



**City of Bellevue
Development Services Department
Land Use Staff Report**

Proposal Name: Cameron Addition

Proposal Address: 4500 151st Ave SE

Proposal Description: The applicant requests a Critical Areas Land Use Permit to construct a 605-square foot garage addition on an existing single-family residence. The proposed addition will be located within the 25-foot structure setback associated with a steep slope critical area located on the northern portion of the lot, and will require a structure setback modification of 425 square feet. Installation of approximately 1,300 square feet of mitigation landscaping; 3,735 square feet of restoration landscaping; and replacement of a wooden retaining wall are also included in this proposal.

File Number: 14-133187-LO

Applicant: Chris Cameron

Decisions Included: Critical Areas Land Use Permit
(Process II. LUC 20.30P)

Planner: David Wong, Land Use

**State Environmental Policy Act
Threshold Determination:** Exempt Per WAC 197-11-800(2)

Director's Decision: Approval with Conditions



Carol V. Helland, Land Use Director
Development Services Department

Application Date: May 27, 2014
Notice of Application Publication Date: August 21, 2014
Decision Publication Date: November 20, 2014
Project/SEPA Appeal Deadline: December 4, 2014

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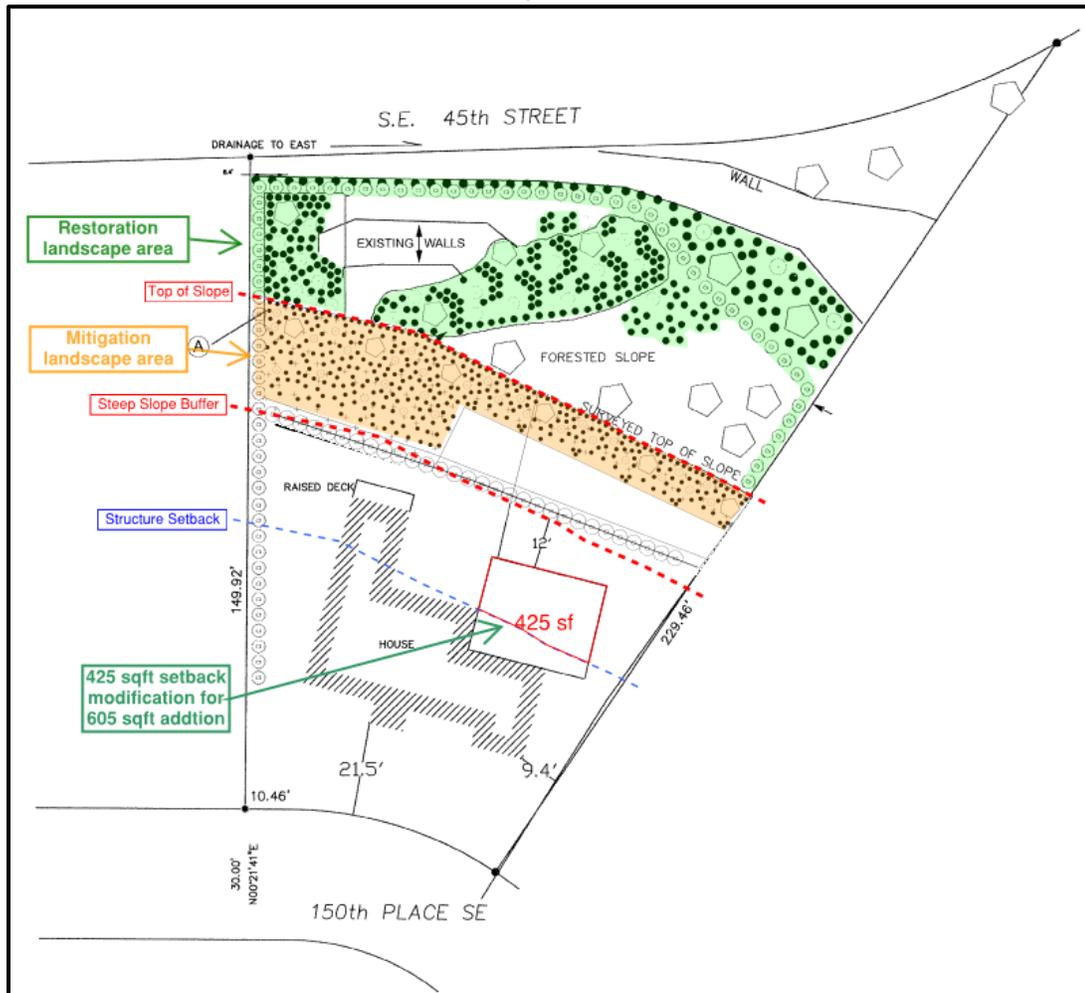
Attachments

1. Site Plan
2. Geotechnical Recommendations

I. Proposal Description

The applicant is requesting a Critical Areas Land Use Permit in order to construct a 605-square foot addition to the existing single-family residence at 4500 151st Ave SE. Construction of the addition will be located within the 25-foot structure setback associated with a steep slope critical area, and will require a 425-square foot structure setback modification. The proposal also includes the removal of two dilapidated sheds; replacement of a 16-inch wooden retaining wall; approximately 1,300 square feet of mitigation landscaping; and approximately 3,735 square feet of restoration landscaping.

