DEVELOPMENT SERVICES DEPARTMENT
ENVIRONMENTAL COORDINATOR
450 110th Ave NE., P.O. BOX 90012
BELLEVUE, WA 98009-9012

DETERMINATION OF NON-SIGNIFICANCE

PROPONENT: Brad Thiele, Northwest Environmental

LOCATION OF PROPOSAL: 16 Cascade Key

NAME & DESCRIPTION OF PROPOSAL: An Residence Stream Stabilization and Retaining Walls

Critical Areas Land Use Permit for the proposal to remove approximately 130 feet of illegally installed one man rocks from a portion of Coal Creek, install a retaining wall at the toe of a critical steep slope, construct a brick patio within a stream buffer, restore the stream bed and restore the riparian corridor with native vegetation. The proposal includes the creation of stepped back rockeries atop a 12 inch diameter toe log. The rockeries will be vegetated with live willow stakes. Invasive species will be removed from the site in several areas on site. Two Native Growth Protection easements will be greated on site, and a mitigation planting plan will be installed within these areas as well as in the stream buffer. Mitigation planting includes 15 trees, 166 shrubs, and 227 groundcover plantings to mitigate the disturbance. No trees will be removed from the subject property.

FILE NUMBER: 10-114857-LO

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

☐ There is no comment period for this DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's office by 5:00 p.m. on March 16, 2006.

X This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's Office by 5 p.m. on September 1, 2011.

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

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

Environmental Coordinator

August 9, 2011
Date

OTHERS TO RECEIVE THIS DOCUMENT:
State Department of Fish and Wildlife
State Department of Ecology,
Army Corps of Engineers

City of Bellevue
Development Services Department
Land Use Staff Report

Proposal Name:	An Residence Stream Stabilization & Retaining Walls
Proposal Address:	16 Cascade Key
Proposal Description:	The applicant requests a Critical Areas Land Use Permit in order to remove approximately 130 feet of illegally installed one man rocks from a portion of Coal Creek, install a retaining wall at the toe of a critical steep slope, construct a brick patio within a stream buffer, restore the stream bed, and restore the riparian corridor with native vegetation. Associated with Enforcement Action # 08-132892-EA
File Number:	10-114857-LO
Applicant:	Brad Thiele, Northwest Environmental
Decisions Included	Critical Areas Land Use Permit (Process II. 20.30P)
Planner:	Carol Orr, Land Use Planner
State Environmental Policy Act Threshold Determination:	**Determination of Non-significance** Carol V. Helland, Environmental Coordinator Development Services Department
Director's Decision:	**Approval with Conditions** Michael A. Brennan, Director Development Services Department By: Carol V. Helland, Land Use Director

Application Date:	June 7, 2010
Notice of Application Date:	August 12, 2010
Decision Publication Date:	August 18, 2011
Project/SEPA Appeal Deadline:	September 1, 2011

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.

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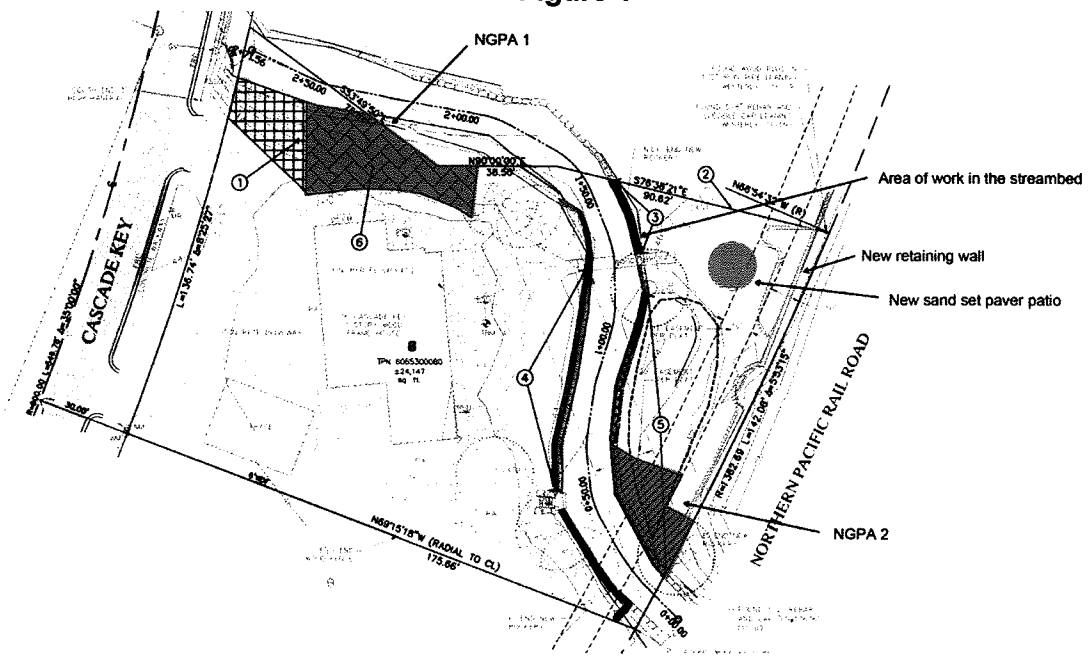
I. Proposal Description

The homeowner installed a series of one man rocks within the stream channel of a Type F stream without a permit. Additionally, a retaining wall was constructed within a steep slope structure setback and a pervious patio within a stream buffer without a permit. The Critical Areas Land Use permit is required to review the disturbance within these areas, the design of the soft stabilization techniques within the stream banks, the construction of the retaining walls and patio, and the re-vegetation of the Native Growth Protection Areas. The scope of work associated with this project includes:

- Disturbance of approximately 270 lineal feet within the bank of a Type F stream for the construction of a soft stabilization streambank system.
- Installation of approximately 442 native trees, shrubs and groundcover plantings both within and outside of the two newly created Native Growth Protection Areas (NGPAs).
- Construction of a retaining wall and a pervious patio along the east property line, within a steep slope critical area structure setback and a stream critical area buffer.

A Critical Areas Land Use Permit is required to approve the above activities. See Figure 1 below for a site plan showing the proposed activities.

Figure 1



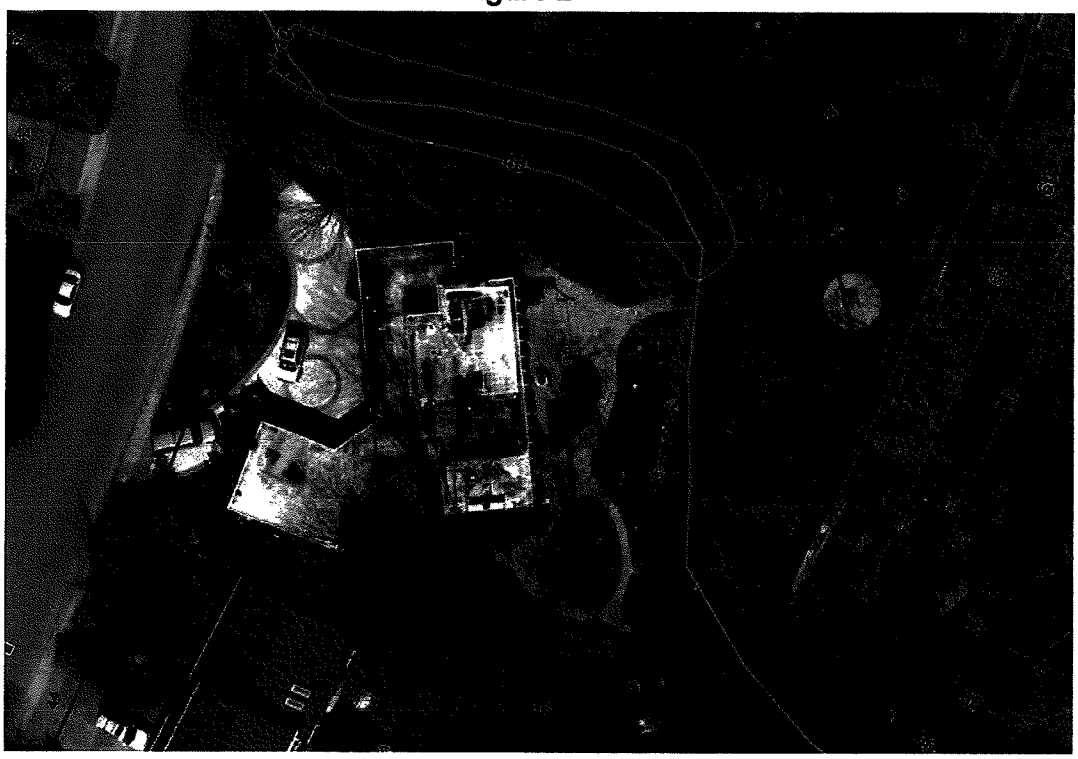
II. Site Description, Zoning, Land Use and Critical Areas

A. Site Description

The project site is located at 16 Cascade Key, in the Newport subarea of the City. The site is surrounded by other single-family zoned property to the north, south and west and obtains

vehicular access from Cascade Key across the west property line. The property to the east contains the Burlington Northern/Santa Fe (BNSF) rail lines. The slope extending down from the tracks to the homeowner's property is classified as a steep slope critical area. This site does not have any square footage associate with this steep slope. Only the 75 foot toe-of-slope structure setback associated with the steep slope critical area occurs on this site. The project site also contains a Type F (fish-bearing) stream. The stream crosses the east property line beneath a trestle on the BNSF property, proceeding to the northern property line where it turns and proceeds westward on a neighboring parcel. A floodplain, associated with this stream, also occurs on site. The Base Flood Elevation on this site varies between 43.6 NAVD 88 near the BNSF trestle, and 42.6 NAVD 88 near the culvert at the road. See figure 2 for site conditions prior to the application of this permit.

Figure 2



B. Zoning

The property is zoned R-2.5, single-family residential and is located within a Critical Areas Overlay District. The surrounding properties to the north, south east and west are also zoned R-2.5. The proposed work is allowed in the R-2.5 zone.

C. Land Use Context

The property is located amongst other similarly developed single family residences and adjacent to the elevated BNSF Right of Way.

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).

The subject property is adjacent to a slope which is classified as a steep slope critical area per LUC 20.25H.120. The topography rises almost 30 feet from the rear property line in a mere 48 lineal feet, resulting in a 62% slope. Steep slope critical areas require a 75-foot critical area structure setback from the toe-of-slope. This application proposes to disturb the setback for the installation of a low retaining wall at the toe of the steep slope, and the installation of a small pervious patio. Vegetation, in the form of noxious species, was also removed from the quarry spall surface on the steep slope by the homeowner, but as this action did not occur on his property, it will not be addressed under this permit.

ii. Streams and Riparian Areas

Most of the elements necessary for a healthy aquatic environment rely on a dynamic interaction between the stream and the adjacent riparian area. The closure of streams in pipes or culverts interrupts this relationship and severely degrades, if not completely eliminates the functions and values provided.

