



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

Proposal Name: Johnson Residence

Proposal Address: 1844 W Lake Sammamish Pkwy SE

Proposal Description: Review of a Critical Areas Land Use Permit to construct a new single-family residential structure within a steep slope buffer. The proposal includes mitigation and restoration planting, and is supported by a critical areas report and geotechnical report.

File Number: 15-106388-LO

Applicant: Tara Johnson

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

Planner: David Wong, Planner

**State Environmental Policy Act
Threshold Determination:** Exempt per WAC 197-11-800 (1)

Director's Decision: Approval with Conditions

Carol V. Helland, Land Use Director
Development Services Department

Application Date: February 24, 2015
Notice of Application Publication Date: April 2, 2015
Decision Publication Date: September 3, 2015
Project/SEPA Appeal Deadline: September 17, 2015

For information on how to appeal a proposal, visit Development Services Center 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.

CONTENTS

| | |
|---|---|
| I. Proposal Description | 1 |
| II. Site Description, Zoning, Land Use and Critical Areas | 1 |
| III. Consistency with Land Use Code Requirements:..... | 2 |
| IV. Public Notice and Comment..... | 5 |
| V. Summary of Technical Reviews | 5 |
| VI. Decision Criteria..... | 5 |
| VII. Conclusion and Decision..... | 8 |
| VIII. Conditions of Approval | 8 |

Attachments

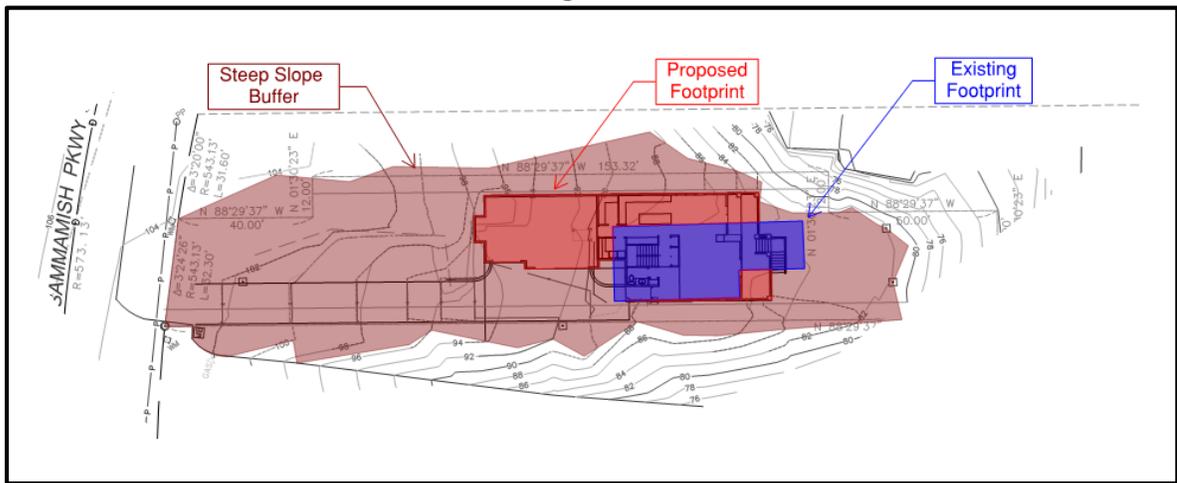
1. Environmental Checklist (in file)
2. Site Plan

I. Proposal Description

The applicant has requested a Critical Areas Land Use Permit to construct an approximately 2,400 square-foot single-family residential structure within a regulated 50-foot steep slope buffer. The existing home will be demolished and the proposed improvements have been organized on site to utilize much of the existing disturbance area. This proposal also includes approximately 1,282 square feet of restoration planting within the steep slope and steep slope buffer.

As required by LUC 20.25H.125, a Critical Areas Report has been submitted in order to modify the 50-foot steep slope buffer. See Figure 1 below for site layout.

Figure 1



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

A. Site Description

The subject parcel is 13,027 square feet and has access to the Lake Sammamish shoreline along the eastern property boundary. The parcel was developed with a 780 square-foot single-family residence and driveway with connection to W Lake Sammamish Pkwy SE in 1947. Steep slopes to the north and south are presumed to have been created with "sidecast" type fills from the apparent cuts associated with the parking areas and the existing home," while the soils of the slope to the east were "relatively untouched" (Geotechnical Engineering Report pg. 2). Himalayan blackberry (*Rubus armeniacus*) and English ivy (*Hedera helix*) inhabit a large portion of the steep slope and steep slope buffer. See Figure 2 for more information.