Figure 1



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

A. Site Description

The subject property is located at 4500 151st Ave SE within the Newcastle subarea, and is adjacent to other single-family residential developments on all four sides. The subject property is 19,300 square feet and was developed with a one-story single-family residence with a single-car garage in 1956. The site contains a degraded steep slope critical area on the north side of the lot (Figure 2).

Figure 2



Figure 3



B. Zoning

The underlying land use of the property is R-3.5, single-family residential. The proposed development is allowed in this zone

C. Land Use Context

The property has a Comprehensive Plan Land Use Designation of SF-M or Single-Family Medium Density.

D. Critical Areas Functions and Values

i. Geologic Hazard Areas

Geologic hazards pose a threat to the health and safety of citizens when commercial, residential, or industrial development is inappropriately sited in areas of significant hazard. Some geologic hazards can be reduced or mitigated by engineering, design, or modified construction practices. When technology cannot reduce risks to acceptable levels, building in geologically hazardous areas is best avoided (WAC 365-190).

Steep slopes may serve several other functions and possess other values for the City and its residents. Several of Bellevue's remaining large blocks of forest are located in steep slope areas, providing habitat for a variety of wildlife species and important linkages between habitat areas in the City. These steep slope areas also act as conduits for groundwater, which drains from hillsides to provides a water source for the City's wetlands and stream systems. Vegetated steep slopes also provide a visual amenity in the City, providing a "green" backdrop for urbanized areas enhancing property values and buffering urban development.

III. Consistency with Land Use Code Requirements:

A. Zoning District Dimensional Requirements:

The site is located in the R-2.5 zoning district. The proposed square-footage of the existing single-family residence and addition is approximately 2,190 square feet, which is below the allowable 35% (3,456 square feet) lot coverage per LUC 20.20.010. The addition meets all other zoning dimensional standards; however conformance to these standards will be verified during construction 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 buffer. This site contains a steep slope with a 25-foot buffer. The project is subject to the following performance standards which are reviewed below.

C. Consistency with Performance Standards for Steep Slopes 20.25H.125:

Development within a landslide hazard, steep slope critical area, or the critical area buffers of such hazards shall incorporate the following additional performance standards in design of the development, as applicable. The requirement for long-term slope stability shall exclude designs that require regular and periodic maintenance to maintain their level of function.

- 1. Structures and improvements shall minimize alterations to the natural contour of the slope, and foundations shall be tiered where possible to conform to existing topography;**

The proposed addition will utilize a foundation wall system. No other alterations will be made to the contour of the slope outside of the proposed addition.

- 2. Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation;**

The outermost façade of the proposed addition is located approximately 33 feet from the top of the steep slope critical area. The applicant proposes a dense buffer planting and critical area restoration planting to “provide for adequate erosion protection” (Geotechnical Recommendations pg. 2) for the degraded steep slope critical area and steep slope buffer.

- 3. The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties;**

The project geotechnical engineer (Robert M. Pride, P.E.) reviewed the proposal and provided recommendations. The project Geotechnical Recommendations is included as Attachment 2. The applicant is required to follow the recommendations included in the project geotechnical report, which shall be verified by an inspection made by a qualified geotechnical engineer. **See Conditions of Approval in Section IX of this report.**

- 4. The use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes where graded slopes would result in increased disturbance as compared to use of retaining wall;**

No artificial grading to the slope is proposed. The new foundation wall and replacement of the existing wooden retaining wall will preserve the natural slope contour.

- 5. Development shall be designed to minimize impervious surfaces within the critical area and critical area buffer;**

No increase in impervious surfaces within the critical area or critical area buffer is proposed. The applicant has proposed to remove two existing sheds which will result in a decrease to impervious surface area within the steep slope buffer.

6. Where change in grade outside the building footprint is necessary, the site retention system should be stepped and regrading should be designed to minimize topographic modification. On slopes in excess of 40 percent, grading for yard area may be disallowed where inconsistent with this criteria; No change in grade outside of the building footprint is proposed.

7. Building foundation walls shall be utilized as retaining walls rather than rockeries or retaining structures built separately and away from the building wherever feasible. Freestanding retaining devices are only permitted when they cannot be designed as structural elements of the building foundation;
Foundation walls will be utilized per the geotechnical recommendations provided by Robert M. Pride, P.E. The replacement of the existing wooden retaining wall within the steep slope buffer will be like-for-like and include no material expansions.

8. On slopes in excess of 40 percent, use of pole-type construction which conforms to the existing topography is required where feasible. If pole-type construction is not technically feasible, the structure must be tiered to conform to the existing topography and to minimize topographic modification;
The proposed addition will not be constructed in slopes in excess of 40 percent.