Riparian vegetation along stream banks mitigates the impacts of urbanization and supports healthy stream conditions. Riparian vegetation affects water temperature by providing shade to reduce solar exposure and regulate high ambient air temperatures, slowing or preventing increases in water temperature. The roots of riparian plants also hold soil and prevent erosion and sedimentation that may affect spawning success or other behaviors, such as feeding.

Both upland and wetland riparian areas reduce the effects of flood flows. Riparian areas and wetlands reduce and desynchronize peak crests and flow rates of floods. Upland and wetland areas can infiltrate flood flows, which in turn, are released to the stream as base flow.

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

Sparsely vegetated or vegetated buffers with non-native species may not perform the

needed functions of stream buffers. In cases where the buffer is not well vegetated, it is necessary to either increase the buffer width or require that the standard buffer width be restored or re-vegetated. Until the newly planted buffer is established the near term goals for buffer functions may not be attained.

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

The subject property contains a fish bearing stream. The homeowner's installation of small rocks within the stream banks essentially channelized the water, increasing its velocity and erosive power. These smaller rocks will be removed from the stream bank, and soft stabilization techniques and vegetation will be installed to reduce the speed of the water through the homeowner's property. One of the larger rocks of the previously existing rockery wall was moved by the homeowner in an attempt to redirect the flow of the stream to its natural drainage course. A representative of the Washington State Department of Fish and Wildlife has requested that the location of this rock be retained as it has created a scour pool within the stream, a desirable asset within a fish bearing stream. Non-native bamboo plantings will be removed from much of the stream buffer. Replacement plantings will include live willow stakes and native shrub species. Two Native Growth Protection Area Easements (NGPAs) will be established, and planted with native species, as part of this permit. See related Condition of Approval in Section X.

iii. Critical Areas Overlay District/Critical Area Land Use Permit

A Critical Areas Land Use Permit (CALUP) is required for the disturbance of the critical steep slope structure setback, and to remove the illegal rockfrom the stream channel. Revegetation of these and other areas on site will also be reviewed under this CALUP permit.

III. Consistency with Land Use Code Requirements:

A. Zoning District Dimensional Requirements:

The proposal generally meets the R-2.5 zoning dimensional requirements found in LUC 20.20.010. As the structural lot coverage and impervious surface coverage on site is not changing, the project will still meet the dimensional requirements of the Land Use Code. The retaining wall system substantially meets the height requirements of Land Use Code and will be evaluated for conformance with zoning requirements as part of the required clearing and grading permit. See Conditions of Approval in Section X of this report.

B. Critical Areas Requirements LUC 20.25H:

The City of Bellevue Land Use Code Critical Areas Overlay District (LUC 20.25H)

establishes performance standards and procedures that apply to development on any site which contains in whole or in part any portion designated as critical area, critical area buffer or structure setback from a critical area or buffer. The project is subject to the performance standards found in LUC 20.25H as specified in the table below

Critical Area	**Geologic Hazard-Steep Slopes**
Performance Standards	20.25H.080 20.25H.125

i. Consistency With LUC 20.25H.080 and 20.25H.125

As this is a proposal includes a request to build a retaining wall within the toe of slope structure setback, the applicant has obtained the services of a qualified geotechnical engineering consultant to study the site and document the observed conditions. Staff has reviewed the following documents:

- Geotechnical letter dated October 14, 2010 prepared by PanGEO, Inc.
- Mitigation Planting Plan, dated March 18, 2010 prepared by Osborn Consulting

This geotechnical analysis indicates that "based on their experience, the railroad embankment is typically constructed of well graded, granular material." The embankment slope is covered with scattered short grass, gravel, some bushes and several mature trees. The main tree trunks are straight and no obvious evidence of previous slides or slope instabilities were noted. It is the opinion of the geotechnical engineer that the construction of the retaining walls did not decrease the stability of the slope, and does not change any potential impacts on the stream.

LUC 20.25H.080: Performance Standards – Stream Performance Standards:
The performance standards for streams described in LUC 20.25H.080.A, will be met as a condition of approval of the subsequent clearing and grading permit to implement the stream rehabilitation.

The performance standards for development on a site with a Type S or F stream, or an associated critical area buffer are being met as follows. No additional lighting or noise generating uses are proposed by the permit, nor are any additional impervious surfaces. Storm water, in the form of precipitation, will be the only water entering the critical area buffer. A significant number of native plantings will be installed on both sides of the stream, as well as in the two proposed Native Growth Protection Areas (NGPA). These plantings will limit pet and human use of the buffer on the east side of the stream. Use of pesticides, insecticides and fertilizers within 150 feet of the stream shall be in accordance with the City of Bellevue's "Environmental Best Management Practices". See related Condition of Approval in Section X.

LUC 20.25H.080: Performance Standards – Landslide Hazards and steep slopes:

The performance standards found in LUC 20.25H.125 are being met as follows. There was very little alteration to the existing topography created by the construction of the retaining wall and the critical steep slope was only minimally impacted by its construction. The geotechnical engineer has stated that the construction of this wall did not affect the stability of the slope. No additional grading was performed for the construction of the retaining wall, and the preponderance of the existing natural slope area is undisturbed. Although a patio was installed within the steep slope critical area and structure setback, it is composed of un-mortared bricks. Precipitation that falls on this surface percolates down into the earth. A small amount of grading is required at the edge of the stream to allow for the installation of the soft stabilization techniques, but no structure or foundations walls are proposed. As no structures are proposed by this project, the standards relating to building foundation walls, pole-type construction and piled deck support structures are not applicable. The applicant has prepared a mitigation plan and has designated the location of two Native Growth Protection Areas to mitigate for the work on site, in addition to the proposed native plantings at the stream's edge.

LUC 20.25H.135: Mitigation and Monitoring – Additional provisions for landslide hazards and steep slopes.

The performance standards found in LUC 20.25H.135 are met as the applicant built the wall prior to applying for approval to do so. The wall is currently complete and in place, and will pose no further risk to downstream waters. A plan to monitor surface water discharge is not applicable.

LUC 20.25H.220: Mitigation and Restoration Plan requirements.

The stepped back banks will provide hydrologic functions for the stream by creating a slightly wider channel than what currently exists. The vegetated banks will create additional shade and food sources for fish. The vegetated banks will also provide long-term streambank stability. These conservation measures will create streamside habitat and some flooding attenuation functions that will enhance watershed baseline conditions.

The objectives of the plan will be achieved through the enhancement of no less than 1,275 square feet of stream buffer. Approximately 270 linear feet of streambanks will be vegetated with native species, including 10 shore pine, 5 western hemlocks, more than 80 willow stakes, and native shrubs. The project includes the removal of English Ivy from approximately 760 square feet of stream buffer.

As a performance measure, shrub plantings will maintain an 80% survival for a period of three years. Tree plantings will maintain an 80% survival rate for 5 years. Invasive shrub cover will be controlled to not exceed 10% cover for a period of 5 years in the restoration areas. Targeted invasives include English ivy and Himalayan blackberry.

To insure that the performance standards are met, plantings will be counted annually in August or September for survival on years 1, 2, 3, and 5. If woody plantings fall below

80% survival, replanting will be required to maintain the site above 80% survival for the monitoring period. To monitor for percent invasive cover, the line intercept method will be used. A 50 foot (sized to fit the site) transects will be established in each planting area following the methods described in Critical Areas Restoration and Enhancement in King County (DDES 2006). If plantings fall below 80% survival they will be replaced with appropriate native species. If invasives are over 10% cover, they will be removed by hand.

Monitoring reports will be prepared and submitted to the City of Bellevue annually on years 1-3 and year 5 by October 30 of the year monitoring took place. The monitoring report will include the goals of the mitigation plan, performance standards, monitoring methodology, the results of the monitoring, photographic documentation, and any contingency needed. See related Condition of Approval in Section X

IV. Public Notice and Comment

Application Date:	June 7, 2010
Public Notice (500 feet):	August 12, 2010
Minimum Comment Period:	August 26, 2010

The Notice of Application for this project was published the City of Bellevue Weekly Permit Bulletin on August 12, 2010. It was mailed to property owners within 500 feet of the project site.

Karen Walters, Watershed and Land Use Team Leader with the Muckleshoot Indian Tribe commented on the notice of application on August 26, 2010. The Muckleshoot Tribe recommended relocating the new logs and rockery walls at the edge of the floodplain rather than within it, installation of rootwads within the stream and the planting of additional native conifers on-site to provide shading and future wood recruitment.

The City of Bellevue does not have code authority requiring the homeowner to modify the stream channel to be wider than it currently exists, or to remove the previously existing rockeries from within the floodplain. Code authority does exist to require the restoration of the stream channel to a condition similar to the condition prior to the completion of unpermitted and inappropriate work. The restoration does include stabilization of stream banks to address stability issues that will occur by the removal of the smaller rocks placed by the property owner and returns the site to a condition more similar to what existed prior to the unauthorized work. The stepping back of the top of bank will help ease the intensity of water flow through the property during a flood event. Removal of the rockeries would result in significantly more disturbance within the stream, and would create an impact to the useable areas of the homeowner's property much greater than what existed prior to the unauthorized work in the stream. The idea of adding rootwads to the scope of work was discussed with the applicant, but limited access to the rear yard due to the placement of the home, made rootwad placement too difficult. The project is challenged due to lack of maneuverable space to get large equipment close to the area of work. A total of 5 western

hemlocks (tsuga heterophylla) are proposed to be installed within the Native Growth Protection Areas that will be created on site. Removal of much of the non-native bamboo from the streambank, and the installation of native planting at the streams edge will provide a net benefit to the habitat on-site.

V. Summary of Technical Reviews

A. Clearing and Grading

The Clearing and Grading Division of the Development Services Department has reviewed the revised plans and materials submitted for this project 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. The clearing and grading permit associated with this project must comply with City of Bellevue Clearing and Grading Code (BCC 23.76).

VI. State Environmental Policy Act (SEPA)

The environmental review indicates no probability of significant adverse environmental impacts occurring as a result of the proposal. The Environmental Checklist submitted with the application adequately discloses expected environmental impacts associated with the project. The City codes and requirements, including the Clear & grade Code, Utility Code, Land Use Code, Noise Ordinance, Building Code and other construction codes adequately mitigate potential environmental impacts.

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

A. Earth and Water

The proposed project will require disturbance to the 75 foot toe of slope structure setback of a steep slope critical area, as well as to the 50 foot stream buffer. The illegally installed one man rocks within the steam bank will be removed and stepped back vegetated rockeries will be installed. A small retaining wall was constructed at the base of a critical steep slope area and a pervious patio was installed within the stream critical area buffer.

