CITY OF KIRKLAND
123 FIFTH AVENUE, KIRKLAND, WASHINGTON 98033-6189
(425) 587-3225

DETERMINATION OF NONSIGNIFICANCE (DNS) .

CASE #: SEP07-00003 DATE ISSUED: 2/26/2007

DESCRIPTION OF PROPOSAL

Proposal to subdivide 58,678 sq-ft lot in the RS 8.5 Zone into two lots ranging in size from 28,841 sq-ft to 29,837 sq-ft.; Existing house and garage to be removed.

PROPONENT: **KIT KLINKER**

LOCATION OF PROPOSAL

10827 NE 108TH ST

LEAD AGENCY is **The City of Kirkland**

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21.030 (2) (c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public upon request.

There is no comment period for this DNS.

Responsible official: Nancy Cox for 2/26/07
Date

Eric Shields, Director
Department of Planning and Community Development
425-587-3225

Address: City of Kirkland
123 Fifth Avenue
Kirkland, WA 98033-6189

You may appeal this determination to **NANCY COX at Kirkland City Hall, 123 Fifth Avenue, Kirkland, WA 98033 no later than 5:00 p.m., Monday, March 12, 2007 by WRITTEN NOTICE OF APPEAL.**

You should be prepared to make specific factual objections. Contact Nancy Cox to read or ask about the procedures for SEPA appeals.

Please reference case # SEP07-00003.

cc: Case # SPL06-00001

Betty Kaler 2/26/07
Distributed By Date:

SEPA_A, rev: 2/21/2007

ATTACHMENT 5a
SPL06-00001

CITY OF KIRKLAND
Planning and Community Development Department
123 Fifth Avenue, Kirkland, WA 98033 425.587.3225
www.ci.kirkland.wa.us

MEMORANDUM

To: Eric R. Shields, AICP
Planning Director

From: Ronald Hanson, Project Planner (Consultant) RH

Teresa Swan, Planning Supervisor TS

Date: February 13, 2007

Subject: Environmental Determination – Dawson Short Plat
File No. SPL06-00001/SEP07-00003

The applicant is proposing to subdivide a 58,678 square foot (1.3 acres) RS 8.5 zoned site located at 10827 NE 108th Street (See Enclosure 1). The proposal is to short plat the RS 8.5 zoned site into 2 rectangular shaped single-family lots. Proposed Lot 1 is 29,837 square feet, and Lot 2 is 28,841 square feet. Vehicular access to the lots is proposed directly from NE 108th Street (See Enclosure 2).

The site is generally level sloping slightly down from north to south. The average grade across the site is less than 5 percent. There is a Type II Wetland located on the southern portion of the site. The wetland includes a previously filled man made pond located south of the existing garage. The wetland is part of the Forbes 1 Wetland system which extends off-site to the south, east, and west. Type II Wetlands located within the Forbes Creek Drainage Basin (Primary Basin) require a 75 foot wide buffer with a 10 foot wide structure setback from the buffer edge.

The applicant is proposing both a Wetland Modification and Wetland Buffer Modification pursuant to Kirkland Zoning Code Sections 90.55 and 90.60 respectively. The Wetland Modification involves the filling of 635 square feet of wetland on the northern portion of the wetland, and creating 635 square feet of wetland on the western portion of the wetland. The applicant is also requesting a 1/3 wetland buffer reduction from the normally required 75 foot wide wetland buffer to a 50 foot wide buffer.

The applicant submitted an Environmental Checklist with the Short Plat Application (Enclosure 3). Wetland Reports dated August 22, 2006 and November 9, 2006 were prepared for the applicant by Altmann Oliver Associates, LLC (See Enclosures 4 and 5). In addition, a Wetland Mitigation Plan for both the wetland modification and the wetland buffer reduction was prepared by Altmann Oliver Associates, LLC dated October 18, 2006 (See Enclosure 6).

ATTACHMENT 5

The finding and recommendations of the reports and the mitigation plan were reviewed by the City's Wetland Biologist, The Watershed Company, in a report dated January 26, 2007 (See Enclosure 7). The Watershed Company recommends approval of the mitigation plan as conditioned in their report.

One of the recommended conditions by The Watershed Company is to remove or relocate the existing garage located approximately 20 feet north of the wetland edge and partially within the proposed 50 wetland buffer. Since the garage was constructed with an approved City of Kirkland building permit in 1993 (BLD93-00115) at its present location, and that the currently degraded on-site wetland and wetland buffer will be improved significantly with the implementation of the proposed wetland mitigation plan, staff is recommending that the garage may be retained, as proposed by the applicant.

The public comment period for the proposed short plat extended from March 2, 2006 to March 27, 2006. The City of Kirkland Planning Department received two letters during the above comment period. The comments include:

1. *Support for the proposed 2 lot short plat and concern that additional lots could be approved on the site in the future (See Enclosure 8-a).*

   Staff Response: Due to the long narrow shape of the site, and the fact that a large portion of the site is located within a Type II Wetland and Wetland Buffer, a future subdivision of the site, beyond the 2 proposed lots, is unlikely.

2. *There is a drainage problem along their common property line that could be caused by a blocked manhole. The problem should be addressed with the development of the new homes (See Enclosure8-b).*

   Staff Response: Detailed drainage plans will be submitted by the applicant with the required Land Surface Modification Permit for the short plat infrastructure improvements. The Public Works Department will be made aware of the drainage issue so they can address the problem at the time of LSM Permit submittal.

It will be necessary to further analyze certain aspects of the proposal to determine if the project complies with all applicable City codes and policies. That analysis is most appropriately addressed within the staff advisory report. State law specifies that this environmental review under the State Environmental Policy Act (SEPA) is to focus only on potential significant impacts to the environment that could not be adequately mitigated through the City of Kirkland development regulations and Comprehensive Plan. As provided in Kirkland Zoning Code Chapter 90, the City has the authority to require conformance with the wetland requirements of this chapter, including maintenance and monitoring of the mitigation plan. Thus, it is not necessary to condition this SEPA Determination to require the recommendations of the wetland report to be incorporated in the project.

I have had an opportunity to visit the site and review the environmental checklist, and other sensitive area reports for the project referenced above. I have not identified any significant

adverse environmental impacts. Therefore, I recommend that a Determination of Non-Significance be issued for this proposed action.

Should you have any questions, please contact me.

Enclosure 1 - Vicinity Map
Enclosure 2 - Plat Map
Enclosure 3 – Environmental Checklist
Enclosure 4 – Wetland Report by Altmann Oliver Associates, LLC dated August 22, 2006
Enclosure 5 – Wetland Report by Altmann Oliver Associates, LLC dated November 9, 2006
Enclosure 6 – Wetland/Buffer Mitigation Plan by Altmann Oliver, LLC dated October 18, 2006
Enclosure 7 – Wetland Modification Review by the Watershed Company dated January 26, 2007
Enclosure 8 - Public Comments
a. Letter from Jennifer and Per-Ola Selander
b. Letter from Steve and Pam Carbonetti

Review by Responsible Official:

I concur ☑

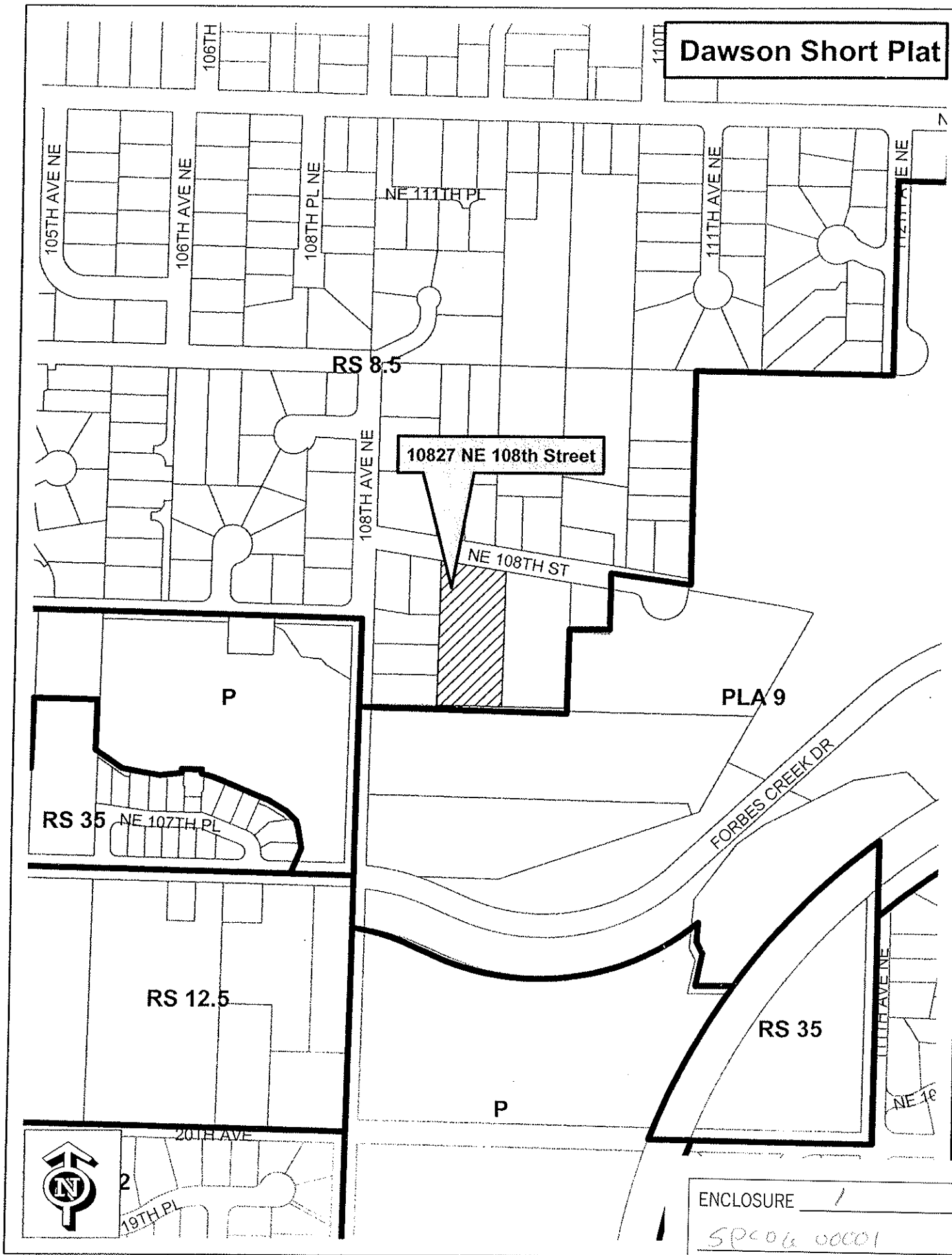
I do not concur ☐

Comments:

Eric R. Shields, AICP
Planning Director

2/14/07
Date

Document2 rev050101sjc



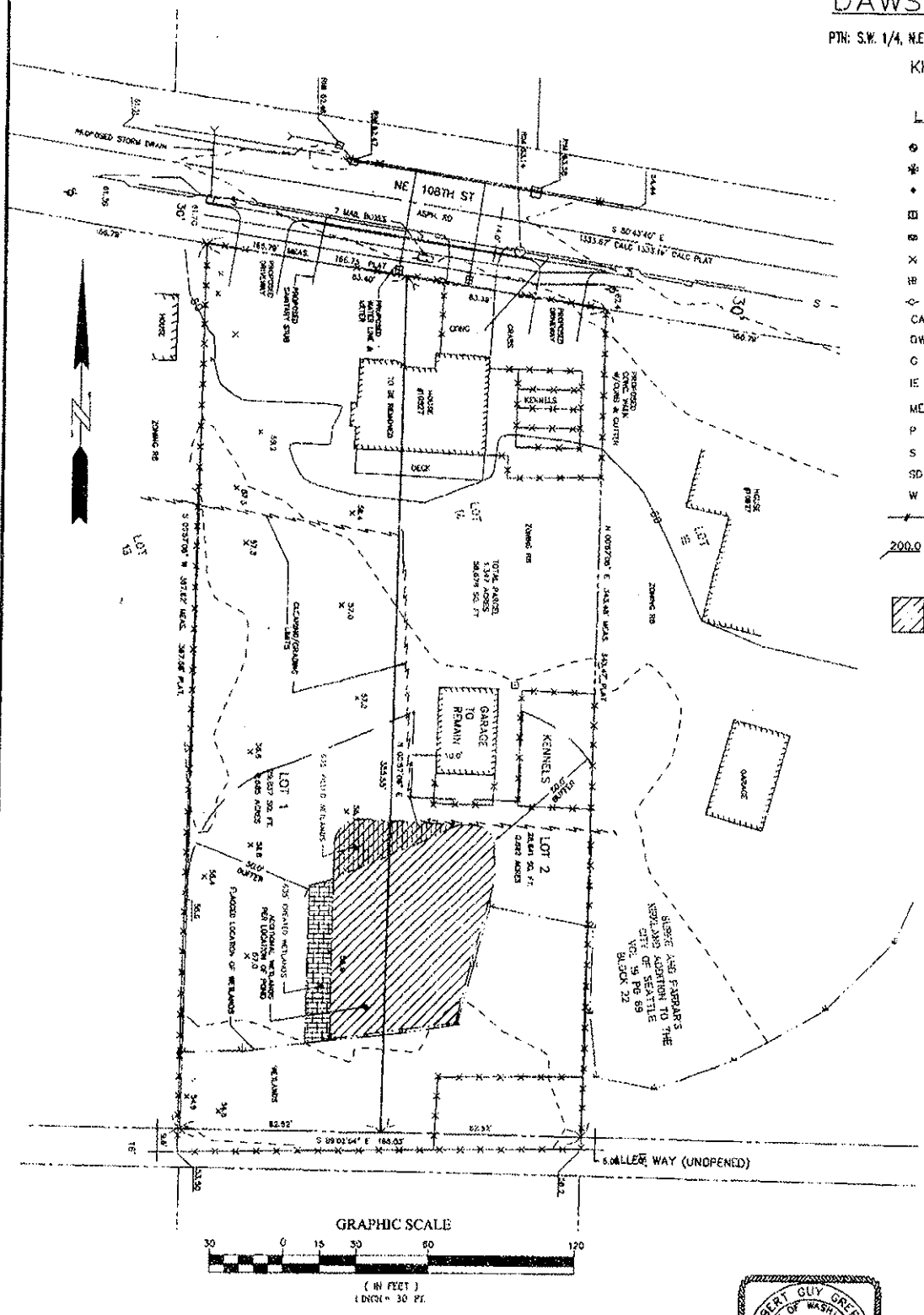
ENCLOSURE 1

SP06-00001

DAWSON SHORT PLAT

PTN: S.W. 1/4, N.E. 1/4, & N.W. 1/4, S.E. 1/4, SEC. 32, T 26 N, R 5 E, W.M.