Figure 2



B. Zoning

The property is zoned R-3.5, single-family residential.

C. Land Use Context

The site has a Comprehensive Plan Land Use Designation of SF-M (Single-Family Medium Density). The site is bounded to the north, south, and east by single-family residential development, and to the west by Lake Sammamish.

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-3.5 zoning district. Development of a single-family residence is consistent with the allowed development of this zoning type.

B. Consistency with Land Use Code Critical Areas Performance Standards:

The City of Bellevue Land Use Code Critical Area 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 steep slopes with a 50-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;

No alterations to topography of the existing steep slopes are proposed.

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

Structures and improvements have been located outside of the steep slope critical area and provide a greater buffer distance from the slope than what currently exists. The configuration of the new single-family home and driveway minimize the non-hazard tree removal to two trees (1-10" alder, 1-8" Douglas fir).

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

The geotechnical review of the project found that "the proposed development will not adversely affect slope stability on the subject property or adjacent properties" provided that project utilizes the foundation recommendations in the report (Geotechnical Site Plan Review pg. 1).

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 walls;

Retaining walls and foundation walls have been proposed to retain existing contours or the steep slope.

5. Development shall be designated to minimize impervious surfaces within the critical area and critical area buffer.

Development has been organized such that more than 90% of the existing disturbance area will be utilized.

6. Where change in grade outside the building footprint is necessary, the site retention system should be stepped and retaining 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; Changes in grade outside of the foundation have been limited to that which allow for driveway relocation. Use of retaining walls and foundation walls allow for minimal disturbance to steep slope buffer area and provide no disturbance to steep slope adjacent to the southern boundary line.

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 foundations. Foundation walls have been utilized to the greatest extent in this design.

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;
No development proposed on 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
No development proposed on 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.
A mitigation and restoration plan containing 1,282 square feet of native planting and meeting the requirements of LUC 20.25H.210 has been submitted within this request.

D. Consistency with Critical Areas Report LUC 20.25H.230

The applicant supplied a complete critical areas report prepared by Carl Hadley, 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 buffer 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:

- Subsurface Exploration, Geologic Hazards, and Preliminary Geotechnical

Engineering Report – Johnson Residence prepared by Andrew L. Glandon, License Geologist and Jamey S. Battermann, Professional Engineer

The geotechnical analysis found that there were no “signs of current or past slope movement, adverse groundwater conditions, adverse geologic contacts, or signs of accelerated erosion.” The geotechnical engineer also provided recommendations for foundation construction, wall and rockery construction, fill soil mitigation, and floor support construction.

IV. Public Notice and Comment

| | |
|---------------------------|-------------------|
| Application Date: | February 24, 2015 |
| Public Notice (500 feet): | April 2, 2015 |
| Minimum Comment Period: | April 16, 2015 |

The Notice of Application for this project was published in the City of Bellevue weekly permit bulletin on April 2, 2015. 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. Decision Criteria

A. Critical Areas Report Decision Criteria-Proposals to Reduce Regulated Critical Area Buffer LUC 20.25H.255.

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;**

Finding: The proposal includes plans for restoration of a degraded steep slope and steep slope buffer areas of approximately 1,282 square feet. Restoration activities will result in overall net gain in critical area and critical area buffer functions by increasing soil stabilization and preventing erosion in the critical area and critical area buffer.

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;

Finding: The proposed restoration plan will result in overall net gain in critical area and critical area buffer functions to the ecosystem by removing invasive species; increasing native species diversity; and improving native species habitat.

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;

Finding: In addition to the mentioned stormwater improvements associated with native planting, the proposal includes the use of impervious pavers in areas currently occupied with the single-family dwelling footprint. This will decrease the impervious surface area associated with the steep slope and steep slope buffer to the east of the existing single-family dwelling.

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

Finding: This is a proposal to reduce a steep slope buffer. The applicant is proposing mitigation proportional to the anticipated impact and has included a mitigation & restoration plan with the proposal. To ensure installation and appropriate maintenance of the proposed and required mitigation the applicant is required to submit a financial security device meeting the requirements of LUC 20.40.490. Mitigation measures must be installed before occupancy is granted and maintenance of required plantings is required for a period of five years.

