

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

**Proposal Name:** 

BDR Bellevue IX Steep Slope Buffer Reduction

**Proposal Address:** 

106 97th Avenue NE

**Proposal Description:** 

Critical Areas Land Use Permit to demolish an existing home and construct two new homes, one per lot, located within a 50-foot top-of-slope buffer from steep slope

critical areas and install mitigation planting.

File Number:

15-125481-LO

**Applicant:** 

Kevin Cleary, Goldsmith Engineering

**Decisions Included** 

Critical Areas Land Use Permit

(Process II. 20.30P)

Planner:

Reilly Pittman, Land Use Planner

**State Environmental Policy Act** 

**Threshold Determination:** 

**Exempt** 

**Director's Decision:** 

**Approval with Conditions** 

Michael A. Brennan, Director

Development Services Department

Carol V. Helland, Land Use Director

**Application Date:** 

October 19, 2015

Notice of Application Date:

November 5, 2015

**Decision Publication Date:** 

January 28, 2016

**Project Appeal Deadline:** 

February 11, 2016

For information on how to appeal a proposal, visit Development Services Center at City Hall or call (425) 452-6800. 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.

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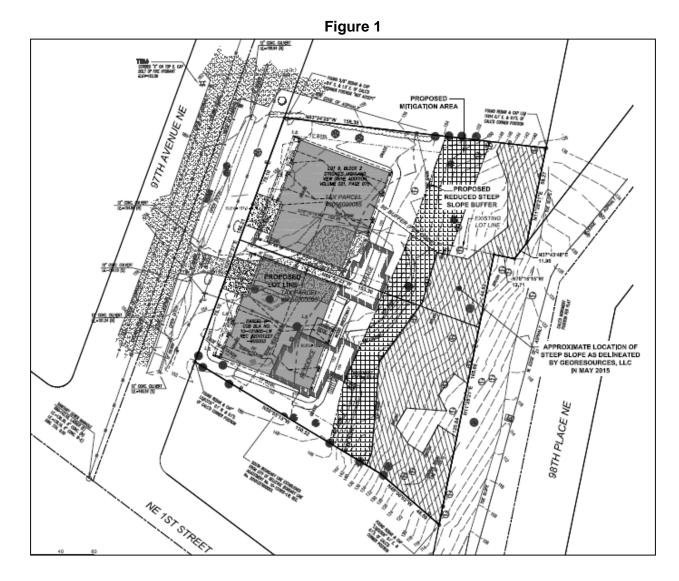
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### **Attachments**

- 1. Site Plan Enclosed
- Mitigation Planting Plan, Monitoring Plan Enclosed
   Critical Areas Report In File
- 4. Geotech Report, Geotech Addendum In File
- 5. Public Comments and Communication, Survey, Other Materials In File

### I. Proposal Description

The applicant proposes to reduce a 50-foot buffer measured from the top-of-slope in order to construct two single-family residences. The site consists of two lots, one of which has an existing single-family residence that is proposed to be demolished. Following the completion of a boundary line adjustment, a new house is proposed to be constructed on each lot. This proposal requires approval of a Critical Areas Land Use Permit to reduce the top-of-slope buffer. See Figure 1 below for a site plan showing the proposal.



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

### A. Site Description

The project site consists of two lots with an existing house located at 106 97<sup>th</sup> Avenue NE in the North Bellevue subarea of the City. The properties have street frontage on 97<sup>th</sup> Avenue NE and 98<sup>th</sup> Place NE. The steep slopes on the site are along the eastern portion of the lot and slope down to 98<sup>th</sup> Place NE which is also the entry to Meydenbauer Beah Park, making access to this road not feasible. Vehicle access is currently from 97<sup>th</sup> Avenue NE and is proposed from this road for the future lots. The steep slope on the properties is where most

of the significant vegetation on the properties is found, with the flatter area at the top of the slope being developed and landscaped. Other developed single-family zoned properties are located adjacent to the property. The property generally slopes from west to east, with the steep slopes being on the eastern portion of the site. The proposed development has been located at the top of the slope. See Figure 2 for existing site condition.



Figure 2

### B. Zoning

The property is zoned R-3.5, single-family residential and the proposed single family use is allowed in this zone.

### C. Land Use Context

The property has a Comprehensive plan Land Use Designation of SF-H (Single Family Medium Density).

### D. Critical Areas On-Site and Regulations

### 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 provide 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 R-5 zoning dimensional requirements found in LUC 20.20.010 are generally met by the proposal however since the boundary line adjustment has not been submitted or recorded, zoning conformance cannot be confirmed. The lot coverage proposed appears to be close to the maximum allowed and will likely require survey verification as part of the building permit. Conformance with zoning requirements will be verified during review of the boundary line adjustment and building permit review. A reduction of the front setbacks to 10 feet is allowed per LUC 20.25H.040, in order to assist the proposed homes in avoiding the slope buffer. A greater setback for the garage can be allowed in order to allow sufficient driveway for a car to park fully outside of the public right-of-way.

### B. Critical Areas Requirements LUC 20.25H:

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

### i. Consistency with LUC 20.25H.125

Development within a landslide hazard or 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.

 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 development maintains the existing grades as much as possible.

No construction is proposed in a steep slope with most of the proposal being located within the area of existing development that is relatively flat.

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

The project is proposed in the area at the top of the slope where existing development is already located. The proposed houses could have been built within the existing house footprint which is at the top-of-slope. However, the proposal moves the houses further away from the slope than the current house by utilizing the allowance for a reduced front setback.

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

The project geotechnical engineer reviewed the proposal and provided recommendations. The geotech found that the proposed development will "reduce the potential risk of impact to the critical area" as the proposed houses are setback further from the top-of-slope (Geotech letter). The Land Use Code requires applicants to record a hold harmless agreement for any approvals to modify steep slopes and buffers. A hold harmless agreement is required to be recorded prior to building permit issuance. **See Conditions of Approval in Section X 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 retaining walls are proposed. The proposal removes the buffer in order to allow an area for development. However this approval is contingent upon the plans not showing freestanding walls or extensive grading up to the property lines. This was proposed previously but was not allowed as it is not consistent with the performance standards in LUC 20.25H.125. Some small walls or rockeries may be allowed but walls along the property lines and placement of fill across the lots to level the grade is not approved.
- 5. Development shall be designed to minimize impervious surfaces within the critical area and critical area buffer;

The proposed development is located where existing development or historical clearing has already been located. Proposed impervious surfaces will be further away from the buffer than the prior development. The design has avoided placement of improvements in the buffer as much as possible.

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 significant changes in grade outside of the footprint are noted on the plans. No work is proposed in steep slope critical areas. Prior plans showed extensive use

of rockeries and walls along the property lines which were removed as a result of staff review given the use of walls does not conform to the construction performance standards.

- 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; No freestanding walls are proposed.
- 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 construction on steep slopes is proposed.

 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 construction on steep slopes is proposed.

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 project proposes to reduce the remaining top of slope buffer to align with the closest edge of the existing house and existing developed area. This reduction results in a buffer of varying width from 14 feet to 26 feet from the top of slope. However the proposed houses are being moved 15 to 20 feet further from the top-of-slope that the current site which means that the houses will be over 40 feet away from the top-of-slope. The total buffer reduction proposed is 3,599 square feet. The remaining area of slope buffer is proposed to be planted with plant quantities and density to plant an area of 4,570 square feet. The steep slope is covered with existing vegetation, whereas the buffer is mostly disturbed. Planting and monitoring shall be carried out per the submitted plan prepared by the Watershed Company revised December 22, 2015 which is attachment 2. The clearing and grading permit plans shall contain the mitigation plans. **See Conditions of Approval in Section X of this report.** 

### ii. Consistency with LUC 20.25H.140 and LUC 20.25H.145

Modification of a top-of-slope buffer and a toe-of-slope 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:

Geotech Report dated June 5, 2015 prepared by GeoResources

Addendum to geotech report dated October 6, 2015

The geotech found that the steep slopes at the site are "in stable condition," have "no evidence of foundation or structural distress" and "no evidence of slope instability (addendum letter)." Provided their recommendations are followed the geotech finds that the proposal will have "no measurable impact on slope stability (addendum letter)." As the proposed houses are further away from the top of slope the geotech found that the proposed distance is greater than is otherwise needed.