KIRKLAND, WASHINGTON



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 INCH = 30 FT.

LEGEND

⊙	MONUMENT IN CASE
✱	FOUND CONCRETE MONUMENT
•	SET 1/2" X 24" REBAR WITH CAP LS 29539
GV	GAS VALVE
MB	MAIL BOX
WV	WATER VALVE
WM	WATER METER
UP	UTILITY POLE
CALC	CALCULATED
DW	DRIVE WAY
G	GAS
IE	INVERT ELEVATION
MEAS.	MEASURED
P	PLAT OF
S	SEWER
SD	STORM DRAIN
W	WATER
——x——	WOODFENCE

200.0 SPOT ELEVATION IS LOCATED AT THE DECIMAL POINT OF ELEVATION (200.0) UNLESS AS NOTED WITH LEADER OR X

APPROXIMATE LOCATION OF ADDITIONAL WETLAND BASED ON HISTORIC POND (PER AERIAL PHOTO)

PTN: S.W. 1/4, N.E. 1/4, & N.W. 1/4, S.E. 1/4, SEC. 32, T 26 N, R 5 E, W.M.

PREPARED BY

GREENE LAND SURVEYING
20515 82ND AVE SW EDMONDS, WASHINGTON
PHONE (425) 697-6606 FAX (425) 697-6604

DATE	DRAWN BY	DRAWING	SCALE	JOB NUMBER
10/23/06	RG	20SP	1" = 30'	2005.20

CITY OF KIRKLAND FILE NO.

ROBERT GUY GREENE STATE OF WASHINGTON 29539 REGISTERED PROFESSIONAL LAND SURVEYOR 11/14/2007

SHORT PLAT
OF
10827 108TH ST
FOR
KLINKER CORPORATION

ENCLOSURE 2

SP06 00001

CITY OF KIRKLAND ENVIRONMENTAL CHECKLIST

Purpose of Checklist:

The State Environmental Policy Act (SEPA), Chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the City identify impacts from your proposal, and to reduce or avoid impacts from the proposal, whenever possible

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Answer the questions briefly with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the City staff can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The City may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impacts.

Use of Checklist for Non-project Proposals:

Complete this checklist for non-project proposals also, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON-PROJECT ACTIONS (Part D).

For non-project actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," er," and "affected geographic area," respectively.

ENCLOSURE 3
Sp 06-00001

ACKGROUND

Name of proposed project, if applicable: ***Dawson Shot Plat***

Name of applicant: ***Klinker Corp.- Kit Klinker***

Tax parcel number: ***123570-00075***

Address and phone number of applicant and contact person: ***PO Box 2668, Kirkland,WA 98083, 206-295-9646, Kit Klinker***

5. Date checklist prepared: ***2/20/06***

6. Agency requesting checklist: ***Planning Dept.***

7. Proposed timing or schedule (including phasing, if applicable): ***Summer of 2006***

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

   No

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

   Wetland Report

10. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

    No

11. List any government approvals or permits that will be needed for your proposal, if known.

    Short Plat approval and demolition permit.

12. Give brief, complete description of your proposal, including the proposed uses, the size and scope of the project and site including dimensions and use of all proposed improvements. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.

    Divide existing 1.34 acre residential lot into two .66 acre residential lots.

13. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

    10827 108th Ave NE, Kirkland, WA, See attached drawing.

TO BE COMPLETED BY APPLICANT

EVALUATION FOR AGENCY USE ONLY
REVIEWED BY:

B. ENVIRONMENTAL ELEMENTS

1. EARTH

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

b. What is the steepest slope on the site (approximate percent slope)?
1-2%

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

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.
No

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
Frontage improvement grading for curbs and sidewalk.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
Minor erosion could occur during frontage improvement grading

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt, buildings)?
15%

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
The use of good temporary erosion control methods during the construction process.

2. AIR

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

Dust and vehicle emissions during the construction process.
Vehicle emissions upon the completion of the project.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.
No

c. Proposed measures to reduce or control emissions or other impacts to air, if any:
During construction, the use of good operational techniques such as watering of exposed areas and regular street cleaning.

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.
Yes. Forbes Creek which flows into Lake Washington

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. Please see attached Wetland report.

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.
None

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.
No

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
No

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
No

b. Ground

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.
No

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.
None

c. Water Runoff (including storm water):

1) Describe the source of runoff (include 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.
Storm water will be collected via a new storm drainage system and will be discharged into existing city storm system.

2) Could waste materials enter ground or surface waters? If so, generally describe.
Some automobile related pollutants may enter storm system from driveway.

Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
Storm drainage system will include catch basins with oil separators and underground pipes to control water runoff impacts.

4. PLANTS

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

- [x] deciduous tree: alder, maple, aspen, other
- [x] evergreen tree: fir, cedar, pine, other
- [x] shrubs
- [x] grass
- [ ] pasture
- [ ] crop or grain
- [ ] wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- [ ] water plants: water lily, eelgrass, milfoil, other
- [x] other types of vegetation: See Wetland Report

b. What kind and amount of vegetation will be removed or altered?
Existing yard landscaping along with several trees will need to be removed to allow for future house construction.

c. List threatened or endangered species known to be on or near the site.
None

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
Existing trees not located in footprint of future house construction will be preserved.

5. ANIMALS

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

birds: hawk, heron, eagle, songbirds, other ***crows***
mammals: deer, bear, elk, beaver, other
fish: bass, salmon, trout, herring, shellfish, other

b. List any threatened or endangered species known to be on or near the site.
None

c. Is the site part of a migration route? If so, explain.
No

d. Proposed measures to preserve or enhance wildlife, if any:
Future landscaped yards will enhance wildlife such as birds.

6. ENERGY AND NATURAL RESOURCES

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

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
No

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
Future homes will be well insulated and will use efficient heating systems.

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.
None

1) Describe special emergency services that might be required.
None

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

None

b. Noise

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

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.
Construction noise between 7:00 am and 6:00 pm during the construction of the project. Minor vehicle traffic on a long term basis.

3) Proposed measures to reduce or control noise impacts, if any:
Limitation of construction to daylight hours.

8. LAND AND SHORELINE USE

a. What is the current use of the site and adjacent properties?
Residential. Adjacent properties are also residential

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

c. Describe any structures on the site.
One house with detached garage and dog kennels

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

e. What is the current zoning classification of the site?
R8

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

g. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.
Yes. See wetland report.

h. Approximately how many people would reside or work in the completed project.
Future homes will accommodate 2 families or between 4 &12 people.

i. Approximately how many people would the completed project displace?
Two persons are currently living at the site.

j. Proposed measures to avoid or reduce displacement impacts, if any:
None

k. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
Project designs will be compatible with single family neighborhoods.

9. HOUSING

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
Two single family housing sites will be created in the middle income area.

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

c. Proposed measures to reduce or control housing impacts, if any:
Efficient architectural house designs.

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?
Future houses will be 2 stories or approx. 25'. Exterior treatment will be wood siding or similar with some stone/brick accents.

b. What views in the immediate vicinity would be altered or obstructed?
None

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

11. LIGHT AND GLARE

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
Future homes will produce minimal reflection or glare from windows during

the day. At night, minimal light will be produce through windows.

b. Could light or glare from the finished project be a safety hazard or interfere with views?
No

c. What existing off-site sources of light or glare may affect your proposal?
None

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

12. RECREATION

a. What designated and informal recreational opportunities are in the immediate vicinity?
Juanita beach & park, Forbes Creek valley with walking trails.

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:
Future homes will provide yards for recreation.

13. HISTORICAL AND CULTURAL PRESERVATION

a. Are there any places or objects listed in, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.
None

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.
None

c. Proposed measures to reduce or control impacts, if any:
None

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.
Forbes Creek Drive, 108th AVE NE and NE 108th Street. Access will be off NE 108th St.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?
No. Approx. 5 blocks to transit stop.

c. How many parking spaces would the completed project have? How many would the project eliminate?
4 per future house for a total of 8 spaces. 4 spaces would be eliminated.

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).
New frontage improvements (curbs, sidewalks and street trees) along 108th.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.
No

f. How many vehicular trips per day would be generated by the completed project? If know, indicate when peak volumes would occur.
Completed future homes will generate approx. 14 new daily trips and 2 new p.m. peak hour trips.

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

15. PUBLIC SERVICES

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.
Yes. Future homes will require emergency services and will add to the school system.

b. Proposed measures to reduce or control direct impacts on public services, if any.
Future homes to be designed with current safty features.

16. UTILITIES

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

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 proposed plat will require the installation and hook-up of water, storm sewer, sanitary sewer, electrical, gas, cable and telephone.
Kirkland Water & Sewer District, Puget Sound Energy, Verizon and Comcast

C. SIGNATURE

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

Signature: 

Date Submitted: 2/22/06

D. SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS

(Do not use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

   Proposed measures to avoid or reduce such increases are:

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

   Proposed measures to protect or conserve plants, animals, fish, or marine life are:

3. How would the proposal be likely to deplete energy or natural resources?

Proposed measures to protect or conserve energy and natural resources are:

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

   Proposed measures to protect such resources or to avoid or reduce impacts are:

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

   Proposed measures to avoid or reduce shoreline and land use impacts are:

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

   Proposed measures to reduce or respond to such demand(s) are:

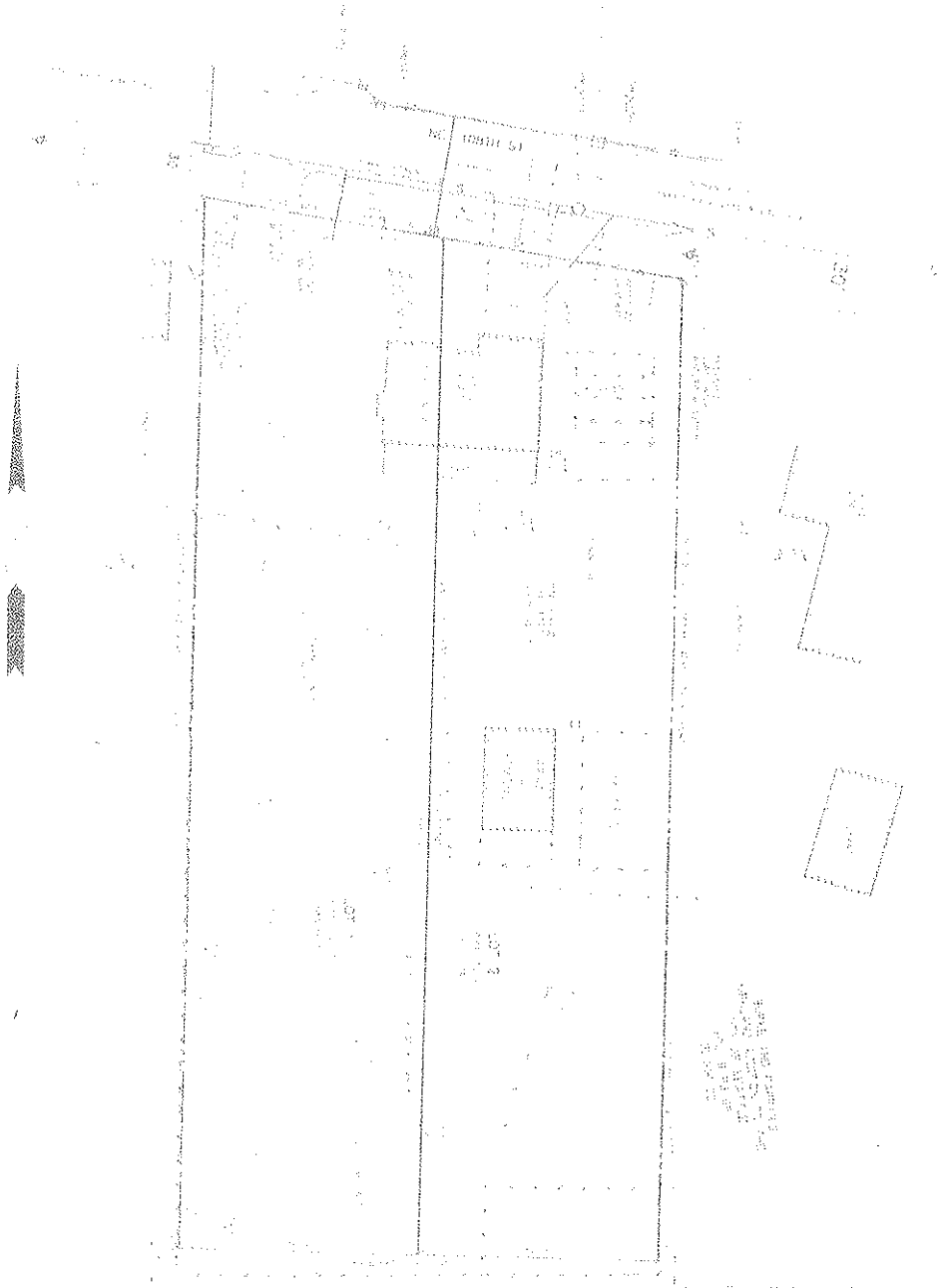
7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