The stream bed restoration will consist of removal of the one man rocks within the streambank, and the installation of a 12" diameter toe log, anchored horizontal into the buffer. Several 3 man rocks are proposed to be placed in the stream beneath the existing footbridge to protect this structure from erosion and maintain the existing streambank. A stepped back rockery, constructed from the one man rocks removed from the stream bank will be built on top of this log. These rockeries will be vegetated with live willow stakes, inserted through the openings in the erosion control matting. A very slight grade change is proposed by the installation of the stepped back rockeries. This technique is intended to reduce stream velocities during high flow events. Existing codes and standards adequately mitigate expected impacts to earth and water resources. See related Condition of Approval in Section X.

B. Animals

Coal Creek, which transects the subject property, is a fish bearing steam. Removing the smaller rocks which armor the stream banks currently, and providing soft stabilization and native plantings will provide a superior habitat to the existing conditions on site. The Washington State Fish and Wildlife Department has also requested that the scour pool that has formed onsite due to rock placement be preserved. Scour pools are relatively rare in Coal Creek, and provide fish with additional water depth, still water and protection from predators. Additionally, numerous small animals and birds either use this site or are in close proximity. Construction of the small retaining wall system on site should not result in a significant impact to the number or variety of species on site. Any fragmentation, loss of habitat, and accelerated edge and distance and human disturbance effects will be partially mitigated through the proposed revegetation plan. The area proposed for mitigation is currently vegetated with bamboo and other non-native plantings. The mitigation plan will increase the edge habitat along the stream bank, and provide nesting and foraging opportunities to local bird populations that may be in the area, and increased shade along the streams edge. No trees are to be removed as part of the mitigation plan installation.

C. Plants

The subject property was previously developed with a large quantity of bamboo along the eastern side of the stream, with ornamental plantings and invasive English Ivy along the west side of the stream.

Much of the non-native bamboo will be removed as part of the mitigation and revegetation plans. The stepped back rockeries will be planted with a mixture of Scoulier's and Sitka willow live stakes. The tops of the low rockeries will be planted with an assortment of native shrubs such as Black Twinberry (lonicera involucrata) and Red Osier Dogwood (cornus stolonifera). Additional native plantings are proposed for the newly created Native Growth Protection Areas. Where the invasive English Ivy (hedera helix) exists within these areas, it will be removed prior to replanting. Where the ivy is acting as a ground cover in these areas, it will be replaced with native groundcover species. A total of five additional Western Hemlocks will be installed within the two Native Growth Protection Areas, and 10 new Shore Pines will be installed along the northern property line. As mitigation for the proposed work, a three tier replanting plan, consisting of native trees, shrubs and groundcovers, has been submitted for both NGPAs. In total, the revegetation plan includes 15 trees, consisting of 2 native species at an approximate spacing of 10 feet on center. The replanting plan also includes 166 shrubs consisting of 5 species of native shrubs planted at approximately 3 to 6 feet on center. The groundcover plantings consist of 4 species of native species, totaling 227 plants in total, planted at 2 feet on center. The applicant must submit Landscape Installation and Maintenance Security Devices to ensure that the approved plan is installed and maintained. See related Conditions of Approval in Section X.

D. Noise

The site is adjacent to single-family residences whose residents are most sensitive to disturbance from noise during evening, late night and week end hours when they are

likely to be at home. Construction noise will be limited by the City's Noise Ordinance (Chapter 9.18 BCC) which regulates construction hours and noise levels. See related Condition of Approval in Section X of this report.

VII. Changes to Proposal Due to Staff Review

Land Use staff requested larger, scalable plans and to include the top and bottom of wall elevations for the retaining wall proposed at the rear property line. Geotechnical information was also requested for the proposed retaining wall, as well as more detailed mitigation/replanting plans. Lastly, staff requested further information on monitoring and mitigation plans, for compliance with 20.25H.220.

The applicant provided the requested information.

VIII. Decision Criteria

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

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

   The applicant must obtain a clearing and grading permit and must comply with all conditions from other regulatory agencies. 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 proposal is consistent with required performance standards for projects in steep slope critical areas, as stipulated in 20.25H.080 and 20.25H.125. These standards are discussed in Section III. The proposal shall comply with all conditions from other regulatory agencies, such as work windows.

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

   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;**

The proposed activity will not affect public services or facilities.

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

   A proposed mitigation plan was submitted, and substantially follows the planting templates found in the City's Critical Areas Handbook. Maintenance and monitoring is required and will be guaranteed by a performance surety. A yearly monitoring report with photograph documentation shall be submitted in order to achieve the performance standards outlined in the submitted Landscape Plan. See Conditions of Approval in Section X of this report.

6. **The proposal complies with other applicable requirements of this code.**
   As discussed in this report, the proposal complies with all other applicable requirements of the Land Use Code.

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 disturbance within a 75 foot toe of slope structure setback for the construction of a short retaining wall, a pervious patio, and the disturbance of the 50-foot stream buffer for the construction of a series of stepped back rockeries to repair the damage to the stream channel caused by the placement of one man rocks within the streambank without a permit. **Approval of this Critical Areas Land Use Permit does not constitute a permit for construction. A clear and grade 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 clearing and grading permit or other necessary development permits within **one year** of the effective date of the approval.

X. Conditions of Approval

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

Applicable Ordinances	Contact Person
Clearing and Grading Code- BCC 23.76	Savina Uzunow, 425-452-7860
Land Use Code- BCC Title 20	Carol Orr, 425-452-2896
Noise Control- BCC 9.18	Carol Orr, 425-452-2896

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

authority referenced:

1. **Clearing and Grading Permit Required:** Approval of this Critical Areas Land Use Permit does not constitute an approval of a development permit. Application for a Clearing and Grading permit must be submitted and approved. Plans submitted as part of that permit application shall be consistent with the activity permitted under this approval.

   Authority: Land Use Code 20.30P.140
   Reviewer: Carol Orr, Development Services Department, Land Use

2. **Applicable State and Federal Permits:** Prior to approval of the underlying clearing and grading permit and before work can be allowed to proceed, all applicable state and federal permits must be presented to the Development Services Department.

   Authority: Land Use Code 20.25H.180.C.2
   Reviewer: Carol Orr, Development Services Department, Land Use

3. **In-Water Work Window:** Work in the active channel approved by the underlying Clearing and Grading Permit must be completed during an in-water work window of July 1 through August 31 unless otherwise permitted in writing by the Washington Department of Fish and Wildlife.

   Authority: Land Use Code 20.25H.160
   Reviewer: Carol Orr, Development Services Department, Land Use

4. **Mitigation Planting and Monitoring:** Mitigation planting shall be undertaken within the stream critical area buffer to mitigate for the impacts associated with the construction of the retaining walls within the steep slope critical area, and the restoration work within the stream buffer. The mitigation planting shall, at a minimum, contain the plants and quantities specified in the approved mitigation planting plans as prepared by Osborn Consulting and submitted to the City of Bellevue on 3/18/2011. The mitigation plantings shall be monitored for a period of five years, consistent with a monitoring plan approved pursuant to LUC 20.25H.210. A report on plan health, survival, and maintenance activity shall be submitted years 1, 2, 3 and 5 to verify that the plan is performing as proposed. Reports shall be submitted to the Development Services Department in order to release the performance surety.

   Authority: Land Use Code 20.30P.140
   Reviewer: Carol Orr, Development Services Department, Land Use

5. **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 20.30P.140
Reviewer: Carol Orr, Development Services Department, Land Use

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

   Authority: Bellevue City Code 9.18
   Reviewer: Carol Orr, Development Services Department, Land Use

7. **Landscape Installation Performance Surety:** To ensure the timely installation of required mitigation plantings, an assignment of savings or bond financial security device for landscape installation equal to 150% of the cost of the labor and materials is required. This device shall be submitted prior to the issuance of the clearing and grading permit in accordance with LUC 20.40.490.

   Authority: Land Use Code 20.40.490
   Reviewer: Carol Orr, Development Services Department, Land Use

8. **Landscape Maintenance Performance Surety:** To ensure a proper maintenance schedule is followed after the mitigation plantings have been installed, an assignment of savings or bond financial security device for landscape maintenance equal to 20% of the cost of the labor and materials is required. This device shall be submitted prior to the release of the landscape installation device in accordance with LUC 20.40.490.

   Authority: Land Use Code 20.40.490
   Reviewer: Carol Orr, Development Services Department, Land Use

9. **Land Use Inspection:** Following the installation of plantings, the applicant shall contact Land Use staff to inspect the planting area. This inspection must be requested to release the installation surety device. At the end of 5 years, a Land Use inspection must be requested to release the maintenance surety. Staff will need to find that the plants are in a healthy and growing condition and meet the performance standards on the Landscape Plan dated 3/18/2011.

   Authority: Land Use Code 20.30P.140
   Reviewer: Carol Orr, Development Services Department, Land Use

10. **Hold Harmless Agreement:** Prior to Clearing and Grading permit approval, the property owner shall submit a hold harmless agreement releasing the City of Bellevue from any and all liability associated with the steam restoration work. The agreement must meet city requirements and must be reviewed by the City Attorney's Office for formal approval.

    Authority: Land Use Code 20.30P.170
    Reviewer: Carol Orr, Development Services Department, Land Use

11. **Native Growth Protection Easement:** Prior to approval of the subsequent clearing and grading permit for the restoration of the stream buffer, the areas proposed for Native Growth Protection Easements shall be recorded with King County. The agreement must meet city requirements and must be reviewed by the City Attorney's Office for formal approval. The Easement shall contain, at a minimum, the following:

    a. An assurance that the NGPE will be kept free from all development and disturbance except where allowed or required for habitat improvement projects or vegetation management, ; and that native vegetation, existing topography, and other natural features will be preserved for the purpose of preventing harm to property and the environment, including, but not limited to, controlling surface water runoff and erosion, maintaining slope stability, buffering and protecting plants and animal habitat; and

    b. The right of the City of Bellevue to enter the property to investigate the condition of the NGPA or NGPE upon reasonable notice; and

    c. The right of the City of Bellevue to enforce the terms of the restriction; and

    d. A management plan for the NGPA or NGPE designating future management responsibility.