The project will not impact critical areas on adjacent property or adjacent areas provided work is done per the geotech recommendations. Given the proposed houses are further away from the steep slope than the current structures, the hazard is reduced on the site as compared to the existing conditions. The project was found to be safe under anticipated geotechnical conditions. The geotech concludes that the proposal will not impact the stability of adjacent slopes or structures. The proposed mitigation planting in the slope buffer will improve the native vegetation coverage and remove invasive plants along with historical disturbances. The project does not impact species of local importance or habitat that could potentially support important species per the submitted critical areas study.

### IV. Public Notice and Comment

Application Date: October 19, 2015
Public Notice (500 feet): November 5, 2015
Minimum Comment Period: November 19, 2015

The Notice of Application for this project was published the City of Bellevue Weekly Permit Bulletin on March 12, 2015. It was mailed to property owners within 500 feet of the project site. Comments were received from a neighbor, Henry Peters. Comments primarily concerned the following:

- The proposed extent of retaining walls along the property line that would have off-site impacts to the root zones of trees on the Peters property
- Trees proposed for retention on the project site
- Tree protection

Mr. Peters provided an arborist review of the trees of concern and requested that trees on his property be shown on the project plans. There is no code requirement that requires applicants to show trees on adjacent property for protection as no work is approved on the Peters property. Furthermore the code only requires a minimum of 30 percent of the diameter inches on the property be retained. The plans show many trees on the property are retained which is in excess of the minimum required.

Comments were addressed by staff requiring the proposed retaining walls to be removed and the site grading limited in order to conform to the construction performance standards in LUC 20.25H.125. The revised plans removed all freestanding walls along the property line and maintain existing grades within the root zones of the trees on Mr. Peters' property. As standard procedure, construction plans are required to have construction fencing and tree protection fencing meeting the City's clearing and grading code requirements and Best Management Practices. The extent of grading is only that which is necessary for construction and full site clearing or mass grading is not allowed. The current plans do not depict any permanent grade changes near the trees located on the Peterson property. However to ensure no offsite impacts to the slope buffer results from temporary construction impacts, tree protection fencing placed on the project site to protect the root zones is required in the areas noted in figure 3 below.

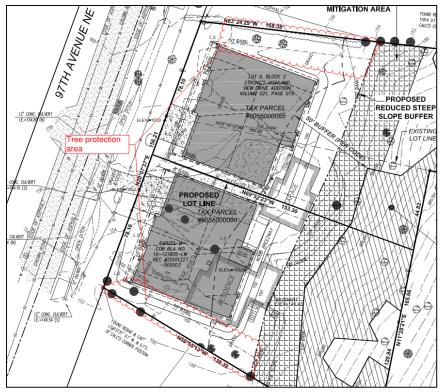


Figure 3

Any earthwork between the proposed house and the property line adjacent to the Peters property is required to have an arborist on-site to direct this activity and be done with hand tools. The plans for the future clearing and grading permit shall show this tree protection and have notes regarding work in the area. The plans shall also show all trees on the project site and confirm the minimum tree retention is met. **See Conditions of Approval in Section X of this report.** 

### V. Summary of Technical Reviews

### A. Clearing and Grading

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

### VI. State Environmental Policy Act (SEPA)

The project is exempt from SEPA review per WAC 197-11-800 and the City's Environmental Procedures Code BCC 22.02. No work is proposed in a critical area or that exceeds an exemption limit.

### VII. Changes to Proposal Due to Staff Review

Staff requested the geotech to provide responses to required decision criteria. The plans were changed to remove proposed retaining walls and changes to the existing grades on the site to meet performance standards and address the comments received concerning tree damage.

### VIII. Decision Criteria

### A. 20.25H.255.B Critical Areas Report Decision Criteria

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;

As noted in the critical areas study, the buffer is sparsely vegetated and is mostly developed and mowed and as a result provides minimal habitat or stormwater or water quality functions. The buffer has been degraded as a result of past clearing and development. The proposed native planting of the slope buffer will increase vegetation, that once mature, will improve habitat function and water quality functions. The proposed houses are located further away from the slope which will also result in greater safety for the project.

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;

The most important critical area function for the slopes on this site which are slope stability, erosion control, and habitat are improved considering the buffer is largely lacks native vegetation.

 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;

The proposed development is within the existing area of disturbance to limit impacts. Minimal vegetation will be impacted to construct the proposed houses. All new drainage surfaces will be required to be directed into treatment systems and distributed in a manner that exceeds the existing treatment of stormwater.

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

The planting area is easily accessible and linear in nature. The planting can be

monitored and maintained as proposed. In order to ensure monitoring occurs a maintenance surety is required to be provided as part of the future construction permits. Temporary irrigation or hand watering is required to ensure plan survival. **See Conditions of Approval in Section X of this report.** 

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 modifications and performance measures in this proposal are not detrimental to the functions and values of the steep slope. As mentioned previously tree protection for trees adjacent to the project site is required to ensure no impacts to off-site buffers. **See Conditions of Approval in Section X of this report.** 

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

The proposed development is consistent with the adjacent uses which are single family in this land use district.

**B. 20.30P.140 Critical Area Land Use Permit Decision Criteria – Decision Criteria**The Director may approve, or approve with modifications an application for a Critical Area Land Use Permit if:

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

This project is similar to a preliminary short plat in that there is preliminary construction and the recording of a boundary line adjustment that must be done prior to the submittal of building permits for the proposed houses. A demolition permit and a clearing and grading permit are required for removal of structures and improvements and for the mitigation planting. This work is required to be completed prior to City approval of a boundary line adjustment. Mitigation planting may be delayed if needed by using an installation surety. Building permits for the future homes will follow approval of the BLA. See Conditions of Approval in Section X of this report.

2. The proposal utilizes to the maximum extent possible the best available construction, design and development techniques which result in the least impact on the critical area and critical area buffer.

The project has located the proposed development in areas that are already improved or disturbed and avoided the steep slopes and most significant vegetation on the site.

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 includes a mitigation planting plan. <u>See Conditions of Approval in Section X of this report.</u>

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.

### IX. Conclusion and Decision

After conducting the various administrative reviews associated with this proposal, including Land Use Code consistency, City Code and Standard compliance reviews, the Director of the Development Services Department does hereby approve with conditions the reduction of the top-of-slope buffer to construct two new single-family residences. Approval of this Critical Areas Land Use Permit does not constitute a permit for construction. A building permit, clear and grade permit, and/or utility permit is required and all plans are subject to review for compliance with applicable City of Bellevue codes and standards.

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

### X. Conditions of Approval

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

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

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

1. Clearing and Grading Permit and Demo Permit: A demolition permit is required for the existing structures. Clearing and grading review will be needed as well to remove foundations and cause disturbance within the slope buffer. This permit application will also need to contain all mitigation planting as the planting is spread across both lots which will be owned separately in the future.

Authority: Land Use Code 20.30P.140

Reviewer: Reilly Pittman, Development Services Department

2. Boundary Line Adjustment: A boundary line adjustment application is required to be completed and recorded prior to application for any building permits for the new houses. The BLA should be submitted with the demo and grading permit noted above. All demolition and mitigation planting is required to be installed prior to issuance of the BLA for recording. Mitigation planting may be bonded with an installation surety if needed.

Authority: Land Use Code 20.20.010

Reviewer: Reilly Pittman, Development Services Department

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

Authority: Land Use Code 20.30P.140

Reviewer: Reilly Pittman, Development Services Department

**4. Mitigation Planting:** The proposed planting plan is considered to be conceptual. A final planting plan is required as part of the clearing and grading permit application that includes any changes such as plant species. The final plans must depict all plant species, quantities, and spacing provided.

