City of Bellevue
Department of Planning and Community Development
Development Services Staff Report

Proposal Name:	Vollink Critical Areas Land Use Permit
Proposal Address:	6047 173rd Ave SE
Proposal Description:	Application for a Critical Areas Land Use Permit to restore a Type N stream to provide habitat and to help control erosion and sedimentation in anticipation of future development within the Upper Watershed of Lewis Creek.
File Number:	07-105201-LO
Applicant:	Todd Smith, Johnston Architects
Decisions Included:	Critical Areas Land Use Permit (Process II. LUC 20.30P)
Planner:	Leah Hyatt, Assistant Planner
State Environmental Policy Act Threshold Determination:	Determination of Non-Significance Carol V. Helland, Environmental Coordinator Department of Planning and Community Development
Director's Decision:	Approval with Conditions Matthew A. Terry, Director Department of Planning and Community Development

Application Date:	February 2, 2007
Notice of Application Publication Date:	March 8, 2007
Re-Notice of Application Publication Date:	August 29, 2007
Decision Publication Date:	November 15 , 2007
Project/SEPA Appeal Deadline:	November 29, 2007

For information on how to appeal a proposal, visit Development Services at City Hall or call (425) 452-6800. Comments on State Environmental Policy Act (SEPA) Determinations can be made with or without appealing the proposal within the noted comment period for a SEPA Determination. Appeal of the Decision must be received in the City's Clerk's Office by 5 PM on the date noted for appeal of the decision.

I. Background

A. Project Description

The applicant is proposing to reconstruct a portion of an existing Type N stream channel and to restore and enhance the riparian buffer by creating a vegetated link between adjacent areas forested with Douglas fir and western red cedar. The stream segment is located at 6047 173rd Ave SE. The segment is grassy with no substrate or clearly defined channel, the buffer consists only of grass and weeds. The applicant is proposing a meandering channel which will have a gravel substrate and a buffer of native vegetation. The stream will interface with a catch basin designed to reduce sedimentation and debris and channel water through an existing fish-passable culvert. The proposal also includes an energy dissipater to attenuate flow to the connecting off-site streams and ultimately to Lewis Creek.

Site analysis and Critical Areas Report was completed and prepared by The Watershed Company in July 2007. The site analysis and report analyzed the proposal and probable impacts to the stream and buffer area in accordance with the requirements of LUC Section 20.25H. As part of the assessment, The Watershed Company conducted a site reconnaissance, stream identification and buffer analysis. The report concluded the proposed stream and buffer restoration will not adversely impact the functionality of the riparian corridor and will result in a net gain of habitat function and value.

The applicant has proposed to mitigate the disturbed area by providing a native plant restoration plan covering 2,700 square feet of the site. This plan includes three tiers of proposed vegetation including 37 new trees to replace the existing grassy area as well as a ground cover and shrub plan for this area.

B. Site Description

The site is zoned R-1.8, single-family residential, as are all surrounding properties. Higher density residential lots are located to the north and west, and these areas are near build-out. The applicants property is near the edge of, but not contiguous with, a large tract of forest habitat owned by King County to the south and east. Several developed lots exist between the applicant's property and the forested tract, and the few remaining undeveloped lots zoned for single-family homes are likely to be developed in the near future. The existing structures on-site are located on a flat bench area at the toe of a critical slope. The property is located within the Lewis Creek watershed. The site contains a Type N stream that runs between the house and the garage. The stream is collected in an existing fish passable culvert underneath the parking pad and vehicle turnaround and connects to an adjacent Type N stream.

C. Need for Improvement

The proposed channel and buffer restoration will improve water quality and quantity functions within lower portions of the watershed during storm events. The reconstructed segment will also control the impacts associated with increases in flow, sedimentation and erosion as a result of development within the upper portions of the watershed. The watershed currently feeding the stream is primarily undeveloped upland forest with a few areas of residential development. Water flows subsurface from an uphill wetland and is collected in a defined channel which cuts through a portion of steep slope located in the southern portion of the property. At the foot of the slope the defined channel is all but gone, water flows intermittent through a grassy channel and also subsurface. Flow collects in an existing diversion pipe and through an existing fish passable culvert underneath the driveway to a stream located on a neighboring property. The reconstructed channel is designed to meander through the property and carry flow from the terminus of the defined channel to the existing off-site stream. The channel will be constructed with a gravel substrate to control siltation and erosion in storm events. Channel flow will be attenuated using boulders and cobbles before interfacing with a catch basin designed to control sedimentation and debris before passing through an existing fish passable culvert before reconnecting with an adjacent off-site stream. An energy dissipater will prevent erosion or sedimentation impacts to the off-site stream.

The existing buffer area consists of weeds and grass and currently does not provide a vegetated riparian buffer or habitat. There is also no direct link to forested areas to the south and north of the stream segment. The proposed buffer restoration will establish a woody riparian buffer and also provides a vegetated connection between the adjacent forested areas by planting an additional 2,700 square feet with native trees, shrubs and ground cover. The restoration plan includes 37 new trees, habitat snags, shrubs and ground cover. The property will provide vegetation density and specie and structural diversity to encourage use by small mammals and passerines.

II. Site Description and Context

A. Critical Areas:

i. **Stream-** A stream segment bisects the property flowing north to south.. Per City of Bellevue critical areas regulations contained in Land Use Code (LUC) 20.25H.075, this stream is designated as a Type N stream since it is physically connected to Lewis Creek which is a Type F stream. A residence was legally established on this site prior to August 1, 2006 which established the stream buffer at 10 feet.

III. 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 & grade Code, Utility Code, Land Use Code, Noise Ordinance, Building Code and other construction codes adequately mitigate potential environmental impacts.

Therefore, issuance of a Determination of Non-Significance (DNS) is the appropriate threshold determination under the Stat Environmental Policy Act (SEPA) requirements.

A. Earth and Water

The subject site contains a Type N stream which bisects the parcel and critical slope in the rear of the parcel. The stream receives hydrological input from groundwater discharge, direct precipitation, an uphill wetland and runoff from surrounding areas. The stream is a tributary of Lewis Creak which eventually feeds into Lake Sammamish. The proposal will require temporary disturbance within the critical area and critical area buffer in order to facilitate the restoration of the stream bed and riparian buffer. Grade change within the buffer will be the minimum necessary to complete the restoration plan. A Temporary Erosion Sedimentation Control Plan is included in the project plans and addresses all requirements for restoring the site as well as erosion and sedimentation management practices. Existing codes and standards adequately mitigate expected impacts to the earth and water resources. See related Condition of Approval in Section IX of this report.

B. Animals

Small animals and birds are likely to use the forested portion of the site to the south. No work is proposed within this area so no impacts on small animals and birds is anticipated. There is currently no vegetation other than grass and weeds within the stream buffer. No impacts to are anticipated as there will be no removal or disturbance of existing habitat. The stream segment is classified as non fish bearing; it is connected to Lewis Creek a fish bearing stream lower in the basin. The proposed restoration will increase the potential for this segment to support aquatic life and will be connected to an enlarged culvert which fish may pass through. Proposed overhanging native vegetation in the riparian zone will provide shaded habitat for stream-using wildlife; the potential for the property to support song birds and amphibians will exists whereas it presently does not. Overall, the restored riparian corridor will provide better habitat than previously existed by adding a consolidated naturally flowing water source buffered will overhanging woody vegetation

C. Plants

The area south of the existing house is a steep hillside forested with Douglas-fir, western red cedar, and a dense understory of sword fern mixed with small areas of salmonberry and devil's club. The proposal does not include any tree/vegetation removal in this area. The existing buffer area is lawn with no trees or shrubs; no impacts associated with the removal of vegetation are anticipated. Some areas of temporary disturbance are proposed

as part of this project; however, all disturbance will be limited to the stream channel and buffer restoration area. All areas of temporary disturbance will be restored and monitored pursuant to an approved restoration and monitoring plan. See Conditions of Approval in Section IX of this report.

D. Noise

The site is adjacent to residential development whose residents are most sensitive to disturbance from noise during evening, late night and weekend hours when they are likely to be at home. Construction noise will be limited by the City's Noise Ordinance (Chapter 9.18 BCC) which regulates construction hours and noise levels. See Section X for a related condition of approval.

IV. Consistency with Land Use Code Requirements:

A. Zoning District Dimensional Requirements:

The site is located in the R-1.8 zoning district. No structural elements are included with the proposal, therefore, an analysis of compliance with dimensional requirements is not applicable.