9. On slopes in excess of 40 percent, piled deck support structures are required where technically feasible for parking or garages over fill-based construction types; and
The proposed garage will not be constructed in slopes in excess of 40 percent.

10. Areas of new permanent disturbance and all areas of temporary disturbance shall be mitigated and/or restored pursuant to a mitigation and restoration plan meeting the requirements of LUC 20.25H.210.
The proposed addition represents an increase of 605 square feet with a 425 square-foot structure setback modification. The applicant has also proposed approximately 1,300 square feet of mitigation landscaping within the steep slope buffer and an additional 3,735 square feet of restoration planting to improve the degraded steep slope.

D. Consistency with Critical Areas Report LUC 20.25.230:

The applicant supplied a complete critical areas report prepared by Robert M. Pride, a qualified professional. The report met the minimum requirements in LUC 20.25H.250.

E. Consistency with Critical Areas Report LUC 20.25H.140 & 20.25H.145:

Modification of a steep slope structure setback requires a critical areas report as part of the application for a Critical Area Land Use Permit. The applicant has obtained the services of a qualified geotechnical engineering company to study the site and document the observed conditions. Staff has reviewed the following documents:

- Geotechnical Recommendations dated January 3, 2014 prepared by Robert M. Pride

The geotechnical analysis found, “no evidence of settlement or distress” and, “no signs of slope instability in the rear yard area that extends down to the north property line.” The geotechnical engineer also provided recommendations for foundation wall construction, retaining wall replacement, and installation of new plant material.

The proposed 1300 square foot mitigation planting area is to mitigate the 425 square feet of the structure setback impact from the addition. The planting is required to be maintained and monitored with the existing planting already guaranteed by an installation and maintenance surety. The installation surety will be released after planting installation and the maintenance surety will be released after the five-year monitoring, assuming restoration has been successful. The monitoring plan can be found in the conditions of approval at the end of this report. **See Conditions of Approval in Section IX of this report.**

IV. Public Notice and Comment

Application Date:	May 27, 2014
Public Notice (500 feet):	August 21, 2014
Minimum Comment Period:	September 4, 2014

The Notice of Application for this project was published in the City of Bellevue weekly permit bulletin on August 21, 2014. 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.

V. Summary of Technical Reviews

Clearing and Grading:

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

VI. Changes to proposal as a result of City review

No changes to the proposal were requested.

VII. Decision Criteria

A. 20.25H.255 Critical Areas Report – General Criteria

The Director may approve, or approve with modifications, the proposed modification where the applicant demonstrates:

1. The modifications and performance standards included in the proposal lead to levels of protection of critical area functions and values at least as protective as application of the regulations and standards of this code;

The applicant has provided supporting documentation in the form of a geotechnical report that demonstrates that with appropriate design the proposed addition, retaining wall replacement, and mitigation planting will not reduce slope stability. Approximately 1,300 square feet of mitigation planting containing 6 trees, 30 shrubs, and groundcover will be located within the steep 25-foot steep slope buffer.

2. Adequate resources to ensure completion of any required mitigation and monitoring efforts;

A maintenance surety for the cost of five years of maintenance and monitoring, or the cost of the plants will be required prior to the issuance of a building permit for the proposed single-family residence. **Please see Conditions of Approval in Section IX of this report.**

3. 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

The proposal has been designed to modify only 425 square feet of the 25-foot steep slope structure setback. Installation of native landscaping will rehabilitate the degraded conditions of the steep slope and steep slope buffer, and assist in mitigating stormwater runoff created by this project.

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

The proposal to construct an addition to an existing single-family residence maintains consistency with the surrounding residential land use district.

B. 20.30P.140 Critical Areas Land Use Permit – Decision Criteria

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

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

The applicant must obtain required development permits. A construction permit is required. **See Conditions of Approval in Section IX 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 single-family residential addition, retaining wall replacement, and native landscaping utilize the best available construction, design, and development techniques. Degraded slope and buffer conditions have been documented in photographic evidence, and will be addressed with through the mitigation and restoration landscaping to increase the level of function of the steep slope critical area and steep slope 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 not impact public facilities.

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

The proposal seeks modification for the top-of-slope structure setback to facilitate construction of a single-family residential addition. Included with this proposal is a mitigation plan which provides 1,300 square feet of native plantings to offset the modification to the structure setback. In addition to mitigation planting, the applicant has proposed 3,735 square feet of restoration planting within the steep slope critical area in order to address degraded condition that exist within the slope. The applicant is required to follow the recommendation included in the project geotechnical report, which shall be verified by an inspection made by a qualified engineer. **See Conditions of Approval in Section IX 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.

VIII. 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 the Development Services Department does hereby **approve with conditions** the proposal to modify the steep slope structure setback 425 square feet in order to facilitate the construction of a residential addition.

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.