Authority: Land Use Code 20.30P.140

Reviewer: Reilly Pittman, Development Services Department

**5. Maintenance and Monitoring:** The planting area shall be maintained and monitored for 5 years as required by LUC 20.25H.220. Annual monitoring reports are to be submitted to Land Use each of the five years. Maintenance and monitoring shall be as described in the submitted mitigation plan.

Annual monitoring reports are to be submitted to Land Use each of the five years. The reports, along with a copy of the planting plan, can be sent to Reilly Pittman at <a href="mailto:rpittman@bellevuewa.gov">rpittman@bellevuewa.gov</a> 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: Reilly Pittman, Development Services Department

**6. Tree Protection:** The plans submitted with the future grading permit and building permits shall depict tree protection fencing for trees on the project site as well as protection for the

root zones of trees on the adjacent property to the north and south. The plans shall specify requirements for any earthwork in the area between the side property lines and the proposed structures which include provision for an arborist on-site and work by hand if there is any temporary excavation or grading in these areas.

Authority: Land Use Code 20.25H.255, Bellevue City Code 23.76 Reviewer: Reilly Pittman, Development Services Department

7. Maintenance Surety: A surety is required to ensure the maintenance and monitoring of the mitigation planting. The amount of this surety is 150 percent of the cost of monitoring and maintenance for a five year period. A cost estimate is required to be provided under the future grading permit application so that the amount of the surety can be determined. The maintenance surety is required to be completed prior to issuance of the grading permit.

Authority: Land Use Code 20.30P.140

Reviewer: Reilly Pittman, Development Services Department

**8. Land Use Inspection:** Following installation of the mitigation planting the applicant shall contact Land Use staff to inspect the planting area prior to final inspection. Staff will need to find that the plants are in a healthy and growing condition.

Authority: Land Use Code 20.30P.140

Reviewer: Reilly Pittman, Development Services Department

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 grading permit issuance.

Authority: Land Use Code 20.30P.170

Reviewer: Reilly Pittman, Development Services Department

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

Authority: Bellevue City Code 9.18

Reviewer: Reilly Pittman, Development Services Department

# SE 1/4, NE 1/4 SECTION 31, TOWNSHIP 25 N, RANGE 5 E, W.M. CITY OF BELLEVUE, KING COUNTY, WASHINGTON

# NOTES

- 1. THE PURPOSE OF THIS MAP IS TO SERVE AS A SITE PLAN DEPICTING THE PROPOSED BLA AND PROPOSED DEVELOPMENT CONCEPTS.
- 2. THE LIMITS OF STEEP SLOPE WITHIN THE PROJECT AREA ARE SHOWN AS DETERMINED BY GEORESOURCES, LLC IN MAY 2015.
- 3. THE UNDERLYING MAPPING AND TOPOGRAPHIC INFORMATION IS BASED ON A BOUNDARY AND TOPOGRAPHIC SURVEY BY PRIZM SURVEYING INC. ON APRIL 9 2015
- NO INDEPENDENT VERIFICATION OF DATA SHOWN HEREON HAS BEEN MADE BY GOLDSMITH.
- 4. HORIZONTAL DATUM: NORTH AMERICAN DATUM (NAD) 83/2011
- THE SURVEY IS REFERENCED TO CITY OF BELLEVUE DATABASE HORIZONTAL CONTROL MONUMENTS NOS. 1503 AND 1507.
- 5. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88)

MASTER BENCHMARK: CITY OF BELLEVUE BENCHMARK NO. 286 (CITY OF BELLEVUE CASED MONUMENT), LOCATED ON CENTERLINE OF LAKE WASHINGTON BLVD. NE/NW OF HOUSE # 9621.
PUBLISHED ELEVATION = 113.36 FEET

- TBM: SCRIBED "X" ON TOP OF EAST CAP BOLT OF FIRE HYDRANT ON WEST SIDE 97TH AVE. NE, OPPOSITE NORTHWEST PROPERTY CORNER OF LOT 9. ELEVATION = 163.59 FEET
- 6. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. THEREFORE, THIS SURVEY DOES NOT PURPORT TO SHOW ANY OR ALL EASEMENTS BENEFITING OR BURDENING THIS SITE.
- 7. THE BURIED UTILITIES SHOWN HEREON REFLECT SURFACE EVIDENCE, SUPPLEMENTED WITH FOUND UTILITY LOCATION MARKINGS. ANY UNDERGROUND UTILITY LOCATION SHOWN HEREON ARE TO BE CONSIDERED APPROXIMATE ONLY. FOR THE FINAL LOCATION OF EXISTING UTILITIES IN AREAS CRITICAL TO DESIGN, CONTACT THE APPROPRIATE UTILITY COMPANY. PRIOR TO ANY CONSTRUCTION, CALL THE UNDERGROUND UTILITIES LOCATION CENTER AT 1-800-424-555 OR 811.

# LEGAL DESCRIPTION

### PARCEL A:

LOT 9, BLOCK 2, STRONG'S HIGHLAND VIEW DRIVE ADDITION, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 21 OF PLATS, PAGE 75, IN KING COUNTY, WASHINGTON.

TOGETHER WITH PORTION OF VACATED ALLEY ADJACENT THERETO;

### PARCEL B:

PARCEL B OF CITY OF BELLEVUE BOUNDARY LINE ADJUSTMENT NO. 10-121805-LW UNDER KING COUNTY RECORDING NUMBER 20101227900003.



VICINITY MAP
N.T.S.

SANITARY SEWER MANHOLE RIM=165.80, LADDER (E) I.E.=158.90, 8" CONC. (N) I.E.=158.70, 8" CONC. (S) DWG. STA. 3+48.3

NOT TO SCALE FOR LOCATION

SCRIBED "X" ON TOP E. C. BOLT OF FIRE HYDRANT

70

12" CONC. I.E.=154.89 ELEV=163.59

12" CONC. CULVERT I.E.=158.94 (N)

PROPOSED

\_\_\_\_\_PARCEL\_B COB\_BLA\_NO. 10-121805-LW REC\_#20101227 TAX PARCEL #8056000090

N83°24'29''W 158.38

LQT 9, BLOCK 2

STRONG'S\_HIGHLAND

VIEW DRIVE ADDITION

VOLUME 021, PAGE 075

\_TAX PARCEL

#8056000085

10' BSBL

PROPOSED —

FOUND REBAR & CAP LS# ——

11914 O.1' E. & O.1'S. OF CALC'D CORNER POSITION

PROPOSED
REDUCED STEEP

**SLOPE BUFFER** 

*EXISTING* 

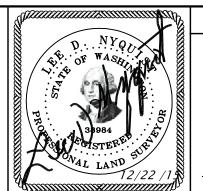
LOT LINE

/N37°43'48"É

APPROXIMATE LOCATION OF STEEP SLOPE AS DELINEATED BY GEORESOURCES, LLC IN MAY 2015

N78°16'15"W

**MITIGATION AREA** 



SITE PLAN B
FOR
BDR BELLEVUE IX LLC

1/

JOB NO. 15135

28 97TH AVENUE NE, CITY OF BELLEVUE KING COUNTY, WASHINGTON

# BDR FINE HOMES MITIGATION PLAN TBM: SCRIBED "X" ON TOP E. CAP BOLT OF FIRE HYDRANT ELEV=163.59 11914 O.1' E. & O.1'S. OF CALC'D CORNER POSITION **VICINITY MAPS** PROJECT AREA **DELINEATED STEEP SLOPE AREA** 50'-0" STANDARD BUFFER **LEGEND** DELINEATED STEEP SLOPE AREA --- STANDARD STEEP SLOPE BUFFER SHEET INDEX W1 EXISTING CONDITIONS CALC'D MONUMENT W2 PROPOSED BUFFER REDUCTION PLAN AND SECTION W3 PLANTING AREA PREPARATION AND TESC PLAN AND NOTES W4 PLANT INSTALLATION TYPICAL LAYOUT, DETAILS AND SPECIFICATIONS W5 MITIGATION NOTES NOTES 1. STEEP SLOPE BOUNDARY DELINEATED BY GEORESOURCES, LLC IN MAY 2015. 2. SURVEY ON APRIL 9, 2015 RECEIVED FROM PRIZM SURVEYING INC., TACOMA, WA, NO 1 253-404-0983. DESIGNED: DRAFTED: CHECKED: JOB NUMBER: **EXISTING CONDITIONS** © Copyright- The Watershed Compar