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

Finding: The proposed single-family dwelling has been designed to utilize more than 80% of the footprint of the existing single-family dwelling. The requested modification of approximately 1,230 square feet has been mitigated by restoring the degraded steep slope and steep slope buffers on-site with approximately 1,282 square feet of native trees, shrubs, and groundcovers. Installation of native vegetation will rehabilitate the degraded conditions of the steep slope and steep slope buffers on and off-site, and assist in mitigating stormwater runoff created by this project.

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

Finding: The proposal to construct a new single-family residence maintains consistency with the surrounding residential land use district.

B. Critical Areas Land Use Permit Decision Criteria 20.30P

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;

Finding: The applicant must obtain required development permits. A construction permit is required. See Conditions of Approval in Section VIII 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;

Finding: The single-family residential structure, rockery, and native landscaping utilize the best available construction, design, and development techniques. Degraded slope and buffer conditions have been documented, and will be addressed 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, and ;

Finding: 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; and;

Finding: 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; and

Finding: The proposal seeks modification for the top-of-slope buffer to facilitate construction of a single-family residential structure. Included with this proposal is a mitigation plan which provides approximately 1,282 square feet of native plantings to restore a degraded steep slope and steep slope buffer. 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 VIII of this report.

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

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

VII. 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 critical area buffer within the steep slope critical area at 1844 W Lake Sammamish Pkwy SE.

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, Building Permit, or other necessary development permits within one year of the effective date of the approval.

VIII. 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 | Tom McFarlane, 425-452-5207 |
| 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 structure is required.

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

2. Approved Buffer Modification: The buffer modification approved is for the construction of the single-family residential structure 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 buffer 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 October 20, 2014. A letter of record from the geotechnical engineer shall be provided prior to issuance of the building permit.

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

4. Mitigation & Restoration Planting: Plans submitted for the building permit must provide 1,282 square feet of restoration planting that adheres to the minimum standards found in the City of Bellevue's Critical Areas Handbook. In addition, ten (10) native trees (six conifers, four deciduous) shall be planted as mitigation of three (3) hazard and two (2) non-hazard trees

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

5. Rainy Season restrictions: Due to the proximity to 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: Tom McFarlane, Clearing and Grading

6. 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 during the pre-construction inspection, 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)

90% survival of all install plants and 100% of all trees or replanting in the following dormant season to reestablish 100%

20% minimum vegetative coverage

10% maximum coverage of invasive plants in planting area

Year 3-5 (from date of plant installation)

85% survival of all install plants and 100% of all trees or replanting in the following dormant season to reestablish 100%

35% 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 dwong@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

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

Authority: Land Use Code 20.30P.160

Reviewer: David Wong, Land Use

8. Maintenance Surety: A maintenance surety, based on the cost estimate above is required and shall equal 20 percent of 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. 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.170

Reviewer: David Wong, Land Use

10. 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".

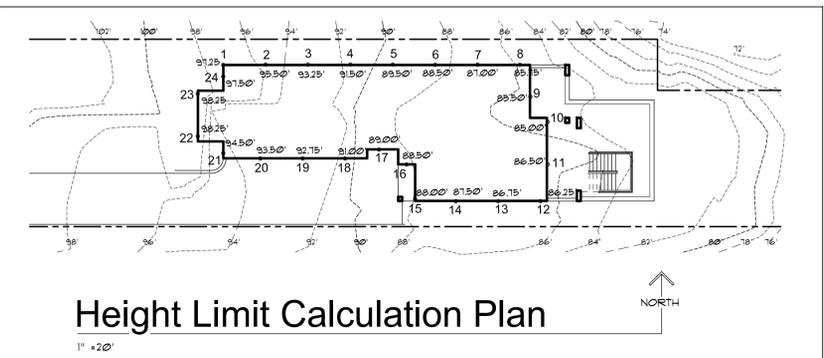
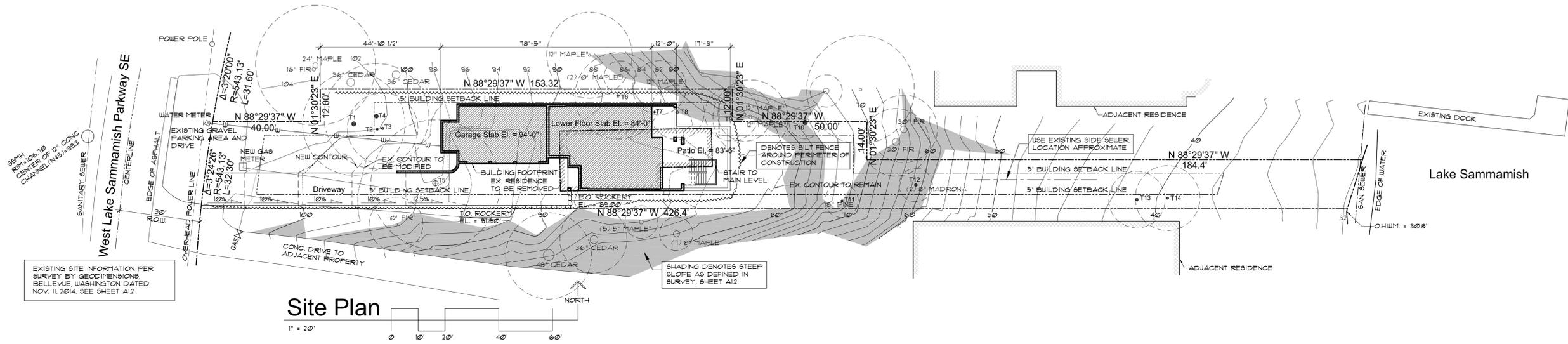
Authority: Land Use Code 20.25H.220.H

