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

DETERMINATION OF NONSIGNIFICANCE (DNS) .

CASE #: SEP08-00002 DATE ISSUED: 2/13/2008

DESCRIPTION OF PROPOSAL

Proposal to combine three parcels totalling 3.30 acres and subdivide into 11 single family lots in an RS 8.5 zone which is located in the South Juanita neighborhood. Application has also been made to reduce a wetland buffer by one-third (from 50 feet to 33 feet) and enhance the reduced wetland buffer with native plants. Access is proposed with a new road that connects directly to NE 112th Street.

PROPONENT: **HAMISH ANDERSON**

LOCATION OF PROPOSAL

11240 NE 112TH 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.

This DNS is issued under 197-11-340 (2); the lead agency will not act on this proposal for 14 days from the date above. Comments must be submitted by 5:00 p.m. 2/27/2008

Responsible official: 2/13/08

Eric Shields, Director Date
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 the Planning Department at Kirkland City Hall, 123 Fifth Avenue, Kirkland, WA 98033 no later than 5:00 p.m., February 27, 2008 by WRITTEN NOTICE OF APPEAL.

You should be prepared to make specific factual objections. Contact the Planning Department at 425-587-3225 to read or ask about the procedures for SEPA appeals.

Please reference case # SEP08-00002.

Publish in the Seattle Times (date): _____

Distribute this form with a copy of the checklist to the following:

____ Environmental Review Section, Department of Ecology,
P.O. Box 47703, Olympia, WA 98504-7703

X Department of Fish and Wildlife (for streams and wetlands - with drawings)
North Lake Washington Tributaries Area Habitat Biologist
16018 Mill Creek Boulevard, Mill Creek, WA 98012

____ Department of Fish and Wildlife (for shorelines and Lake Wa. - with drawings)
Lake Washington Tributaries Area Habitat Biologist
C/O DOE
3190 160th Avenue SE, Bellevue, WA 98008

____ Seattle District, U.S. Army Corps of Engineers,
P.O. Box C-3755
Seattle, WA 98124

____ Attn: Lynn Best, Acting Director, Environmental Division, Seattle City Light
700 5th Avenue, Suite 3316
P.O. Box 34023
Seattle, WA 98125-4023

X Muckleshoot Tribal Council, Environmental Division, Fisheries Department
39015 172nd SE
Auburn, WA 98092

____ Northshore Utility District,
P.O. Box 82489
Kenmore, WA 98028-0489

____ Shirley Marroquin
Environmental Planning Supervisor
King County Wastewater Treatment Division
201 South Jackson Street, MS KSC-NR-0505
Seattle, WA 98104-3855 - and -

____ Gary Kriedt
King County Metro Transit Environmental Planning
201 South Jackson Street, MS KSC-TR-0431
Seattle, WA 98104-3856

X Director of Support Services Center
Lake Washington School District No. 414
P.O. Box 97039
Redmond, WA 98073-9739

____ John Sutherland, Developer Services
Washington State Department of Transportation
15700 Dayton Ave. N., MS 240
P.O. Box 330310
Seattle, WA 98133-9710

X Jan McGruder, Executive Director
East Lake Washington Audubon Society
PO Box 3115
Kirkland, WA 98083

Applicant / Agent

cc: Case # PSB07-00002

Distributed to agencies along with a copy of the checklist. (see attached).

Distributed By:

Date: 2/13/08

SEPA_C_A, rev: 2/13/2008

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, SEPA Responsible Official

From: David Barnes, Project Planner

Date: February 12, 2008

File: SEP08-00002

Subject: ENVIRONMENTAL DETERMINATION FOR GLENEALY COURT PRELIMINARY PLAT, PSB07-00002 (SEP08-00002)

The proposal, submitted by Hamish Anderson, Hamish Anderson Custom Homes is to subdivide 3 existing lots (3.30 total acres) into 11 lots for single family residences within a RS 8.5 zone (see Enclosure 1). The proposed lots will range in size from 8,516 square feet to 14,933 square feet, with an average lot size of 9,438 square feet (see Enclosure 2). Primary access to the subdivision would be from NE 112th Street. One new public right-of-way would be dedicated within the subdivision for access to the new lots. The existing structures that are on the subject properties are proposed to be demolished. The proposed plat is adjacent to an offsite type III wetland located just northwest of the subject plat. A portion of the new right-of-way that would serve this plat is proposed to be built in the outer 1/3 of the required wetland buffer. The total buffer area impacted is 833 square feet. The applicant has requested a buffer modification to reduce the 50 foot buffer to 33.3 feet to complete the required road to serve lots 5 through 11. (Enclosure 3) The wetland buffer modification plan has been determined to be adequate. In addition, 3 separate watercourses run through the subdivision. They have been evaluated by the City of Kirkland's Consultant, the Watershed Company, and have been determined to be drainage ways and not watercourses that meet the definition of streams according Chapter 90 of the Kirkland Zoning Code (see Enclosure 4)

I have had an opportunity to visit the site and review the following documents:

1. Environmental Checklist (Enclosure 5)
2. Traffic Impact Analysis (Enclosure 6)
3. Public Works Memo from Thang Nguyen dated February 12, 2008 (Enclosure 7)
4. Tree Evaluation prepared by International Forestry Consultants, Inc., dated 07/16/07 (Enclosure 8)

Based on a review by staff, the key environmental issues associated with this project are potential traffic impacts and significant tree retention. Additionally, during the initial public comment period for the zoning permit application, the City received a total of 4 comment letters (see Enclosures 9 thru 12). These communications raised concerns about additional potential impacts of the proposed project. These concerns include impacts related to reduction of wetland buffer, storm water drainage, parking, pedestrian impacts.. An analysis of each of traffic impacts and tree retention issues follows. Thang Nguyen, City of Kirkland Transportation Engineer, has addressed his traffic impact concerns in his memo dated February 12, 2008 (Enclosure 7).

Traffic Impacts

The City's Transportation Engineer, has required that the applicant provide a traffic impact analysis. After reviewing the project proposal and the traffic impact analysis, he recommends approval with the following conditions:

- Road Impact Fees are paid.
- Maintain adequate sight distance at the driveway. No structure or landscaping shall obstruct the sight distance at the driveway. All structures and landscaping within the sight triangle must be less than 3.5 feet high.
- On-site circulation must be designed so that vehicle does not back out onto the street.
- Any gate at the driveway must be at least 30 feet behind the back of sidewalk or walkway. Any proposed gate must be submitted to Public Works for review and approval.

Staff also concludes that based on the City traffic mitigation guidelines, the proposed development traffic impacts do not warrant off-site mitigation.

Significant Tree Retention

The subject property contains a total 173 trees that are defined as significant trees (see Enclosure 8). The applicant is proposing to retain a total of 43 significant trees at this time. However, tree removal is not allowed at this stage of the subdivision. A Neighbor raised concerns about impacts of the removal of older trees near the wetland. The trees in the wetland buffer are not proposed to be removed, but in fact enhanced with the buffer modification plan (see Enclosure 3). The City is requiring a pedestrian path that will be in adjacent to two trees in the 10 foot wetland buffer setback. These two trees may need to be removed to install the path. However, significant tree retention will be evaluated in accordance with the provisions outlined in Chapter 95 of the Kirkland Zoning Code. Tree removal and retention will also be discussed in the Staff Advisory Report which will be presented at the public hearing.

Summary

It will be necessary to further analyze certain aspects of the proposal to determine if the project complies with all the applicable City codes and policies. That analysis is most appropriately addressed within the staff advisory report, which will be presented at the public hearing. In contrast, 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 Kirkland regulations and Comprehensive Plan.[1] Based on my review of all available information and adopted policies of the City, I have not identified any significant adverse environmental impacts that cannot be addressed through City codes. Therefore, I recommend that a Determination of Non-Significance be issued for this proposed action.

ESHB 1724, adopted April 23, 1995

SEPA ENCLOSURES

1. Vicinity Map
2. Development Plans
3. Wetland Buffer Modification Request
4. Watershed Company Analysis
5. Environmental Checklist
6. Traffic Impact Analysis
7. Memo from City's Traffic Engineer,Thang Nguyen, February 12, 2008
8. Tree Evaluation prepared by International Forestry Consulants, Inc. dated July 16th 2007
9. Comment letter from Curtis and Vivian Hom
10. Comment letter from Jane and Cyril Hylton
11. Comment letter from Reyes Canales, III
12. Comment letter from Tom Smith

Review by Responsible Official:

I concur ✓

I do not concur ☐

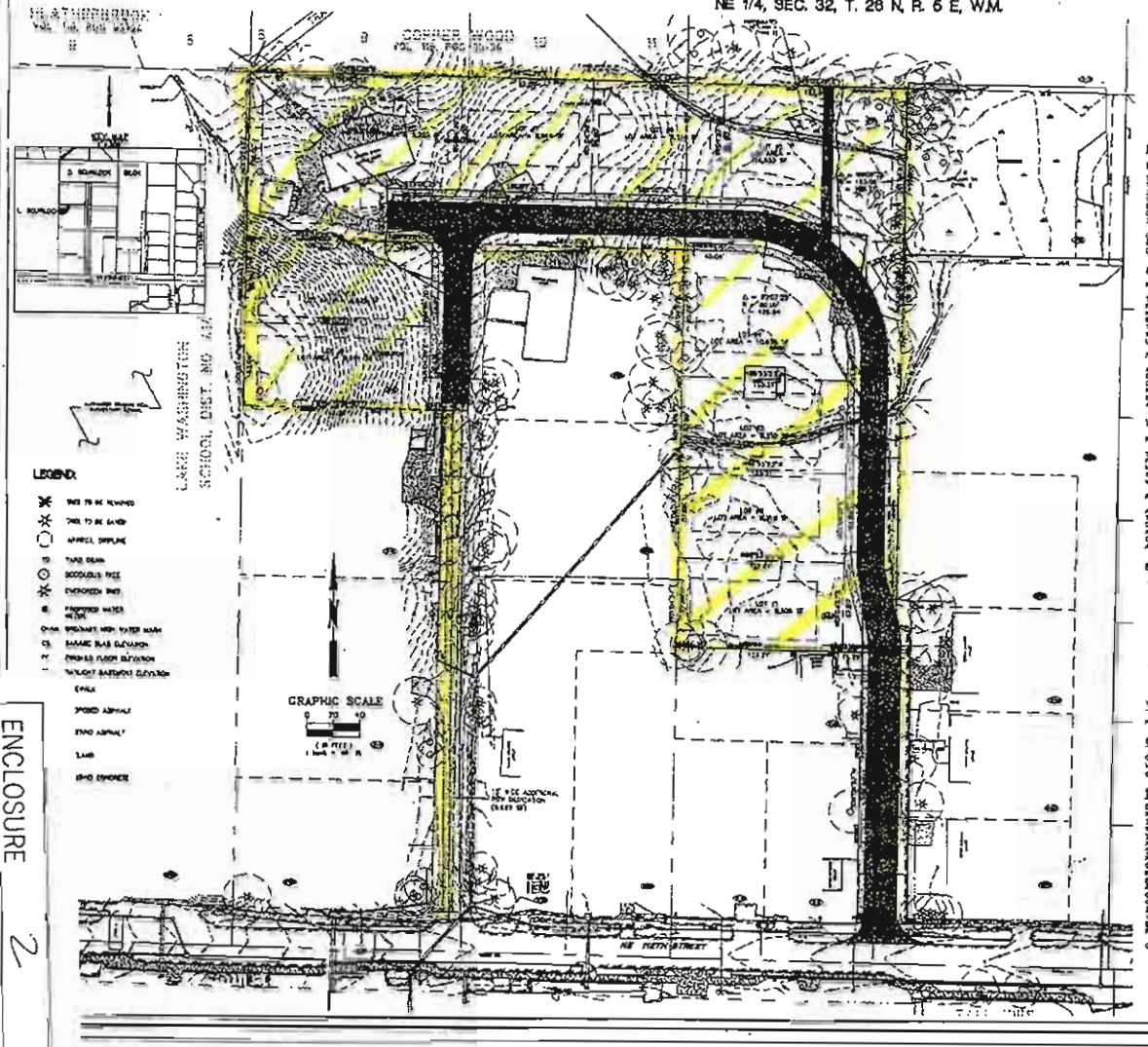
Comments:

Eric R. Shields, AICP
Planning Director

2/13/08
Date

ENGINEERING PLANS FOR
GLENEALY COURT 11-LOT PRELIMINARY PLAT
KIRKLAND, WASHINGTON

NE 1/4, SEC. 32, T. 26 N, R. 5 E, W.M.



VICINITY MAP
SCALE: N.T.S.

LEGAL DESCRIPTIONS

BECK (TAX LOT 9068)

THE WEST HALF OF THE WEST HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 32 TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON;

EXCEPT THE WESTERLY 10.00 FEET WITHIN NORTHEAST 116TH STREET, AND EXCEPT THE SOUTH 335 FEET THEREOF;

(BEING A PORTION OF THE WEST HALF OF LOT 3, KING COUNTY SHORT COMMISSIONER PLAT OF THE ESTATE OF CHARLES A. DUNLAP, DECEASED, IN KING COUNTY SUPERIOR CASE NO. 5101).

D. SCURLOCK (TAX LOT 9108)

PARCEL A:

THE NORTH 136 FEET OF THE WEST 330 FEET OF THE EAST 660 FEET OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 32, TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M.;

TOGETHER WITH THE WEST 15 FEET OF THE EAST 660 FEET OF SAID SUBDIVISION, EXCEPT SAID NORTH 136 FEET AND EXCEPTING THEREFROM THE NORTHERLY 10 FEET WITHIN NE 116TH STREET.

PARCEL B:

AN EASEMENT FOR ROAD PURPOSES OVER THE WEST 15 FEET OF THE EAST 675 FEET OF THE NORTH HALF OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 32, TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M.;

EXCEPT THE NORTH 136 FEET THEREOF;

AND EXCEPT PORTION THEREOF WITHIN NORTHEAST 116TH STREET.

L. BOURLOOK (TAX LOT 9101)

PARCEL A:

THE WEST 136 FEET OF THE NORTH 181 FEET OF THE NORTH 295 FEET OF THE EAST 660 FEET OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 32, TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON.

PARCEL B:

AN EASEMENT FOR ROAD PURPOSES OVER THE WEST 30 FEET OF THE EAST 660 FEET OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 32, TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON;

EXCEPT THE NORTH 136 FEET THEREOF;

AND EXCEPT PORTION LYING WITHIN NORTHEAST 116TH STREET.

BOUNDARY NARRATIVE

THE SUBJECT BOUNDARIES ARE PORTIONS OF LOTS 6 AND 8 OF COURT COMMISSIONER PLAT OF THE ESTATE OF CHARLES A. DUNLAP, KING COUNTY SUPERIOR CASE NO. 5101. THESE LOTS WERE DIVIDED INTO FRACTIONAL PARTS CONSISTENT WITH THE METHODS OF RECTANGULAR SURVEYS OUTLINED IN THE MANUAL OF SURVEYING INSTRUCTIONS BY THE BUREAU OF LAND MANAGEMENT. TO ESTABLISH CORNERS AND SURVEYS DUE TO DEEP CONSTRUCTION, CONCEPT ENGINEERING, INC. FOLLOWED THOSE GUIDELINES IN ESTABLISHING THE NORTH-SOUTH BOUNDARY LINES OF THE SUBJECT BOUNDARIES.

MONUMENTS FOUND ON NE 116TH ST. WERE ACCEPTED AS BEING ON THE SAME BEARING LINE. CONCEPT ENGINEERING, INC. DID NOT RESEARCH THEIR ORIGIN AS TO THE LOCATION OF THE NORTH-RIGHT-OF-WAY OF NE 116TH ST.

VERTICAL DATUM

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

ORIGINAL BENCHMARK

CITY OF KIRKLAND SURVEY CONTROL POINT 01-13, CONCRETE MONUMENT WITH 3" BRASS DISK 1.5' BELOW SURFACE IN STANDARD CASE. ELEVATION = 358.606' NAVD88 DATUM.

UTILITY CONTACTS:

WATER: KIRKLAND PUBLIC WORKS DEPARTMENT	425-828-1221
SEWER: KIRKLAND PUBLIC WORKS DEPARTMENT	425-828-1221
GAS: KIRKLAND PUBLIC WORKS DEPARTMENT	425-828-1221
STORM DRAINAGE: KIRKLAND PUBLIC WORKS DEPARTMENT	425-828-1221
POWER: PUGET SOUND ENERGY	425-882-7500
TELEPHONE: QWEST	425-882-7500
CABLE TV: COMCAST	
UNDERGROUND UTILITY LOCATION:	1-800-962-1000

CALL BEFORE YOU DIG-ONE CALL NUMBER 1-800-424-5555

PROJECT INFORMATION:

TAX PARCEL NUMBERS:

3226059-9068	(9068 ADDRESS)
3226059-9101	(9101 ADDRESS)
3226059-9133	(9130 ADDRESS)

SITE AREA:

143,848 SF (3.30 ACRES)

IMPERVIOUS SURFACE AREA PROPOSED
71,739 SF (1.65 ACRES)

ZONING: RS-35.5 (RT 4.5 ACRES/UNIT)

PROPOSED LOT AREAS

LOT 1	6,008 S.F.
LOT 2	5,241 S.F.
LOT 3	5,893 S.F.
LOT 4	5,893 S.F.
LOT 5	5,893 S.F.
LOT 6	5,893 S.F.
LOT 7	5,893 S.F.
LOT 8	5,893 S.F.
LOT 9	5,893 S.F.
LOT 10	5,893 S.F.
LOT 11	5,893 S.F.
TOTAL	64,850 SF

ADDITIONAL DEDICATED ROW: 6,889 S.F.

SITE LOCATION:
NE 1/4 OF SECTION 32
TOWNSHIP 26 NORTH, RANGE 5 EAST
IN KIRKLAND WASHINGTON

SITE ADDRESS:
11216 NE 116TH STREET AND
11426 NE 116TH STREET
KIRKLAND, WA 98033

APPLICANT/BUILDER:
RANCH ANDERSON EASTERN HOMES
RANCH ANDERSON
10227 NE 68TH STREET, SUITE D
KIRKLAND, WA 98033
(425) 576-1903

CIVIL ENGINEER:
CONCEPT ENGINEERING, INC.
MARK ROOS, P.E.
433 PARKER BLVD. N., SUITE 200
SEATTLE, WA 98117
(425) 392-6025

WETLAND BIOLOGIST:
CONCEPT ENGINEERING, INC.
MARK ROOS, GRANT WOOD
433 PARKER BLVD. N., SUITE 200
SEATTLE, WA 98117
(425) 392-6025

SURVEYOR:
CONCEPT ENGINEERING, INC.
BOB KOPP, P.L.S.
433 PARKER BLVD. N., SUITE 200
SEATTLE, WA 98117
(425) 392-6025

TRAFFIC CONSULTANT:
GORDON DERR, INC., P.S.
110 COURT STE. 211
SEATTLE, WA 98104
(206) 283-8033

ARBORIST:
INTERNATIONAL FORESTRY CONSULTANTS, INC.
BOB LATTIN
13415 NE 124TH ST., SUITE 110
KIRKLAND, WA 98034
425-823-5711

STRUCTURAL ENGINEER (VAULT):

SHEET INDEX:

C-1.0 - COVER SHEET
C-2.0 - GENERAL CONSTRUCTION NOTES
C-3.0 - TESC PLAN
C-3.1 - TREE PRESERVATION PLAN
C-4.0 - NORTH GRADING AND STORM DRAINAGE PLAN
C-4.1 - SOUTH GRADING AND STORM DRAINAGE PLAN
C-4.2 - STORM DRAINAGE SECTIONS
C-4.3 - STORM DRAINAGE DETAILS
C-5.0 - NORTH SANITARY SEWER AND WATER PLAN
C-5.1 - SOUTH SANITARY SEWER AND WATER PLAN
C-6.0 - ROAD NOTES AND DETAILS
C-7.0 - CONCEPTUAL WETLAND BUFFER ENHANCEMENT PLAN
1 OF 6 - TOPOGRAPHIC MAPPING
2 OF 6 - TOPOGRAPHIC MAPPING
3 OF 6 - TOPOGRAPHIC MAPPING
4 OF 6 - TOPOGRAPHIC MAPPING
5 OF 6 - TOPOGRAPHIC MAPPING

BY	DWG BY	DATE	NOTES
CDJ	MJR	7-31-02	PRE. PLAT SUBMITTAL

CONCEPT ENGINEERING, INC.
433 Parker Boulevard North
Seattle, WA 98117
(425) 392-6025 FAX (425) 392-0496

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COVER SHEET
FOR
GLENEALY COURT 11-LOT PLAT

RANCH ANDERSON EASTERN HOMES
10227 NE 68th STREET, SUITE D
KIRKLAND, WA 98033
TEL (425) 576-1903

SHEET
C-10

JOB No. 24054

ENCLOSURE 2
SEP08-00002

CONCEPT ENGINEERING, INC.
455 Rainier Boulevard North
Issaquah, Washington 98027
(425) 392-8055 Fax: (425) 392-0108

WETLAND DELINEATION REPORT FOR THE HAMISH ANDERSON / JAY SECORD SITE

Located At:
11406 NE 112th St
Kirkland, WA 98033

Tax Parcel Numbers:
322605 9083 & 322605 9151

Prepared For:
Hamish Anderson
PO Box 340
(425) 576-1293

Report Dated:
July 11, 2006

Concept Engineering, Inc. Job Number:
26054

Prepared By:

Grant Moen
Certified Wetland Scientist

Reviewed By:

Mark Rigos, P.E.
Certified Wetland Biologist
King County Preferred Wetland Consultant

TABLE OF CONTENTS

TABLE OF CONTENTS AND EXHIBITS 2
1. PROJECT OVERVIEW AND SITE DESCRIPTION 3
2. METHODOLOGY, AUTHORITY AND LIMITATIONS 3
3. WETLAND DEFINITION / METHODS 4
4. VEGETATION RESULTS 5
5. SOILS RESULTS 6
6. HYDROLOGY RESULTS 6
7. WETLAND DETERMINATION SUMMARY. 7
8. IMPACT ASSESSMENT AND RECOMMENDATIONS 8
9. REFERENCES 9

EXHIBITS

EXHIBIT 1	VICINITY MAP, ASSESSOR MAP, SOIL MAP, CITY OF KIRKLAND SENSITIVE AREAS MAP, KING COUNTY SENSITIVE AREAS MAP FOLIO, AREAL PHOTOGRAPH, AND DRAINAGE EXHIBIT.
EXHIBIT 2	WETLAND RATING FORMS AND DATA FORMS
EXHIBIT 3	NEIGHBORING DEVELOPMENT DRAINAGE SCHEMATICS
EXHIBIT 4	CITY WETLAND CODE
EXHIBIT 5	WETLAND PHOTOGRAPHS
EXHIBIT 6	WETLAND FLAGGING SURVEY *(ATTACHED IN POCKET)*
EXHIBIT 7	CERTIFICATIONS

1. PROJECT OVERVIEW AND SITE DESCRIPTION

The property owners requested that we perform a wetland delineation and stream evaluation on 2 parcels numbered 322605 9083 and 322605 9151 located in Kirkland off of NE 112th St. Our work scope included placing ordinary high water mark flags indicating the drainage courses, and wetland delineation flags within this 2.23-acre site comprised of two lots. Along with this we surveyed the site's property boundary, topography, and the recently placed flags. Also included in our work was the preparation of this wetland delineation report. The subject site is located in the City of Kirkland at 11406 NE 112th Street. The first task performed was the ordinary high water mark (OHWM) flagging of two drainage channels on the site. The second task performed was the wetland flagging. Next the survey was conducted. The OHWM and wetland delineation flagging was conducted by Concept's Grant Moen between June 9th and June 21st in 2006. The weather conditions were sunny and overcast during this time. The last task performed was the preparation of this report.

The northwest drainage channel runs west to east across parcel #322605 9083 before dispersing in a wetland located primarily in parcel #322605 9151 (Wetland WX). The southeast drainage channel flows south into Wetland WX. After this the channel leaves the wetland to the south and flows east to west across parcel #322605 9083. The only buildings on the site are located on parcel 322605 9083, these include a residence and an outbuilding. The site is generally flat.