DAWSON SHORT PLAT

PTNS SW 1/4, NE 1/4, & NW 1/4, SE 1/4, SEC 32, T 26 N, R 5 E, WM

KIRKLAND, WASHINGTON

LEGEND



GRAPHIC SCALE

PTNS SW 1/4, NE 1/4, & NW 1/4, SE 1/4, SEC 32, T 26 N, R 5 E, WM

PREPARED BY

GREENE LAND SURVEYING

SHORT PLAT OF 10827 108TH ST FOR KLINKER CORPORATION

CITY OF KIRKLAND FILE NO

SHEET NO 2 OF 2

Altmann Oliver Associates, LLC

AOA

PO Box 578 Carnation, WA 98014 Office (425) 333-4535 Fax (425) 333-4509

Environmental Planning & Landscape Architecture

August 22, 2006

AOA-2086

Kit Klinker
Klinker Corp.
PO Box 2668
Kirkland, WA 98083

SUBJECT: **Revised Wetland Delineation for 10854 NE 108th Street, Kirkland, WA Dawson Short Plat**

Dear Kit:

On January 27, 2005 I conducted a wetland reconnaissance on the subject property. One wetland (Wetland A) was identified within the southern portion of the site during the reconnaissance. The wetland boundary was subsequently delineated on September 15, 2005 utilizing the methodology outlined in the 1997 *Washington State Wetlands Identification and Delineation Manual*.

As you know, on July 19, 2006 we met with Hugh Mortensen of The Watershed Company and Ron Hanson representing the City of Kirkland on the project site to review historical wetland conditions associated with a pond that had been excavated and filled in the eastern portion of the site. Based on this site meeting it was determined that the pond was likely historically excavated in wetlands and should therefore be regulated as a wetland. During the meeting, Hugh concurred that the wetland boundary of the old pond could be delineated from an aerial photo. **Figure 1** depicts the surveyed location of the delineated wetland boundary as well as the approximate location of the historical pond that is considered filled wetland by the City of Kirkland.

Wetland A has been identified by the City of Kirkland as part of the Forbes 1 wetland system, which extends off-site to the south, east, and west. The portion of the wetland located on the project site has been heavily disturbed through historic filling and grading activities. The on-site delineated wetland consists primarily of a weedy field containing a palustrine emergent plant community that included reed canarygrass (*Phalaris arundinacea*), smartweed (*Polygonum* sp.), broad-leaf plantain (*Plantago major*), creeping nightshade (*Solanum dulcamara*), willow seedlings (*Salix* sp.), and ornamental bamboo. The area of the historical pond consists of periodically mowed low weeds and grasses.

ENCLOSURE 4

SP06-00001

Borings within the on-site delineated wetland revealed hydric soils that were saturated to the surface in places. Due to the historic disturbance of the property, the wetland boundary appeared to be transitional and was delineated primarily by the edge of historic filling and a slight topographic rise. The off-site portion of the wetland consisted primarily of a large palustrine scrub-shrub community dominated by willow and reed canarygrass. Forbes Creek drains from east to west through the off-site portion of the wetland.

Based on Plate 26 (Wetland Field Data Form – **Attachment A**), Wetland A appears to meet the criteria for a Type 2 wetland. The rating for this wetland was conducted in February 2006 based on field notes and a review of aerial photos, and the off-site wetland area was not physically reviewed. Type 2 wetlands located within the Forbes Creek Basin require a standard 75 foot buffer. The existing on-site buffer of the wetland included lawn areas, a detached garage, and several kennels. Due to the highly degraded condition of the wetland buffer, it is likely that the buffer could be reduced by one-third to 50 feet, if a buffer enhancement plan were implemented.

If you have any questions regarding the wetland delineation or rating, please give me a call.

Sincerely,

ALTMANN OLIVER ASSOCIATES, LLC

John Altmann
Ecologist

Attachments

ATTACHMENT A

WETLAND RATING

NOTE: THIS FORM WAS COMPLETED BASED ON A REVIEW OF FIELD NOTES AND AN AERIAL PHOTO. THE ON SITE PORTION OF THE WETLAND WAS NOT PHYSICALLY WALKED.

Plate 26

WETLAND FIELD DATA FORM

WETLAND FIELD DATA FORM

BEGIN BY CHECKING ANY OF THE FOLLOWING (a. – e.) THAT APPLY.

a. The wetland is contiguous to Lake Washington.

b. The wetland contains at least 1/4 acre of organic soils, such as peat bogs or mucky soils.

c. The wetland is equal to or greater than 10 acres in size and having three or more wetland classes, as defined by the U.S. Fish & Wildlife Service (Cowardin et al., 1979), one of which is open water.

d. The wetland has significant habitat value to state or federally listed threatened or endangered wildlife species; or

e. The wetland contains state or federally listed threatened or endangered plant species.

IF ANY OF THE CRITERIA LISTED ABOVE ARE MET, THEN THE WETLAND IS CONSIDERED TO BE TYPE 1. IF THAT IS THE CASE, PLEASE CONTINUE TO COMPLETE THE ENTIRE FORM, BUT DO NOT ASSIGN POINTS.

IF THE WETLAND DOES NOT MEET THE CRITERIA LISTED ABOVE FOR TYPE 1, COMPLETE THE ENTIRE FORM, USING THE ASSIGNED POINTS TO DETERMINE IF IT IS A TYPE 2 OR TYPE 3 WETLAND.

Type 2 wetlands typically have at least two wetland vegetation classes, are at least partially surrounded by buffers of native vegetation, connected by surface water flow (perennial or intermittent) to other wetlands or streams, and contain or are associated with forested habitat.

1. Total wetland area

Estimate wetland area and score from choices	Acres		Point Value	Points
	>20.00	=	6	
	10-19.99	=	5	
	5-9.99	=	4	3
	(1-4.99)	=	(3)	
	0.1-0.99	=	2	
	<0.1	=	1	

2. Wetland classes: Determine the number of wetland classes that qualify, and score according to the table.

	# of Classes		Points
Open Water: if the area of open water is >1/3 acre or >10% of the total wetland area	1	=	1
Aquatic Beds: if the area of aquatic beds is >10% of the **open water** area or >1/2 acre	2	=	3
Emergent: if the area of emergent class is >1/2 acre **or** >10% of the total wetland area	3	=	5
Scrub-Shrub: if the area of scrub-shrub class is >1/2 acre **or** >10% of the total wetland area	4	=	7
Forested: if the area of forested class is >1/2 acre or >10% of the total wetland area	5	=	10

7

3. **Plant species diversity.**

For all wetland classes which qualified in 2 above, count the number of different plant species and score according to the table below. You do not have to name them.

e.g., if a wetland has an aquatic bed class with 3 species, and emergent class with 4 species and a scrub-shrub class with 2 species, you would circle 2, 2, and 1 in the second column (below).

Class	# of Species	Point Value	Class	# of Species	Point Value
Aquatic Bed	1-2	= 1	Scrub-Shrub	1-2	= 1
	3	= 2		3-4	= 2
	>3	= 3		>4	= 3
Emergent	1-2	= 1	Forested	1-2	= 1
	3-4	= 2		3-4	= 2
	>4	= 3		>4	= 3

4

4. **Structural diversity.**

If the wetland has a forested class, add 1 point for each of the following attributes present:

Trees >50' tall = 1

Trees 20' to 49' tall = 1

Shrubs = 1

Herbaceous ground cover = 1

4

5. **Interspection between wetland classes.**

Decide from the diagrams below whether interspection between wetland classes is high, moderate, low or none

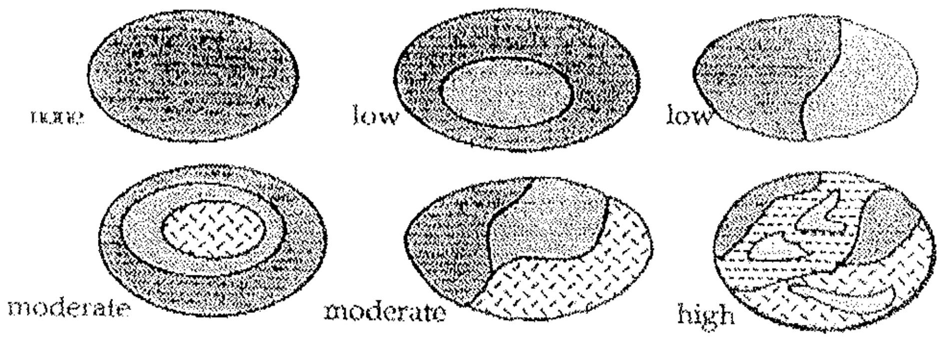
3 = High

2 = Moderate

1 = Low

0 = None

2



6. **Habitat features**

Add points associated with each habitat feature listed

Is there evidence of current use by beavers?	= 3	
Is a heron rookery located within 300'?	= 2	
Are raptor nest(s) located within 300'?	= 1	
Are there at least 2 standing dead trees (snags) per acre?	= (1)	2
Are there any other perches (wires, poles, or posts)?	= 1	
Are there at least 3 downed logs per acre?	= (1)	

7. **Connection to streams**

Is the wetland connected at any time of the year via surface water? (**score one answer only**)

Is the wetland connected at any time of the year via surface water?		
To a perennial stream or a seasonal stream *with* fish	(= 5)	
To a seasonal stream *without* fish	= 3	5
Is not connected to any stream	= 0	

8. **Buffers**

Step 1: Estimate (to the nearest 5%) the percentage of each buffer or land use type (below) that adjoins the wetland boundary. Then multiply these percentages by the factor(s) below and enter result in the column to the right.

	% of Buffer		Step 1	Width Factor		Step 2
Roads, buildings or parking lots	50 %	X 0 =			=	
Lawn, grazed pasture, vineyards or annual crops	50 %	X 1 =	50	3	=	150
Ungrazed grassland or orchards	%	X 2 =			=	
Open water or native grasslands	%	X 3 =			=	
Forest or shrub	%	X 4 =			=	

Add buffer total 150

Step 2. Multiply result(s) of step 1.

By 1 if buffer width is 25-50'

By 2 if buffer width is 50-100
By 3 if buffer width is >100
Enter results and add subscores

Step 3: Score points according to the following table:
Buffer Total
900-1200 = 4
600-899 = 3
300-599 = 2
100-299 = 1

9. **Connection to other habitat areas:**

Is there a riparian corridor to other wetlands within 0.25 of a mile, or a corridor >100' wide with good forest or shrub cover to any other habitat area? = 5

Is there a narrow corridor <100' wide with good cover or a wide corridor >100' wide with low cover to any other habitat area? = 3

Is there a narrow corridor <100' wide with low cover or a significant habitat area within 0.25 mile but no corridor? = 1

Is the wetland and buffer completely isolated by development and/or cultivated agricultural land? = 0

10. **Scoring**
Add the scores to get a total 31

Question: Is the total greater than or equal to 22 points?