Reviewer: David Wong, Land Use

11. 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: Planner, Land Use



| POINT | EXIST'G ELEV'TN | POINT | EXIST'G ELEV'TN |
|-------|-----------------|-------|-----------------|
| 1 | 91.25' | 13 | 86.75' |
| 2 | 95.50' | 14 | 87.50' |
| 3 | 93.25' | 15 | 88.00' |
| 4 | 91.50' | 16 | 88.50' |
| 5 | 89.50' | 17 | 89.00' |
| 6 | 88.50' | 18 | 89.00' |
| 7 | 87.00' | 19 | 92.75' |
| 8 | 85.75' | 20 | 93.50' |
| 9 | 85.50' | 21 | 94.50' |
| 10 | 85.00' | 22 | 98.75' |
| 11 | 86.50' | 23 | 98.25' |
| 12 | 86.25' | 24 | 97.50' |
| | | TOTAL | 2,111.00' |

BASE ELEVATION = 2,111.00' / 24 = 88.00'

HEIGHT LIMIT = 90.71' + 35' = 125.71'

Tree Inventory

● T - DENOTES EXISTING TREE TO REMAIN
⊖ T - DENOTES EXISTING TREE TO BE REMOVED

| TREE | SPECIES | DIA | HGT | HT TO BRNCH | HT TO TOP | HT TO CENTER | TREES SAVED |
|------|---------|-------|-----|-------------|-----------|--------------|-------------|
| T1 | MAPLE | 18" | 05' | 9' | 9' | 9' | |
| T2 | ALDER | 10" | 05' | 5' | 5' | 5' | |
| T3 | MAPLE | 10" | 05' | 5' | 5' | 5' | |
| T4 | DEC. | 18" | 05' | 9' | 9' | 9' | |
| T5 | MAPLE | 24" | 05' | 12' | 12' | 12' | |
| T6 | MAPLE | 10" | 05' | 5' | 5' | 5' | |
| T7 | MAPLE | 8" | 05' | 4' | 4' | 4' | |
| T8 | MAPLE | 12" | 05' | 6' | 6' | 6' | |
| T9 | MAPLE | 12" | 05' | 6' | 6' | 6' | |
| T10 | MAPLE | 12" | 05' | 6' | 6' | 6' | |
| T11 | PINE | 8" | 10' | 8' | 8' | 8' | |
| T12 | MADRONA | 8" | 05' | 4' | 4' | 4' | |
| T13 | APPLE | 10" | 05' | 5' | 5' | 5' | |
| T14 | APPLE | 12" | 05' | 6' | 6' | 6' | |
| | | TOTAL | 90" | 51' | | | |

EXISTING TREES (TOTAL DIAMETER) = 90"

EXISTING TREES TO BE SAVED (TOTAL DIAMETER) = 51"

PERCENTAGE OF TREES DIAMETER TO BE SAVED = 63.3%

Lot Coverage:

| | |
|---------------------|-----------|
| LOT AREA | 12,961 SF |
| PROTECTED AREA | 1,214 SF |
| REV. LOT AREA | 11,753 SF |
| HOUSE AND GARAGE | 2,311 SF |
| DECKS OVER 30" HIGH | 32 SF |
| TOTAL COVERAGE | 2,311 SF |

