of a native tree of a minimum of six (6) feet in height in close proximity to where the removed tree was located. Selection of native species and timing of installation shall be approved by the Planning Official.
 - 4) Street Trees. Street trees may only be removed if determined to be a hazard or nuisance. If the removal request is for street trees, the Public Works Official may consider whether the tree(s) are now, or may be in the future, part of the City’s plans for the right-of-way. The City shall require a one-for-one tree replacement in a suitable location.
- e. Forest Management Plan.

- 1) A Forest Management Plan must be submitted for developed, significantly wooded sites (over 40 percent canopy coverage) of at least 35,000 square feet in size in which removal of more than two (2) trees is requested and is not exempt under KZC 95.20. A Forest Management Plan must be developed by a qualified professional and shall include the following:
 - a) A site plan depicting the location of all significant trees (a survey identifying tree locations is not required) with a numbering system of the trees (with corresponding tags on trees in the field). The site plan shall include size (DBH), species, and condition of each tree;
 - b) Identification of trees to be removed, including reasons for their removal and a description of low impact removal techniques pursuant to subsection (5)(e)(2) of this section;
 - c) A reforestation plan that includes location, size, species, and timing of installation;
- 2) The following Forest Management Plan standards shall apply:
 - a) Trees to remain should be dominant or co-dominant in the stand, healthy and windfirm.
 - b) No removal of trees from critical areas and their buffers, unless otherwise permitted by this chapter.
 - c) No removal of specimen trees, unless otherwise permitted by this chapter.
 - d) No removal of healthy trees that would cause trees on adjacent properties to become hazardous.
 - e) The reforestation plan ensures perpetuity of the wooded areas. The size of planted trees for reforestation shall be a minimum of three (3) feet tall.
 - f) Logging operations shall be conducted so as to expose the smallest practical area of soil to erosion for the least possible time. To control erosion, native shrubs, ground cover and stumps shall be retained where feasible. Where not feasible, appropriate erosion control measures to be approved by the City shall be implemented.
 - g) Removal of tree debris shall be done pursuant to Kirkland Fire Department standards.
 - h) Recommended maintenance prescription for retained trees with a specific timeline for such management.

(Ord. 4491 § 3, 2015; Ord. 4437 § 1, 2014; Ord. 4408 § 1, 2013; Ord. 4372 § 1, 2012; Ord. 4238 § 2, 2010)

.25 Sustainable Site Development

All activities regulated by this chapter shall be performed in compliance with the applicable standards contained in this chapter, unless the applicant demonstrates that alternate measures or procedures will be equal or superior to the provisions of this chapter in accomplishing the purpose and intent of this chapter as described in KZC 95.05.

Applicants requesting alternative compliance shall submit a site assessment report prepared by a qualified professional detailing how the proposed alternative measures will be equal or superior to the benefits provided by the established trees to be removed. Qualifying projects shall implement sustainable site development strategies throughout the construction process as well as contain measurable performance standards for the techniques used. Examples of sustainable site development include building placement with minimal site impact, habitat protection, water conservation, heat island reduction, storm water flow runoff control and water quality, and utilization of the site's natural services such as solar and wind. Requests to use alternative measures and procedures shall be reviewed by the Planning Official, who may approve, approve with conditions, or deny the request.

(Ord. 4238 § 2, 2010; Ord. 4010 § 2, 2005)

.30 Tree Retention Associated with Development Activity

1. Introduction. The City's objective is to retain as many viable trees as possible on a developing site while still allowing the development proposal to move forward in a timely manner. To that end, the City requires approval of a tree retention plan in conjunction with all development permits resulting in site disturbance and for any tree removal on developed sites not exempted by KZC 95.20. This section includes provisions that allow development standards to be modified in order to retain viable significant trees.

In order to make better decisions about tree retention, particularly during all stages of development, tree retention plans will require specific information about the existing trees before removal is allowed. Specific tree retention plan review standards provided in this section establish tree retention priorities, incentives, and variations to development standards in order to facilitate preservation of viable trees.

A minimum tree density approach is being used to retain as many viable trees as possible with new development activity. The requirement to meet a minimum tree density applies to new single-family homes, cottages, carriage units, two/three-unit homes, and new residential subdivisions and short subdivisions. If such a site falls below the minimum density with existing trees, supplemental planting is required. A tree density for existing trees to be retained is calculated to see if new trees are required in order to meet the minimum density for the entire site. Supplemental tree location priority is set as well as minimum size of supplemental trees to meet the required tree density.

The importance of effective protection of retained trees during construction is emphasized with specific protection standards in the last part of this section. These standards must be adhered to and included on demolition, grading and building plans as necessary.

Properties within jurisdiction of the Shoreline Management Act are subject to additional tree retention and protection regulations as set forth in Chapter 83 KZC.

Properties within the Holmes Point Overlay zone are subject to additional tree retention and protection regulations as set forth in Chapter 70 KZC.

2. Tree Retention Plan Required. An applicant for a development permit must submit a tree retention plan that complies with this section. A qualified professional may be required to prepare certain components of a tree retention plan at the applicant's expense. If proposed development activities call for more than one (1) tree retention plan component, the more stringent tree retention plan component shall apply; provided, that the Planning Official may require a combination of tree plan components based on the nature of the proposed development activities. If the proposed activity is not clearly identified in this chapter, the Planning Official shall determine the appropriate tree retention plan requirements.

The chart in subsection (5) of this section sets forth the tree retention plan requirements for development activities and associated tree removal. Applicants for development are encouraged to confer with City staff as early in the design process as possible so that the applicable tree planting and retention concepts can be incorporated into the design of the subject property. The Planning Official may waive a component of the tree retention plan if the Planning Official determines that the information is not necessary.

3. Tree Retention Plan Review. Any proposed development of the subject property requiring approval through a building permit, land surface modification permit, and/or demolition permit, or Design Review, Process I, IIA or IIB, described in Chapters 142, 145, 150 and 152 KZC respectively, shall include a tree retention plan to be considered as part of that process.

Based on the tree retention plan information submitted by the applicant and the Planning Official's evaluation of the trees relative to the proposed development on the subject property, the Planning

Official shall designate each tree as having a high, moderate, or low retention value as defined in KZC 95.10, Definitions, for application towards the regulations in this chapter.

4. Tree Retention Plan Components. The tree retention plan shall contain the following information as specified in the chart in subsection (5) of this section, unless waived by the Planning Official:

- a. A tree inventory containing the following:
 - 1) A numbering system of all existing significant trees on the subject property (with corresponding tags on trees); the inventory must also include significant trees on adjacent property with driplines extending over the subject property line;
 - 2) Limits of disturbance (LOD) of all existing significant trees (including approximate LOD of off-site trees with overhanging driplines);
 - 3) Size (DBH);
 - 4) Proposed tree status (trees to be removed or retained);
 - 5) Brief general health or condition rating of these trees (i.e.: poor, fair, good, excellent, etc.);
 - 6) Tree type or species.
- b. A site plan depicting the following:
 - 1) Location of all proposed improvements, including building footprint, access, utilities, applicable setbacks, buffers, and required landscaped areas clearly identified. If a short plat or subdivision is being proposed and the location of all proposed improvements cannot be established, a phased tree retention plan review is required as described in subsection (6)(a) of this section;
 - 2) Accurate location of significant trees on the subject property (surveyed locations may be required). The site plan must also include the approximate trunk location and critical root zone of significant trees that are on adjacent property with driplines extending over the subject property line;
 - 3) Trees labeled corresponding to the tree inventory numbering system;
 - 4) Location of tree protection measures;
 - 5) Indicate limits of disturbance drawn to scale around all trees potentially impacted by site disturbances resulting from grading, demolition, or construction activities (including approximate LOD of off-site trees with overhanging driplines);
 - 6) Proposed tree status (trees to be removed or retained) noted by an 'X' or by ghosting out;
 - 7) Proposed locations of any supplemental trees and any required trees in order to meet tree density or minimum number of trees as outlined in KZC 95.33.
- c. An arborist report containing the following:
 - 1) A complete description of each tree's health, condition, and viability;
 - 2) A description of the method(s) used to determine the limits of disturbance (i.e., critical root zone, root plate diameter, or a case-by-case basis description for individual trees);

- 3) Any special instructions specifically outlining any work proposed within the limits of the disturbance protection area (i.e., hand-digging, tunneling, root pruning, any grade changes, clearing, monitoring, and aftercare);
 - 4) For trees not viable for retention, a description of the reason(s) for removal based on poor health, high risk of failure due to structure, defects, unavoidable isolation (windfirmness), or unsuitability of species, etc., and for which no reasonable alternative action is possible must be given (pruning, cabling, etc.);
 - 5) Describe the impact of necessary tree removal to the remaining trees, including those in a grove or on adjacent properties;
 - 6) For development applications, a discussion of timing and installation of tree protection measures that must include fencing and be in accordance with the tree protection standards as outlined in KZC 95.34; and
 - 7) The suggested location and species of supplemental trees to be used when required. The report shall include planting and maintenance specifications pursuant to KZC 95.50 and 95.51.
5. Tree Retention Plan. The applicant shall submit a Tree Retention Plan that includes the components identified in the following chart based on the proposed development activity.