The ordinary high water mark was determined by examining the channel, slope, surrounding topography, and any evidence of watermarks or pathways on the surrounding terrain. The ordinary high water marks were labeled in the field with blue ribbon marked with a sharpie. The flags for the northwest drainage channel that flows east were marked OHW-, and the flags for the southeast channel that flows west were labeled C-. These flags are shown on the attached surveyed (see Appendix).

For our wetland delineation, we evaluated the onsite vegetation, hydrology, and soils. Five formal sample locations (as identified in the Wetland Data Forms section in the Appendix) were logged describing the vegetation, hydrology, and soils at specific locations around the site. Each sample location is labeled in the field with both pink ribbons with "WETLAND BOUNDARY" printed on them, as well as blue ribbon. To delineate the wetlands, many other test pits were dug in order to evaluate the hydrology and soils. The wetlands were delineated with pink flags, labeled "WETLAND BOUNDARY" (black text). Two wetlands were delineated. The western wetland (Wetland A) boundary flags were labeled A-. This is a small wetland located just north of the northwest drainage channel. The eastern wetland (Wetland WX) boundary is labeled W- along its western side, and X- along its eastern side. To the north, west, and south it stretches across the property lines of parcel #322605 9151. All of the wetland flags were placed on June 21st 2006. The wetland flags and sample locations are shown on the Wetland Flagging Survey (see Appendix).

2. METHODOLOGY, AUTHORITY AND LIMITATIONS

Methodology:

The wetland delineation was performed using the Routine Level 2 Methodology as described in the Washington State Wetlands Identification and Delineation Manual (Washington State Department of Ecology, March 1997). This Delineation Manual is an appropriate technical basis for determining the presence of wetlands. The Routine Level 2 Methodology is used when there is insufficient information already available to characterize the vegetation, soils, and hydrology of the project area. The wetland determination was based on the presence of the three criteria for jurisdictional wetlands: hydrophytic vegetation, hydric soils, and wetland hydrology. All three criteria must be present in order to classify an area as a wetland.

Authority:
This wetland determination is in accordance with Section 404 of the Clean Water Act, the objective of which is to "maintain and restore the chemical, physical and biological integrity of the waters of the United States" (COE, 1987).

Limitations:
Wetlands are subject to seasonal and annual variation. Wetland determinations and delineations are not final until approved by regulatory agencies and/or jurisdictions.

3. WETLAND DEFINITION / METHODS

A wetland is defined as an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. As stated from the Corps of Engineers Wetlands Delineation Manual (COE, 1987), wetlands are required to have the following three criteria:

A. The site supports predominately hydrophytic (wetland) vegetation.

Dominant vegetation are determined using the 50/20 rule as described in the 1997 Washington State Wetlands Identification and Delineation Manual. Hydrophytic vegetation have adaptations that allow these species to survive in saturated and / or inundated environments. Hydrophytic vegetation exists at a site if greater than 50% of dominant species are classified as FAC, FAC+, FACW, FACW+, or OBL. The indicator status of wetland plants is classified according to the USFWS National Wetlands Inventory and National Plant List Panel (Reed, 1988). Less common indicators of hydrologic vegetation include visual observation of plant species growing in areas of prolonged inundation and / or soil saturation, morphological adaptations, technical literature, physiological adaptations, and reproductive adaptations. As shown below, an indicator status is applied to each species according to its probability of occurring in wetlands.

Indicator Category	Symbol	Occurrence in Wetlands
Obligate Wetland Plants	OBL	>99%
Facultative Wetland Plants	FACW	67-99%
Facultative Plants	FAC	34-67%
Facultative Upland Plants	FACU	1-33%
Obligate Upland Plants	UPL	<1%

Note: FACW, FAC, and FACU have + and - values to represent species near the wetter end of the spectrum (+) and the drier end of the spectrum (-).

B. The substrate is predominantly undrained hydric soil.

Hydric soils (soils formed under wetland conditions) are a positive indicator of wetland conditions. Hydric soil is defined as a soil "that in its undrained condition, is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part." (Soil Conservation Service, 1985). A preliminary determination of hydric soils for a site is made with reference to NRCS soil surveys (per county) and criteria established by The National Technical Committee for Hydric Soils (NTCHS). Hydric soil criteria are based on taxonomy, drainage, and permeability. However, NRCS mapping units cover broad geographical areas and commonly don't include smaller inclusions of non-hydric or hydric soils. Therefore, field confirmation is necessary. Field indicators of hydric soils are examined from 18" soil pits. For non-sandy soils, indicators include presence of organic soils (Histosols), histic epipedons, sulfidic material (hydrogen sulfide), aquic or peraquic moisture regime, reducing soil conditions, hydric soil colors, verified soils appearing on the NTCHS hydric soils list, and presence of iron and manganese

concretions. Hydric soil colors are analyzed immediately below the A-horizon or to a depth of 10" (whichever is shallower). Hydric soils include gleyed (gray) soils, low chroma soils in an unmottled matrix, or soils with high chroma mottles within a low chroma matrix. Mottles (redoxymorphic features) are spots of contrasting color. Gleyed color and chroma are determined by using the Munsell Color Charts (Munsell Color, 1992). Hydric soil indicators for non-sandy soils include high organic matter content in the surface horizon, streaking of subsurface horizons by organic matter, and / or spodic horizons.

C. The substrate is saturated by water or covered by shallow water at least periodically during the growing season.

Typically, wetland hydrology occurs where the presence of water has an overriding influence on vegetation and soils, resulting in the development of wetland soils and wetland plant communities. Sites with wetland hydrology are periodically inundated and / or saturated during at least part of the growing season. Wetland hydrology normally exists where topography directs water into low relief areas dominated by soils with poor drainage characteristics. Areas demonstrate wetland hydrology if soils are periodically inundated or saturated to the surface for a sufficient duration during the growing season. "Sufficient duration" is considered to be greater than 12.5% of growing season days that are consecutively seasonally inundated and / or saturated to the surface. If the areas are inundated or saturated between 5-12.5% of the growing season than they may or may not be wetlands. The growing season can either be defined by the number of frost-free days, or the period during which the soil temperature at 19.7 inches is above biological zero (41 degrees F). As a rule of thumb, the mesic growing season for Western Washington lowlands extends 245 days from March 1 to October 31 (Washington Department of Ecology, 1997). At each sample location, primary wetland hydrology indicators such as inundation, saturation in the upper 12", water marks, drift lines, sediment deposits, and drainage patterns are noted. Secondary indicators such as oxidized root channels, water-stained leaves, local survey data, FAC-neutral test, etc., are also considered in the determination of a positive indicator for wetland hydrology.

4. VEGETATION RESULTS

Prevalent vegetation is characterized by the dominant species comprising the plant community. Dominant plant species are those that contribute more to the character of a plant community than other species present, as estimated or measured in terms of some ecological parameter. As noted previously, five formal sample locations were logged on the site and are indicated by both pink and blue flags.

SL-1 (sample location 1) was located in wetland A. The dominant vegetation species were lady fern (*Athyrium filix-femina* - FAC), sword fern (*Polystichum munitum* - FACU), mad dog scull cap (*Scutellaria lateriflora* - FAC), black cottonwood (*Populus trichocarpa* - FAC), and Himalayan blackberry (*Rubus procerus* - FACU). Hydrophytic vegetation was present because greater than 50% of the dominant species were OBL, FACW, and FAC.

SL-2 was located east of wetland A, and north of the northwest drainage channel. The dominant vegetation species were sword fern (*Polystichum munitum* - FACU), Himalayan blackberry (*Rubus procerus* - FACU); and an unidentified weed (assumed FAC). Hydrophytic vegetation was not present because not greater than 50% of the dominant species were OBL, FACW, and FAC.

SL-3 was located southwest of wetland A, south of the northwest drainage channel. The dominant vegetation species in this area were sword fern (*Polystichum munitum* - FACU), Himalayan blackberry (*Rubus procerus* - FACU), and bracken fern (*Pleridium aquilinium* - FACU). Hydrophytic vegetation was not present because not greater than 50% of the dominant species were OBL, FACW, and FAC.

SL-4 was located outside of wetland WX, near the northwest corner of the onsite portion of this wetland. The dominant vegetation species at this location were bleeding heart (*dicentra formosa* – FACU), sword fern (*Polystichum munitum* - FACU), black cottonwood (*Populus trichocarpa* - FAC), Himalayan blackberry (*Rubus procerus* - FACU), and an unidentified weed. Hydrophytic vegetation was not present because not greater than 50% of the dominant species were OBL, FACW, and FAC.

SL-5 was located within wetland WX. The dominant vegetation species were lady fern (*Athyrium filix-femina* - FAC), red alder (Alnus rubra- FAC), creeping buttercup (*Ranunculus repens* - FACW), and morning glory (*Ipomoea hederacea* – FACW). Hydrophytic vegetation was present because greater than 50% of the dominant species were OBL, FACW, and FAC.

For additional vegetation information please see the Wetland Data Forms and Wetland Flagging Survey in the Appendix.

5. SOILS RESULTS

The USDA's (United States Department of Agriculture) SCS (Soil Conservation Service) mapped the onsite soils as EvC (Everett soil) and InA (Indianola soil). These are very well draining non-wetland soils. During our field investigation however well draining soils were not encountered. A soil is classified by its hue, value, and chroma (i.e., 7.5YR 3/3). The first number and letters correspond to the hue, the second number corresponds to the value, and the third number corresponds to the chroma. All three aspects of soil color are important in the determination of a hydric soil.

Hydric soils were present at SL-1, SL-3, SL-4 and SL-5. Soils at these locations displayed very low chroma (1) and / or a matrix chroma 2 with mottling in the A-horizon. Hydric soils were absent at SL-2. This area displayed chroma 2 soils and other hydric soil indicators were absent.

For additional soil information, please see the Wetland Data Forms located in the Appendix.

6. HYDROLOGY RESULTS

A wetland receives water from two sources; surface flow runoff generated from precipitation above and / or rising groundwater from below. Wetland hydrology indicators may include, drainage patterns, drift lines, sediment deposition, watermarks, stream gage data and flood predictions, historic records, and visual observation of saturated soils and inundation. The 1987 manual requires inundation, flooding, or saturation to the surface for at least 5-12.5% of the growing season in order to satisfy the hydrology requirements for jurisdictional wetlands (COE, 1987). The hydrology parameter must be estimated in order to get a good approximation of the areas that meet the wetland hydrology criteria. A more precise determination could be gathered with long term hydrology monitoring, however this would not be practical due to time and monetary constraints.

At SL-1, SL-2, SL-3, and SL-5 wetland hydrology indicators were present. This determination was made due to saturation within the upper 12" from the ground surface. Our site visit was conducted during one of the drier months of the year for the area. Very little rain had fallen in the weeks leading up to our site visit. With this in mind we concluded that wetland hydrology was present at a location if any of the primary hydrology indicators were present. Wetland hydrology indicators were absent at SL-4.

For additional wetland hydrology information, please see the Wetland Data Forms in the Appendix.

7. WETLAND DETERMINATION SUMMARY

Two wetlands were delineated on the site. Since the field investigation was conducted during one of the driest months of the year in this area, wetland hydrology was assumed to be present upon finding evidence of one or more primary hydrology indicator. Wetland A is a smaller wetland located on the western parcel (#322605 9083) just north of the northeast drainage channel. Wetland WX is located primarily on the eastern parcel (#322605 9151), although it also stretches onto the western parcel and the other surrounding properties. The northwest drainage channel runs into Wetland WX and disperses. The southeast drainage channel leaves Wetland WX to the south, and flows west across parcel #322605 9083.

Wetland A covers approximately 500 square feet. This wetland almost exclusively receives water from sheet flow, and overflow from the northwest drainage channel. The drainage channel is loosely defined near this wetland. The surrounding area is primarily covered by invasive Himalayan blackberry. This wetland is comprised of scrub/shrub and emergent habitat. Upon completion of the City of Kirkland Wetland Field Data Form it was determined that this was a Type 3 wetland with a total score of 16. This site is located within the Forbes creek drainage basin. This drainage basin is one of Kirkland's primary drainage basins. Type 3 wetlands located within primary drainage basins have 50-foot buffers associated with them. Sample location 1 in Exhibit 2 lists the vegetation, hydrology, and soils of a representative location within this wetland.

Wetland WX covers approximately ½ acre. This wetland receives water from the northwest drainage channel, the southeast drainage channel, and surrounding sheet flow. The northwest drainage channel disperses shortly after entering this wetland, and the southeast drainage channel flows through the wetland form the north to the south. At the time of the field investigation a goat was present in the wetland. Most of the wetland was within the fenced goat pasture. Soft rush (Juncus effuses), creeping buttercup (Ranunculus repens), red alder (Alnus rubrus), and black cottonwood (Populus trichocarpa) were some of the dominant vegetation within the wetland. Sample location 5 (located in Exhibit 2) lists the vegetation, hydrology, and soils of a representative location within the wetland. This wetland is comprised of forested as well as emergent habitat. Upon completion of the City of Kirkland Wetland Field Data Form it was determined that this was a Type 3 wetland with a total score of 21. This wetland also has a 50-foot wetland buffer associated with it since it is a type 3 wetland within Forbes Creek drainage basin. Sample location 5 in Exhibit 2 lists the vegetation, hydrology, and soils of a representative location within this wetland.

The two drainage channels located on the investigated parcels were determined to be storm drainage channels rather than streams. The City of Kirkland defines streams as "Areas where surface water produces a defined channel or bed that demonstrates clear evidence of the passage of water, including but not limited to bedrock channels, gravel beds, sand and silt beds, and defined-channel swales. The channel or bed need not contain water year-round. Streams do not include irrigation ditches, canals, storm or surface water runoff devices, or other entirely artificial watercourses, unless they are used by salmonids or convey a naturally occurring stream that has been diverted into the artificial channel" (KCC 90.30.16).

Both drainage channels on these parcels were constructed to convey increased stormwater runoff attributed to upstream development. The northwest drainage channel forms +/-50 feet northwest of the investigated parcels, at the outlet of a culvert that carries stormwater from Copper Wood development. The southeast drainage channel forms +/-50 feet northeast of the investigated parcels, at the outlet of a culvert that carries storm drainage runoff from Place 116 development. In parcel #322605 9083 the southeast channel flows through two culverts, and as the channel leaves the site it enters a 24" CMP culvert. Neither of the drainage channels were conveying water along their length during our field investigations. Also much of the onsite length of the drainage channels were covered by Himalayan blackberry. Based on these observations we

determined that these drainage courses were dug in order to carry increased stormwater runoff from the surrounding developments. There is no evidence of preexisting natural streams in this area. Since these channels seem to be entirely the product of surrounding development, we do not believe they qualify as streams per the City of Kirkland stream definition.

8. IMPACT ASSESSMENT AND RECOMMENDATIONS

Wetlands have three primary functions. Wetlands improve water quality, as soils and leafy emergents act to filter and bind water borne pollutants. Wetlands provide important water holding and flood storage functions by slowly releasing storm runoff to streams, rivers, and lakes thereby reducing the extent of downstream flooding. Also wetlands provide important wildlife habitat for a large number of invertebrate, plant, and animal species. Benefits to nearby human residents include buffering from surrounding development and opportunities for enjoying native wildlife and vegetation. The wetland on this parcel can provide an integral role in each of the above functions.

By following the below recommendations, impacts to the wetlands can be avoided.

1. Do not clear or grade within the wetlands or required wetland buffers without City approved wetland buffer averaging, wetland buffer reduction, or wetland / wetland buffer mitigation plans.

2. For any future site development, ensure there is no significant increase or decrease in storm runoff to the wetlands generated from new impervious surface areas.

3. Remove non-native, invasive vegetation such as Himalayan blackberry that exists in and near the wetlands. Please be aware that salmonberry, evergreen blackberry, and trailing blackberry are native species that should not be removed.

9. REFERENCES

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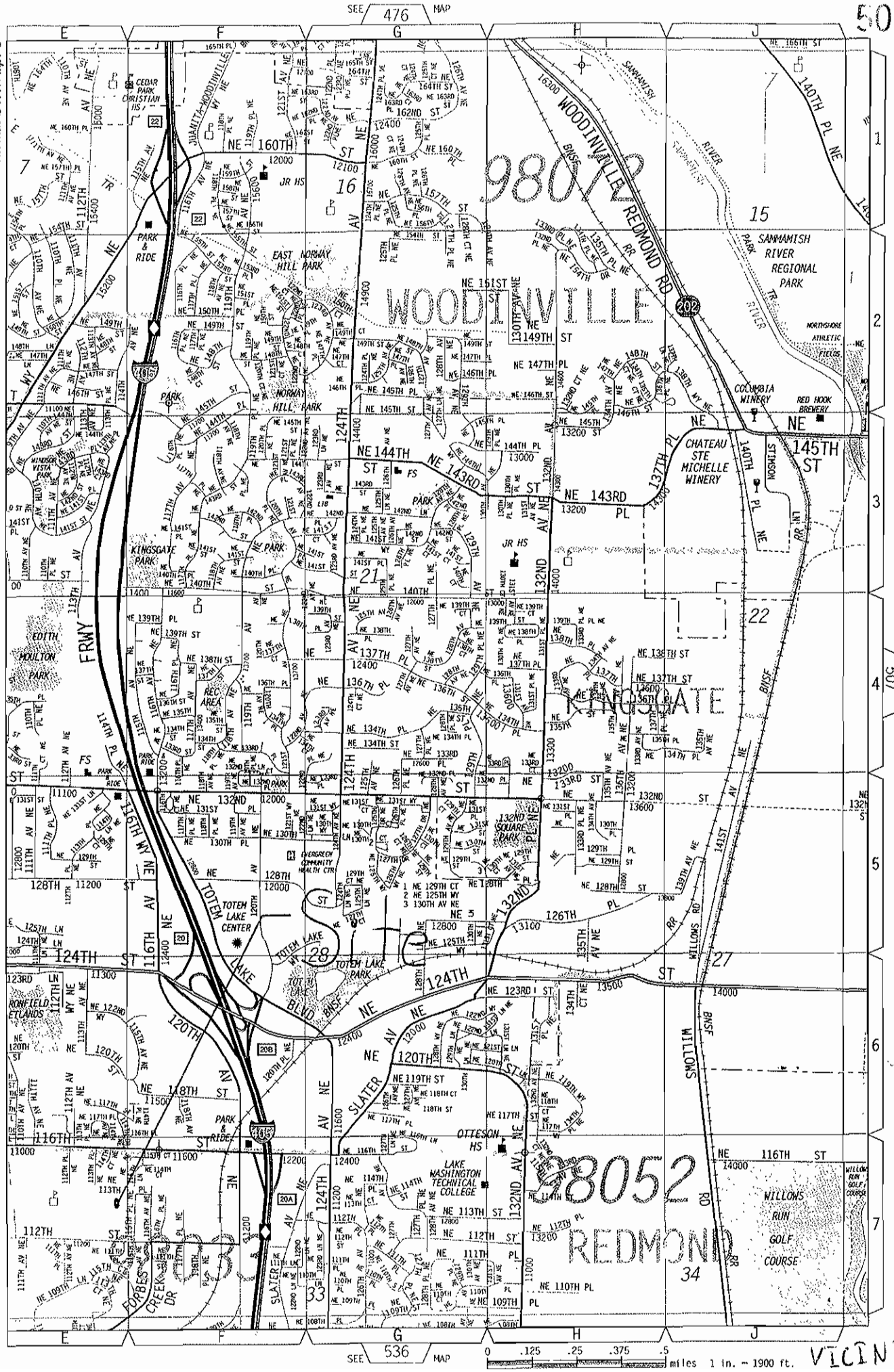
EXHIBIT 1:

VICINITY MAP, ASSESSOR MAP, SOIL MAP, CITY OF KIRKLAND SENSITIVE AREAS MAP, KING COUNTY SENSITIVE AREAS MAP FOLIO, AREAL PHOTOGRAPH, AND DRAINAGE EXHIBIT



VICINITY MAP

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NE 32-26-05

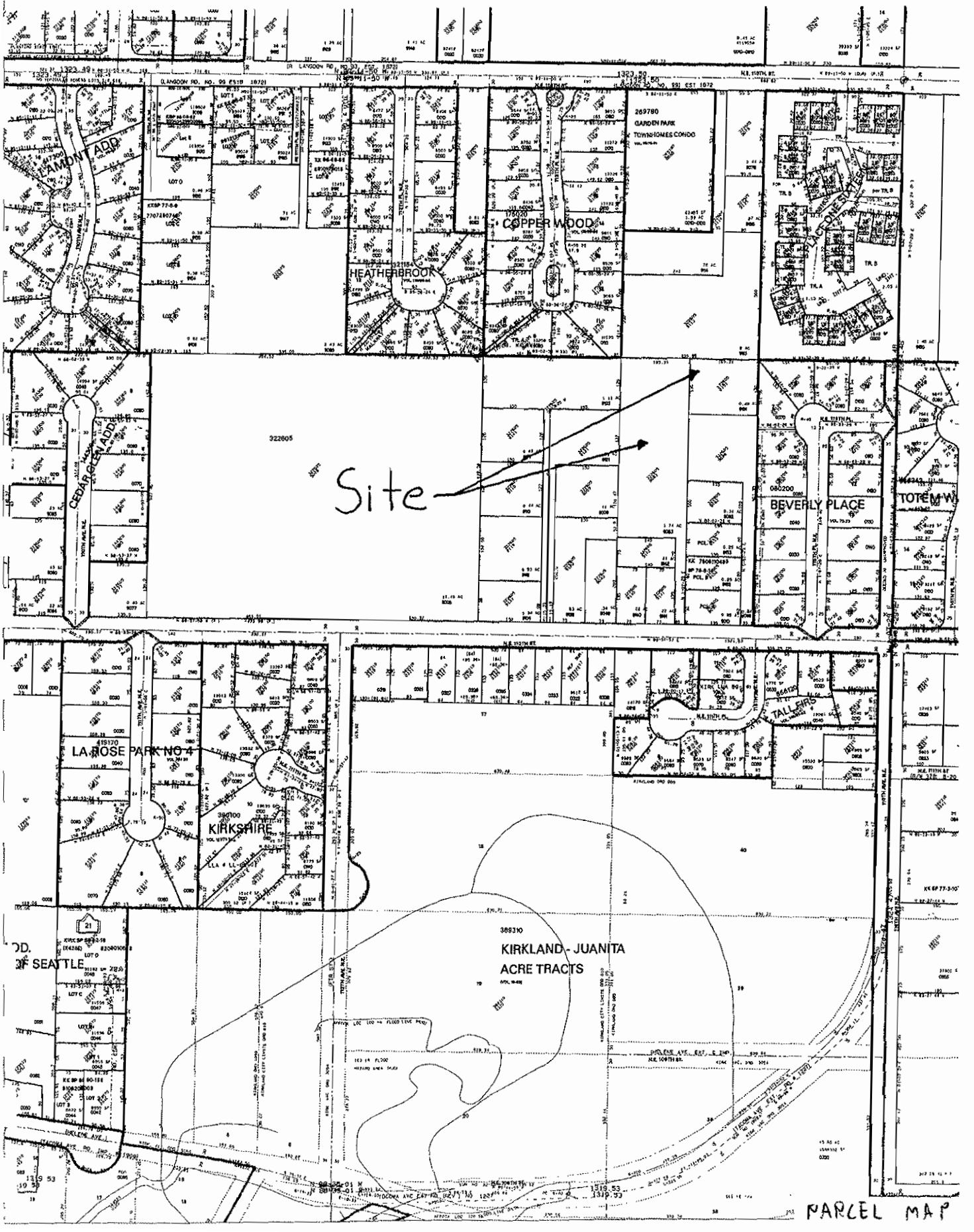
KC 1699

FILE COPY

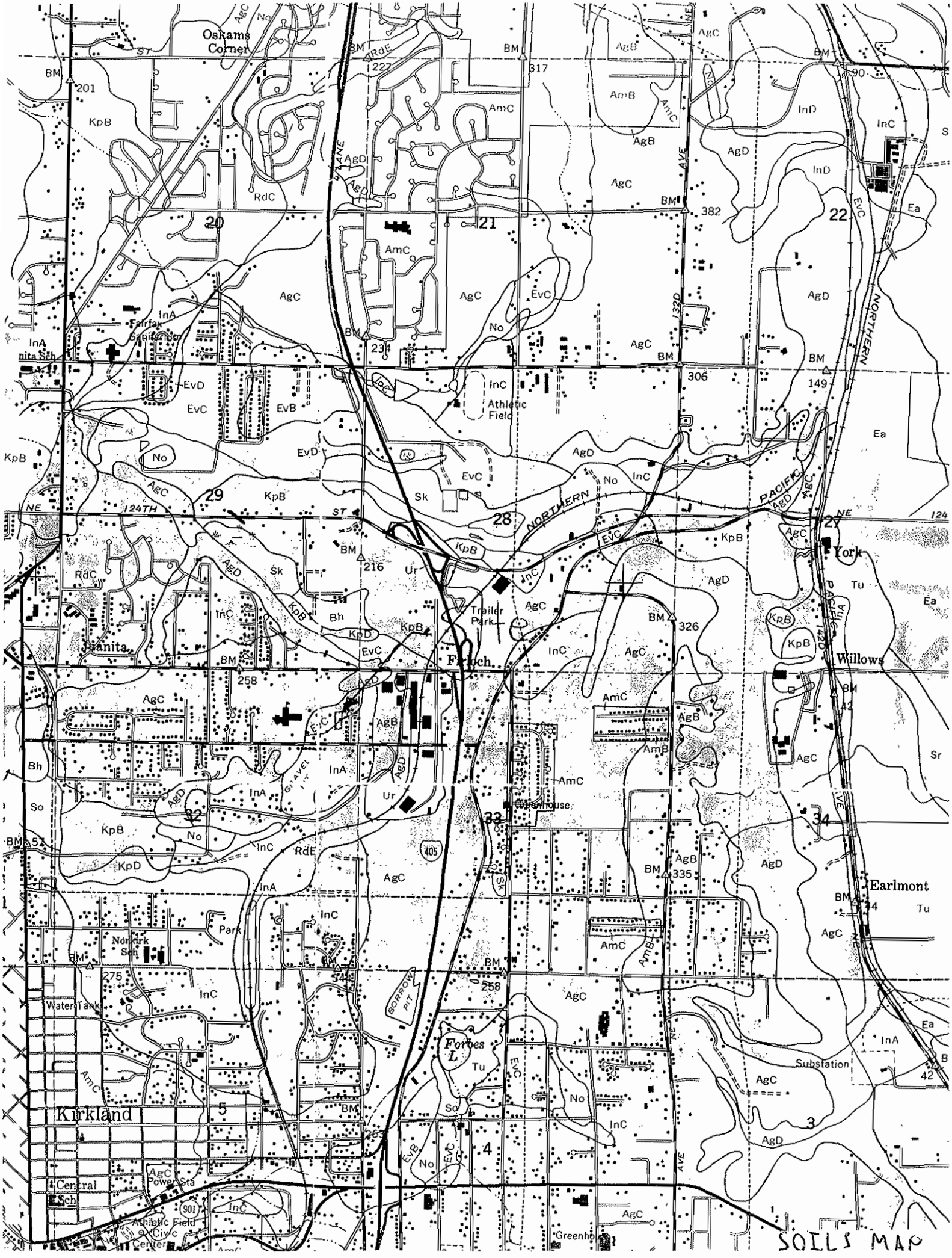
Scale 1:1200 (1" = 100')

