



CITY OF KIRKLAND
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MEMORANDUM

To: Houghton Community Council

From: David Barnes, Green Building Team Lead and Project Manager
Stacey Rush, Senior Surface Water Engineer
Paul Stewart, Deputy Planning Director

Date: October 17, 2011

Subject: Green Codes Project
File No. ZON10-00031

RECOMMENDATION

Staff recommends that the Houghton Community Council review the attached draft Zoning and Municipal Code amendments and provide direction on approach to the draft zoning code and policy questions.

BACKGROUND DISCUSSION

Staff last met with the Houghton Community Council on [August 22, 2011](#) to present the Clustered Housing/Low impact Development concept and City Council action items. Staff met on October 4, 2011 to discuss the Clustered Housing/Low Impact development concept and how to codify the concept. Feedback from both of these meetings was incorporated into a revised format of the Clustered Housing/Low Impact Development concept. This concept is now being presented in draft code form as a new Zoning Code Chapter 114 (Low Impact Development).

The Planning Commission held a study session on October 13, 2011 to discuss the draft code. For reference, the Planning Commission comments from the October 13, 2011 meeting are highlighted in this memo in red text. Staff comments have also been added following some of the Planning Commission comments and are also shown in red text. In the memo where there are not any comments, the Planning Commission was in agreement with the draft code that was presented in the attachments. Attachment 2 is an example of Open Space development standards for discussion purposes and is not part of the draft code. However, the Planning Commission made some suggestions for

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adding some of those standards into the Common Open Space portion of the KZC 114.20.2 and is noted below.

In addition, this meeting packet includes draft code language that was previously reviewed by the Houghton Community Council on [June 27, 2011](#) and the Planning Commission on [June 9, 2011](#). There has been very little change to that code language, but it is being presented in this packet so that all draft code language can be reviewed comprehensively in this meeting.

INTRODUCTION

The intention of the Green Codes project has been to produce incentivized zoning and municipal code amendments to encourage sustainable actions. The three broad categories that staff introduced fell under the headings of:

- Stormwater and Landscaping
- Energy Efficiency and Independence
- Sustainable "Green" Infrastructure

The ideas originally presented in Phase One- Sustainable Action Matrix as shown on Attachment 1 of the [January 27, 2011](#) Houghton Community Council meeting packet have progressed into specific Zoning and Municipal Code amendments that are being presented in draft code format.

This memo has been constructed to work with the attached draft zoning code amendments and are grouped together to contextualize the changes. The following sections in the Zoning Code to be amended are Chapters 5, 18, 95, 105, 110 and 115. Chapter 114 is a new chapter which promotes Low Impact Development projects. In addition, amendments have been made to Chapters 15 and 22 of the Kirkland Municipal Code.

Staff will need to receive policy direction on the draft zoning and municipal code amendments provided in the attachments to this memo. The sections below should provide a format to facilitate this discussion. The draft codes are shown as attachments in a format which uses ~~strikethroughs~~ to show deleted text and new text is **red** and underlined. Please note that the new Chapter 114 does not show any ~~strikethroughs~~, underlined red text as it is a new chapter. As a result of direction from the Planning Commission, future revisions will show up as ~~strikethroughs~~ or underlines.

The existing Chapter 5 (Definitions) does have some pre-existing underlined terms that have not been modified. Therefore, the new terms and their related text have both been underlined and are in red to exhibit new terms and their definitions.

Kirkland Zoning Code and Municipal Code Amendments

A. Stormwater and Landscaping

Stormwater runoff when uncontrolled from impervious surface, such as roofs and paved surfaces, can lead to channel and soil erosion. The growing area of impervious surfaces contributes to both the volume and velocity of polluted runoff. This section proposes code language that encourages the use of pervious materials and other low impact techniques that can be used on new developments and existing developments in both residential and commercial settings.

1. New Chapter 114 – Low Impact Development

Low Impact Development (LID) project as described in KZC 114 (Attachment 1) is a voluntary development option that requires the use of LID stormwater facilities such as raingardens, vegetated swales and permeable surfaces to infiltrate stormwater on the project site. Lot size flexibility and clustering is an incentive that allows lots to be 50% smaller than the underlying zones minimum lot size.

However, the allowed reductions in lot size provide a mechanism for common open space within the project site. The requirement for common open space is designed to work hand in hand with the LID facilities as LID needs additional land to function effectively. Another benefit of the required common open space is an opportunity to retain mature vegetation and to accommodate passive uses by the residents of the development.

a. KZC 114.05 - User Guide

This section is provided each time a new chapter is written in the Zoning Code. It briefly tells the reader about the chapter and why they might want to read the entire chapter.

b. KZC 114.10 – Voluntary Provisions and Intent

This section explains that this code is an alternative to the typical development pattern. More detail is provided to explain LID, why it is important to the City and the purpose of the chapter.

c. KZC 114.15 – Parameters for Low Impact Development

The actual specifications for the program are laid out in a matrix format which is easier to read than text. Each parameter is shown below and explained in more detail.

1. Permitted Housing Types - The use of Detached Dwelling Units and Accessory Dwelling units have already been discussed with the Planning Commission for this type of low density development. However, the 2 unit-Attached Dwelling units is a new addition that Staff is recommending that would be more compatible than 2/3 Units homes and would integrate better with detached dwelling units. Staff would like to discuss the 2 unit- Attached Dwelling with the Commission and receive feedback on its use rather than the 2/3 unit home.

Planning Commission Comments:

Include 2/3 unit home with design parameters and limit the number of 2/3 homes within the development. The design standards to be applied are the same as KZC 113.35.2.a: Two and three-unit homes shall maintain the traditional character and quality of detached single-family dwelling units by using design elements such as the appearance of single points of entry addressing the street, pitched roofs, substantial trim around windows, porches and chimneys. Ideally, the multiple-unit home will have no more than one entry on each side of the structure.

If 2/3 unit homes are proposed, then review the project using a IIB Zoning permit.

Staff Comments: Allow a single 2/3 unit home with a Process I review and if more than one 2/3 unit home is proposed, then use Process IIA.

