DEVELOPMENT SERVICES DEPARTMENT
ENVIRONMENTAL COORDINATOR
11511 MAIN ST., P.O. BOX 90012
BELLEVUE, WA 98009-9012

DETERMINATION OF NON-SIGNIFICANCE

PROPONENT: Steve Sundet, Laurel Hurst Homes LLC

LOCATION OF PROPOSAL: 17110 SE 43rd Street

NAME & DESCRIPTION OF PROPOSAL: Reidinger Addition

Review for construction of a home addition with a 268 square foot footprint that will modify a buffer from a Type-F stream.

FILE NUMBER: 13-112256-LO

The Environmental Coordinator of the City of Bellevue has determined that this proposal does not have a probable significant adverse impact upon the environment. An Environmental Impact Statement (EIS) is not required under RCW 43.21C.030(2)(C). This decision was made after the Bellevue Environmental Coordinator reviewed the completed environmental checklist and information filed with the Land Use Division of the Development Services Department. This information is available to the public on request.

☐ There is no comment period for this DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's office by 5:00 p.m. on _____.

☒ This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's Office by 5 p.m. on 5/23/13.

☐ This DNS is issued under WAC 197-11-340(2) and is subject to a 14-day comment period from the date below. Comments must be submitted by 5 p.m. on _____. This DNS is also subject to appeal. A written appeal must be filed in the City Clerk's Office by 5 p.m. on _____.

This DNS may be withdrawn at any time if the proposal is modified so that it is likely to have significant adverse environmental impacts; if there is significant new information indicating, or on, a proposals probable significant adverse environmental impacts (unless a non-exempt license has been issued if the proposal is a private project): or if the DNS was procured by misrepresentation or lack of material disclosure.

_____ 5/9/2013
Environmental Coordinator Date

OTHERS TO RECEIVE THIS DOCUMENT:
State Department of Fish and Wildlife
State Department of Ecology,
Army Corps of Engineers
Attorney General
Muckleshoot Indian Tribe

City of Bellevue
Development Services Department
Land Use Staff Report

Proposal Name:	Reidinger Addition
Proposal Address:	17110 SE 43rd Street
Proposal Description:	Land Use review of a 268 square foot expansion of an existing single family residence.
File Number:	13112256-LO
Applicant:	Steve Sundet, Laurel Hurst Homes LLC
Decisions Included	Critical Areas Land Use Permit (Process II. 20.30P)
Planner:	Reilly Pittman, Land Use Planner
State Environmental Policy Act Threshold Determination:	**Determination of Non-Significance** Carol V. Helland, Environmental Coordinator Development Services Department
Director's Decision:	**Approval with Conditions** Michael A. Brennan, Director Development Services Department By: _____ Carol V. Helland, Land Use Director
Application Date:	April 5, 2013
Notice of Application Date:	April 18, 2013
Decision Publication Date:	May 9, 2013
Project Appeal Deadline:	May 23, 2013

For information on how to appeal a project proposal, visit the Permit Center at City Hall or call 425-452-6800. Appeal of the SEPA Threshold Determination must be made to the City of Bellevue City Clerk's Office by 5 p.m. on the date noted above for SEPA appeal deadline.