% OF LOT COVERAGE BY STRUCTURES = 2.343 / 11,753 = 19.9%

Floor Area Ratio:

| | |
|-------------|----------|
| LOWER FLOOR | 1,200 SF |
| MAIN FLOOR | 1,200 SF |
| UPPER FLOOR | 2,136 SF |
| GARAGE | 810 SF |
| TOTAL | 5,406 SF |

RATIO OF STRUCTURE TO LOT AREA = 5,406 / 12,961 = 0.417

Impervious Surface Area

EXISTING RESIDENCE TO BE REMOVED:

| | |
|----------|----------|
| ROOF | 1,263 SF |
| DRIVEWAY | 1,175 SF |
| PATIO | 108 SF |
| TOTAL | 3,146 SF |

NEW CONSTRUCTION:

| | |
|----------|----------|
| ROOF | 2,685 SF |
| DRIVEWAY | 1,588 SF |
| PATIO | 411 SF |
| TOTAL | 4,684 SF |

IMPERV. AREA = 4,684 / 12,961 = 36.1%

Area of Disturbance

| | |
|-----------------|----------|
| BLDG. FOOTPRINT | 2,026 SF |
| DRIVEWAY | 1,160 SF |
| PATIO | 633 SF |
| TOTAL | 4,489 SF |

Legal Owners:
ANDREW AND TARA JOHNSON
X
X

Contractor:
ADAM LELAND HOMES
ADAM LELAND
2630 100TH AVE NE
BELLEVUE, WA 98004
425-449-8353
adamlelandhomes.com

Architect:
THE HURI ASSOCIATES
ED L. HURI, PRINCIPAL
6308 - 168th ST. SW
LYNNWOOD, WASHINGTON 98031
(425) 743-1312
e-huri@msn.com

Structural Engineer:
FORSMAN ENGINEERING
ARNOLD FORSMAN, PE
3020 14 - 2nd COURT SE
FEDERAL WAY, WASHINGTON 98021
(753) 915-9182
forssmanengineering@comcast.net

Civil Engineer
CIVIL ENGINEERING SOLUTIONS
DUFFY ELLIS, PE
2244 MARKET ST., STE. B
SEATTLE, WASHINGTON 98107
206-930-0342
duffy@cesolutions.com

Geotechnical Engineer
SOUTH FORK GEOSCIENCES
ANDREW GLADSON
PO BOX 1278
NORTH BEND, WASHINGTON 98045
425-831-2023
X

Biologist
CEDAR ROCK CONSULTANTS
18609 244TH AVE NE
WOODINVILLE, WASHINGTON 98071
425-788-0961
X

Surveyor:
GEODIMENSIONS
1020 MAIN ST., STE. 102
BELLEVUE, WASHINGTON 98004
425-458-4488
X

Energy Calculations:

GLAZED AREA: 781.0 SF
CONDITIONED AREA: 4,536 SF
134.18 SF / 4,536 SF = 16.3 %

INSULATION REQUIREMENTS:

| | |
|---------|----------|
| WINDOWS | U = 0.30 |
| WALLS | R-21 |
| ROOF | R-49 |
| FLOORS | R-30 |

Energy Credit Option:

ENERGY CREDIT OPTIONS: MED. DWELLING UNIT (15)
HIGH EFFICIENCY HVAC EQUIPMENT 3x (0.5 CREDITS).
GAS, PROPANE OR OIL FIRED FURNACE WITH MINIMUM AFUE OF 95%.
EFFICIENT WATER HEATER 5x (1.5 CREDITS).
WATER HEATING SYSTEM SHALL INCLUDE ONE OF THE FOLLOWING: GAS, PROPANE OR OIL WATER HEATER WITH A MINIMUM EF OF 0.82 OR SOLAR WATER HEATING SUPPLEMENTING A STANDARD WATER HEATER

Whole House Ventilation System:

WHOLE HOUSE MECHANICAL VENTILATION SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH SECTIONS M1901.3.1 THROUGH M1901.3.3.