Plotted October 23, 2001

REV 5/3/04



PARCEL MAP


Oskams Corner
Fairfax Sanitarium
Athletic Field
Trailer Park
Firloch
Dianita
York
Willows
Earlmont
Greenhouse
Norkirk Sch
Water Tank
Forbes L
Kirkland
Central Sch
Power Sta
Athletic Field
Civic Center
Substation
Greenhouse
NORTHERN PACIFIC
NE 124TH ST
BORROW PIT
GRAVEL PIT
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901
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32
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3
SOILS MAP

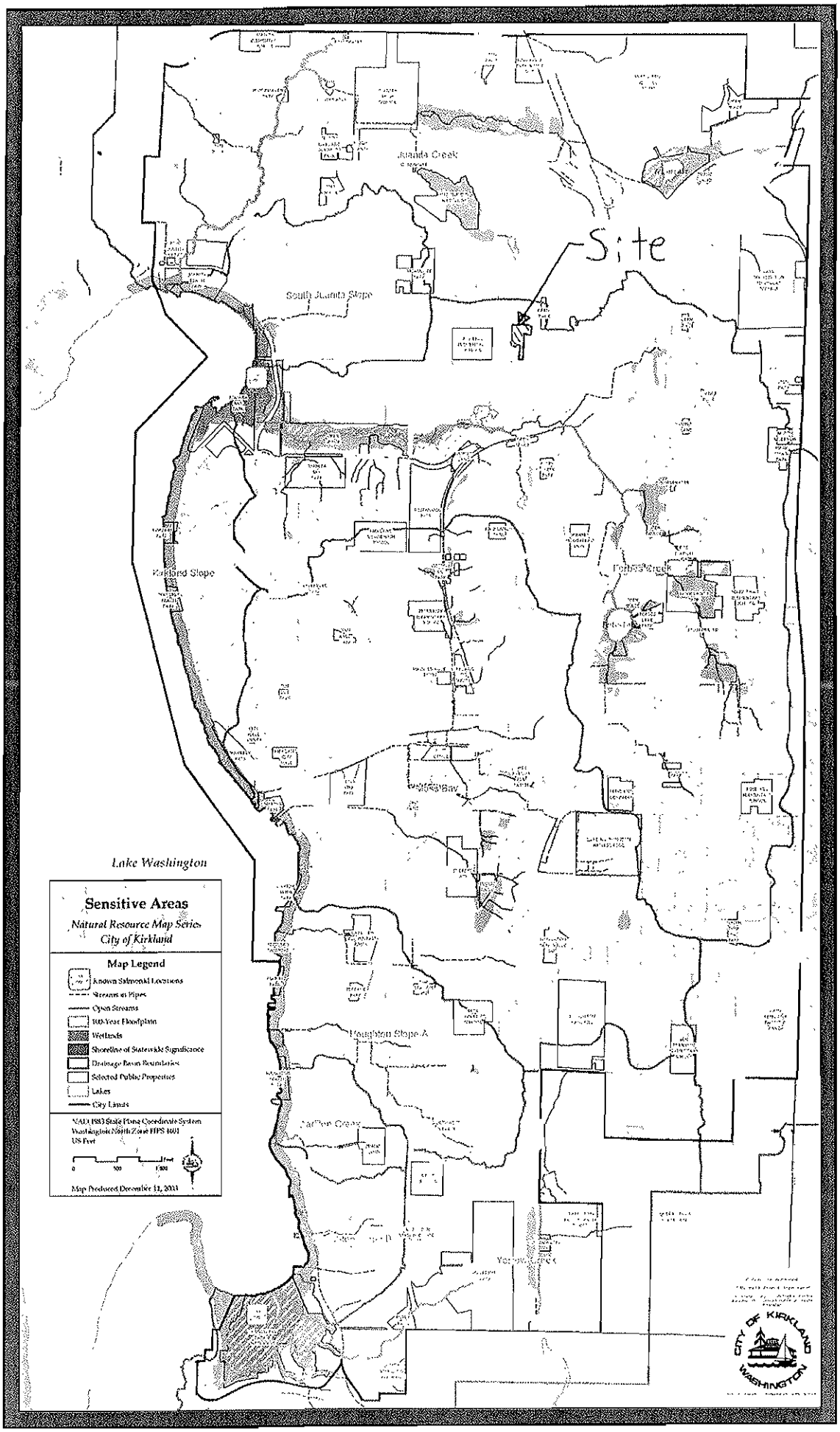
TABLE 3.2.2.B EQUIVALENCE BETWEEN SCS SOIL TYPES AND KCRTS SOIL TYPES

SCS Soil Type	SCS Hydrologic Soil Group	KCRTS Soil Group	Notes
Alderwood (AgB, AgC, AgD)	C	Till	
Arents, Alderwood Material (AmB, AmC)	C	Till	
Arents, Everett Material (An)	B	Outwash	1
Beausite (BeC, BeD, BeF)	C	Till	2
Bellingham (Bh)	D	Till	3
Briscot (Br)	D	Till	3
Buckley (Bu)	D	Till	4
Earlmont (Ea)	D	Till	3
Edgewick (Ed)	C	Till	3
Everett (EvB, EvC, EvD, EwC)	A/B	Outwash	1
Indianola (InC, InA, InD)	A	Outwash	1
Kitsap (KpB, KpC, KpD)	C	Till	
Klaus (KsC)	C	Outwash	1
Neilton (NeC)	A	Outwash	1
Newberg (Ng)	B	Till	3
Nooksack (Nk)	C	Till	3
Norma (No)	D	Till	3
Orcas (Or)	D	Wetland	
Oridia (Os)	D	Till	3
Ovall (OvC, OvD, OvF)	C	Till	2
Pilchuck (Pc)	C	Till	3
Puget (Pu)	D	Till	3
Puyallup (Py)	B	Till	3
Ragnar (RaC, RaD, RaC, RaE)	B	Outwash	1
Renton (Re)	D	Till	3
Salal (Sa)	C	Till	3
Sammamish (Sh)	D	Till	3
Seattle (Sk)	D	Wetland	
Shalcar (Sm)	D	Till	3
Si (Sn)	C	Till	3
Snohomish (So, Sr)	D	Till	3
Sultan (Su)	C	Till	3
Tukwila (Tu)	D	Till	3
Woodinville (Wo)	D	Till	3

Notes:

1. Where outwash soils are saturated or underlain at shallow depth (<5 feet) by glacial till, they should be treated as till soils.
2. These are bedrock soils, but calibration of HSPF by King County DNRP shows bedrock soils to have similar hydrologic response to till soils.
3. These are alluvial soils, some of which are underlain by glacial till or have a seasonally high water table. In the absence of detailed study, these soils should be treated as till soils.
4. Buckley soils are formed on the low-permeability Osceola mudflow. Hydrologic response is assumed to be similar to that of till soils.

SOTIS MAP


Juanita Creek
Site
South Juanita Slope
Kirkland Slope
Forbes Creek
Houghton Slope A
Yarrow Creek
Lake Washington
Sensitive Areas
Natural Resource Map Series
City of Kirkland
Map Legend
Known Salmonid Locations
Streams as Pipes
Open Streams
100-Year Floodplain
Wetlands
Shoreline of Statewide Significance
Drainage Basin Boundaries
Selected Public Properties
Lakes
City Limits
NAD 1983 State Plane Coordinate System
Washington North Zone HPS 4601
US Feet
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Feet
Map Produced December 11, 2003
CITY OF KIRKLAND
WASHINGTON

COK SA MAP

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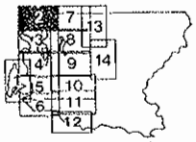
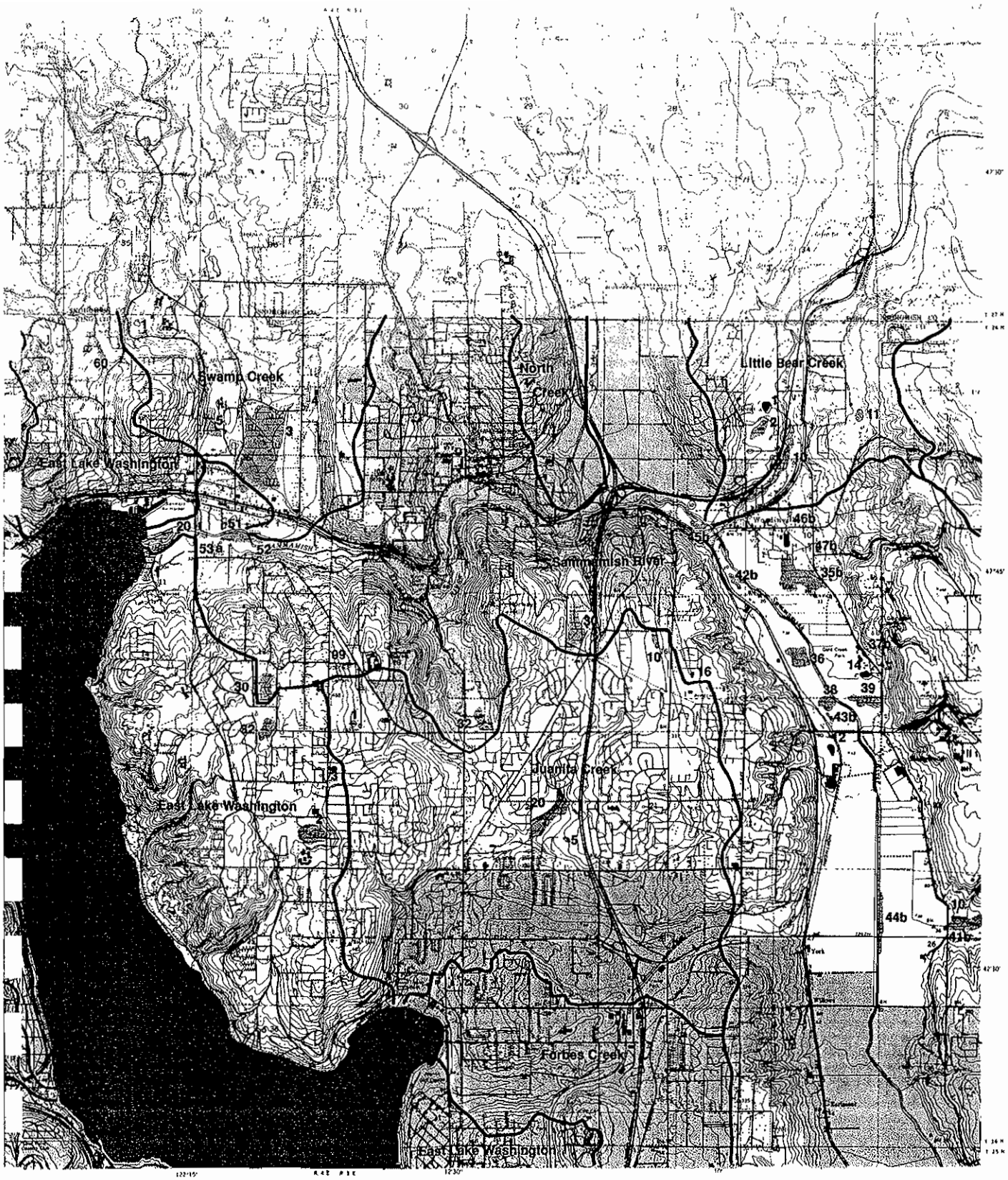
Streams and 100-Year Floodplains

Class 1
Class 2 (with salmonids)
Class 2 (perennial; salmonid use undetermined)
Class 3
Unclassified

Shoreline





Wetlands

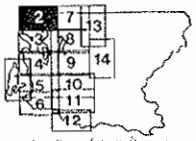
Wetlands

Open Water

Basin Boundaries

Sub-basin Boundaries

Shoreline



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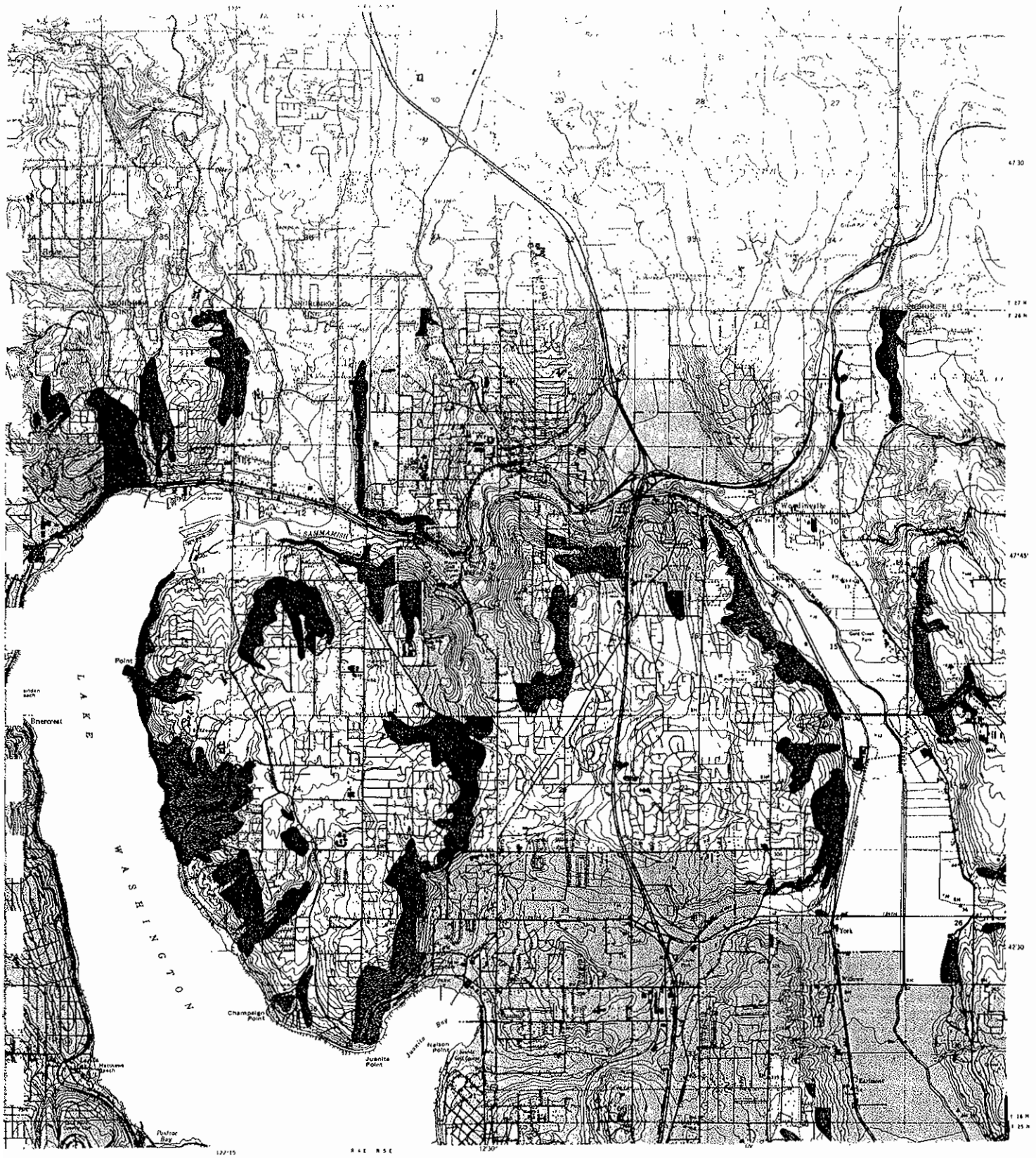
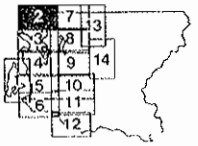
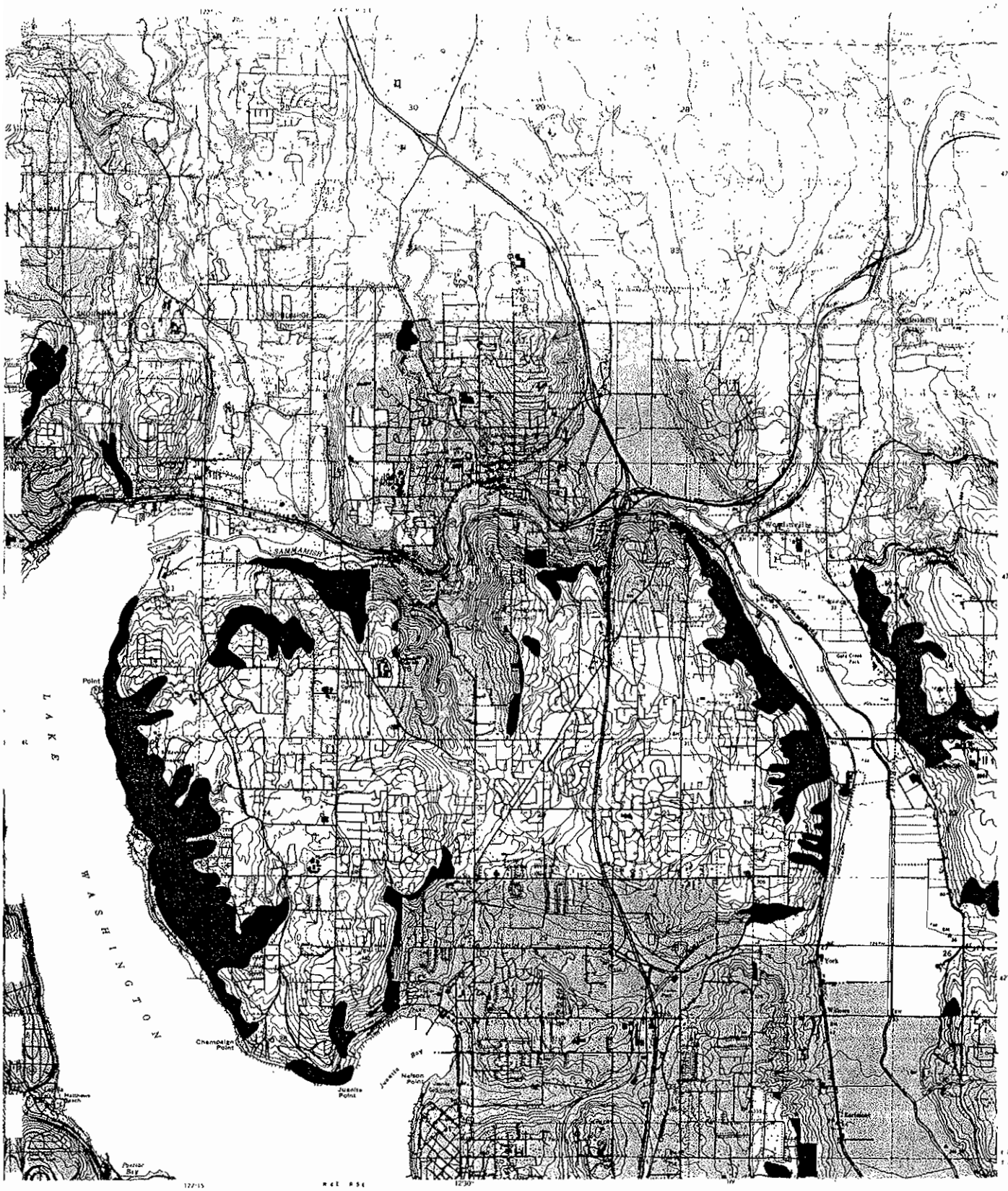


Erosion Hazard Areas

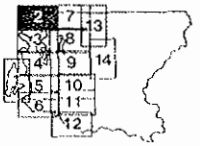
Shoreline 2





Landslide Hazard Areas

Shoreline 2



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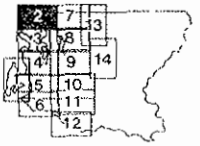
Seismic Hazard Areas