B. Critical Areas Requirements:

The City of Bellevue Land Use Code (Section 20.25H.025) designates streams as critical areas. This proposed enhancement plan is an allowed activity identified by LUC 20.25H.055.B under the category of "Habitat Improvement Projects". As an allowed activity, the proposed development must meet the requirements identified in LUC 20.25H.055.C.3.j and 20.25H.080.B. LUC 20.25H.055.C.3.j establishes performance standards for habitat improvement projects within the critical area or critical area buffer, LUC 20.25H.080.B establishes performance standards for streams, and LUC 20.25H.100 establishes performance standards specific to wetland areas.

V. Consistency With Land Use Code Critical Areas Performance Standards:

A. Consistency With LUC 20.25H.055.C.3.j

3. Performance Standards for Specific Uses or Development. In the event of a conflict between the generally applicable performance standards and specific standards, those more protective of critical area functions and values shall prevail.

    j. Habitat Improvement Projects. Disturbance, clearing and grading are allowed in the critical area or critical area buffer for habitat improvement projects demonstrating an improvement to functions and values of a critical area or critical area buffer. Habitat improvement projects shall be:

        i. Sponsored or cosponsored by a public agency or federally recognized tribe and whose primary function is habitat restoration; or

ii. Approved by the Director pursuant to LUC 20.25H.230.

The review of this proposal under this application for compliance with applicable Critical Areas Land Use Permit decision criteria satisfies this requirement.

B. Consistency With LUC 20.25H.080.B

1. When allowed. A stream channel shall not be modified by relocating the open channel, or by closing the channel through pipes or culverts unless in connection with the following uses allowed under LUC 20.25H.055:

a. A new or expanded utility facility;

b. A new or expanded essential public facility;

c. Public flood control measures;

d. In-stream structures;

e. New or expanded public right-of-way, private roads, access easements or driveways;

f. Habitat improvement project; or

g. Reasonable use exception; provided, that a modification may be allowed under this section for reasonable use exception only where the applicant demonstrates that no other alternative exists to achieve the allowed development.

A critical areas report may no be used to modify the uses set forth in this subsection B.1.

2. Critical Areas Report Required. Any proposal to modify a stream channel under this section may be approved only through a critical areas report.

3. Relocation of Closed Stream Channel. Any proposal to relocate an existing closed stream channel may be approved only through a critical areas report.

Finding: ***The applicant is proposing to modify the open stream channel to control increased flows during storm events and to restore the riparian corridor to improve habitat. The applicant has provided a Critical Areas Land Use Report and*** **accompanying Mitigation Plan.**

20.25H.255 Critical areas report – Decision criteria.

B. Decision Criteria – Proposals to Reduce Regulated Critical Area Buffer.
The Director may approve, or approve with modifications, a proposal to reduce the regulated critical area buffer on a site where the applicant demonstrates:

1. The proposal includes plans for restoration of degraded critical area or critical area buffer functions which demonstrate a net gain in overall critical area or critical area buffer functions;

2. The proposal includes plans for restoration of degraded critical area or critical area buffer functions which demonstrate a net gain in the most important critical area or critical area buffer functions to the ecosystem in which they exist;

3. The proposal includes a net gain in stormwater quality function by the critical area buffer or by elements of the development proposal outside of the reduced regulated critical area buffer;

4. Adequate resources to ensure completion of any required restoration, mitigation and monitoring efforts;

5. The modifications and performance standards included in the proposal are not detrimental to the functions and values of critical area and critical area buffers off-site; and

6. The resulting development is compatible with other uses and development in the same land use district.

Finding: The proposed channel reconstruction and buffer restoration as discussed in the Critical Areas Report prepared by The Watershed Company dated July 2007 will improve overall conditions within the Lewis Creek Watershed by controlling stormwater, reducing siltation, sedimentation and downstream erosion anticipated

when the upper portions of the watershed are developed. The reconstructed stream segment and buffer restoration will increase overall habitat by creating a woody riparian buffer where currently one does not exist. The channel will be constructed with a gravel substrate to control siltation and erosion in storm events. Channel flow will be attenuated using boulders and cobbles before interfacing with a catch basin designed to control sedimentation and debris before passing through an existing fish passable culvert before reconnecting with an adjacent off-site stream. An energy dissipater will prevent erosion or sedimentation impacts to the off-site stream. The proposed buffer restoration will establish a woody riparian buffer and also provides a vegetated connection between the adjacent forested areas by planting an additional 2,700 square feet with native trees, shrubs and ground cover. The restoration plan includes 37 new trees, habitat snags, shrubs and ground cover.

VI. Summary of Technical Reviews

A. Clearing and Grading:

The Clearing and Grading Division of the Planning and Community Development Department has reviewed the proposed enhancement plan for compliance with Clearing and Grading codes and standards. The Clearing and Grading staff found no issues with the proposed development.

VII. Public Notice and Comment

Application Date:	February 2, 2007
Public Notice (500 feet):	March 8, 2007
2nd Public Notice (500 feet):	August 9, 2007
Minimum Comment Period:	August 23, 2007

The Notice of Application for this project was published in the Seattle Times and the City of Bellevue weekly permit bulletin on August 9, 2007. It was mailed to property owners within 500 feet of the project site. No comments have been received from the public as of the writing of this staff report.

VIII. Decision Criteria

The proposal, as conditioned below, meets the applicable regulations and decision criteria for a Critical Areas Land Use Permit pursuant to LUC Section 20.30P.

A. The proposal obtains all other permits required by the Land Use Code;

Finding: The applicant must obtain approval of a Clearing and Grading permit prior to commencing any work.

B. 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;

Finding: All work required for vegetation removal and installation will be completed by a combination of hand tools and mechanical equipment.

C. The proposal incorporates the performance standards of Part 20.25H to the maximum extent applicable, and ;

Finding: As discussed in Section V of this report, the proposal meets the performance standards of LUC Section LUC 20.25H.055.C.3.habitat improvement projects within the critical area or critical area buffer, LUC 20.25H.080.B for Modifications of a Stream Channel.

D. The proposal will be served by adequate public facilities including street, fire protection, and utilities; and;

Finding: Adequate public facilities are available to the site.

E. The proposal includes a mitigation or restoration plan consistent with the requirements of LUC Section 20.25H.210; and

Finding: Temporary impacts associated with the removal of invasive plant species will be mitigated by implementation of the enhancement plan described elsewhere in this report. See Section X for a related condition of approval.

F. The proposal complies with other applicable requirements of this code.

Finding: As discussed in Section IV & V of this report, the proposal complies with all other applicable requirements of the Land Use Code.

IX. Conclusion and Decision

After conducting the various administrative reviews associated with this proposal, including Land Use Code consistency, SEPA, City Code and Standard compliance reviews, the Director of Planning and Community Development does hereby **approve with conditions** the proposal to implement a habitat enhancement project within wetlands, wetland buffer, and the critical area buffer of the West Tributary of Kelsey Creek.

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 Clearing and Grading 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	Tom McFarlane, 425-452-5207
Land Use Code- BCC 20.25H	Leah Hyatt, 425-452-6834
Noise Control- BCC 9.18	Leah Hyatt, 425-452-6834

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

1. **Restoration for Areas of Temporary Disturbance:** To mitigate temporary disturbance impacts resulting from the stream reconstruction, implementation of the proposed enhancement plan created by the Watershed Company dated July, 2007 must be completed through the review and approval of the associated clearing and grading permit. Any modifications to this plan must submitted for review and approval by the City prior to commencing any work.

   Authority: Land Use Code 20.25H.220.H
   Reviewer: Leah Hyatt, Planning and Community Development Dept

2. **Rainy Season restrictions:** No clearing and grading activity may occur during the rainy season, which is defined as November 1 through April 30 without written authorization of the Department of Planning and Community Development. Should approval be granted for work during the rainy season, increased erosion and sedimentation measures, representing the best available technology, must be implemented prior to beginning or resuming site work. A hold harmless agreement is required to be recorded with King County and submitted to the City of Bellevue prior to any in-stream work.

   Authority: Bellevue City Code 23.76.093.A,
   Reviewer: Tom McFarlane, Planning and Community Development Dept

3. **Pesticides, Insecticides, and Fertilizers:** The applicant must submit as part of the required Clearing and Grading Permit information regarding the use of pesticides, insecticides, and fertilizers in accordance with the City of Bellevue's "Environmental Best Management Practices."