IX. Conditions of Approval

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

<u>Applicable Ordinances</u>	<u>Contact Person</u>
Clearing and Grading Code- BCC 23.76	Savina Uzunow, 425-452-7860
Land Use Code- BCC 20.25H	David Wong, 425-452-4282
Noise Control- BCC 9.18	David Wong, 425-452-4282

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. A building permit for the single-family residential addition is required

Authority: Land Use Code 20.30P.140
Reviewer: David Wong, Land Use

2. Approved Structure Setback Modification: The structure setback modification approved is for the construction of the single-family residential addition only as depicted in the project site plan and does not authorize additional site changes outside of this project scope. The modification does not allow future structures or improvements to be located in the setback without approval of a Critical Areas Land Use Permit and/geotechnical evaluation.

Authority: Land Use Code 20.30P.140
Reviewer: David Wong, Land Use

3. Geotechnical Recommendations: The project shall be constructed per the recommended procedures and practices in the geotechnical report dated February 10, 2014

Authority: Land Use Code 20.30P.140
Reviewer: David Wong, Land Use

4. Mitigation Planting: Plans submitted for the building permit must provide 1,300 square feet of mitigation landscaping that adheres to the standards found in the City of Bellevue's Critical Areas Handbook.

Authority: Land Use Code 20.30P.140
Reviewer: David Wong, Land Use

5. Maintenance & Monitoring: The mitigation and restoration areas shall be self-maintained and self-monitored for five (5) years. Annual monitoring reports are to be submitted to Land Use each of the five years at the end of each growing season or October 31st. Photos from selected points, determined by the City, will be included in the monitoring reports to document the planting. The following schedule and performance standards apply and are evaluated in the report each year:

Year 1 (from date of plant installation)

100% survival of all install plants/or replanting in following dormant season to reestablish 100%

10% maximum coverage of invasive plants in planting area

Year 2 (from date of plant installation)

100% survival of all install plants/or replanting in the following dormant season to reestablish 100%

20% minimum vegetative coverage

10% maximum coverage of invasive plants in planting area

Year 3 (from date of plant installation)

100% survival of all install plants/or replanting in the following dormant season to reestablish 100%

35% minimum vegetative coverage

10% maximum coverage of invasive plants in planting area

Years 4-5 (from date of plant installation)

80% survival of all installed plants

50-60% minimum vegetative coverage

10% maximum coverage of invasive plants in planting area

The reports along with a copy of the planting plan can be sent to David Wong at d Wong@bellevuewa.gov or to the address below:

Environmental Planning Manager
Development Services Department
City of Bellevue
PO Box 90012
Bellevue, WA 98009-9012

Authority: Land Use Code 20.30P.140; 20.25H.220

Reviewer: David Wong, Land Use

6. Rainy Season Restrictions: Due to the proximity to a steep slope critical area, no clearing and grading activity may occur during the rainy season, which is defined as October 1 through April 30 without written authorization of the Development Services Department. 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.

Authority: Bellevue City Code 23.76.093.A,
Reviewer: Savina Uzunow, Clearing and Grading

7. Planting Cost Estimate: A cost estimate for the proposed mitigation plant installation must be submitted prior to building permit issuance.

Authority: Land Use Code 20.30P.140
Reviewer: David Wong, Land Use

8. Maintenance Surety: A maintenance surety, based on the cost estimate above is required and shall equal the cost of the plants. The maintenance surety is required prior to building permit issuance.

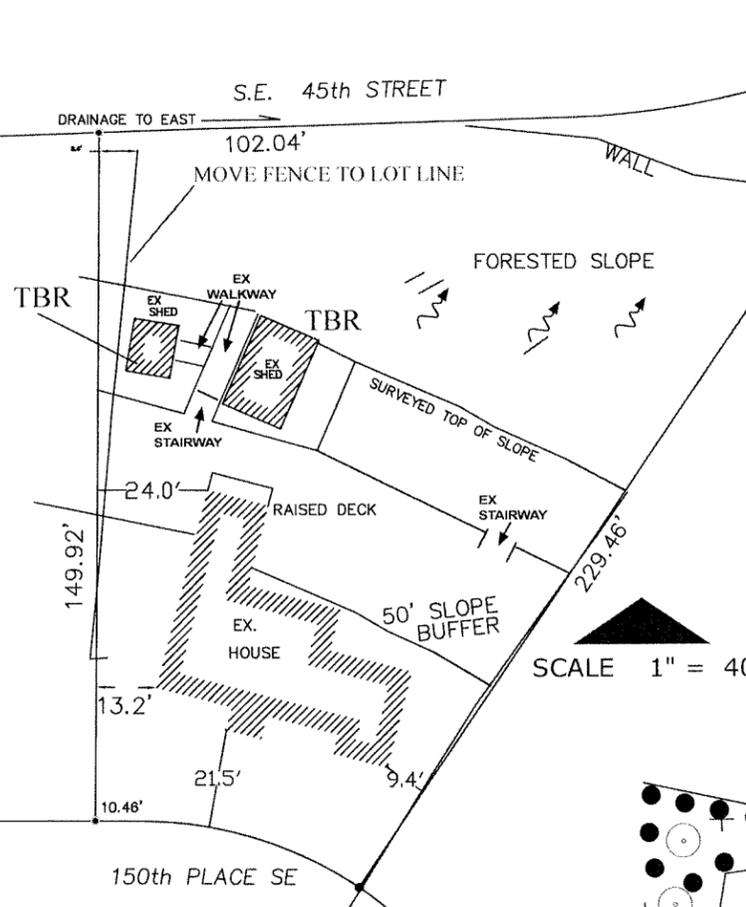
Authority: Land Use Code 20.30P.140
Reviewer: David Wong, Land Use

9. 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: David Wong, Land Use

6. Hold Harmless Agreement: 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 clearing and grading permit issuance. Staff will provide the applicant with the hold harmless form.