TREE RETENTION PLAN

Development Activity	Minor ⁽¹⁾⁽³⁾ – Single-Family, or two attached, detached, or stacked dwelling units, and related demolition and land surface modification applications	Major ⁽²⁾⁽³⁾ Single-Family, or two attached, detached, or stacked dwelling units, and related demolition and land surface modification applications	Multifamily, Commercial, any other use other than residential, and related demolition and land surface modification applications	Short Plat, Subdivisions, cottages, carriage units, two/three-unit homes, and related demolition and land surface modification applications (see KZC 95.30(6)(a), Phased Review, for additional standards)
Required Components				
TREE INVENTORY AS DESCRIBED IN KZC 95.30(4)(a) FOR:				
All significant trees on the subject property		X	X	X
Significant trees potentially impacted by proposed development activity	X			
SITE PLAN AS DESCRIBED IN KZC 95.30(4)(b) TO INCLUDE:				
Surveyed tree locations if required by the Planning Official		X	X	
Surveyed tree locations				X
A final landscape plan showing retained trees			X	
REQUIREMENTS IN KZC 95.30(4)(c) SHALL BE PREPARED BY A QUALIFIED PROFESSIONAL				

Development Activity	Minor ⁽¹⁾⁽³⁾ – Single-Family, or two attached, detached, or stacked dwelling units, and related demolition and land surface modification applications	Major ⁽²⁾⁽³⁾ Single-Family, or two attached, detached, or stacked dwelling units, and related demolition and land surface modification applications	Multifamily, Commercial, any other use other than residential, and related demolition and land surface modification applications	Short Plat, Subdivisions, cottages, carriage units, two/three-unit homes, and related demolition and land surface modification applications (see KZC 95.30(6)(a), Phased Review, for additional standards)
Required Components				
AND APPLY TO:				
Significant trees within required yards or within 10 feet of any side property line		X		
Significant trees potentially impacted by proposed development activity as determined by the Planning Official			X	
Proposed removal of trees with a high retention value in required landscaping areas			X	
All significant trees				X
TREE RETENTION STANDARDS				
Applicant is encouraged to retain viable trees	X ⁽⁴⁾			
Retain and protect trees with a high retention value to the maximum extent possible		X ⁽⁴⁾	X ⁽⁴⁾	X ⁽⁴⁾
Retain and protect trees with a moderate retention value if feasible		X	X	X
Preservation and maintenance agreements pursuant to KZC 95.51 are required for all remaining trees on the subject property	X	X	X	X ⁽⁵⁾
TREE DENSITY				
Tree density requirements shall apply as required in KZC 95.33		X		X
A minimum of two trees must be on the lot following the requirement set forth in KZC 95.33(4)	X			

Development Activity	Minor ⁽¹⁾⁽³⁾ – Single-Family, or two attached, detached, or stacked dwelling units, and related demolition and land surface modification applications	Major ⁽²⁾⁽³⁾ Single-Family, or two attached, detached, or stacked dwelling units, and related demolition and land surface modification applications	Multifamily, Commercial, any other use other than residential, and related demolition and land surface modification applications	Short Plat, Subdivisions, cottages, carriage units, two/three-unit homes, and related demolition and land surface modification applications (see KZC 95.30(6)(a), Phased Review, for additional standards)
Required Components				
LANDSCAPING				
Preserved trees in required landscaping areas shall apply toward required landscaping requirements			X	

(1) Applicable when new development, redevelopment, or development in which the total square footage of the proposed improvements is less than 50 percent of the total square footage of the existing improvements on the subject property.

(2) Applicable when new development, redevelopment, or development in which the total square footage of the proposed improvements is more than 50 percent of the total square footage of the existing improvements on the subject property.

(3) For lots created through a short subdivision, subdivision, or planned unit development with an approved Tree Retention Plan, the applicant must comply with the Tree Retention Plan approved with the short subdivision, subdivision, or planned unit development unless subsection (6)(a) of this section, Phased Review, applies.

(4) To retain trees with a high retention value, the applicant shall pursue, where feasible, applicable variations in the development standards of this code as outlined in KZC 95.32.

(5) Prior to short plat or subdivision recording.

6. Additional Tree Retention Plan Standards for Short Plat and Subdivisions.

a. Phased Review.

1) If during the short plat or subdivision review process the location of all proposed improvements, including the building footprint, utilities, and access, was not able to be established, the applicant may submit a Tree Retention Plan that addresses trees only affected by the known improvements at the time of application. Tree removal shall be limited to those affected areas.

2) A new Tree Retention Plan shall be required at each subsequent phase of the project as more information about the location of the proposed improvements is known subject to all of the requirements in KZC 95.30.

b. Modifications to Tree Retention Plan for Short Plats and Subdivisions. A Tree Retention Plan modification request shall contain information as determined by the Planning Official based on the

requirements in subsection (5) of this section, Tree Retention Plan. The fee for processing a modification request shall be established by City ordinance.

For Tree Retention Plans approved during the short plat or subdivision review process that established the location of all proposed improvements, including the building footprint, utilities, and access, a modification to the Tree Retention Plan may be approved as follows:

- 1) Modification – General. The Planning Official may approve minor modifications to the approved Tree Retention Plan in which the minimum tree density credits associated with trees identified for retention are not decreased.
- 2) Modification Prior to Tree Removal. The Planning Official may approve a modification request to decrease the minimum number of tree density credits associated with trees previously identified for retention if:
 - a) Trees inventoried in the original Tree Retention Plan have not yet been removed; and
 - b) The Planning Official shall not approve or deny a modification pursuant to this section without first providing notice of the modification request consistent with the noticing requirements for the short plat.
- 3) Modification after Tree Removal. A modification request is required to decrease the minimum number of tree density credits associated with trees previously identified for retention after which trees inventoried in the original Tree Retention Plan have already been removed. Such a request may be approved by the Hearing Examiner only if the following are met:
 - a) The need for the modification was not known and could not reasonably have been known before the tree retention plan was approved;
 - b) The modification is necessary because of special circumstances which are not the result of actions by the applicant regarding the size, shape, topography, or other physical limitations of the subject property relative to the location of proposed and/or existing improvements on or adjacent to the subject property;
 - c) There is no practicable or feasible alternative development proposal that results in fewer additional tree removals;
 - d) The Hearing Examiner shall not approve or deny a modification pursuant to this section without the Planning Official first providing notice of the modification request consistent with the noticing requirements for the short plat and providing opportunity for comments for consideration by the Hearing Examiner; and
 - e) Said comment period shall not be less than 14 calendar days.

(Ord. 4437 § 1, 2014; Ord. 4252 § 1, 2010; Ord. 4238 § 2, 2010; Ord. 4010 § 2, 2005)

.32 Incentives and Variations to Development Standards

In order to retain trees, the applicant should pursue provisions in Kirkland's codes that allow development standards to be modified. Examples include but are not limited to number of parking stalls, right-of-way improvements, lot size reduction under Chapter 22.28 KMC, lot line placement when subdividing property under KMC Title 22, Planned Unit Developments, and required landscaping, including buffers for lands use and parking/driving areas.

Requirements of the Kirkland Zoning Code may be modified by the Planning Official as outlined below when such modifications would further the purpose and intent of this chapter as set forth in KZC 95.05 and would involve trees with a high or moderate retention value.

1. Common Recreational Open Space. Reductions or variations of the area, width, or composition of required common recreational open space may be granted.
2. Parking Areas and Access. Variations in parking lot design and/or access driveway requirements may be granted when the Public Works and Planning Officials both determine the variations to be consistent with the intent of City policies and codes.
3. Required Yards. Initially, the applicant shall pursue options for placement of required yards as permitted by other sections of this code, such as selecting one (1) front required yard in the RSX zone and adjusting side yards in any zone to meet the 15-foot total as needed for each structure on the site. The Planning Official may also reduce the front, side or rear required yards; provided, that:
 - a. No required side yard shall be less than five (5) feet; and
 - b. The required front yard shall not be reduced by more than five (5) feet in residential zones. There shall not be an additional five (5) feet of reduction beyond the allowance provided for covered entry porches;
 - c. Rear yards that are not directly adjacent to another parcel's rear yard but that are adjacent to an access easement or tract may be reduced by five (5) feet;
 - d. No required yard shall be reduced by more than five (5) feet in residential zones.
4. Storm Water. Requirements pertaining to stormwater may be varied if approved by the Public Works Official under KMC 15.52.060.
5. Additional Variations. In addition to the variations described above, the Planning Official is authorized to require site plan alterations to retain trees with a high retention value. Such alterations include minor adjustments to the location of building footprints, adjustments to the location of driveways and access ways, or adjustment to the location of walkways, easements or utilities. The Planning Official and the applicant shall work in good faith to find reasonable solutions.

(Ord. 4350 § 1, 2012; Ord. 4238 § 2, 2010)

.33 Tree Density Requirement

The required minimum tree density is 30 tree credits per acre for single-family homes, cottages, carriage units, two/three-unit homes, short plats, and/or subdivisions and associated demolition and land surface modification. For individual lots in a short subdivision or subdivision with an approved Tree Retention Plan, the tree density shall be calculated for each lot within the short plat or subdivision. The tree density may consist of existing trees pursuant to the tree's retention value, supplemental trees or a combination of existing and supplemental trees pursuant to subsection (2) of this section. Existing trees transplanted to an area on the same site shall not count toward the required density unless approved by the Urban Forester based on transplant specifications provided by a qualified professional that will ensure a good probability for survival.

1. Tree Density Calculation. In calculating tree density credits, tree credits may be rounded up to the next whole number from a .5 or greater value. For the purpose of calculating required minimum tree density, public right-of-way, areas to be dedicated as public right-of-way, and vehicular access easements not included as lot area with the approved short plat shall be excluded from the area used for calculation of tree density.

Tree density calculation for existing individual trees:

- a. Diameter breast height (DBH) of the tree shall be measured in inches.
- b. The tree credit value that corresponds with DBH shall be found in Table 95.33.1. Existing native conifers (or other conifer species as approved by the Urban Forester) shall count 1.5 times credits for retention.

Table 95.33.1

Tree Density for Existing Significant Trees

(Credits per minimum diameter – DBH)

DBH	Tree Credits	DBH	Tree Credits	DBH	Tree Credits
3 – 5"	0.5				
6 – 10"	1	24"	8	38"	15
12"	2	26"	9	40"	16
14"	3	28"	10	42"	17
16"	4	30"	11	44"	18
18"	5	32"	12	46"	19
20"	6	34"	13	48"	20
22"	7	36"	14	50"	21

Example: a 7,200-square-foot lot would need five (5) tree credits ($7,200/43,560 = 0.165 \times 30 = (4.9)$ or five (5)). The tree density for the lot could be met by retaining ~~with~~ one (1) existing 16-inch deciduous tree and one (1) existing 6-inch deciduous tree on site. The same 7,200 square-foot-lot would meet the required five (5) tree credits by retaining one (1) existing 14-inch conifer.

2. Supplemental Trees Planted to Meet Minimum Density Requirement. For sites and activities requiring a minimum tree density and where the existing trees to be retained do not meet the minimum tree density requirement, supplemental trees shall be planted to achieve the required minimum tree density.
3. Tree Location. In designing a development and in meeting the required minimum tree density, the trees shall be planted in the following order of priority:
 - a. On-Site. The preferred locations for new trees are:
 - 1) In preserved groves, critical areas or their buffers.
 - 2) Adjacent to storm water facilities as approved by Public Works under KMC 15.52.060.
 - 3) Entrance landscaping, traffic islands and other common areas in residential subdivisions.
 - 4) Site perimeter – The area of the subject property that is within 10 feet from the property line.
 - 5) On individual residential building lots.
 - b. Off-Site. When room is unavailable for planting the required trees on site, then they may be planted at another approved location in the City.
 - c. City Forestry Account. When the Planning Official determines on-site and off-site locations are unavailable, then the applicant shall pay an amount of money approximating the current market value of the supplemental trees into the City forestry account.