INTEGRATED WHOLE-HOUSE VENTILATION SYSTEM SHALL PROVIDE OUTDOOR AIR AT THE RATE CALCULATED USING SECTION M1901.3.3. INTEGRATED FORCED AIR VENTILATION SYSTEMS SHALL DISTRIBUTE OUTDOOR AIR TO EACH HABITABLE SPACE THROUGH THE FORCED AIR SYSTEM DUCTS. INTEGRATED FORCED AIR VENTILATION SYSTEM SHALL HAVE AN OUTDOOR INLET DUCT CONNECTING A TERMINAL ELEMENT ON THE OUTSIDE OF THE BUILDING TO THE RETURN AIR FLENUM OF THE FORCED AIR HANDLER. THE OUTDOOR AIR INLET CONNECTION TO THE RETURN AIR STREAM SHALL BE LOCATED UPSTREAM OF THE FORCED AIR SYSTEM BLOWER AND SHALL NOT CONNECT DIRECTLY INTO THE FURNACE CABINET TO PREVENT SHOCK TO THE HEAT EXCHANGER. THE SYSTEM SHALL BE EQUIPPED WITH A MOTORIZED DAMPER CONNECTED TO THE AUTOMATIC VENTILATION CONTROL AS SPECIFIED IN SECTION M1901.3.2. THE REQUIRED FLOW RATE SHALL BE VERIFIED BY FIELD TESTING WITH A FLOW HOOD OR A FLOW MEASURING STATION.

LOCATE WHOLE HOUSE FAN IN LAUNDRY.

MIN. VENTILATION RATE PER TABLE M1901.3.3(1) FOR FLOOR AREA OVER 4,501 SQ.FT. AND FOUR BEDROOMS = 105 CFM (CONTINUOUSLY OPERATING FAN). FOR INTERMITTENTLY OPERATING VENTILATION SYSTEM, THE RATE SHALL BE THE COMBINATION OF ITS DELIVERED CAPACITY FROM TABLE M1901.3.3(1) AND ITS VENTILATION EFFECTIVENESS AND DAILY FRACTIONAL OPERATION TIME FROM TABLE M1901.3.3(2).

FAN FLOW RATE PER M1901.3.3: 105cfm x 2 = 210cfm

Source Specific Exhaust Ventilation:

REQUIRED IN EACH KITCHEN, BATHROOM, WATER CLOSET COMPARTMENT, LAUNDRY ROOM AND OTHER ROOMS WHERE WATER VAPOR OR COOKING ODOR IS PRODUCED.

MINIMUM SOURCE SPECIFIC VENTILATION REQUIREMENTS, BATH/TOILET ROOMS KITCHENS

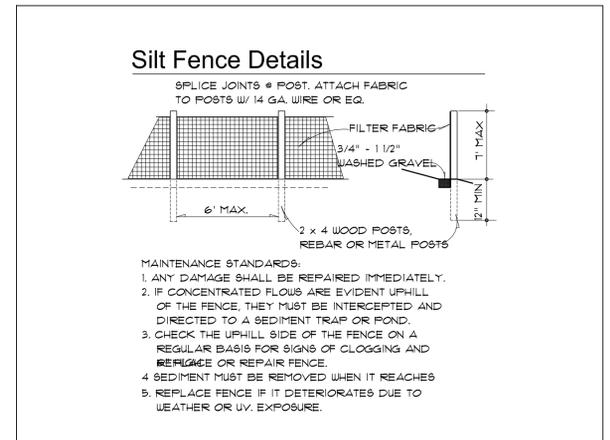
| | | |
|------------------------|--------|---------|
| INTERMITTENT OPERATION | 50 CFM | 100 CFM |
| CONTINUOUS OPERATION | 20 CFM | 25 CFM |

TABLE M1901.3.3(1)
CONT. WHOLE HOUSE MECH. VENT. SYSTEM AIR FLOW REQMTS

| DWELLING UNIT FLOOR AREA (SQ. FT.) | NUMBER OF BEDROOMS | | | | |
|------------------------------------|--------------------|-----|-----|-----|-----|
| | 0-1 | 2-3 | 4-5 | 6-7 | >7 |
| < 1500 | 30 | 45 | 60 | 75 | 90 |
| 1501-3,000 | 45 | 60 | 75 | 90 | 105 |
| 3,001-4,500 | 60 | 75 | 90 | 105 | 120 |
| 4,501-6,000 | 75 | 90 | 105 | 120 | 135 |
| 6,001-7,500 | 90 | 105 | 120 | 135 | 150 |
| >7,500 | 105 | 120 | 135 | 150 | 165 |

TABLE M1901.3.3(2)
INTERMITTENT CONT. WHOLE HOUSE MECH. VENT. RATE FACTORS

| | | | | | | |
|--|-----|-----|-----|-----|-----|------|
| REAL TIME PERCENTAGE PER 4 HR. SEGMENT | 25% | 33% | 50% | 66% | 75% | 100% |
| FACTOR | 4 | 3 | 2 | 1.5 | 1.3 | 1.0 |



Project Address:
1844 W. LAKE SAMMISH PKWY. SE
BELLEVUE, WA 98

Parcel Number
9253900305

Project Description:
CONSTRUCTION OF A NEW SINGLE FAMILY RESIDENCE. CONSTRUCTION TO BE STICK FRAME WITH MFRD, TRUSSES AND STICK FRAMED ROOF.