750 Sixth Street South Kirkland WA 98033

p 425.822.5242 Science & Design

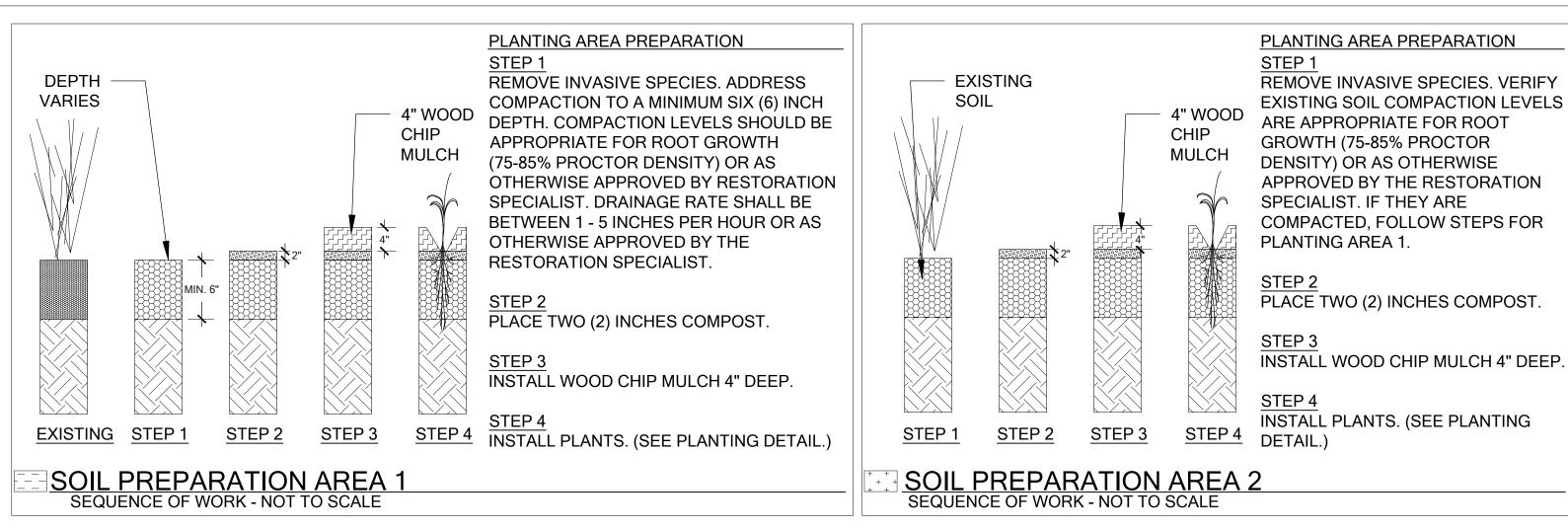
MSF MSF KMB

SHEET SIZE: ORIGINAL PLAN IS 22" x 34". SCALE ACCORDINGLY.

PROJECT MANAGER: KE KB/RK

150637 SHEET NUMBER:





# REMOVE ALL IMPERVIOUS STRUCTURES FROM PLANTING AREA. **LEGEND**

DELINEATED STEEP SLOPE AREA

— - - - REDUCED STEEP SLOPE BUFFER

SOIL PREPARATION AREA 1

SOIL PREPARATION AREA 2

———— COMPOST SOCK, SEE DETAIL

(UPSLOPE CLEARING LIMIT)

(DOWNSLOPE CLEARING LIMIT)

### NOXIOUS WEED REMOVAL & CONTROL REMOVE ENGLISH IVY:

- . PHYSICALLY REMOVE ALL ENGLISH IVY VINES AND ROOTS FROM THE PLANTING AREA
- . IVY CAN RESPROUT FROM BELOW-GROUND PORTIONS, SO ALL ROOTS SHALL BE GRUBBED OUT. AROUND SIGNIFICANT VEGETATION TO REMAIN, IVY SHALL BE GRUBBED OUT BY HAND TO MINIMIZE DISRUPTION TO ADJACENT ROOTS.
- B. IVY SHALL BE CUT AROUND THE BASE OF EACH TREE, TO PREVENT THE IVY FROM GIRDLING THE TREES. REMOVE STANDING VINES FROM THE FIRST 8' OF EVERY TREE TRUNK THAT CONTAINS ANY IVY.
- 4. AFTER IVY HAS BEEN REMOVED, AREA SHOULD BE MULCHED AND OR PLANTED PER PLAN.
- 5. DISPOSE OF REMOVED MATERIAL OFF SITE.

### REMOVE HIMALAYAN/EVERGREEN BLACKBERRY

- CUT ABOVE GROUND PORTION OF BLACKBERRY AND REMOVE OFFSITE. ENSURE THAT NO NATIVE PLANTS ARE REMOVED.
- 2. CANES SHALL BE REMOVED FROM CANOPY OF TREES TO REMAIN TO THE EXTENT FEASIBLE AS DETERMINED BY THE RESTORATION SPECIALIST.
- DIG UP OR PULL THE REMAINING ROOT BALL. ENSURE THAT NO NATIVE PLANT ROOTS ARE DAMAGED.
- REPLACE ANY DIVOTS CREATED WHEN REMOVING THE PLANT WITH APPROVED TOPSOIL.
- ALL CANES SHALL BE CUT BACK AND REMOVED WITHIN THE TEN (10) FEET ADJACENT TO THE PLANTING AREA, INCLUDING TREE CANOPY. CANES SHALL BE PULLED AND REMOVED OFF-SITE.
- REVEGETATE PER PLANTING PLAN. COVER WITH WOOD CHIP MULCH FOUR INCHES DEEP
- MONITOR SITE THROUGHOUT GROWING SEASON FOR EMERGING CANES AND GRUB OUT AND REMOVE ANY NEW PLANTS. CONTINUE TO CUT BACK CANES TEN (10) FEET FROM THE PLANTING AREA.

AFTER SITE PREP. ALL AREAS SHALL BE

PLANTED, BLANKETED IN MULCH, AND

COMPOST SOCK DETAIL

SET-UP WITH TEMPORARY IRRIGATION

TOP-DRESSED WITH COMPOST

COVERAGE.

### **DEMO & TESC NOTES**

### CONSTRUCTION ACCESS

LIMIT ACCESS POINTS TO THE MITIGATION AREA. CONSULT WITH RESTORATION SPECIALIST TO ESTABLISH APPROPRIATE STAGING AREAS. CONSTRUCTION ACCESS OR STAGING SHALL AVOID AND/OR MINIMIZE DAMAGE TO EXISTING VEGETATION AND THEIR ROOT ZONES TO THE GREATEST DEGREE POSSIBLE. UPON COMPLETION, ACCESS AND STAGING AREAS SHALL BE RESTORED TO ORIGINAL CONDITION.

### CONSTRUCTION EQUIPMENT

NEARLY THE ENTIRE MITIGATION PLANTING AREA IS LOCATED IN THE CRITICAL ROOT ZONE OF EXISTING TREES. NO CONSTRUCTION EQUIPMENT SHALL BE USED WITHIN THE MITIGATION AREA.