   Authority: Land Use Code 20.25H.220.H
   Reviewer: Leah Hyatt, Planning and Community Development Dept

4. **Monitoring Plan:** Critical Areas enhancement plans must include a monitoring and

maintenance program to objectively gauge the success of mitigation. This monitoring should be conducted for a period of not less then five years. Vegetation monitoring shall be conducted annually during the summer season. Vegetation will be monitored for signs of drought stress, and corrective measures should be taken if plants are not receiving adequate water. The apparent health of the planted species shall be noted. Plant stress is to be documented through observation of the presence of dead wood, root suckering and signs of disease or predation. Plant mortality will be recorded. Data collected during the current monitoring event will be compared to the "as-built" drawings and to data from previous monitoring events in order to evaluate progress. The vegetation observation will be provided in a narrative report to the City of Bellevue. Photographic documentation will be conducted to produce a visual record of the buffer enhancement area over the monitoring period. Four monitoring stations will be established from which photographs will be taken to document the condition of the buffer enhancement plantings. Photo stations should be located in areas within the buffer that provide a good overview of site conditions. These stations will be established at the completion of buffer enhancement plantings. The buffer enhancement shall be inspected immediately after construction. Deviations from the planting plan need to be approved by the City of Bellevue prior to installation and should be reflected on the as-built drawing. Annual monitoring will take place in the summer for five years following the installation of the buffer enhancement.

Authority: Land Use Code 20.25H.220
Reviewer: Leah Hyatt, Planning and Community Development Department

5. **Noise Control:** The proposal will be subject to normal construction 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. Work hours may be extended to 10 pm if the criteria for extension of work hours as stated in BCC 9.18 can be met. 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: Leah Hyatt, Planning and Community Development Dept

XI. Attachments

1. Enhancement Plan
2. Environmental Checklist

DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT
ENVIRONMENTAL COORDINATOR
450 100th Ave NE., P.O. BOX 90012
BELLEVUE, WA 98009-9012

DETERMINATION OF NON-SIGNIFICANCE

PROPONENT: Tom Vollink

LOCATION OF PROPOSAL: 6047 173rd Ave SE

NAME & DESCRIPTION OF PROPOSAL:

Application for a Critical Areas Land Use Permit to restore a Type N stream to provide habitat and to help control erosion and sedimentation in anticipation of future development within the Upper Watershed of Lewis Creek.

FILE NUMBER: 07-105201-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 Department of Planning & Community Development. 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 March 16, 2006.

X 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 November 29, 2007.

☐ 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.

Environmental Coordinator

11/15/2007
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 Submittal Requirements	27

ENVIRONMENTAL CHECKLIST

4/18/02

Thank you in advance for your cooperation and adherence to these procedures. If you need assistance in completing the checklist or have any questions regarding the environmental review process, please visit or call the Permit Center (425-452-6864) between 8 a.m. and 4 p.m., Monday through Friday (Wednesday, 10 to 4). Our TTY number is 425-452-4636.

INTRODUCTION
Purpose of the Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21c RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the City of Bellevue identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the City decide whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Answer the questions briefly, with the most precise information known, or give the best description you can. You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the Planner in the Permit Center can assist you. The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. Include references to any reports or studies that you are aware of which are relevant to the answers you provide. The City may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impacts.

Use of a Checklist for Nonproject Proposals: *A nonproject proposal includes plans, policies, and programs where actions are different or broader than a single site-specific proposal.*

For nonproject proposals, complete the Environmental Checklist even though you may answer "does not apply" to most questions. In addition, complete the Supplemental Sheet for Nonproject Actions available from Permit Processing.

For nonproject actions, the references in the checklist to the words *project*, *applicant*, and *property* or *site* should be read as *proposal*, *proposer*, and *affected geographic area*, respectively.

Attach an 8½" x 11" vicinity map which accurately locates the proposed site.

07-105201-LC
11-13-07
2 Hyatt

City of Bellevue Submittal Requirements	27a

ENVIRONMENTAL CHECKLIST

4/18/02

If you need assistance in completing the checklist or have any questions regarding the environmental review process, please visit or call the Permit Center (425-452-6864) between 8 a.m. and 4 p.m., Monday through Friday (Wednesday, 10 to 4). Our TTY number is 425-452-4636.

BACKGROUND INFORMATION

Property Owner: **Brian Hearst, 12108 NE 34th Street, Bellevue, WA 98005, 206-276-1637**

Proponent: **Brian Hearst**

Contact Person: **Todd Smith, Johnston Architects, PLLC,**
(If different from the owner. All questions and correspondence will be directed to the individual listed.)

Address: **3503 NE 45TH Street, Suite 2, Seattle, WA 98105**

Phone: **206-523-6150**

Proposal Title: **Hearst Drainage Realignment and Revegetation**

Proposal Location (Street address and nearest cross street or intersection) Provide a legal description if available:

The project is located at 6047 173rd Ave SE, Bellevue, WA 98006. King County Parcel Number 2424059133.

Legal description: 242405 133 LOT 1 KC SHORT PLAT NO 781031 REC NO 8210050611 SD PLAT DAF - POR OF W 1/2 OF NW 1/4 OF SW 1/4 OF SE 1/4 BEG AT NW COR OF SUBD TH S 00-39-32 W ALG W LN OF SD SUBD 407.56 FT TO TPOB TH CONTG S 00-39-32 W 170 FT TH S 50-14-33 E 199.65 FT TO S LN SD SUBD TH N 89-08-51 E ALG SD S LN 162.61 FT TO E LN OF SUBD TH N 00-45-27 E ALG SD E LN 293.03 FT TH N 89-35-42 W PLW N LN SD SUBD 318 FT TO TPOB

In the west half of the northwest quarter of the southwest quarter of the southeast quarter of Section 24, Township 24 North, Range 5 East, Willamette Meridian, King County, WA.

Please attach an 8½" X 11" vicinity map that accurately locates the proposal site.

Give an accurate, brief description of the proposal's scope and nature:

1. General description:

A single-family residence and small guesthouse have been constructed. A driveway with a rockery and a patio with a wall are planned.

Drainage from a hillside above (south of) the construction area will be collected in a constructed channel and directed through roughly the center of the site, culverted beneath the driveway, and discharged to an off-site stream (see site plan and *Drainage Realignment and Revegetation Plan*). The constructed channel will have a gravel substrate and be fringed with native plant species. The channel flow will be attenuated using boulders and cobbles.

Drainage, stormwater, utilities, and erosion control methods are described elsewhere in the Checklist.

2. Acreage of site: **39,766 SF (0.91 acre)**

3. Number of dwelling units/buildings to be demolished: **None**

4. Number of dwelling units/buildings to be constructed: **One primary single-family residence and one guest**

house.

5. Square footage of buildings to be demolished: **0**

6. Square footage of buildings to be constructed: **The house is 2,085 SF and the guesthouse covers 704 SF. Eaves cover 1,158 SF.**

7. Quantity of earth movement (in cubic yards): **Less than 50.**

8. Proposed land use: **The project area will include one single-family residence and a guesthouse.**

9. Design features, including building height, number of stories, and proposed exterior materials: **The tallest height from average grade (per City regulations) will be 26 feet, 8.75 inches. The home is two stories with a daylight basement. Exterior material on the buildings is clear cedar siding and glass. The guest house is one story over a garage**

10. Other

Estimated date of completion of the proposal or timing of phasing:

Construction began April 2006 and is projected to finish late April 2007.

Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

None at this time.

List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

***Stream Ordinary High Water Mark Study and Channel Plan*, The Watershed Company, February 2, 2007**
***Drainage Realignment and Revegetation Plan*, The Watershed Company, February 2, 2007**

Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. List dates applied for and file numbers, if known.

07-105201-LO

None pending.

List any government approvals or permits that will be needed for your proposal, if known. If permits have been applied for, list application date and file numbers, if known.

City of Bellevue SEPA Review
City of Bellevue Clearing & Grading Permit

Please provide one or more of the following exhibits, if applicable to your proposal.
(Please check appropriate box(es) for exhibits submitted with your proposal):

☐ Land Use Reclassification (rezone)
Map of existing and proposed zoning

☐ Preliminary Plat or Planned Unit Development
Preliminary plat map

JH

☑ Clearing & Grading Permit
Plan of existing and proposed grading
Development plans

☐ Building Permit (or Design Review)
Site plan
Clearing & grading plan

☐ Shoreline Management Permit
Site plan

A. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (circle one): Flat, rolling, hilly, **steep slopes**, mountainous, other

b. What is the steepest slope on the site (approximate percent slope)?

45 percent, near the east property boundary approximately 90 feet form the south property boundary.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Beausite gravelly sandy loam (BeD).

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No indications of unstable soils.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Less than 40 cubic yards of soil were removed from the site. Natural material from on-site and quarry spalls were used for sub-drainage at footing locations to promote drainage at the site. The specific spalls sites are the upward slope of the house (north end) and around the eastern and western site perimeters. Less than 20 cubic yards were used.