2. Minimum Lot Size – Lot sizes can be reduced to 50% of the underlying Zone. For example, in an RS 7.2 zone where 7,200 square feet is the minimum lot size, a LID project can have lots as small as 3,600 square feet.
3. Maximum Density – This parameter is new and makes it clear that density is not being increased for LID projects and that the applicant should refer to the underlying zones use chart to determine maximum density.

4. Low Impact Development – The requirement for using LID facilities and techniques is explained and refers to Public Works Stormwater development regulations.
5. Locations – The use zones where this chapter is allowed is shown along with the use zones or overlays where this chapter does not apply. Staff determined that that this chapter is not compatible with the RSA 1 Use Zone as clustered housing and open space is already a requirement of that zone. The RS 35 and RSX Use Zones in the Bridal Trails neighborhood do not work well with this chapter as the properties are meant to be larger for equestrian uses and in some cases may not be made smaller than 35,000 square feet. The Holmes Point Overlay is also excluded as the lot coverage requirements in that portion of the City are very restrictive and much lower than proposed under this chapter. The Shoreline jurisdiction in KZC 83 restricts does not allow lots to be made smaller than the minimum lot size, or units per acre to be increased and therefore would not work with the provisions of Chapter 114.

Planning Commission Comments:

Also Exclude PLA 16, PLA 3C and RSA 8 Zones

6. Review Process – This parameter says that Staff will use the short plat (9 lots or less) or the Subdivision (more than 9 lots) process as outlined in the Municipal Code. This means that the time line for review of an LID project will follow the land use decision timeline. Staff intends for the decision on the short plat or subdivision to be made by the Planning Director or Hearing Examiner. The LID project approval is separate but will be reviewed concurrently with the land use decision.
7. Parking Requirements – The standards for parking follow current development regulations for the types of housing allowed in this chapter. However, some new provisions are allowed such as reduction in parking pad width, tandem parking and shared garages. These parameters are to reduce impervious surfaces.

Planning Commission Comments:

Count the space in front of garages as a parking space for the parking requirements. For multi-unit homes, multiply number of units by 1.5 and round up to next whole number

to determine parking requirements. For example, a 2 unit home would require 3 parking spaces: $2 \times 1.5 = 3$. And a 3 unit home would require 4.5 parking stalls: $3 \times 1.5 = 4.5$ which would round up to 5 stalls.

8. Ownership Structure – This chapter is intended to work with a subdivision that will produce individual lots that can be sold and have common ownership and maintenance of LID facilities and open space. The condominium ownership option is a question on whether or not this could work. Establishing individual platted lots allows for the calculation of lot coverage, FAR and setbacks. Staff would recommend **policy direction** from the Planning Commission on a condominium ownership structure.

Planning Commission Comments:

Allow Condominium Ownership structure with a Process IIB land use permit and review.

Staff Comments: Code revisions will be made to the draft code to allow condominium ownership structure with specific land use permit process and review.

9. Minimum Required Yards (Exterior Property lines)– The LID project is intended to appear comparable to the surrounding neighborhood and therefore requires similar setbacks for exterior project property lines. Most all residential Zones require 20 foot front yards and 10 foot rear yards.
10. Minimum Required Yards (Interior Property lines) – The lots within LID project boundaries have reduced setbacks internally to reduce pervious surfaces and allow buildings to cluster closer together and share common infrastructure such as driveways and LID stormwater facilities such as rain gardens.
11. Front Porches – this provision allows front entry porches to be within the reduced front yard. The Zoning Code currently allows front entry porches to lie within the front yard setback.
12. Garage Setbacks – The Zoning Code currently requires that a garage be setback an additional 8 feet from the front façade of a dwelling unit, so that the garage is not the most

prominent portion of a dwelling unit. This parameter acknowledges the intent of the Zoning Code and that a driveway depth of 18 feet is the minimum necessary to allow for parking a car outside of a garage and not have it encroach into the sidewalk or restrict vehicular access.

13. Lot Coverage – The maximum impervious surfaces allowed is equal to 50% of the underlying zone’s minimum lot size. For example, in a zone where 7,200 square feet is the minimum lot size, the maximum lot coverage for the individual lot is 3,600 square feet. For some of the lots that are smaller than the minimum lot size as explained in #2 above, the maximum impervious percentage could be higher than 50% and as much as 100% of the reduced lot size.

14. Open Space – This parameter is intended to show the amount of open space required. It also defines the amount of encroachment into that open space and tells the reader how the open space will be protected in the future. Discussion with Staff has led to a reduction in the amount of impervious area allowed (from 400 square feet to 200 square feet) because open space should work in tandem with the LID facilities and features.

See section d.2, below, below for Planning Commission comments on Required Common Open Space.

15. Maximum Floor Area – The maximum floor area is 50% of the underlying Zones minimum lot size. This provision works similar to the lot coverage parameter. In a zone where 7,200 square feet is the minimum, the maximum floor area allowed on a lot is 3,600 square feet. This means that if a lot size was reduced under parameter#2 above, the maximum floor area ratio could exceed 50%. This allows applicants to have the same amount of floor area as under the current regulations and provides some incentive to create smaller lot sizes and put the difference toward the Open Space requirement.

d. KZC 114.20 – Design Standards and Guidelines

1. Required Low Impact Development Facilities - This section describes what the requirements are for an LID project and standards under which they should be designed.

Planning Commission Comments: Code should allow tree removal if there is no other alternative the placement of a LID stormwater facility, provided there is a net benefit.

2. Required Common Open Space – Common Open Space is required primarily because it helps the LID facilities work more effectively. The amount of open space in the last discussion with the Planning Commission was set in a range from 35-40%. Staff recommends that 40% be considered as there are some encroachments that are allowed that will increase the pervious surface in the open space. Staff would also like to **discuss** what could count as open space in a LID project. Should wetland and streams buffers be allowed to be counted as opens space? In addition, should there be more defined development standards for the open space. An example from the Low Impact Development Local Assistance Project has been provided as an example (see Attachment 2).