4. Minimum Size and Tree Density Value for Supplemental Trees. The required minimum size of the supplemental tree worth one (1) tree credit shall be six (6) feet tall for Thuja/Arborvitae or four (4) feet tall for native or other a conifers and 2-inch caliper for deciduous or broad-leaf evergreen tree. Additional credits may be awarded for larger supplemental trees. The installation and maintenance shall be pursuant to KZC 95.50 and 95.51 respectively.

(Ord. 4238 § 2, 2010)

.34 Tree & Soil Protection during Development Activity

Prior to development activity or initiating tree removal on the site, vegetated areas, ~~and~~ individual trees, ~~and soil~~ to be preserved shall be protected from potentially damaging activities pursuant to the following standards:

1. Placing Materials near Trees. No person may conduct any activity within the protected area of any tree designated to remain, including, but not limited to, operating or parking equipment, placing solvents, storing building material or ~~stockpiling any materials~~~~soil deposits~~, or dumping concrete washout or other chemicals. During construction, no person shall attach any object to any tree designated for protection.
2. Protective Barrier. Before development, land clearing, filling or any land alteration, the applicant shall:
 - a. Erect and maintain readily visible temporary protective tree fencing along the limits of disturbance which completely surrounds the protected area of all retained trees, ~~or~~ groups of trees, ~~vegetation and native soil~~. Fences shall be constructed of chain link and be at least six (6) feet high, unless other type of fencing is authorized by the Planning Official.
 - b. Install highly visible signs spaced no further than 15 feet along the entirety of the protective tree fence. Said sign must be approved by the Planning Official and shall state at a minimum "Tree & Soil Protection Area, Entrance Prohibited" and provide the City phone number for code enforcement to report violations.
 - c. Prohibit excavation or compaction of ~~soil~~~~earth~~ or other potentially damaging activities within the barriers; provided, that the Planning Official may allow such activities approved by a qualified professional and under the supervision of a qualified professional retained and paid for by the applicant.
 - d. Maintain the protective barriers in place for the duration of the project until the Planning Official authorizes their removal.
 - e. Ensure that any approved landscaping done in the protected zone subsequent to the removal of the barriers shall be accomplished with ~~light~~ machinery from outside the protected zone or by hand labor.
 - f. In addition to the above, the Planning Official may require the following:
 - 1) If equipment is authorized to operate within the ~~protected~~~~critical-root~~ zone, ~~cover~~ the soil and areas adjoining the critical root zone of a tree must be covered with mulch to a depth of at least six (6) inches, or with plywood, steel plates or similar material in order to protect roots and soil from damage caused by heavy equipment.
 - 2) Minimize root damage by hand-excavating a 2-foot-deep trench, at edge of critical root zone, to cleanly sever the roots of trees to be retained. Never rip or shred roots with heavy equipment.
 - 3) Corrective pruning performed on protected trees in order to avoid damage from machinery or building activity.
 - 4) Maintenance of trees throughout construction period by watering and fertilizing.

3. Grade.
 - a. The grade shall not be elevated or reduced within the critical root zone of trees to be preserved without the Planning Official's authorization based on recommendations from a qualified professional. The Planning Official may allow coverage of up to one-half (1/2) of the area of the tree's critical root zone with light soils (no clay) to the minimum depth necessary to carry out grading or landscaping plans, if it will not imperil the survival of the tree. Aeration devices may be required to ensure the tree's survival.
 - b. If the grade adjacent to a preserved tree is raised such that it could slough or erode into the tree's critical root zone, it shall be permanently stabilized to prevent soil erosion and suffocation of the roots.
 - c. The applicant shall not install an impervious surface within the critical root zone of any tree to be retained without the authorization of the Planning Official. The Planning Official may require specific construction methods and/or use of aeration devices to ensure the tree's survival and to minimize the potential for root-induced damage to the impervious surface.
 - d. To the greatest extent practical, utility trenches shall be located outside of the critical root zone of trees to be retained. The Planning Official may require that utilities be tunneled under the roots of trees to be retained if the Planning Official determines that trenching would significantly reduce the chances of the tree's survival.
 - e. Trees and other vegetation to be retained shall be protected from erosion and sedimentation. Clearing operations shall be conducted so as to expose the smallest practical area of soil to erosion for the least possible time. To control erosion, it is encouraged that shrubs, ground cover and stumps be maintained on the individual lots, where feasible.
4. Directional Felling. Directional felling of trees shall be used to avoid damage to trees designated for retention.
5. Additional Requirements. The Planning Official may require additional tree protection measures that are consistent with accepted urban forestry industry practices.

(Ord. 4238 § 2, 2010)

.40 Required Landscaping

1. User Guide. Chapters 15 through 56 KZC containing the use zone charts or development standards tables assign a landscaping category to each use in each zone. This category is either "A," "B," "C," "D," or "E." If you do not know which landscaping category applies to the subject property, you should consult the appropriate use zone chart or development standards table.

Requirements pertaining to each landscaping category are located throughout this chapter, except that Landscaping Category E is not subject to this section.

Landscape Categories A, B, C, D, and E may be subject to additional related requirements in the following other chapters:

- a. Various use zone charts or development standards tables, in Chapters 15 through 56 KZC, establish additional or special buffering requirements for some uses in some zones.
- b. Chapter 85 KZC, Geologically Hazardous Areas, addresses the retention of vegetation on steep slopes.
- c. Chapter 90 KZC, Drainage Basins, addresses vegetation within sensitive areas and sensitive area buffers.

- d. Chapter 110 KZC and Chapter 19.36 KMC address vegetation within rights-of-way, except for the I-405 and SR-520 rights-of-way, and the Cross Kirkland Corridor railbanked rail corridor or the Eastside Rail Corridor.
 - e. KZC 115.135, Sight Distance at Intersections, which may limit the placement of landscaping in some areas.
 - f. Chapter 22 KMC addresses trees in subdivisions.
2. Use of Significant Existing Vegetation.
- a. General. The applicant shall apply subsection KZC 95.30(3), Tree Retention Plan Procedure, and KZC 95.32, Incentives and Variations to Development Standards, to retain existing native trees, and vegetation and soil in areas subject to the landscaping standards of this section. The Planning Official shall give substantial weight to the retained native trees and vegetation when determining the applicant's compliance with this section.
 - b. Supplement. The City may require the applicant to plant trees, shrubs, and groundcover according to the requirements of this section to supplement the existing vegetation in order to provide a buffer at least as effective as the required buffer.
 - c. Protection Techniques. The applicant shall use the protection techniques described in KZC 95.34 to ensure the protection of significant existing vegetation and soil.
3. Landscape Plan Required. In addition to the Tree Retention Plan required pursuant to KZC 95.30, application materials shall clearly depict the quantity, location, species, and size of plant materials proposed to comply with the requirements of this section, and shall address the plant installation and maintenance requirements set forth in KZC 95.50 and 95.51. Plant materials shall be identified with both their scientific and common names. Any required irrigation system must also be shown.

(Ord. 4476 § 3, 2015; Ord. 4408 § 1, 2013; Ord. 4238 § 2, 2010; Ord. 4121 § 1, 2008; Ord. 4097 § 1, 2007; Ord. 4037 § 1, 2006; Ord. 4030 § 1, 2006; Ord. 4010 § 2, 2005)

.41 Supplemental Plantings

- 1. General. The applicant shall provide the supplemental landscaping specified in subsection (2) of this section in any area of the subject property that:
 - a. Is not covered with a building, vehicle circulation area or other improvement; and
 - b. Is not a critical area, critical area buffer, or in an area to be planted with required landscaping; and
 - c. Is not committed to and being used for some specific purpose.
- 2. Standards. The applicant shall provide the following at a minimum:
 - a. Living plant material which will cover 80 percent of the area to be landscaped within two (2) years. If the material to be used does not spread over time, the applicant shall re-plant the entire area involved immediately. Any area that will not be covered with living plant material must be covered with nonliving groundcover. Preference is given to using native plant species. See Kirkland Native Tree/Plant Lists.
 - b. One (1) tree for each 1,000 square feet of area to be landscaped. At the time of planting, deciduous trees must be at least two (2) inches in caliper and coniferous trees must be at least five (5) feet in height.

c. If a development requires approval through Process I, IIA or IIB as described in Chapters 145, 150 and 152 KZC, respectively, the City may require additional vegetation to be planted along a building facade if:

- 1) The building facade is more than 25 feet high or more than 50 feet long; or
- 2) Additional landscaping is necessary to provide a visual break in the facade.

d. In RHBD varieties of rose shrubs or ground cover along with other plant materials shall be included in the on-site landscaping.

e. If development is subject to Design Review as described in Chapter 142 KZC, the City will review plant choice and specific plant location as part of the Design Review approval. The City may also require or permit modification to the required plant size as part of Design Review approval.

(Ord. 4238 § 2, 2010)

.42 Minimum Land Use Buffer Requirements

The applicant shall comply with the provisions specified in the following chart and with all other applicable provisions of this chapter. Land use buffer requirements may apply to the subject property, depending on what permitted use exists on the adjoining property or, if no permitted use exists, depending on the zone that the adjoining property is in.

LANDSCAPING CATEGORY	ADJOINING PROPERTY	*Public park or low density residential use or if no permitted use exists on the adjoining property then a low density zone.	Medium or high density residential use or if no permitted use exists on the adjoining property then a medium density or high density zone.	Institutional or office use or if no permitted use exists on the adjoining property then an institutional or office zone.	A commercial use or an industrial use or if no permitted use exists on the adjoining property then a commercial or industrial zone.
A	Must comply with subsection (1) (Buffering Standard 1)	Must comply with subsection (1) (Buffering Standard 1)	Must comply with subsection (2) (Buffering Standard 2)		
B	Must comply with subsection (1) (Buffering Standard 1)	Must comply with subsection (1) (Buffering Standard 1)			
C	Must comply with subsection (1) (Buffering Standard 1)	Must comply with subsection (2) (Buffering Standard 2)			
D	Must comply with subsection (2) (Buffering Standard 2)				
E					

ADJOINING PROPERTY	*Public park or low density residential use or if no permitted use exists on the adjoining property then a low density zone.	Medium or high density residential use or if no permitted use exists on the adjoining property then a medium density or high density zone.	Institutional or office use or if no permitted use exists on the adjoining property then an institutional or office zone.	A commercial use or an industrial use or if no permitted use exists on the adjoining property then a commercial or industrial zone.
LANDSCAPING CATEGORY				
Footnotes:	*If the adjoining property is zoned Central Business District, Juanita Business District, North Rose Hill Business District, Rose Hill Business District, Business District Core or is located in TL 5, this section KZC 95.42 does not apply.			