CONTENTS

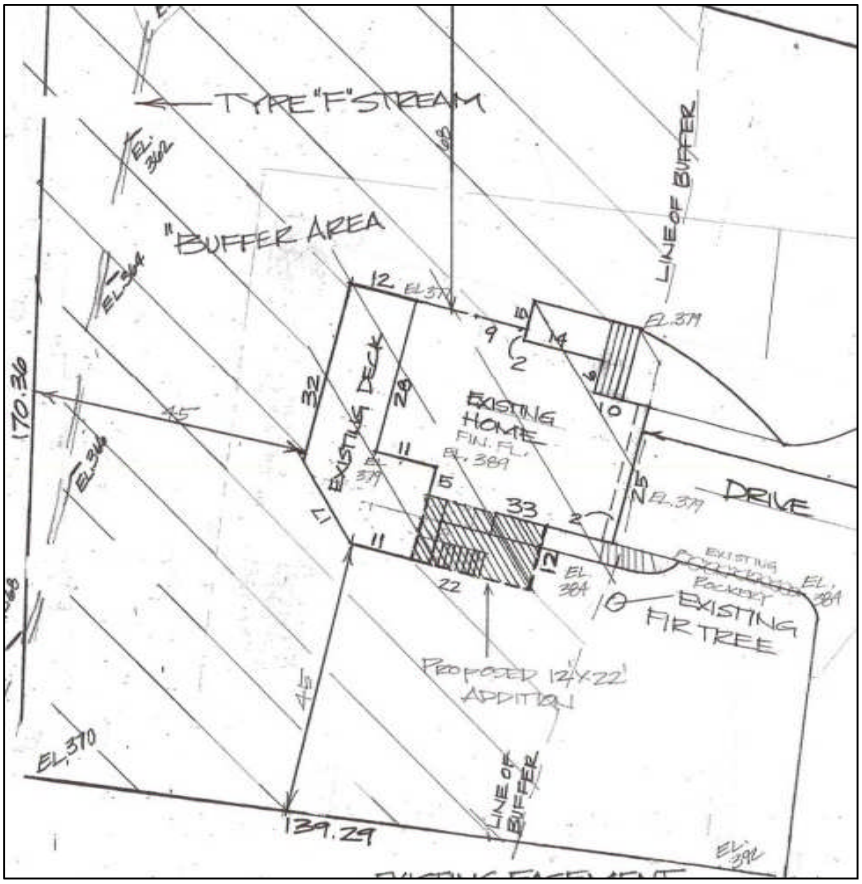
Attachments

1. Site Plan – Enclosed
2. Stream Planting Template – Enclosed
3. SEPA Checklist and application forms – In File

I. Proposal Description

The applicant proposes to construct an addition to an existing single-family residence. The addition is a two floor addition that will expand the bathroom associated with the master bedroom and kitchen area. The addition is proposed within a 50-foot buffer from a Type-F stream; the buffer adjacent to the house foundation is proposed to be modified to accommodate the 268 square-foot footprint of the addition. This addition is proposed under LUC 20.25H.055.C.3.n, which allows single family residences up to a 500-square-foot footprint expansion into a critical area buffer, provided that there is no feasible alternative to avoid the buffer, the expansion is for an essential component of the house such as a bathroom or kitchen, and mitigation is provided for permanent disturbance of the buffer. A Critical Areas Land Use Permit is required to approve reduction of the buffer for the proposed addition. See Figure 1 below showing the addition proposed on the existing house. The site plan can be found as Attachment 1 of this report.

Figure 1



II. Site Description, Zoning, Land Use and Critical Areas

A. Site Description

The project site is located at 17110 SE 43rd Street in the Newcastle subarea of the City. Other developed single-family zoned properties surround the property. Vehicle access is provided by a private access that connects to SE 43rd Street. The stream is on the western portion of the site contained within a ravine. See Figure 2 for existing site condition.

Figure 2

B. Zoning

The property is zoned R-3.5, single-family residential which allows the proposed addition.

C. Land Use Context

The property has a Comprehensive plan Land Use Designation of SF-M (Single Family Medium Density). Construction of a home addition is consistent with this residential land use.

D. Critical Areas On-Site and Regulations

i. Streams and Riparian Areas

Most of the elements necessary for a healthy aquatic environment rely on processes sustained by dynamic interaction between the stream and the adjacent riparian area (Naiman et al., 1992). Riparian vegetation in floodplains and along stream banks provides a buffer to help mitigate the impacts of urbanization (Finkenbine et al., 2000 in

Bolton and Shellberg, 2001). Riparian areas support healthy stream conditions.

Riparian vegetation, particularly forested riparian areas, affect water temperature by providing shade to reduce solar exposure and regulate high ambient air temperatures, slowing or preventing increases in water temperature (Brazier and Brown, 1973; Corbett and Lynch, 1985).

Upland and wetland riparian areas retain sediments, nutrients, pesticides, pathogens, and other pollutants that may be present in runoff, protecting water quality in streams (Ecology, 2001; City of Portland 2001). The roots of riparian plants also hold soil and prevent erosion and sedimentation that may affect spawning success or other behaviors, such as feeding.

Both upland and wetland riparian areas reduce the effects of flood flows. Riparian areas and wetlands reduce and desynchronize peak crests and flow rates of floods (Novitzki, 1979; Verry and Boelter, 1979 in Mitsch and Gosselink, 1993). Upland and wetland areas can infiltrate floodflows, which in turn, are released to the stream as baseflow

Stream riparian areas, or buffers, can be a significant factor in determining the quality of wildlife habitat. For example, buffers comprised of native vegetation with multi- canopy structure, snags, and down logs provide habitat for the greatest range of wildlife species (McMillan, 2000). Vegetated riparian areas also provide a source of large woody debris that helps create and maintain diverse in-stream habitat, as well as create woody debris jams that store sediments and moderate flood velocities.