Planning Commission Comments: Common Open Space percentage should be 40%. Develop a new definition for “Common Open Space” as used in this chapter versus the definition as shown on Attachment 1 for Open Space. Allow the buffer of a sensitive area to be used for Common Open Space. Instead of just allowing 200 square feet for shelters or recreational structures use 1% of Common Open Space as a multiplier to determine the allowances for impervious structures. Note that Native and **Non-Invasive** undisturbed vegetation is preferred within the Common Open Space. Add a planting standard as shown in Attachment 2, (2)(a) of this packet for Common Open Space areas that do not have existing native vegetation. Also, refer to the City’s Native Vegetation List in the Code to provide guidance.

- e. KZC 114.25 – Review Process

This section explains the approval process for an LID project and tells the reader that the LID project does not need a land use permit, but is reviewed concurrently with a short plat or subdivision land use decision. The lapse of approval criteria and the ability to allow minor modifications to this chapter are also provided in this section.

f. KZC 114.30 – Additional Standards

This section explains that the approval of an LID project under this chapter does not grant approval for a short plat or subdivision. It also tells the reader which portions of the code should be followed when there is conflict.

g. KZC 114.35 - Required Application Documentation

This section shows which additional documents are required with a LID project.

h. KMC 22.28.042 – Lots – Low Impact Development

This new Municipal Code section was created to allow the lots sizes to be reduced for LID projects. It allows the lot sizes for an LID project to be reduced to 50% of the underlying zone in the new RSA zones. This is an important amendment as lots in the RSA Zones are not defined by lot size, but rather dwelling units per acre.

i. KZC 18.10 – RSA Use Zone Special Regulations

This portion of the RSA Use Zone was amended to allow lots to be smaller than previously allowed. A **discussion** about these minimums is necessary to determine if lot sizes should be reduced to as small as 1,900 square feet.

Planning Commission Comments: Exclude RSA 8 from Zones where LID projects under this new chapter apply (this zone is not applicable in Houghton).

j. KZC 5.10.490.5 Low Impact Development and KZC 5.10.610 Open Space Definitions.

2. KZC 115.90 – Calculating Lot Coverage

The amendments proposed in KZC 115.90 specifically relate to how lot coverage is calculated and what types of materials are permitted to be counted as less than 100% coverage. Prior to these amendments, gravel and brick materials were the only materials in the Zoning Code counted as 50% lot coverage. The Department of Ecology has studied different types of material and provided data on their permeability as shown in the adopted 2009 King County Stormwater

Design Manual. These materials have been listed in the draft Zoning Code and Staff believes they provide a more scientific basis for the types of pervious materials the Zoning Code allows to count as less than 100% lot coverage (see Attachment 3 for draft Code).

Discussion:

Should swimming pools still be counted towards lot coverage? Both the Planning Commission and the Houghton Community Council are not certain this exception should be eliminated. The argument for it keeping it relates to the water detention capability of a pool. However, Staff notes that if a pool cover is employed, stormwater is not detained and runoff is generated just like any other hard surface.

Option: An exception could be made for pools with covers that drain into the pool and do not promote stormwater runoff. All other pool covers would be treated as impervious and count as 100% lot coverage.

Planning Commission Comments: Do not provide exception for swimming pools. Discussed counting overhangs as lot coverage, but agreed to except this from the lot coverage calculation.

3. **KZC 95.32 – Incentives and Variations to Development Standards**
This section allows reductions to setback standards for retention of moderate value trees (see Attachment 4)
4. **KZC 95.44 – Internal Parking Lot Landscaping Requirements**
This section puts examples of natural drainage solutions into the Zoning Code and also provides for gaps in the vertical curbing of parking islands to help control stormwater runoff (see Attachment 4).
5. **KZC 95.50 - Installation Standards for Required Plantings**
This section provides specifications for amending soil to help with infiltration and to promote healthy vegetation (see Attachment 4)
6. **KZC 105.10 – Vehicular Access Easement or Tract Standards**
Pervious materials have not been allowed previously in driveways, private roads and parking lots as Zoning Code has required that these surfaces be comparable to the surface materials of the right-of-way (see Attachment 5).
7. **KZC 105. 77 – Parking Area Design – Curbing**
This section allows gaps in vertical curbing located between parking areas and driveways which helps control stormwater runoff (see Attachment 5).

8. **KZC 105.100 – Parking Area Design – Surface Materials**
Pervious surfaces were not previously allowed materials for parking areas and driveway and this permits the use of pervious materials (see Attachment 5).
9. **KZC 110.25 – Required Public Improvements**
Applicants must currently pave the outward 20 feet from the curb adjacent to their property when redeveloping it. Pervious materials will now be allowed in this situation (see Attachment 6).

Planning Commission Comments: Rewrite this section for clarity as it appears that we are allowing pervious surfaces in public roads which is not the intent.
10. **KZC 110.27 – Alleys** (see Attachment 6)
Pervious pavement in alleys will be considered by Public Works Director on a case by case basis.
11. **KMC 15.52.060 – Design and Construction standards and requirements** It is not always the best management practice to allow stormwater structures in the right-of- way for various reasons. However, this provision can allow privately maintained stormwater structures on a case by case basis with approval from the Public Works Director (see attachment 7).

B. Energy Efficiency and Independence

Certain barriers to increase energy efficiency for structures in Kirkland that can be removed by amending Chapters in the Zoning Code (see Attachment 8). Direction was previously given by the Planning Commission on [June 9, 2011](#) for these code amendments and the Houghton Community Council on [June 27, 2011](#).

1. **KZC 115.60.2.a.4 and KZC 115.60.2.b.4, Height Regulations-Exception** – This section allows exemptions to the height regulations for solar panels on sloped and flat roofs.
2. **KZC 5.10.881.1 - Solar Panel Definition**
3. **KZC 5.10.817 – Rooftop Appurtenance Definition**
4. **KZC 115.115.3.q – Required Yards**
This section allows existing buildings to encroach into required yards for the purposes of providing more insulation to the structure's walls.

C. Green Infrastructure

Electric Vehicle Infrastructure (EVI) is starting to be built and the State of Washington has required that its Cities make provisions to allow this form of alternative transportation the capabilities to expand. In addition, there are provisions that can be added to the Zoning Code to promote other forms of transportation such as bicycles. Direction was previously given by the Planning Commission on [June 9, 2011](#) and the Houghton Community Council on [June 27, 2011](#) for these code amendments.