Shoreline

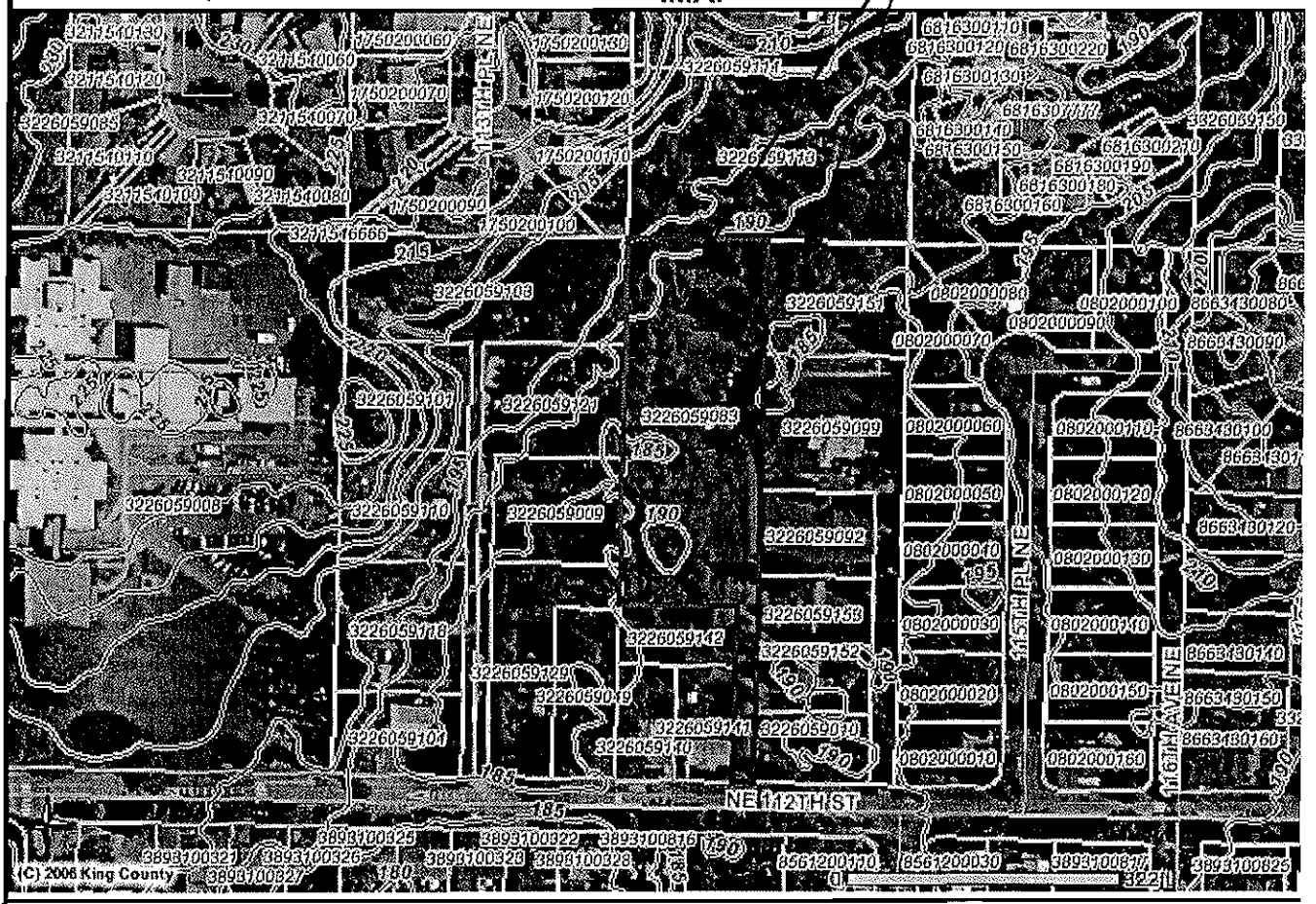
2



King County

Site

iMAP



Legend

- Selected Parcels
- County Boundary
- Mountain Peaks
- Contours (5ft)
- Streets
- Highway
- Arterials
- Local
- Lakes and Large Rivers
- Streams
- Parcels
- 2002 Color Aerial Photos (West K(

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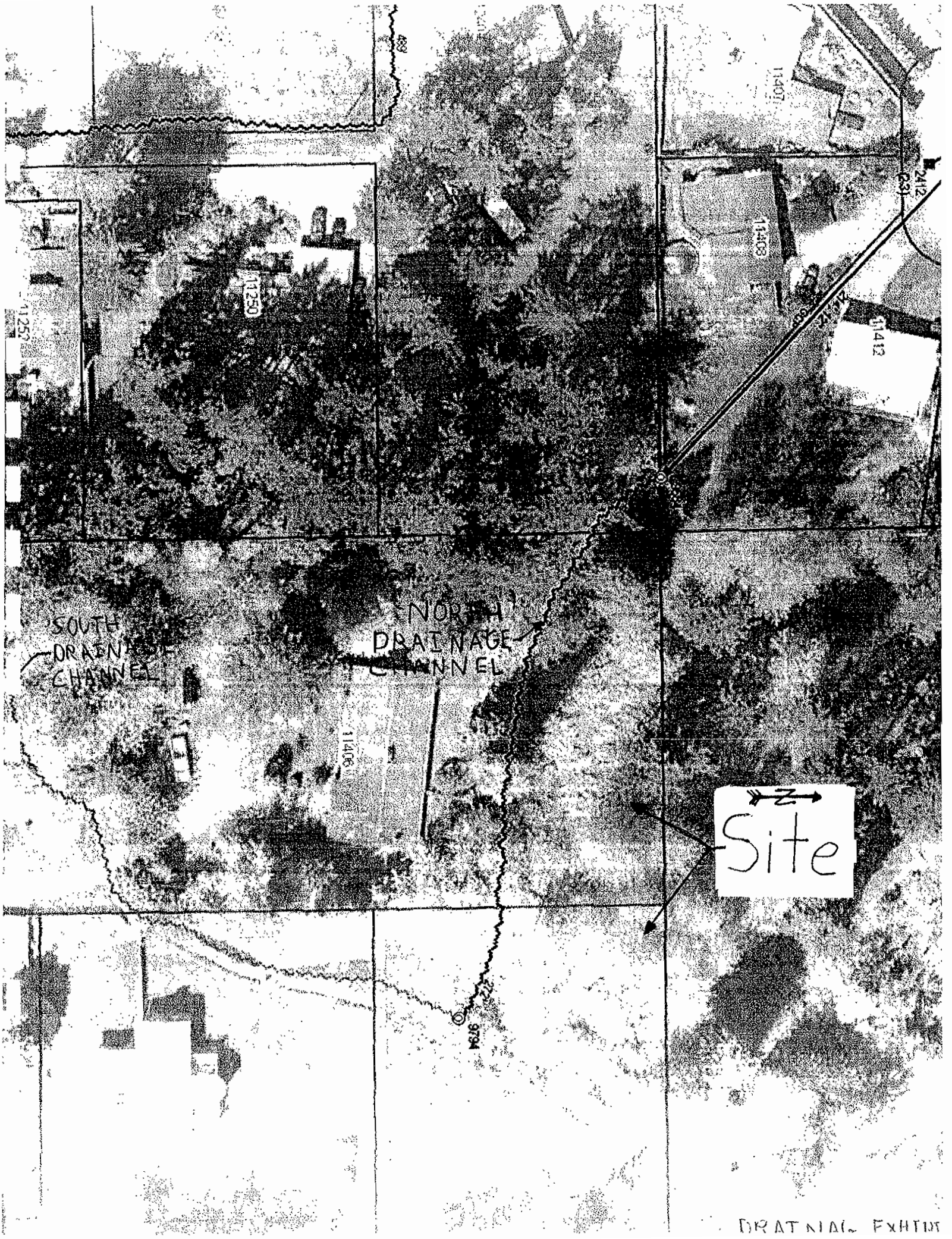
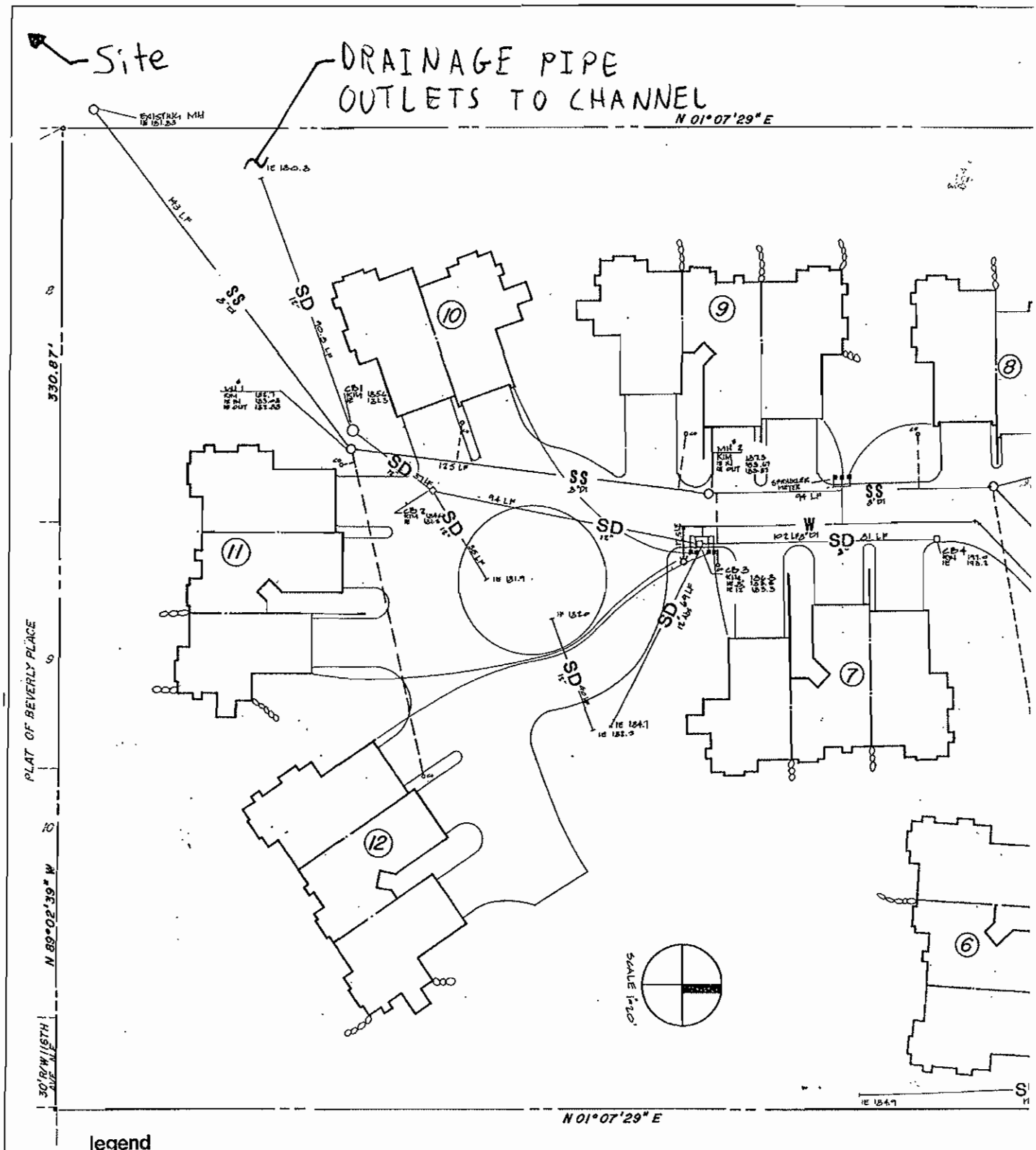
Date: 7-5-2006 Source: King County iMAP - Property Information (http://www.metrokc.gov/GIS/iMAP)

AREAL PHOTO



DRAINAGE EXHIBIT



PLACE 116
utility as built

DRAINAGE EXHIBI

EXHIBIT 2:

WETLAND RATING FORMS AND DATA FORMS

Plate 26 Wetland WX
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;
No

b. The wetland contains at least 1/4 acre of organic soils, such as peat bogs or mucky soils;
No

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; No

d. The wetland has significant habitat value to state or federally listed threatened or endangered wildlife species; or No

e. The wetland contains state or federally listed threatened or endangered plant species.
No

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

1-4.99 = 3

0.1-0.99 = 2 ✓ 2 pts

<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 ✓

3 pts

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

3 pts

4. Structural diversity.

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

Trees >50э tall = 1 ✓

Trees 20э to 49э tall = 1 ✓

shrubs = 1

Herbaceous ground cover = 1 ✓

3 pts

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

1 pt

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 300ɔ? = 2

Are raptor nest(s) located within 300ɔ? = 1

Are there at least 2 standing dead trees (snags) per acre? = 1

Are there any other perches (wires, poles, or posts)? = 1 ✓

Are there at least 3 downed logs per acre? = 1 ✓ 2pt

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

Is not connected to any stream = 0 ✓

(only connected to drainage courses)

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 20% X 0 = 0 = __

Lawn, grazed pasture, vineyards or annual crops 20% X 1 = 20 = __

Ungrazed grassland or orchards 0 % X 2 = ____ = __

Open water or native grasslands 0 % X 3 = ____ = __

Forest or shrub 60% X 4 = 240 = __

Add buffer total 260

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

By 1 if buffer width is 25-50э

By 2 if buffer width is 50-100э ✓

By 3 if buffer width is >100э

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 ✓ 520 = 2 pts

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 >100э wide with
good forest or shrub cover to any other habitat area? = 5 ✓

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

Is there a narrow corridor <100э 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

5 pts

10. Scoring

Add the scores to get a total: 21 pts

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

Answer:

Yes = Type 2

No = Type 3

Plate 26 Wetland A
WETLAND FIELD DATA FORM

[x] WETLAND FIELD DATA FORM

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

a. The wetland is contiguous to Lake Washington;
No

b. The wetland contains at least 1/4 acre of organic soils, such as peat bogs or mucky soils;
No

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; No

d. The wetland has significant habitat value to state or federally listed threatened or endangered wildlife species; or No

e. The wetland contains state or federally listed threatened or endangered plant species.
No

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

1-4.99 = 3

0.1-0.99 = 2

<0.1 = 1 ✓

1 pt

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

3 pts

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

2 pts

4. Structural diversity.

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

Trees >50ə tall = 1

Trees 20ə to 49ə tall = 1

shrubs = 1

Herbaceous ground cover = 1 0 pts

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 ✓ 1 pt

0 = None

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 300ɔ? = 2

Are raptor nest(s) located within 300ɔ? = 1

Are there at least 2 standing dead trees (snags) per acre? = 1

Are there any other perches (wires, poles, or posts)? = 1

Are there at least 3 downed logs per acre? = 1

0 pts

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

Is not connected to any stream = 0 ✓

(only connected to drainage courses)

0 pts

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 0% X 0 = ____ = _

Lawn, grazed pasture, vineyards or annual crops 0% X 1 = ____ = _

Ungrazed grassland or orchards 0 % X 2 = ____ = _

Open water or native grasslands 0 % X 3 = ____ = _

Forest or shrub 100 % X 4 = 400 = _

Add buffer total ___

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

By 1 if buffer width is 25-50ə

By 2 if buffer width is 50-100ə

By 3 if buffer width is >100ə ✓

Enter results and add subscores

Step 3: Score points according to the following table:

Buffer Total

900-1200 = 4 ✓ 1200

600-899 = 3

300-599 = 2 4 pts

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 >100э wide with
good forest or shrub cover to any other habitat area? = 5 ✓ 5 pts

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

Is there a narrow corridor <100э 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: 16

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

Answer:

Yes = Type 2

No = Type 3

SL 1

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:		Date:	6/21/2006
Applicant/Owner:	Hamish Anderson	County:	King
Investigator:	Grant Moen	State:	Wa
Do Normal Circumstances exist on the site?	☒Yes ☐No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	☐Yes ☒No	Transect ID:	
Is the area a potential Problem Area? (If needed, explain on reverse.)	☐Yes ☒No	Plot ID:	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Lady Fern	Herb	FAC	5. Himalayan Blackberry	Woody Vine	FacU
1. *Athyrium filix-femina*			5. *Rubus procerus*		
2. Sword Fern	Herb	FACU	6.		
2. *Polystichum munitum*			6.		
3. Mad Dog Scull Cap	Herb	FACW+	7.		
3. *Scutellaria lateriflora*			7.		
4. Cotton Wood	Tree	FAC	8.		
4. *Populus trichocarpa*			8.		

Percent of Dominant Species that are OBL, FACW or FAC excluding FAC-). 3/5 = 60%

Remarks: Wetland vegetation was present in this location.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

☒ No Recorded Data Available

Field Observations:

Depth of Surface Water: 0 (in.)

Depth to Free Water in Pit: >12 (in.)

Depth to Saturated Soil: 2 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☒ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks: Wetland Hydrology was present. This area frequently receives water that overflows from the adjacent drainage channel.

SOILS

Map Unit Name (Series and Phase): Everett (EvC)

Drainage Class: Very well drained

Field Observations Confirm Mapped Type? ☐ Yes ☒ No

Taxonomy (Subgroup):

Profile Descriptions:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc,
0-12	A	10YR 2/1	5 YR 5/8	Few/Small	

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☒ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soils were present at this location.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☒ Yes ☐ No (Check)

Wetland Hydrology Present? ☒ Yes ☐ No

Hydric Soils Present? ☒ Yes ☐ No

(Check)

Is this Sampling Point Within a Wetland? ☒ Yes ☐ No

Remarks: This point is within the A- wetland.

SL 2

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:		Date:	6-21/2006
Applicant/Owner:	Hamish Anderson	County:	King
Investigator:	Grant Moen	State:	Wa
Do Normal Circumstances exist on the site?	☒Yes ☐No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	☐Yes ☒No	Transect ID:	
Is the area a potential Problem Area? (If needed, explain on reverse.)	☐Yes ☒No	Plot ID:	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Sword Fern	Shrub	FACU	9.		
1. *Polystichum munitum*			10.		
2. Himalayan blackberry	Woody Vine	FACU	11.		
2. *Rubus procerus*			12.		
3. Unidentified weed	Herb		13.		
3.			14.		
4.			15.		
4.			16.		

Percent of Dominant Species that are OBL, FACW or FAC excluding FAC-). 1/3 = 33% (assuming the weed is FAC)

Remarks: Wetland vegetation was not present in this location.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

☒ No Recorded Data Available

Field Observations:

Depth of Surface Water: 0 (in.)

Depth to Free Water in Pit: >12 (in.)

Depth to Saturated Soil: 10 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☒ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks: Wetland Hydrology was present.

SL2

SOILS

Map Unit Name (Series and Phase): Everett (EvC)

Drainage Class: Very well drained

Field Observations Confirm Mapped Type? ☐ Yes ☒ No

Taxonomy (Subgroup):

Profile Descriptions:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc,
0-12	A	10YR 2/2			

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soils were not present at this location.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☐ Yes ☒ No (Check)

Wetland Hydrology Present? ☒ Yes ☐ No

Hydric Soils Present? ☐ Yes ☒ No

(Check)

Is this Sampling Point Within a Wetland? ☐ Yes ☒ No

Remarks: This point is not within a wetland.

SL3

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:		Date:	6/21/2006
Applicant/Owner:	Hamish Anderson	County:	King
Investigator:	Grant Moen	State:	Wa
Do Normal Circumstances exist on the site?	☒Yes ☐No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	☐Yes ☒No	Transect ID:	
Is the area a potential Problem Area? (If needed, explain on reverse.)	☐Yes ☒No	Plot ID:	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Braken Fern	Herb	FACU	9.		
1. *Pleridium aquilinium*			10.		
2. Himalayan blackberry	Woody Vine	FACU	11.		
2. *Rubus procerus*			12.		
3. Sword Fern	Herb	FACU	13.		
3. *Polystichum munitum*			14.		
4.			15.		
4.			16.		

Percent of Dominant Species that are OBL, FACW or FAC excluding FAC-). 0/3 = 0%

Remarks: Wetland vegetation was not present in this location.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

☒ No Recorded Data Available

Field Observations:

Depth of Surface Water: 0 (in.)

Depth to Free Water in Pit: >12 (in.)

Depth to Saturated Soil: 2 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☒ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks: Wetland Hydrology was present.

SL 3

SOILS

Map Unit Name (Series and Phase): Everett (EvC)

Drainage Class: Very well drained

Field Observations Confirm Mapped Type? ☐ Yes ☒ No

Taxonomy (Subgroup):

Profile Descriptions:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc,
0-12	A	10YR 2/1			

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soils were present at this location.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ☐ Yes ☒ No (Check)

Wetland Hydrology Present? ☒ Yes ☐ No

Hydric Soils Present? ☒ Yes ☐ No

(Check)

Is this Sampling Point Within a Wetland? ☐ Yes ☒ No

Remarks: This point is not within a wetland due to the lack of wetland vegetation.

SL4

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:		Date:	6/21/2006
Applicant/Owner:	Hamish Anderson	County:	King
Investigator:	Grant Moen	State:	Wa
Do Normal Circumstances exist on the site?	☒Yes ☐No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	☐Yes ☒No	Transect ID:	
Is the area a potential Problem Area? (If needed, explain on reverse.)	☐Yes ☒No	Plot ID:	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Sword Fern	Herb	FACU	5. Unidentified Weed		
1. *Polystichum munitum*			5.		
2. Bleeding Heart	Herb	FACU	6.		
2. *Dicentra Formosa*			6.		
3. Himalayan blackberry	Woody Vine	FACU	7.		
3. *Rubus procerus*			7.		
4. Black Cottonwood	Tree	FAC	8.		
4. *Populus trichocarpa*			8.		

Percent of Dominant Species that are OBL, FACW or FAC excluding FAC-). 2/5= 40% (assuming the weed is FAC)

Remarks: This area did not meet wetland vegetation.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

☒ No Recorded Data Available

Field Observations:

Depth of Surface Water: 0 (in.)

Depth to Free Water in Pit: >12 (in.)

Depth to Saturated Soil: >12 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks: Wetland Hydrology was not present.

SL4

SOILS

Map Unit Name (Series and Phase): Everett Soils (EvC)

Drainage Class: Very well drained

Field Observations Confirm Mapped Type? ☐ Yes ☒ No

Taxonomy (Subgroup):

Profile Descriptions:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc,
0-12	A	10YR 2/1			

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soils were present at this location.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	☐ Yes ☒ No	(Check)		(Check)
Wetland Hydrology Present?	☐ Yes ☒ No			
Hydric Soils Present?	☒ Yes ☐ No		Is this Sampling Point Within a Wetland?	☐ Yes ☒ No

Remarks: This point is not within a wetland.

Approved by HQUSACE 3/92

Forms version 1/02

SL5

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:		Date:	6/21/2006
Applicant/Owner:	Hamish Anderson	County:	King
Investigator:	Grant Moen	State:	Wa
Do Normal Circumstances exist on the site?	☒Yes ☐No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	☐Yes ☒No	Transect ID:	
Is the area a potential Problem Area? (If needed, explain on reverse.)	☐Yes ☒No	Plot ID:	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Lady Fern	Herb	FAC	9.		
1. *Athyrium filix-femina*			10.		
2. Red Alder	Tree	FAC	11.		
2. *Alnus rubra*			12.		
3. Creeping buttercup	Herb	FACW	13.		
3. *Ranunculus repens*			14.		
4. Morning Glory	Herb	FAC	15.		
4. *Ipomoea hederacea*			16.		

Percent of Dominant Species that are OBL, FACW or FAC excluding FAC-). 4/4 = 100%

Remarks: Wetland vegetation was present.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

☒ No Recorded Data Available

Field Observations:

Depth of Surface Water: 0 (in.)

Depth to Free Water in Pit: >12 (in.)

Depth to Saturated Soil: 0 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☒ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☒ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks: Wetland Hydrology is present. Some areas were inundated nearby.

SL5

SOILS

Map Unit Name (Series and Phase): Everett (EvC)

Drainage Class: Very well drained

Field Observations Confirm Mapped Type? ☐ Yes ☒ No

Taxonomy (Subgroup):

Profile Descriptions:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc,
0-5	A	10YR 2/1			

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Hydric soils were present at this location.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	☒ Yes ☐ No	(Check)		(Check)
Wetland Hydrology Present?	☒ Yes ☐ No			
Hydric Soils Present?	☒ Yes ☐ No		Is this Sampling Point Within a Wetland?	☒ Yes ☐ No

Remarks: This point is not within the WX- wetland. This point is representative of much of the wetland.

EXHIBIT 3:

CITY WETLAND CODE

Fish and Wildlife Service.

16. Streams – Areas where surface waters produce a defined channel or bed that demonstrates clear evidence of the passage of water, including but not limited to bedrock channels, gravel beds, sand and silt beds, and defined-channel swales. The channel or bed need not contain water year-round. Streams do not include irrigation ditches, canals, storm or surface water runoff devices, or other entirely artificial watercourses, unless they are used by salmonids or convey a naturally occurring stream that has been diverted into the artificial channel.

17. Type 1 Wetlands – Wetlands that meet any of the following conditions:

    a. Wetlands contiguous to Lake Washington;

    b. Wetlands containing at least one-quarter acre of organic soils, such as peat bogs or mucky soils;

    c. Wetlands 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. Wetlands that have significant habitat value to state or federally listed threatened or endangered wildlife species; or

    e. Wetlands that contain state or federally listed threatened or endangered plant species.

18. Type 2 Wetlands – Wetlands that do not meet any of the criteria for Type 1 Wetlands, yet provide significant habitat function and value, and that merit at least 22 points as determined by using the City's Wetland Field Data Form, which is Plate 26 of Chapter 180 KZC.

19. Type 3 Wetlands – Wetlands that do not meet the criteria for either Type 1 or Type 2 wetlands and that merit fewer than 22 points as determined by using the City's Wetland Field Data Form, which is Plate 26 of Chapter 180 KZC.

20. Watershed – A region or area bounded on the periphery by a parting of water and draining to a particular watercourse or body of water.