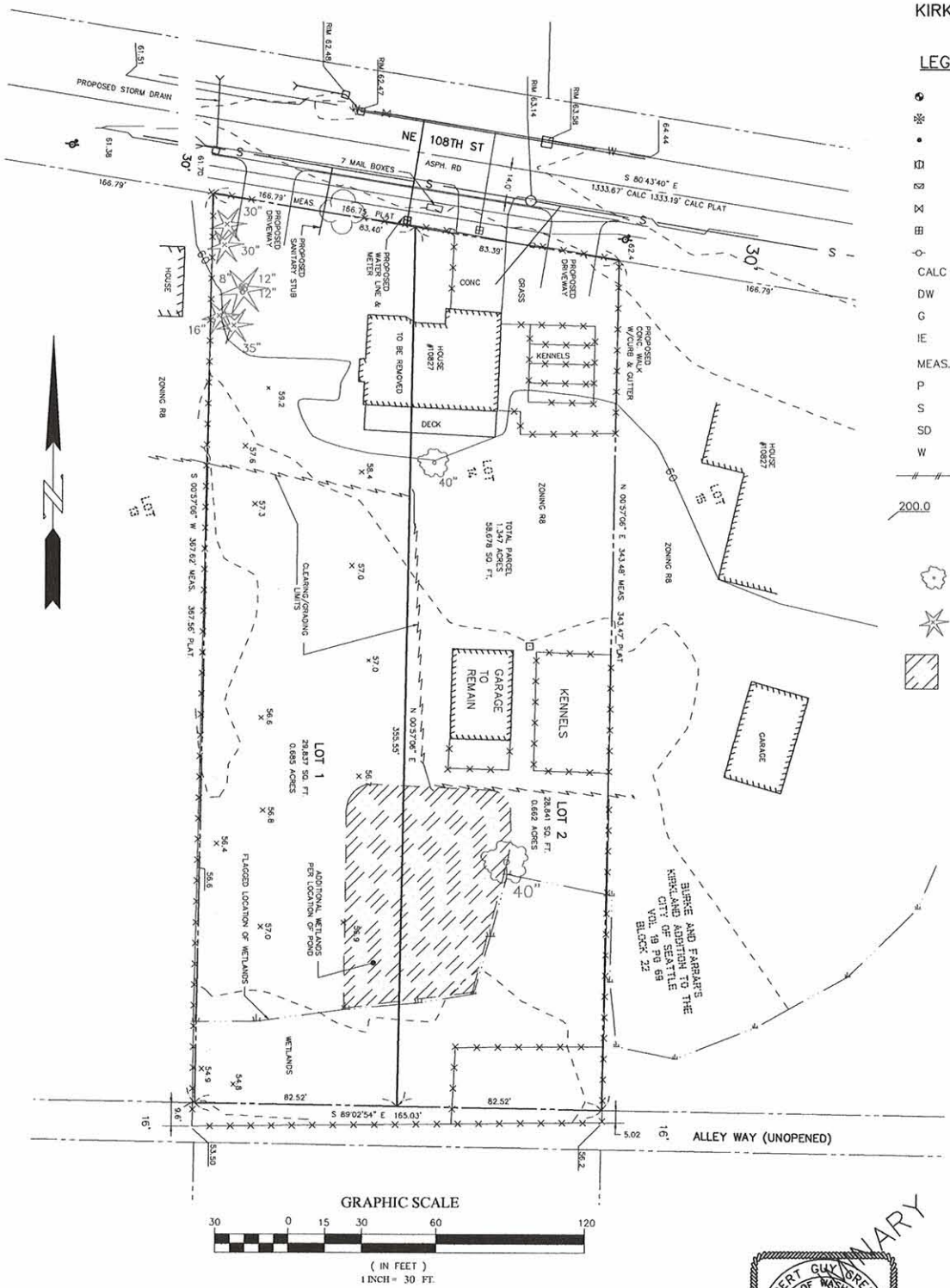
Answer:
Yes = Type 2
No = Type 3

FIGURE 1

DAWSON SHORT PLAT

PTN: S.W. 1/4, N.E. 1/4, & N.W. 1/4, S.E. 1/4, SEC. 32, T 26 N, R 5 E, W.M.

KIRKLAND, WASHINGTON



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 INCH = 30 FT.

LEGEND

●	MONUMENT IN CASE
❋	FOUND CONCRETE MONUMENT
•	SET 1/2" X 24" REBAR WITH CAP LS 29539
GV	GAS VALVE
MB	MAIL BOX
WV	WATER VALVE
WM	WATER METER
UP	UTILITY POLE
CALC	CALCULATED
DW	DRIVE WAY
G	GAS
IE	INVERT ELEVATION
MEAS.	MEASURED
P	PLAT OF
S	SEWER
SD	STORM DRAIN
W	WATER
// //	WOODFENCE

200.0 SPOT ELEVATION IS LOCATED AT THE DECIMAL POINT OF ELEVATION (200.0) UNLESS AS NOTED WITH LEADER OR X

DECIDUOUS OR ORNAMENTAL EVERGREEN TREE
TRUE EXTENT OF CANOPY NOT SHOWN

CONIFEROUS TREE
TRUE EXTENT OF CANOPY NOT SHOWN

APPROXIMATE LOCATION OF ADDITIONAL WETLAND BASED ON HISTORIC POND (PER AERIAL PHOTO)

PRELIMINARY

ROBERT GUY GREENE
STATE OF WASHINGTON
29539
REGISTERED
PROFESSIONAL LAND SURVEYOR
EXPIRES 11/24/2007

PTN: S.W. 1/4, N.E. 1/4, & N.W. 1/4, S.E. 1/4, SEC. 32, T 26 N, R 5 E, W.M.

PREPARED BY
GREENE LAND SURVEYING
20515 82ND AVE SW EDMONDS, WASHINGTON
PHONE (425) 697-6606 FAX (425) 697-6604

DATE	DRAWN BY	DRAWING	SCALE	JOB NUMBER
8/18/06	RG	20SP	1" = 30'	2005.20

CITY OF KIRKLAND FILE NO.

SHORT PLAT
OF
10827 108TH ST
FOR
KLINKER CORPORATION

SHEET NO. 2 OF 2

Altmann Oliver Associates, LLC

PO Box 578 Carnation, WA 98014 Office (425) 333-4535 Fax (425) 333-4509

AOA

Environmental
Planning &
Landscape
Architecture

November 9, 2006

AOA-2086

Kit Klinker
Klinker Corp.
PO Box 2668
Kirkland, WA 98083

SUBJECT: **Proposed Wetland Modification for Dawson Short Plat, Kirkland, WA**

Dear Kit:

On July 19, 2006 we met with Hugh Mortensen of The Watershed Company and Ron Hanson representing the City of Kirkland on the project site to review historical wetland conditions associated with a pond that had been excavated and filled in the southern portion of the site. Based on this site meeting it was determined that the pond was likely historically excavated in wetlands and should therefore be regulated as a wetland. During the meeting, Hugh concurred that the wetland boundary of the old pond could be delineated from an aerial photo. **Drawing W1.1** depicts the surveyed location of the delineated wetland boundary as well as the approximate location of the historical pond that is considered filled wetland by the City of Kirkland.

During the site visit, Hugh also suggested that since the pond was already filled, the boundary of the restored pond/wetland could be revised as long as it met the conditions outlined in the Kirkland Zoning Code. Under the proposed project, 635 s.f. of filled old pond area in its northwestern portion would be restored within a lawn area along the western edge of the old pond at a 1:1 replacement to loss ratio such that there would be no net loss of wetland area on the site. A 50-foot enhanced buffer would then be provided to the restored wetland. This enhanced buffer represents a 33% reduction of the standard buffer.

The City of Kirkland regulates the modification of wetlands under Chapter 90.55.2 of its Zoning Code. This section of the code stipulates that any City-approval of a request for a modification of a wetland must be based on specific criteria. A rationale for how the 635 s.f. of relocated restored wetland would satisfy these criteria is described below.

ENCLOSURE 5
SP06-00001

1. *It will not adversely affect water quality.* The water quality function of the historic pond is assumed to have been relatively low due its open water component and sparse vegetation. Following restoration, the restored wetland area will be planted with a variety of native species that should increase the overall ability of the wetland to filter surface water. Furthermore, since the wetland and associated buffer areas will no longer be mowed, the density of herbaceous vegetation should significantly increase.

2. *It will not adversely affect fish, wildlife, or their habitat.* The old pond on the site was likely not a significant wildlife habitat area due to its degraded condition and use for domestic waterfowl. Following restoration, the wetland will be planted with a variety of native trees and shrubs that should significantly increase the plant species and structural diversity within the wetland, thereby increasing the wildlife habitat of the area. Furthermore, the restored wetland would be incorporated into the existing wetlands located within the southern portion of the site and the wetlands off-site to the south to create an enhanced contiguous habitat block.

3. *It will not have an adverse effect on drainage and/or stormwater detention capabilities.* There will be no net loss of wetland area on the site following restoration. Furthermore, the restored wetland will be regraded such that it will continue to provide stormwater storage functions.

4. *It will not lead to unstable earth conditions or create an erosion hazard or contribute to scouring actions.* Since all of the restored areas on the site are essentially flat, it is not anticipated that an erosion hazard will be created.

5. *It will not be materially detrimental to any other property or to the city as a whole.* The restored wetland would be provided with a reduced 50-foot buffer that would not encroach onto any other property and will not be materially detrimental to the city as a whole.

6. *It will result in land surface modification of no more than 10% of the wetland on the subject property.* The total wetland area on the site is 14,766 s.f., which would allow for a maximum of 1,476 s.f. of potential modification. Due to constraints associated with creating wetlands that would encumber adjacent properties with buffers, only 635 s.f. of wetland (4.3%) is proposed for modification.

7. *Compensatory mitigation is provided.* Under the proposed project there would be no net loss of wetland area. Furthermore, all of the restored and preserved wetland areas on the site would be enhanced with native plantings.

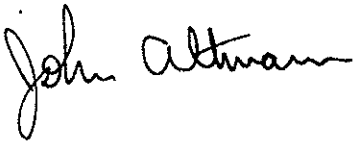
8. *Fill material does not contain organic or inorganic material that would be detrimental to water quality or fish and wildlife habitat.* Since the wetland to be restored has already been filled, no new fill material will be required and all old fill material within the wetland will be removed.

9. *All exposed areas are stabilized with vegetation normally associated with native wetlands and/or buffers, as appropriate.* All wetlands and their buffers will be stabilized and planted with native vegetation.

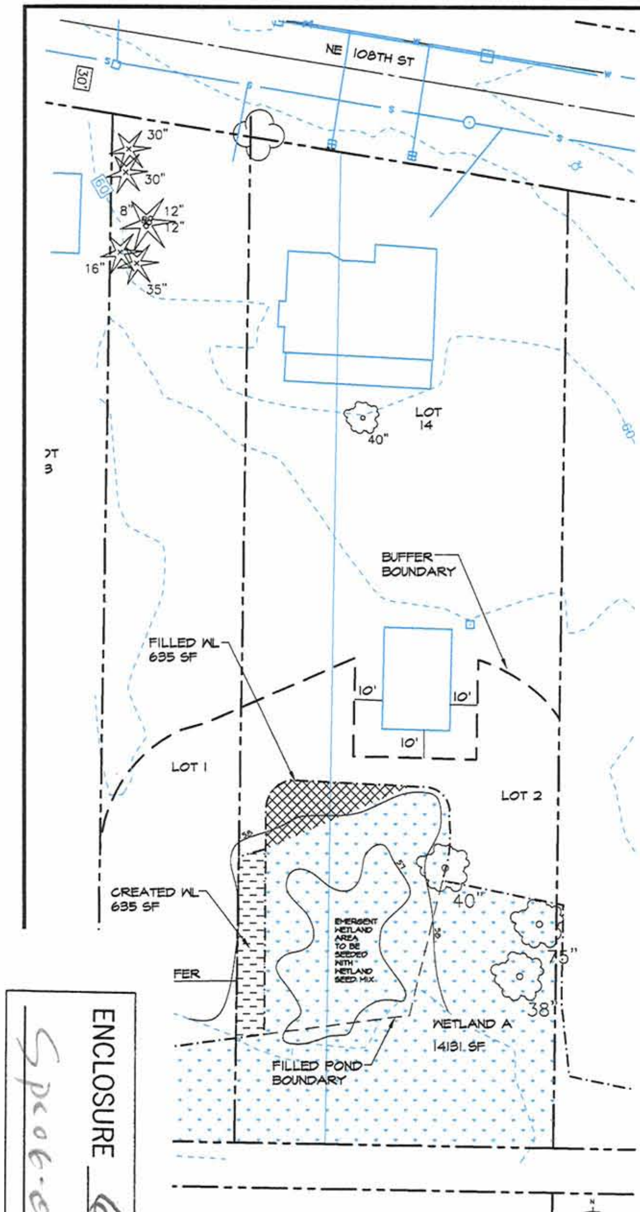
If you have any questions regarding the wetland modification proposal, please give me a call.

Sincerely,

ALTMANN OLIVER ASSOCIATES, LLC

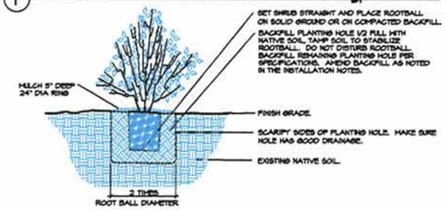


John Altmann
Ecologist



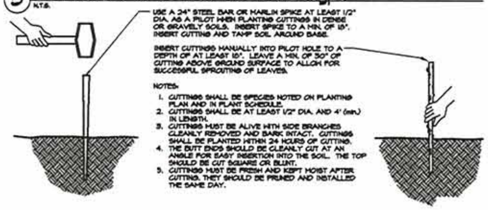
GRADING PLAN

① CONTAINER PLANTING DETAIL (typ.)