    Authority: Land Use Code 20.25H.030
    Reviewer: Carol Orr, Development Services Department, Land Use

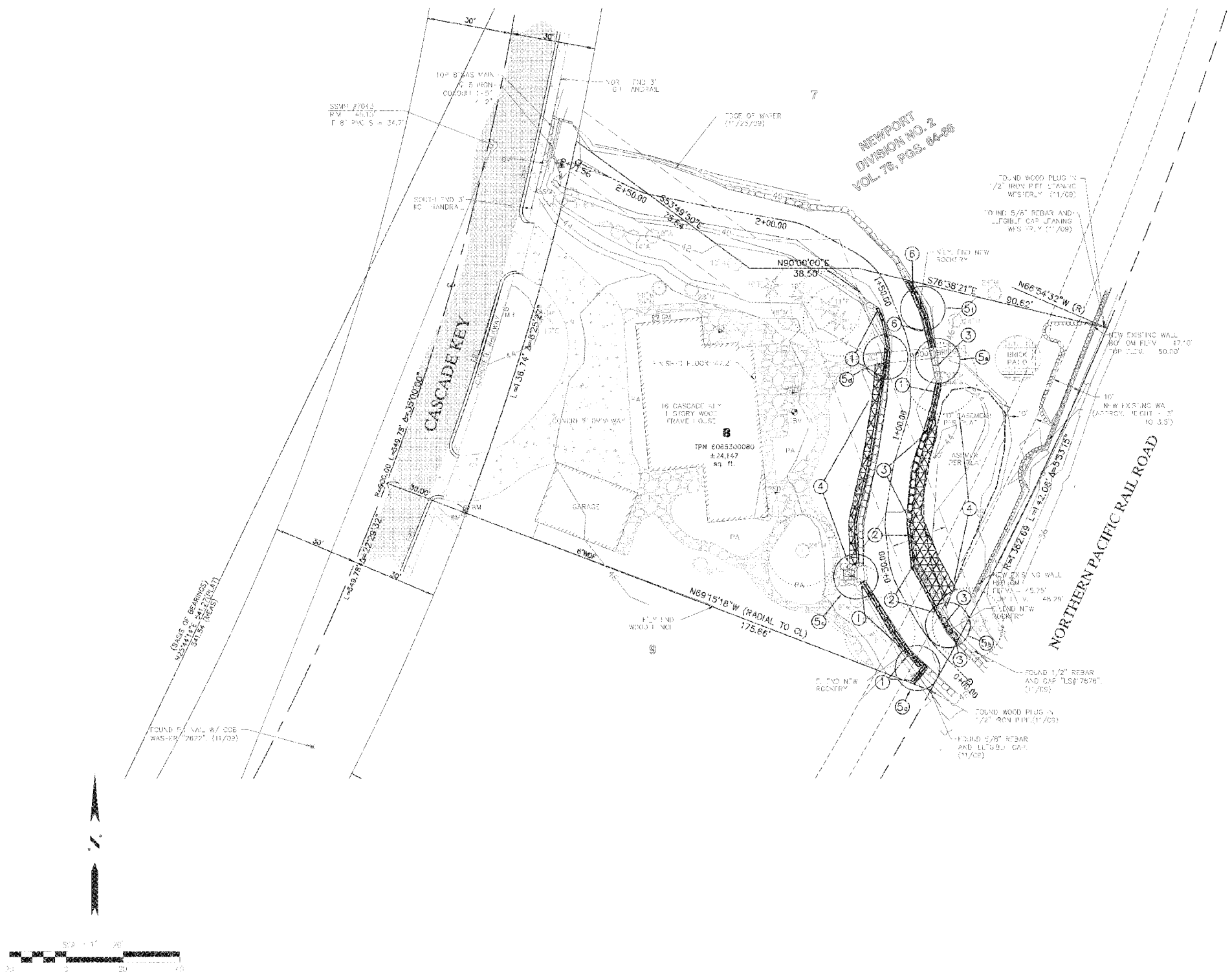
XI. Attachments:

1. Site Plan
2. Mitigation Planting Plan

Other documents available in the Permit File

3. Geotechnical Report dated revised October 14, 2010 – In File
4. Critical Area Technical Memorandum dated May 24, 2010 – In File
5. Application, plans and other project information – In File

SW 1/4 OF NW 1/4 SECTION 16, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M.; KING COUNTY, WASHINGTON



KEYED NOTES

1. INSTALL LOG WALL PER DETAIL ON SHEET 3. PLACE BOTTOM LOG ON TOP OF EXISTING 3-MAN ROCKS.
2. INSTALL 12" DIAMETER TOE LOG WITH EARTH ANCHOR. SEE DETAIL ON SHEET 3.
3. INSTALL 3-MAN BOULDERS.
4. INSTALL STEPBACK ROCKERY PER DETAIL ON SHEET 3.
5. SEE PHOTOS ON SHEET 2.
6. INSTALL LOG WALL WITH STEPBACK ROCKERY PER DETAIL ON SHEET 3. PLACE BOTTOM LOG ON TOP OF EXISTING 3-MAN ROCKS.

LEGEND

- CONCRETE PAVING
- ASPHALT PAVING
- BUILDINGS
- FLAGSTONE PAVING
- BRICK PAVING
- APPROX. BAMBOO AREA
- APPROX. STEPBACK AREA
- ALDER
- MAPLE
- CEDAR
- FIR
- POWER POLE
- SANITARY SEWER MANHOLE
- WATER METER
- GAS METER
- GAS VALVE
- MAIL BOX
- SIGN
- CONCRETE BLOCK STAIRS DOWN
- FACE OF ROLLED CURB
- PAVED STAIRS DOWN
- EXISTING ROCKERY
- EXISTING CONCRETE BLOCK RETAINING WALL
- PROPOSED 3-MAN BOULDERS
- PROPOSED LOG WALL
- PROPOSED TOE LOG
- SANITARY SEWER
- OVERHEAD POWER LINE
- WOOD FENCE LINE
- CONCRETE WALL
- CENTERLINE OF STREAM
- PROPERTY LINE
- EXISTING CONTOURS
- TREE PROTECTION AREA

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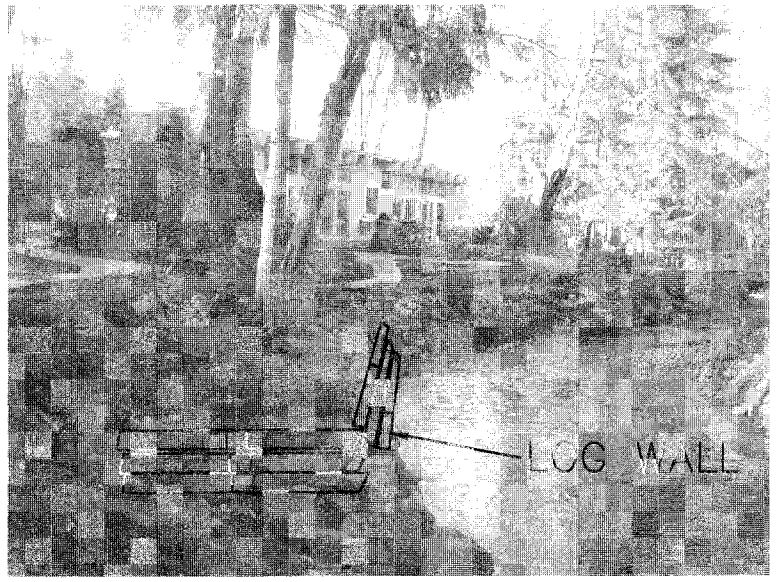
DESIGNED BY TJ2	OSBORN CONSULTING INCORPORATED	OSBORN CONSULTING, INC.				Steve An 16 Cascade Key Bellevue, WA 98006	Steve An Stream Restoration Bellevue, WA PLAN VIEW	JOB# / DWG 10-090049	DATE 03/16/11
DRAWN BY PAY		10800 NE 8th Street, Suite 150 Ph (425) 451-4009 Bellevue, WA. 98004 Fax (425) 451-4901	1	03/16/11	ADDRESS CITY OF BELLEVUE COMMENTS	BAY			SCALE H: 1"=20' V: n/a	SHEET 1 of 5
CHECKED BY TJ2			NO.	DATE	REVISION	BY			



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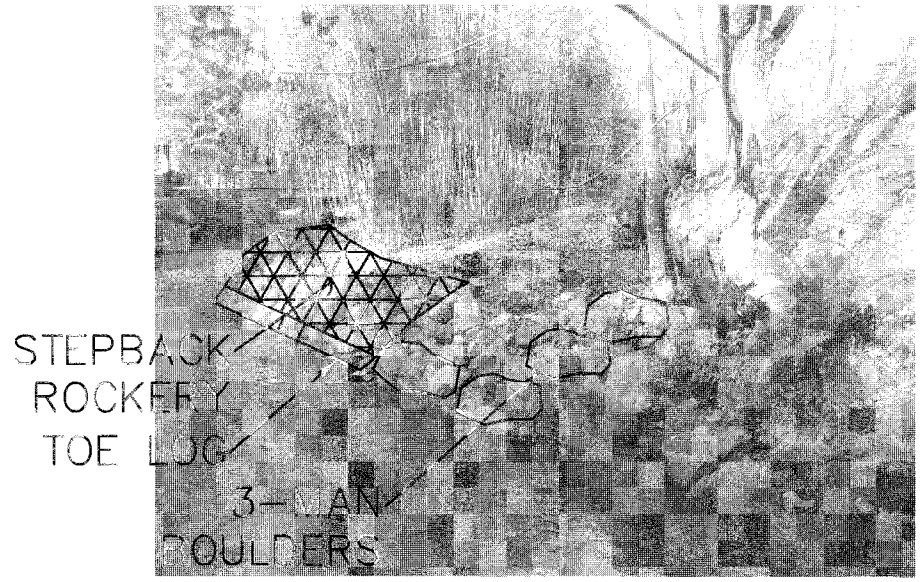

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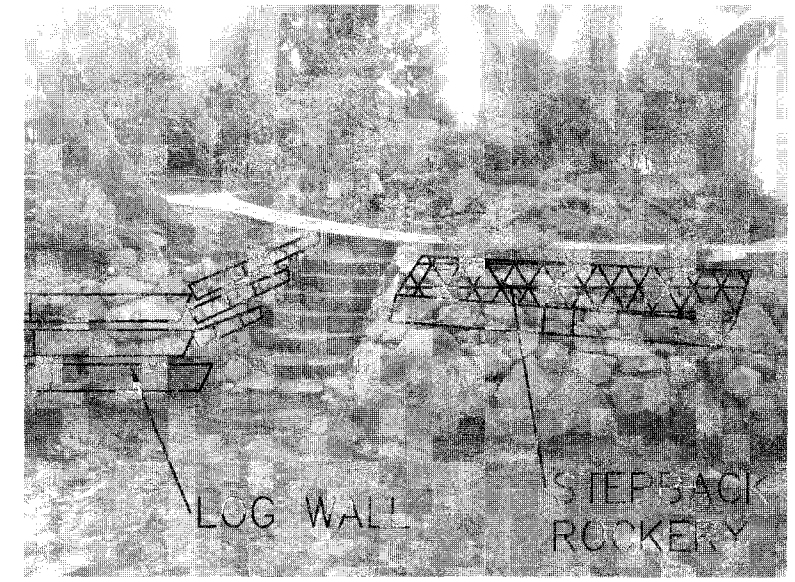