21. Wetlands – Those areas that are inundated or saturated by surface or groundwater at a frequency and duration to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soils conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including but not limited to irrigation and drainage ditches, grass-lined swales, canals, retention and/or detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. However, wetlands do include those artificial wetlands intentionally created from non-wetland sites as mitigation for the conversion of wetlands.

WETLANDS

90.35 Wetland Determinations, Delineations, Regulations, Criteria, and Procedures

All determinations and delineations of wetlands shall be made using the criteria and procedures contained in the Washington State Wetlands Identification and Delineation Manual (Washington Department of Ecology, 1997). All determinations, delineations, and regulations of wetlands shall be based on the entire extent of the wetland, irrespective of property lines, ownership patterns, and the like.

90.45 Wetland Buffers and Setbacks

1. No land surface modification shall occur and no improvement may be located in a wetland or its buffer, except as provided in this section. Required, or standard, buffers for wetlands are as follows:

Wetland Type	Primary Basin	Secondary Basin
1	100 feet	75 feet
2	75 feet	50 feet
3	50 feet	25 feet

2. Buffer Setback – Structures shall be set back at least 10 feet from the designated or modified wetland buffer. The Planning Official may allow within this setback minor improvements which would clearly have no adverse effect during their construction, installation, use, or maintenance, on fish, wildlife, or their habitat or any vegetation in the buffer or adjacent wetland. The Planning Official's decision may be appealed in accordance with KZC 90.160.

3. Storm Water Outfalls – Surface discharge of storm water through wetland buffers and buffer setbacks is required unless a piped system is approved pursuant to this section. Storm water outfalls (piped systems) may be located within the buffer setback specified in subsection (2) of this section and within the buffers specified in subsection (1) of this section only when the Public Works and Planning Officials both determine, based on a report prepared by a qualified professional under contract to the City and paid for by the applicant, that surface discharge of storm water through the buffer would clearly pose a threat to slope stability, and if the storm water outfall will not:

   a. Adversely affect water quality;

   b. Adversely affect fish, wildlife, or their habitat;

   c. Adversely affect drainage or storm water detention capabilities;

   d. Lead to unstable earth conditions or create erosion hazards or contribute to scouring actions; and

   e. Be materially detrimental to any other property in the area of the subject property or to the City as a whole, including the loss of significant open space or scenic vistas.

   The decision of the Public Works and Planning Officials may be appealed in accordance with KZC 90.160.

   If a piped system is used, catch basins may be located within the buffer setback specified in subsection (2) of this section, but must be installed as far as feasible from the buffer boundary (see Plate 25 of Chapter 180 KZC). Under this subsection, pipe conveying storm water may be located within the buffer, but catch basins may not. Detention and water quality treatment devices shall not be located within the wetland buffers or buffer setbacks of this section except as provided below.

4. Water Quality Facilities – Water quality facilities, as determined by the Planning Official, may be located within the wetland buffers of subsection (1) of this section. The Planning Official shall approve a proposal to install a water quality facility within the outer one-half of a wetland buffer if:

   a. It will not adversely affect water quality;

   b. It will not adversely affect fish, wildlife, or their habitat;

EXHIBIT 4:

WETLAND PHOTOGRAPHS

Looking north from the North Drainage Channel into Wetland A and Sample Location 1.

Looking north from the North Drainage Channel at Sample Location 2.

Looking south from the North Drainage Channel at Sample Location 3.

Looking west at Sample Location 4.

Looking south at Sample Location 5.

Looking at the culvert that outlets just northeast of the site where the South Drainage Channel begins.

EXHIBIT 5:

WETLAND FLAGGING SURVEY

(ATTACHED IN POCKET)

EXHIBIT 6:

CERTIFICATIONS

CONCEPT ENGINEERING, INC.
455 Rainier Boulevard North
Issaquah, Washington 98027
(425) 392-8055 Fax: (425) 392-0108

August 16, 2006

Mr. Hamish Anderson
Hamish Anderson Custom Homes
PO Box 340
Kirkland, WA 98083

RE: Supplemental Wetland Investigation on David and Lori Scurlock Properties for the Proposed Glenealy Court 11-Lot Plat; Located at 11240 NE 112th Street, Kirkland, WA 98033; Tax Parcel Numbers 322605-9103 and 322605-9101; City of Kirkland Permit Number PRE06-00069; Our Job Number 26054.

Dear Hamish,

At your and Ken Nash's request, I conducted a Wetland Investigation on the above-noted 2 properties. On 8/14/2006, Ken indicated I had permission to access Scurlock's 2 properties which totals 1.56 acres. I visited the properties on 8/14/2006. Weather conditions were dry and sunny. Wetlands were previously investigated by Grant Moen and I on the adjacent tax parcel numbers to the east; 322605-9083 and 322605-9151 as annotated in our 7/11/2006-Wetland Delineation Report.

A formal Pre-Application Meeting was held on 8/10/2006 with City of Kirkland staff to discuss items related to the proposed Glenealy Court plat. At that meeting, staff apparently requested we provide a supplemental wetland investigation on the Scurlock parcels since they partly comprise the plat. Staff indicated they would forward the entire wetland package (this letter and wetland delineation report) to the Watershed Company for their review. Following Watershed comments, if any, several additional tasks will be necessary before submitting a preliminary plat application. For background wetland information, please review our previous wetland delineation report. Our supplemental wetland investigation findings and analysis are as follows:

Tax Parcel Number 322605-9103:

1. The parcel's east side contains a small detached garage / storage shed accessed by a gravel driveway. Surrounding the garage are mature Douglas fir trees, buttercup and pasture grasses. The east property line is heavily vegetated. The parcel's north side contains a single-family home surrounded by landscaping. The parcel's west side contains a larger detached garage accessed by a second gavel driveway. In general, the parcel slopes moderately from north to south. The parcel's east side slopes from west to east.

2. A drainage ditch crosses the parcel's west property line, just north of the southwest corner. The ditch is approx. 1-foot deep and 1-2-foot wide. At the west property line, the ditch is sloped southeast at 2-5%. The ditch continues east across the parcel, just south of the second gravel driveway. The ditch leaves the parcel at the south property line just west of its midpoint. Although no water was flowing in the ditch, I observed evidence of scouring, water marks and several spots of surface saturation and

dampness. The ditch is seasonal and likely intermittent during wetter months. The ditch is artificial and used as a surface water runoff conveyance device to protect the parcel's structures and driveway. Many, many years ago, prior to development in this area, I believe this drainage ditch did not exist. I do not believe this ditch meets the City of Kirkland Code's stream definition in 90.30, because this ditch is an entirely artificial watercourse constructed to convey surface runoff. Offsite surface runoff from the northwest is generated by single family homes and roads. Just before reaching the parcel, the ditch flows southeast across the northeast portion of the adjacent AG Bell Elementary School property.

3. I observed the following vegetation on this parcel; Douglas fir (*Pseudotsuga menziesii* - UPL), big leaf maple (*Acer macrophyllum* - FACU), creeping buttercup (*Ranunculus repens* - FACW), English ivy (*Hedera helix* - FACU), Scotch or Canada thistle (*Onopondum acanthium* - FACU), sword fern (*Polystichum munitum* - FACU), Himalayan blackberry (*Rubus procerus* - FACU), soft rush (*Juncus effusus* - FACW) and landscaping such as laurel hedge. In general, the parcel's vegetation tended toward non-hydrophytic. The second parameter, wetland hydrology, was generally not found onsite either. The third parameter, hydric soil, was also generally not present.

4. Two areas of special wetland consideration were noted as follows:

5. The first area is along the south property line, approx. 10 feet west of a power pole, where stormwater appears to occasionally overtop the ditch following large storm events. In the overtop area, approx. 1.5 feet above the ditch's invert elevation, dominant vegetation included creeping buttercup and Himalayan blackberry. The soil matrix chroma in the A-horizon ranged from 2 - 3 with very faint mottles. The soils were not saturated in the upper 12 inches. Any residual soil moisture was attributed to the ditch, not groundwater below. <u>I believe this area is non-wetland.</u>

6. The second area is northeast of the shed on the parcel's east side. This area's dimensions are approx. 20 feet wide by 30 feet long. Creeping buttercup was the primary dominant species. As such, the hydrophytic vegetation parameter was met. In the upper 12 inches, the soil was damp to moist, but not saturated. In my opinion, this area does not meet the wetland hydrology parameter for being inundated or saturated to the surface for more than 12.5% of the growing season, because I estimate this area is in hydrologic zone V (irregularly inundated or saturated) or VI (intermittently or never inundated or saturated) rather than IV (seasonally inundated or saturated). Obviously, it's not practical to measure wetland hydrology every day over a full year. The soil matrix chroma in the A-horizon ranged from 1.5-3 with faint mottles. The hydric soil parameter was not clearly met as the chroma was not consistently 2 or less with distinct mottles. I did not observe 1 chroma. <u>In summary, I believe this area is non-wetland for the following reasons</u>: A. The second and third wetland parameters, wetland hydrology and hydric soils, were not clearly met as noted above. B. The area immediately surrounding the subject area was entirely non-wetland as evidenced by healthy mature Douglas fir trees. C. The subject area is extremely small. D. The surface soil appeared to be fill as observed by branches and small logs mixed in the soil, likely resulting from ditch excavation on the property to the east sometime ago.

<u>Tax Parcel No. 322605-9101:</u>

1. This parcel is completed vacant and heavily vegetated. It slopes moderately from west to east toward the roadside drainage ditch that flows south along the east property line. The ditch was completely dry during my site visit. As noted above, I do not believe this ditch meets the City's stream definition.

2. I observed the following vegetation on this parcel; red alder (*Alnus rubra* - FAC), Douglas fir (*Pseudotsuga menziesii* - UPL), big leaf maple (*Acer macrophyllum* - FACU), beaked hazelnut (*Corylus cornuta* - FACU), mountain ash (*Sorbus* species - FACU), western crabapple (*Malus fusca* - FACW), Indian plum (*Oemleria cerasiformis* - FACU), sword fern (*Polystichum munitum* - FACU), bracken fern (*Pteridium aquilinum* - FACU), holly (*Ilex aquifolium* - FACU), trailing blackberry (*Rubus ursinus* - FACU), evergreen blackberry (*Rubus laciniatus* - FACU+), Himalayan blackberry (*Rubus procerus* - FACU), creeping buttercup (*Ranunculus repens* - FACW) and Oregon grape (*Mahonia nervosa* - FACU). The parcel's vegetation was mostly non-hydrophytic. The second parameter, wetland hydrology, was not found. The third parameter, hydric soil, was also not found. I did not find wetlands on this parcel.

One of my primary concerns with your project is that 3 drainage courses bisect 3-4 of the existing lots on the proposed 11-lot plat. To accommodate the plat, the drainage courses need to be relocated. Prior to re-constructing the drainage courses, I believe City staff will request your project grant the City public drainage easements. At this time, our surveyors are currently reviewing all 4 properties' title reports to evaluate the existence and location of drainage easements. Even if easements exist, they will need to be revised. In summary, it appears you have the opportunity to provide the City and neighborhood 2 significant drainage benefits as a result of your project. First, the City and neighborhood could receive public drainage easements for free. Second, you could install public improvements, adequately sized drainage conveyance systems, at no charge to the City and neighborhood. Of course, these benefits would be provided in exchange for the City allowing the 3 drainage courses to be relocated onsite. If the City decides not to allow these drainage courses to be relocated, then your proposed 11-lot plat will be significantly reduced in size and scale.

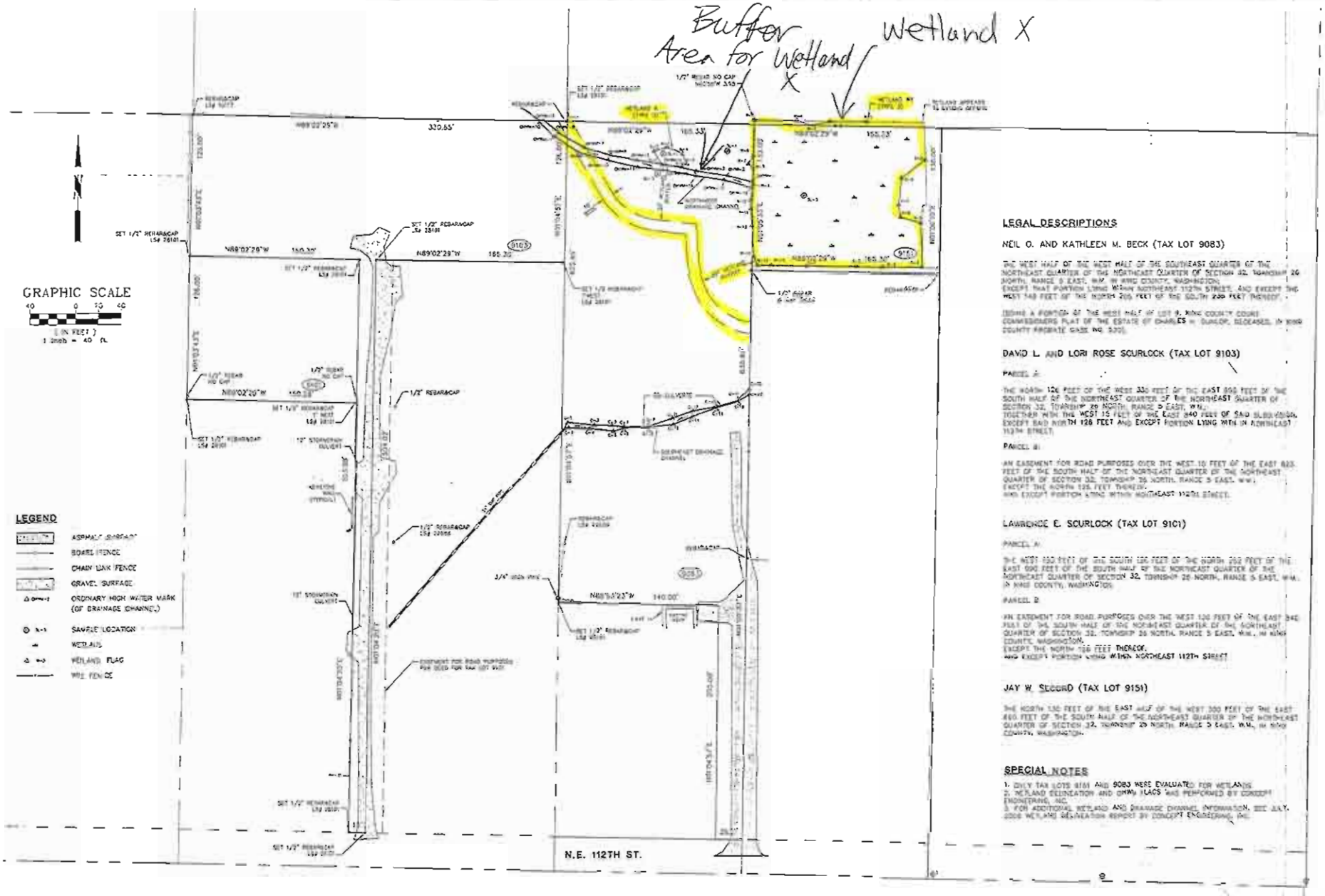
Please forward this letter to City staff and ask them to forward to the Watershed Company for their review. If you have questions, call me at (425) 392-8055.

Sincerely,
CONCEPT ENGINEERING, INC.

Mark J. Rigos, P.E.
Certified Wetland Biologist
King County Preferred Wetland Consultant
King County Preferred Civil Engineering Consultant

Cc: Ken Nash, Windermere Real Estate/Northwest, Inc., 11411 NE 124th Street, Suite 110, Kirkland, WA 98034
David and Lori Scurlock, 11240 NE 124th Street, Kirkland, WA 98033
Grant Moen, CEI
David Hill, PLS, CEI

MJR:mjr



LEGAL DESCRIPTIONS

NEIL O. AND KATHLEEN M. BECK (TAX LOT 9083)

THE WEST HALF OF THE WEST HALF OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 32, TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M. IN KING COUNTY, WASHINGTON;
EXCEPT THAT PORTION LYING WITHIN NORTHEAST 112TH STREET, AND EXCEPT THE WEST 165 FEET OF THE NORTH 205 FEET OF THE SOUTH 230 FEET THEREOF.

(BEING A PORTION OF THE WEST HALF OF LOT 9, KING COUNTY COURT COMMISSIONERS PLAT OF THE ESTATE OF CHARLES H. DUNLOP, DECEASED, IN KING COUNTY PROBATE CASE NO. 5701).

DAVID L. AND LORI ROSE SCURLOCK (TAX LOT 9103)

PARCEL A:

THE NORTH 126 FEET OF THE WEST 330 FEET OF THE EAST 995 FEET OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 32, TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M.;
TOGETHER WITH THE WEST 15 FEET OF THE EAST 840 FEET OF SAID SUBDIVISION, EXCEPT SAID NORTH 126 FEET AND EXCEPT PORTION LYING WITHIN NORTHEAST 112TH STREET.

PARCEL B:

AN EASEMENT FOR ROAD PURPOSES OVER THE WEST 10 FEET OF THE EAST 825 FEET OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 32, TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M.;
EXCEPT THE NORTH 126 FEET THEREOF;
AND EXCEPT PORTION LYING WITHIN NORTHEAST 112TH STREET.

LAWRENCE E. SCURLOCK (TAX LOT 9101)

PARCEL A:

THE WEST 132 FEET OF THE SOUTH 126 FEET OF THE NORTH 252 FEET OF THE EAST 990 FEET OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 32, TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M. IN KING COUNTY, WASHINGTON.

PARCEL B:

AN EASEMENT FOR ROAD PURPOSES OVER THE WEST 120 FEET OF THE EAST 840 FEET OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 32, TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON.
EXCEPT THE NORTH 126 FEET THEREOF.
AND EXCEPT PORTION LYING WITHIN NORTHEAST 112TH STREET

JAY W. SECORD (TAX LOT 9151)

THE NORTH 126 FEET OF THE EAST HALF OF THE WEST 330 FEET OF THE EAST 840 FEET OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 32, TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON.

SPECIAL NOTES

1. ONLY TAX LOTS 9101 AND 9083 WERE EVALUATED FOR WETLANDS.
2. WETLAND DELINEATION AND ORWM FLAGS WAS PERFORMED BY CONCEPT ENGINEERING, INC.
3. FOR ADDITIONAL WETLAND AND DRAINAGE CHANNEL INFORMATION, SEE JULY, 2006 WETLAND DELINEATION REPORT BY CONCEPT ENGINEERING, INC.

CONCEPT ENGINEERING, INC.
425 Berrien Boulevard North
Renton, WA 98057
(425) 282-8005 FAX (425) 282-8100

WETLAND SURVEY FOR HAMISH-ANDERSON CUSTOM HOMES

HAMISH-ANDERSON CUSTOM HOMES
PUR 343
JOHN A. PUGH, JR. 18003
FAST, WA. 98014

SHEET
1 of 1

THE WATERSHED COMPANY

SCIENCE & DESIGN

October 19, 2006

Ron Hanson
City of Kirkland Planning Department
123 Fifth Avenue
Kirkland, WA 98033

Re: Hamish Anderson property – environmental review

Dear Ron:

Thank you for the opportunity to review the ordinary high water mark (OHWM) and wetland delineation report completed by Concept Engineering, Inc., and dated July 11, 2006. In addition to reviewing the written report, I visited the site, located at 11406 NE 112th Street (parcel 3226059083), on October 18, 2006. I also checked wetland boundaries on the neighboring property to the east (parcel 3226059151).

I located the two flagged channels and found the OHWMs to be marked correctly and described accurately in the report. The report makes the determination that neither channel fits the criteria of a stream under the Kirkland Zoning Code (KZC). It is not possible to definitively state, based on my site visit, that the channels were constructed to carry stormwater from surrounding development, as is stated in the report. The source of this information is not specified in the report.

The report describes two wetlands, A and WX, on the two parcels. The marginal nature of both of these wetlands makes it difficult to determine the exact boundaries in the field. Wetland hydrology was absent during both my and Concept Engineering's site visits. The flagged boundary follows the edge of Wetland A accurately based on vegetation and soil color. Wetland WX is nearly confined to the neighboring goat pasture. Again, the delineated boundary follows vegetation and soil changes and is accurate.

Both wetlands are Type 3, as they were rated in the delineation report. The 50-foot buffer for Type 3 wetlands in primary basins is correctly stated in the report. However, Wetland A is estimated at 500 square feet in area. Type 3 wetlands 1,000 square feet or smaller in primary wetlands are exempt from KZC regulations (KZC 90.15). It should also be noted that the City of Kirkland requires a 10-foot building setback, in addition to the regulatory buffer, on all regulated wetlands.

We recommend that the following revisions be made to the delineation report:

1. The report should be revised to include Wetland A's actual size and exemption from regulation.

CONCEPT ENGINEERING, INC.
455 Rainier Boulevard North
Issaquah, Washington 98027
(425) 392-8055 Fax: (425) 392-0108

July 25, 2007

City of Kirkland Planning Department
Jon Regala
Ron Hanson
123 Fifth Avenue
Kirkland, WA 98033

RE: Wetland / Stream Response Letter for the Proposed Glenealy Court 11-Lot Plat; Located at 11240 and 11406 NE 112th Street, Kirkland, WA 98033; Tax Parcel Numbers 322605-9083 (Northeast), 322605-9103 (Northwest) and 322605-9101 (Southwest); City of Kirkland Permit No. PRE06-00069; CEI Job No. 26054.

Dear Mr. Regala and Mr. Hanson:

This wetland / stream response letter was written to respond to The Watershed Company's 10/19/2006-environmental review letter for the proposed Glenealy Court 11-lot plat. Although Watershed asked that our wetland delineation report be updated, I thought it would be more convenient if a stand-alone response letter was provided instead. As of today, we have submitted the following wetland / stream related tasks on this project:

A. 7/11/2006-Wetland Delineation Report for tax parcel numbers 322605-9083 (northeast parcel) and 322605-9151 (parcel has since been removed from the project site)

B. 8/16/2006-Supplemental Wetland Investigation for tax parcel numbers 322605-9103 (northwest parcel) and 322605-9101 (southwest parcel)

C. This Wetland / Stream Response Letter

Watershed's 3 comments are addressed as follows:

1. Wetland A was professionally delineated with 6 flags and surveyed to be 329 square feet (0.008 acres). It is a very small type 3 wetland. It is not a historic wetland. This wetland was created in the last 30 years due to seasonal stormwater in the ditch that occasionally backwaters where the ditch's slope flattens and side slopes shrink. The wetland is shown on our survey. Kirkland Municipal Code (KMC) 90.15 states the applicability of regulations as they apply to sensitive areas. Wetland A does not meet any of the 6 criteria below.
    a. *Streams;*
    b. *Type 1 or 2 wetlands;*
    c. *Type 3 wetlands greater than 1,000 square feet in a primary basin;*
    d. *Type 3 wetlands greater than 2,500 square feet in a secondary basin;*
    e. *Totem Lake and Forbes Lake;*
    f. *Frequently flooded areas; and*
    g. *Buffers required for the preceding six features.*

In conclusion, KMC 90.15 - 90.20 indicates Wetland A is exempt from Chapter 90, because it is a Type 3 wetland in a primary basin that is smaller than 1,000 square feet. Wetland A and its buffers are unregulated and can be filled without City of Kirkland approval or mitigation.

2. Wetland XY's buffer setback is 10 feet. The 10-foot buffer setback is labeled on our survey and our civil engineering plans.

3. Kirkland's stream definition (KMC 90.30.16) is as follows, *"Streams – Areas where surface waters produce a defined channel or bed that demonstrates clear evidence of the passage of water, including but not limited to bedrock channels, gravel beds, sand and silt beds, and stream defined-channel swales. The channel or bed need not contain water year-round. Streams do not include irrigation ditches, canals, storm or surface water runoff devices, or other entirely artificial watercourses, unless they are used by salmonids or convey a naturally occurring stream that has been diverted into the artificial channel."*

   There are 3 seasonal non-fish bearing artificial watercourses (drainage ditches) onsite. Although 2 of the drainage channels were labeled on our survey as "northwest" and "southeast" drainage channels, with the addition of a third drainage channel on Scurlock's property, I decided to rename them Watercourses R, S and T. Each is observed on the attached Upstream Aerial Photo. Watercourse R is 253 feet long (onsite segment, typ.), flows south-southeast and is on the northwest portion of the site. Watercourse S is 198 feet long, flows east-southeast and is on the north portion of the site. Watercourse T is 168 feet long, flows west-southwest, and is on the southeast portion of the site. Ultimately, all 3 watercourses converge just offsite. Watercourse S flows east across the north portion of the site until it reaches the east property line and disperses into Wetland WX on the neighboring site. Following dispersal, water channelizes near the neighboring site's south property line and is conveyed south in another artificial watercourse. At the subject site's east property line's midpoint, the watercourse changes directions and re-enters the site, now named Watercourse T. Watercourse S is the same watercourse as T, it's simply upstream of T. Watercourse T conveys stormwater west across the site to the west property line where it connects with a 24-inch diameter 230-foot long culvert southwest that discharges onto a grass-lined ditch. This ditch is the confluence with stormwater from Watercourse R. All 3 watercourses converge here. Watercourse R leaves the site's south property line as a roadside ditch west of the gravel road. I estimate this ditch is dry most of the year.