③ CUTTING PLANTING DETAIL (typ.)

N.T.S.

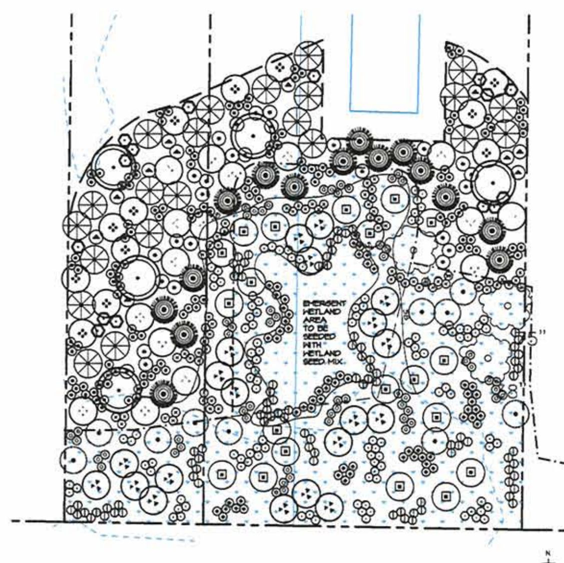


NOTES:

1. CUTTINGS SHALL BE SPECIES NOTED ON PLANTING PLAN AND IN PLANT SCHEDULE.
2. CUTTINGS SHALL BE AT LEAST 1/2" DIA. AND 4' (min.) IN LENGTH.
3. CUTTINGS MUST BE ALIVE WITH SIDE BRANCHES CLEANLY REMOVED AND BARK INTACT. CUTTINGS SHALL BE PLANTED WITHIN 24 HOURS OF CUTTING.
4. THE BUTT ENDS SHOULD BE CLEANLY CUT AT AN ANGLE FOR EASY INSERTION INTO THE SOIL. THE TOP SHOULD BE CUT SQUARE OR BLUNT.
5. CUTTINGS MUST BE FRESH AND KEPT MOIST AFTER CUTTING. THEY SHOULD BE PRUNED AND INSTALLED THE SAME DAY.

GENERAL PLANTING INSTALLATION NOTES

1. PLANT TREE &/OR SHRUB 1/2" HIGHER THAN DEPTH GROWN AT NURSERY.
2. FOR CONTAINER TREES &/OR SHRUBS, SCORE FOUR SIDES OF ROOTBALL PRIOR TO PLANTING. BUTTERFLY ROOTBALL IF ROOT CIRCLING IS EVIDENT.
3. AFTER PLANTING, STAKE TREES ONLY IF NECESSARY (leaning or drooping) OR IN EXPOSED AREAS.
4. TREE STAKES TO BE VERTICAL, PARALLEL, EVEN-TOPPED, UNSCARRED AND DRIVEN INTO UNDISTURBED SUBGRADE. REMOVE AFTER ONE YEAR.
5. WATER IMMEDIATELY AND THOROUGHLY, HEAVIER AT FIRST, 2 or 3 TIMES PER WEEK THROUGH THE DRY SEASON, THEN LESS UNTIL ESTABLISHED.
6. FERTILIZE ALL TREES AND SHRUBS WITH AN APPROVED SLOW RELEASE FERTILIZER APPLIED AT MANUFACTURER'S SUGGESTED RATES. DO NOT APPLY BETWEEN NOVEMBER AND MARCH.
7. ALL PLANTING PITS SHALL BE AMENDED WITH A SOIL MOISTURE RETENTION AGENT TO ASSIST IN KEEPING THE SOIL MOIST DURING THE DRY SEASON.

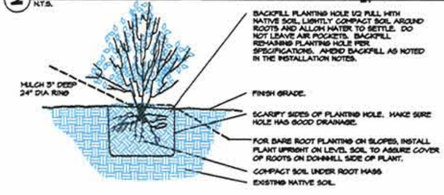


PLANTING PLAN

1" = 20'

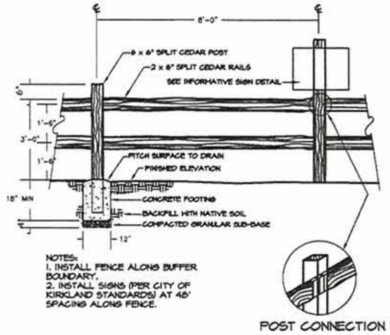
② BARE-ROOT PLANTING DETAIL (typ.)

N.T.S.



④ SPLIT-RAIL FENCE DETAIL W/SIGN

N.T.S.



NOTES:
1. INSTALL FENCE ALONG BUFFER BOUNDARY.
2. INSTALL SIGNS (PER CITY OF KIRKLAND STANDARDS) AT 48' SPACING ALONG FENCE.

PLANT SCHEDULE

TREES

SYMBOL	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY	SIZE	NOTES
	ACER CIRCINATUM	VINE MAPLE	AS SHOWN	16	5 GAL.	MULTI-STEM, 3 MIN.
	ACER MACROPHYLLUM	BIG-LEAF MAPLE	AS SHOWN	5	5 GAL.	WELL-BRANCHED
	FRAXINUS LATIFOLIA	OREGON ASH	AS SHOWN	20	3' HT.	WELL-BRANCHED
	MALUS FUSCA	WESTERN CRABAPPLE	AS SHOWN	20	3' HT.	MULTI-STEM, 3 MIN.
	PICEA SITCHENSIS	SITKA SPRUCE	AS SHOWN	10	5 GAL.	FULL & BUSHY
	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	AS SHOWN	22	5 GAL.	FULL & BUSHY
	SORBUS SITCHENSIS	SITKA MOUNTAIN-ASH	AS SHOWN	12	5 GAL.	MULTI-STEM, 3 MIN.
	THUJA PLICATA	WESTERN RED CEDAR	AS SHOWN	15	5 GAL.	FULL & BUSHY

SHRUBS

SYMBOL	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY	SIZE	NOTES
	CORNUS SERICEA	RED-OSIER DOGWOOD	3' O.C.	111	18" HT.	3 STEM MIN.
	LONICERA INVOLUCRATA	BLACK TWINBERRY	2' O.C.	67	18" HT.	3 STEM MIN.
	MAHONIA AQUIFOLIUM	TALL OREGON-GRAPE	3' O.C.	68	2 GALLON	FULL & BUSHY
	PHILADELPUS LEWISII	MOCK ORANGE	5' O.C.	11	18" HT.	3 STEM MIN.
	PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK	3' O.C.	54	18" HT.	3 STEM MIN.
	ROSA PISOCARPA	CLUSTERED ROSE	3' O.C.	56	18" HT.	3 STEM MIN.
	RIBES SANGUINEUM	RED FLOWERING CURRANT	3' O.C.	15	2 GALLON	3 STEM MIN.
	SALIX LASIANDRA	PACIFIC WILLOW	3' O.C.	188	4' WHIP	1/2" DIA. MIN.
	SALIX SCOULERIANA	SCOULER WILLOW	3' O.C.	267	4' WHIP	1/2" DIA. MIN.
	VIBURNUM EDULE	HIGH-BUSH CRANBERRY	5' O.C.	21	18" HT.	3 STEM MIN.

WETLAND SEED MIX

% SEED	SCIENTIFIC NAME	COMMON NAME	Application rate per acre	
35%	CAREX OBNUPTA	SLOUGH SEDGE	10#	HYDROSEED MIX
10%	GLYCERIA ELATA	WESTERN MANNAGRASS	1000#	WOOD-FIBER MULCH
10%	JUNCUS ENSIFOLIUS	DAGGER-LEAF RUSH		
10%	JUNCUS TENUIS	SLENDER RUSH		
35%	SCIRPUS MICROCARPUS	SMALL-FRUITED BULRUSH		

BUFFER SEED MIX

% SEED	COMMON NAME	Application rate per acre	
100%	REGREEN - STERILE WHEATGRASS HYBRID	50#	HYDROSEED MIX
		1000#	WOOD-FIBER MULCH

GENERAL NOTES

1. BASE INFORMATION PROVIDED BY GREENE LAND SURVEYING - EDMONDS, WA - 425.697.6606.
2. REFER TO CIVIL ENGINEERING PLANS BY GREENE FOR INFORMATION RELATED TO STORMWATER, SITE GRADING AND DRAINAGE, LOT LAYOUT, WETLAND HYDROLOGIC SUPPORT, AND ANY OTHER ASPECTS OF SITE DESIGN.
3. SEE W2.1 FOR CONSTRUCTION SPECIFICATIONS RELATED TO CONSTRUCTION.
4. REFER TO THE WETLAND DELINEATION REPORT PREPARED BY AOA FOR ADDITIONAL INFORMATION RELATED TO WETLAND CLASSIFICATIONS.
5. AS MITIGATION FOR 635 SF OF WETLAND FILL (THE PREVIOUSLY-FILLED POND), A MINIMUM OF 635 SF OF NEW WETLAND WILL BE CREATED ALONG THE WEST SIDE OF THE WETLAND. THE REMAINING WETLAND, IN ADDITION TO THE 50' WETLAND BUFFER WILL BE ENHANCED WITH NATIVE PLANTS (SEE PLANTING PLAN) AS MITIGATION FOR 33% BUFFER REDUCTION (FROM 75' TO 50').
6. SEE W2.1 FOR MONITORING REQUIREMENTS AND PERFORMANCE STANDARDS POST-IMPLEMENTATION OF THE MITIGATION PLAN.

Altmann Oliver Associates, LLC
AOA
Environmental Planning & Landscape Architecture
PO Box 578 Carnation, WA 98014 Office (425) 333-4535 Fax (425) 333-4509

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
SIMONE CATHERINE OLIVER
CERTIFICATE NO. 744
EXPIRES 6/25/07

FINAL WETLAND MITIGATION PLAN
OVERVIEW, GRADING & PLANTING PLANS
10827 108TH STREET
KIRKLAND, WASHINGTON
DAWSON SHORT PLAT

Revisions | Date | By

Date 10/18/06
Scale 1"=20'
Project # 2066

Sheet # W1.1

ENCLOSURE 6

Spec-0001

CONSTRUCTION SPECIFICATIONS & MAINTEN.

PART 1 - GRADING SPECIFICATIONS

1.1 GRADING SCHEDULE

All earthwork within the mitigation areas should be completed by August 31st to ensure adequate seed establishment prior to the wet season. All exposed ground shall be seeded immediately upon completion of grading, structure, and irrigation installation. Planting should occur anytime between November 15th and March 31st to take advantage of the availability of bare-root plant material (see Part 7 - Planting Specifications below).

1.2 GENERAL SITE CONDITIONS

Landscape Contractor shall give AOA a minimum of ten (10) days notice prior to intention to proceed with construction. No construction work shall commence until there is a meeting between the Client, AOA, and participating Landscape Contractor. The approved plans and specifications shall be reviewed to allow parties involved to understand the intent and the specific details related to the construction documents, specifications, and site constraints.

Locations of existing utilities should be established by field survey or obtained from available records and should be considered approximate only and not necessarily complete. It is the sole responsibility of the Landscape Contractor to: (1) independently verify the accuracy of utility locations and (2) discover and avoid any utilities within the mitigation area not shown which may be affected by implementation of this plan. Such areas are to be clearly marked in the field. AOA shall resolve any conflicts with the approved grading plan prior to start of construction.

Construction must be performed in accordance with Agency standards, codes, permit conditions, and other applicable ordinances and policies. The applicant is responsible for obtaining any other related or required permits prior to the start of construction. A copy of the approved plans, specifications, permits, and agency approvals must be on site whenever construction is in progress and shall remain on site until project completion. As a condition of the permit, a qualified biologist familiar with wetland mitigation construction shall be on-site to inspect rough grading, final grading, plant stock delivery and plant layout.

Topographic elevations represented on this plan are based upon field survey by Greene Surveying. Final elevations may vary depending on site-specific conditions. It is the responsibility of the Landscape Contractor to verify pre-construction topographic elevations and existing vegetation boundaries for accuracy prior to grading. Landscape Contractor shall notify AOA immediately if any modifications to the plans may be necessary due to inaccuracies of the survey.

1.3 STAKE & FLAG LIMITS OF CLEARING/GRADING

Prior to any construction, a silt fence shall be installed (per City of Kirkland Standards) at the limits of grading as depicted on Drawing W1.1. Individual trees identified within the mitigation area on the grading plan shall be flagged prior to grading. A representative from AOA shall review and approve flagging of grading limits and clearing limits (located beyond grading limits in areas dominated by invasive vegetation) prior to any vegetation removal. It is the responsibility of the Landscape Contractor to request AOA to modify the grading plan as necessary to avoid all significant vegetation. No significant trees (>6" diameter at breast height (dbh)) shall be removed from the mitigation areas without authorization from AOA.