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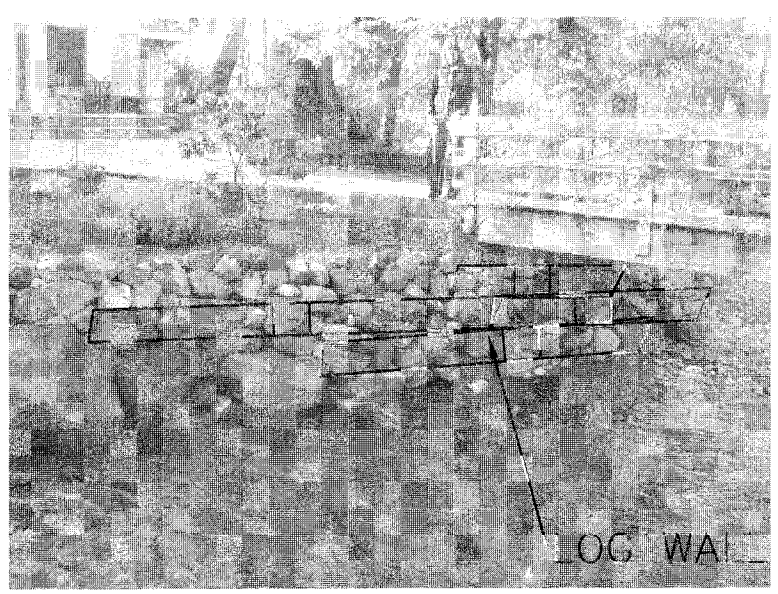

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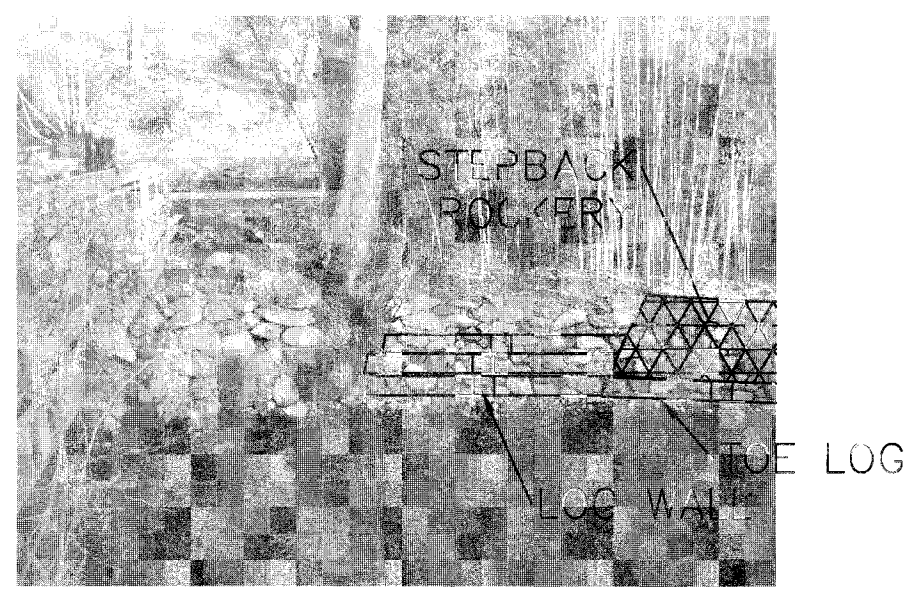

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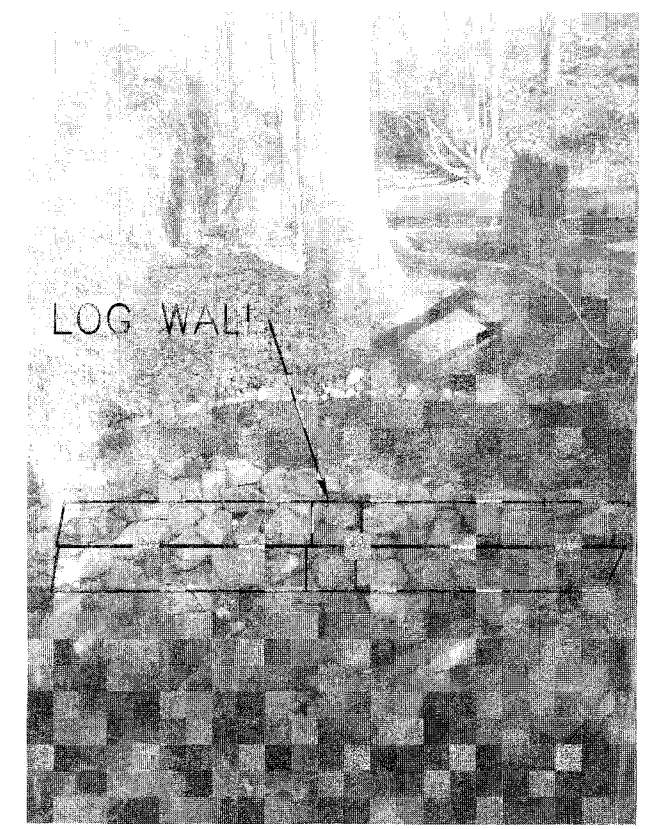

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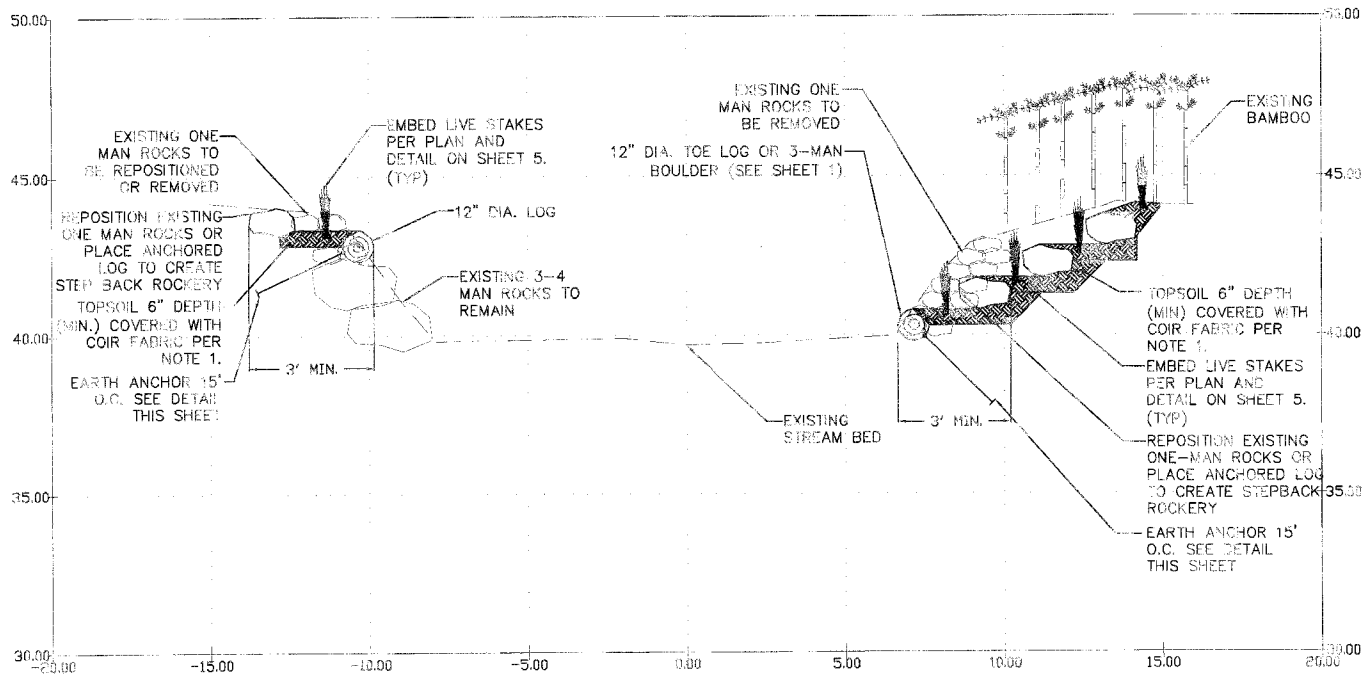
Call 2 Working Days Before
1-800-424-
Underground Locat
IDAHO, MONTANA, OREGON, WA

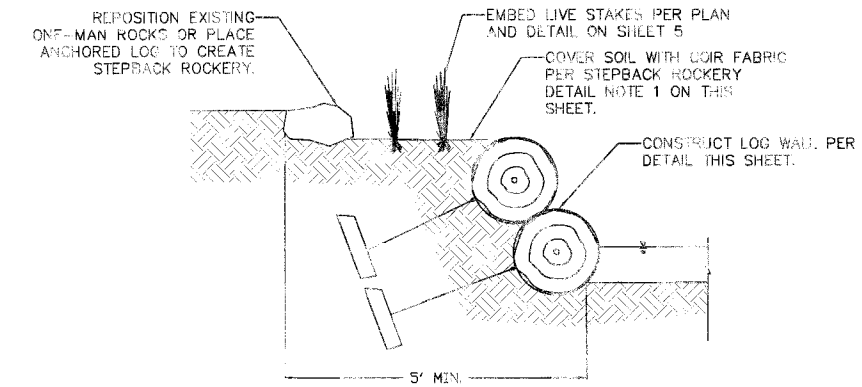
DESIGNED BY TJD DRAWN BY PAY CHECKED BY TJD	OSBORN CONSULTING INCORPORATED	OSBORN CONSULTING, INC. 10800 NE 8th Street, Suite 150 Ph (425) 451-4009 Bellevue, WA. 98004 Fax (425) 451-4901	NO. / DATE / REVISION / BY	Steve An 16 Cascade Key Bellevue, WA 98006	Steve An Stream Restoration Bellevue, WA DETAILS – 1	JOB # / DWG 02-090249	DATE 11/
						SCALE H: n/a V: n/a	SHEET 2



NOTES:
1. COIR FABRIC SHALL BE COMPOSED OF 2 LAYERS OF FABRIC. INNER FABRIC LAYER SHALL BE NON-WOVEN COIR FABRIC, STRAW, OR BURLAP BLANKET TO CONTAIN SOIL. OUTER FABRIC LAYER SHALL BE WOVEN COIR OR SYNTHETIC FABRIC FOR STRUCTURAL INTEGRITY. SECURE COIR FABRIC WITH METAL STAPLE PEGS SPACED PER MANUFACTURERS RECOMMENDATION.