   Individual watercourse descriptions are as follows: **Watercourse R** receives stormwater from the northwest attributed to a 17-lot subdivision named Heatherbrook, which contains 112th Place NE. Attached is its 1980 Storm Drainage Plan. Its tributary area to the site is approx. 6.13 acres. Watercourse R's geomorphology, on average, is 2-3 feet wide by 1 foot deep and un-sinuous. Its riparian zone is mostly developed on its north side containing a driveway, garage and road while its south side is partly forested with some undergrowth. Watercourse R is dry most of the year. As a result, there are no pools. There are no fish or fish habitat. It is not a historic stream. Quite simply, Watercourse R was created / excavated to convey stormwater from point A to point B.

   Watercourse S also receives stormwater from the northwest attributed to an 18-lot subdivision named Copper Wood, which contains 113th Avenue NE. Attached is its 1980 Storm Drainage Plan. Its tributary area to the site is approx. 5.23 acres. Watercourse S's geomorphology, on average, is 4 feet wide by 1.5 feet deep and is un-sinuous. It is oriented in a linear direction (see below history with Neil Beck). Its riparian zone is mostly forested with a thick understory, but partially disturbed as evidenced by the thick invasive Himalayan blackberry. Watercourse S is dry most of the year. There

are no fish or fish habitat. Watercourse S is a not a historic stream and was created / excavated to convey stormwater from point A to point B.

Watercourse T receives water from a much larger upstream tributary area than either Watercourse R or S. The entire tributary area to Watercourse T is approx. 17 acres and is comprised of the following; 1. Watercourse S which includes the northeast portion of the site. 2. A several acre townhome development named Place One Sixteen. 3. A mostly forested property east of Place One Sixteen that directs runoff onto Place One Sixteen. 4. Several parcels directly north of the site. Watercourse T is approx. 4 - 5 feet wide by 2 - 4 feet deep. Mature trees surround Watercourse T, but it is also surrounded by invasive Himalayan blackberry. Watercourse T is dry much of the year. There are no fish or fish habitat.

To obtain historic drainage information on Watercourses S and T, on 7/3/2007 I interviewed Neil Beck who has resided at addressed home 11406 NE 112th Street for approx. 30 years. Neil plans to move from his home on October 5, 2007. I have the following findings and conclusions based on our phone conversation.

- Neil said his mother previously lived in the home beginning in 1959.
- Neil said he has lived in the home the past 30 years. Neil said Watercourse S was not present before the upstream Copper Wood development was constructed. Neil said Watercourse T has existed ever since he can remember.
- Watercourse S begins at the site's north boundary from a 12-inch diameter corrugated metal pipe (cmp) discharging from Copper Wood. Watercourse S begins on David Scurlock's property, but is mostly located on Neil's property.
- Copper Wood was constructed in approx. 1980. Copper Wood is accessed from the north via NE 116th Street. Copper Wood's road artery is 113th Avenue NE. Copper Wood is directly north of D. Scurlock's property and northwest of Beck's property. For the Copper Wood development, a small detention tank, by today's standards, was designed by Townsend – Chastain & Associates, Inc. and assumedly constructed to detain stormwater generated from new impervious surfaces such as the 18 homes, driveways and 113th Avenue NE (attached Storm Drainage Plan). Stormwater is conveyed via cmp to discharge near Copper Wood's southeast corner onto D. Scurlock's property. This begins Watercourse S. To prevent future flooding, a backhoe was used by a contractor as approved by the City of Kirkland to create / excavate a drainage ditch to convey Copper Wood's stormwater across Scurlock's and Beck's properties into a low-lying area approx. 75 feet northeast of Beck's home.
- During the 1980's, Neil said he observed incremental increases in Watercourse S stormwater flows. Flows peaked in the early 1990's when this region experienced several 100-year storm events. Expansion of NE 116th Street may have played a role as well in increased flows.
- The north boundary of Forbes Creek drainage basin is approximately NE 116th Street. Neil said he noticed a large decrease in stormwater flows in the late 1990's. Neil said he attributed it to the construction of a townhouse project known as The Enclave comprising approx. 100 lots. Neil said he remembers hearing from a city inspector that much of 116th Street's stormwater was collected and diverted through The Enclave instead of Copper Wood.
- Neil said Watercourse S average flows have stayed fairly consistent and small during the past 8 years. Apparently, there is a moderate trickle of flow in S from November to January each year, but soonafter the drainage bed only contains saturated soils. Then, S dries up until the next rainy season.

On 7/6/2007, I met with Jon Regala, City Planner, at the City of Kirkland to discuss a recently permitted single family home at address 11438 NE 112th Street (tax parcel number 322605-9099) directly east of Neil's home and how it relates to the watercourse directly upstream of Watercourse T.

Jon recalled this watercourse. Together we researched City of Kirkland records. A city record (attached) was provided by Jon on 2/10/2005 that said, "*Research has shown the watercourse is not a stream. It is a drainage ditch.*" This watercourse is on the east side of Neil's fence. It is the same watercourse as Watercourse T, it's just only several feet upstream of T. Jon told me that part of the City's reasoning to exclude it as a stream was based on the City of Kirkland's 1967 Public Works Map (attached). This map shows a meandering drainage channel, Watercourse T, that does not reach Forbes Creek or even NE 112th Street. In 1967, it was an intermittent seasonal watercourse that never reached Lake Washington or any stream. This map does not show Watercourses R or S.

In conclusion, we do not consider Watercourses R, S and T as streams for 3 reasons. First, runoff generated from upstream homes and roads is the primary cause of stormwater in these watercourses. Second, 2.5 years ago, the City of Kirkland's position was that the largest of these 3 watercourses, Watercourse T, was not a stream. Kirkland set a precedent by not regulating this watercourse as a stream. Third, the City's stream definition excludes storm or surface water runoff devices and other entirely artificial channels. These 3 watercourses are artificial channels functioning as stormwater runoff devices.

Please forward this letter to Suzanne Tomassi, Wetland / Wildlife Biologist, at Watershed as appropriate. If you have questions, call me at (425) 392-8055.

Sincerely,
CONCEPT ENGINEERING, INC.

Mark Rigos, P.E.
Group Manager
Certified Wetland Biologist

Encl.: Upstream Aerial Photo
Kirkland Public Services Dept. Including 1967 Public Works Map
City of Kirkland Tags Table
1980 Copper Wood Plat Storm Drainage Plan
1980 Heatherbrook Storm Drainage Plan

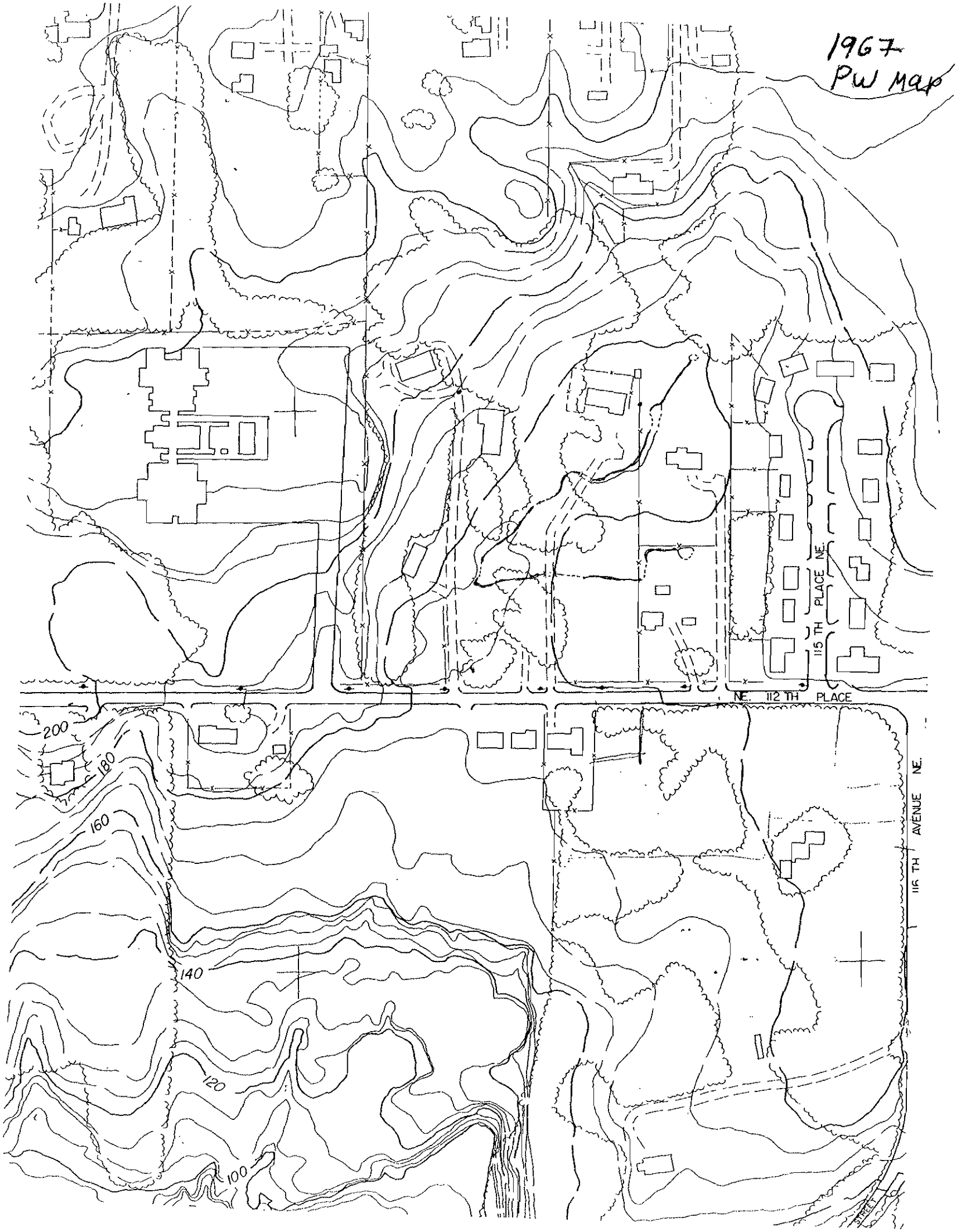
Cc: Hamish Anderson; Hamish Anderson Custom Homes, PO Box 340, Kirkland, WA 98083
Grant Moen; CEI

MJR:mjr

Tags for Parcel # :322605-9099

7/6/2007
1:39:38PM

Code	Use Value	Value	Hold	Description	Notes	Updated	By
FLOW	N		Warning	Fire Review, Check Fire Flow	Fire Department Review Required-Check Fire Flow	8/18/2005	KEC
STRM	N		Warning	Stream----------	Stream on site, possibly intermittent. dmd Research has shown watercourse is not a stream. It is a drainage ditch. -jgr 2/10/05	2/10/2005	JGR
WETL	Y		Warning	Wetland----------	Wetland may be located on or adjacent to north side of property. dmd Additions north of existing house will trigger wetland study. jgr 2/10/05	2/10/2005	JGR
PDF	N		Warning	PARCEL DATA FILE	PARCEL DATA FILE ON FILE IN THE PLANNING DEPARTMENT. FILED UNDER 11438 NE 112TH ST. ADDRESS WAS CHANGED FROM 11418 TO 11438 ON 11/22/96.	1/10/1997	NAO


1967
PW Map
115 TH PLACE NE.
NE. 112 TH PLACE
116 TH AVENUE NE.
200
180
160
140
120
100

Kirkland Public Services Department
City of Kirkland
KIRKLAND, WASHINGTON

007104

11406 NE112

Nature of request Flooding from Copperwood

Request by Kathy Beck

Date 10-6-81

Address

Phone 822-8800 Time

Received by PJ

Letter ☐ In person ☐ Phone ☐

Dept. assigned ANDY

Priority

Description:

Retention System is full

(Called Out)

Dept. Reply:

Improvements to drainage course thru south side of Beck property and adjacent properties prevented flooding. However the refusal of the Becks to grant an easement to complete improvements on the north side of Beck property prevents us from being able to help their problem caused by the 100yr storm of Oct. 6, 1981

Date completed By whom A E Geist Jr. Inspected by

10/7/81

adjoining properties.

At the completion of the construction work Grantee shall restore the surface of the construction work area as near as may be to its present condition so long as such restoration neither inhibits nor impairs the efficient and effective operation of the storm drainage facilities constructed.

On completion of construction and restoration work, all rights of Grantee under this easement shall terminate and all such rights including the obligation for maintenance of the newly-installed facilities shall revert to the Grantor.

DATED at Kirkland, Washington this 17th day of December, 1981.

GRANTORS: Neil Beck

NEIL O. BECK

Kathleen M. Beck

KATHLEEN M. BECK

Anna Mary McKail

ANNA MARY McKAIL

STATE OF WASHINGTON)
)ss
COUNTY OF KING)

On this day per

Kirkland Public Services Department
City of Kirkland
KIRKLAND, WASHINGTON

005426

1406 NE 112th

Nature of request Too much drainage water

Request by Neal Beck

Date 12-18-79

Address

Phone

Time 2:45 P.M.

Received by [illegible]

Letter ☐ In person ☐ Phone ☒

Dept. assigned Fred

Priority

Description: Tom de Bock
Harold Obatach

Mr French ofd spilling of xcess water from new site on 112th (E of A.G. Bell

Dept. Reply:

Date completed

By whom

Inspected by

adjoining properties.

At the completion of the construction work Grantee shall restore the surface of the construction work area as near as may be to its present condition so long as such restoration neither inhibits nor impairs the efficient and effective operation of the storm drainage facilities constructed.

On completion of construction and restoration work, all rights of Grantee under this easement shall terminate and all such rights including the [illegible]

APPENDIX B

1) Ditch to be excavated from Copperwood discharge pipe to a point 90 to 100' north of existing ditch and culvert at the Young's property.

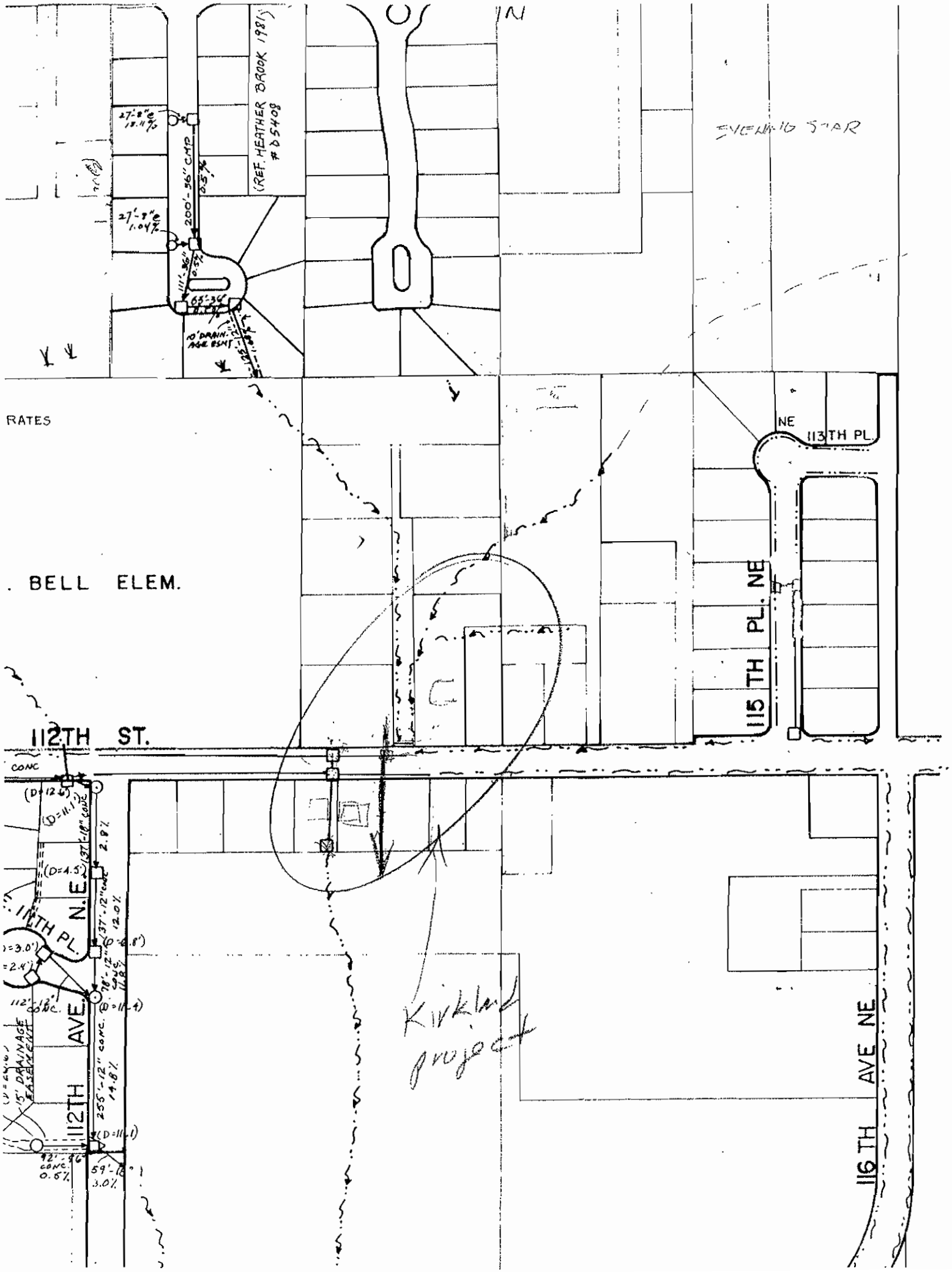
2) Ditch to be 6 feet+ wide and 18" deep and run along west boundary of Beck property.

3) From culvert at Young's property Beck and/or others to install 12" ADS pipe north along west property line for 90 feet +.

4) Pipe to be delivered to Beck property at no cost to the Becks.

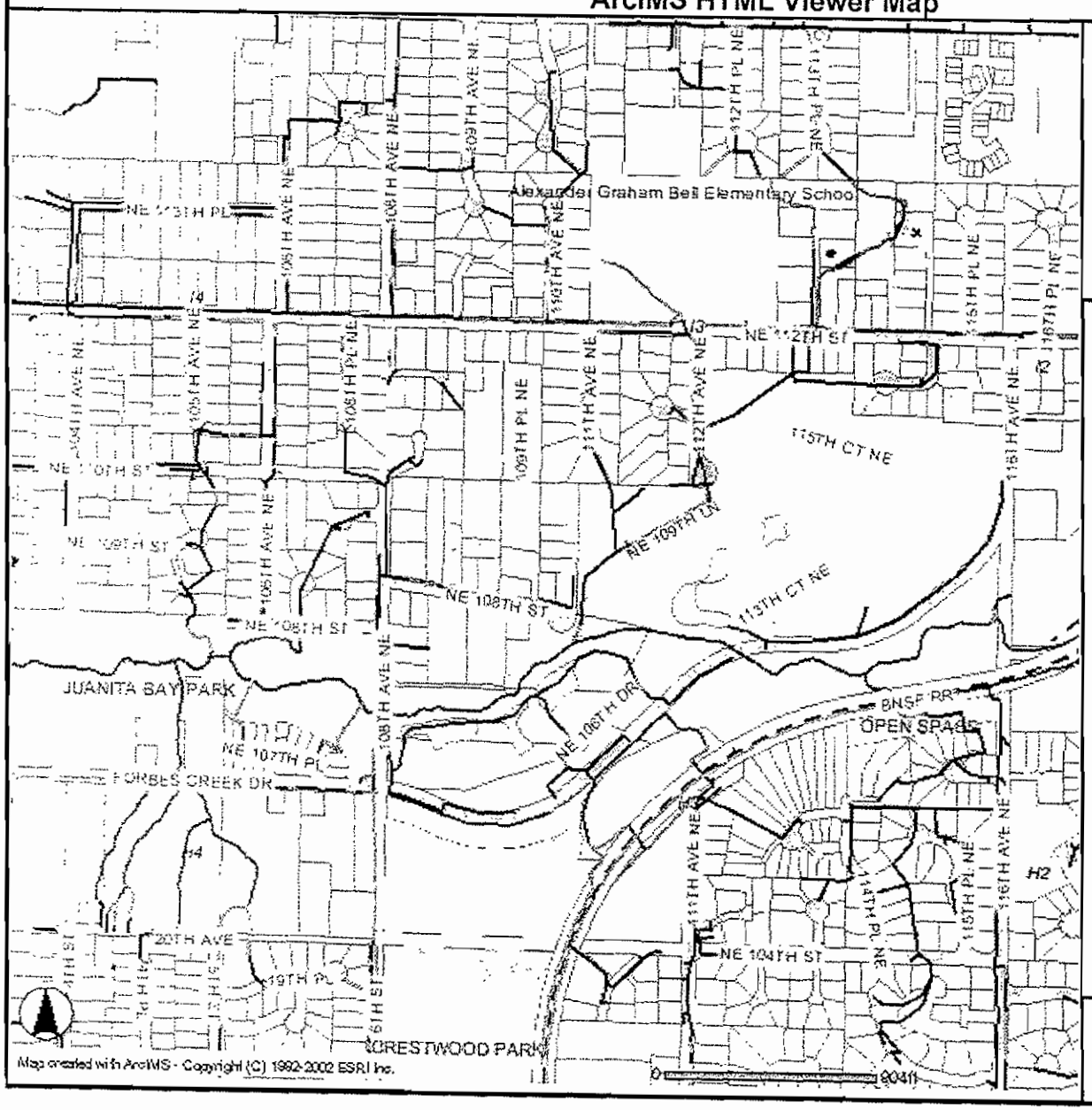
5) Beck to maintain ditch and pipe in the future.