Sparsely vegetated or vegetated buffers with non-native species may not perform the needed functions of stream buffers. In cases where the buffer is not well vegetated, it is necessary to either increase the buffer width or require that the standard buffer width be restored or revegetated (May 2003). Until the newly planted buffer is established the near term goals for buffer functions may not be attained.

Riparian areas often have shallow groundwater tables, as well as areas where groundwater and surface waters interact. Groundwater flows out of riparian wetlands, seeps, and springs to support stream baseflows. Surface water that flows into riparian areas during floods or as direct precipitation infiltrates into groundwater in riparian areas and is stored for later discharge to the stream (Ecology, 2001; City of Portland, 2001).

III. Consistency with Land Use Code Requirements:

A. Zoning District Dimensional Requirements:

The R-3.5 zoning dimensional requirements found in LUC 20.20.010 apply to the proposed home construction. The proposed lot coverage by structure will be well under the maximum allowed 35 percent of the net lot area that excludes square footage of the stream buffer corridor. The site will also not exceed the maximum impervious surface coverage which is 50 percent of the gross lot area. The proposed addition conforms to the required setback for the zone. The plans submitted generally demonstrate conformance with zoning

dimensional standards, however conformance will be verified during building permit review.

B. Critical Areas Requirements LUC 20.25H:

The City of Bellevue Land Use Code Critical Areas Overlay District (LUC 20.25H) establishes performance standards and procedures that apply to development on any site which contains in whole or in part any portion designated as critical area, critical area buffer or structure setback from a critical area or buffer. The project area is within the 50-foot stream buffer and is subject to the performance standards found in LUC 20.25H as specified in the table below

Critical Area	**Geologic Hazard-Steep Slopes**
Performance Standards	20.25H.080 20.25H.055.C.3.n

i. Consistency with LUC 20.25H.080

Development on sites with a type S or F stream or associated critical area buffer shall incorporate the following performance standards in design of the development, as applicable:

1. **Lights shall be directed away from the stream.**
2. **Activity that generates noise such as parking lots, generators, and residential uses shall be located away from the stream or any noise shall be minimized through use of design and insulation techniques.**
3. **Toxic runoff from new impervious area shall be routed away from the stream.**
4. **Treated water may be allowed to enter the stream critical area buffer.**
5. **The outer edge of the stream critical area buffer shall be planted with dense vegetation to limit pet or human use.**
6. **Use of pesticides, insecticides and fertilizers within 150 feet of the edge of the stream critical area buffer shall be in accordance with the City of Bellevue's "Environmental Best Management Practices," now or as hereafter amended.**

Finding: The proposed addition is near the outer edge of the buffer at the top of the ravine. All lights and noises will be directed away from the stream based on topography and the location of the house relative to the stream. No toxic runoff will be generated by the home addition. Drainage will flow across the site and be filtered by vegetation before entering the stream. In exchange for approval the site is required to be planted with at least 268 square feet of native planting. The planting can be selected from the City's planting template for stream buffers which is Attachment 2 of this report. The site plans submitted for the building permit application shall be revised to show the designated planting area. The planting is recommended to be placed at the top of the ravine to address the standard above

for planting at the outer edge of the stream buffer. The site plan shall designate the species of plants and quantity to be planted with trees spaced at a maximum of 9 feet on center, shrubs spaced at a maximum of 4.5 feet on center, and ground covers at a maximum of 2 feet on center. Based on the planting area of 268 square feet and the spacing requirements the planting should include at least 3 trees, 14 shrubs, and 100 ground covers. See Conditions of Approval in Section X of this report.

ii. Consistency With LUC 20.25H.055.C.3.n

Where allowed, expansions into the critical area buffer and critical areas structure setback shall be limited as follows:

1. **The expansion shall be along the existing building line parallel to the edge of the critical area, unless such expansion is not feasible. Only when such expansion is not feasible may expansion encroach further into the critical area buffer and critical area structure setback.**
   For purposes of this section, expansion outside of the critical area buffer and critical area structure setback shall be considered not feasible only when, considering the function to be served by the expansion and the existing structure's layout and infrastructure (including plumbing, drainage and electrical systems):

   a. **Expansion away from the critical area buffer and critical area structure setback within the buildable area of the site will not realize the intended functions of the expansion.**
      The proposed expansion maintains the existing building line parallel to the top of bank. The entire house is located within the buffer which requires the proposed addition to the kitchen and bathroom to be located within the buffer as the intended use cannot be realized outside the buffer. The addition is not intruding further into the buffer than the existing house is already located.

   b. **Expansion away from the critical area buffer and critical area structure setback, including into non-critical area setbacks modified pursuant to LUC 20.25H.040, will not realize the intended functions of the expansion.**
      The allowed setback modification under LUC 20.25H.040 would not allow the proposed addition to avoid modification of the buffer.

   c. **Expansion upwards to the maximum building height of the underlying land use district, within the existing footprint, or together with expansions permitted under subsections C.3.n.ii.(A) and (B) of this section, will not realize the intended functions of the expansion.**
      The proposed addition is a two floor addition and does utilize upwards expansion to achieve more floor area within a smaller footprint. The

proposed footprint is 268 square feet but the total floor area added is 528 square feet.