1. New Section KZC 115.33 (EVI)

The required allowances are shown to permit Electric Vehicles and the required infrastructure (see Attachment 9)

2. Chapter 5 - Definitions

New terms related to EVI are provided as recommended by the State of Washington (see Attachment 9).

3. New Section KZC 105.67 – Parking Area Design – Preferential Parking Allowance

Kirkland's Parking regulations have been amended to encourage priority parking for hybrid, low emission or fuel efficient vehicles (see Attachment 9).

4. New Definition 5.10.682 – Preferential Parking (see Attachment 9)

5. New Section KZC 105.34 – Covered Bicycle Storage

Code language has been provided to encourage both covered bicycle storage and provide reductions in required parking which recognizes bicycle commuting as a valued transportation option (see Attachment 10).

6. New Definition KZC 5.10.177 – Covered Bicycle Storage

Covered bicycle storage is defined in Attachment 10.

D. Project Schedule

The schedule for the project is provided as Attachment 11. **The Planning Commission reviewed the schedule and asked if they could eliminate**

their December 8th meeting and join the November 28th Houghton Community Council study session meeting. Staff requests that the Houghton Community Council confirm that a joint meeting with the Planning Commission is acceptable.

Attachments

1. New Chapter KZC 114 – Low Impact Development, KZC 18.10, New Section KMC 22.28.042 – Lots – Low Impact Development
2. Open Space Standard Example
3. Draft Code for KZC 115.90 – Calculating Lot Coverage
4. Draft Code for KZC 95.32, 95.44, 95.50
5. Draft Code for KZC 105.10, 105.77, 105.100
6. Draft Code for KZC 110.25 and KZC 110.27
7. Draft Code for KMC 15.52.060
8. Draft Code for KZC 115.60.2.a.4, KZC 115.60.2.b.4, KZC 5.10.881.1, KZC 5.10.817 and KZC 115.115.3.q
9. Draft Code for new section KZC 115.33 (EVI) , related KZC Chapter 5 definitions and KZC 105.67
10. Draft Code for new section 105.34 – Covered Bicycle Storage and KZC 5.10.177
11. Green Codes Project Schedule

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) facilities are utilized to manage stormwater on project sites in specified low density zones. If you are interested in proposing detached dwelling units or two unit home 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.

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 KZC Chapters 15, 17 or 18, the standards in this chapter shall control except for the standards in KZC 83 and 141.

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 can be counted toward those requirements, and in some cases may 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 low impact development projects. Because all projects are required to use some form of LID techniques and facilities 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:

- (1) 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.
- (2) 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.
- (3) Minimize impervious surfaces.
- (4) 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.

114.15 Parameters for Low Impact Development

Please refer to KZC 114.30 and 114.35 for additional requirements related to these standards.

Permitted Housing Types	<ul style="list-style-type: none"> • Detached Dwelling Units • Accessory Dwelling Units • 2-Unit – Attached dwelling units
Minimum Lot Size	<ul style="list-style-type: none"> • Individual lot sizes must be at least 50% of the minimum lot size 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 Use Zone Chart
Low Impact Development	<ul style="list-style-type: none"> • LID techniques must be employed to control stormwater runoff generated from 50% of all hard surfaces. This includes all vehicular and pedestrian access. LID facilities must be designed according to Public Works stormwater development regulations as stated in KMC 15.52.
Locations	<p>Allowed in Low density Residential Zones with the exception of the following:</p> <p>RSA 1 zone, RS 35 and RSX 35 zones in the Bridle Trails neighborhood, and the Holmes Point Overlay zone. Any property or portion of a property with shoreline jurisdiction must meet the regulations found in Chapter 83 KZC, including minimum lot size or units per acre and lot coverage.</p>
Review Process	<ul style="list-style-type: none"> • Short Plats shall be reviewed under KMC 22.20.15 and Subdivisions shall be reviewed under KMC 22.12.015.
Parking Requirements	<ul style="list-style-type: none"> • 2 stalls per detached dwelling unit • 1 stall per accessory dwelling unit • 1 stall per each unit in Two Unit Home • See KZC 105.20 for guest parking requirements • Parking pad width required in KZC 105.47 may be reduced to 10 feet. • Tandem Parking is allowed where stalls are share by the same

	<p>dwelling unit.</p> <ul style="list-style-type: none"> • Shared garages in separate tract are allowed • All required parking must be provided on the LID project site.
Ownership Structure	<ul style="list-style-type: none"> • Subdivision • Condominium?
Minimum Required Yards (from exterior property lines of the LID project)	<ul style="list-style-type: none"> • 20 feet for all front yards • 10 feet for all other required yards
Minimum Required Yards (from internal property lines)	<ul style="list-style-type: none"> • Front: 10 feet • Side and Rear: 5 feet
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 front façade of dwelling unit facing internal front property line must be setback 18 feet from internal front property line.
Lot Coverage (All impervious surfaces)	<ul style="list-style-type: none"> • Maximum lot coverage for each lot is 50% of the underlying zone's minimum lot size.
Open Space	<ul style="list-style-type: none"> • Minimum of (35-40%) of entire development • Native & undisturbed vegetation is preferred • Allowance of 200 square feet for shelters or other recreational structures • Paths connecting open space to development must be pervious • Landscape Greenbelt Easement is required to protect and keep open space undeveloped in perpetuity
Maximum Floor Area	<ul style="list-style-type: none"> • Maximum Floor Area is 50% of the minimum lot size of the underlying zone.

114.20 Design Standards and Guidelines

1. Required Low Impact Development Stormwater Facilities

Low Impact Development (LID) Stormwater facilities shall be designed to control stormwater runoff from 50% of all hard surfaces created within entire development. This includes all vehicular and pedestrian access. LID facilities 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:

- 1) Preservation of natural hydrology.
- 2) Reduced impervious surfaces.
- 3) Treatment of stormwater in numerous small, decentralized structures.
- 4) Use of natural topography for drainage ways and storage areas.
- 5) Preservation of portions of the site in undisturbed, natural conditions.
- 6) Restoration of Disturbed Sites
- 7) 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

Common open space shall support and enhance the project's LID stormwater facilities; secondarily to provide a sense of openness, visual relief, and community for Low Impact Development projects. The minimum percentage open space is (35-40%, exact % is to be determined) and is calculated using the size of the whole development. The common open space must be outside of wetlands, streams and their buffers, and developed and maintained to provide for passive recreational activities for the residents of the development.