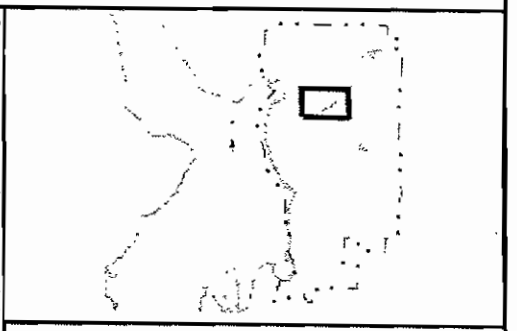
8770Apj



(REF. HEATHER BROOK 1981)
#D5408
200'-36" CMP
0.5%
27'-8"e
1.04%
10' DRAINAGE ESMT
RATES
. BELL ELEM.
112TH ST.
CONC
(D=12.6')
(D=11.1')
(D=4.5')
(D=6.8')
(D=11.4)
(D=11.1)
137'-18" CONC
137'-12" CONC
12.0%
78'-12" CONC
11.8%
255'-12" CONC.
14.8%
92'-36" CONC.
0.5%
59'-18"
3.0%
112TH AVE. N.E.
11TH PL.
15' DRAINAGE EASEMENT
NE
113TH PL.
115 TH PL. NE
116 TH AVE NE
Kirkland project

ArcIMS HTML Viewer Map





Legend

- SW_line
- Pipes
- Ditches
- Others
- CityLimits
- Streets
- RailRoads
- Lakes
- Roads
- Parks
- Schools
- Grid
- Parcels

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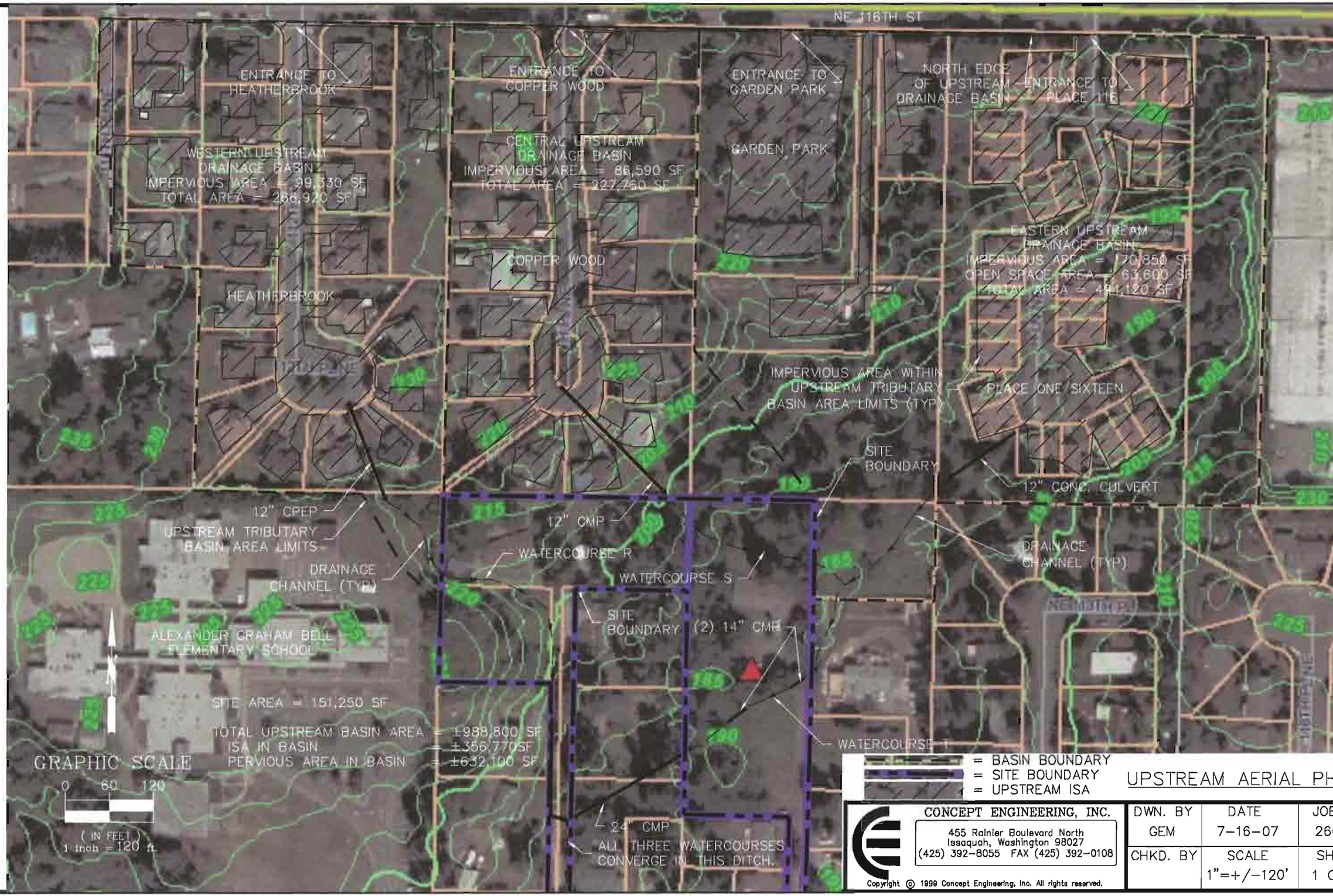
Curtis & Vivian Hom – Drainage Ditch History

- 1950s and earlier. Neil Beck (neighbor, parcel 3226059083) told us the original farmhouse was located on his current property, near his house/garage, but that well location was on Secord property where remnant is now. Doesn't make sense to dig well in location that requires walking across wet/mucky area from house.
- Late 1970s/early 1980s. Neil Beck and Tom Deebach told us there construction and drainage of the developments on 116th Street caused a huge increase in water flow. Runoff water from project was diverted from original direction (North of 116th Street) to discharge on this side of 116th, from large discharge pipe. Caused flooding, so neighbors worked out deal with City of Kirkland.
- September 1981. Deebach (former owner of Hom parcel) easement. Drafted by City of Kirkland "for the purpose of constructing, installing and improving storm and surface water drainage facilities within and along the presently existing water draingage area . . ." which included the short culvert on our property.
- September 1981. Beck (neighbor) easement with Polygon Corporation. Same operative text in the easement grant. Also, water course appears to run through culvert under part of property (adjacent to parcel 3226059009).
- March 1992 (or so). Building permit BLD92-0178 issued re parcel no 3226059009 for new house. Water course appears to run through culvert under much or all of property.
- December 1992 (or so). Building permit BLD92-1397 was issued re parcel no 322605-9129-04) for new house. House is located very close (10-15') to drainage ditch running across their property. Also, water course appears to run through culvert under part of property.
- October 2002. Permit no. BLD00-01195 (Hom Property) re PCD conditions (Jon Regala listed as contact) did not note any issues with the site plan. The vicinity map submitted at the time clearly indicated the existence of the drainage ditch

Clarifications:

- Stormwater map noted in Ms. DuCroz's letter as from 1979, but that doesn't seem correct as the map bears notation from 1981 ("Ref. Heather Brook 1981, #D5408.). Also note the October 2002 permit which approved Hom Property site plans, which clearly indicated the existence of the drainage ditch.
- KZC 90.30 definitions noted in Ms. DuCroz's letter for Class B Stream, Class C Stream and Streams should be read against the original definitions in the Hydraulic Code (referenced in the zoning code) which requires affect on fish or fish habitat.



UPSTREAM AERIAL PHOTO

CONCEPT ENGINEERING, INC.
455 Rainier Boulevard North
Issaquah, Washington 98027
(425) 392-8055 FAX (425) 392-0108

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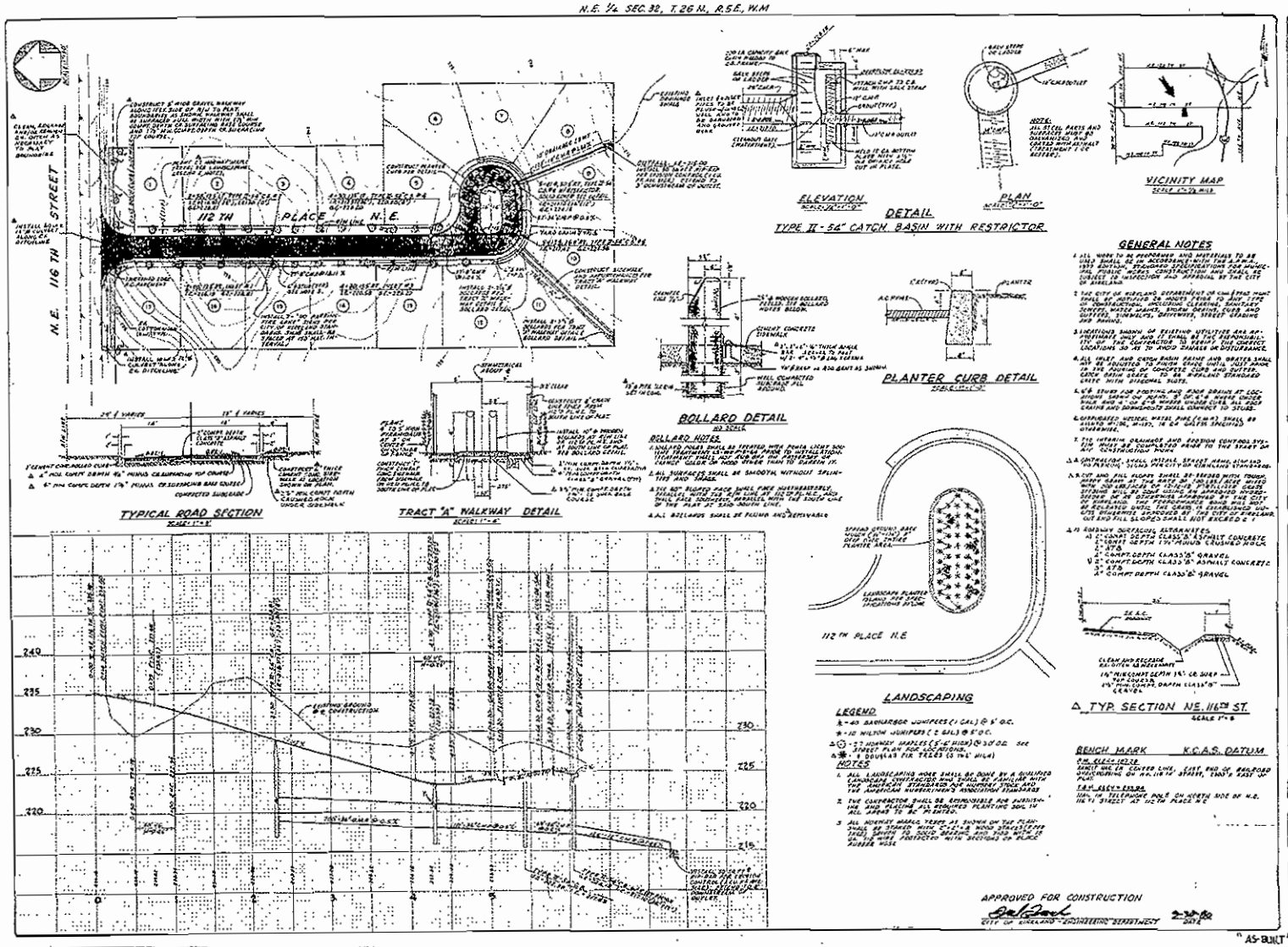
DWN. BY	DATE	JOB NO.
GEM	7-16-07	26054
CHKD. BY	SCALE	SHEET
	1"=+/-120'	1 OF 1

N.E. 1/4 SEC. 32, T. 26 N., R.5E., W.M



PLAT OF HEATHERBROOK

ROAD, STORM DRAINAGE & LANDSCAPING

Designed by: R. GEORGE

Drawn by: P. HILL

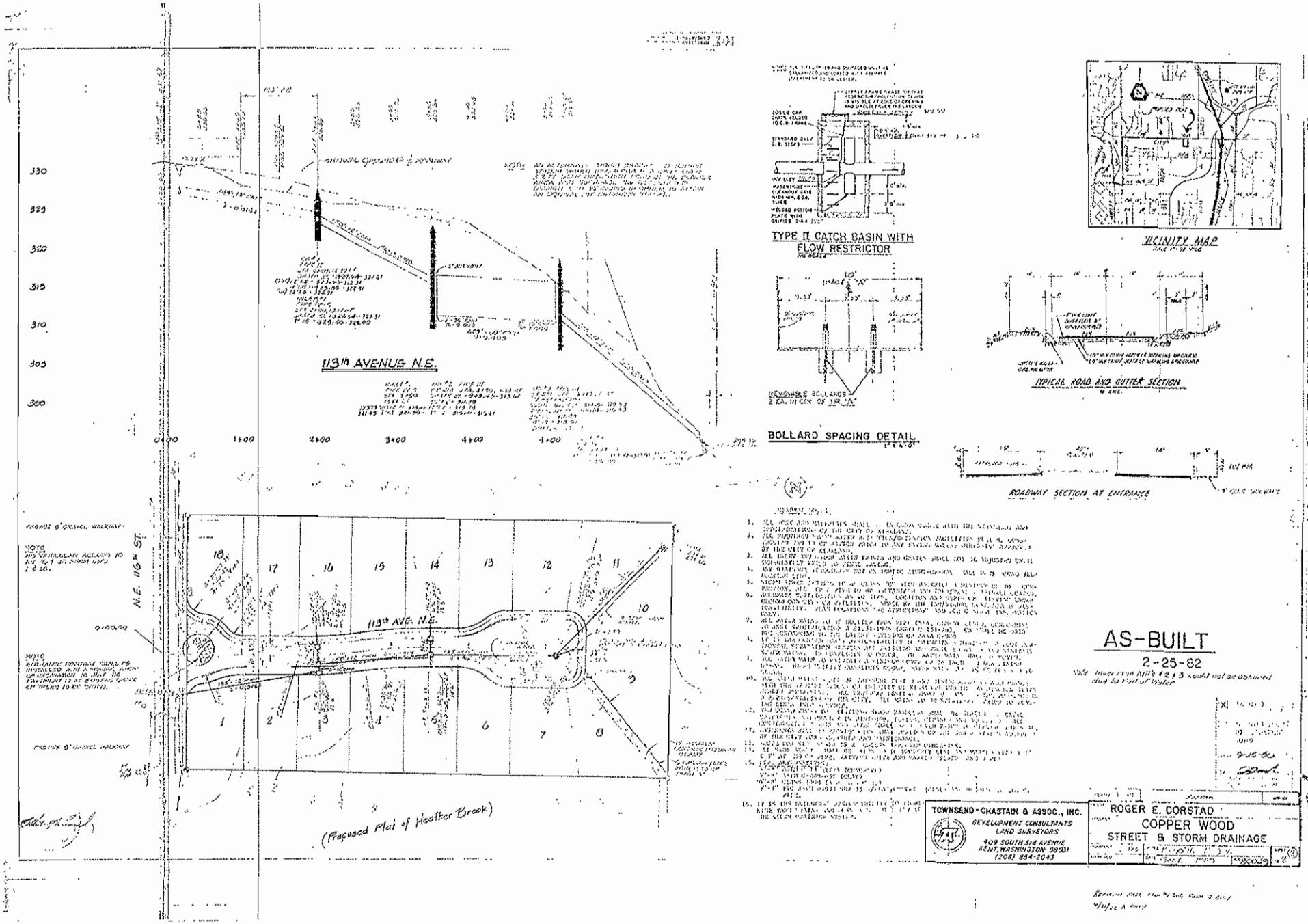
Checked by: R. GEORGE

Project mgr.

Job no.

Sheet 1 of 5

"AS-BUILT"


113th AVENUE N.E.
330
325
320
315
310
305
300
0+00
1+00
2+00
3+00
4+00
5+00
TYPE II CATCH BASIN WITH FLOW RESTRICTOR
BOLLARD SPACING DETAIL
VICINITY MAP
TYPICAL ROAD AND GUTTER SECTION
ROADWAY SECTION AT ENTRANCE
N.E. 116th ST.
113th AVE. N.E.
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
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17
18
(Proposed Plat of Heather Brook)
AS-BUILT
2-25-82
TOWNSEND-CHASTAIN & ASSOC., INC.
DEVELOPMENT CONSULTANTS
LAND SURVEYORS
409 SOUTH 314 AVENUE
KENT, WASHINGTON 98031
(206) 854-2043
ROGER E. DORSTAD
COPPER WOOD
STREET & STORM DRAINAGE

301

2/2

CITY OF KIRKLAND ENVIRONMENTAL CHECKLIST

Purpose of Checklist:

The State Environmental Policy Act (SEPA), Chapter 43.21 C 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.

ENCLOSURE 5
SEP08-00002

:hecklist for Non-project Proposals:

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

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

:ACKGROUND

. Name of proposed project, if applicable: ***Glenealy Court 11-Lot Plat***

2. Name of applicant: ***Hamish Anderson***

3. Tax parcel number: ***322605-9083, 322605-9103, and 322605-9101***

4. Address and phone number of applicant and contact person:
Applicant: Hamish Anderson, Hamish Anderson Custom Homes, 10827 NE 68th St Suite ~~D~~ 201, Kirkland, WA 98083; (425) 576-1293
Second Contact: Mark Rigos, P.E., Concept Engineering, Inc. 455 Rainier Blvd. North, Issaquah, WA 98027; (425) 392-8055

5. Date checklist prepared: ***7/24/2007***

6. Agency requesting checklist: ***City of Kirkland***

7. Proposed timing or schedule (including phasing, if applicable): ***Begin construction in 2008 Summer.***

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. ***A wetland and stream investigation and subsequent reports have been prepared by Concept Engineering and are attached to this preliminary plat submittal package.***

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.
Water and Sewer Availability Approval (COK), Preliminary Plat Approval (COK), Land Surface Modification Permit (COK), (2) Demolition Permits (COK), (2) King County Health Department Septic Drainfield Decommission Approvals, ROW Use Permit (COK), Final Plat Approval (COK), (11) Building Permits (COK), NPDES Permit from Washington State Dept. of Ecology

12. Give brief, complete description of your proposal, including the proposed uses, 1l1e 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.
The site consists of 3 existing parcels (322605 9083, 322605 9103, and 322605 9101) with a total area of approx. 3.3 acres. The outside property dimensions are approx. 500' x 630' (including the flag lot portions). The proposed project is a plat that will create 11 lots each with a minimum area of 8,500 square feet.

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.

The project is located at 11406 and 11240 NE 112th Street, Kirkland, Washington. Legally located in the NE ¼ of Section 32 in Township 26 North, Range 5 East. The legal description of these parcels can be found on sheet 1 of 5 of the topographic survey completed by Concept Engineering, Inc.

TO BE COMPLETED BY APPLICANT

EVALUATION FOR
AGENCY USE ONLY
REVISED BY:

B. ENVIRONMENTAL ELEMENTS

1. EARTH

a. General description of the site (circle one):
Flat, rolling, hilly, steep, slopes, mountainous, other
The east side of the site is flat, the west side is rolling.

b. What is the steepest slope on the site (approximate percent slope)?
Approximately 27%

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.
The soils are generally sandy and mapped as EvC and InA.

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.
Grading will take place to create a access road to the proposed lots. Cut and fill quantities will balanced to the maximum extent practicle. Some strucural fill (gravel, etc) will be imported from nearby sources.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
Some erosion could occur in rain events. But the site does not have high erosion potential since it is not very steep.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt, buildings)?
Approximately 40%.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
Filter fabric fencing, construction entrances, cover measures and a sediment trap will be implemented to provide erosion control.

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 heavy machinery exhaust emissions could go into the air during construction. After the project is completed very little emissions would enter the air.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.
Not that we know of.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:
When necessary during construction, water will be spread over the site to reduce dust.

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.

TO BE COMPLETED BY APPLICANT

EVALUATION FOR
AGENCY USE ONLY
REVISED BY:

One wetland partly overlaps onto the site's northeast corner. A much smaller unregulated wetland is just west of the regulated wetland. Also several open drainage courses run through the site.

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, the unregulated wetland will be filled along with the drainage courses (watercourses). A 50' wetland buffer will extend from the edge of the offsite wetland onto the site. A portion of this wetland buffer is proposed to be enhanced with native trees and shrubs.

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.
Approximately 200 cubic yards of onsite fill will be placed in the unregulated wetland and drainage courses.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.
The drainage courses are shown to be rerouted in appropriately sized pipe systems.

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.

TO BE COMPLETED BY APPLICANT

EVALUATION FOR
AGENCY USE ONLY
REVISED BY:

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.
Upstream stormwater will be gathered in catch basins and be conveyed through the site known as the 3 bypass systems. Onsite stormwater will be gathered in catch basins and piped to an onsite detention vault before leaving the site. Eventually all of this stormwater will enter Forbes Creek.

2) Could waste materials enter ground or surface waters? If so, generally describe.
Metals, sediments, and oil could enter the surface water from the road and driveways. But the detention / wet vault should help decrease the likelihood of that occurrence.

3) Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
A combined detention / wet vault is proposed to reduce flows and provide water quality treatment to the site's storm water.

4. PLANTS

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

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

b. What kind and amount of vegetation will be removed or altered?
Some trees, shrubs and grasses will be removed. However, a tree retention plan per COK standards has been designed.

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

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
A wetland mitigation plan will be designed to mitigate for some buffer disturbance to the offsite wetland.

TO BE COMPLETED BY APPLICANT

EVALUATION FOR
AGENCY USE ONLY
REVISED BY:

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
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 to our knowledge.

c. Is the site part of a migration route? If so, explain.
Not to our knowledge.

d. Proposed measures to preserve or enhance wildlife, if any:
The wetland m itigation plan will provide and enhance animal shelter and nesting areas for small local wildlife due to the significant number of trees proposed. Also, many existing trees are proposed to be preserved.

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 available.

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:

Those required in the building code only.

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 to our knowledge.

1) Describe special emergency services that might be required.
Fire and ambulance.

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)?
None.

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.
In the short term, noise would be generated from construction machinery and workers. Long term, there will only be the noise associated with 11 single families.

3) Proposed measures to reduce or control noise impacts, if any:
Construction will only be allowed during approved time periods.

8. LAND AND SHORELINE USE

TO BE COMPLETED BY APPLICANT

EVALUATION FOR
AGENCY USE ONLY
REVISED BY:

a. What is the current use of the site and adjacent properties?
The site is currently used by two residences. Residential property surrounds the site except for an elementary school directly west of the site.

b. Has the site been used for agriculture? If so, describe.
Not to our knowledge.

c. Describe any structures on the site.
Two houses built in the 1950 –1960s and several small outbuildings.

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

e. What is the current zoning classification of the site?
Residential (R-8.5).

f. If applicable, what is the current shoreline master program designation of the site?
Not applicable.

g. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.
Only the wetland to the east that slightly overlaps onto the site.

h. Approximately how many people would reside or work in the completed project.
Assuming 4 people per home, 44 people would live in the completed project.

i. Approximately how many people would the completed project displace?
Assuming 4 people per home, 8 people would be displaced.

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:
The proposal meets City of Kirkland zoning requirements.

9. HOUSING

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

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

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

10. AESTHETICS

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?
Homes will be designed to comply with building and zoning codes.

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

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

11. LIGHT AND GLARE

TO BE COMPLETED BY APPLICANT

EVALUATION FOR
AGENCY USE ONLY
REVISED BY:

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
Small amounts of lighting associated with single-family residential use.

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 to our knowledge.

d. Proposed measures to reduce or control light and glare impacts, if any:
None.

12. RECREATION

a. What designated and informal recreational opportunities are in the immediate vicinity?
Alexander Graham Bell Elementary School which contains recreational amenities is directly west of the site. Lake Washington and Juanita Park are approx. 1.5 miles northwest of the site.

b. Would the proposed project displace any existing recreational uses? If so, describe.
No.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
None.

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.
Not to our knowledge.

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

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.
I-405 is less than 1 mile east of the site. The site is directly accessed from NE 112th St.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?
There is a bus stop several blocks east of the site at the NE 112th St / 120th Ave NE intersection.

c. How many parking spaces would the completed project have? How many would the project eliminate?
Assuming 4 spaces per home, 44 spaces would be created and 8 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).
A new public road that connects to NE 112th St will be created to access the homes.

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 known, indicate when peak volumes would occur.
A net increase of approximately 108 daily trips would be generated by the completed project. Peak times would generally be during the early evening hours.

g. Proposed measures to reduce or control transportation impacts, if any:
Road mitigation fees will be paid.

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.
A small increase in each of the above listed public services would occur due to an increase in the number of residents.

b. Proposed measures to reduce or control direct impacts on public services, if any.
None (other than the increased tax revenue the local jurisdiction will receive).

16. UTILITIES

CONCEPT ENGINEERING, INC.
455 Rainier Boulevard North
Issaquah, Washington 98027
(425) 392-8055 Fax: (425) 392-0108

February 6, 2008

City of Kirkland
Thang Nguyen, Transportation Engineer
123 5th Avenue
Kirkland, WA 98033-6189

RE: Sight Distance Analysis for the Glenealy Court 11-Lot Plat at 11240/11406 NE 112th Street, Kirkland, WA 98033, Tax Parcel Numbers 322605-9083, 9101,9103; City of Kirkland File Numbers PRE06-00069 and PSB07-00002; CEI Job No. 26054.

Dear Mr. Nguyen:

This letter was prepared to analyze stopping sight distance (SSD) and intersection sight distance (ISD) on NE 112th St at the proposed Glenealy Court road intersection.

The posted speed limit on NE 112th St where this project is located is 25 mph in both directions. City of Kirkland defines the proposed road intersection as a stop control on minor intersection. The City of Kirkland Public Works Department 2006 Pre-approved Plans section R-13 defines the requirements for ISD. The American Association of State Highway and Transportation Officials (AASHTO) specifications for SSD are utilized as the SSD requirements in the City of Kirkland.

INTERSECTION SIGHT DISTANCE ANALYSIS

Measured ISD values have been analyzed for a 3.5' tall driver's eye located 14' back from the edge of 112th St. looking at a 4.25' tall object.