2. **Expansions shall be the minimum necessary to achieve the intended functions of the expansion, but in no event may the footprint expansion within the critical area buffer and critical area structure setback exceed 500 square feet over the life of the structure. Expansions into stream critical area buffers allowed pursuant to the City's previous critical areas regulations (prior LUC 20.25H.085.B) shall be included in determining the allowed lifetime expansion.**
   The proposed addition will expand the footprint by 268 square feet which is less than the 500 foot expansion allowed. The kitchen and master bathroom cannot be easily moved to another location in the house.

3. **Areas of new permanent disturbance and all areas of temporary disturbance within the critical area buffer shall be mitigated and/or restored pursuant to a mitigation and restoration plan meeting the requirements of LUC 20.25H.210.**
   268 square feet of planting is required per the City's planting templates for stream buffers as explained previously.

IV. Public Notice and Comment

Application Date:	April 5, 2013
Public Notice (500 feet):	April 18, 2013
Minimum Comment Period:	May 2, 2013

The Notice of Application for this project was published the City of Bellevue Weekly Permit Bulletin and the Seattle Times on April 18, 2013. It was mailed to property owners within 500 feet of the project site. A comment was received from the Muckleshoot Indian Tribe regarding what mitigation planting is required for the project which was explained earlier in this report.

V. Summary of Technical Reviews

A. Clearing and Grading

The Clearing and Grading Division of the Development Services Department has reviewed the proposed site development for compliance with Clearing and Grading codes and standards. The Clearing and Grading staff found no issues with the proposed development and has approved the application.

VI. State Environmental Policy Act (SEPA)

The environmental review indicates no probability of significant adverse environmental impacts occurring as a result of the proposal. The Environmental Checklist submitted with the application adequately discloses expected environmental impacts associated with the project. The City codes and requirements, including the Clear and Grade Code, Utility Code,

Land Use Code, Noise Ordinance, Building Code and other construction codes are expected to mitigate potential environmental impacts. Therefore, issuance of a Determination of Non-Significance (DNS) is the appropriate threshold determination under the State Environmental Policy Act (SEPA) requirements.

A. Earth, Air, and Water

No large-scale earthmoving activity is proposed than is necessary to construct the addition. Erosion and sedimentation control requirements and BMPs will be reviewed by the Clearing and Grading Department as part of a clearing and grading permit.

B. Plants and Animals

No significant vegetation is being removed by the structures. 268 square feet of mitigation planting is required as previously explained which will include trees, shrubs and ground cover vegetation to be placed within the stream corridor in order to mitigate the permanent impact to the stream buffer as a result of the proposed addition.

C. Noise

Any noise generated is regulated by Chapter 9.18 BCC. **See Section X for a related condition of approval.**

VII. Changes to Proposal Due to Staff Review

No changes to the project were required during review.

VIII. Decision Criteria

A. 20.30P.140 Critical Area Land Use Permit Decision Criteria – Decision Criteria

The Director may approve, or approve with modifications an application for a Critical Area Land Use Permit if:

1. **The proposal obtains all other permits required by the Land Use Code.**
   The applicant must obtain a building permit and any other required development permits. See Conditions of Approval in Section X of this report.

2. **The proposal utilizes to the maximum extent possible the best available construction, design and development techniques which result in the least impact on the critical area and critical area buffer.**
   The house and proposed addition are located in the outer edge of the stream buffer and the addition is not proposed further into the buffer than the existing house. The proposed addition is two floors and will provide greater floor area within a smaller footprint than an addition on one floor. The mitigation planting required will provide new vegetation within the stream buffer.

3. **The proposal incorporates the performance standards of Part 20.25H to the maximum extent applicable.**
   As discussed in Section III of this report, the applicable performance standards of

LUC Section 20.25H are being met.

4. **The proposal will be served by adequate public facilities including street, fire protection, and utilities.**
   The proposed activity will be served by adequate public facilities.