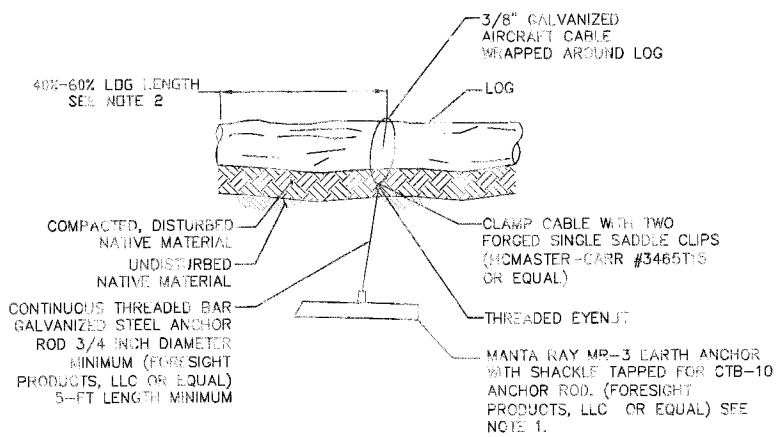
STEPBACK ROCKERY DETAIL

SCALE: 1"=3'



LOG WALL WITH STEPBACK ROCKERY DETAIL

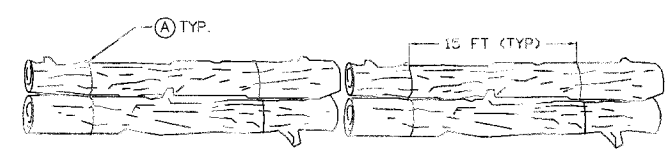
N.T.S.



NOTES:
1. EARTH ANCHORS SHALL BE MANTA-RAY MR-3 OR EQUAL. ANCHORS SHALL BE DRIVEN IN AN ORIENTATION UPSTREAM OF LOG.
2. ASSUMES LOGS ARE ≤ 15 LF. TWO ANCHORS ARE PROPOSED FOR LOGS > 15 LF, ONE ANCHOR SHALL BE PLACED 20%-30% LOG LENGTH DISTANCE FROM EACH END OF THE LOG.

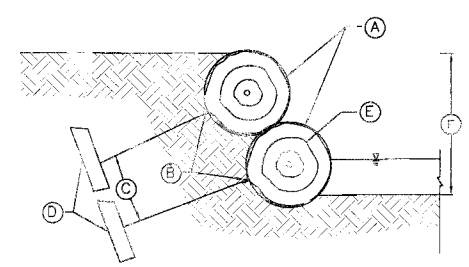
EARTH ANCHOR DETAIL

N.T.S.



LOG WALL DETAIL

N.T.S.



KEYED NOTES:

Ⓐ 3/8 INCH GALVANIZED AIRCRAFT CABLE WRAPPED AROUND LOG.

Ⓑ THREADED EYE NUT.

Ⓒ CONTINUOUS THREADED BAR ANCHOR ROD (FORESIGHT PRODUCTS, LLC PART NO. 20591 OR EQUAL) 5-FT MINIMUM LENGTH.

Ⓓ EARTH ANCHOR. SEE EARTH ANCHOR DETAIL.

Ⓔ WHEN EXISTING 3-MAN BOULDERS ARE PRESENT, PLACE BOTTOM LOG ON TOP OF EXISTING BOULDERS AS SHOWN ON SHEET 2.

Ⓕ HEIGHT OF LOG WALL VARIES. ADDITIONAL LOGS MAY BE NEEDED TO STABILIZE ENTIRE HEIGHT OF STREAMBANK

SEQUENCING:
1. REMOVE EXISTING 1 MAN ROCKERY.
2. ANCHOR LOG PER EARTH ANCHOR DETAIL
3. BACKFILL AROUND LOG
4. RESTORE DISTURBED AREA WITH NATIVE GRASS MIX.

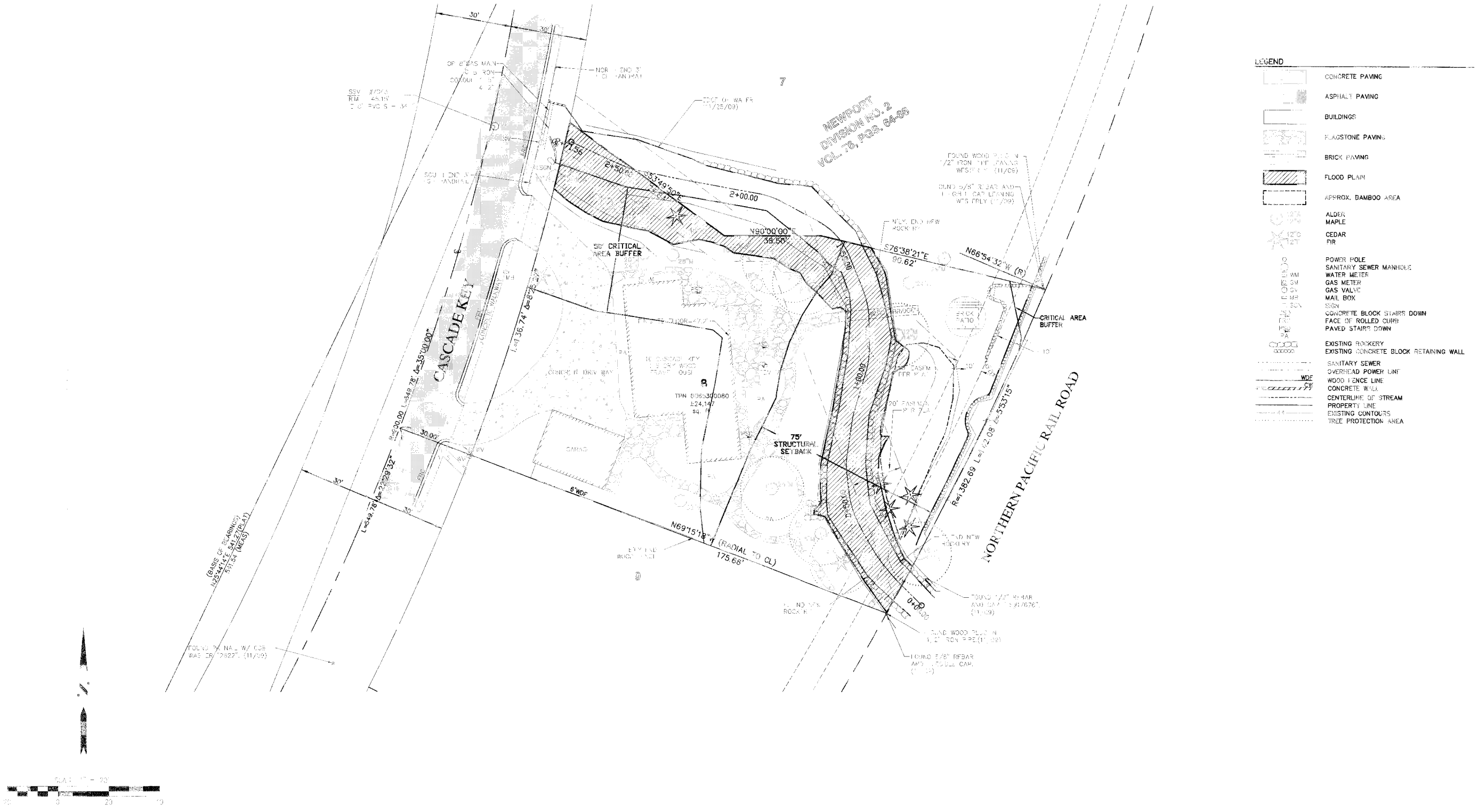
LOG WALL DETAIL – END VIEW

N.T.S.

Call 2 Working Days Before
1-800-424-5
Utilities Underground Locatio
ID,MT,ND,OR,WA

DESIGNED BY TJO DRAWN BY PAY CHECKED BY TJO	OSBORN CONSULTING INCORPORATED	OSBORN CONSULTING, INC. 10800 NE 8th Street, Suite 150 Ph (425) 451-4009 Bellevue, WA. 98004 Fax (425) 451-4901	NO. / DATE / REVISION / BY	Steve An 16 Cascade Key Bellevue, WA 98006	Steve An Stream Restoration Bellevue, WA DETAILS – 2	JOB# / DWG 16-090049	DATE 11/1
						SCALE H: n/a V: n/a	SHEET 3

SW 1/4 OF NW 1/4 SECTION 16, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M.; KING COUNTY, WASHINGTON



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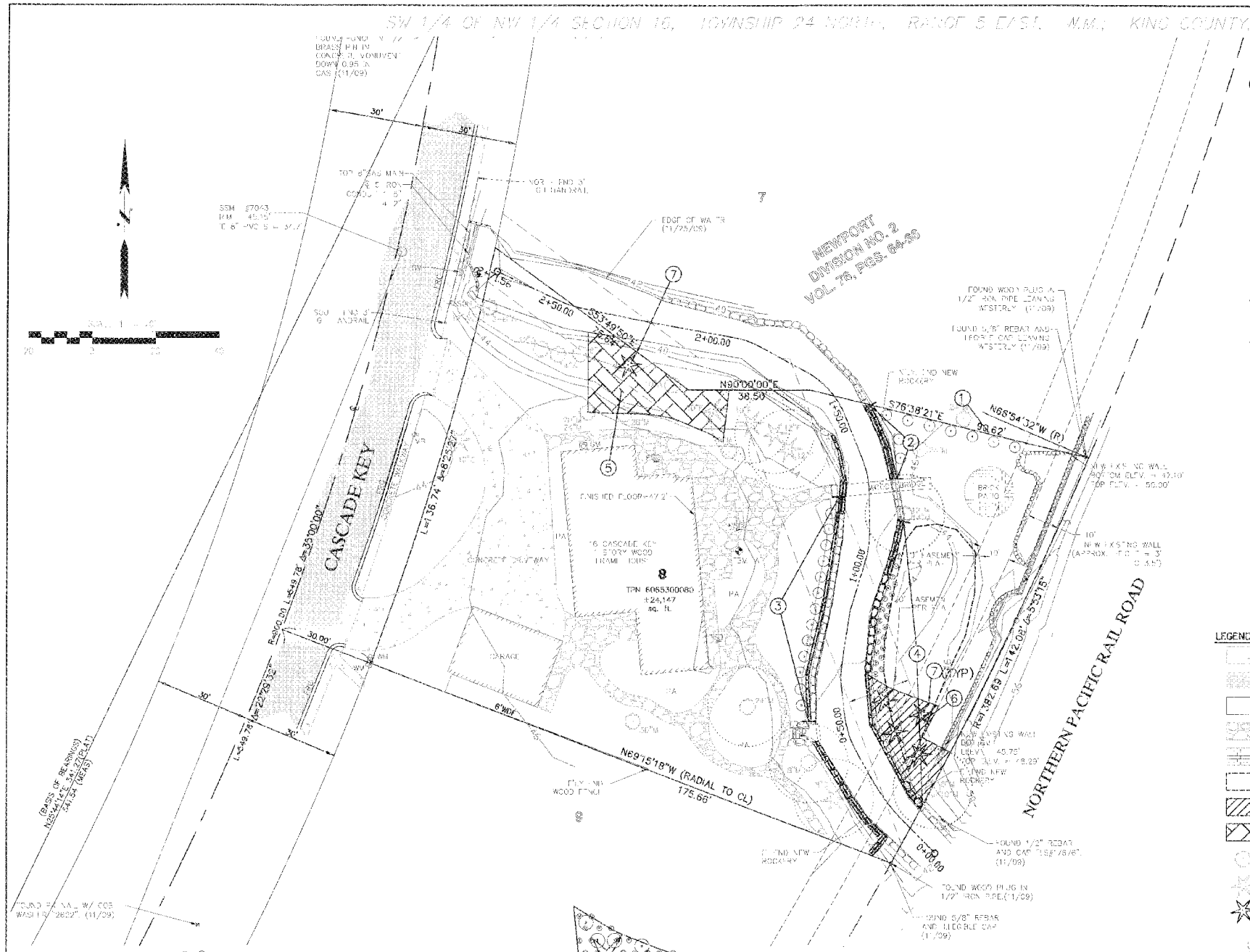
DESIGNED BY TJD DRAWN BY BAY CHECKED BY TJD	OSBORN CONSULTING INCORPORATED	OSBORN CONSULTING, INC. 10800 NE 8th Street, Suite 150 Ph (425) 451-4009 Bellevue, WA. 98004 Fax (425) 451-4901	NO.	DATE	REVISION	BY	Steve An 16 Cascade Key Bellevue, WA 98006	Steve An Stream Restoration Bellevue, WA CRITICAL AREAS AND FLOODPLAIN	JOB# / DWG 10-090049 SCALE H: 1"=20' V: n/a	DATE 11/ SHEET 4