This chart establishes which buffering standard applies in a particular case. The following subsections establish the specific requirement for each standard:

1. For standard 1, the applicant shall provide a 15-foot-wide landscaped strip with a 6-foot-high solid screening fence or wall. Except for public utilities, the fence or wall must be placed on the outside edge of the land use buffer or on the property line when adjacent to private property. For public utilities, the fence or wall may be placed either on the outside or inside edge of the landscaping strip. A fence or wall is not required when the land use buffer is adjacent and parallel to a public right-of-way that is improved for vehicular use. See KZC 115.40 for additional fence standards. The land use buffer must be planted as follows:

- a. Trees planted at the rate of one (1) tree per 20 linear feet of land use buffer, with deciduous trees of two and one-half (2-1/2) inch caliper, minimum, and/or coniferous trees eight (8) feet in height, minimum. At least 70 percent of trees shall be evergreen. The trees shall be distributed evenly throughout the buffer, spaced no more than 20 feet apart on center.
- b. Large shrubs or a mix of shrubs planted to attain coverage of at least 60 percent of the land use buffer area within two (2) years, planted at the following sizes and spacing, depending on type:
 - 1) Low shrub – (mature size under three (3) feet tall), 1- or 2-gallon pot or balled and burlapped equivalent;
 - 2) Medium shrub – (mature size from three (3) to six (6) feet tall), 2- or 3-gallon pot or balled and burlapped equivalent;
 - 3) Large shrub – (mature size over six (6) feet tall), 5-gallon pot or balled and burlapped equivalent.
- c. Living ground covers planted from either 4-inch pot with 12-inch spacing or 1-gallon pot with 18-inch spacing to cover within two (2) years 60 percent of the land use buffer not needed for viability of the shrubs or trees.

2. For standard 2, the applicant shall provide a 5-foot-wide landscaped strip with a 6-foot-high solid screening fence or wall. Except for public utilities, the fence or wall must be placed on the outside edge of the land use buffer or on the property line when adjacent to private property. For public utilities, the fence or wall may be placed either on the outside or inside edge of the landscaping strip. A fence or wall is not required when the land use buffer is adjacent and parallel to a public right-of-way that is improved for

vehicular use. See KZC 115.40 for additional fence standards. The landscaped strip must be planted as follows:

- a. One (1) row of trees planted no more than 10 feet apart on center along the entire length of the buffer, with deciduous trees of 2-inch caliper, minimum, and/or coniferous trees at least six (6) feet in height, minimum. At least 50 percent of the required trees shall be evergreen.
 - b. Living ground covers planted from either 4-inch pot with 12-inch spacing or 1-gallon pot with 18-inch spacing to cover within two (2) years 60 percent of the land use buffer not needed for viability of the trees.
3. Plant Standards. All plant materials used shall meet the most recent American Association of Nurserymen Standards for nursery stock: ANSI Z60.1.
 4. Location of the Land Use Buffer. The applicant shall provide the required buffer along the entire common border between the subject property and the adjoining property.
 5. Multiple Buffering Requirement. If the subject property borders more than one (1) adjoining property along the same property line, the applicant shall provide a gradual transition between different land use buffers. This transition must occur totally within the area which has the less stringent buffering requirement. The specific design of the transition must be approved by the City.
 6. Adjoining Property Containing Several Uses. If the adjoining property contains several permitted uses, the applicant may provide the least stringent land use buffer required for any of these uses.
 7. Subject Property Containing Several Uses. If the subject property contains more than one (1) use, the applicant shall comply with the land use buffering requirement that pertains to the use within the most stringent landscaping category that abuts the property to be buffered.
 8. Subject Property Containing School. If the subject property is occupied by a school, land use buffers are not required along property lines adjacent to a street.
 9. Encroachment into Land Use Buffer. Typical incidental extensions of structures such as chimneys, bay windows, greenhouse windows, cornices, eaves, awnings, and canopies may be permitted in land use buffers as set forth in KZC 115.115(3)(d); provided, that:
 - a. Buffer planting standards are met; and
 - b. Required plantings will be able to attain full size and form typical to their species.

(Ord. 4495 § 2, 2015; Ord. 4238 § 2, 2010)

.43 Outdoor Use, Activity, and Storage

Outdoor use, activity, and storage (KZC 115.105(2)) must comply with required land use buffers for the primary use, except that the following outdoor uses and activities, when located in commercial or industrial zones, are exempt from KZC 115.105(2)(c)(1) and (2)(c)(2) as stated below:

1. That portion of an outdoor use, activity, or storage area which abuts another outdoor use, activity, or storage area which is located on property zoned for commercial or industrial use.
2. Outdoor use, activity, and storage areas which are located adjacent to a fence or structure which is a minimum of six (6) feet above finished grade, and do not extend outward from the fence or structure more than five (5) feet; provided, that the total horizontal dimensions of these areas shall not exceed 50 percent of the length of the facade or fence (see Plate 11).
3. If there is an improved path or sidewalk in front of the outdoor storage area, the outdoor use, activity or storage area may extend beyond five (5) feet if a clearly defined walking path at least three (3) feet in width is maintained and there is adequate pedestrian access to and from the primary use. The total

horizontal dimension of these areas shall not exceed 50 percent of the length of the facade of the structure or fence (see Plate 11).

4. Outdoor dining areas.

5. That portion of an outdoor display of vehicles for sale or lease which is adjacent to a public right-of-way that is improved for vehicular use; provided, that it meets the buffering standards for driving and parking areas in KZC 95.45(1); and provided further, that the exemptions of KZC 95.45(2) do not apply unless it is fully enclosed within or under a building, or is on top of a building and is at least one (1) story above finished grade.

6. Outdoor Christmas tree lots and fireworks stands if these uses will not exceed 30 days, and outdoor amusement rides, carnivals and circuses, and parking lot sales which are ancillary to the indoor sale of the same goods and services, if these uses will not exceed seven (7) days.

(Ord. 4238 § 2, 2010)

.44 Internal Parking Lot Landscaping Requirements

The following internal parking lot landscape standards apply to each parking lot or portion thereof containing more than eight (8) parking stalls.

1. The parking lot must contain 25 square feet of landscaped area per parking stall planted as follows:

a. The applicant shall arrange the required landscaping throughout the parking lot to provide landscape islands or peninsulas to separate groups of parking spaces (generally every eight (8) stalls) from one another and each row of spaces from any adjacent driveway that runs perpendicular to the row. This island or peninsula must be surrounded by a 6-inch-high vertical curb and be of similar dimensions as the adjacent parking stalls. Gaps in curbs are allowed for stormwater runoff to enter landscape island.

b. Landscaping shall be installed pursuant to the following standards:

1) At least one (1) deciduous tree, two (2) inches in caliper, or a coniferous tree five (5) feet in height.

2) Groundcover shall be selected and planted to achieve 60 percent coverage within two (2) years.

3) Natural drainage landscapes (such as rain gardens, bio-infiltration swales and bioretention planters) are allowed when designed in compliance with the stormwater design manual adopted in KMC 15.52.060. Internal parking lot landscaping requirements for trees still apply. Refer to Public Works Pre-Approved Plans

c. Exception. The requirements of this subsection do not apply to any area that is fully enclosed within or under a building.

2. Rooftop Parking Landscaping. For a driving or parking area on the top level of a structure that is not within the CBD zone or within any zone that requires design regulation compliance, one

(1) planter that is 30 inches deep and five (5) feet square must be provided for every eight (8) stalls on the top level of the structure. Each planter must contain a small tree or large shrub suited to the size of the container and the specific site conditions, including desiccating winds, and is clustered with other planters near driving ramps or stairways to maximize visual effect.

3. If development is subject to Design Review as described in Chapter 142 KZC, the City will review the parking area design, plant choice and specific plant location as part of the Design Review approval.

The City may also require or permit modification to the required landscaping and design of the parking area as part of Design Review approval.

(Ord. 4350 § 1, 2012; Ord. 4238 § 2, 2010)

.45 Perimeter Landscape Buffering for Driving and Parking Areas

1. Perimeter Buffering – General. Except as specified in subsection (2) of this section, the applicant shall buffer all parking areas and driveways from abutting rights-of-way and from adjacent property with a 5-foot-wide strip along the perimeter of the parking areas and driveways planted as follows (see Figure 95.45.A):

- a. One (1) row of trees, two (2) inches in caliper and planted 30 feet on center along the entire length of the strip.
- b. Living groundcover planted to attain coverage of at least 60 percent of the strip area within two (2) years.

[c. Natural drainage landscapes \(such as rain gardens, bio-infiltration swales and bioretention planters\) are allowed when designed in compliance with the stormwater design manual adopted in KMC 15.52.060. Perimeter landscape buffering requirements for trees in driving and parking areas still apply. Refer to Public Works Pre-Approved Plans](#)

2. Exception. The requirements of this section do not apply to any parking area that:

- a. Is fully enclosed within or under a building; or
- b. Is on top of a building and is at least one (1) story above finished grade; or
- c. Serves detached dwelling units exclusively; or
- d. Is within any zone that requires design regulation compliance. See below for Design District requirements.

3. Design Districts. If subject to Design Review, each side of a parking lot that abuts a street, through-block pathway or public park must be screened from that street, through-block pathway or public park by using one (1) or a combination of the following methods (see Figures 95.45.A, B, and C):

- a. By providing a landscape strip at least five (5) feet wide planted consistent with subsection (1) of this section, or in combination with the following. In the RHBD Regional Center (see KZC Figure 92.05.A) a 10-foot perimeter landscape strip along NE 85th Street is required planted consistent with subsection (1) of this section.
- b. The hedge or wall must extend at least two (2) feet, six (6) inches, and not more than three (3) feet above the ground directly below it.
- c. The wall may be constructed of masonry or concrete, if consistent with the provisions of KZC 92.35(1)(g), in building material, color and detail, or of wood if the design and materials match the building on the subject property.
- d. In JBD zones:
 - 1) If the street is a pedestrian-oriented street, the wall may also include a continuous trellis or grillwork, at least five (5) feet in height above the ground, placed on top of or in front of the wall and planted with climbing vines. The trellis or grillwork may be constructed of masonry, steel, cast iron and/or wood.