5. **The proposal includes a mitigation or restoration plan consistent with the requirements of LUC Section 20.25H.210.**
   The mitigation planting is required is consistent with the City's planting templates for stream buffers. At time of building permit a cost estimate for the planting will be required which shows the plant species, quantity, and size to be installed. The building permit must also include the submitted planting plan which shows where the plants are installed on the property. Part of the building permit inspection process will include an inspection by Land Use staff to ensure the planting is installed. See Conditions of Approval in Section X of this report.

6. **The proposal complies with other applicable requirements of this code.**
   As discussed in this report, the proposal complies with all other applicable requirements of the Land Use Code and Bellevue City Code. See Conditions of Approval in Section X of this report.

IX. Conclusion and Decision

After conducting the various administrative reviews associated with this proposal, including Land Use Code consistency, City Code and Standard compliance reviews, the Director of the Development Services Department does hereby **approve with conditions** the proposed addition on the existing home to be located in the 50-foot stream buffer from the Type-F stream found on the property. **Approval of this Critical Areas Land Use Permit does not constitute a permit for construction. A building permit, clear and grade permit, and/or utility permit is required and all plans are subject to review for compliance with applicable City of Bellevue codes and standards.**

Note- Expiration of Approval: In accordance with LUC 20.30P.150 a Critical Areas Land Use Permit automatically expires and is void if the applicant fails to file for a building permit or other necessary development permits within one year of the effective date of the approval.

X. Conditions of Approval

The applicant shall comply with all applicable Bellevue City Codes and Ordinances including but not limited to:

Applicable Ordinances	Contact Person
Clearing and Grading Code- BCC 23.76	Janney Gwo, 425-452-6190
Land Use Code- BCC Title 20	Reilly Pittman, 425-452-4350
Noise Control- BCC 9.18	Reilly Pittman, 425-452-2973

The following conditions are imposed under the Bellevue City Code or SEPA authority referenced:

1. **Building Permit:** Approval of this Critical Areas Land Use Permit does not constitute an approval of a development permit. Application for a building permit or other required permits must be submitted and approved. Plans submitted as part of either permit application shall be consistent with the activity permitted under this approval.

   Authority: Land Use Code 20.30P.140
   Reviewer: Reilly Pittman, Development Services Department

2. **Mitigation Planting:** Plans submitted for the building permit must show, on a separate sheet, a final mitigation plan for the 268 square feet area determined to be permanent impact resulting from the house addition within the stream buffer. Mitigation planting must, at a minimum, match the City's planting templates for stream buffers found as attachment 2 of this report. The planting area must contain at least 3 trees, 14 shrubs, and 100 ground covers based on the required planting density of the template.

   Authority: Land Use Code 20.30P.140
   Reviewer: Reilly Pittman, Development Services Department

3. **Maintenance and Monitoring:** The property owner or hired contractor must maintain and monitor the planting for a period of three years following approval. An annual report is required to be submitted to Land Use Staff which documents the yearly plant maintenance, plant health, any replanting, and includes photos of the planting. The report can be emailed to Reilly Pittman at rpittman@bellevuewa.gov.

   Authority: Land Use Code 20.30P.140
   Reviewer: Reilly Pittman, Development Services Department

4. **Land Use Inspection:** Following installation of mitigation planting, the applicant shall contact Land Use staff to inspect the planting area prior to final building inspection. Staff will need to find that the plants are in a healthy and growing condition. A final inspection by Land Use staff is required at the end of the three year monitoring period.

   Authority: Land Use Code 20.30P.140
   Reviewer: Reilly Pittman, Development Services Department

5. **Hold Harmless Agreement: Prior to building permit approval,** the applicant shall submit a hold harmless agreement in a form approved by the City Attorney which releases the City from liability for any damage arising from the location of improvements within a critical area buffer in accordance with LUC 20.30P.170. The hold harmless agreement is required to be recorded with King County prior to building permit issuance. Staff will provide the applicant with the hold harmless form for submittal with the building

permit.

Authority: Land Use Code 20.30P.170
Reviewer: Reilly Pittman, Development Services Department

6. **Noise Control:** Noise related to construction is exempt from the provisions of BCC 9.18 between the hours of 7 am to 6 pm Monday through Friday and 9 am to 6 pm on Saturdays, except for Federal holidays and as further defined by the Bellevue City Code. Noise emanating from construction is prohibited on Sundays or legal holidays unless expanded hours of operation are specifically authorized in advance. Requests for construction hour extension must be done in advance with submittal of a construction noise expanded exempt hours permit.