The proposed channel will require grading and movement of not more than 50 cubic yards of earth. Not more than 1 cubic yard of rip-rap and 30 cubic yards of rock will be installed during channel construction. Less than 1 cubic yard of cobble/boulder mix will be used for an energy dissipater on the neighboring property.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Erosion has been and will continue to be avoided during clearing and construction using methods from the City of Bellevue Temporary Erosion Control Plan. These include silt fencing and hay bales. Boulders, cobbles, and other attenuation features and methods will be employed during construction and operation of the constructed channel to avoid erosion. No erosion will occur from site use of the completed project.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

The house is 2,085 square feet (SF) and the guest house covers 704 SF. Eaves cover 1,158 SF and a pervious patio is 358 SF in size, for a total of 4,305 SF of coverage on the lot. The lot is 39,758 SF; protected slopes cover 17,080 SF. Allowable lot coverage is 7,938 SF (24% of total lot area minus protected slopes). The driveway will be 2,591 SF and does not count toward lot coverage per City of Bellevue regulations. Buildings (including eaves), patio and driveway will cover 6,896 SF or 17.3 percent of the lot.

JH

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Silt fence around site perimeter and adjacent to off-site stream during channel discharge construction, stockpile coverage, and hay bales for potential runoff at impervious surfaces.

Impacts mitigated by C+G Code 23.76

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Any air quality impacts from construction vehicle emissions and dust generation have been and will be minimal and dissipate quickly. Impacts after construction will be limited to those associated with the use of a single-family home, including occasional use of a wood-burning stove.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Standard methods have been and will continue to be utilized, including keeping all heavy equipment in good operating condition.

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

A stream occurs on the property east of the site and flows north, away from the project. The stream eventually drains to Lake Sammamish via Lewis Creek approximately 2 miles north of the site.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

No work will occur in the off-site stream. Drainage from above (south of) the building location will flow into a constructed channel on-site and then be culverted underneath the driveway (see description above and the *Drainage Realignment and Revegetation Plan*). The flow will be piped through the stream buffer on the adjacent property, and discharged outside of the ordinary high water mark onto a rip-rap energy dissipation pad. Flow will be controlled so that no erosion or alteration of the existing off-site stream channel occurs. Installation of the pipe will temporarily disturb approximately 100 square feet of stream buffer, and the cobble/boulder pad will permanently displace less than 25 square feet of stream buffer.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

No fill will be placed in or material removed from surface water or wetlands. As mentioned above, the rip-rap energy dissipation pad that receives the on-site channelized flow will be outside of the ordinary high water mark of the off-site stream.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

Hillside runoff from the slopes above the construction area has been temporarily diverted around the construction site. After structures are completed, runoff will be collected in a constructed channel and directed through the site (see above and enclosed plans).

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

No.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No intentional discharges of waste materials would occur during project construction. Measures would be taken as described above to insure that silt-laden water from construction activities does not reach the off-site stream.

b. Ground:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

Stormwater in sheetflow from the slopes south of the construction will be collected in a constructed channel and discharged to the off-site stream, as described in the *Drainage Realignment and Revegetation Plan*. The channel will be designed to slow flow, avoid scour and incision, and provide habitat. Quantities will vary seasonally from no flow to moderate flow.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

No waste material will be discharged into the ground. The completed project will utilize a new sewer main.

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Stormwater in sheetflow from the slopes south of the construction will be collected in a constructed channel, directed through the site (see plans), and discharged into the existing stream on the property northeast of the site. Runoff from on-site impervious surfaces will be collected and discharged on-site via dispersal trenches.

2) Could waste materials enter ground or surface waters? If so, generally describe.

During construction, all possible precautions will be taken to avoid accidental discharge of waster materials into ground and surface waters. No waste materials will enter ground or surface water as a result of the completed project.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

A constructed channel will collect water, direct it through the site, and discharge it to an existing stream. The channel will be vegetated and flow attenuation features will be installed to ensure that scour and erosion do not occur. The new channel will mimic a natural stream.

Impacts mitigated by 23.7L

4. Plants

a. Check or circle types of vegetation found on the site:

- ☒ deciduous tree: **alder**, **maple**, aspen, other:
- ☒ evergreen tree: **fir**, **cedar**, pine, other:
- ☒ shrubs: **devil's club, salmonberry**

- ☐ pasture
- ☐ crop or grain
- ☐ wet soil plants:
- ☐ water plants: water lily, eelgrass, milfoil, other:
- ☐ other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

Tree removal has occurred only for the immediate building area (see plan). No further tree removal is planned. Placement of the drainage channel discharge pipe in the stream buffer will result in temporary disturbance of approximately 100 square feet of vegetation and up to 25 square feet of permanent buffer impact. All disturbed plants will be replaced at a 2:1 ratio with native trees and shrubs.

c. List threatened or endangered species known to be on or near the site.

None known.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

The entire undeveloped portion of the site will be planted with native species. Disturbed off-site stream buffer areas will also be restored/enhanced with native species.

5. Animals

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: **hawk**, heron, eagle, **songbirds**, other: **hawks likely but not observed**

mammals: **deer**, bear, elk, beaver, other: **small mammals, raccoon, coyote likely**

fish: bass, salmon, trout, herring, shellfish, other:

b. List any threatened or endangered species known to be on or near the site.

None known.

c. Is the site part of a migration route? If so, explain.

No.

d. Proposed measures to preserve or enhance wildlife, if any:

The channel creation and landscaping with native species will create and improve habitat.

6. Energy and natural resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Electrical resistance power with standard duct system and heat pump; a wood stove will be used for auxiliary heat.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

JH

The buildings will utilize dual flush toilets and high efficiency Energy Star appliances.

7. Environmental health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe.

No.

1) Describe special emergency services that might be required.

None.

2) Proposed measures to reduce or control environmental health hazards, if any:

None.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

There is no noise in the area that will affect this project.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Short-term noise associated with the operation of construction equipment, including vehicles and power tools, will occur. Construction noise will occur only during daytime hours. Long-term noise will be that associated with one single-family home.

3) Proposed measures to reduce or control noise impacts, if any:

All heavy equipment has been and will continue to be kept in good working order and will be equipped with mufflers. Equipment has been and will be operated only during daylight hours.

Mitigated by BCC 9.18

8. Land and shoreline use

a. a. What is the current use of the site and adjacent properties?

The site is currently not inhabited; construction on the buildings is advanced. Adjacent properties are single-family residential.

b. Has the site been used for agriculture? If so, describe.

No.

c. Describe any structures on the site.

The buildings described in the project description and illustrated in the enclosed site plan are near completion. There are no other structures on the site.

d. Will any structures be demolished? If so, what?

No buildings were or will be demolished.

e. What is the current zoning classification of the site?

Zoned residential (R-1).

f. What is the current comprehensive plan designation of the site?

Single-family low-density.

JH

g. If applicable, what is the current shoreline master program designation of the site?

None.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

There is a 45 percent slope south of the building area. A stream buffer extends onto a small portion of the site in the northeast corner; the buffer and building setback have not been encroached upon by on-site buildings and other impervious surfaces. However, piping of the channelized on-site flow through the on-site and off-site stream buffer to the off-site stream will result in some permanent and temporary disturbance of the stream buffer.

i. Approximately how many people would reside or work in the completed project?

One family will reside in the completed project; no one will work in the completed project.

j. Approximately how many people would the completed project displace?

No one will be displaced by the completed project.

k. Proposed measures to avoid or reduce displacement impacts, if any:

Not applicable.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

None needed.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

A single-family residence, already slated to be occupied by owner.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

No housing will be eliminated.

c. Proposed measures to reduce or control housing impacts, if any:

None needed.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

The tallest height from average grade (per City regulations) will be 26 feet, 8.75 inches. Exterior material on the buildings is clear cedar siding and glass.

b. What views in the immediate vicinity would be altered or obstructed?

No views will be altered or obstructed.

c. Proposed measures to reduce or control aesthetic impacts, if any:

Site placement and building materials were selected for aesthetic purposes; landscaping will be with native species. The constructed channel will use all natural materials and native plants.

11. Light and glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Very little outside lighting will be installed, and all lighting will be low wattage. The only outdoor lighting will be low wattage sconces on the garage and at the entry doors.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

There will be no effect of light or glare from the completed project.

c. What existing off-site sources of light or glare may affect your proposal?