Legal Description:
THAT PORTION OF THE SOUTH 63 FEET OF THE NORTH 1071 FEET OF GOVERNMENT LOT 3 IN SECTION 1, TOWNSHIP 24 NORTH, RANGE 5 EAST, WM., IN KING COUNTY, WASHINGTON, LYING EASTERLY OF WEST LAKE SAMMAMISH PARKWAY SOUTHEAST AND SOUTHERLY OF THE FOLLOWING DESCRIBED LINE:
BEGINNING AT THE INTERSECTION OF THE EASTERLY MARGIN OF WEST LAKE SAMMAMISH PARKWAY SOUTHEAST AND THE SOUTH LINE OF THE NORTH 31 FEET OF THE SOUTH 63 FEET FEET OF THE NORTH 1071 FEET OF SAID GOVERNMENT LOT 3;
THENCE SOUTH 88°23'31" EAST 12.00 FEET;
THENCE NORTH 1°30'23" EAST 12.00 FEET;
THENCE SOUTH 88°23'31" EAST 153.32 FEET;
THENCE SOUTH 1°30'23" WEST 12.00 FEET;
THENCE SOUTH 88°23'31" EAST 50.00 FEET;
THENCE SOUTH 1°30'23" WEST 14.00 FEET;
THENCE SOUTH 88°23'31" EAST TO LAKE SAMMAMISH.

TOGETHER WITH SHORE LANDS OF THE SECOND CLASS IN FRONT OF AND ABUTTING THEREON.
(BEING KNOWN AS A PORTION OF LOT 58, UQUONA BEACH, ACCORDING TO THE UNRECORDED PLAT THEREOF)
(ALSO KNOWN AS PARCEL A OF BOUNDARY LINE ADJUSTMENT NO. LU 03-18305 RECORDED MAY 13, 2004 UNDER RECORDING NO. 20040519300012, IN THE OFFICIAL RECORDS OF KING COUNTY, WASHINGTON.)

Index:

| PAGE NO. | CONTENTS |
|----------|---|
| A1 | SITE PLAN, SITE INFO, GENERAL PROJECT INFORMATION |
| A1.2 | BOUNDARY AND TOPOGRAPHIC SURVEY |
| A2 | FOUNDATION PLAN |
| A3 | LOWER FLOOR PLAN |
| A4 | MAIN FLOOR FRAMING PLAN DOOR SCHEDULE |
| A5 | MAIN FLOOR PLAN |
| A6 | UPPER FLOOR FRAMING PLAN WINDOW SCHEDULE |
| A7 | UPPER FLOOR PLAN |
| A8 | ROOF FRAMING PLAN |
| A9 | BUILDING SECTION A-A |
| A10 | BUILDING SECTIONS B-B |
| A11 | BUILDING SECTION C-C 4 D-D |
| A12 | BUILDING SECTION E-E 4 F-F |
| A13 | SOUTH EXTERIOR ELEVATION |
| A14 | WEST AND EAST EXTERIOR ELEVATIONS |
| A15 | SOUTH EXTERIOR ELEVATION |
| SD-1 | STRUCTURAL NOTES |
| SD-2 | STRUCTURAL DETAILS |

REVISED

The Johnson Residence
Bellevue, Washington 98008

1844 W. Lake Sammamish Parkway SE

Ed. L. Huri, Architect
6908 - 188th St. SW., Lynnwood, WA. 98037
Architectural Design & Planning
(425) 286-3995 e-huri@msn.com