   Authority: Bellevue City Code 9.18
   Reviewer: Reilly Pittman, Development Services Department

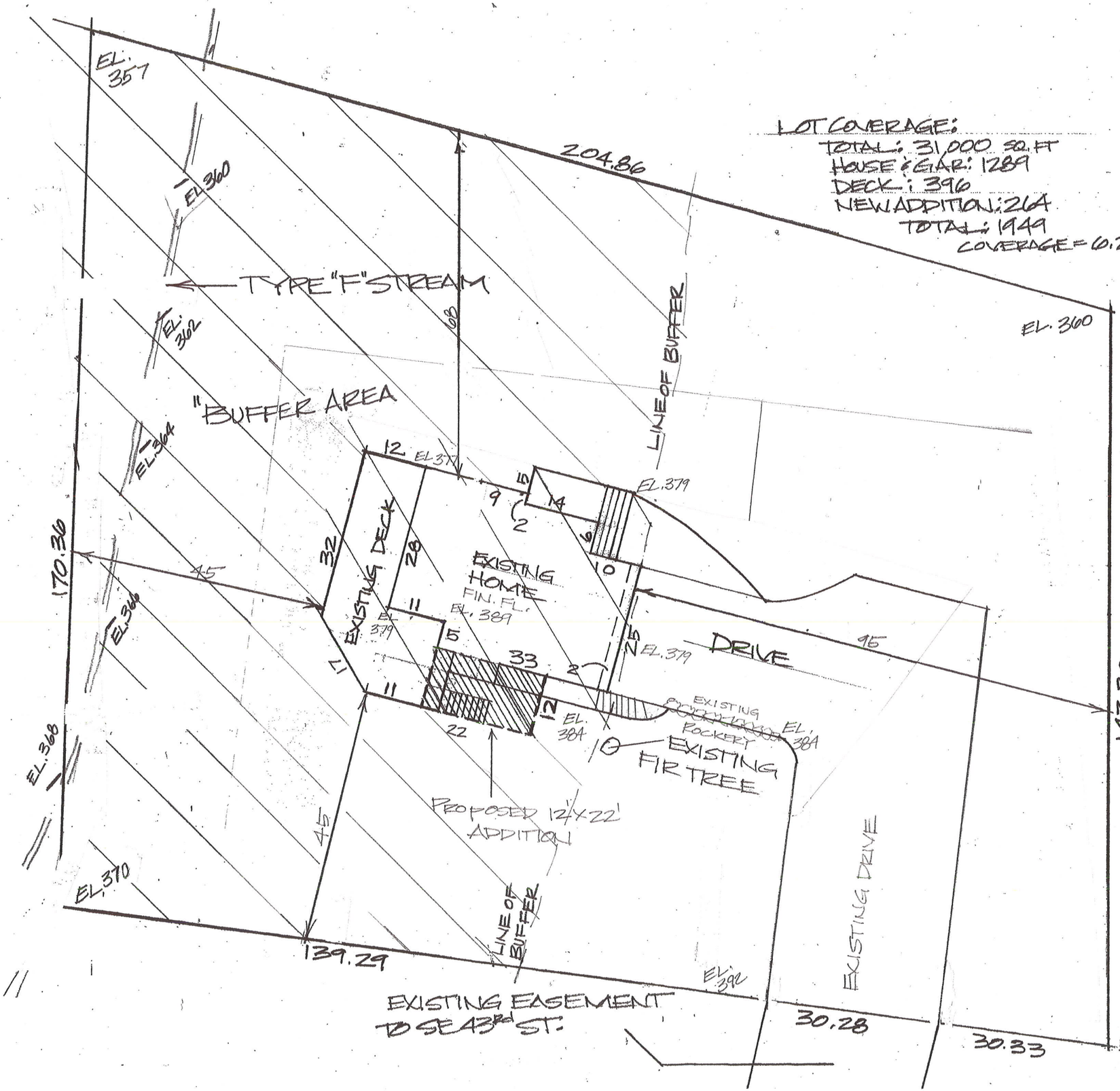
LOT COVERAGE:
TOTAL: 31,000 SQ. FT
HOUSE & GAR: 1289
DECK: 396
NEW ADDITION: 264
TOTAL: 1949
COVERAGE = 6.2%

17110 SE 43rd ST.
BELLEVUE 98006
#1324059126
KCSP# 475055

"RIEDINGER BATH"
ADDITION
528 SQ FT

LAURELHURST HOMES, LLC
206-914-8351
ATTN: STEVE SUNDET
SGSUNDET@COMCAST.NET

PLOT PLAN



SCALE 1" = 20'