Authority: Land Use Code 20.30P.140
Reviewer: David Wong, Land Use



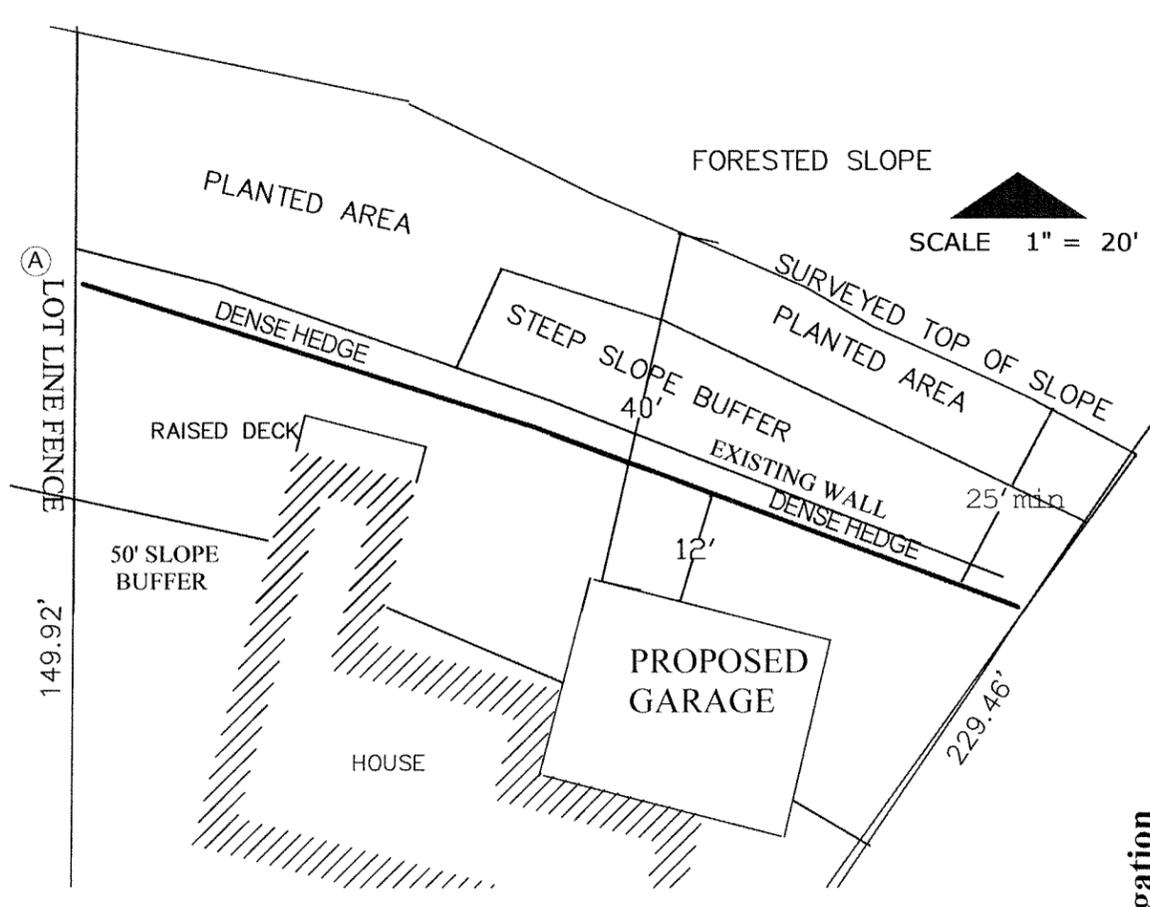
PROPOSED GARAGE = 400SF IMPACTS TO 50' SLOPE BUFFER

PROPOSAL INCLUDES:
 REMOVAL OF TWO EXISTING SHEDS (288sf + 112'sf) FROM TOP OF SLOPE, 160 sf OF STAIRWAY AND TWO RETAINING WALL SECTIONS (APPROXIMATELY 40 sf).