### **OVERCLEARING**

IF CRITICAL AREA BUFFER IS OVERCLEARED, EXTEND PLANTING AREA AND REPLICATE PLANTING AREA LAYOUT AND SOIL PREPARATION SEQUENCE OF WORK

GENERAL SOIL PREPARATION FOLLOWING DEMO WORK AFTER REMOVAL OF NON-NATIVE MATERIAL AND ROUGH GRADING HAS OCCURRED, REPLACE ANY SOIL LOST THROUGH DEBRIS REMOVAL WITH APPROVED TOPSOIL SO THAT GRADES ARE CONSISTENT WITH ADJACENT AREAS AND THERE ARE NO DIVOTS. SEE STANDARD NOTE #9 THIS SHEET REGARDING EXPOSED SOILS. IF AREA IS NOT PLANTED IMMEDIATELY AFTER SOIL PREP, COVER SITE WITH WOOD CHIP MULCH BLANKET PER PLAN.

### COMPACTED SOILS IN CRITICAL ROOT ZONE

THE EXISTING FOOTPATH IN THE MITIGATION AREA SHALL BE DECOMPACTED BEFORE PLANTING. CONTRACTOR SHALL ADDRESS COMPACTION WITH A METHOD APPROVED BY THE RESTORATION SPECIALIST SUCH AS CORE AERATION, VERTICAL MULCHING, OR AIR EXCAVATION. DECOMPACTION SHALL BE TO A MINIMUM SIX (6) INCH DEPTH.

12 INCH COMPOST SOCK

ROLLS SHALL INTERLOCK

- IF MORE THAN ONE

LENGTH OF SOCK IS

NEEDED, ADJACENT

AND POINT UPHILL

WOOD STAKES OR

AND AT EACH END.

2"X2"X36" UNTREATED

APPROVED EQUIVALENT.

STAKE EVERY 10'-0" MIN

- 1. FILL SOCK WITH "COMPOSTED MATERIAL" PER WAC 173-350-220. BIODEGRADABLE MESH NETTING IS PREFERRED.
- 2. PLACE COMPOST SOCK ALONG A CONTOUR PERPENDICULAR TO SHEET FLOW. NO TRENCHING IS REQUIRED, DO NOT DISTURB SOIL
- ANCHORING: PLACE STAKES ON THE DOWNSLOPE SIDE OF THE SOCK OR THROUGH
- THE CENTER OF THE SOCK. THE SOCK ENDS SHOULD BE STAKED AND DIRECTED UPSLOPE TO PREVENT WATER FROM RUNNING AROUND THE END OF THE SOCK. IF STAKING IS NOT POSSIBLE, RESTORATION CONSULTANT SHALL APPROVE AN ALTERNATIVE MEANS OF STABILIZATION.
- 5. HEAVY VEGETATION AND EXTREMELY UNEVEN SURFACES SHOULD BE AVOIDED TO ENSURE THAT THE COMPOST FILTER SOCK UNIFORMLY CONTACTS THE GROUND SURFACE. PLACEMENT MAY BE MODIFIED FROM THE PLAN WITH APPROVAL FROM THE RESTORATION CONSULTANT.
- LOOSE COMPOST MAY BE BACKFILLED ALONG THE UPSLOPE SIDE OF THE SOCK TO FILL THE SEAM BETWEEN THE SOIL SURFACE AND THE SOCK

- INSPECT SOCKS REGULARLY, AND AFTER EACH RAINFALL EVENT, TO ENSURE THEY ARE INTACT AND THE AREA BEHIND THE SOCK IS NOT FILLED WITH SEDIMENT. IF THERE IS EXCESSIVE PONDING BEHIND THE SOCK OR ACCUMULATED SEDIMENTS
- 2.1. AN ADDITIONAL SOCK SHOULD BE ADDED ON TOP OR IN FRONT OF THE EXISTING SOCK IN THESE AREAS, WITHOUT DISTURBING THE ACCUMULATED SEDIMENT, OR
- 2.2. IF SEDIMENT SHOULD BE REMOVED.
- 3. ONCE THE AREA HAS BEEN STABILIZED, VERIFY WITH THE RESTORATION
  - 3.1. WHETHER SOCK IS TO BE LEFT IN PLACE OR REMOVED,
  - 3.2. IF ANY SEDIMENT BUILDUP IN FRONT OF THE SOCK SHOULD BE REMOVED.
- 3.3. IF RE-VEGETATION OF SITE IS NECESSARY.

## NTS

# PLANTING AREA PREPARATION AND TESC PLAN AND NOTES



STANDARD NOTES FOR EROSION CONTROL PLANS

I. ALL CLEARING & GRADING CONSTRUCTION MUST BE IN ACCORDANCE WITH CITY OF BELLEVUE (COB) CLEARING & GRADING CODE, CLEARING & GRADING DEVELOPMENT STANDARDS, LAND USE CODE, UNIFORM BUILDING CODE PERMIT CONDITIONS, AND ALL OTHER APPLICABLE CODES ORDINANCES, AND STANDARDS. THE DESIGN ELEMENTS WITHIN THESE PLANS HAVE BEEN REVIEWED ACCORDING TO THESE REQUIREMENTS. ANY VARIANCE FROM ADOPTED EROSION CONTROL STANDARDS IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE CITY OF BELLEVUE DEVELOPMENT SERVICES (DSD) PRIOR TO CONSTRUCTION

IT SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT AND THE PROFESSIONAL CIVIL ENGINEER TO CORRECT ANY ERROR, OMISSION, OR VARIATION FROM THE ABOVE REQUIREMENTS FOUND IN THESE PLANS. ALL CORRECTIONS SHALL BE AT NO ADDITIONAL COST OR LIABILITY TO THE COB

- 2. APPROVAL OF THIS EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.)
- 3. A COPY OF THE APPROVED PLANS AND DRAWINGS MUST BE ON-SITE DURING CONSTRUCTION. THE APPLICANT IS RESPONSIBLE FOR OBTAINING ANY OTHER REQUIRED OR RELATED PERMITS PRIOR TO BEGINNING CONSTRUCTION
- 4. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
- 5. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS
- 6. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
- 7. ALL LOCATIONS OF EXISTING UTILITIES HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD, THEREFORE, BE CONSIDERED ONLY APPROXIMATE AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS AND TO DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN.
- 8. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
- 9. CLEARING SHALL BE LIMITED TO THE AREAS WITHIN THE APPROVED DISTURBANCE LIMITS. EXPOSED SOILS MUST BE COVERED AT THE END OF EACH WORKING DAY WHEN WORKING FROM OCTOBER 1st THROUGH APRIL 30th. FROM MAY 1st THROUGH SEPTEMBER 30TH, EXPOSED SOILS MUST BE COVERED AT THE END OF EACH CONSTRUCTION WEEK AND ALSO AT THE THREAT OF RAIN.
- 10. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM
- 1. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT
- 12. THE CONTRACTOR MUST MAINTAIN A SWEEPER ON SITE DURING EARTHWORK AND IMMEDIATELY REMOVE SOIL THAT HAS BEEN TRACKED ONTO PAVED AREAS AS RESULT OF CONSTRUCTION.
- 13. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
- 14. ANY EXCAVATED MATERIAL REMOVED FROM THE CONSTRUCTION SITE AND DEPOSITED ON PROPERTY WITHIN THE CITY LIMITS MUST BE DONE IN COMPLIANCE WITH A VALID CLEARING & GRADING PERMIT. LOCATIONS FOR THE MOBILIZATION AREA AND STOCKPILED MATERIAL MUST BE APPROVED BY THE CLEARING AND GRADING INSPECTOR AT LEAST 24 HOURS IN ADVANCE OF ANY STOCKPILING.
- 15. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A MAJOR STORM EVENT.
- 16. FINAL SITE GRADING MUST DIRECT DRAINAGE AWAY FROM ALL BUILDING STRUCTURES AT A MINIMUM 5% SLOPE, PER THE INTERNATIONAL RESIDENTIAL CODE (IRC) R401.3.