STREAM BUFFER TEMPLATES

Red Alder

Pacific Bleeding Heart

Tall Oregon Grape

Snowberry

Stream Buffer

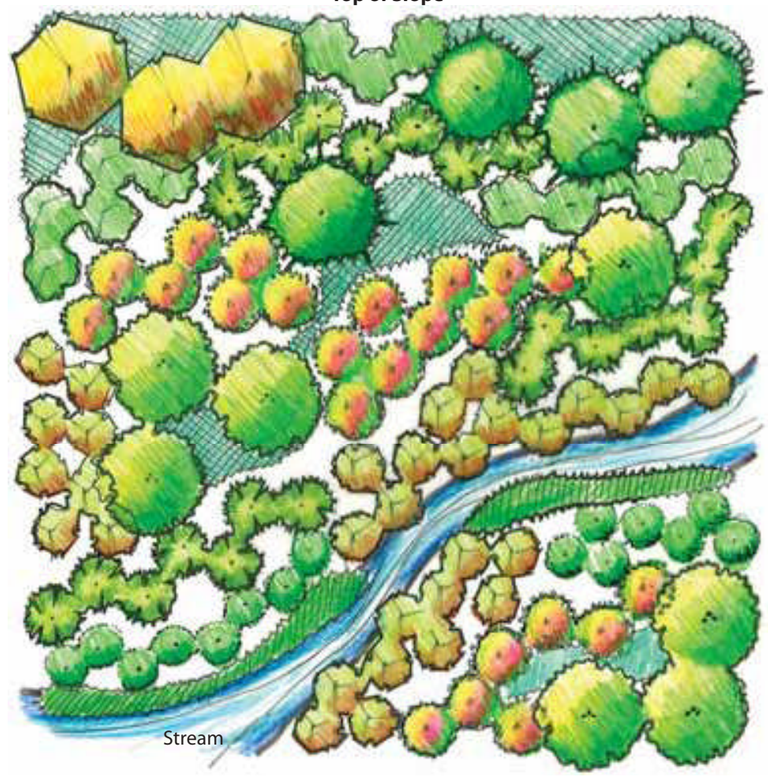
Steep Slope Planting Template
for ***Sunny*** and ***Shady*** Sites

D3

STREAM BUFFER STEEP SLOPE PLANTING TEMPLATE

60′ X 60′ TYPICAL PLANTING

Top of Slope

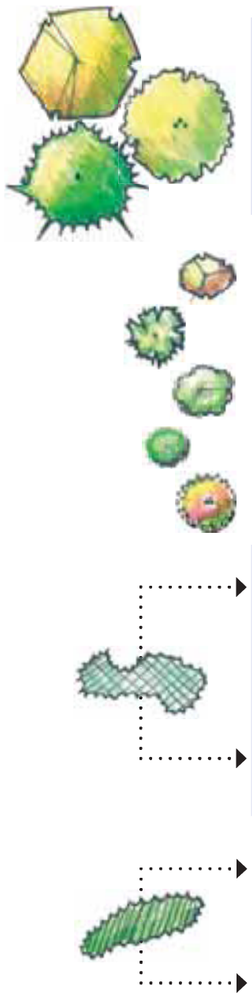


SCALE 1″=10′

0 5 10

Streams with steep side slopes often have deeply incised channels. The likelihood of adjacent areas becoming inundated with water is low. (See the Section on *Streams* and *Steep Slopes* in *Chapter One* and the City's Critical Areas Ordinance for additional information. Thus the plants needed for these areas must be tolerant of dry conditions, and like the steep slope templates, must have soil-binding characteristics to help stabilize the stream's side slopes. The plants chosen for this template are known to be tolerant of these conditions.