No off-site light sources will affect the project.

d. Proposed measures to reduce or control light and glare impacts, if any:

None needed.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

Cougar Mountain Regional Park, Cougar Ridge East and West Open Spaces, Lewis Creek Park, Lakemont Park and Open Space, and several other small open spaces are within one mile of the project.

b. Would the proposed project displace any existing recreational uses? If so, describe.

No existing recreational uses will be displaced.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

None needed.

13. Historic and cultural preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

No.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

None.

c. Proposed measures to reduce or control impacts, if any:

Not applicable.

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

Access to the site is from 173rd Ave SE.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

The site is not currently served by transit. Issaquah and Bellevue transit centers and park and rides are the nearest transit options. Each is more than 2 miles from the site.

c. How many parking spaces would the completed project have? How many would the project eliminate?

No parking spaces will be eliminated or added. The completed project will have a 3-car garage.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

The project requires no new roads.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

The project will not use or occur near water, rail, or air transportation.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

The only trips generated will be those associated with a single-family home.

g. Proposed measures to reduce or control transportation impacts, if any:

None needed.

15. Public services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

Adding one single-family residence to an existing neighborhood is not expected to increase public services needs significantly. The house will be equipped with sprinklers.

b. Proposed measures to reduce or control direct impacts on public services, if any.

None needed.

16. Utilities

a. Circle utilities currently available at the site: **electricity,** natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

Electric service is at access road; a new sewer main will extend up access road; no gas service is proposed.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity that might be needed.

Electrical resistance power with standard duct system with heat pump is proposed, along with a wood-burning stove.

SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: .....

Date Submitted: 02-08-07

CRITICAL AREAS REPORT AND MITIGATION PLAN

COUGAR MOUNTAIN VOLLINK/HEARST PROPERTY
BELLEVUE, WASHINGTON

Prepared for:
Brian Hearst and Tim Vollink
12108 NE 34th Street
Bellevue, WA 98005

Prepared by:

THE WATERSHED COMPANY

750 SIXTH STREET SOUTH
KIRKLAND WA 98033

July 2007

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INTRODUCTION

This document addresses the Vollink property located at 6047 173rd Avenue SE in the City of Bellevue, Washington (parcel 2424059133) (Figure 1). It contains information and analyses required by the City of Bellevue Land Use Code (LUC) 20.25H.75 through 20.25H.165, and LUC 20.25H.230 through 20.25H.250.

Construction of a single-family residence, guesthouse, three-car garage, and driveway is nearly complete on the property (Appendix A, Photo 1). A stream originating on the adjacent property to the east drains to Lewis Creek, a fish-bearing stream, approximately 0.75 mile north of the stream origin. A second stream ran in a grassy channel and/or subsurface through the property in the area that is now between the house and guesthouse (Photo 2). This report describes this stream and associated regulatory requirements, as well as mitigation for work within the stream buffer.

EXISTING CONDITIONS

Development of the property is nearly complete. The construction area is cleared of vegetation and erosion control devices are in place. Water is being collected from channels and sheetflow on the slope south of the structures and being diverted around the construction area (Photo 3), eventually dispersing along the eastern property boundary.

The steep slope south of the construction area is forested with Douglas-fir and western red cedar with a dense understory of primarily sword fern, with some salmonberry and devil's club (Photo 4). Evidence of sheetflow and several small channels are present on the slope (Photo 5). Water from the slope converges above the construction area and presently is diverted as described above.

The construction area includes the single-family residence comprising two structure connected by an elevated walkway, outdoor stairways on the house structures, and a three-car garage with a guesthouse above it (Appendix B). The proposed driveway is presently cleared dirt, and the rockery is 50 percent completed. A 12-inch pipe has been installed beneath the area of proposed streambed over which the driveway will run.

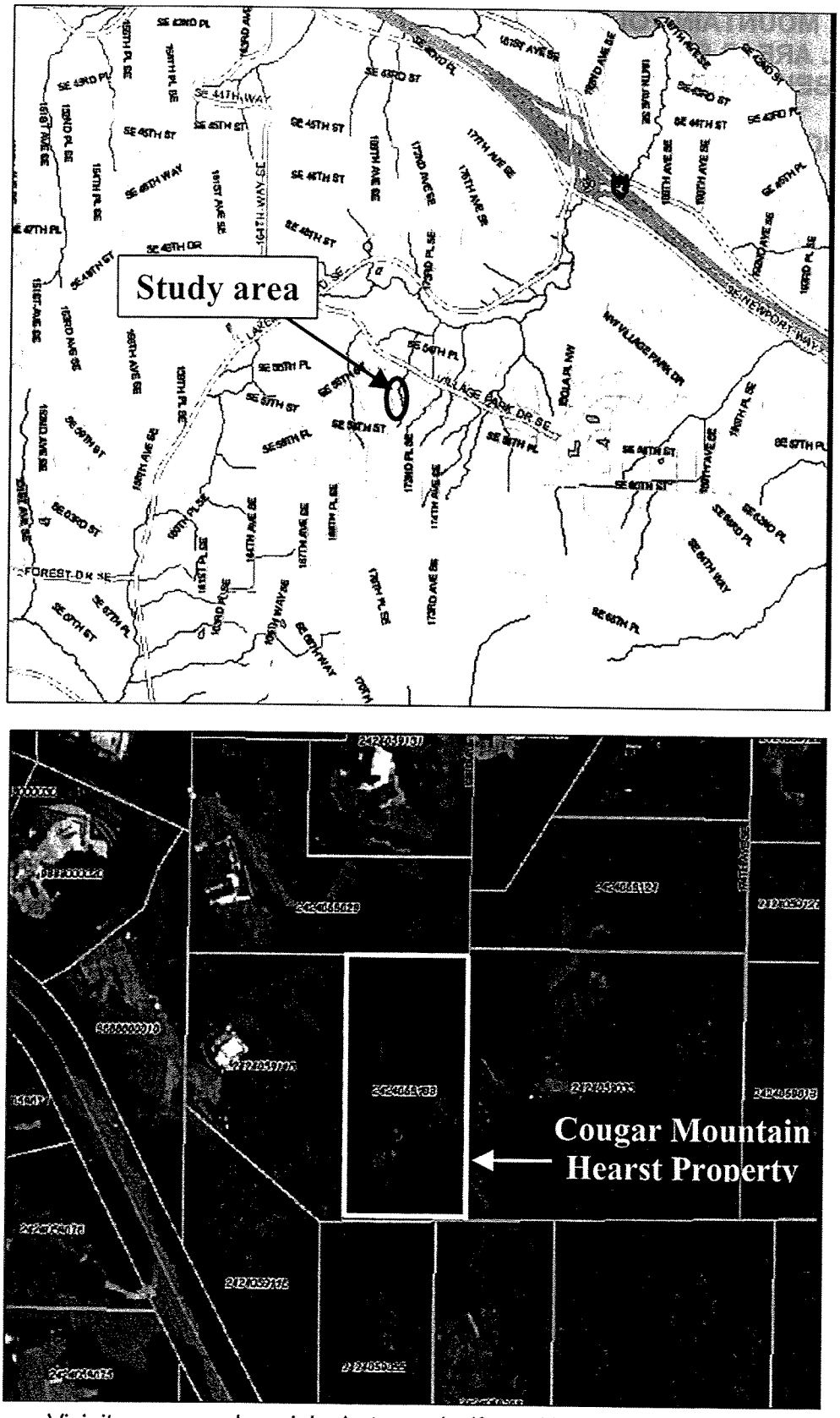


Figure 1. Vicinity map and aerial photograph (from King County iMap) of the Cougar Mountain Vollink property.

CRITICAL AREAS

Prior to construction, water flowed in a Type-N stream (LUC 20.25H.075B(3)) through the center of the property. The regulatory buffer on the stream is 10 feet by prior agreement with the City of Bellevue (LUC 20.25H.090A). Flow in the stream prior to diversion was light and intermittent, and most likely drained to the Lewis Creek tributary described below. The stream contained no fish habitat or riparian zone. The gradient both on the property and off-site to the south is steep, exceeding 40 percent in some areas. The stream had little flow in it when we visited the property in January 17, 2007. The off-site portion is approximately 2 to 4 feet in width, substrate is small- to medium-sized gravel, and the banks are shallow in most areas.

The upper watershed feeding the stream is primarily undeveloped upland forest, with a few areas of residential development. Habitat is not contiguous with the on-site stream or the rest of the property, however; SE Cougar Mountain Drive and other development separate the property from the upper watershed. The lower watershed is much more densely developed with single-family residences.