WATERSHED COMPANY

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HOME

BY MSF MSF KMB

ORIGINAL PLAN IS 22" x 34". SCALE ACCORDINGLY

MSF

KB/RK

PROJECT MANAGER: KB **DESIGNED:** DRAFTED: CHECKED:

JOB NUMBER: SHEET NUMBER:

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# PLANTING AREA TYPICAL LAYOUT, TYPICAL SPACING, & SCHEDULE

### PLANT INSTALLATION SPECIFICATIONS

### GENERAL NOTES

- QUALITY ASSURANCE PLANTS SHALL MEET OR EXCEED THE SPECIFICATIONS OF FEDERAL, STATE, AND LOCAL LAWS REQUIRING INSPECTION FOR PLANT DISEASE AND INSECT CONTROL
- PLANTS SHALL BE HEALTHY, VIGOROUS, AND WELL-FORMED, WITH WELL DEVELOPED, FIBROUS ROOT SYSTEMS, FREE FROM DEAD BRANCHES OR ROOTS. PLANTS SHALL BE FREE FROM DAMAGE CAUSED BY TEMPERATURE EXTREMES, LACK OR EXCESS OF MOISTURE, INSECTS, DISEASE, AND MECHANICAL INJURY. PLANTS IN LEAF SHALL BE WELL FOLIATED AND OF GOOD COLOR. PLANTS SHALL BE HABITUATED TO THE OUTDOOR ENVIRONMENTAL CONDITIONS INTO WHICH THEY WILL BE PLANTED (HARDENED-OFF)
- 3. TREES WITH DAMAGED, CROOKED, MULTIPLE OR BROKEN LEADERS WILL BE REJECTED. WOODY PLANTS WITH ABRASIONS OF THE BARK OR SUN SCALD WILL BE REJECTED
- NOMENCLATURE: PLANT NAMES SHALL CONFORM TO FLORA OF THE PACIFIC NORTHWEST BY HITCHCOCK AND CRONQUIST, UNIVERSITY OF WASHINGTON PRESS, 1973 AND/OR TO A FIELD GUIDE TO THE COMMON WETLAND PLANTS OF WESTERN WASHINGTON & NORTHWESTERN OREGON, ED. SARAH SPEAR COOKE, SEATTLE AUDUBON SOCIETY, 1997.

### **DEFINITIONS**

- PLANTS/PLANT MATERIALS. PLANTS AND PLANT MATERIALS SHALL INCLUDE ANY LIVE PLANT MATERIAL USED ON THE PROJECT. THIS INCLUDES BUT IS NOT LIMITED TO CONTAINER GROWN, B&B OR BAREROOT PLANTS; LIVE STAKES AND FASCINES (WATTLES); TUBERS, CORMS, BULBS, ETC..; SPRIGS, PLUGS, AND LINERS.
- CONTAINER GROWN. CONTAINER GROWN PLANTS ARE THOSE WHOSE ROOTBALLS ARE ENCLOSED IN A POT OR BAG IN WHICH THAT PLANT GREW.

### SUBSTITUTIONS

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SPECIFIED MATERIALS IN ADVANCE IF SPECIAL GROWING, MARKETING OR OTHER ARRANGEMENTS MUST BE MADE IN ORDER TO SUPPLY SPECIFIED MATERIALS
- 2. SUBSTITUTION OF PLANT MATERIALS NOT ON THE PROJECT LIST WILL NOT BE PERMITTED UNLESS AUTHORIZED IN WRITING BY THE RESTORATION SPECIALIST.
- 3. IF PROOF IS SUBMITTED THAT ANY PLANT MATERIAL SPECIFIED IS NOT OBTAINABLE, A PROPOSAL WILL BE CONSIDERED FOR USE OF THE NEAREST EQUIVALENT SIZE OR ALTERNATIVE SPECIES, WITH CORRESPONDING ADJUSTMENT OF CONTRACT PRICE.
- SUCH PROOF WILL BE SUBSTANTIATED AND SUBMITTED IN WRITING TO THE SPECIALIST AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION.

### INSPECTION

PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE RESTORATION SPECIALIST FOR CONFORMANCE TO SPECIFICATIONS, EITHER AT TIME OF DELIVERY ON-SITE OR AT THE GROWER'S NURSERY. APPROVAL OF PLANT MATERIALS AT ANY TIME SHALL NOT IMPAIR THE SUBSEQUENT RIGHT OF INSPECTION AND REJECTION DURING PROGRESS OF THE WORK.

- 2. PLANTS INSPECTED ON SITE AND REJECTED FOR NOT MEETING SPECIFICATIONS MUST BE REMOVED IMMEDIATELY FROM SITE OR RED-TAGGED AND REMOVED AS SOON AS POSSIBLE
- THE RESTORATION SPECIALIST MAY ELECT TO INSPECT PLANT MATERIALS AT THE PLACE OF GROWTH. AFTER INSPECTION AND ACCEPTANCE, THE RESTORATION SPECIALIST MAY REQUIRE THE INSPECTED PLANTS BE LABELED AND RESERVED FOR PROJECT. SUBSTITUTION OF THESE PLANTS WITH OTHER INDIVIDUALS, EVEN OF THE SAME SPECIES AND SIZE, IS UNACCEPTABLE.

### MEASUREMENT OF PLANTS

- 1. PLANTS SHALL CONFORM TO SIZES SPECIFIED UNLESS SUBSTITUTIONS ARE MADE AS OUTLINED IN THIS CONTRACT.
- HEIGHT AND SPREAD DIMENSIONS SPECIFIED REFER TO MAIN BODY OF PLANT AND NOT BRANCH OR ROOT TIP TO TIP. PLANT DIMENSIONS SHALL BE MEASURED WHEN THEIR BRANCHES OR ROOTS ARE IN THEIR NORMAL POSITION.
- WHERE A RANGE OF SIZE IS GIVEN, NO PLANT SHALL BE LESS THAN THE MINIMUM SIZE AND AT LEAST 50% OF THE PLANTS SHALL BE AS LARGE AS THE MEDIAN OF THE SIZE RANGE. (EXAMPLE: IF THE SIZE RANGE IS 12" TO 18", AT LEAST 50% OF PLANTS MUST BE 15" TALL.).

### SUBMITTALS

### PROPOSED PLANT SOURCES

1. WITHIN 45 DAYS AFTER AWARD OF THE CONTRACT, SUBMIT A COMPLETE LIST OF PLANT MATERIALS PROPOSED TO BE PROVIDED DEMONSTRATING CONFORMANCE WITH THE REQUIREMENTS SPECIFIED. INCLUDE THE NAMES AND ADDRESSES OF ALL GROWERS AND NURSERIES.

### PRODUCT CERTIFICATES

- PLANT MATERIALS LIST SUBMIT DOCUMENTATION TO SPECIALIST AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION THAT PLANT MATERIALS HAVE BEEN ORDERED. ARRANGE PROCEDURE FOR INSPECTION OF PLANT MATERIAL WITH SPECIALIST AT TIME OF SUBMISSION
- HAVE COPIES OF VENDOR'S OR GROWERS' INVOICES OR PACKING SLIPS FOR ALL PLANTS ON SITE DURING INSTALLATION. INVOICE OR PACKING SLIP SHOULD LIST SPECIES BY SCIENTIFIC NAME, QUANTITY, AND DATE DELIVERED (AND GENETIC ORIGIN IF THAT INFORMATION WAS PREVIOUSLY REQUESTED)

### DELIVERY, HANDLING, & STORAGE

### NOTIFICATION

CONTRACTOR MUST NOTIFY SPECIALIST 48 HOURS OR MORE IN ADVANCE OF DELIVERIES SO THAT SPECIALIST MAY ARRANGE FOR

### PLANT MATERIALS

1. TRANSPORTATION - DURING SHIPPING, PLANTS SHALL BE PACKED TO PROVIDE PROTECTION AGAINST CLIMATE EXTREMES, BREAKAGE AND DRYING. PROPER VENTILATION AND PREVENTION OF DAMAGE TO BARK, BRANCHES, AND ROOT SYSTEMS MUST BE