PLANT LEGEND FOR SUNNY SITES

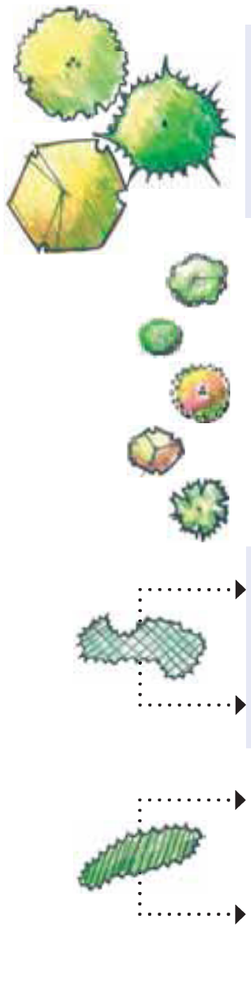


LATIN NAME/ COMMON NAME	TYPICAL SPACING/ AVERAGE HEIGHT	CHARACTERISTICS
TREES		
Acer macrophyllum/ Big-leaf maple	9 feet on center/ 75 feet	Yellow fall color. Provides understory shade, largest leaf of all maples
Alnus rubra/ Red alder	9 feet on center/ 60 feet	Vigorous grower, provides cover quickly for other plants
Pseudotsuga menziesii/ Douglas-fir	9 feet on center/ 150 feet	Highly adaptable, fast grower
SHRUBS		
Cornus sericea/ Red-osier dogwood	4.5 feet on center/ 15 feet	Stem provides red color, white flower in spring, berries in summer
Holodiscus discolor/ Oceanspray	4.5 feet on center/ 7 feet	Spectacular blossom; attracts hummingbirds and butterflies
Philadelphus lewisii/ Mock orange	4.5 feet on center/ 8 feet	Fragrant white blossom
Rubus parviflorus/ Thimbleberry	4 feet on center/ 8 feet	Delicious edible berries, fast grower, likes sun
Symphoricarpos albus/ Snowberry	4.5 feet on center/ 5 feet	White inedible berries, proven performer in tough conditions
GROUNDCOVERS & PERENNIALS		
Asarum caudatum/ Wild ginger	*24 in. on center/ 6-8 in.	Tough groundcover, great for planting under shrubs and trees
Athyrium filix-femina/ Lady fern	*24 in. on center/ 3 feet	Often large fern, dies back in winter, tolerates very wet sites
Dicentra formosa/ Pacific bleeding heart	*18 in. on center/ 1 foot	Delicate, fern-like foliage, pink pendulous flowers
Viola glabella/ Stream Violet	*18 in. on center/ 1.5-2 feet	Yellow flowers, grows in wet soils
EMERGENTS		
Juncus ensifolius/ Dagger-leaf rush	12 in. on center/ 2 feet	Dagger shaped leaves, flat iris-like
Scirpus acutus/ Hardstem bulrush	12 in. on center/ 6 feet	Important food and habitat for waterfowl and aquatic mammals
Scirpus microcarpus/ Small-fruited bulrush	12 in. on center/ 4.5 feet	Interesting ornamental quality and bloom

* *Indicates plants are to be triangularly spaced for the area shown. See page 23 for triangular spacing.*

D3-Sun

PLANT LEGEND FOR SHADY SITES



LATIN NAME/ COMMON NAME	TYPICAL SPACING/ AVERAGE HEIGHT	CHARACTERISTICS
TREES		
Alnus rubra/ Red alder	9 feet on center 60 feet	Vigorous grower, provides cover quickly for other plants
Thuja plicata/ Western red cedar	9 feet on center/ 150 feet	Fragrance, adaptable to many sites
Tsuga heterophylla/ Western hemlock	9 feet on center/ 125 feet	Fairly dry to wet sites, shade tolerant
SHRUBS		
Acer circinatum/ Vine maple	4.5 feet on center/ 20 feet	Bright red fall color, small understory tree, grows well in shade
Mahonia aquifolium/ Tall Oregon grape	3.5 feet on center/ 5 feet	Yellow flowers in Spring; edible dark purple berries
Oemleria cerasiformis/ Osoberry	4.5 feet on center/ 10 feet	Berries attract birds, first shrub to leaf out in spring
Rubus spectablis/ Salmonberry	4 feet on center/ 11 feet	Edible berries, orange stems, fast grower, can form thickets
Sambucus racemosa/ Red Elderberry	4.5 feet on center/ 15 feet	Edible berries, fast grower, graceful form with age
GROUNDCOVERS & PERENNIALS		
Arctostaphylos uva-ursi/ Kinnikinnick	*24 in. on center/ 6-8 in.	Evergreen groundcover, great for rockeries and full sun areas
Asarum caudatum/ Wild ginger	*24 in. on center/ 6-8 in.	Tough groundcover, great for planting under shrubs and trees
Polystichum munitum/ Sword fern	*24 in. on center 5 feet once mature	Semi-evergreen fern, highly adaptable
EMERGENTS		
Carex obnupta/ Slough sedge	12 in. on center/ 4.5 feet	Ornamental quality, wide dark Green leaves
Scirpus acutus/ Hardstem bulrush	12 in. on center/ 6 feet	Important food and habitat for waterfowl and aquatic mammals
Scirpus microcarpus/ Small-fruited bulrush	12 in. on center/ 4.5 feet	Interesting ornamental quality and bloom

* *Indicates plants are to be triangularly spaced for the area shown. See page 23 for triangular spacing.*

D3-Shade