REGISTERED ARCHITECT
ED. L. HURI
STATE OF WASHINGTON

Joh 01 - 2015
E.L.H.
AUG. 3, 2015

A-1
OF FIFTEEN

PLANTING DETAILS

PLANT INSTALLATION

1. Plant materials shall be nursery grown or collected in the Puget Sound area. Plants shall be normal in pattern of growth, healthy, well-branched, vigorous, with well-developed root systems, and free of pests and diseases. Damaged, diseased, pest-infested, scraped, bruised, dried out, burned, broken, or defective plants will be rejected.
2. If selected species are not available or desirable, then similar species may be substituted with approval from owner and City of Bellevue.
3. Planting shall occur during the cool season (September 15 through March 15).
4. Landscaper shall examine soils in the area to determine suitability for selected plants. New topsoil or compost amendment shall be added to a depth of 12" where necessary to support plants.
5. Plant all groundcover plants approximately 18-inches on center.
6. Immediately after planting, plants shall be watered to saturation.
7. Planting locations shown on the plan are approximate. Actual planting locations shall be field determined at time of planting by landscape architect or biologist. If significant changes are made, an as-built plan shall be prepared and submitted to the City of Bellevue. A minimum of 1,182 sf of new plantings shall be installed and maintained.
8. Provide good quality landscape mulch around all shrubs. This can be omitted around grasses.

LANDSCAPING MAINTENANCE

1. Controlling any non-native species and re-establishing native vegetation are the primary goals of this maintenance plan. Activities required to maintain new plantings include initial watering of the new plants, and periodic removal of non-native vegetation (weeding) within the planting area.
2. New plantings shall be watered from May through mid-October during the first season. A temporary irrigation system is allowed. A potable water source is available for this use.
3. Due to the aggressively invasive habit of many non-native species around Lake Sammamish, and the existence of nearby seed sources, control efforts shall be completed for five years following initial plant installation. Establishment of native plantings over the five year time period will create a well established native habitat lessening the chance for non-native vegetation invasion.
4. The control of invasive weeds (competing grasses and herbs) shall be mechanically provided throughout the planting area at a minimum of twice per year, or more should additional weeding be deemed necessary. The optimal season for weed control occurs in April thru September. The use of herbicides and pesticides after new planting operations is strictly prohibited unless given written permission by the City of Bellevue. All work shall be performed by hand with the lightest possible equipment.

MONITORING

- 1) Compliance monitoring consists of evaluating the plants and shoreline planting area immediately after plant installation. The objective is to verify that all design features, as agreed to in the plans, have been correctly and fully implemented, and that any changes made in the field are consistent with the intent of the design. Evaluation of the planting areas after restoration will be done by the homeowner. A brief compliance report will be prepared describing final plant counts and noting any substitutions or movement of plants when compared to the design. Rationale for changes shall be provided. Three photo points will be established giving complete coverage of the buffer area.
- 2) Long Term Monitoring – New plantings will be monitored in the summer once a year for a five year period. Monitoring will be conducted by the homeowner to quantify the survival, relative health and growth of plant material. An annual monitoring report submitted to the City following each years monitoring visit will describe and quantify the status of the mitigation and provide the three photos from the same locations as the compliance report.

Vegetation monitoring will consist of plant inspection to determine the health and vigor of the installation. All planted material in the buffer will be inspected during each monitoring visit to determine the level of survival of the installation. Each shrub and tree will be rated either as dead, dying, or healthy. Dead or dying material will be replaced the following fall unless plant crowding is believed to be a problem. Plant species substitutions may be made if site conditions are believed responsible for plant mortality. Replacement plants must be approved by the City. Volunteer native, non-invasive species will be included as acceptable components of the mitigation project. Ground covers will be rated as percent ground coverage for each of the major areas covered with these species.

At least three photo points will be established giving complete coverage of the buffer area. Photos will be taken at each point during every monitoring visit and submitted as part of the annual monitoring report.

PERFORMANCE STANDARDS

Year 1 (from date of plant installation)

- 100% survival of all installed plants and/or replanting in following dormant season to reestablish 100% of original plantings
- Less than 10% coverage of invasive plants in planting area.

Year 2 (from date of plant installation)

- At least 90% survival of all installed material (100% of trees)
- Less than 10% coverage of planting area by invasive species or non-native/ornamental vegetation.

Year 3, 4, & 5 (from date of plant installation)

- At least 85% survival of all installed material (100% of trees)
- At least 35% (Yr3), 50% (Yr4), 70% (Yr5) coverage of the planting area by native plants in each year respectively.
- Less than 10% coverage by invasive species or non-native/ornamental vegetation.

PLANTING PLAN - DETAILS

APPLICANT: TARA JOHNSON
1844 W. Lake Samm. Pkwy SE
Bellevue Washington 98008

June 1, 2015

PAGE 2 OF 2