- 1) Conventional Surface water management facilities, such as vaults and tanks shall be limited within common open space areas. Low Impact Development (LID) features are permitted, provided they do not adversely impact access to or use of the common open space for passive recreation.. Neither conventional or LID stormwater facilities can result in the removal of healthy native trees.
- 2) 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 plants. Undisturbed native vegetation and soil shall be protected from compaction during construction.
- 3) If no existing native vegetation, then applicant may propose a restoration plan that shall include all native species. No new lawn is permitted and all improvements installed must be of pervious materials.
- 4) Vegetation installed in 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.

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).
- 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 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 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 – 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, KZC 145 or Hearing Examiner under Process IIA, KZC 150 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.

114.30 Additional Standards

1. The City's approval of a Low Impact Development 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.

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.
2. Soil report prepared by a licensed civil engineer, geotechnical engineer, or engineering geologist.
 3. Stormwater Drainage Report/Technical Information Report

Chapter 5 Amendments:

- 5.490.5 Low Impact Development
- A stormwater management and land development strategy applied at the parcel and the subdivision scale that emphasizes conservation and the use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely mimic predevelopment hydrologic functions.

New - Kirkland Municipal Code Amendment

22.28.042 Lots---Low Impact Development

In multiple lot subdivisions (4 lots or more) not located in an RSA 1 zone or in the Holmes Point Overlay and not subject to Sections 22.28.030 and 22.28.040, the minimum lot area shall be deemed to have been met if the minimum lot area is not less than 50% of the lot area required of the zoning district in which the property is located as identified on the zoning map; provided that all lots meet the following standards:

- (a) Within the RSA 8 zone, the lots shall be at least 1,900 square feet.
- (b) Within the RSA 6 zone, the lots shall be at least 2,550 square feet..
- (c) Within the RSA 4 zone, the lots shall be at least 3,800 square feet..
- (i) The lots within the Low Impact Development meet the design standards and guidelines and approval criteria as defined in Chapter 114 of the Kirkland Zoning Code.

KZC 18.10 Special Regulation Amendments

1. Maximum units per acre is as follows:
 - a. In RSA 1 zone, the maximum units per acre is one dwelling unit.
 - b. In RSA 4 zones, the maximum units per acre is four dwelling units.
 - c. In RSA 6 zones, the maximum units per acre is six dwelling units.
 - d. In RSA 8 zones, the maximum units per acre is eight dwelling units.

In RSA 1, 4, 6 and 8 zones, not more than one dwelling unit may be on each lot, regardless of the size of the lot.
2. Minimum lot size per dwelling unit is as follows:
 - a. In RSA 1 zone, newly platted lots shall be clustered and configured in a manner to provide generally equal sized lots outside of the required open space area.
 - b. In RSA 4 zones, the minimum lot size is ~~7,600~~ 3,800square feet.
 - c. In RSA 6 zones, the minimum lot size is ~~5,400~~ 2,550square feet.
 - d. In RSA 8 zones, the minimum lot size is ~~3,800~~ 1,900square feet.

3. Road dedication and vehicular access easements or tracts may be included in the density calculation, but not in the minimum lot size per dwelling unit.
4. Floor Area Ratio (F.A.R.) allowed for the subject property is as follows:
 - a. In RSA 1 zone, F.A.R. is 20 percent of lot size.
 - b. In RSA 4 zones, F.A.R. is 50 percent of lot size.
 - c. In RSA 6 zones, F.A.R. is 50 percent of lot size.
 - d. In RSA 8 zones, F.A.R. is 50 percent of lot size; provided, that F.A.R. may be increased up to 60 percent of lot size for the first 5,000 square feet of lot area if the primary roof form of all structures on the site is peaked, with a minimum pitch of four feet vertical to 12 feet horizontal.

F.A.R. is not applicable for properties located within the jurisdiction of the Shoreline Management Act regulated under Chapter 83 KZC.
See KZC 115.42, Floor Area Ratio (F.A.R.) Calculation for Detached Dwelling Units in Low Density Residential Zones, for additional information.
5. On corner lots, only one front yard must be a minimum of 20 feet. All other front yards shall be regulated as a side yard (minimum five-foot yard). The applicant may select which front yard shall meet the 20-foot requirement.
6. Garages shall comply with the requirements of KZC 115.43, including required front yard.
7. Chapter 115 KZC contains regulations regarding home occupations and other accessory uses, facilities and activities associated with this use.

Example of Open Space Standards

(1) For the purposes of calculating required area, inundated lands shall not be included; however, other sensitive areas and their buffers may be included within the Common Open Space boundaries, so long as they contain existing native vegetation (e.g., a steep slope with Douglas fir may be counted while one with Himalayan blackberry may not). Land below an ordinary high water mark shall not be counted towards the required native vegetation.

(2) Common Open Space shall be forested or reforested.

(a) Common Open Spaces that do not contain sufficient tree canopy coverage shall be planted with native or near native trees with a minimum of one native tree for every 600 square feet to be replanted. Each tree meeting the minimum replanting size standards shall be counted once, regardless of size. This requirement does not apply to wetlands or delineated wetland buffers.

(b) Native trees are indigenous to the Pacific Northwest or suitable for the Pacific Northwest climate. A survey of existing trees and tree planting plan shall be submitted for review and approval.

(c) Reforested areas shall be replanted with trees of 2" caliper or greater. A minimum of 25% replanted trees shall be of deciduous species and a minimum of 25% replanted trees shall be coniferous species.

(3) Existing native vegetation, forest litter and understory shall be preserved to the extent possible in the Common Open Space in order to reduce flow velocities and encourage sheet flow on the site. Common Open Spaces that do not contain sufficient native vegetation, forest litter and understory shall be replanted.