A Type-N tributary to Lewis Creek is located just off-site to the northeast. Construction of the garage was permitted based on King County maps of the tributary location, presumably outside of the 25-foot buffer (LUC 20.25H.075C(1)a) and 10-foot building setback (LUC 20.25H.075D(2)a.i, but determined by prior agreement with the City). Impacts that occurred in the actual buffer, determined after the City approved garage/guesthouse construction, were a result of permitted activities.

PROJECT DESCRIPTION

The property owner has proposed to utilize the site for a single-family home with associated buildings, a reconstructed and enhanced stream channel, and mostly native landscaping. A house, guesthouse, and three-car garage have been constructed on the property. Outdoor stairways associated with the two house structures are complete. A rockery is approximately 50 percent complete. Vegetation has been cleared for the driveway, and a 12-inch-diameter culvert installed to direct stream flow beneath it.

The tallest height from average grade will be 26 feet, 8.75 inches. The home is two stories with a daylight basement. The guesthouse is slightly lower in height. The house footprint is 2,085 sf and the garage/guesthouse is 704 sf. Eaves cover an additional 1,158 sf and a pervious patio is 358 sf. The driveway will be 2,591 sf. Coverage excluding the driveway totals 4,305 sf.

Water from the slope to the south of the construction area will be collected in a constructed channel and directed into a meandering channel between the house and guest house, then into the culvert beneath the driveway, and eventually into the existing stream northeast of the property (see Appendix C, Sheet 2). This channel reconstruction is

necessary to control stormwater runoff from the basin above the property. The constructed channel will have a gravel substrate and buffer of native plants. The substrate type is vital to controlling siltation and erosion in storm events and represents an overall improvement over former conditions. The control of stormwater will lower the rate of sedimentation to the Lewis Creek tributary located off-site, and ultimately to Lewis Creek itself. Channel flow will be attenuated using boulders and cobbles before entering the tributary to avoid any negative effects, such as bank erosion or downcutting, to the tributary.

POTENTIAL IMPACTS

Direct Impacts

Vegetation within the construction and clearing footprints has been permanently removed from the site (Appendix 1, Photo 6) (Table 1). Areas of permanent impact are house and other footprints that will not be restored. Temporary vegetation removal occurred as a result of normal construction, staging, and utilities installation. No further vegetation removal will occur. No lawn will be installed.

Water from channels above the construction area was collected and diverted around the construction zone in pipes. This water will flow through a constructed channel with a planted riparian zone of native species (see *Mitigation*, below). The channel provided no fish or wildlife habitat prior to construction. Vegetation was a grass/weed mix. No impact to wildlife habitat occurred as a result of diverting the water and staging construction in the area where it previously flowed over the site.

Because no discernable impact resulted from moving the channel, this discussion focuses on habitat in general and avoidance and mitigation of impacts to the site as a whole. Regarding habitat impacts, permanent and temporary vegetation losses may deter birds and small mammals from using the site. The proximity of large tracts of forest make it likely that these species will find suitable habitat in nearby areas, however, and this impact will be minimal. As well, mitigation plantings (see below) will compensate for the loss of vegetation to a great extent. Trees and understory vegetation have been removed, the main result being a loss of small mammal and songbird cover. However, much of the tree canopy is still intact, minimizing these impacts, and suitable habitat exists nearby for any individuals displaced either by construction disturbance or vegetation loss. Given that vegetation will be replaced, much of the vegetation loss can be considered temporary impact.

Table 1. Proposed impacts and mitigation areas on the study site.

Proposed use/location	Permanent impacts	Temporary impacts	Proposed restoration	Proposed mitigation for permanent impacts
House	2,085 sf	< 4,000 sf	All areas of temporary impact will be restored	The stream represents an overall improvement to both the property and the lower basin. Pervious materials will be used for the patio and driveway. Erosion protection measures are in place. Aesthetic impacts are mitigated using inward-facing lighting. Landscaping uses primarily native species, and all drought tolerant species. Tree canopy was left nearly intact.
Guesthouse	704 sf			
Eaves	1,158 sf			
Driveway	2,591sf			
Patio	358 sf			
Stream	N/A	N/A[1]	2,780 sf	
Total	6,896 sf	< 4,000 sf	Same as temporarily impacted area	

[1] Impacts cannot be calculated in square footage, as typical stream characteristics did not exist prior to construction.

Indirect and Cumulative Impacts

One family will reside on the property. Ongoing impacts are those associated with this land use, although steps have been and will be taken to mitigated for these impacts. Construction materials were selected to blend aesthetically with the natural surroundings. Outdoor lighting will face toward structures to minimize light pollution to the surrounding area. Landscaping will comprise primarily native species and will be maintained free of invasives, as it will constitute much of the outdoor living area of the residence.

The Vollink property is zoned R-1 (low density), single-family residential, as are all surrounding properties. Higher density residential lots are located to the north and west, and these areas are near build-out. This places the Vollink property near the edge of (but not contiguous with) a large tract of forest habitat owned by King County to the south and southeast. Several developed lots exist between the Vollink property and the forest tract, and the few remaining undeveloped lots zoned for single-family homes are likely to be developed in the near future. Thus, the Vollink development will not fragment existing forest. Edge disturbance already exists between the Vollink property and the large forested tract, so it is not realistic to conclude that the addition of the construction on the property will substantially impact wildlife using the large forest.

Species of Local Significance

The City of Bellevue identifies a number of wildlife species are having special significance (LUC 20.25H 150A). Of the species listed, pileated woodpecker and red-tailed hawk are likely to use the site at some point (Table 2). Other species that cannot be categorically excluded from possible use of the property are also listed in Table 2, although no impacts may be expected for some.

Table 2. Possible impacts on and recommended actions for species of local significance.

Species	Possible impact	Action
Bald eagle	Loss of perch sites	Non-hazard trees retained, trees planted
Pileated woodpecker	Loss of foraging/drumming habitat	Snags and older trees retained where possible; tree planted
Vaux's swift	Disturbance, loss of potential nest sites	Snags and older trees retained where possible
Purple martin	None	N/A
Red-tailed hawk	Loss of perch sites; increase in foraging areas	Non-hazard trees retained, trees planted

The site's large trees and general proximity to a lake makes it likely that bald eagles would be found perching on the property, albeit for resting rather than foraging; foraging perches would be located closer to the open water. Some loss of perch trees occurred prior to construction, while other large trees have been retained.

Pileated woodpeckers commonly use snags in forested areas for nesting, drumming, and foraging. The species is likely to use the property's large trees for perching and foraging. The loss of some trees may reduce the potential for the species to visit the site.

Vaux's swift is a cavity-nesting species preferring sites near open water over which to forage. Large trees on the property could potentially act as nesting trees in the future, and the loss of some of these trees might decrease somewhat the potential for swifts to nest on the site. Foraging habitat is poor on the site, and is not impacted by the construction.

Like Vaux's swift, purple martins are usually found near open water. The possibility exists that this cavity-nesting species could utilize the property for nesting or foraging, although it is far more likely that individuals would select less densely vegetated areas closer to a lake. Any impact of the project would more likely be beneficial, as clearing would improve habitat for purple martins.

Red-tailed hawks are ubiquitous in western Washington and it is quite possible that a pair could select the Vollink property for nesting. Nests require large trees, most often deciduous. Thus, some potential nesting habitat was lost during site preparation. Undergrowth clearing is unlikely to affect this species, as it prefers open areas for foraging.

MITIGATION

Mitigation Goals

The goal of the proposed mitigation is to prevent any net negative impact of the development. Specifically, objectives are to avoid impacts whenever possible, to minimize future on-going impacts of the proposed house use and maintenance, and to improve habitat by constructing a stream and riparian zone of greater functional value than that which existed pre-construction.

Mitigation Sequencing

Per LUC 20.25H.215, the site was first examined to determine whether impacts to sensitive areas could be avoided. Because much of the site is encumbered by steep slopes, the house and other features were site on the only available area. The selected construction area is also the area of least habitat value, as it is located furthest from intact and preserved forest land to the south and southeast. Large trees were left standing wherever possible, preserving a nearly intact canopy to avoid impacts to wildlife. Construction has not and will not occur on the steep slope.

It was decided that by collecting the runoff from the steep slopes and directing it through the property, a naturally functioning stream could be created. This not only compensates for unavoidable impacts, but greatly improves the value of the stream, which previous flowed in a grassy channel or subsurface. The mitigation is discussed in the following section and detailed in Appendix C, Sheets 4, 5, and 6. In addition to improving the stream to mitigate for permanent impacts, restoration of temporarily disturbed areas is planned. Finally, contingency efforts will be implemented if mitigation areas fail to meet performance standards.