PROPOSAL WILL PROVIDE PROTECTION FOR THE SLOPE WITH A DENSE HEDGE FENCE APPROXIMATELY 12 FEET FROM THE FOOTINGS OF THE STRUCTURES TO REMAIN ON THE LOT, PROVIDING A MINIMUM OF 3,00- sf OF PROTECTED SLOPE BUFFER

PROPOSED PLANTING AREAS NEAR TOP OF SLOPE = 1000 SF MINIMUM (B)

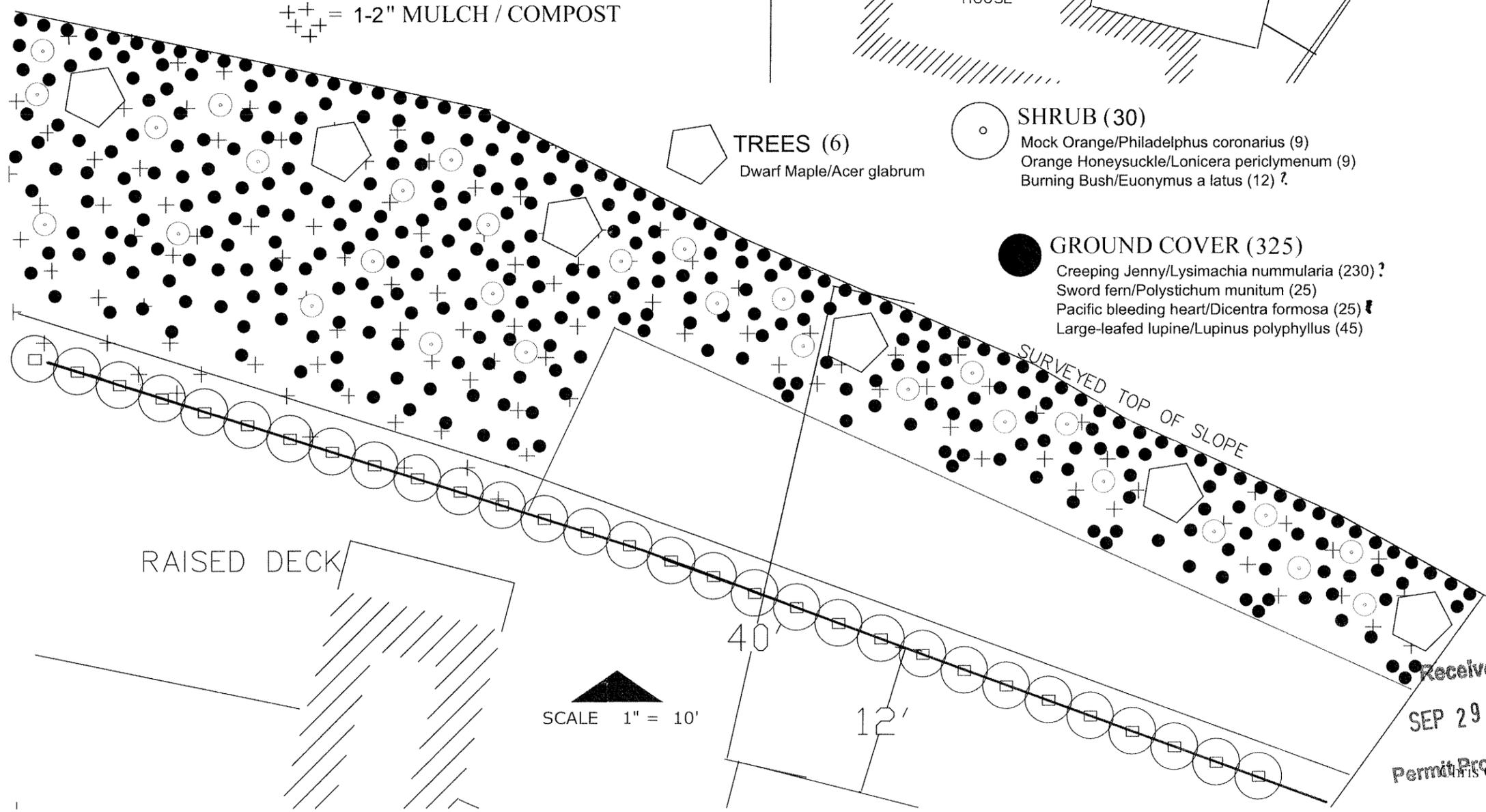
SCALE 1" = 40'



SCALE 1" = 20'

PLANTING SHALL PROTECT THE TOP OF SLOPE PROVIDE INCREASED HABITAT and CONTRIBUTE TO STORM WATER CONTROL

- (A) LOT LINE FENCE WILL BE DENSE HEDGES Portugal Laurel/Prunus lusitanica (37)
- (B) SQ FT IS FOR THE 9' MITIGATION STRIP ONLY. THE TOTAL SQ FT WITH 2 SHEDS REMOVAL IS 1300 SQ FT. RE VEGETATION PLANTING QUANTITIES ACCOUNT FOR 1300 SQ FT.