SW 1/4 OF NW 1/4 SECTION 16, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., KING COUNTY, WASHINGTON



KEYED NOTES

1. PLANT 10 SHORE PINE ALONG PROPERTY LINE. SHORE PINES SHALL BE BETWEEN 4 AND 6 FEET IN HEIGHT.
2. PLANT 2 BLACK TWINBERRY AS SHOWN ON LOG WALL WITH STEPBACK ROCKERY DETAIL.
3. PLANT A MINIMUM OF 13 DOGWOODS ON A MINIMUM OF 6' CENTERS AS SHOWN ON STEPBACK ROCKERY DETAIL.
4. PLANT WILLOW STAKES ON 3' CENTERS MINIMUM (34 PLANTS MINIMUM). RED OSIER DOGWOOD MAY BE SUBSTITUTED FOR WILLOWS AS SHOWN ON STEPBACK ROCKERY DETAIL.
5. DESIGNATE AREA AS NATIVE GROWTH PROTECTION AREA. REMOVE ALL ENGLISH IVY.
6. DESIGNATE AREA AS NATIVE GROWTH PROTECTION AREA.
7. PLANT WESTERN HEMLOCK ON MINIMUM 10' CENTER AND 4' TO 6' IN HEIGHT.

PLANTING NOTES

1. TRIANGULAR SPACING IS INDICATED IN LEGEND. GROUP PLANTS OF THE SAME TYPE IN CLUSTERS OF 3-5 PLANTS. TREES TO BE LOCATED PER PLAN.
2. ANY DISCREPANCIES BETWEEN THE DRAWINGS, SPECIFICATIONS, AND/OR SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE FIELD ENGINEER PRIOR TO BEGINNING.
3. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING UTILITIES PRIOR TO BEGINNING.

PLANTING AREA 1 PLANTING SCHEDULE

SYMBOL	PLANT NAME	SCIENTIFIC NAME	QTY (MIN)	SIZE	SPACING
	SNOWBERRY	*SYMPHORICARPOS ALBUS*	19	1 GAL	4'
	BLACK TWINBERRY	*LONICERA INVOLUCRATA*	19	1 GAL	4'
	GOAT'S BEARD	*ARUNCUS DIOICUS*	35	1 GAL	2'
	BLEEDING HEART	*DICENTRA FORMOSA*	25	1 GAL	2'
	PACIFIC WATERLEAF	*HYDROPHYLLUM TENUIPES*	25	1 GAL	2'
	WILD LILY OF THE VALLEY	*MAIANTHEMUM DILATATUM*	25	1 GAL	2'
	WOOD-SORREL	*OXALIS OREGANA*	25	1 GAL	2'
	WILD GINGER	*ASARUM CAUDATUM*	25	1 GAL	2'
	WESTERN HEMLOCK	*TSUGA HETEROPHYLLA*	4	5 GAL	10'

PLANTING AREA 2 PLANTING SCHEDULE

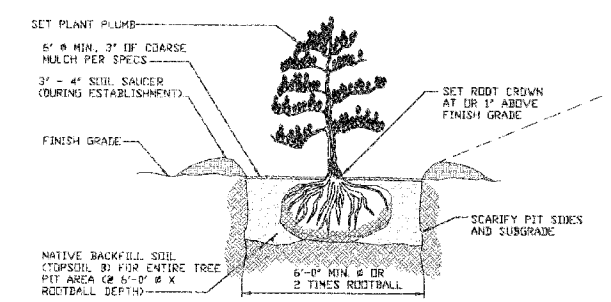
SYMBOL	PLANT NAME	SCIENTIFIC NAME	QTY (MIN)	SIZE	SPACING
	GOAT'S BEARD	*ARUNCUS DIOICUS*	31	1 GAL	2'
	BLEEDING HEART	*DICENTRA FORMOSA*	32	1 GAL	2'
	PACIFIC WATERLEAF	*HYDROPHYLLUM TENUIPES*	31	1 GAL	2'
	WILD LILY OF THE VALLEY	*MAIANTHEMUM DILATATUM*	32	1 GAL	2'
	WOOD-SORREL	*OXALIS OREGANA*	32	1 GAL	2'
	WILD GINGER	*ASARUM CAUDATUM*	32	1 GAL	2'
	WESTERN HEMLOCK	*TSUGA HETEROPHYLLA*	1	5 GAL	10'

OTHER PLANTS AS NOTED

SYMBOL	PLANT NAME	SCIENTIFIC NAME	QTY (MIN)	SIZE	SPACING
	BLACK TWINBERRY	*LONICERA INVOLUCRATA*	2	1 GAL	6'
	RED OSIER DOGWOOD	*CORNUS STOLONIFERA*	13	1 GAL	3' TO 6'
	SHORE PINE	*PINUS CONTORTA*	10	5 GAL	6' (MIN)
	SCOULER'S WILLOW	*SALIX SCOULERIANA*	17	LIVE STAKE	3'
	SITKA WILLOW	*SALIX SITCHENSIS*	17	LIVE STAKE	3'

LEGEND

- CONCRETE PAVING
- ASPHALT PAVING
- BUILDINGS
- FLAGSTONE PAVING
- BRICK PAVING
- APPROX. BAMBOO AREA
- PLANTING AREA 1 NATIVE GROWTH PROTECTION AREA APPROX. 315 SQFT
- PLANTING AREA 2 NATIVE GROWTH PROTECTION AREA APPROX. 780 SQFT
- ALDER / MAPLE
- CEDAR / FIR
- PROPOSED WESTERN HEMLOCK
- POWER POLE
- SANITARY SEWER MANHOLE
- WM WATER METER
- GM GAS METER
- GV GAS VALVE
- MB MAIL BOX
- SIGN
- CONCRETE BLOCK STAIRS DOWN
- FOR FACE OF ROLLED CURB
- PAVED STAIRS DOWN
- EXISTING ROCKERY
- EXISTING CONCRETE BLOCK RETAINING WALL
- PROPOSED 3-MAN BOULDERS
- PROPOSED LOG WALL
- PROPOSED TOE LOG
- SANITARY SEWER
- OVERHEAD POWER LINE
- WDF WOOD FENCE LINE
- CONCRETE WALL
- CENTERLINE OF STREAM
- PROPERTY LINE
- EXISTING CONTOURS
- TREE PROTECTION AREA



DECIDUOUS AND EVERGREEN TREE AND SHRUB PLANTING
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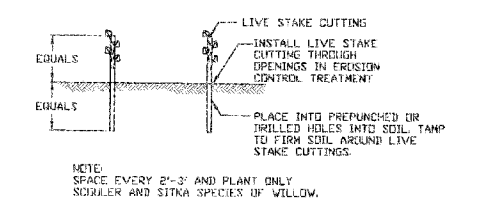

LIVE STAKE INSTALLATION DETAIL
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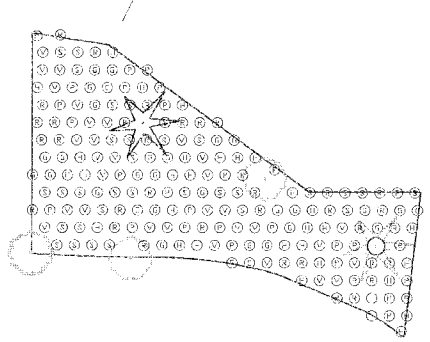
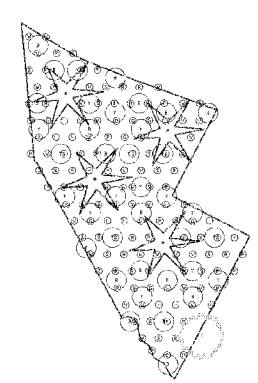


PLANTING AREA 2 NGPA PLANTING LAYOUT
N.T.S.



PLANTING AREA 1 NGPA PLANTING LAYOUT
N.T.S.

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1-800-424-5555
Utility Underground Location Center
(COLORADO, OR, WA)

DESIGNED BY TJO	OSBORN CONSULTING INCORPORATED	OSBORN CONSULTING, INC.	
DRAWN BY DAY		10800 NE 8th Street, Suite 150 Ph (425) 451-4009	
CHECKED BY TJO		Bellevue, WA. 98004 Fax (425) 451-4901	

NO.	DATE	REVISION	BY
1	03/15/11	ADDRESS CITY OF BELLEVUE COMMENTS	BAY

Steve An
16 Cascade Key
Bellevue, WA 98006

Steve An Stream Restoration
Bellevue, WA
PLANTING PLAN

JOB# / DWG	DATE
10-090049	03/16/11
SCALE: H: 1"=20' V: n/a	SHEET 5 of 5

DEVELOPMENT SERVICES DEPARTMENT
ENVIRONMENTAL COORDINATOR
450 110th Ave NE., P.O. BOX 90012
BELLEVUE, WA 98009-9012

OPTIONAL DETERMINATION OF NON-SIGNIFICANCE (DNS) NOTICE MATERIALS

The attached materials are being sent to you pursuant to the requirements for the Optional DNS Process (WAC 197-11-355). A DNS on the attached proposal is likely. This may be the only opportunity to comment on environmental impacts of the proposal. Mitigation measures from standard codes will apply. Project review may require mitigation regardless of whether an EIS is prepared. A copy of the subsequent threshold determination for this proposal may be obtained upon request.

File No. 10-114857-LO

Project Name/Address: An Residence Streambank Stabilization

Planner: Carol L. Orr

Phone Number: 425-452-2896

Minimum Comment Period: August 26, 2010

Materials included in this Notice:

- [x] Blue Bulletin
- [x] Checklist
- [x] Vicinity Map
- [ ] Plans
- [ ] Other:

ENVIRONMENTAL CHECKLIST

5/21/2010

If you need assistance in completing the checklist or have any questions regarding the environmental review process, please visit or call Development Services (425-452-6800) between 8 a.m. and 4 p.m., Monday through Friday (Wednesday, 10 to 4). Assistance for the hearing impaired: Dial 711 (Telecommunications Relay Service). .