Landscape Contractor shall be responsible for avoiding disturbing to existing native vegetation located outside the limits of grading. No removal of native vegetation shall occur without prior approval by AOA. Landscape Contractor shall remove all non-native or invasive vegetation from within the mitigation area and buffer. See Clear and Grub section below for a list of these plant species to be removed. Areas outside clearing limits that are accidentally cleared shall be replanted consistent with other mitigation planting occurring as a part of this contract, at no extra cost to the owner. Plant species and quantities to be approved by AOA prior to installation.

1.4 EROSION CONTROL MEASURES

Construct erosion control measures before beginning any other work. Silt fences and other BMPs (as designated by AOA or the City of Kirkland) must be installed and implemented prior to any disturbance activity within and adjacent to the sensitive areas. Landscape Contractor shall install silt fencing at the clearing limits throughout the mitigation area and buffer as depicted on Drawing W1.1.

1.5 FLAGGED EXISTING VEGETATION TO REMAIN

Flagged existing trees to remain located within the mitigation are shall not be disturbed within the plant's dripline. Any living woody plant that is damaged during construction shall be treated within 24-hours of occurrence. AOA shall be notified immediately of incident. Wound shaping treatment shall be done. Wound shaping includes, but is not limited to: evenly cutting broken branches, exposed roots and damaged tree bark immediately after damage occurs. Injured plants shall be thoroughly watered and additional measures shall be taken, as appropriate, to aid in plant survivability.

1.6 FLAG EXISTING VEGETATION & WOODY MATERIAL TO BE RELOCATED

AOA shall flag existing trees, stumps, down logs, boulders and any other habitat features that will be cleared from the developed portion of the site and placed in the mitigation area. Clearing Contractor shall notify AOA at least 2 days prior to scheduled clearing so that habitat features to be relocated can be flagged and reviewed prior to site clearing. Clearing Contractor shall carefully stockpile features for later relocation by Landscape Contractor.

It is the responsibility of the Landscape Contractor to break stockpiled trees into usable sizes (see Part 2 below on habitat feature placement). Landscape Contractor shall exercise care when moving habitat features to avoid breaking branches, scuffing bark, or breaking roots. Habitat features shall be reviewed prior to final placement in mitigation areas.

1.7 CLEAR AND GRUB

1.7 CLEAR AND GRUB
Landscape Contractor shall clear and grub areas within the grading limits of the mitigation and buffer areas with the exception of existing vegetation to remain flagged by AOA. In areas of existing vegetation to remain, Landscape Contractor shall remove blackberry and other specified invasive species by hand, with minimal disturbance to the existing vegetation. Cleared and grubbed vegetation shall be exported from the site. Particular care must be given to ensure complete removal of tops and roots (to depth of 18A) of reed canarygrass plants, and any other invasive/exotic plant species. Invasive/exotic plant species to be removed and treated in the mitigation and buffer areas are: Scot's broom; English ivy; Himalayan, cut leaf, and evergreen blackberry; reed canarygrass; purple loosestrife; hedge bindweed (morning glory); Japanese and giant knotweed; all species of thistle; and bittersweet nightshade. AOA to designate any additional plant species to be removed/treated prior to construction.

1.8 SURVEY/STAKE/FLAG BUFFER BOUNDARY
Landscape Contractor shall contract a licensed surveyor to survey, stake, and flag the buffer boundary and proposed grades within the mitigation area. AOA shall approve grade staking prior to grading and shall monitor during construction. Maintain grade stakes throughout excavation process. If grade stakes are removed after planting sign-off, the Landscape Contractor shall supply as-built grade staking (see below).

1.9 STOCKPILE TOPSOIL (UPLAND AND WETLAND SOILS)
AOA shall flag organic topsoil donor areas from non-weedy upland areas within the development that will be cleared. Stockpiled topsoil shall be covered immediately with plastic sheeting to prevent erosion and establishment of weedy plant species.

Emergent wetland area soils shall contain at least 50% organic material.

If topsoils contain inorganic debris, or is determined unsuitable by AOA, Clearing Contractor shall dispose of soils off-site.

1.11 EXCAVATE MITIGATION AREA
Landscape Contractor shall excavate mitigation area per the grading plan (Drawing W1.1) without removing grading stakes. Excavated soils not flagged by AOA for stockpiling shall be exported off-site, this includes strippings. To ensure proper function of the mitigation area, minor field adjustments to grading plan shall be made only by obtaining prior approval of AOA, to ensure proper function of the mitigation area.

In the created and enhanced wetlands and enhanced buffer, over-excavate 6" below finished elevation shown on plans for later placement of 6" of stockpiled topsoil. If ponding is encountered during excavation of the mitigation area, Landscape Contractor shall pump turbid water from ponded areas to a vegetated upland or temporary erosion control pond (as determined by AOA and the General Contractor). Landscape Contractor to maintain temporary pumping until excavation and topsoil placement is complete and to ensure that no turbid water flows outside of the grading limits.

PART 2 - HABITAT FEATURE PLACEMENT SPECIFICATIONS

2.1 PLACE HABITAT FEATURES (DOWN LOGS, STUMPS, BRUSH PILES, AND BOULDERS)
Place stockpiled habitat features upon completion of subgrade earthwork (prior to placement of topsoil). AOA shall review placement of habitat features with the Landscape Contractor.

All habitat features shall be first cut/broken prior to placement in the mitigation areas. Down logs shall be a minimum of 20 feet in length and 12" in diameter with rootwads intact. Stumps to be either well-decayed relocated stumps, or cut live rootwads with a minimum of 10 feet of trunk and 12" diameter. Additional habitat features may be located within the mitigation areas, if available, that are over or under specified sizes.

Any boulders over 18" in dimension found on-site during excavation of the building site or the mitigation areas can be stockpiled for use in the mitigation areas. General Contractor shall determine stockpile locations. Stockpiled boulders, if available, shall be placed in piles of at least 2 rocks deep, and in a manner that provides both physical stability and large internal voids. AOA shall review placement of boulder piles with the Landscape Contractor.

PART 3 - FINISH GRADING, IRRIGATION INSTALLATION, AND SEEDING
3.1 PLACE STOCKPILED TOPSOIL
AOA shall approve subgrade earthwork in the mitigation and buffer areas prior to placement of stockpiled topsoil.

In all graded mitigation and buffer areas, subgrade shall be over-excavated 6" for placement of 6" of stockpiled topsoil. Landscape Contractor shall place topsoil in all graded areas to be planted.

Prior to planting, final grade soils shall be deconsolidated by tilling to a depth of at least 9".

3.2 IRRIGATION
Within all planted areas, a temporary above-ground irrigation system shall be designed and installed by Landscape Contractor upon completion of finish grading and prior to installation of plantings. All planted and seeded areas shall receive head-to-head irrigation coverage or drip coverage to each plant. The mainline shall be buried to a depth of at least 18 inches.

Provide written verification to AOA that backflow prevention per code exists on the line to be used as a point of connection for the irrigation system. If verification cannot be made, provide backflow prevention per code as a part of the installation. General Contractor shall provide water and electricity for the system. Landscape Contractor shall provide isolation valve and connection to water and controller. Irrigation is required within the mitigation area for at least two growing seasons following planting to ensure adequate establishment of plant material.

The irrigation system shall be set by Landscape Contractor to allow for 3/4" of precipitation 2 times per week between June 1st and October 31st of the first year after planting. The Landscape Contractor shall adjust the controls to allow for 0.5" of precipitation once weekly between July 1st and October 31st of the second year after planting. If planting occurs between May and October, then irrigation will be extended to three growing seasons.

Landscape Contractor is responsible for ensuring proper function of the irrigation system. Landscape Contractor shall winterize installed irrigation system prior to November 15th. It is the Landscape Contractor's responsibility to maintain the irrigation system for the duration of the two-years (or three) in which it is required. At the end of the irrigation period, and if plant establishment is successful, as determined by AOA, the Landscape Contractor shall permanently cap pipe downstream of isolation valve, and then disassemble and remove the above-ground portions of the irrigation system from within the mitigation areas.

3.3 SEEDING
After irrigation system installation, and prior to mulching, the Landscape Contractor shall water thoroughly all exposed soils. Cleared and graded wetland and buffer areas shall be seeded (via a hydroseeder) with the mixes specified on Drawing W2.1. Seeding shall occur immediately upon completion of grading and irrigation installation.

PART 4 - CONSTRUCTION INSPECTION
4.1 POST-GRADING/RECHARGE EVALUATION
AOA shall approve grading work prior to plant installation, to confirm that the mitigation grading plan was properly implemented. If items are to be corrected, a punch list shall be prepared by AOA and submitted to the Landscape Contractor for completion. After punch list items have been completed, AOA shall review the project for final internal acceptance of grading plan implementation and planting may then proceed.

PART 5 - CONSTRUCTION DELAYS
5.1 SOIL STABILIZATION
If there is a delay in construction for any reason, Landscape Contractor, unless otherwise stated in writing, shall be responsible for maintenance of erosion control measures, drainage, and temporary irrigation during construction delay period. Disturbed land areas in which construction activities may be suspended for 30 days or more shall be immediately mulched, as specified in Part 3, above. Mulched areas shall be irrigated with a water truck if irrigation system has not been installed. Upon construction completion, Landscape Contractor shall re-mulch all exposed ground.

PART 6 - WARRANTY
Landscape Contractor shall ensure that construction related activities do not damage off-site features or adjacent vegetation. AOA shall be notified immediately if accidental damage occurs (see plant replacement requirements in clearing section). Landscape Contractor shall ensure that adjacent roads are maintained and clear of soil and/or other debris at all times during construction. Landscape Contractor shall become familiar with and comply by Agency codes regarding street maintenance/cleaning/traffic control during construction. Any changes or modifications to this plan must receive prior approval from AOA.

PART 7 - PLANTING SPECIFICATIONS
7.1 PLANTING SCHEDULE
Planting should occur anytime between November 15th and March 31st to take advantage of the availability of bare-root plant material. Landscape Contractor to provide receipt of plant procurement to AOA within one month of award of contract.

7.2 GENERAL CONDITIONS
In the mitigation area, the Landscape Contractor shall remove weedy or exotic invasive species (e.g., Scot's broom, English ivy, Himalayan, cut leaf, and evergreen blackberry, reed canarygrass, purple loosestrife, hedge bindweed, Japanese and giant knotweed, Canada and bull thistle, and bittersweet nightshade) by manual or chemical means (as approved by the City of Kirkland and AOA) prior to plant installation.

Landscape Contractor shall verify that plant installation conditions are suitable within the mitigation and buffer areas. Any unsatisfactory conditions shall be corrected prior to start of work. When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, significant vegetation, or obstructions, Landscape Contractor shall notify AOA prior to planting. Beginning of work constitutes acceptance of conditions as satisfactory.

Plants installed in undisturbed areas shall be integrated with existing native vegetation, and planted in a random, natural-looking pattern.

7.3 LOCATE/STAKE/VERIFY PLANTING AREAS
Landscape Contractor shall stake planting areas and configurations prior to planting. AOA shall review and approve locations prior to planting.

7.4 APPROVE PLANTING LOCATIONS AND SPACING
Planting locations shown on planting plans are approximate, based on anticipated site conditions. Actual planting locations may vary from those shown due to final site conditions and locations of existing vegetation. Nevertheless, any variations from the planting plan will require prior approval by AOA.

Plant spacing for species listed is to be random (natural-looking), and not in a regular grid pattern. On-center spacing called out on plant list indicates an average spacing dimension. For example, when the plan calls for 24" O.C., spacing shall vary from 18"-30" O.C., with an average spacing of 24 inches. AOA shall review planting locations and spacing prior to plant installation.

PART 8 - PLANT MATERIAL STANDARDS

8.1 PLANT MATERIALS

AOA shall examine plant material prior to planting. Any material not meeting the required specifications shall be immediately removed from the site and replaced with like material that meets the required standards. Plant material shall meet the requirements of State and Federal laws with respect to plant disease and infestations. Inspection certificates, required by law, shall accompany each and every shipment and shall be submitted to AOA upon Landscape Contractor's receipt of plant material. AOA shall pre-approve in writing any substitution of plant materials prior to ordering substitution plants.

Plant materials shall be locally grown (western WA, western OR, or western BC), healthy, bushy, in vigorous growing condition, and be guaranteed true to size, name, and variety. If replacement of plant material is necessary due to construction damage or plant failure within one year of installation, the sizes, species, and quantities shall be equal to damaged or unsuitable plants, or as indicated on the plans. Plants shall be nursery grown, well-rooted, of normal growth and habit, and free from disease or infestation. AOA reserves the right to require replacement or substitution of any plants deemed unsuitable.

Trees shall have uniform branching, single straight trunks, (unless specified as multi-stemmed), and the central leader intact and undamaged. Container stock shall be fully rooted but not root-bound. Plant material with damaged root zones or broken root balls will not be accepted. Coniferous trees shall be nursery grown, full and bushy, with uniform branching and a natural non-sheared form. Original central leader must be healthy and undamaged. Maximum gap between branching shall not exceed 6", and length of top leader shall not exceed 9".

Shrubs shall be a minimum height of 18 inches with a minimum of three canes (if deciduous species).