- SCHEDULING AND STORAGE PLANTS SHALL BE DELIVERED AS CLOSE TO PLANTING AS POSSIBLE. PLANTS IN STORAGE MUST BE PROTECTED AGAINST ANY CONDITION THAT IS DETRIMENTAL TO THEIR CONTINUED HEALTH AND VIGOR.
- HANDLING PLANT MATERIALS SHALL NOT BE HANDLED BY THE TRUNK, LIMBS, OR FOLIAGE BUT ONLY BY THE CONTAINER, BALL, BOX, OR OTHER PROTECTIVE STRUCTURE, EXCEPT BAREROOT PLANTS SHALL BE KEPT IN BUNDLES UNTIL PLANTING AND THEN HANDLED CAREFULLY BY THE TRUNK OR STEM.
- LABELS PLANTS SHALL HAVE DURABLE, LEGIBLE LABELS STATING CORRECT SCIENTIFIC NAME AND SIZE. TEN PERCENT OF CONTAINER GROWN PLANTS IN INDIVIDUAL POTS SHALL BE LABELED. PLANTS SUPPLIED IN FLATS, RACKS, BOXES, BAGS, OR BUNDLES SHALL HAVE ONE LABEL PER GROUP.

### WARRANTY

### PLANT WARRANTY

PLANTS MUST BE GUARANTEED TO BE TRUE TO SCIENTIFIC NAME AND SPECIFIED SIZE, AND TO BE HEALTHY AND CAPABLE OF VIGOROUS GROWTH.

### REPLACEMENT

- PLANTS NOT FOUND MEETING ALL OF THE REQUIRED CONDITIONS AT THE SPECIALIST'S DISCRETION MUST BE REMOVED FROM SITE AND REPLACED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- 2. PLANTS NOT SURVIVING AFTER ONE YEAR TO BE REPLACED AT THE CONTRACTOR'S EXPENSE.

### PLANT MATERIAL

### **GENERAL**

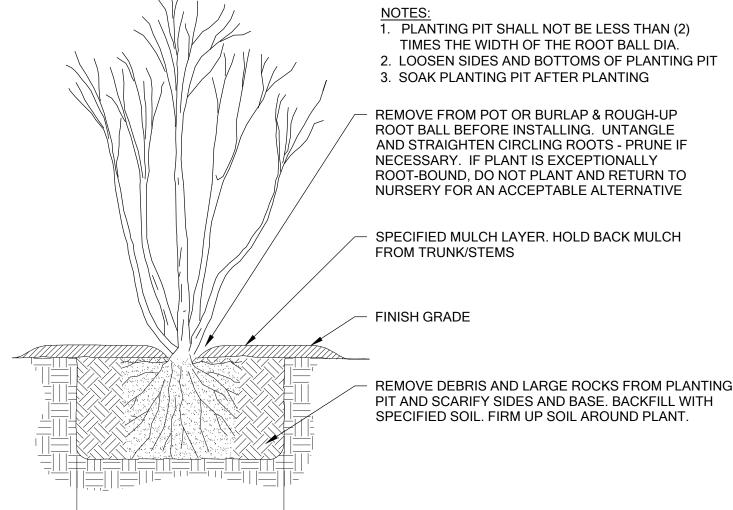
- PLANTS SHALL BE NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES UNDER CLIMATIC CONDITIONS SIMILAR TO OR MORE SEVERE THAN THOSE OF THE PROJECT SITE.
- 2. PLANTS SHALL BE TRUE TO SPECIES AND VARIETY OR SUBSPECIES. NO CULTIVARS OR NAMED VARIETIES SHALL BE **USED UNLESS SPECIFIED AS SUCH**

### QUANTITIES

SEE PLANT LIST ON ACCOMPANYING PLANS AND PLANT SCHEDULES.

### **ROOT TREATMENT**

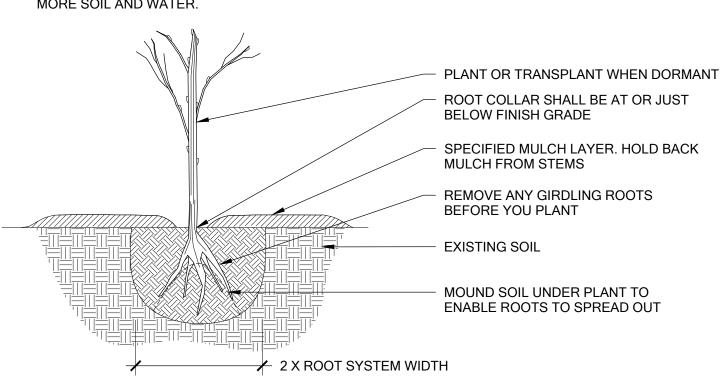
- CONTAINER GROWN PLANTS (INCLUDES PLUGS): PLANT ROOT BALLS MUST HOLD TOGETHER WHEN THE PLANT IS REMOVED FROM THE POT, EXCEPT THAT A SMALL AMOUNT OF LOOSE SOIL MAY BE ON THE TOP OF THE ROOTBALL.
- 2. PLANTS MUST NOT BE ROOT-BOUND; THERE MUST BE NO CIRCLING ROOTS PRESENT IN ANY PLANT INSPECTED.
- ROOTBALLS THAT HAVE CRACKED OR BROKEN WHEN REMOVED FROM THE CONTAINER SHALL BE REJECTED.



✓ 2X MIN DIA. ROOTBALL 
✓ CONTAINER PLANTING

Scale: NTS

- 1. UNPACK BARE ROOT PLANTS REMOVING ALL PACKAGING AND CAREFULLY UNTANGLING THE ROOTS. DO NOT ALLOW ROOTS TO DRY OUT. DISCARD UNHEALTHY PLANTS: DARK MOLDS, SERIOUSLY DAMAGED ROOTS OR SHOOTS, OR WRINKLED, WATER-SOAKED BARK.
- DIG HOLE WIDE ENOUGH TO ACCEPT ALL ROOTS. INSTALL BARE ROOT UPRIGHT AND AT THE SAME DEPTH AS IT STOOD IN THE NURSERY/FIELD.
- PARTIALLY FILL THE HOLE AND LIGHTLY FIRM UP SOIL AROUND THE LOWER ROOTS.
- SHOVEL IN REMAINING SOIL SO THAT IT IS FIRMLY BUT NOT TIGHTLY PACKED.
- THOROUGHLY WATER AFTER PLANTING AND BEFORE MULCHING. IF SETTLING OCCURS, ADD



BARE ROOT PLANTING

Scale: NTS

PLANT INSTALLATION TYPICAL LAYOUT, DETAILS AND SPECIFICATIONS

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OLDING

BY MSF MSF KMB UBMITTAL SCRIPTION VIEW SET SRMIT SET

SHEET SIZE: ORIGINAL PLAN IS 22" x 34". SCALE ACCORDINGLY

PROJECT MANAGER: KB **DESIGNED:** MSF DRAFTED: CHECKED: KB/RK

SHEET NUMBER:

JOB NUMBER:

### Summary

This plan has been prepared as mitigation for the reduction of the standard 50-foot steep slope buffer on two adjoining residential properties in Bellevue (Parcels #8056000090 & 8056000085). The buffer reduction is necessary to accommodate yard areas associated with two proposed single-family residences. An existing single-family residence and an associated garage, which are currently located within approximately 20 feet of the top of the steep slope will be removed, and the new residences will be placed approximately 20 feet farther from the top of the slope. While the structures can be constructed almost entirely outside of the standard buffer, the configuration leaves little area for a rear yard. This proposal will reduce the total buffer area from 18,377 square feet to 14,031 square feet, for a net reduction of 4,346 square feet of buffer area. To offset the reduction in the standard buffer, 4,570 square feet of degraded steep slope buffer will be enhanced, a ratio of 1.05:1.