BACKGROUND INFORMATION

Property Owner: Steve An (An Mu Sin and An Yang Suk)

Proponent: Steve An

Contact Person: Brad Thiele, Northwest Environmental Consulting, LLC
(If different from the owner. All questions and correspondence will be directed to the individual listed.)

Address: 3639 Palatine Ave N, Seattle, WA 98103

Phone: 206-234-2520 and (206) 634-9193 (mobile)

Proposal Title: Steve An Streambank Stabilization

Proposal Location: 16 Cascade Key, Bellevue, WA 98006-1002
NW ¼ Section 16, Township 24R, Range 05E
47.56973 N Latitude / -122.18369 W Longitude
Tax Parcel #6065300080
Property is located south of intersection of Newport Key and Cascade Key off 118th Ave SE.

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

Please attach an 8 ½" x 11" vicinity map that accurately locates the proposal site.

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

1. General description:
Coal Creek enters the Steve An property from its southeast corner and meanders through the property to exit under Cascade Key in the northwest corner of the property. A footbridge crosses Coal Creek to connect the northeastern part of the property with the residence and patio, which are located on the west side of the creek (Sheet 1). The home is an owner-occupied, single-family residence with landscaping.

Steve An is proposing a stream bank stabilization project along Coal Creek at 16 Cascade Key. The project will remove approximately 100 linear feet of a failing rockery and replace it with a stepped back bank made of cabled logs and larger toe rocks. Logs will be placed on top of the original rockery for approximately 100 feet of the east stream bank. The west bank will be constructed of cabled logs except for approximately 30 feet where larger toe boulders will be placed. The project will include planting the stream bank with willow stakes and native plantings. In addition, 1,590 square feet of property will be designated as a Native Growth Protection Area. Installation of a retaining wall within a critical steep slope structure setback and installation of a patio within the stream buffer.

2. Acreage of site: 0.54 acre (23,700 SF)

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

4. Number of dwelling units/buildings to be constructed: None

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JUN 07 2010
PERMIT PROCESSING

10-114857-LO
An Streambank Stabilization
8/2/2010
CLO

5. Square footage of buildings to be demolished: Not applicable

6. Square footage of buildings to be constructed: Not applicable

7. Quantity of earth movement (in cubic yards): Estimated 10 cubic yards of existing rocker will be removed for a stepped back stream bank. Excess soil will be spread over existing upland surfaces on the property or removed.

8. Proposed land use: Residential (no change from present use)

9. Design features, including building height, number of stories and proposed exterior materials: Not applicable

10. Other:

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

Work will be accomplished in July/August 2010.

Work may not commence until all applicable permits have been approved and issued.

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

No further activity is planned.

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

JARPA permit application
Biological Evaluation

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

None known

Clear/Grade Permit for work within a Critical Area: 10-114855-GH

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

Corps of Engineers Section 404 Permit
Washington Department of Fish and Wildlife Hydraulic Project Approval
City of Bellevue Critical Areas Ordinance Compliance

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

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

☐ Preliminary Plat or Planned Unit Development
Preliminary plat map

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

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

☐ Shoreline Management Permit
Site plan

A. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site: ☒ Flat ☐ Rolling ☐ Hilly ☒ Steep slopes ☐ Mountains ☐ Other

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

The site is generally flat. However, the streambanks of Coal Creek have portions that are near vertical. A steep slope is present on the east side of the property

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

Soils at the site are mapped as Alderwood gravelly sandy loam (AgD) on 15 to 30% slopes. No hydric soils (wetland) soils were identified on the site. Agricultural soils are not applicable.

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

Streambank soils along Coal Creek at the site are potentially destabilized by the flowing water in the creek, especially during high storm flows. This potential is the reason for the proposed stabilization activities.

Streambank stabilization was previously completed to maintain the existing rockery and prevent erosion, which was severe on the east bank and which had eroded the soil from behind the rockery on the west bank and caused sinkholes behind the rockery. These rockery improvements did not receive required permits and are failing on the east bank.

The proposed streambank stabilization is intended to improve the stability of the streambank and will include native plantings. The stabilization is being designed to maintain an existing pool in the stream channel. This pool is being created by a group of large rocks placed during construction of the original rockery that is turning the water toward the opposite (east) bank. This group of rocks created the original bank erosion that the owner tried to stop by building the unpermitted rockery.

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

Grading will involve pulling back soils to provide for a stepping back of the streambank. Some backfilling using the graded soils will be required behind the toe rocks and logs that will be placed for improved streambank stability.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
Temporary erosion and sedimentation conrols will be required prior to work, per BCC 23.76
Erosion and runoff carrying soil particles into Coal Creek is a potential impact during construction.

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

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The proposal will not alter the coverage of the site in terms of impervious surface.
Impervious surfaces will be modified on site due the construction of the patio on the east stream bank. Impervious surface coverage will be recalculated under permit review.

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

Soils placed on the step back rockery areas will be covered with coir fabric for added stability and reduction of erosion potential as the native plants increase coverage of the stabilized slopes. Other erosion control measures

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will be used as appropri. uring construction and will remain in pla ıtil soils have stabilized.

2. AIR

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

Some minor amount of dust may be generated by grading for the step back rockery and removal. Work will generally be done by hand, so emissions from construction equipment are not expected other than a few truck trips on local roads delivering materials, such as large rocks and logs.

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

None known.

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

Soil stabilization measures following grading will reduce any longer term potential for fugitive dust emissions from the site.

3. WATER

a. Surface

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

Coal Creek flows through the property. The proposal involves stabilizing streambanks associated with Coal Creek. Downstream, Coal Creek discharges to Lake Washington. Coal Creek is a fish bearing stream

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

Yes, work will be done immediately adjacent to Coal Creek. Placement of toe boulders and some logs will be below the Ordinary High Water Mark.

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

Up to about 10 cubic yards of large 3-man toe rocks will be placed at the toe of the streambank within the OHWM of Coal Creek. Other dredge or fill within Coal Creek is not proposed.

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

No surface water withdrawals or diversions are proposed.

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

Yes, parts of the parcel are within the 100-year floodplain of Coal Creek. See Sheet 4 attached.

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

No discharges of waste materials to surface waters are proposed.

b. Ground

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(1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description.

No ground water will be withdrawn and no water will be discharged to the ground water.

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

Not applicable.

c. Water Runoff (Including storm water)

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

The proposal does not involve any changes in source, collection, or disposal of stormwater.

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

No waste materials will be generated by the proposal.

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

The design will maintain an existing pool in the stream, a habitat feature generally lacking in the lower reaches of Coal Creek. Riparian plantings will provide additional shading of Coal Creek as well.

Coir fabric will be used to stabilize streambank soils as live stakes and other vegetation colonize the streambanks.

4. Plants

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

☒ deciduous tree: alder, maple, aspen, other

☒ evergreen tree: fir, cedar, pine, other

☒ shrubs

☒ grass

☐ pasture

☐ crop or grain

☐ wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other

☐ water plants: water lily, eelgrass, milfoil, other

☐ other types of vegetation

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

The mitigation plan involves removal of English ivy from riparian areas along the streambank. Some existing ornamental vegetation will be removed by grading associated with the step back rockery.

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c. List threatened or er. gered species known to be on or near tl e.

None known.

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

The mitigation plan will enhance 1,600 square feet of riparian buffer and plant approximately 100 linear feet of streambanks (see Sheet 5 Planting Plan). The project will incorporate native plantings, including 10 shore pine, more than 80 willow stakes and native shrubs, and removal of invasive English Ivy from approximately 1,600 feet of riparian buffer.

5. ANIMALS

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

- ☒ Birds: hawk, heron, eagle, songbirds, other: water fowl and song birds owls, woodpeckers, doves, jays
- ☒ Mammals: deer, bear, elk, beaver, other: Small mammals coyote, raccoon, chipmunk, squirrel, rabbit opossum, and other small mammals such as voles & shrews
- ☒ Fish: bass, salmon, trout, herring, shellfish, other:

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

Steelhead and Chinook salmon use Coal Creek. Bald Eagles are known to be near the site.

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

Coal Creek serves as a migration route for movements of resident and anadromous fish.

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

The project will maintain an existing scour pool just north of the first bend in Coal Creek. Scour pools are beneficial habitat features that are generally lacking in the lower reaches of Coal Creek.

Enhancement of the riparian area with native plantings will provide habitat benefits to songbirds, small mammals, and other wildlife.

6. Energy and Natural Resources

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

No energy will be used.

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

No.

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

None are needed or proposed.

7. Environmental Health

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

No.

(1) Describe special emergency services that might be required.

None.

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

None are needed or proposed.

b. Noise

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

Not applicable.

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

Construction will occur during typical daytime working hours. Because the work will be generally done by hand, noise impacts would be very limited to handheld and operated equipment.
Noise shall comply with BCC 9.18

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

None are needed or proposed.

8. Land and Shoreline Use

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

Single-family residential

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

The existing house on the property was built in 1972. Prior agricultural use is unlikely.

c. Describe any structures on the site.

A single-family residence is on the property.

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

No.

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

Residential.

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

Residential.

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

Not applicable. The property is not within the shoreline zone.

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

Yes, Coal Creek is an environmentally sensitive area. A steep slope critical area exists just east of the property line.

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

None.

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

None.

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

None are needed or proposed.

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

None are needed or proposed. The proposal shall also undergo Clear/Grade Review and Utilities Review.

9. Housing

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

Not applicable.

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

Not applicable.

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

None.

10. Aesthetics

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

Not applicable.

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

None.

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

None are proposed.

11. Light and Glare

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

None.

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

Not applicable.

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

None.

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

None are needed or proposed.

12. Recreation

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

Not applicable.

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

No.

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

None are needed or proposed.

13. Historic and Cultural Preservation

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

None are known.

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

None are known.

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

None are needed or proposed.

14. Transportation

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

Access to the site is via Newport Key and Cascade Key. 118th Avenue SE provides access to Newport Key.

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

Not applicable.

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

Not applicable. No change to existing parking spaces.

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

No.

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e. Will the project use (c ,ur in the immediate vicinity of) water, r air transportation? If so, generally describe.

No.

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

None.

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

None are needed or proposed.

15. Public Services

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

No.

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

None are needed or proposed.

16. Utilities

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

The site is served with typical urban utility services. However, the proposal does not involve changes or use of urban services.

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

The completed proposal does not use utility services, but will require water and electricity during construction.

Signature

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

Signature Brad Z

Date Submitted 6/4/2010

16 Cascade Key

Vicinity Map

Applicant: Steve Mu Sin An
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