Native plant cuttings shall be grown and collected in the maritime Pacific Northwest. Cuttings shall be of one- to two-year-old wood, 1/2" dia. minimum. Cuttings shall be a minimum of 4' in length and installed such that no more than 1/3 of their length be exposed, above ground. The top of each cutting shall be a minimum of 1" above a leaf bud, the bottom cut 2" below a bud. The basal ends of the cuttings shall be cut at a 45 degree angle and marked clearly so that the rooting end is planted in the soil. Cuttings must be kept covered and moist during storage & transport, and no cuttings shall be stored more than three days from date of cutting. Cuttings shall only be used if planting occurs between November 15th and April 1st. For planting between April 1st and November 15th, rooted cuttings or saplings shall be used.

8.2 VERIFY NURSERY STOCK CONDITION

AOA shall inspect plant material at the job site, including previously tagged trees, for compliance with required standards for plant size and quality prior to planting. This includes, but is not limited to, size and condition of rootballs and root systems, presence of insects, latent injuries and defects. Trees must be untied and separated for inspections. AOA reserves the right to refuse any/all plant material any time prior to final acceptance if it is determined that such material does not meet the specifications as described herein. Rejected material shall be immediately removed from project site.

8.3 VERIFY STORAGE SITE AND METHOD

Store plants in the manner necessary to accommodate their horticultural requirements. Protect plant material stored on-site from weather damage, construction activity and the public. Balled and burlapped material which cannot be installed immediately shall be heeled-in to keep from drying out prior to planting. Protect rootballs by covering with moist soil, mulch or sawdust. Water as required to keep rootballs moist.

Keep plant specimens moist (wetland species saturated) and shaded until the actual time of installation. If bare-root plants are specified, soak roots in water one-hour minimum prior to planting. Before and after planting, immediately saturate the soils in the planting area to prevent capillary stress. Storage should not exceed 30 days unless approved by AOA.

8.4 SUBSTITUTIONS

Substitutions of plant species or sizes may be permitted based on plant availability, but only with prior written approval by AOA and the Agencies. Bareroot stock of equal size to specified container plantings can be substituted for deciduous container plantings when available, but only with prior approval by AOA. Evergreen plant material and Acer and Ribes species shall be containers only.

PART 9 - PLANT INSTALLATION

9.1 SOIL PREPARATION/AMENDMENTS

Prior to installation of plantings, ensure complete removal of any non-native fill material that may be used for the temporary construction accesses. Trees and shrubs shall be pit planted as shown in the planting details on Drawing W1.1. Include in the planting backfill a hydrated soil moisture retention agent (polymer) per manufacturer's specification (see General Planting Installation Notes on Drawing W1.1). Amend backfill with a 70/30 mix of native soil and imported weed-free organic compost and with hydrated polymer and mulch per details. Landscaper to securely, but loosely tie a 12" piece of flagging to an upper branch (not trunk) of each installed planting.

9.2 SOIL MOISTURE RETENTION AGENT

Add hydrated SoilMoist, or approved equal, to the topsoil backfill of all planting pits. Follow manufacturer's specifications for directions for use and application rates.

9.3 MULCH

A 3" layer of hog fuel mulch shall be placed around the base of new tree (36" dia. ring) and shrub plantings (24" dia. ring) for erosion, weed control, and moisture retention. Mulch shall be obtained from ground up on-site slash (see Part 1 above) or be imported medium course bark mulch.

9.4 STAKING

Trees shall be staked with at least one untreated wood stake, 3/4 the height of the tree, as necessary. Landscape Contractor shall remove stakes at the end of the one-year guarantee period.

9.5 SPLIT-RAIL FENCE AND CITY OF KIRKLAND NGPA SIGNAGE

Install City of Kirkland NGPA signs to the fence per the fencing detail. Signs shall be located 48' o.c. along the buffer boundary.

9.6 CLEAN-UP
Landscape Contractor shall be responsible for the removal of construction materials and debris on the site following installation of plant materials and fence construction.

PART 10: WARRANTY
This warranty shall include replacement of plants (same size and species shown on the drawings) that prove either to be mislocated or unsuitable as to plant material standards. Except for loss due to excessively severe climatological conditions (substantiated by 10-year recorded weather charts), installed plant materials are required to be guaranteed for one year against defects and unsatisfactory growth, except for cases of neglect by Owner or abuse/damage by others. Plants replaced shall be reinitiated under plant guarantee conditions.

PART 11: FINAL ACCEPTANCE
Upon completion of the planting, the Landscape Contractor shall provide AOA with a set of clearly marked prints designating the actual locations and quantities of plantings within the mitigation areas. Landscape Contractor shall keep a complete set of prints at the job site during construction for the purpose of red-lining changes or modifications to the approved plans and shall update said information on a daily basis.

AOA shall approve planting locations. If items are to be corrected, a punch list shall be prepared by AOA and submitted to the Landscape Contractor for completion. After punch list items have been completed, AOA shall review the project for final acceptance of plan implementation. After acceptance has been obtained, Landscape Contractor shall provide as-built drawings to AOA of planted material. AOA shall meet on-site with a representative of each agency for review and acceptance of the mitigation plan installation. The date of final acceptance shall constitute the beginning of the one-year warranty and 5-year maintenance period. All mitigation work shall be completed prior to occupancy.

PART 12: MAINTENANCE SPECIFICATIONS
Landscape Contractor shall review landscape maintenance specifications with AOA. Maintenance is to be provided throughout construction and for 5 years following construction beginning at final acceptance.

Maintenance will be conducted on a routine, year round basis for 5 years. Additional maintenance needs will be identified and addressed following each twice-yearly maintenance review by AOA. The project will be evaluated by comparing the monitoring results to the established performance standards to insure that success criteria are achieved at or before the end of the monitoring period. Maintenance shall be implemented on a regular basis according to Section 12.1 below. Thinning of volunteer saplings should be part of the annual maintenance and can be done in February through March of each year throughout the monitoring period. Contingency measures and remedial action (see Section 12.5 below) on the site shall be implemented on an as-needed basis at the direction of AOA or the owner. These maintenance specifications contain the following: a maintenance schedule, contingency, and general maintenance items.

12.1 MAINTENANCE SCHEDULE

Maint. Item	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Weed control			1	1	1	1	1	1	1	1	1	
Irrigation-												
Year 1						4	8	8	4	4		
Year 2						4	4	4	4	4		
General Maint.	1	1	1	1	1	1	1	1	1	1	1	1
Pruning		1	1									

1-8 = number of times task shall be performed per month until completion

12.2 WEED CONTROL
Routine removal and control of non-native and other invasive plants (e.g., Scot's broom, reed canarygrass, Himalayan, cut leaf, and evergreen blackberry, purple loosestrife, Japanese and giant knotweed, English ivy, morning glory, birdsfoot-trefoil, Canada and bull thistle and bittersweet nightshade) shall be performed by manual or chemical means [wiper-apply to cut tips of glyphosate without a surfactant only(Rodeo)]. Undesirable and weedy exotic plant species shall be maintained at levels below 15% total cover within any given stratum at any time during the 5-year monitoring period. The following outlines treatment for specific species.

a. Reed canarygrass control - Areas with reed canarygrass patches 3' x 3' or smaller need to be hand-grubbed. Patches greater than 3'x 3' shall be treated with a two-step process.
1. Areas shall be weed-whacked to as close to the ground as possible.
2. Areas shall be staked with cuttings (see Staking List and Staking Specifications below). During April 1st through November 15th, 1 gallon plants (minimum height of 18") shall be used in place of cuttings.
b. Himalayan, cut leaf, and evergreen blackberry control - small patches (areas <3' x 3') need to be grubbed out, large areas (>3' x 3') need to be cut down. New shoots (approx. 6" in height) which reappear should be spot wiper treated with glyphosate concentrate without a surfactant.
c. Red alder and cottonwood saplings that sprout in any disturbed areas (the entire mitigation site and buffer) may have to be removed during the weed removal period to 10' O.C. spacing as determined by AOA.

Staking list: Options for Planting (from wet to dry)

Wetter	
Pacific willow	Salix lasiandra
Sitka willow	Salix sitchensis
Black twinberry	Lonicera involucrata
Drier	
Scouler willow	Salix scouleriana

Staking specifications:
Cuttings can be purchased or gathered from approved on-site mature sources. Cuttings shall be installed at 1' O.C. spacing over the infested reed canarygrass areas and extending 2' in each direction, unless otherwise specified. Cuttings shall be 2-year old wood, 4' length, 0.5" diameter, with all side branches removed and installed to a minimum depth of 24 inches.

12.3 IRRIGATION
Watering - The Maintenance Contractor shall ensure that the temporary above-ground system is functioning properly from June 1 through October 31. During the first year after installation, irrigation should flow at a rate of 3/4" of water twice a week. During the second year after installation, irrigation should flow at a rate of 1/2" of water once a week. However, if more than 10% of plant replacement occurs, watering rates shall be maintained at 1/2" of water twice a week.

Monitoring and Maintenance of the Temporary Above-ground Irrigation System - The Maintenance Contractor shall inspect the irrigation system in the spring and mid-season to ensure adequate coverage and function of the entire system. All repairs, resetting of heads, and adjustments shall be performed when problems arise. In the fall, the system shall be winterized by October 31st to prevent winter freeze damage.

12.4 GENERAL MAINTENANCE ITEMS
Debris Removal - The Maintenance Contractor shall remove all trash and other debris on a regular basis. Contractor shall leave all dead plant material and other organic debris (i.e., leaf matter, fallen branches, etc.) except pest-infested vegetation.

Erosion and Drainage Problems - The Maintenance Contractor, under the direction of AOA or the owner's representative shall correct any erosion and drainage problems.

Foraging and Browsing - The Maintenance Contractor shall implement measures to prevent damage of plant material by browsing (e.g., deer, rabbits, mice, voles, etc.).

Maintenance of Trees and Shrubs - Routine maintenance of trees and shrubs shall be performed. Measures include: tightening and repair of tree stakes and resetting plants to proper grades and upright positions. Tall
5 grasses shall be weeded at the base of the plantings. Weed control should be performed by; hand removal, installation of weed barrier cloth with mulch rings, or selective weed-whacking. If weed-whacking is performed, great care shall be taken to prevent damage to desired native species either planted or recolonized.

Pruning of Woody Plants - Woody plants shall only be pruned at the direction of AOA or to remove pest infestations (i.e., tent caterpillar).

Tree Stake Removal - With the approval of AOA, the Maintenance Contractor shall remove all tree stakes after the first growing season to prevent girdling of staked plant material.

12.5 CONTINGENCY ITEMS (NOT PART OF REGULAR, ON-GOING MAINTENANCE)
These items will be identified on an as-needed basis only.
Replace dead plants - The Maintenance Contractor should replace dead plants with the same species or a substitute species that meets the goal and objectives of the mitigation plan. Contractor shall notify AOA of species, quantity and size of replacement material prior to installation. AOA shall review material and staked locations prior to installation. Plant material shall meet the same specifications as originally-installed material. Landscape Contractor that installed the mitigation will complete one-year warrantee replacement.

Replant area - The Maintenance Contractor should replant areas after reason for failure has been identified (e.g., moisture regime, poor plant stock, disease, shade/sun conditions, wildlife damage, etc.). Areas will be replanted with an approved species or a substitute species that meets the goal and objectives of the mitigation plan. Replanting shall be completed under the direction of AOA or the City of Kirkland.

PART 13: MONITORING PLAN
13.1 DEVELOPMENT IMPACTS ON WETLANDS
The proposed project requires the filling of 635 sf of wetland for construction of two new home sites and associated driveways. Up to 10% of the total on-site wetland is allowed to be filled under Kirkland code so long as mitigation is provided to replace all lost functions and values. Additionally, buffer reduction is proposed to reduce the 75' disturbed buffer down to 50' with the incorporation of a variety of native tree and shrub plantings throughout the reduced buffer.

13.2 MITIGATION FOR WETLAND IMPACTS
Mitigation for the filling of 635 sf of wetland would occur through the creation of 635 sf of new wetland along side of the wetland and through the enhancement of the remaining onsite wetland area.

Enhancement measures will include: 1) re-grading selected areas to provide a more variable hydrologic regime, 2) the removal of invasive plants, and 3) re-planting the wetland and buffer areas with a variety of native tree and shrub species. Re-planting with native species should increase the plant species and structural diversity within the wetland and buffer, thereby increasing the area's value to wildlife. In addition, the enhanced buffer would also provide a physical and visual screen to the wetland from the proposed development.

13.3 GOAL, OBJECTIVES, AND PERFORMANCE STANDARDS FOR MITIGATION AREA
The primary goal of the mitigation plan is to replace the wetland functions lost from the proposed development. To meet this goal, the following objectives and performance standards have been incorporated into the design of the plan:

OBJECTIVE A: Increase the structural and plant species diversity within the mitigation area.
PERFORMANCE STANDARD FOR OBJECTIVE A: Following every monitoring event for a period of at least 5 years, the mitigation area will contain at least 6 native plant species. In addition, there will be 100% survival of all woody planted species throughout the mitigation area at the end of the first year of planting. Following each monitoring event after the first year of planting, there will be at least an 80% survival rate of all planted tree and shrub species or equivalent replacement of a combination of planted and re-colonized native species. Following each monitoring event after the first year of planting, there will be a minimum percent cover of native woody plants in the wetland and buffer of 60% by year 3 and 80% by year 5. Native emergent areas will reach 80% cover by year 3 and 90% cover by year 5.