- 2) If the wall abuts a pedestrian-oriented street, the requirements of this subsection may be fulfilled by providing pedestrian weather protection along at least 80 percent of the frontage of the subject property.
 - e. If development is subject to Design Review as described in Chapter 142 KZC, the City will review plant choice and specific plant location as part of the Design Review approval. The City may also require or permit modification to the required plant size as part of Design Review approval.
4. Overlapping Requirements. If buffering is required in KZC 95.42, Land Use Buffering Standards, and by this subsection, the applicant shall utilize the more stringent buffering requirement.

Perimeter Parking Lot Landscaping

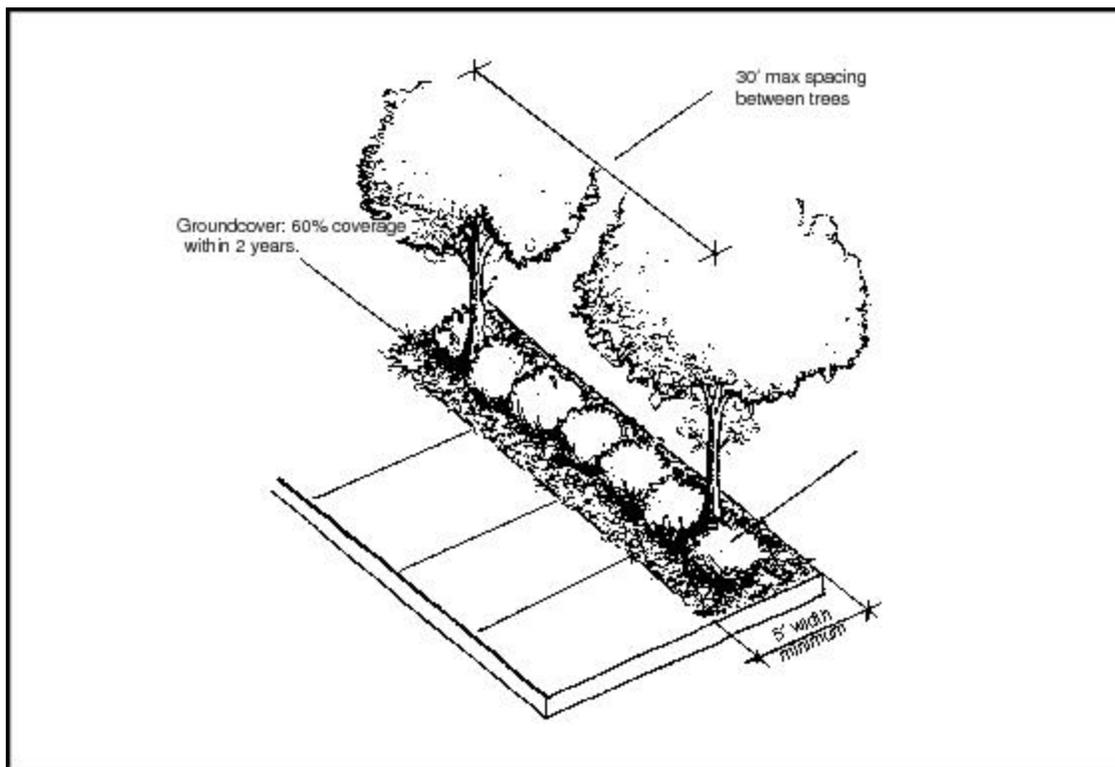


FIGURE 95.45.A

Perimeter Parking – Examples of Various Screen Wall Designs

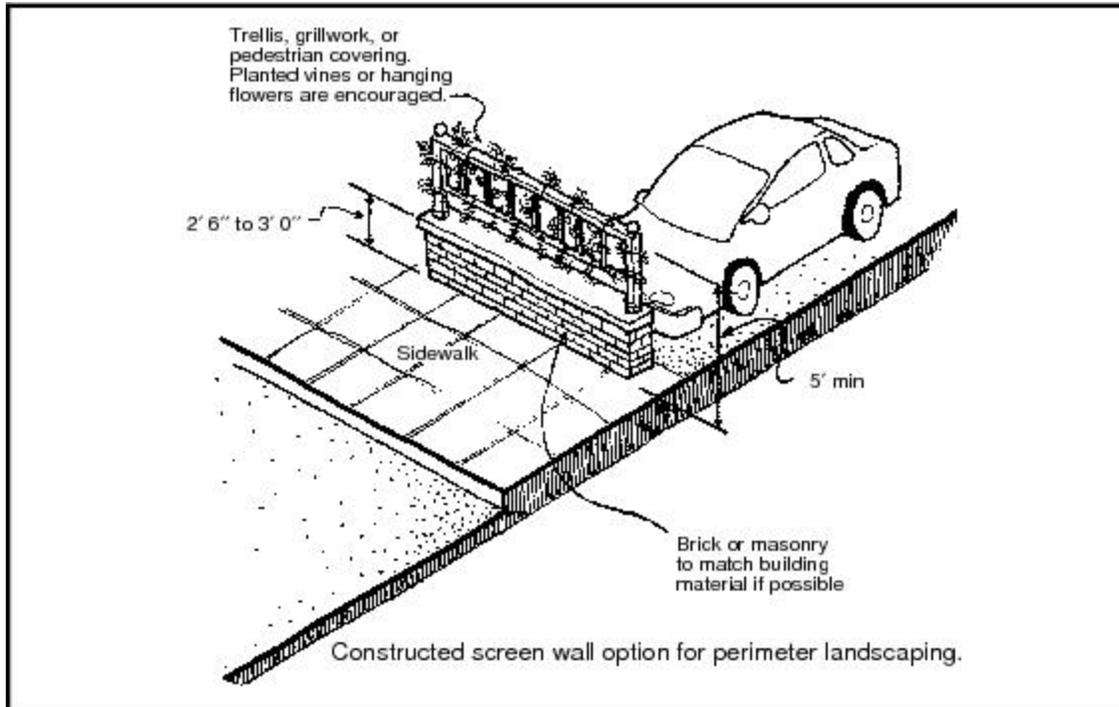


FIGURE 95.45.B

Perimeter Parking – Examples of Various Screen Wall Designs

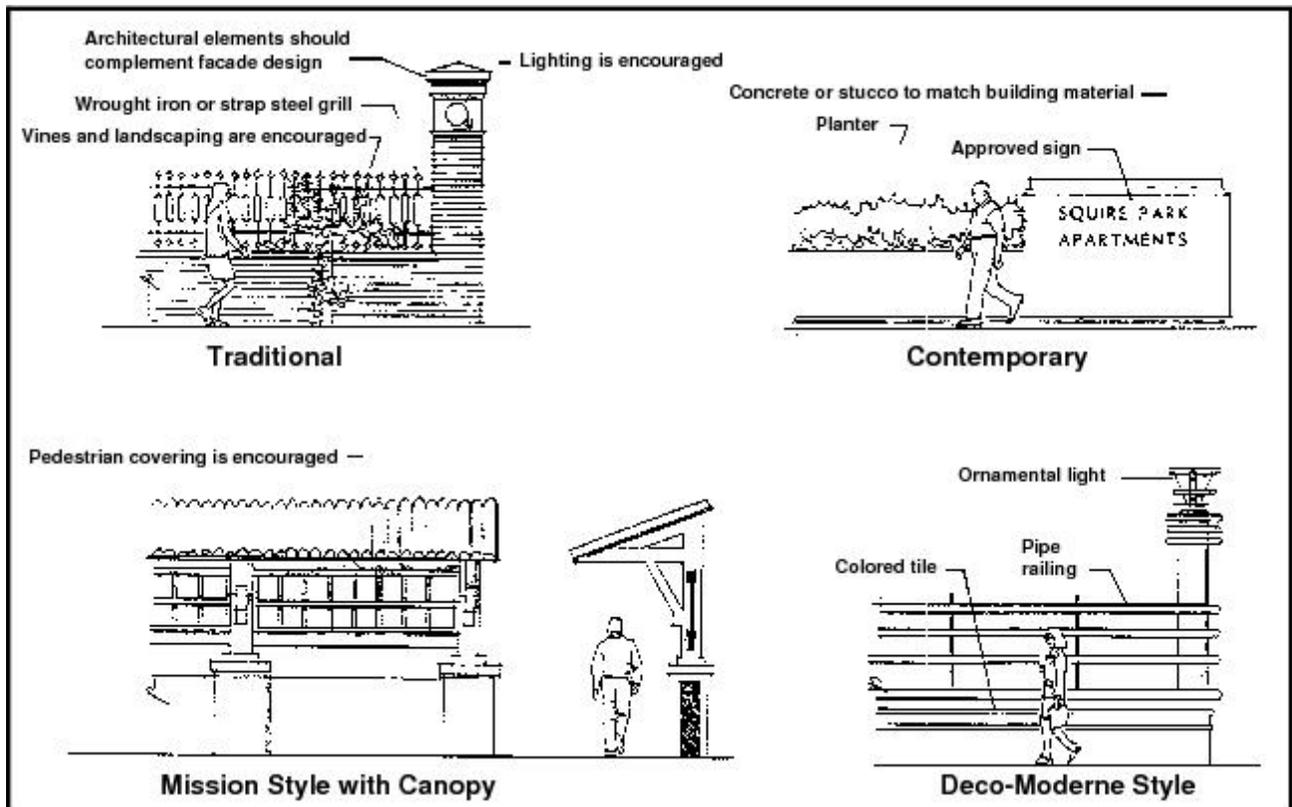


FIGURE 95.45.C

(Ord. 4238 § 2, 2010; Ord. 4010 § 2, 2005)

.46 Modifications to Landscaping Standards

1. Modification to Land Use Buffer Requirements. The applicant may request a modification of the requirements of the buffering standards in KZC 95.42. The Planning Official may approve a modification if:

- a. The owner of the adjoining property agrees to this in writing; and
- b. The existing topography or other characteristics of the subject property or the adjoining property, or the distance of development from the neighboring property decreases or eliminates the need for buffering; or
- c. The modification will be more beneficial to the adjoining property than the required buffer by causing less impairment of view or sunlight; or
- d. The Planning Official determines that it is reasonable to anticipate that the adjoining property will be redeveloped in the foreseeable future to a use that would require no, or a less intensive, buffer; or
- e. The location of pre-existing improvements on the adjoining site eliminates the need or benefit of the required landscape buffer.

2. Modifications to General Landscaping Requirements.

- a. Authority to Grant and Duration. If the proposed development of the subject property requires approval through Design Review or Process I, IIA, or IIB, described in Chapters 142, 145, 150, and 152 KZC, respectively, a request for a modification will be considered as part of that process under the provisions of this section. The City must find that the applicant meets the applicable criteria listed in subsections (2)(b) and (2)(c) of this section. If granted under Design Review or Process I, IIA, or IIB, the modification is binding on the City for all development permits issued for that development under the building code within five (5) years of the granting of the modification.

If the above does not apply, the Planning Official may grant a modification in writing under the provisions of this section.

- b. Internal Parking Lot Landscaping Modifications. For a modification to the internal parking lot landscaping requirements in KZC 95.44, the landscape requirements may be modified if:
 - 1) The modification will produce a landscaping design in the parking area comparable or superior to that which would result from adherence to the adopted standard; or
 - 2) The modification will result in increased retention of significant existing vegetation; or
 - 3) The purpose of the modification is to accommodate low impact development techniques as approved by the Planning Official.
- c. Perimeter parking lot and driveway landscaping. For a modification to the perimeter landscaping for parking lots and driveways, the buffering requirements for parking areas and driveways may be modified if:
 - 1) The existing topography of or adjacent to the subject property decreases or eliminates the need for visual screening; or
 - 2) The modification will be of more benefit to the adjoining property by causing less impairment of view or sunlight; or

- 3) The modification will provide a visual screen that is comparable or superior to the buffer required by KZC 95.45; or
- 4) The modification eliminates the portion of the buffer that would divide a shared parking area serving two (2) or more adjacent uses, but provides the buffer around the perimeter of the shared parking area.

(Ord. 4238 § 2, 2010)

.47 Nonconforming Landscaping and Buffers

1. The landscaping requirements of KZC 95.41, Supplemental Plantings, KZC 95.43 Outdoor Use and Storage, KZC 95.44, Internal Parking Lot Landscaping, and KZC 95.45, Perimeter Landscape Buffering for Driving and Parking Areas, must be brought into conformance as much as is feasible, based on available land area, in either of the following situations:

- a. An increase of at least 10 percent in gross floor area of any structure; or
- b. An alteration to any structure, the cost of which exceeds 50 percent of the replacement cost of the structure.

2. Land use buffers must be brought into conformance with KZC 95.42 in either of the following situations:

- a. An increase in gross floor area of any structure (the requirement to provide conforming buffers applies only where new gross floor area impacts adjoining property); or
- b. A change in use on the subject property and the new use requires larger buffers than the former use.

(Ord. 4238 § 2, 2010)

.50 Installation Standards for Required Plantings

All required trees, ~~and~~ landscaping and soil shall be installed according to sound horticultural practices in a manner designed to encourage quick establishment and healthy plant growth. All required landscaping shall be installed in the ground and not in above-ground containers, except for landscaping required on the top floor of a structure.

When an applicant proposes to locate a subterranean structure under required landscaping that appears to be at grade, the applicant will: (1) provide site-specific documentation prepared by a qualified expert to establish that the design will adequately support the long-term viability of the required landscaping; and (2) enter into an agreement with the City, in a form acceptable to the City Attorney, indemnifying the City from any damage resulting from development activity on the subject property which is related to the physical condition of the property. The applicant shall record this agreement with the King County Recorder's Office.

1. Compliance. It is the applicant's responsibility to show that the proposed landscaping complies with the regulations of this chapter.
2. Timing. All landscaping shall be installed prior to the issuance of a certificate of occupancy, except that the installation of any required tree or landscaping may be deferred during the summer months to the next planting season, but never for more than six (6) months. Deferred installation shall be secured with a performance bond pursuant to Chapter 175 KZC prior to the issuance of a certificate of occupancy.
3. Grading. Berms shall not exceed a slope of two (2) horizontal feet to one (1) vertical foot (2:1).
4. Soil Specifications. Soils in planting areas shall have soil quality equivalent to WA State Dept. of Ecology BMP T5.13-adequate porosity to allow root growth. ~~Soils which have been compacted to a density greater than one and three-tenths (1.3) grams per cubic centimeters shall be loosened to increase~~

~~eration to a minimum depth of 24 inches or to the depth of the largest plant root ball, whichever is greater. Imported topsoils shall be tilled into existing soils to prevent a distinct soil interface from forming. After soil preparation is completed, motorized vehicles shall be kept off to prevent excessive compaction and underground pipe damage.~~ The soil quality in any landscape area shall comply with the soil quality requirements of the Public Works Pre-Approved Plans. See subsection (9) of this section for mulch requirements.

5. Plant Selection.

- a. Plant selection shall be consistent with the Kirkland Plant List, which is produced by the City's Natural Resource Management Team and available in the Planning and Building Department.
- b. Plants shall be selected and sited to produce a hardy and drought-resistant landscape area. Selection shall consider soil type and depth, the amount of maintenance required, spacing, exposure to sun and wind, the slope and contours of the site, and compatibility with existing native vegetation preserved on the site. Preservation of existing vegetation is strongly encouraged.
- c. Prohibited Materials. Plants listed as prohibited in the Kirkland Plant List are prohibited in required landscape areas. Additionally, there are other plants that may not be used if identified in the Kirkland Plant List as potentially damaging to sidewalks, roads, underground utilities, drainage improvements, foundations, or when not provided with enough growing space.
- d. All plants shall conform to American Association of Nurserymen (AAN) grades and standards as published in the "American Standard for Nursery Stock" manual.
- e. Plants shall meet the minimum size standards established in other sections of the KZC.
- f. Multiple-stemmed trees may be permitted as an option to single-stemmed trees for required landscaping provided that such multiple-stemmed trees are at least 10 feet in height and that they are approved by the Planning Official prior to installation.

6. Fertilization. All fertilizer applications to turf or trees and shrubs shall follow Washington State University, National Arborist Association or other accepted agronomic or horticultural standards.

7. Irrigation. The intent of this standard is to ensure that plants will survive the critical establishment period when they are most vulnerable due to lack of watering. All required plantings must provide an irrigation system, using either Option 1, 2, or 3 or a combination of those options. For each option irrigation shall be designed to conserve water by using the best practical management techniques available. These techniques may include, but not be limited to: drip irrigation to minimize evaporation loss, moisture sensors to prevent irrigation during rainy periods, automatic controllers to insure proper duration of watering, sprinkler head selection and spacing designed to minimize overspray, and separate zones for turf and shrubs and for full sun exposure and shady areas to meet watering needs of different sections of the landscape.

Exceptions, as approved by the Planning Official, to the irrigation requirement may be approved xeriscape (i.e., low water usage plantings), plantings approved for low impact development techniques, established indigenous plant material, or landscapes where natural appearance is acceptable or desirable to the City. However, those exceptions will require temporary irrigation (Option 2 and/or 3) until established.

- a. Option 1. A permanent built-in irrigation system with an automatic controller designed and certified by a licensed landscape architect as part of the landscape plan.
- b. Option 2. An irrigation system designed and certified by a licensed landscape architect as part of the landscape plan, which provides sufficient water to ensure that the plants will become established. The system does not have to be permanent if the plants chosen can survive adequately on their own, once established.

- c. Option 3. Irrigation by hand. If the applicant chooses this option, an inspection will be required one (1) year after final inspection to ensure that the landscaping has become established.
8. Drainage. All landscapes shall have adequate drainage, either through natural percolation or through an installed drainage system. A percolation rate of one-half (1/2) inch of water per hour is acceptable.
9. Mulch.
- a. Required plantings, except turf or areas of established ground cover, shall be covered with two (2) inches or more of organic mulch to minimize evaporation and runoff. Mulch shall consist of materials such as yard waste, sawdust, and/or manure that are fully composted.
- b. All mulches used in planter beds shall be kept at least six (6) inches away from the trunks of shrubs and trees.
10. Protection. All required landscaped areas, particularly trees and shrubs, must be protected from potential damage by adjacent uses and development, including parking and storage areas. Protective devices such as bollards, wheel stops, trunk guards, root guards, etc., may be required in some situations.
11. Mitigation and Restoration Plantings in Critical Areas and Critical Area Buffers. Plants intended to mitigate for the loss of natural resource values are subject to the following requirements in addition to the other landscaping requirements found in KZC 95.40 through 95.45. Where these requirements conflict with other requirements of this chapter, these requirements take precedence. Refer to Chapters 85 and 90 KZC for additional requirements for these areas.
- a. Plant Source. Plant materials must be native and selected from the Kirkland Plant List. Seed source must be as local as possible, and plants must be nursery propagated unless transplanted from on-site areas approved for disturbance. These requirements must be included in the Mitigation Plan specifications.
- b. Installation. Plant materials must be supported only when necessary due to extreme winds at the planting site. Where support is necessary, stakes, guy wires, or other measures must be removed as soon as the plant can support itself, usually after the first growing season. All fertilizer applications to turf or trees and shrubs shall follow Washington State University, National Arborist Association or other accepted agronomic or horticultural standards.
- c. Fertilizer Applications. Fertilizers shall be applied in such a manner as to prevent its entry into waterways and wetlands and minimize its entry into storm drains. No applications shall be made within 50 feet of a waterway or wetland, or a required buffer as established by the City codes (such as Chapter 90 KZC) or Kirkland Shoreline Master Program (SMP, KMC Title 24), whichever is greater, unless specifically authorized in an approved mitigation plan or otherwise authorized in writing by the Planning Official.

(Ord. 4491 §§ 3, 11, 2015; Ord. 4350 § 1, 2012; Ord. 4238 § 2, 2010; Ord. 4010 § 2, 2005)

.51 Tree and Landscape Maintenance Requirements

The following maintenance requirements apply to all trees, including street trees, and other vegetation required to be planted or preserved by the City:

1. Responsibility for Regular Maintenance. Required trees and vegetation, fences, walls, and other landscape elements shall be considered as elements of the project in the same manner as parking, building materials, and other site details. The applicant, landowner, or successors in interest shall be responsible for the regular maintenance of required landscaping elements. Plants that die must be

replaced in kind. It is also the responsibility of the property owner to maintain street trees abutting their property pursuant to KZC 95.21.

2. Maintenance Duration. Maintenance shall be ensured in the following manner except as set forth in subsections (3), (4) and (5) of this section:

a. All required landscaping shall be maintained throughout the life of the development. Prior to issuance of a certificate of occupancy, the proponent shall provide a final as-built landscape plan and an agreement to maintain and replace all landscaping that is required by the City.

b. Any existing tree or other existing vegetation designated for preservation in a tree retention plan shall be maintained for a period of five (5) years following issuance of the certificate of occupancy for the individual lot or development. After five (5) years, all trees on the property are subject to KZC 95.23 unless:

- 1) The tree and associated vegetation are in a grove that is protected pursuant to subsection (3) of this section; or
- 2) The tree or vegetation is considered to be a public benefit related to approval of a planned unit development; or
- 3) The tree or vegetation was retained to partially or fully meet requirements of KZC 95.40 through 95.45, required landscaping.

3. Maintenance of Preserved Grove. Any applicant who has a grove of trees identified for preservation on an approved Tree Retention Plan pursuant to KZC 95.30(2) shall provide prior to occupancy the legal instrument acceptable to the City to ensure preservation of the grove and associated vegetation in perpetuity, except that the agreement may be extinguished if the Planning Official determines that preservation is no longer appropriate.

4. Maintenance in Holmes Point Overlay Zone. Vegetation in designated Protected Natural Areas in the Holmes Point Overlay Zone is to be protected in perpetuity pursuant to KZC 70.15(8)(a). Significant trees in the remainder of the lot shall be protected in perpetuity pursuant to KZC 70.15(8)(b).

5. Maintenance of Critical Area and Critical Area Buffers. In critical areas and their buffers, native vegetation is not to be removed without City approval pursuant to KZC 95.23(5)(d). However, it is the responsibility of the property owner to maintain critical areas and their buffers by removing nonnative, invasive, and noxious plants in a manner that will not harm critical areas or their buffers. See also subsection (7) of this section and Chapters 85 and 90 KZC for additional requirements for trees and other vegetation within critical areas and critical area buffers.

6. Nonnative Invasive and Noxious Plants. It is the responsibility of the property owner to remove nonnative invasive plants and noxious plants from the vicinity of any tree or other vegetation that the City has required to be planted or protected. Removal must be performed in a manner that will not harm the tree or other vegetation that the City has required to be planted or protected.

7. Pesticides, Herbicides, and Fertilizer. The use of plant material requiring excessive pesticide or herbicide applications to be kept healthy and attractive is discouraged. Pesticide, herbicide, and fertilizer applications shall be made in a manner that will prevent their unintended entry into waterways, wetlands, and storm drains. No application shall be made within 50 feet of a waterway or wetland or a required buffer as established by City codes, whichever is greater, unless done so by a State certified applicator with approval of the Planning Official, and is specifically authorized in an approved mitigation plan or otherwise authorized in writing by the Planning Official.

8. Landscape Plans and Utility Plans. Landscape plans and utility plans shall be coordinated. In general, the placement of trees and large shrubs should adjust to the location of required utility routes

both above and below ground. Location of plants shall be based on the plant's mature size both above and below ground. See the Kirkland Plant List for additional standards.

(Ord. 4437 § 1, 2014; Ord. 4238 § 2, 2010)

.52 Prohibited Vegetation

Plants listed as prohibited in the Kirkland Plant List shall not be planted in the City or required to be retained.

For landscaping not required under this chapter, this prohibition shall become effective on February 14, 2008. The City may require removal of prohibited vegetation if installed after this date. Residents and property owners are encouraged to remove pre-existing prohibited vegetation whenever practicable.

(Ord. 4450 § 1, 2014; Ord. 4238 § 2, 2010; Ord. 4121 § 1, 2008)

.55 Enforcement and Penalties

Upon determination that there has been a violation of any provision of this chapter, the City may pursue code enforcement and penalties in accordance with the provisions of Chapter 1.12 KMC, Code Enforcement.

(Ord. 4286 § 1, 2011; Ord. 4281 § 1, 2011; Ord. 4238 § 2, 2010; Ord. 4010 § 2, 2005)

.57 City Forestry Account

1. Funding Sources. All civil penalties received under this chapter and all money received pursuant to KZC 95.33(3)(c) shall be used for the purposes set forth in this section. In addition, the following sources may be used for the purposes set forth in this section:

- a. Agreed upon restoration payments imposed under KZC 95.55 or settlements in lieu of penalties;
- b. Sale of trees or wood from City property where the proceeds from such sale have not been dedicated to another purpose;
- c. Donations and grants for tree purposes;
- d. Sale of seedlings by the City; and
- e. Other monies allocated by the City Council.

2. Funding Purposes. The City shall use money received pursuant to this section for the following purposes:

- a. Acquiring, maintaining, and preserving wooded areas within the City;
- b. Planting and maintaining trees within the City;
- c. Establishment of a holding public tree nursery;
- d. Urban forestry education;
- e. Implementation of a tree canopy monitoring program; or
- f. Other purposes relating to trees as determined by the City Council.

(Ord. 4238 § 2, 2010)

KZC 114 Low Impact Development with Proposed 2016 Edits

Chapter 114 – LOW IMPACT DEVELOPMENT

Sections:

- [114.05](#) User Guide
- [114.10](#) Voluntary Provisions and Intent
- [114.15](#) Parameters for Low Impact Development
- [114.20](#) Design Standards and Guidelines
- [114.25](#) Review Process
- [114.30](#) Additional Standards
- [114.35](#) Required Application Documentation

114.05 User Guide

This chapter provides standards for an alternative type of site development that ensures low impact development (LID) ~~principles~~~~facilities~~ are utilized to ~~reduce environmental impacts~~~~manage stormwater~~ on project sites in specified low density zones. If you are interested in proposing detached dwelling units or two (2) unit homes that reduce environmental impacts or you wish to participate in the City's decision on a project including this type of site development, you should read this chapter.

(Ord. 4350 § 1, 2012)

114.10 Voluntary Provisions and Intent

The provisions of this chapter are available as alternatives to the development of typical lots in low density zones. In the event of a conflict between the standards in this chapter and the standards in Chapters [15](#), 17 or 18 KZC, the standards in this chapter shall control except for the standards in Chapters [83](#) and [141](#) KZC.

The goal of LID is to conserve and use existing natural site features, to integrate small-scale stormwater controls, and to prevent measurable harm to streams, lakes, wetlands, and other natural aquatic systems from development sites by maintaining a more hydrologically functional landscape. LID may not be applicable to every project due to topography, high groundwater, or other site specific conditions.

The LID requirements in this code do not exempt an applicant from stormwater flow control and water quality treatment development requirements. LID facilities ~~are part of~~~~can be counted toward~~ those requirements, and

in some cases may be all that is required. ~~meet the requirements without traditional stormwater facilities (pipes and vaults).~~

The purpose of this chapter is to allow flexibility, establish the development guidelines, requirements and standards for LID low impact development projects. Because all projects are required to use ~~some form of LID principle techniques~~ and facilities/best management practices (BMPs) as feasible, the use of LID techniques does not necessarily fulfill all the requirements for a LID project. This chapter is intended to fulfill the following purposes:

34. Manage stormwater through a land development strategy that emphasizes conservation and use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely mimic predevelopment hydrologic conditions.
12. Encourage creative and coordinated site planning, the conservation of natural conditions and features, the use of appropriate new technologies and techniques, and the efficient layout of streets, utility networks and other public improvements.
43. Minimize impervious surfaces.
24. Encourage the creation or preservation of permanent forested open space.
5. Encourage development of residential environments that are harmonious with on-site and off-site natural and built environments.
6. Further the goals and the implementation of the policies of the Comprehensive Plan.

(Ord. 4350 § 1, 2012)

114.15 Parameters for Low Impact Development

These standards and incentives address the portion of the project site utilizing the LID principles~~stormwater techniques and facilities to meet applicable stormwater requirements~~. The remainder of the project site must comply with underlying zoning and ~~conventional~~ stormwater development regulations~~requirements~~. Please refer to KZC [114.30](#) and [114.35](#) for additional requirements related to these standards.

- | | |
|--|-------------------------------------------------------------------------------------|
| | <ul style="list-style-type: none"> • <u>Detached dwelling units</u>. |
|--|-------------------------------------------------------------------------------------|

Permitted Housing Types	<ul style="list-style-type: none"> • <u>Accessory dwelling units.</u> • 2/3 unit homes.
Minimum <u>Lot Size</u>	<ul style="list-style-type: none"> • Individual <u>lot sizes</u> must be at least 50% of the minimum <u>lot size</u> for the underlying zone.
Minimum Number of Lots	<ul style="list-style-type: none"> • 4 lots.
Maximum Density	<ul style="list-style-type: none"> • As defined in underlying zone's <u>Use Zone</u> Chart or Density/Dimensions Table. • Bonus density is calculated by multiplying number of lots or units by 0.10. If a fraction of 0.5 or higher is obtained then round to the next whole number.
<u>Low Impact Development</u>	<ul style="list-style-type: none"> • <u>LID principles and facilities/BMPstechniques</u> must be employed to control stormwater runoff generated from <u>50%-of</u> all hard surfaces <u>as feasible</u>. This includes all vehicular and pedestrian access. <u>LID facilities/BMPs</u> must be designed according to Public Works stormwater <u>development regulations</u> as stated in Chapter <u>15.52</u> KMC.
Locations	<p>Allowed in low density <u>residential zones</u> with the exception of the following: PLA 16, PLA 3C, RSA 1, RSA 8, or the RS 35 and RSX 35 zones in the Bridle Trails neighborhood north and northeast of the Bridle Trails State Park, and the Holmes Point Overlay zone. Any property or portion of a property with shoreline jurisdiction must meet the regulations found in Chapter <u>83</u> KZC, including minimum <u>lot size</u> or units per acre and lot coverage.</p>
Review Process	<ul style="list-style-type: none"> • Short plats shall be reviewed under KMC <u>22.20.015</u> and subdivisions shall be reviewed under KMC <u>22.12.015</u>. • Condominium projects shall be reviewed under KZC 145, Process I.
Parking Requirements	<ul style="list-style-type: none"> • 2 stalls per <u>detached dwelling unit</u>. • 1 stall per <u>accessory dwelling unit</u>. • 1.5 stalls per unit in multi-unit home, rounded to next whole number. • See KZC <u>105.20</u> for guest parking requirements. • Parking pad width required in KZC <u>105.47</u> may be reduced to 10 feet. • Parking pad may be counted in required parking. • Tandem parking is allowed where stalls are shared by the same <u>dwelling unit</u>. • Shared garages in separate tract are allowed.

	<ul style="list-style-type: none"> All required parking must be provided on the <u>LID</u> project site.
Development Type	<ul style="list-style-type: none"> Subdivision. Condominium.
Minimum <u>Required Yards</u> (from exterior <u>property lines</u>)	<ul style="list-style-type: none"> 20 feet for all front yards. 10 feet for all other <u>required yards</u>.
Minimum <u>Required Yards</u> (from internal <u>property lines</u>)	<ul style="list-style-type: none"> Front: 10 feet. Option: Required front yard can be reduced to 5 feet, if required rear yard is increased by same amount of front yard reduction. Side and rear: 5 feet. Zero lot line for 2/3 unit homes between internal units.
Front Porches	<ul style="list-style-type: none"> Must comply with KZC 115.115(3)(n), except that front entry porches may extend to within 5 feet of the interior required front yard.
Garage Setbacks	<ul style="list-style-type: none"> Must comply with KZC 115.43, except that attached garages on <u>front facade of dwelling unit</u> facing internal front <u>property line</u> must be set back 18 feet from internal front <u>property line</u>.
Lot Coverage (all impervious surfaces)	<ul style="list-style-type: none"> <u>Maximum lot coverage</u> is the <u>maximum lot coverage</u> percentage of the underlying zone and may be aggregated.
Required Common <u>Open Space</u> (RCOS)	<ul style="list-style-type: none"> Minimum of 40%. Must preserve Native and undisturbed vegetation is preferred. Allowance of 1% of required common <u>open space</u> for shelters or other recreational structures. Paths connecting and within required common <u>open space</u> to development must be pervious. Landscape greenbelt <u>easement</u> is required to protect and keep required common <u>open space</u> undeveloped in perpetuity.
Maximum Floor Area ^{1,2}	<ul style="list-style-type: none"> Maximum floor area is 50% of the minimum <u>lot size</u> of the underlying zone.

Footnotes:

1. The maximum floor area for LID projects does not apply within the disapproval jurisdiction of Houghton.
2. The maximum floor area for LID projects in RS 35 and RSX 35 zones is 20 percent of the minimum lot size of the underlying zone.

(Ord. 4476 § 3, 2015; Ord. 4437 § 1, 2014; Ord. 4350 § 1, 2012)

114.20 Design Standards and Guidelines

1. Required Low Impact Development Stormwater Principles and Facilities/BMPs – Low impact development (LID) stormwater facilities shall be designed to control stormwater runoff from 50 percent of all hard surfaces created within the LID portion of the project site. This includes all vehicular and pedestrian access. LID facilities/BMPs shall be designed according to Public Works stormwater development regulations, as stated in KMC 15.52.060. The maintenance of LID facilities shall be maintained in accordance with requirements in KMC 15.52.120. The proposed site design shall incorporate the use of LID strategies to meet stormwater management standards. LID is a set of techniques that mimic natural watershed hydrology by slowing, evaporating/transpiring, and filtering water, which allows water to soak into the ground closer to its source. The design should seek to meet the following objectives:
 - a. Preservation of natural hydrology.
 - b. Reduced impervious surfaces.
 - c. Treatment of stormwater in numerous small, decentralized structures.
 - d. Use of natural topography for drainage ways and storage areas.
 - e. Preservation of portions of the site in undisturbed, natural conditions.
 - f. Restoration of disturbed sites.
 - g. Reduction of the use of piped systems. Whenever possible, site design shall use multifunctional open drainage systems such as rain gardens, vegetated swales or filter strips that also help to fulfill landscaping and open space requirements.

2. Required Common Open Space – Required common open space shall support and enhance the project's LID stormwater facilities/BMPs; secondarily to provide a sense of openness, visual relief, and community for low impact development projects.

a. The minimum percentage for required common open space is 40 percent and is calculated using the size of the LID portion of the project site. Wetland and streams shall not be included in the calculation. The required common open space must be located outside of wetlands and streams, and may be developed and maintained to provide for passive recreational activities for the residents of the development as allowed in Chapter 90 KZC.

b. Conventional surface-stormwater management facilities such as vaults and tanks shall not be located/limited within required common open space areas unless there is no other feasible alternative placement for stormwater facilities and shall be placed underground at a depth to sufficiently allow landscaping to be planted on top of them. Low impact development (LID) facilities/BMPs/features are permitted, provided they do not adversely impact access to or use of the required common open space for passive recreation. Neither conventional nor LID stormwater facilities can result in the removal of healthy native trees, unless a positive net benefit can be shown and there is no other alternative for the placement of stormwater facilities. The Public Works Director must approve locating conventional stormwater facilities within the required common open space.

c. Existing native vegetation, forest litter and understory shall be preserved to the extent possible in order to reduce flow velocities and encourage sheet flow on the site. Invasive species, such as Himalayan blackberry, must be removed and replaced with native conifers and plants (see Kirkland Native Tree and -Plant List). Undisturbed native vegetation and soil shall be protected from compaction during construction. A restoration Native Tree and Plant Pplan that achieves 80% coverage within two (2) years must be included with the applicant's submittal.

d. If no existing native vegetation, then applicant may propose a restoration plan to achieve 80% coverage within two (2) years that shall include all native conifer and plant species (see Kirkland Native Tree and Plant List). No new lawn is permitted and all improvements installed must be of pervious materials.

- e. Vegetation installed in required common open space areas shall be designed to allow for access and use of the space by all residents, and to facilitate maintenance needs. However, existing mature trees should be retained.

(Ord. 4437 § 1, 2014; Ord. 4350 § 1, 2012)

114.25 Review Process

1. Approval Process – Low Impact Development Projects

- a. The City will review and process an application for a LID project concurrent with and through the same process as the underlying subdivision proposal (Process I, Chapter 145 KZC for short plats; Process IIA, Chapter 150 KZC for subdivisions). However, public notice for LID projects shall be as set forth under the provisions of Chapter 150 KZC (Process IIA). A Process I and site plan review will be required for projects that use a condominium ownership structure and do not subdivide the property into individually platted lots.

- b. Lapse of Approval – Unless otherwise specified in the decision granting Process I approval, the applicant must begin construction or submit to the City a complete building permit application for development of the subject property consistent with the Process I approval within four (4) years after the final decision granting the Process I approval or that decision becomes void. The applicant must substantially complete construction consistent with the Process I approval and complete all conditions listed in the Process I approval decision within six (6) years after the final decision on the Process I approval or the decision becomes void. “Final decision” means the final decision of the Planning Director.

2. Approval Process – 2/3 Unit Homes – The City will review and process a LID project application that includes a 2/3 unit home with an additional land use process as follows:

- a. One 2/3 unit home requires a Planning Official ~~Process I~~ review.
- b. More than one 2/3 unit home requires a Process ~~IIA~~ review.

3. Approval Process – Requests for Modifications to Standards

- a. Minor Modifications – Applicants may request minor modifications to the general parameters and design standards set forth in this chapter. The Planning Director under a

Process I, Chapter [145](#) KZC or Hearing Examiner under Process IIA, Chapter [150](#) KZC may modify the requirements if all of the following criteria are met:

- 1) The site is constrained due to unusual shape, topography, easements or sensitive areas; and
- 2) The modification is consistent with the objectives of this chapter; and
- 3) The modification will not result in a development that is less compatible with neighboring land uses.

(Ord. 4350 § 1, 2012)

114.30 Additional Standards

1. The City's approval of a low impact development project does not constitute approval of a subdivision or short plat. An applicant wishing to subdivide in connection with a development under this chapter shall seek approval to do so concurrently with the approval process under this chapter.
2. To the extent there is a conflict between the standards set forth in this chapter and Title 22 of the Kirkland Municipal Code, the standards set forth in this chapter shall control.

(Ord. 4350 § 1, 2012)

114.35 Required Application Documentation

1. Site assessment documents to be submitted with application include:
 - a. Survey prepared by a registered land surveyor or civil engineer.
 - b. Location of all existing and proposed lot lines and easements.
 - c. Location of all sensitive areas, including lakes, streams, wetlands, flood hazard areas, and steep slope/erosion hazard areas.
 - d. Landscape plan showing existing and proposed trees and other vegetation. The plan must show that the Required Common Open Space to be restored or augmented will be planted with Native Conifers and native plants to achieve 80% coverage within two (2) years.
2. Soil report prepared by a licensed civil engineer, geotechnical engineer, or engineering geologist.

3. Stormwater drainage report/technical information report.

(Ord. 4350 § 1, 2012)

115.90 Calculating Lot Coverage

1. General – The area of all structures and pavement and any other impervious surface on the subject property will be calculated as a percentage of total lot area. If the subject property contains more than one (1) use, the maximum lot coverage requirements for the predominant use will apply to the entire development. Lot area not calculated under lot coverage must be devoted to open space as defined in KZC [5.10.610](#).

2. Exceptions

- a. An access easement or tract that is not included in the calculation of lot size will not be used in calculating lot coverage for any lot it serves or crosses.
- b. Pervious areas below eaves, balconies, and other cantilevered portions of buildings.
- c. Landscaped areas at least two (2) feet wide and 40 square feet in area located over subterranean structures if the Planning Official determines, based on site-specific information submitted by the proponent and prepared by a qualified expert, soil and depth conditions in the landscaped area will provide cleansing and percolation similar to that provided by existing site conditions.

d. Rockeries and retaining walls, unless located adjacent to or within twelve (12) inches of another impervious surface such as a patio, building or parking area.

e. Public sidewalk if located within a public easement on private property.

~~3. Exemptions – The following exemptions will be calculated at a ratio of 50 percent of the total area covered. Exempted area shall not exceed an area equal to 10 percent of the total lot area. Installation of exempted surfaces shall be done in accordance with the current adopted stormwater design manual.~~

~~a. Permeable pavement (non-grassed).~~

~~b. Grassed modular grid pavement.~~

~~c. Open grid decking over pervious area.~~

~~d. Pervious surfaces in compliance with the stormwater design manual adopted in KMC [15.52.060](#).~~

(Ord. 4350 § 1, 2012; Ord. 4252 § 1, 2010; Ord. 4121 § 1, 2008; Ord. 4097 § 1, 2007; Ord. 4072 § 1, 2007;
Ord. 3814 § 1, 2001)

KMC 19.12.130 Street and Curb Cutting Specifications with Proposed 2016 Edits**Chapter 19.12
STREET AND CURB CUTTING****19.12.130 Specifications.**

The Public Works Director is directed to develop and keep current full engineering pre-approved plans and policies for all improvements in the right-of-way. The applicant shall comply with these standards and specifications for all improvements in the right-of-way. These standards and specifications are available for public inspection and copying in the Public Works Department during regular business hours or at www.kirklandwa.gov.

~~All work shall conform to the requirements of "Standard Specifications for Municipal Public Works Construction," 1977 Edition, prepared by Washington State Chapter, American Public Works Association, copies of which are on file with the city and available to the general public.~~

~~Exception: Only Standard Plan No. 10—concrete driveways—type D, alternate 1 or 2, on page VII—11 of the above standards are permitted for driveways. A specific alternate may be required by the public service department after the preconstruction inspection.~~

(Ord. 2606 § 1 (part), 1981; Ord. 2127 § 4(A), 1970)