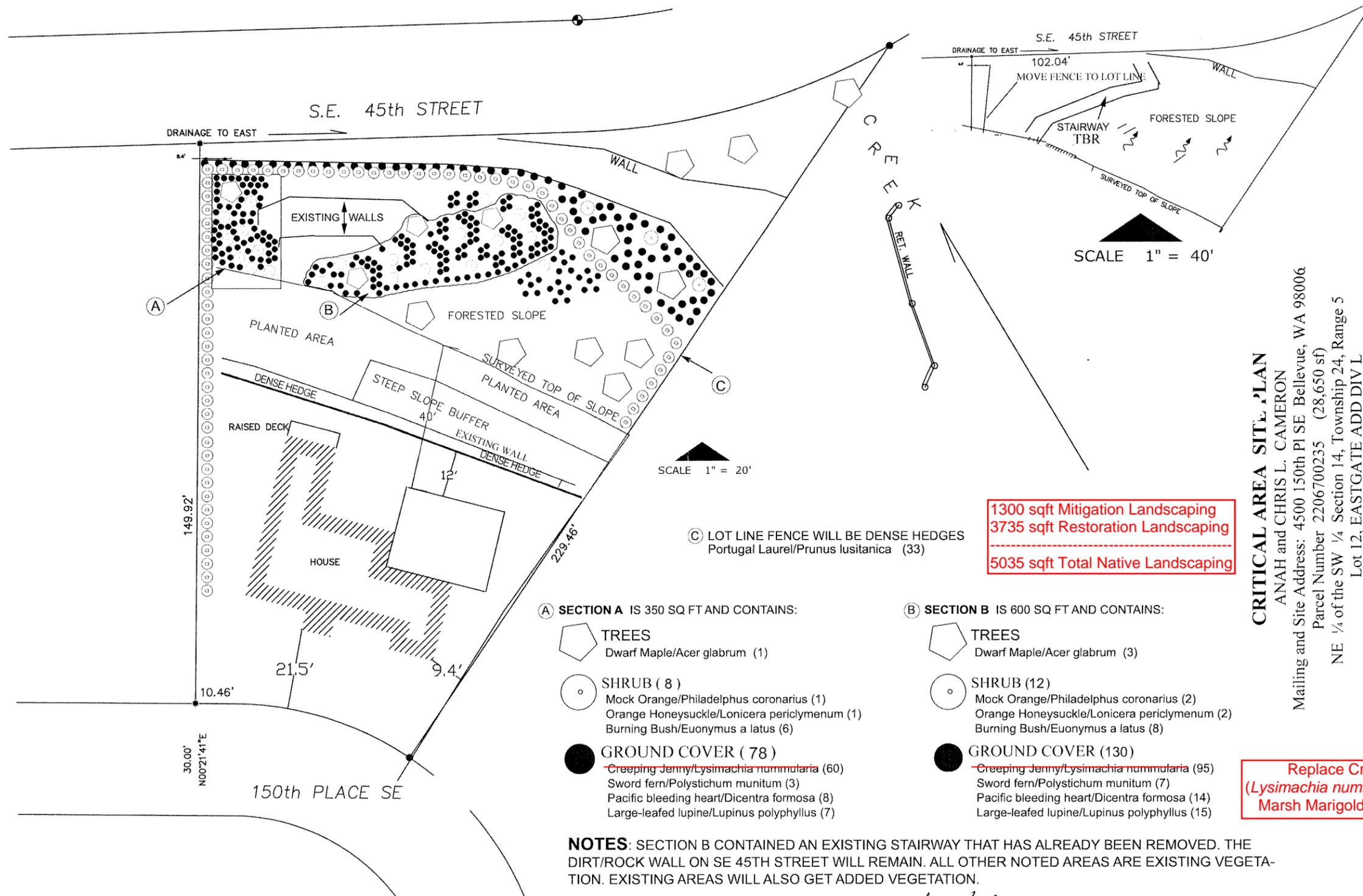


SCALE 1" = 10'

Critical Area / Slope Mitigation

ANAH and CHRIS L. CAMERON
 Mailing and Site Address: 4500 150th PI SE Bellevue, WA 98006
 Parcel Number 2206700235 (28,650 sf)
 NE 1/4 of the SW 1/4 Section 14, Township 24, Range 5
 Lot 12, EASTGATE ADD DIV I

Received
 SEP 29 2014
 Permit Processing
 Chris Cameron



1300 sqft Mitigation Landscaping
 3735 sqft Restoration Landscaping

 5035 sqft Total Native Landscaping

© LOT LINE FENCE WILL BE DENSE HEDGES
 Portugal Laurel/Prunus lusitanica (33)

A SECTION A IS 350 SQ FT AND CONTAINS:

- TREES
Dwarf Maple/Acer glabrum (1)
- SHRUB (8)
Mock Orange/Philadelphus coronarius (1)
Orange Honeysuckle/Lonicera periclymenum (1)
Burning Bush/Euonymus a latus (6)
- GROUND COVER (78)
Creeping Jenny/Lysimachia nummularia (60)
Sword fern/Polystichum munitum (3)
Pacific bleeding heart/Dicentra formosa (8)
Large-leafed lupine/Lupinus polyphyllus (7)

B SECTION B IS 600 SQ FT AND CONTAINS:

- TREES
Dwarf Maple/Acer glabrum (3)
- SHRUB (12)
Mock Orange/Philadelphus coronarius (2)
Orange Honeysuckle/Lonicera periclymenum (2)
Burning Bush/Euonymus a latus (8)
- GROUND COVER (130)
Creeping Jenny/Lysimachia nummularia (95)
Sword fern/Polystichum munitum (7)
Pacific bleeding heart/Dicentra formosa (14)
Large-leafed lupine/Lupinus polyphyllus (15)

NOTES: SECTION B CONTAINED AN EXISTING STAIRWAY THAT HAS ALREADY BEEN REMOVED. THE DIRT/ROCK WALL ON SE 45TH STREET WILL REMAIN. ALL OTHER NOTED AREAS ARE EXISTING VEGETATION. EXISTING AREAS WILL ALSO GET ADDED VEGETATION.