Enhancement of the reduced buffer will include removal of 1,504 square feet of existing structures in the buffer; decompaction and removal of an existing footpath in the buffer; removal of non-native ornamental trees and invasive species monocultures, specifically Himalayan blackberry and English ivy; and the installation of a native tree and shrub community.

### Work Sequence (see Materials for items in BOLD)

A **restoration specialist** shall make site visits to verify the following project milestones:

- 1. Mark the clearing limits with high visibility fencing or similar means.
- 2. Install erosion control measures (compost sock) per the detail on Page
- 3. Clear all invasive and non-native, ornamental plants and any debris or structures to be removed per the plans and details on Page W3.
- 4. Replace any soil lost through debris or plant removal with **approved topsoil** so that grades are consistent with adjacent areas and there are
- 5. Decompact soils in Area 1 per the details on Page W3.
- 6. Place two inches of **compost** over entire planting area. Quantity required: 28 cubic yards.
- 7. Place four inches of **woodchip mulch** over the entire planting area: Quantity required: 56 cubic yards
- 8. Place large woody debris salvaged from onsite clearing (exclusively) in the restoration area as directed by the **restoration specialist**.
- 9. Install native plants per planting detail on Page W4.
  - a. Native plant installation shall occur during the dormant season (October 15th through March 1st) in frost-free periods only.
- b. Layout plant material per plan for inspection by the **restoration specialist.** Plant substitutions will not be allowed without prior approval of the restoration specialist.
- c. Install plants per planting detail
- 10. Water each plant thoroughly to remove air pockets.
- 11. Install a temporary irrigation system capable of supplying at least 1-inch of water per week to the entire planted area.
- 12. One year after initial planting, apply a slow-release, phosphorous-free, granular fertilizer to each installed plant.

### Maintenance

The site shall be maintained for five years following successful installation.

- 1. Replace each plant found dead in the summer monitoring visits in the following dormant season (October 15 - March 1). Replacement shall be of the same species and size per plan unless otherwise approved by the **restoration specialist**.
- 2. General weeding for all planted areas
- a. At least twice annually, remove competing grasses and weeds from around the base of each installed plant to a radius of 12 inches. Weeding should occur at least once in the spring and once in the summer. Thorough weeding will result in lower plant mortality and associated plant replacement costs.
- b. More frequent weeding may be necessary depending on weed conditions that develop after plant installation.
- c. Do not use string trimmers in the vicinity of installed plants, as they may damage or kill the plants.
- 3. Maintain a four-inch-thick layer of **woodchip mulch** across the entire planting area. Mulch should be pulled back two inches from the plant
- 4. Inspect and repair the irrigation system as necessary each spring.

During at least the first two growing seasons, make sure that the entire planting area receives a minimum of one inch of water per week from June 1st through September 30th.

- 1. Maintain slope stability by establishing a tree component to the steep slope buffer in areas currently dominated by shallow-rooting invasive
- 2. Enhance 4,570 square feet of degraded steep slope buffer within the reduced buffer area.
  - a. Create a dense, native, tree and shrub community.
- b. Remove non-native and invasive plant species from the reduced buffer area.

### Performance Standards

The following performance standards will be used to gauge the success of the project over time. If all performance standards have been satisfied by the end of year five, the project shall be considered complete and the City of Bellevue shall release the performance bond.

- Survival
- a. Achieve 100% survival of all installed trees and shrubs by the end
- b. Achieve 80% survival of all installed shrubs and 100% survival of all installed conifers by the end of year two.
- c. Achieve 80% survival of all installed trees by the end of year five.

Survival standards may be achieved through establishment of planted material, recruitment of native volunteers, or replacement plants as

Survival in densely planted shrub areas is difficult to track beyond year two. Therefore a diversity standard (below) is proposed for year five.

### 2. Diversity

- a. Establish at least four native shrub species in the buffer enhancement area. Establishment is defined as five or more individual plants of the same species alive and healthy.
- 3. Cover
  - a. Achieve 60% cover of native trees and shrubs by the end of year
  - b. Achieve 80% cover of native trees and shrubs by the end of year
  - c. No more than 10% cover by invasive species listed as Class A, B, or C by the King County Noxious Weed Control Board in any monitoring year.

### Monitoring

Prior to the commencement of the monitoring phase, an as-built plan documenting the successful installation of the project will be submitted to the City of Bellevue. If necessary, the as-built report may include a mark-up of the original plan that notes any minor changes or substitutions that may occur. During the as-built inspection, the **restoration specialist** will install at least two 50-foot monitoring transects in the enhancement area. Future cover measurements will be collected along the monitoring transects using the line-intercept method. During the as-built inspection, the **restoration specialist** will establish at least four permanent photopoints.

The site will be monitored twice annually for five years beginning with approval of the as-built report. Each spring the **restoration specialist** will conduct a brief maintenance inspection followed by a memo summarizing maintenance items necessary for the upcoming growing season. The formal late-season monitoring inspection will take place once annually during late summer or early fall. During each late-season monitoring inspection, the following data will be collected:

- 1. Percent survival of all installed plantings, including species specific counts of installed tree plantings (for shrub plantings, years one and two only).
- 2. Native and invasive woody cover as determined using the line-intercept method along permanent monitoring transects.
- 3. Estimates of invasive herbaceous plants or groundcover.
- 4. The species composition, noting whether a species is native or exotic and whether plants were installed or are volunteers.
- 5. The general health and vigor of the installed vegetation.
- 6. Photographs from fixed photopoints established during the as-built
- 7. Any evidence of wildlife usage in the mitigation area.

Monitoring reports shall be submitted annually to the City. Reports shall document the conditions of the site, including quantitative data collected during the monitoring inspection, and shall provide maintenance recommendations that may be necessary to help the site achieve the stated performance standards.

### **Contingency Plan**

Should any monitoring report reveal that the mitigation plan has failed in whole or in part, and should that failure be beyond the scope of routine maintenance, the applicant will submit a Contingency Plan to the City of Bellevue for approval. This plan may include replanting, soil amendments or topdressing, substitutions for species selected in the original plan, and adaptive weed control methods.

### Materials

- **1. Woodchip mulch**: "Arborist chips" (chipped woody material) approximately one to three inches in maximum dimension (not sawdust or hog fuel). This material is commonly available in large quantities from arborists or tree-pruning companies. This material is sold as "Animal Friendly Hog Fuel" at Pacific Topsoils [(800) 884-7645]. Mulch shall not contain appreciable quantities of garbage, plastic, metal, soil, and dimensional lumber or construction/demolition debris. APPROX. Quantity required: 54 cubic yards.
- **2. Compost**: Cedar Grove Compost or equivalent "composted material" per Washington Admin. Code 173-350-220. Quantity required: 28
- **3. Approved topsoil:** On-site soil strippings may be used as approved topsoil under the following conditions: soil shall be screened to ½"and free of weeds, sticks, seeds, clay lumps or any non-organic material. Soil must meet the following characteristics:
- a) Compaction levels appropriate for root growth (75-85% Proctor
- b) Adequate amount of organic matter (2% to 5% organic content by oven dried weight.)
- c) Plant-appropriate soil nutrient levels and pH
- d) Adequate drainage: Drainage rate between 1 5 inches per hour. If these characteristics are not met, decompact and amend with **compost** per the **restoration specialist's** recommendation.
- **4. Fertilizer**: Slow-release, phosphorous-free granular fertilizer. Most commercial nurseries carry this product. Follow manufacturer's instructions for use. Keep fertilizer in weather-tight container while on-site. Fertilizer is only to be applied in years two and three, not in year one.
- **5. Restoration specialist**: Qualified professional able to evaluate and monitor the construction of environmental restoration projects.



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Science & Design

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 $\Box$ 

BY MSF MSF KMB 3 2 1 SHEET SIZE: ORIGINAL PLAN IS 22" x 34". SCALE ACCORDINGLY

CHECKED:

150637 SHEET NUMBER:

PROJECT MANAGER: KB

MSF

KB/RK

**DESIGNED:** 

JOB NUMBER:

DRAFTED: