



CITY OF KIRKLAND
Planning and Community Development Department
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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: January 13, 2012

Subject: Green Codes Project
File No. ZON10-00031

RECOMMENDATION

Staff recommends that the Houghton Community Council (HCC) discuss the outstanding issues, deliberate on the Green Codes and recommend approval to the Planning Commission and City Council.

BACKGROUND DISCUSSION

The Houghton Community Council and the Planning Commission (PC) conducted a joint public hearing on January 12, 2012 on the proposed Green Codes. Staff made a presentation to highlight the proposed code amendments and to illustrate two differences between the Houghton Community Council and the Planning Commission on the proposed amendments. Both the HCC and PC were in general agreement on all code provisions with the exception of the Floor Area Ratio (F.A.R) standard for Low Impact Development projects in proposed Chapter 114 and exemptions for swimming pools should from lot coverage calculations with a self draining pool cover.

In addition, staff revised several provisions in the new Zoning Code Chapter 114 (Low Impact Development) and KZC 115.90 (Calculating Lot Coverage) based on previous direction from the HCC and the PC. A link to the January 12, 2012 hearing packet can be viewed [here](#). All the proposed Zoning Code Amendments are shown in Attachment 1. The revised code language is shown in red and underlined.

PUBLIC COMMENT

Five citizens made public comment primarily on solar panel height exemptions as proposed in KZC 115.60.2.a.4. Each speaker commented that an exception to height for solar panels should **not** be adopted because solar panels could block views and reduce the value of their investment. Staff received two emails regarding the Green Codes, one that further expressed opinions that a height allowance would reduce property values because home values are based on views and another regarding the placement of street trees (See Attachment 2).

PC and HCC DISCUSSION POINTS:

Following public comment, the Planning Commission and the Houghton Community Council primarily discussed the solar panel height exception. After considering the public comment and reviewing material provided by Houghton Council Member Georgine Foster, both the PC and the HCC agreed that a solar panel height exception should **not** be adopted. The main reasoning behind this was that under most circumstances solar panels can be put on a roof without exceeding the height limit and that there would be potential for view blockage. In addition, many felt that solar technology is rapidly changing and in the future there may not be a need for extended panels.

There was a short discussion about stormwater utility rates. One member from both the HCC and the PC expressed interest in policies related to reducing the stormwater rates charged if a property owner was able to keep their stormwater onsite. The stormwater utility rate discount is a policy question that will be reviewed by staff and then presented at a future City Council meeting.

OUTSTANDING ISSUES:

Staff would like the HCC discuss and then provide direction on the following issues:

1. KZC 114 (Low Impact Development), section 114.15 Maximum Density
- Option for bonus density of 10% has been added to this section (See Attachment 1, page 2)
2. KZC 114 (Low Impact Development), section 114.15 Minimum Required Yards (from Internal property lines) (See Attachment 1, page 3)
- Option to reduce front yard by 5 feet, if required rear yard is increased by same amount.
3. KZC 115.90 – Calculating Lot Coverage, Footnote 1 (See Attachment 1, page 9).

-A footnote has been added to the draft code that explains that the exemption for swimming pools will be retained in Houghton if a self-draining pool cover is used.

NEXT STEPS:

Staff will prepare revised draft regulations and a transmittal memo according to the direction provided by the Houghton Community Council (HCC) at the meeting on January 23rd. The revised documents will be reviewed by the Chair of the HCC and then forwarded as the HCC recommendation to the City Council for consideration at their meeting on March 6, 2012. If acceptable to the HCC and PC a joint transmittal memo will be prepared.

Staff will also be meeting with the Planning Commission (PC) on February 9, 2012 to review the same draft regulations and the HCC recommendation and will then prepare a PC recommendation to the City Council for consideration at their meeting on March 6, 2012.

The City Council is expected to take action on the amendments by March 20, 2012. The amendments will then be considered by the Houghton Community Council on April 23, 2012 for final action.