(4) Development within Common Open Space shall be limited to stormwater dispersion and infiltration facilities, pervious pedestrian trails, and approved surface water restoration projects. Activities within the Common Open Space shall be limited to passive recreation, removal of invasive species, amendment of disturbed soils consistent with all applicable regulations, and planting of native vegetation. Development shall be consistent with all applicable sensitive areas requirements.

(5) A permanent protective mechanism shall be legally established to ensure that the required Common Open Space is preserved and protected in perpetuity in a form that is acceptable to both the applicant and the City and filed with the City's auditor's office. A permanent Common Open Space shall be established using one of the following mechanisms.

(a) Placement in a separate non-building tract owned in common by all lots within the subdivision;

(b) Covered by a protective easement or public or private land trust dedication;

(c) Preserved through an appropriate permanent protective mechanism that provides the same level of permanent protection as subsection (a) of this section as determined by the approval authority.

(6) Restrictions on the future use of the Common Open Space and its boundaries shall be recorded on the face of the final plat or short plat.

Chapter 115 Zoning Code Amendments

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. The following exceptions shall not exceed an area equal to ten percent of the total lot area. Lot area not calculated under lot coverage must be devoted to open space as defined in KZC 5.610.
2. Exceptions
 - ~~a. Wood decks may be excluded if constructed with gaps between the boards and if there is pervious surface below the decks.~~
 - ~~ba. 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.~~
 - ~~c. For detached dwelling units in low density zones and having a front yard, 10 feet of the width of a driveway, outside of the required front yard, serving a garage or carport; provided, that:

 - ~~1) This exception cannot be used for flag or panhandle lots;~~
 - ~~2) The portion of the driveway excepted from lot coverage calculations shall not exceed 10 percent of the lot area; and~~
 - ~~3) The portion of the driveway excepted is not located in an access easement.~~~~
 - ~~d. Grass grid or brick pavers and compact gravel, when installed over a pervious surface, will be calculated as impervious surface at a ratio of 50 percent of the total area covered.~~
 - ~~e. Outdoor swimming pools.~~
 - ~~f. Pedestrian walkways required by Chapter 83 KZC and KZC 105.18.~~
 - ~~gb. Pervious areas below eaves, balconies, and other cantilevered portions of buildings.~~
 - ~~hc. 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.~~
 - ~~i. Retaining walls not immediately adjacent to other impervious areas.~~
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 ten percent of the total lot area. Installation of exempted surfaces shall be done in accordance with the current King County Stormwater Design Manual.

1. Permeable pavement (non-grassed).
2. Grassed modular grid pavement.
3. Open grid decking over pervious area.
4. Pervious surfaces in compliance with the stormwater design manual adopted in KMC 15.52.06.

Chapter 5 - Definitions

5.10.610 Open Space

~~– Land not covered by buildings, roadways, parking areas or surfaces through which water can percolate into the underlying soils.~~ Vegetated and pervious land not covered by buildings, roadways, sidewalks, driveways, parking areas, plazas, terraces, swimming pools, patios, decks, or other similar impervious or semi-impervious surfaces.

Chapter 95

95.32.3 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, ~~or~~ 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 and that are classified as a rear yard due to proximity to an access easement or tract, may be reduced by (5) feet.
 - d. No required yard shall be reduced by more than (5) feet in residential zones.

95.44 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.

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

95.50.4 Installation Standards for Required Plantings

- 4. Soil Specifications. Soils in planting areas shall have 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 aeration 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 ~~organic content of soils~~ in any landscape area shall comply with the soil quality requirements of the Public Works Pre-Approved Plans. ~~be as necessary to provide adequate nutrient and moisture-retention levels for the establishment of plantings.~~ See subsection (9) of this section for mulch requirements.

105.10.2.d Vehicular Access Easement or Tract Standards

- d. The paved surface in an easement or tract shall have a minimum of two (2) inches of asphalt concrete over a suitably prepared base which has a minimum thickness of four (4) inches of crushed rock or three (3) inches of asphalt-treated base. The Department of Public Works is authorized to modify the standards for a paved surface on a case-by-case basis. Pervious surfaces (such as pervious concrete or asphalt, and modular or grassed modular grid pavement) can be used in compliance with the stormwater design manual adopted in KMC 15.52.060.

105.77 Parking Area Design – Curbing

All parking areas and driveways, for uses other than detached dwelling units, must be surrounded by a 6-inch high vertical concrete curb. Gaps in Curbs are allowed for stormwater runoff.

105.100 Parking Area Design – Surface Materials

1. General – The applicant shall surface the parking area and driveway with a material comparable or superior to the right-of-way providing direct vehicle access to the parking area. Pervious surfaces (such as pervious concrete or asphalt, and modular grid pavement) can be used in compliance with the stormwater design manual adopted in KMC 15.52.060.
2. Exception – ~~Grass grid pavers~~ Grassed Modular Pavement may be used for emergency access areas that are not used in required permanent circulation and parking areas.

110.25 Required Public Improvements

1. General – KZC 110.27 through 110.50 establish different improvements for the different classifications of rights-of-way listed in KZC 110.20 and 110.22. KZC 110.52 establishes specific sidewalk and other public improvement standards in Design Districts. Except as specified in subsections (2), (3) and (4) of this section, the applicant shall install the specified improvements from the center line of the right-of-way to the applicant's property line. The applicant may increase the dimensions of any required improvement or install additional improvements in the right-of-way with the written consent of the Public Works Director.
2. Half-Street Improvements – If the one-half (1/2) of the right-of-way opposite the subject property has not been improved based on the provisions of this chapter, the applicant shall install improvements in the right-of-way as follows:
 - a. Alleys. The applicant shall install the required improvements for the entire width of the alley.
 - b. All Other Rights-of-Way.
 - 1) The applicant shall install the required improvements from his/her property line to and including the curb.
 - 2) The applicant shall grade to finished grade all the required driving and parking lanes in the entire right-of-way and a 5-foot-wide shoulder on the side of the right-of-way opposite the subject property.
 - 3) The applicant shall pave outward 20 feet from the curb adjacent to his/her property or as required by the Public Works Director. Pervious pavement is permitted.
3. Required Paved Connection – In all cases except for alleys, if the access point for the subject site is not connected to an existing improved street by an improved hard surface, the applicant shall provide a hard surface improvement, of at least 20 feet in width, to the existing improved street. Pervious pavement can be permitted as the hard surface. The applicant may request a modification, deferment or waiver of this requirement through KZC 110.70.
4. Capital Improvement Projects – If the City Council has approved a capital improvements plan for a particular public right-of-way, that plan will govern the improvements required for right-of-way. To the extent feasible, public projects shall be designed pursuant to the standards established for each Design District contained in the Public Works Pre-Approved Plans manual.

110.27 Alleys

The pavement width of an alley must be at least 12 feet but may be required to be increased by the Public Works Director or Fire Marshall. For all commercial, industrial, office, or multifamily projects, the applicant shall improve the alley abutting the subject property and extend it to the existing improved street, and may be required to improve an additional 30 feet past the property frontage to provide emergency turnaround. For single-family dwellings using the alley for primary vehicular access, the applicant shall pave a 12-foot-wide asphalt apron extending 20 feet from the nearest improved street toward the subject property. For all types

of development permits, the Public Works Director shall determine the extent and nature of other improvements required in alleys on a case-by-case basis. Typical improvements include, but are not limited to, replacement of the alley driveway apron and curb, installation of storm drainage, repair of existing paving, and installation of crushed rock in gravel alleys. The use of pervious pavement in alleys will be considered if approved by the Public Works Director.

15.52.060 Design and construction standards and requirements.

(a) The standard plans as defined in Section 15.04.340 shall include requirements for temporary erosion control measures, storm water detention, water quality treatment and storm water conveyance facilities that must be provided by all new development and redevelopment projects. These standards shall meet or exceed the thresholds, definitions, minimum requirements, and exceptions/variances criteria found in Appendix I of the Western Washington Phase II Municipal Stormwater Permit, the 2009 King County Surface Water Design Manual, and the City of Kirkland Addendum to the 2009 King County Surface Water Design Manual as presently written or hereafter amended.

(b) Unless otherwise provided, it shall be the developer's and property owner's responsibility to design, construct, and maintain a system which complies with the standards and minimum requirements as set forth in the standard plans.

(c) In addition to providing storm water quality treatment facilities as required in this section and as outlined in the standard plans, the developer and/or property owner shall provide source control ~~BMPs~~ best management practices as described in Volume IV of the 2005 Stormwater Management Manual for Western Washington, such as structures and/or a manual of practices designed to treat or prevent storm water pollution arising from specific activities expected to occur on the site. Examples of such specific activities include, but are not limited to, carwashing at multifamily residential sites and oil storage at auto repair businesses.

(d) Privately maintained stormwater structures are not allowed within the public right-of-way, except on a case by case basis with approval from the Public Works Director.

~~(e)~~(e) The city will inspect all permanent storm water facilities prior to final approval of the relevant permit. All facilities must be clean and fully operational before the city will grant final approval of the permit. A performance bond may not be used to obtain final approval of the permit prior to completing the storm water facilities required under this chapter.

~~(f)~~(f) Adjustment Process. Any developer proposing to adjust the requirements for, or alter design of, a system required as set forth in the standard plans must follow the adjustment process as set forth in the standard plans.

~~(g)~~(g) Other Permits and Requirements. It is recognized that other city, county, state, and federal permits may be required for the proposed action. Further, compliance with the provisions of this chapter when developing and/or improving land may not constitute compliance with these other jurisdictions' requirements. To the extent required by law, these other requirements must be met. (Ord. 4214 § 1, 2009; Ord. 3711 § 4 (part), 1999)

115.60.2.a.4 Height Regulations – Exceptions

4) Solar panels on sloped roof forms(greater than 2:12) may exceed height limits by a maximum of six (6) inches. Solar panels on flat roof forms(less than or equal to 2:12) may exceed height limits by a maximum of twenty (20) inches.

115.60.2.a.4.b.4

b. Other Structures

- 1) Rooftop appurtenances and their screens, subject to KZC 115.120, including roof forms pursuant to KZC 115.120(3).
- 2) The provisions in Chapter 117 KZC related to personal wireless service facilities supersede the provisions of this section to the extent an appurtenance falls within the definition of a personal wireless service facility.
- 3) Skylights may exceed the height limit by a maximum of six (6) inches.

4) Solar panels on sloped roof forms(greater than 2:12) may exceed height limits by a maximum of six (6) inches. Solar Panels on flat roof forms(less than 2:12) may exceed height limits by a maximum of twenty (20) inches.

115.115.3.q Required Yards

q. Insulation, installed in or on an existing structure, may encroach eight (8) inches into a required yard unless precluded by Fire or Building Codes.

5.10.817 Rooftop Appurtenances

– HVAC equipment, mechanical or elevator equipment and penthouses, roof access stair enclosures, and similar equipment or appurtenances that extend above the roofline of a building, but not including personal wireless service facilities as defined by KZC 117.15. or solar panels as defined by KZC 5.10.881.1.

5.10.881.1 Solar Panel

-A panel designed to absorb the sun's rays for generating electricity or heating.

115.33 is a new section

115.33 Electric Vehicle Infrastructure

1. Purpose and Intent - It is the intent of these development regulations to encourage the use and viability of electric vehicles as they have been identified as a solution to energy independence, cleaner air and significantly lower green house gas emissions.

Electric vehicles need access to Electric Vehicle Infrastructure (EVI) in appropriate locations. In 2009 the Washington State Legislature passed House Bill 1481 relating to electric vehicles. The bill addressed EVI which includes the structures, machinery, and equipment necessary and integral to support an electric vehicle, including battery charging stations, rapid charging stations, and battery exchange stations.

The purpose of the development regulations in this section is to meet the State of Washington requirements and to also allow battery charging stations and battery exchange stations in appropriate use zones throughout the City.

1. General – This section establishes where the components of Electric Vehicle Infrastructure are allowed within the City.

Exceptions-

Electric Vehicle Infrastructure may not be located in any sensitive areas, their buffer or buffer setbacks.

2. All Use Zones

Level I and Level II Battery Charging Stations are allowed as an accessory use to an approved use within all Use Zones.