Restoration and Mitigation Plan

A Buffer Enhancement Plan has been prepared to mitigate for potential impacts (LUC 20.25H.220) (Appendix C). The plan is centered on the restored and improved stream channel through the center of the construction area. Additionally, landscaping on the property was designed to minimize impacts of the development.

A stream channel was created through the site to mitigate for the temporary diversion of water running through the site in a grassy channel prior to construction (Appendix C, Sheet 2). Water will flow through the constructed channel and beneath the driveway in a fish-passable culvert and drain to the off-site Lewis Creek tributary. An energy dissipater, detailed in Appendix C, Sheet 3, will attenuate flow to the tributary.

A minimum-10-foot riparian buffer is proposed along the channel to create riparian habitat (Appendix C, Sheet 4), and to fulfill the 1:1 replacement-to-impact mitigation ratio requirement (LUC 20.25H.085B). Much of the area is wider than 10 feet, and this

additional buffer was added to compensate for 2 small pinch points between the house structures. Mitigation plantings will be monitored for five years (LUC 20.25H.220D) or until performance standards are met. Methods and performance standards are detailed in Appendix C, Sheet 6. The site will be maintained free of invasive species not only throughout the monitoring period, but in perpetuity, as it in an integral component of the living area of this single-family residence.

The reconstructed stream channel represents a great improvement over the channel that existed pre-construction. Gravel substrate will prevent erosion and downcutting to both the on-site stream and the off-site tributary of Lewis Creek. This will also benefit the lower watershed, which should receive less sedimentation from the streams than previously. Overhanging native vegetation in the riparian zone will provide shaded habitat for stream-using wildlife; the potential for the property to support amphibians will exist, whereas it does not presently exist. Habitat for songbirds, including yellow warbler, Wilson's warbler, spotted towhee, Swainson's thrush, song sparrow, bushtit, black-capped chickadee, and other species of underbrush and riparian vegetation, will also be improved.

The property will still provide enough vegetation density, species diversity, and structural diversity to allow use by many of those species most likely to have used it before construction, e.g., small mammals and passerines. Overall, the addition of the restored stream will provide better habitat than previously existed by adding a consolidated, naturally flowing water source where a ditch and sheetflow previously ran. Areas cleared for grading and construction staging constitute less than 4,000 sf and will be restored per Appendix C, Sheet 4 (LUC 20.25H.220H). Plantings outside of the native buffer will also be planted primarily to native species, with a few ornamental, non-invasive species in lieu of typical lawn and landscaping. Areas immediately surrounding the house will be kept in low-growing species to allow normal maintenance access to the structures. Eighteen trees had to be removed for grading and construction. However, 37 significant trees on the steep slope remain intact, and 26 native trees will be planted.

The main indirect anticipated impacts of the project are the expected corridor and landscape effects of site development. As explained in the *Impacts* section above, the Vollink property is several lots removed from the large nearby intact forest, and while development might accentuate edge effect, it will fall within the existing disturbed edge. To mitigate for any cumulative effect of the project, on-site habitat has been retained and improved to the greatest extent possible. Notably, improvements due to the reconstructed channel stream channel, particularly the use of gravel and cobble and the addition of a woody riparian zone, could potentially have a positive impact on water quality and quantity functions in the lower parts of the stream basin. In this way, the project will provide a net positive change to the landscape.

SUMMARY

Overall impact to the landscape has been avoided as much as possible, and habitat on the site itself improved to compensate for unavoidable impacts. Giving the residential zoning and private ownership of the site, development was inevitable. Construction on the Vollink site has been planned to have the least negative impact on the site and surrounding area possible, and mitigation is designed to have a positive net impact on habitat both on and off the site.

APPENDIX A

PHOTOGRAPHS

Photo 1: On-site structures

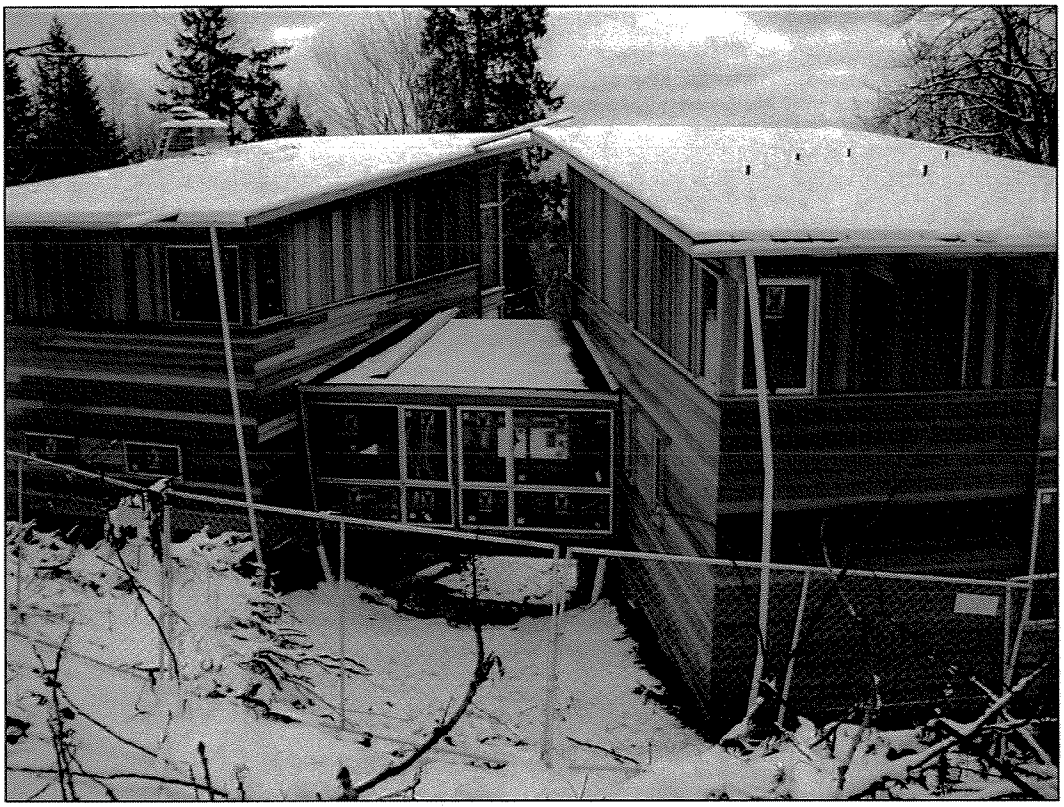


Photo 2: Previous stream route between structures

Photo 5: Channel on slope south of construction area

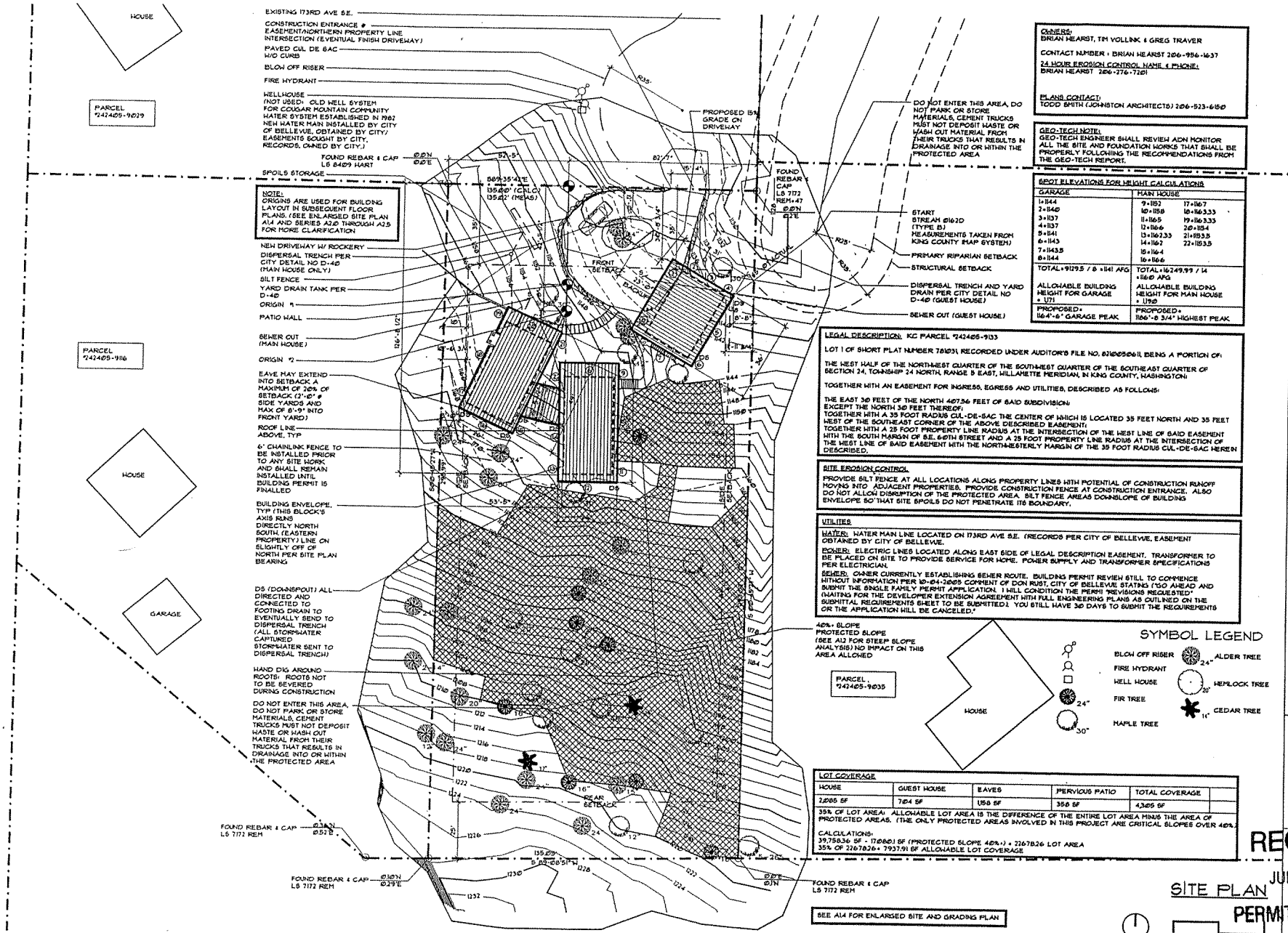
Photo 6: Area cleared of vegetation for grading