Attachments

1. Revised Draft Zoning Code Amendments
2. Public Comment letters received by Staff

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 • 2/3 Unit Homes
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 • Bonus Density is calculated by multiplying number of lots or units by .10. If a fraction of .5 or higher is obtained then round to the next whole number.
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>PLA 16, PLA 3C, RSA 1, RSA8 , 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"> • <u>Short Plats shall be reviewed under KMC 22.20.15 and Subdivisions shall be reviewed under KMC 22.12.015.</u> • <u>Condominium Projects shall be reviewed under KZC 145, Process I</u>

Parking Requirements	<ul style="list-style-type: none"> • 2 stalls per detached dwelling unit • 1 stall per accessory dwelling unit • 1.5 stalls per unit in multi-unit home, rounded to next whole number • See KZC 105.20 for guest parking requirements • Parking pad width required in KZC 105.47 may be reduced to 10 feet. • Parking Pad may be counted in required parking • Tandem Parking is allowed where stalls are share by the same dwelling unit. • 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 • 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 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 entire site is based on maximum lot coverage percentage of underlying zone.
Common Open Space	<ul style="list-style-type: none"> • Minimum of 40% of entire development • Native & undisturbed vegetation is preferred • Allowance of 1% of common open space area for shelters or other recreational structures • Paths connecting and through 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.

Footnotes:

1. The Maximum Floor Area for LID projects does not apply within the disapproval jurisdiction of Houghton.

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 for common open space is **40%** (~~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 and shall be placed underground at a depth to sufficiently allow landscaping to be planted on top of them. 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, 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 Common Open Space.

- 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 (see Kirkland Native Plant List). 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). 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 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 – 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:

One 2/3 unit home requires a Process I review

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, 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 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.

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 6 zone, the lots shall be at least 2,550 square feet.
- (b) 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~~ 3,800 square feet.
 - c. In RSA 6 zones, the minimum lot size is ~~5,100~~ 2,550 square feet.
 - d. In RSA 8 zones, the minimum lot size is 3,800 square 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.

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. Exceptions¹
 - ~~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 adopted 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.

Footnote¹: An exemption for Swimming pools is allowed in the Houghton Jurisdiction if the pool cover is self-draining into the swimming pool and does not cause surface water runoff as determined by the Planning Official.

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 but that are adjacent 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 for this section between the edge of the road way to the private driveway.
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.

David Barnes

From: Kathy Magner [kathy@kathymagner.com]
Sent: Tuesday, January 10, 2012 12:02 PM
To: David Barnes
Subject: Kirkland views and their values

Dear Mr. Barnes,

At the suggestion of a client I went to the City of Kirkland's Planning Department website to view the Proposed Green Building Codes Project. At that website was a photo of solar panels on a roof overlooking the Seattle skyline which appears could block neighboring properties' views.

Naturally occurring hilly topography gives Kirkland unique character and views much sought after by many perspective buyers. In my experience, any time a view is partially blocked, the value of the home is affected. In marketing a home, there is a huge difference between an "unobstructed view", "partial view" or "limited view". The more unobstructed the view, the greater the value. It is also true the more obstructed the view, the lesser the value.

Please consider the effects solar panel installations, such as the one posted on the website, might have on properties in many areas of Kirkland. Any Zoning Code changes that alter existing height limitations should be weighed carefully.

Thank you for your consideration.

Respectfully,

Kathy

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The power of experience!

David Barnes

From: Margaret Bull [wisteriouswoman@gmail.com]
Sent: Tuesday, January 10, 2012 3:43 PM
To: David Barnes
Subject: green codes

Dear David,

I do not plan on going to the green code planning session on Thursday.

I do have one concern though. I get frustrated with the city's requirements for trees and plants in developments whether they are along the street boundary or within a parking lot. I hate having street trees block my view of cars exiting a driveway, or important road sign, or pedestrians on a walkway. Developers often plunk trees down evenly spaced apart to meet the requirement with no thought to the fact that there is a bus stop sign or speed limit sign right next to them. It can also be difficult to get out of a car when parked near a planting strip. Either the door doesn't open all the way or else I have to jump into a bush. New trees are potentially hazardous because their branches are so low a pedestrian can get poked in the eye. My most recent experience with this problem is along 108th next to the development behind Metropolitan Market. There is one tree right in front of the bus stop sign and another right behind it and no street light on that side of 108th. Once the trees leaf-out, no one including the bus driver will be able to see the bus stop sign. Because the tree will also block the light from the Street light across the street it may be difficult for the driver to see anyone waiting at the stop. Those same trees have whacked me in the face when I was walking to Metropolitan Market. I am just using this as an example. Over and over I see poorly placed bushes and trees. I understand the intent in requiring trees and plants but it doesn't always mean a development will be better for it.

Sincerely,

Margaret Bull