OBJECTIVE B: Establish distinct vegetation classes within the mitigation area.
PERFORMANCE STANDARD FOR OBJECTIVE B: After construction and following every monitoring event for a period of at least 5 years, as least three distinct vegetation classes shall be established, including; palustrine emergent wetland, palustrine scrub-shrub and sapling tree wetland and upland scrub/shrub and sapling tree buffer.

OBJECTIVE C: Limit the amount of invasive and exotic species within the mitigation area.
PERFORMANCE STANDARD FOR OBJECTIVE C: After construction and following every monitoring event for a period of at least 5 years, exotic and invasive plant species will be maintained at levels below 15% total cover in all planted areas. In excavated wetland areas, non-native/invasive cover will be less than 10% in any monitoring year. These species include, but are not limited to, Scot's broom, Himalayan and evergreen blackberry, reed canarygrass, morning glory, Japanese knotweed, English ivy, thistle, and creeping nightshade.

OBJECTIVE D: Increase the value of the area to wildlife by adding habitat features (i.e., snags, stumps, and downed logs) into the mitigation area.
PERFORMANCE STANDARD FOR OBJECTIVE D: After construction and following every monitoring event for a period of at least 5 years, the mitigation area will contain at least one habitat feature per 1,000 s.f. of mitigation area.

OBJECTIVE E: Ensure continued wetland hydrology within the enhanced and created wetland.
PERFORMANCE STANDARD FOR OBJECTIVE E: After construction and following every monitoring event for a period of at least 5 years, a minimum of 14,131 s.f. within the mitigation area (enhance and created wetland areas) will be seasonally inundated or saturated to within 10 inches of the surface for a continuous duration equal to or greater than 12.5% of the growing season.

13.4 MONITORING METHODOLOGY
The monitoring program will be conducted for a period of 5 years, with annual reports submitted to the City of Kirkland.

Although the entire mitigation area will be reviewed, permanent vegetation sampling plots will be established at selected locations to incorporate all of the representative plant communities. The same monitoring points will be re-visited each year with a record kept of all plant species found. Vegetation will be recorded on the basis of relative percent cover of the dominant species within the vegetative strata.

Photo-points will be established from which photographs will be taken throughout the monitoring period. These photographs will document general appearance and progress in plant community establishment in the enhancement area. Review of the photos over time will provide a visual representation of success of the mitigation plan.

Table 1: Performance Monitoring Schedule

YEAR 1				YEAR 2	
Baseline Assessment, R HM-1		PM-1 MR	PM-2, R MR	PM-3 MR	PM-4, R MR
Winter 07		Spring 07	Fall 07	Spring 08	Fall 08
YEAR 3		**YEAR 4**		**YEAR 5**	
MR	PM-5 MR & R	MR	PM-6 MR & R	MR	PM-7 MR & R*
Spring 09	Fall 09	Spring 10	Fall 10'	Spring 11	Fall 11

PM=Performance Monitoring, R=Report, MR=Maintenance Memo and Review
*Obtain final approval to get release of bond from the City of Kirkland (Presumes performance criteria are met).

Wetland hydrology monitoring of the existing wetlands will be conducted bimonthly for the first two years. For years three through five, wetland hydrology monitoring will be conducted biannually in the spring and fall. Wetland hydrology monitoring reports will be submitted to the City of Kirkland one month following the monitoring event. When the monitoring is completed at the same time as the performance monitoring, data will be included in the annual fall report.

Table 2: Wetland Hydrology Monitoring Schedule

YEAR 1					
HM-1	HM-2	HM-3	HM-4	HM-5	HM-6
R	R	R	R	R	R
Jan. 07	Mar. 07	May 07	Jul. 07	Sep. 07	Nov. 07
YEAR 2					
HM-7	HM-8	HM-9	HM-10	HM-11	HM-12
R	R	R	R	R	R
Jan. 08	Mar. 08	May 08	Jul. 08	Sep. 08	Nov. 08
YEAR 3		YEAR 4		YEAR 5	
HM-13	HM-14	HM-15	HM-16	HM-17	HM-18*
R	R	R	R	R	R
Spring 09	Fall 09	Spring 10	Fall 10	Spring 011	Fall 011

HM=Hydrology Monitoring, R=Report
*Obtain final approval to get release of bond from the City of Kirkland (Presumes performance criteria are met).

13.5 AS-BUILT PLAN
The biologist shall prepare an as-built plan for the mitigation area that will be submitted to the city of Kirkland upon project completion. The plan will certify that the project was installed as designed or document any document any departures from the plan.

13.6 BONDS
Prior to final issuance of building permits, a performance bond in the amount of 125% of construction of the mitigation area will be issued to the City of Kirkland. Upon approval of construction, the performance bond will be reduced to a maintenance bond in the amount of 125% of the cost of maintenance and monitoring for the 5-year monitoring period. Upon final approval at the end of the monitoring period, the bond will be released by the County.

The performance bond is estimated at $2.50 per square foot for construction totaling $62,245 (24,898 sf). At 125%, the performance bond is estimated at $77,806.

The monitoring bond is estimated at $1300 per year for monitoring and $1800 per year for maintenance totaling $15,500 for 5 years. At 125% the maintenance bond is estimated at $19,375.

THE WATERSHED COMPANY

SCIENCE & DESIGN

January 26, 2007

Ron Hanson
City of Kirkland Planning
123 – 5th Avenue
Kirkland, WA 98033

Re: Dawson Short Plat - Wetland Buffer Modification Review

Dear Ron:

Thank you for the opportunity to review the Wetland Mitigation plan prepared by Altman Oliver Associates, LLC (AOA) and dated October 18, 2006. The Watershed Company conducted a site visit in March 2006.

Findings

The plan is exceptionally well prepared and addresses all of the requirements for wetland buffer modification under Kirkland Zoning Code (KZC) section 90.60. Nevertheless, changes to the plan are necessary to ensure that when implemented, the buffer will function as intended under the requirements of the KZC.

The plan seeks to restore wetland conditions eliminated through an unauthorized grading activity. Additionally, the plan would restore all existing wetland areas, plus a 50-foot buffer (reduced from the standard 75 feet). The exception is a remaining garage structure that would remain inside the 50-foot buffer. This results in one portion of the buffer that narrows to only 10 feet wide between the garage building setback and the reestablished wetland. This is in contrast to a July 31 2006 preliminary sketch of the property from AOA that shows the garage "to be removed."

Habitat structures and woody debris is referred to in several areas of the text portion of the plan (Sheet 2). However, no debris or structures are depicted on the plan view drawings (Sheet 1). The number, type and approximate location of structures or debris pieces should be shown on the plan view drawings.

The planting plan calls for the use of Sitka mountain-ash. This shrub usually has a spindly growth habit that does not provide much cover. It is also native mainly to higher elevations than the lowlands of King County. A more aggressive shrub, such as beaked hazelnut, may be a better choice for this plan.

Section 1.7 on Sheet 2 concerns logging in a mining area. This section does not make much sense on this plan and may be relic text from a different project.

750 Sixth Street South | Kirkland, WA 98033
p 425.822.5242 | f 425.827.8136 | watershedco.com

ENCLOSURE 7
SP07-00001

The plan text specifies that an AOA biologist be on-site during key portions of the work. This is appropritate but needs further clarification on the grading permit. Site inspection including rough and final grading, a plant inspection and plant layout inspection and habitat sturucture layout and placement needs to be monitored by a qualified biologist familiar with these plans and with mitigation projects in general.

The plan calls for overexcavation and placement of imported topsoil or salvaged soils from on-site. Soil should also be deconsolidated (tilled) following final grading and not "track packed." Further, soils in the emergent plant areas should contain at least 50% organic material. This can be in the form of a 100% vegetable compost such as Cedar Grove or equivalent.

The Cutting installation detail specifies a minimum depth of 18 inches, while the text specifies 24 inches. Regardless, all cuttings should be installed such that no more than 1/3 of their length is exposed, above ground.

One additional objective is needed. The plan should establish three classes of vegetation. These include palustrine emergent wetland, palustrine scrub/shrub and sapling tree and upland scrub/shrub and sapling tree. Separate performance standards should be specified for woody shrub and sapling tree buffer and wetland areas versus emergent wetland areas.

There is no percent cover standard for vegetation. Minimum cover for woody vegetation should be 60% by year 3 and 80 percent by year 5. Native cover for emergent wetland areas should be 80% by year 3 and 90% by year 5.

Performance standard for objective "B" is to maintain invasive weeds to less than 15% cover. However, in areas where soil is excavated from the site and therefore all weed parts are also removed, this standard should be less than 10%.

The performance standard for wetland hydrology is well conceived. However, there is no mention of how this would be measured. Please indicate the time of year, number of sampling dates and method of assesment (soil pits, manual or automatic piezometers).

No schedule for monitoring visits is provided. Kirkland Zoning Code section 90.55(4)c. requires two site visits per year by a qualified biologist. The first visit is usually done in the spring and consists of a quick evaluation for weeding and other maintenance. The second visit documents the bulk of the monitoring requirements, but also includes the findings of the spring visit.

While section 13.6 covers the bond requirement, no itemized bond estimate was provided for review. Typically mitigation bonds in Kirkland are prepared using a simple and accurate bond quantity worksheet that may be obtained from King County DDES or directly from this office.

Recommendations

We recommend the planning department require the following plan changes:

1) Remove or relocate the garage such that a minimum 50-foot buffer is preserved from all new, reestablished and existing wetland boundaries.

2) Show the minimum number, type and approximate location of woody debris or habitat structures on the plan view grading or planting plan.
3) Optional: replace Sitka mountain-ash with a more robust native shrub.
4) Delete or clarify section 1.7 "Remaining site logging in mining area."
5) Require as a condition of the permit that a qualified biologist familiar with wetland mitigation construction be on-site to inspect rough grading, final grading, plant stock delivery and plant layout. (no plan changes needed).
6) Require that the biologist prepare an as-built plan submitted to the city upon project completion. This plan should either certify that the project was installed as designed or document any departures from the plan.
7) Specify on the plan that final grade soils be deconsolidated by tilling to a depth of at least 9 inches prior to planting.
8) Specify that the emergent wetland area soils contain at least 50% organic material.
9) Require that all cuttings be installed such that no more than 1/3 of their length be exposed, above ground.
10) Include a plan objective that at least three vegetation classes be established by year 5, including palustrine emergent wetland, palustrine scrub/shrub and sapling tree wetland and upland scrub/shrub and sapling tree buffer.
11) Add a performance standard to achieve minimum percent cover of native woody plants in the wetland and buffer of 60% by year 3 and 80 percent by year 5. Native emergent wetland areas should reach 80% cover by year 3 and 90% cover by year 5.
12) Add a performance standard that in excavated wetland areas non-native/invasive cover should be less than 10% in any monitoring year.
13) Include sampling methodology (how, when, and where) for verification of hydrology.
14) Provide a monitoring schedule that includes at least 2 site visits per year with one annual report.
15) Provide an itemized list detailing the bond quantity calculation.

The addition of these recommendations will ensure the plan meets the letter and intent of the Kirkland Zoning Code.

Please call with any questions.

Sincerely,

Hugh Mortensen

Hugh Mortensen, PWS
Ecologist

March 22, 2006

Mr. Ron Hanson, Project Planner
Planning and Community Development Dept.
City of Kirkland
123 5th Ave.
Kirkland, WA 98033

RE: File number SPL06-00001

Dear Mr. Hanson,

We received the notice regarding the subdivision of the land behind our house and just had a couple comments we wanted to make.

There exists a severe drainage issue along the property line between our property and the one behind us. It's also our understanding from talking with the previous owner that there is a blocked manhole, which is most likely contributing to this problem. It's our hope that this problem will be addressed and fixed in the planning and building of the eventual new homes.

Thank you for listening to our concerns.

Sincerely,

Steve + Pam Carbonetti

Steve & Pam Carbonetti
10728 108th Ave NE
Kirkland, WA 98033

From: "Per-Ola Selander" <p-o.selander@comcast.net>

To: <ronwhanson@comcast.net>

Subject: Kirkland Permit file SPL06-00001

Date: Thu, 6 Apr 2006 18:19:16 +0000

I do not know what the ulterior motive of this builder, Klinker Corporation is, but their approach to subdividing this land into two LARGE lots should be commended. Kirkland has seen an abundance of mega houses going up on land "that isn't", and a big house deserves a big lot. The planning department can do its share in trying to maintain the "feel" of the neighborhood by preventing them from being overbuilt - too many structures on too little land.

As when it comes to this development, please ensure that there is no further subdivision allowed on this land. This land in the Forbes Valley is today open and bright. It would not be the same if 6-7 houses were allowed to be built on the 58k sq-ft lot. All too many times have we seen an initial proposal come in for Y houses, only to be for 5 x Y houses at the end.

Sincerely,

[illegible]

[Back]

ENCLOSURE 8b

SPL06-00001