2" mulch will cover the whole slope

Replace Creeping Jenny
 (*Lysimachia nummularia*) with Yellow
 Marsh Marigold (*Caltha palustris*)

CRITICAL AREA SITE PLAN

ANAH and CHRIS L. CAMERON
 Mailing and Site Address: 4500 150th PI SE Bellevue, WA 98006
 Parcel Number 2206700235 (28,650 sf)
 NE 1/4 of the SW 1/4 Section 14, Township 24, Range 5
 Lot 12, EASTGATE ADD DIV L

Received
 SEP 29 2014
 Permit Processing

February 10, 2014

Mr. and Mrs. Chris Cameron
c/o Theo Barnarde AIA
9228 39th Avenue South
Seattle, WA 98118

Re: **Geotechnical Recommendations**
Proposed Garage
4500 151st Avenue SE
Bellevue, Washington

Dear Mr. and Mrs. Cameron,

This report presents the results of our site investigation for the new garage structure to be located on the east side of the existing residence on 151st Avenue SE in Bellevue. It is understood that the new structure will extend 22 feet from the rear of the garage out toward the top of the steep slope area in the rear yard, and will have a lower storage room area below the main garage floor level.

The purpose of this report is to describe existing site and geologic conditions, and to provide recommendations for design of the proposed foundations that will provide support to this new garage. Geologic mapping for the King County area by Booth, et al in 2007 along with prior investigations in this area were used as references for this report.

Site Conditions

The property was graded level for the existing building pad that provides support for the residence foundations. According to geologic mapping for this area is underlain by dense glacial till deposits (Qvt) that are excellent for foundation support. The rear yard slopes down to the north property line and there are low wood retaining walls that provide support for the fill soils placed on the native soils. Several large trees are located in the rear yard area and they are providing additional stability to the exposed surficial soils on this slope.

All of the house foundations extend down to the weathered glacial till soils that consist of silty sands and gravelly sands. Confirmation of the depth to the weathered glacial till soils was accomplished by drilling a hand auger boring on the north side of the proposed garage. Depth to the dense weathered till was two feet below the existing grade that was covered with topsoil and loose fill soils, and the glacial till extended down to the bottom of the boring at six feet.

Observations of the house foundations showed no evidence of settlement or distress. There are no signs of slope instability in the rear yard area that extends down to the

Received
MAY 28 2014
Permit Processing
City of Bellevue

north property line. Overall steep slope gradients range from 2H:1V to 1.5H:1V, and there has been no reports of surficial or deep seated slope failures.

Geotechnical Recommendations

Based on the results of our site investigation and considering the location of the proposed garage, the following recommendations have been provided for foundation design. Foundations will bear on the dense native soils using a bearing value of 2000 psf. Depths of these foundations are expected to extend a minimum of 18 to 24 inches below existing grades and more along the upper south side of the garage. A passive earth pressure of 200 pcf may be used for lateral force restraint. Retaining walls should be designed for an active earth pressure of 35 pcf and a seismic value of 8H. All footing excavations should be inspected to confirm bearing soil conditions prior to pouring concrete.

The garage floor slab will be supported by a wood framing system that will be supported by timber framing across the new foundation walls. An open storage area will be located below the garage slab under the north end of the garage, and this will require installation of an internal wall that will provide for lateral and vertical support of the new garage structure.

An evaluation was made of the existing steep slope area that led to the conclusion that this slope is grossly stable and not subject to surficial or deep seated instability. The existing RR tie wall near the top of the slope is providing lateral support to fill soils that were placed near the top of this slope. Based on my assessment of the underlying soil and geologic conditions on this property, it is recommended that a minimum ten foot setback be established from the top of the steep slope to the rear of the new garage foundation.

Temporary erosion control will be required along the top of the slope just north of the garage building pad. All storm water runoff from the roof and driveway areas should be collected for discharge to the lower area of the property. An existing storm drain pipe may exist along the easterly side of the property that could be used for connection of these pipes.

Summary

Field inspection and consultation services should also be provided to verify that subsurface conditions are as expected. Should conditions be revealed during construction that differs from the anticipated subsurface profile, we will evaluate those conditions and provide alternative recommendations where appropriate.

Our findings and recommendations provided in this report were prepared in accordance with generally accepted principles of engineering geology and geotechnical engineering as practiced in the Puget Sound area at the time this report was submitted. We make no other warranty, either express or implied.