3. Commercial Zones

- a. A Battery Exchange station is allowed as an accessory use to all commercial zones where repair or maintenance of vehicles is permitted.
- b. A Rapid Battery (Level III) Charging Station is allowed as an accessory use to all commercial zones where repair and maintenance of vehicles is permitted including Gas Stations.

4. Industrial Zones

- a. A Rapid Battery(Level III) Charging Station is allowed as an accessory use to an approved use within the Light Industrial Technology (LIT) or other Industrial zones where Repair and Maintenance of vehicles is permitted.
- b. A Battery Exchange Station is allowed as an accessory use to an approved use within the Light Industrial Technology (LIT) or other industrial zones where repair and maintenance of vehicles is permitted.

5. Institutional Uses

A Rapid Battery Charging Station (Level III) is allowed as an accessory use to an

approved institutional use.

6. Signage is required to identify a charging station for the exclusive use of an electric vehicle. Onsite signage shall also be required to provide directional assistance. (See Plate 45 in KZC 180).

5.10 Definitions

5.10.071 Battery Charging Station (Level I, II and III)

- An electrical component assembly or cluster of component assemblies designed specifically to charge batteries within electric vehicles, which meet or exceed any standards, codes, and regulations set forth by chapter 19.28 RCW as amended and consistent with rules adopted under RCW 19.27.540 as amended. The terms 1, 2, and 3 are the most common electric vehicle charging levels, and include the following specifications:

- Level 1 is considered slow charging.
- Level 2 is considered medium charging.
- Level 3 is considered fast or rapid charging.

5.10.071.5 Battery Electric Vehicle (BEV)

- Any vehicle that operates exclusively on electrical energy from an off-board source that is stored in the vehicle's batteries, and produces zero tailpipe emissions or pollution when stationary or operating.

5.10.071.6 Battery Exchange Station

- A facility that will enable an electric vehicle with a swappable battery to enter a drive lane and exchange the depleted battery with a fully charged battery.

5.10.271 Electric Vehicle

- Any vehicle that operates, either partially or exclusively, on electrical energy from the grid, or an off-board source, that is stored on-board for motive purpose. "Electric vehicle" includes: (1) a battery electric vehicle; (2) a plug-in hybrid electric vehicle

5.10..272 Electric Vehicle Charging Station

-Electrical Vehicle Charging Station - A public or private parking space that is served by battery charging station equipment that has as its primary purpose the transfer of electric energy (by conductive or inductive means) to a battery or other energy storage device in an electric vehicle.

.273 Electric Vehicle Infrastructure (EVI)

- Structures, machinery, and equipment necessary and integral to support an electric vehicle, including battery charging stations, rapid charging stations, and battery exchange stations.

.274 Electric Vehicle Parking Space

- Any marked parking space that identifies the use to be exclusively for the parking of an electric vehicle.

5.10.667 Plug-in-Hybrid Electric Vehicle (PHEV)

- An electric vehicle that (1) contains an internal combustion engine and also allows power to be delivered to drive wheels by an electric motor; (2) charges its battery primarily by connecting to the grid or other off-board electrical source; (3) may additionally be able to sustain battery charge using an on-board internal-combustion-driven generator; and (4) has the ability to travel powered by electricity.

5.10.756 Rapid Charging Station

- An industrial grade electrical outlet that allows for faster recharging of electric vehicle batteries through higher power levels and that meets or exceeds any standards, codes, and regulations set forth by chapter 19.28 RCW and consistent with rules adopted under RCW 19.27.540.

5.10.682 Preferential Parking

Parking for Carpools, HOV's, high efficiency/low emission electric and alternative fuel vehicles.

105 Parking

105.67 Parking Area Design – Preferential Parking Allowance

Parking stalls may be allocated for Preferential Parking. A restriction on types of vehicles using preferred stalls applies from 7AM to 10AM daily.

105.34 Covered Bicycle Storage

If covered and secured bicycle storage is provided on site, a credit towards parking requirements at a ratio of one less parking stall per 6 bicycle spaces will be granted. The Planning Official may increase credits according to size of development and anticipated pedestrian and bicycle activity and proximity to transit facilities. A maximum reduction of 5% of required parking stalls may be granted. If a reduction of 5 or more stalls is granted, then changing facilities including showers, lockers shall be required.

5.10.177 Covered Bicycle Storage

An enclosure or shelter in which bicycles can be secured and provides fully covered protection for bicycles from inclement weather and theft.

Green Codes Project Schedule

September 27, 2011

DATE	ITEM
January 4, 2011	City Council Update and Direction
January 27, 2011	Planning Commission (PC) Study Session – Scope/Work Program
February 4, 2011	Meetings with Technical Advisory Board & internet outreach
February 28, 2011	Houghton Community Council (HCC) Study Session – Review Project
March 4, 2011	Technical Advisory Board
March 24, 2011	PC Study Session – Review Alternatives
March 28, 2011	HCC – Review Alternatives
April 28, 2011	PC – 1 st Draft of Code Amendments
May 23, 2011	HCC – 1 st Draft of Code Amendments
June 9, 2011	PC - Study Session
June 27, 2011	HCC - Study Session
August 22, 2011	HCC – Clustered Housing/LID & City Council Action Items
August 25, 2011	PC– Clustered Housing/LID & City Council Action Items
August 2011	Outreach via Social Media Survey
September 2011	Convene Developers to review Clustered Housing/LID Concept
September 30, 2011	Technical Advisory Board Meeting – Comments on Draft Codes
October 13, 2011	PC – Draft Code Regulations
October 24, 2011	HCC –Draft Code Regulations
November 28, 2011	HCC – Draft Code Regulations
December 8, 2011	PC – Draft Code Regulations
December, 2011	SEPA Review and Determination
December, 2011	Notice to Commerce (at least 60 days prior to City Action)
January 12, 2012	PC/HCC Joint Public Hearing
January 23, 2012	HCC Recommendation
February 9, 2012	PC – Make Recommendations
March 6, 2012	City Council –Recommendations and Direction (Action?)
March 20, 2012	City Council Final Action
April 23, 2012	HCC Final Action