APPENDIX B

SITE PLAN

APPENDIX C

DRAINAGE REALIGNMENT AND LANDSCAPE PLAN



OWNERS:
BRIAN HEARST, TIM VOLLINK & GREG TRAVER

CONTACT NUMBER : BRIAN HEARST 206-986-1637

24 HOUR EROSION CONTROL NAME & PHONE:
BRIAN HEARST 206-276-7201

PLANS CONTACT:
TODD SMITH (JOHNSTON ARCHITECTS) 206-523-6150

GEO-TECH NOTE:
GEO-TECH ENGINEER SHALL REVIEW AND MONITOR ALL THE SITE AND FOUNDATION WORKS THAT SHALL BE PROPERLY FOLLOWING THE RECOMMENDATIONS FROM THE GEO-TECH REPORT.

SPOT ELEVATIONS FOR HEIGHT CALCULATIONS

GARAGE	MAIN HOUSE	
1=1144	9=1192	17=1167
2=1140	10=1158	18=1163.33
3=1137	11=1165	19=1163.33
4=1137	12=1166	20=1154
5=1141	13=1162.33	21=1153.5
6=1143	14=1162	22=1153.5
7=1143.5	15=1164	
8=1144	16=1166	
TOTAL=9129.5 / 8 =1141 AFG	TOTAL=16249.99 / 14 =1160 AFG	
ALLOWABLE BUILDING HEIGHT FOR GARAGE +171	ALLOWABLE BUILDING HEIGHT FOR MAIN HOUSE +1390	
PROPOSED= 1164'-6" GARAGE PEAK	PROPOSED= 1166'-8 3/4" HIGHEST PEAK	

LEGAL DESCRIPTION: KC PARCEL #242405-9133

LOT 1 OF SHORT PLAT NUMBER 781031 RECORDED UNDER AUDITOR'S FILE NO. 8210050611, BEING A PORTION OF:

THE WEST HALF OF THE NORTH-WEST QUARTER OF THE SOUTH-WEST QUARTER OF THE SOUTH-EAST QUARTER OF SECTION 24, TOWNSHIP 24 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON;

TOGETHER WITH AN EASEMENT FOR INGRESS, EGRESS AND UTILITIES, DESCRIBED AS FOLLOWS:

THE EAST 30 FEET OF THE NORTH 407.56 FEET OF SAID SUBDIVISION;
EXCEPT THE NORTH 30 FEET THEREOF;
TOGETHER WITH A 35 FOOT RADIUS CUL-DE-SAC THE CENTER OF WHICH IS LOCATED 35 FEET NORTH AND 35 FEET WEST OF THE SOUTH-EAST CORNER OF THE ABOVE DESCRIBED EASEMENT;
TOGETHER WITH A 25 FOOT PROPERTY LINE RADIUS AT THE INTERSECTION OF THE WEST LINE OF SAID EASEMENT WITH THE SOUTH MARGIN OF S.E. 60TH STREET AND A 25 FOOT PROPERTY LINE RADIUS AT THE INTERSECTION OF THE WEST LINE OF SAID EASEMENT WITH THE NORTH-WESTERLY MARGIN OF THE 35 FOOT RADIUS CUL-DE-SAC HEREIN DESCRIBED.

SITE EROSION CONTROL

PROVIDE SILT FENCE AT ALL LOCATIONS ALONG PROPERTY LINES WITH POTENTIAL OF CONSTRUCTION RUNOFF MOVING INTO ADJACENT PROPERTIES. PROVIDE CONSTRUCTION FENCE AT CONSTRUCTION ENTRANCE. ALSO DO NOT ALLOW DISRUPTION OF THE PROTECTED AREA. SILT FENCE AREAS DOWNSLOPE OF BUILDING ENVELOPE SO THAT SITE SPOILS DO NOT PENETRATE ITS BOUNDARY.

UTILITIES

WATER: WATER MAIN LINE LOCATED ON 173RD AVE SE. (RECORDS PER CITY OF BELLEVUE, EASEMENT OBTAINED BY CITY OF BELLEVUE.

POWER: ELECTRIC LINES LOCATED ALONG EAST SIDE OF LEGAL DESCRIPTION EASEMENT. TRANSFORMER TO BE PLACED ON SITE TO PROVIDE SERVICE FOR HOME. POWER SUPPLY AND TRANSFORMER SPECIFICATIONS PER ELECTRICIAN.

SEWER: OWNER CURRENTLY ESTABLISHING SEWER ROUTE. BUILDING PERMIT REVIEW STILL TO COMMENCE WITHOUT INFORMATION PER 10-04-2005 COMMENT OF DON RUST, CITY OF BELLEVUE STATING "SO AHEAD AND SUBMIT THE SINGLE FAMILY PERMIT APPLICATION. I WILL CONDITION THE PERMIT "REVISIONS REQUESTED" (WAITING FOR THE DEVELOPER EXTENSION AGREEMENT WITH FULL ENGINEERING PLANS AS OUTLINED ON THE SUBMITTAL REQUIREMENTS SHEET TO BE SUBMITTED.) YOU STILL HAVE 30 DAYS TO SUBMIT THE REQUIREMENTS OR THE APPLICATION WILL BE CANCELED."

SYMBOL LEGEND

BLOW OFF RISER
FIRE HYDRANT
WELL HOUSE
FIR TREE
MAPLE TREE
ALDER TREE
HEMLOCK TREE
CEDAR TREE

LOT COVERAGE

HOUSE	GUEST HOUSE	EAVES	PERVIOUS PATIO	TOTAL COVERAGE
2,085 SF	724 SF	158 SF	358 SF	4,325 SF

35% OF LOT AREA: ALLOWABLE LOT AREA IS THE DIFFERENCE OF THE ENTIRE LOT AREA MINUS THE AREA OF PROTECTED AREAS. (THE ONLY PROTECTED AREAS INVOLVED IN THIS PROJECT ARE CRITICAL SLOPES OVER 40%.)

CALCULATIONS:
39,758.36 SF - 17,080.1 SF (PROTECTED SLOPE 40%+) = 22,678.26 LOT AREA
35% OF 22,678.26 = 7937.91 SF ALLOWABLE LOT COVERAGE

SITE PLAN

0 20 40

RECEIVED
JUL 16 2007
PERMIT PROCESSING

HEARST, VOLLINK & TRAVER
6047 173RD AVE. SE.
BELLEVUE, WA 98006

DRAWING ISSUE:
CONSTRUCTION SET: 04-17-06
SET MODIFICATIONS: 06-16-06
SET MODIFICATIONS: 07-18-06
SET MODIFICATIONS: 07-14-06

SITE PLAN

REGISTERED ARCHITECT

JOHNSTON ARCHITECTS PLLC
3502 NE 45th Street, Suite 2 . Seattle, Washington 98105 www.jarchitects.com ph 206 . 523 . 6150 fax 206 . 523 . 9382