City of Kirkland Public Works Standards:
ISD Recommended for 25mph Design Speed (Posted Speed) = 280 feet

Measured ISD from Proposed Intersection onto 112th St:
ISD Existing to East = Exceeds 500 feet
ISD Existing to West = Exceeds 500 feet

- **At the existing intersection, the ISD requirement is met in both directions. There is a couple of power poles and mail boxes within the sight distance triangles. However, these objects are not large enough to be considered sight distance obstructions.**

ENCLOSURE 6
SEP08-00002

CITY OF KIRKLAND
123 FIFTH AVENUE • KIRKLAND, WASHINGTON 98033-6189 • (425) 828-1243

DEPARTMENT OF PUBLIC WORKS MEMORANDUM

To: David Barnes, Planner

From: Thang Nguyen, Transportation Engineer

Date: February 12, 2008

Subject: Glenealy Court Residential Development Traffic Analysis, PRE06-0069

This memo summarizes public works review of the traffic analysis for the proposed Glenealy Court Residential Development site located at 11406 NE 112th Street.

Project Description
The applicant proposes to replace one single-family home with 11 new single-family homes on a 3.3 acre site. One driveway off NE 112th Street will provide access to the site. It is anticipated that the project will be built and fully occupied by the end of 2009.

The proposed project passed traffic concurrency. Attached is the result of the concurrency test. This memo will serve as the concurrency test notice for the proposed project. Per *Section 25.10.020 Procedures* of the KMC, this Concurrency Test Notice will expire in one year (July 19, 2008) unless a development permit and certificate of concurrency are issued or an extension is granted.

Trip Generation
Using ITE trip generation rate, the proposed project is forecasted to generate 136 daily, 17 AM peak hour and 15 PM peak hour trips.

Traffic Impact
The proposed project is forecasted to have less than 1% proportional impact to the critical intersections with the City. Thus, no off-site intersection analysis is required. The impact analysis is focused on the safety operation of the project's driveway.

Sight Distance Analysis
Sight distance analysis was completed for the proposed project driveway in accordance with the City of Kirkland and the American Association of State Highway and Transportation Officials (AASHTO) guidelines. The City of Kirkland requires a sight distance of 280 feet for NE 112th Street

ENCLOSURE 7
SEP08-00002

at the location of the site driveway. The measured sight distances exceeds 500 feet; thus, meets the City minimum requirement.

Road Impact Fee

Per City's Ordinance 3685, Road Impact Fees per Impact Fee Schedule in effect February 1, 2008 are required for all developments. Road impact fees are used to construct transportation improvements throughout the City to support growth within the City. The development will be assessed road impact fees as summarized in Table 1. Final traffic fee will be determined at time of building permit issuance.

Table 1. Road Impact Fee Estimate

Uses	Fee Rate	Units	Impact Credit/Fees
Proposed Single-Family	$3,432 per unit	11 units	$37,752.00
Existing Single-Family	$3,432 per unit	2 unit	$6,864.00
Net Impact Fee			**$30,888.00**

Staff Recommendation

The proposed project will not have significant impact to the street network that would require specific off-site mitigation. Staff recommends approval of the proposed project with the following conditions:

- Pay Road Impact Fee
- Maintain adequate sight distance at the driveway. No structure or landscaping shall obstruct the sight distance at the driveway. All structure and landscaping within the sight triangle must be less than 3.5 feet high.
- On-site circulation must be design so that vehicle does not back out onto the street.
- Any gate at the driveway must be at least 30 feet behind the back of sidewalk or walkway. Any proposed gate must be submitted to Public Works for review and approval.

cc: file- Advantage

CITY OF KIRKLAND
123 FIFTH AVENUE • KIRKLAND, WASHINGTON 98033-6189 • (425) 828-1243

DEPARTMENT OF PUBLIC WORKS MEMORANDUM

To: Planning Department

From: Thang Nguyen, Transportation Engineer

Date: July 19, 2007

Subject: Glenealy Court Residential Development Traffic Concurrency Test Notice, PRE06-0069

This memo summarizes public works review of the traffic concurrency test result for the proposed Glenealy Court Residential Development site located at 11406 NE 112th Street.

Project Description
The applicant proposes to replace one single-family home with 11 new single-family homes on a 3.3 acre site. One driveway off NE 112th Street will provide access to the site. It is anticipated that the project will be built and fully occupied by the end of 2009.

The proposed project passed traffic concurrency. Attached is the result of the concurrency test. This memo will serve as the concurrency test notice for the proposed project. Per *Section 25.10.020 Procedures* of the KMC, this Concurrency Test Notice will expire in one year (July 19, 2008) unless a development permit and certificate of concurrency are issued or an extension is granted.

EXPIRATION
The concurrency test notice shall expire and a new concurrency test application is required unless:

1. A complete SEPA checklist, traffic impact analysis and all required documentation are submitted to the City within 90 calendar days of the concurrency test notice.

2. A Certificate of Concurrency is issued or an extension is requested and granted by the Public Works Department within one year of issuance of the concurrency test notice. (A Certificate of Concurrency is issued at the same time a development permit or building permit is issued if the applicant holds a valid concurrency test notice.)

3. A Certificate of Concurrency shall expire six years from the date of issuance of the concurrency test notice unless all building permits are issued for buildings approved under the concurrency test notice.

APPEALS

The concurrency test notice may be appealed by the public or agency with jurisdiction. The concurrency test notice is subject to an appeal until the SEPA review process is complete and the appeal deadline has passed. Concurrency appeals are heard before the Hearing Examiner along with any applicable SEPA appeal. For more information, refer to the Kirkland Municipal Code, Title 25. If you have any questions, please call me at x3869.

cc: file- Advantage

International Forestry
CONSULTANTS, INC.
11415 NE 128th Street, Suite 110, Kirkland, WA 98034, USA

TREE PLAN FOR GLENEALY COURT SHORT PLAT 11240 AND 11406 NE 112TH STREET KIRKLAND, WASHINGTON

PARCEL Nos. 332605-9083 (NE), 322605-9103 (NW), and 322605-9101 (SW)

July 16, 2007

(425) 820-3420 • Fax (425) 820-3437 • www.inforestry.com

ENCLOSURE 8
SEP08-00002

Table of Contents

1. Introduction 1
2. Description 1
3. Methodology 1
4. Observations 2
5. Discussion 3
6. Tree Protection Measures 4
7. Tree Replacement 4
8. Monitoring 5

Appendix

Site/Tree Photos – pages 6 -10

Tree Summary Tables

Survey Map – Displaying Tree Locations, Tree Numbers, Driplines, Tree protection fencing Locations and "Limits of Disturbance (To Be Incorporated onto Site Plan)

Site Plan Specifications (To Be Incorporated onto Site Plan)

1. Introduction

International Forestry Consultants (INFO) was contacted by Mark Rigos of Concept Engineering, on behalf of Hamish Anderson, and was asked to compile a 'Tree Plan' report for a proposed 11-lot small subdivision located within the City of Kirkland, Washington.

The present site addresses of the proposed residential development is 11240 and 11406 NE 112th Street, encompassing three current tax parcels: 322605-9083 (NE), 322605-9103 (NW), and 3226059101- (SW). Our task is to conduct a field assessment and to prepare a written report on present tree conditions, which is to be filed with the preliminary permit application.

This report encompasses all the criteria set forth under the City of Kirkland's tree regulations. The required minimum tree density for the total site area (143,688 sq. ft.) is 72 tree credits.

Date of Field Examination: June 28 and 29, 2007

2. Description

The total site area covered by this plan is an unusual upside-down U shape, with the proposed development lots clustered at the north end. Two existing single-family dwellings and three outbuilding structures are presently located on the three parcels. The west side of the site slopes gently to the east, while the east side is nearly level. A wetland has been delineated in the northeastern corner of the area. Apparently not maintained by the present residents, much of the ground surrounding and south of the present 11406 NE 112th Street is covered by a thick tangle of invasive blackberry vines.

173 significant trees were located and assessed on the parcel. Following the guidelines specified by the City of Kirkland's municipal development planning process, all the significant trees on the development parcels were inventoried and assessed. Local government defines a "significant tree" as one with a DBH (diameter at breast height, 4 ½ feet above ground) of six inches or greater. Trees and shrubs smaller than 6" DBH were not considered to be in the purview of this report.

Under municipal guidelines, trees growing on neighboring properties whose branches and drip lines encroach on the subject parcels are also inventoried and assessed. This tree plan includes 32 of these trees, which are actually rooted on adjacent parcels. The majority of these are situated adjacent to the access routes.

All the significant trees on the property have been identified with a numbered aluminum tag attached to the tree at DBH (diameter at breast height, 4 ½ feet above ground).

3. Methodology

Each tree in this report was visited on foot. Tree diameters were measured by tape and tree heights were measured using a Spiegel Relaskop. Each tree was visually examined for defects and vigor. The tree assessment procedure involves the examination of many factors:

- The crown of the tree is examined for current vigor. This is comprised of inspecting the crown (foliage, buds and branches) for color, density, form, and annual shoot growth, limb dieback and disease. The percentage of live crown is estimated for coniferous species only and scored appropriately.

- The bole or main stem of the tree is inspected for decay, which includes cavities, wounds, fruiting bodies of decay (conks or mushrooms), seams, insects, bleeding, callus development, broken or dead tops, structural defects and unnatural leans. Structural defects include crooks, forks with V-shaped crotches, multiple attachments, and excessive sweep.

- The root collar and roots are inspected for the presence of decay, insects and/or damage, as well as to determine if they have been injured, undermined or exposed, or original grade has been altered.

A determination of viability is made based on these factors. Trees considered not viable are those in a poor or declining condition due to disease, extensive decay and/or cumulative structural defects, which exacerbate failure potential. Inspection methods included examining the trees with binoculars and sounding the trunks and surface roots with a rubber mallet. No invasive methods were used to assess conditions, unless specified in this report.

4. Observations

The majority of significant trees on the subject properties are in fair to good condition and range from young to mature in age class. Detailed information including size and dripline measurements can be found in the Tree Summary Table included with this report. Groups of significant trees on the site and noteworthy individual ones are discussed here.

A productive growing site, the property contains a large number of Douglas-firs *(Pseudotsuga menziesii)* and a significant percentage of these are large, tall trees greater than 20" DBH and 100 feet in height. The Douglas-firs are mostly clustered in the northern/northwestern (Lots 6-8) and southeastern (Lots 1-3) corners of the proposed building area. Most of these Douglas-firs are in good condition but some areas (such as those east of the shed adjacent to 11240 NE 112th Street) show symptoms of decline associated with laminated root rot *(Phellinus weirii).* Several Douglas-firs have fallen/blown down in the area east of the shed adjacent to 11240 NE 112th Street and some of the remaining standing trees in this pocket have suspiciously thin crowns.

The one wetland is located in the northeastern corner of the site and the tree species composition here reflects the hydric soils. This area is dominated by tall black cottonwoods *(Populus trichocarpa)*, a fast-growing early-successional species which requires full sunlight. Also noteworthy here is a large, mature silver maple with a sweeping and crooked trunk. It has a very large asymmetric crown spread, extending mostly to the east.

The steepest ground on the property, a small hill on the west side of the proposed development site contains a fragment of remnant native forest. Most of the trees here are hardwoods, big leaf maple *(Acer macrophyllum)* in particular. The vegetation here is dense and mostly non-native.

Scattered around the site, four groups of evergreen trees appear to have been planted in rows and were likely intended as "living fencerows" along three different property lines and in front of the barn adjacent to 11406 NE 112th Street. Since these Western red cedars *(Thuja plicata)*, Deodar cedars *(Cedrus deodara),* and Douglas-firs were planted close together and never thinned, many of them are in poor condition due to their crowding and resulting narrow or lopsided, thin crowns. Douglas-fir is shade-intolerant, requiring full sunlight to be viable.

Several native bitter cherries *(Prunus emarginata)* are scattered across the site. These are pioneer, short-lived trees. A few planted apple trees *(Malus* spp.*)* are found near the existing houses, mostly in fair to poor condition but still hanging on. Other minor species represented on the subject property are European mountain ash (Sorbus acuparia), Pacific madrone *(Arbutus menziesii)*, and cascara *(Rhamnus pershiana).* The majority of these are over-mature and in a poor, declining condition.

2 young to semi-mature big leaf maples were identified on the south property line of proposed lot 11. For some reason these were not surveyed. Their approximate locations have been plotted on the site plan.

All trees on the site determined to be nonviable are discussed in the table below:

TREE/ TAG#	SPECIES	REASON NONVIABLE/COMMENTS
9231	bitter cherry	old broken top; total loss
9232	big leaf maple	weak form; four stems from stump sprouts
9252	western red cedar	dying top and decay in butt
9254	European mountain ash	poor health, dead branches, and leaning to west
9259	big leaf maple	large decay cavity at base and overtopped
9261	Pacific madrone	heavy lean to adjacent property
9264	big leaf maple	cluster of five 4-10" decrepit stems, topped
9271	cascara	dead branches, included bark, and general decay
9649	Douglas-fir	chlorotic (yellow), thin crown with some dieback; suspect root rot
9707*	European mountain ash	cracked upper bole and in general decline
9715	black cottonwood	poor taper and overtopped – in declining stage
9716	black cottonwood	intermediate/overtopped – in declining stage
9741*	black cottonwood	poor taper and leaning north.
9787	apple	broken lower fork and extensive decay
9821	Deodar cedar	recently dead; overcrowded in row of trees
9822	Deodar cedar	recently dead; overcrowded in row of trees
9830	Lawson cypress	suppressed/overcrowded in row of trees
9831	Lawson cypress	suppressed/overcrowded in row of trees
10041	western red cedar	thin crown, suppressed growth
10042	western red cedar	thin crown; overcrowded among other trees
10072	bitter cherry	dead snag tree; conks on lower trunk

*growing on adjacent properties

5. Discussion

Seven of the trees selected for retention are nonviable. These are 9821, 9822, 9830, 9831, 9264, 9715 and 9716. All of these are either dead or in serious decline. All nonviable trees have been identified in red on the attached site plan. All Douglas-fir trees suspected of root disease infection will be removed as part of the proposal. These are all situated within building footprints.

Tree #9551 has been selected for retention; however, doing so does not seem practicable. This tree has a significant lean to the northwest, off the subject property. The entire crown of this tree is situated off the property. I would consider it more of a liability to the development than an asset.

Diligence is required to preserve neighboring trees 9614, 9637 and 9640. These are likely to be significantly impacted during road and sidewalk construction. Fortunately the impacts will be to the north sides of the root zones, where there is less risk of compromising structural stability. The tree protection measures outlined below should be followed, specifically measures 3, 4 and 5. Moving the sidewalk into the planter strip may be warranted to avoid encroaching beyond the recommended limits of disturbance.

Tree #9722 is a mature silver maple with a very large crown spread. The majority of the crown extends far to the east and onto neighboring property. Crown reduction thinning, specifically on this east side is recommended to make the crown more uniform, and to reduce the risk of large branch failures.

Other potentially retainable trees are 10062, 10066, 10068, 10070, 10071, 9810, 9605, 9262 and 9515. These are all situated near the perimeters of proposed lots. All of these are currently in good condition. Tree 9108 may also be retained, if the sidewalk could be redesigned to avoid it. Limits of Disturbance are provided for these trees on the summary tables.

The "Limits of Disturbance" for trees proposed for retention have been evaluated on the ground. The recommended positioning of tree protection fencing and limits of disturbance has been delineated on the attached site plan for these trees and for the neighboring trees. The driplines that appear on the site plan provide a realistic indication of canopy coverage.

6. Tree Protection Measures

Limits of Disturbance and tree protection fencing locations have been delineated on the site plan, found at the back of this report. This information should be transferred to the preliminary site plan that will be submitted with the preliminary permit application. The following guidelines are recommended to ensure that the designated space set aside for the preserved trees is protected and construction impacts are kept to a minimum. Standards have been set forth under Kirkland Zoning Code 95.35.6 of Chapter 95. Please review these standards prior to any development activity:

1. Tree protection fencing should be erected per the attached site plan prior to moving any heavy equipment on site. Doing this will set clearing limits and avoid compaction of soils within root zones of retained trees. Fencing should only be moved to the "Limit of Disturbance" just prior to commencement of work.
2. Any required clearance pruning should also occur before any large equipment is brought onsite. Any branches that may be damaged should be tied back or properly pruned back if warranted.
3. Excavation limits should be laid out in paint on the ground to avoid over excavating.
4. Excavations within the driplines or up to the "Limit of Disturbance" shall be monitored by a qualified tree professional so necessary precautions can be taken to decrease impacts to tree parts. Exploratory excavations with a qualified tree professional are warranted when work is required and allowed within the dripline.
5. To establish sub grade for foundations, curbs and pavement sections near the trees, soil should be removed parallel to the roots and not at 90 degree angles to avoid breaking and tearing roots that lead back to the trunk within the dripline. Any roots damaged during these excavations should be exposed to sound tissue and cut cleanly with a saw. Cutting tools should be sterilized with alcohol.
6. Areas excavated within the dripline of retained trees should be thoroughly irrigated weekly during dry periods.
7. If unexpected injuries occur to trees during construction, they should be evaluated as soon as possible so that appropriate treatments can be applied.
8. Fences should remain onsite until completion of construction and the Planning Official authorizes their removal.

7. Tree Replacement

Whether or not the number of trees retained will satisfy the minimum density requirement is unclear at this time. Many of the trees on the perimeter are not worthy of preservation due to senescence, poor structure and suitability of species. For long-term planning of potential tree cover, it would be more beneficial to plant trees on the perimeter than to retain existing trees in sub-par condition.

Tree plantings will likely be preferred to enhance new landscaping. The site is suitable for a large variety of ornamental and native tree species. The best replacement tree locations for this site are on the perimeter and around the dwellings where growing space is available. Refer to the *Kirkland Plant List* for desirable species. Native tree species of Sitka spruce and western red cedar could be planted in the wetland and at the edge for future enhancement.

For ornamental trees to be planted in the front and side yards, trees that mature at 20 to 40 feet are recommended. These trees could include the many cultivated varieties of red maple, cherry, plum, Callery pear, crab apple, ash, hawthorn, dogwood, and magnolia. Japanese stewardia, European hornbeam, Tartarian maple, or Amur maple are also smaller noteworthy specimen trees.

The required minimum size of supplemental trees shall be at least 6 feet in height for conifer species and at least 2 inches in caliper for deciduous trees. Caliper is measured at 1-foot above ground. For planting and maintenance specifications, refer to chapters 95.45 and 95.50 of the Kirkland Zoning Code.

8. Monitoring

As trees mature, those caring and taking responsibility for them should be aware of the following indicators of declining tree health:

- Appearance of fungal fruiting bodies which will appear as small "shelves" on the bole and branches or mushroom-like growths near the base of the tree.
- Dead or soft flaky wood in cavities or under the bark.
- Thinning crowns.
- The appearance of yellow or orange needles other than near the stem. (Cedar trees may exhibit orange needles in the fall; this is called "flagging" and is a normal response to drought and not a symptom of long-term decline.)
- Leaning stems, extraordinary bark flaking, stem swelling or any other abnormalities on the bole.
- Extraordinary cone production.
- Insect entry holes. These are about the size of a pencil lead and probably are accompanied by "sawdust".
- Premature leaf-fall or the appearance of dead limb tips. Droopy top or thinning crown. Dying treetop.

There is no warranty suggested for any of the trees subject to this report. Weather, latent tree conditions, and future man-caused activities could cause physiologic changes and deteriorating tree condition. Over time, deteriorating tree conditions may appear and there may be conditions not currently visible which could cause tree failure. This report or the verbal comments made at the site in no way warrant the structural stability or long term condition of any tree, but represent my opinion based on the observations made.Nearly all trees in any condition standing within reach of improvements or human use areas represent hazards that could lead to damage or injury.

Please call if you have any questions or if we can be of further assistance.

Sincerely yours,

Bob Layton
ISA Certified Arborist #PN-2714A

Christopher Riely
ISA Certified Arborist #PN-6219A

Delineated wetland in northeast corner-comprised of black cottonwood

West edge of delineated wetland, mostly blackberry

East property line-through delineated wetland

#9722 – silver maple

Site photo of proposed Lot 5

Gravel road to Lots 1, 2 and 3 looking south

Gravel road to Lots 1, 2 and 3 looking north

Site photo of proposed Lot 6

Trees on proposed Lots 6 and 7-two in middle of photo suspected of root disease infection

Between proposed Lots 6 and 7- several root-diseased trees windthrown in this area

Tree Summary Table

For: Glenealy Court Short Plat

International Forestry Consultants, Inc

Date: 6/28&29/2007

Inspector: Layton/Riely

Tree/Tag #	Species	Native/ Planted/ Volunte	DBH	Height	Tree Credit	Drip-Line/Limits of Disturbance (feet) N	S	E	W	Condition	Viability	Comments
9108	Douglas-fir	N	13	50	2.5	8	12	10	12	good	viable	ivy on lower trunk
9161	Douglas-fir	N	14	65	3	6	12	8	12/10	good	viable	
9162	Douglas-fir	N	7	60	1	4	5	0	8/10	fair	viable	crowded in row
9163	Douglas-fir	N	9	60	1	6	6	8	2/10	fair	viable	crowded in row
9164	Douglas-fir	N	14	65	3	10	10	12	18/10	good	viable	
9165	Douglas-fir	N	12	70	2	8	6	10	14/10	good	viable	
9191	Douglas-fir	N	28	130	10	12	15	16	20/15	good	viable	
9192	Douglas-fir	N	20	116	6	17	8	6	20/12	good	viable	
9194	Deodar cedar	P	8	28	1	10	10	10	8/8	good	viable	
9220	Douglas-fir	N	9	56	1	6	5	5	6/4	good	viable	
9231	bitter cherry	V	9	23	na	x	x	x	x	poor	nonviable	old broken top, total loss
9232	big leaf maple	N		62	na	13	16	15	11	poor	nonviable	4 stems - 6, 9, 9, 7"; stump sprouts
9234	big leaf maple	N	13	72	2.5	17	16	7	20	fair	viable	cavity at base, uniform crown
9245	big leaf maple	N	24	70	8	15	20	15	20	fair	viable	decay in butt
9247	bitter cherry	N	15	68	3.5	15	18	12	20	good	viable	
9248	big leaf maple	N	25	85	8.5	15	20	15	30	good	viable	nice crown, dominant tree
9250	big leaf maple	N	8	30	1	25	10	0	20	good	viable	overtopped by larger maples
9251	big leaf maple	N	17	65	4.5	30	0	20	0	fair	viable	vertical crack near base; lopsided
9252	western red cedar	N	38	95	na	15	15	12	18	poor	nonviable	dying top, decay in butt
9253	big leaf maple	N	15	60	3.5	15	25	0	10	fair	viable	butt decay, large branch lost in past
9254	European mountain ash	V	11	35	na	5	6	0	0	poor	nonviable	leaning to W, dead branches, poor health
9256	big leaf maple	N	9	45	1	20	18	20	5	good	viable	spreading crown, stump sprouts
9258	big leaf maple	N	27	90	9.5	23	32	23	20	good	viable	sound trunk, uniform crown
9259	big leaf maple	N	14	44	na	x	x	x	x	poor	nonviable	large cavity at base, overtopped
9260	big leaf maple	N	20	68	6	1/8	16/10	3/8	7/na	fair	viable	two 10" stems, poor taper
9261	Pacific madrone	N	10	22	na	0	0	0	20	poor	nonviable	heavy lean to adjacent property
9262	big leaf maple	N	20	77	6	18	13	3	14	fair/good	viable	sound trunk, typical form
9264	big leaf maple	N		25	na	x	x	x	x	poor	nonviable	cluster of 5 stems - 4-10" each
9265	western red cedar	N	14	37	3	11/8	10/10	10/8	12/na	excellent	viable	full, dense crown; top intact
9269	European mountain ash	V	20	35	6	12	9	13	11	fair	viable	two 10" trunks, some dieback
9271	cascara	N	16	25	na	9	16	22	8	poor	nonviable	dead branches, included bark, decay
9409	Douglas-fir	N	26	110	9	8	25	12	16	good	viable	
9410	Douglas-fir	N	18	98	5	2	20	13	5	fair	viable	thin, lopsided crown

Tree Summary Table
For: Glenealy Court Short Plat

International Forestry Consultants, Inc
Date: 6/28&29/2007
Inspector: Layton/Riely

Tree/Tag #	Species	Native/ Planted/ Volunte	DBH	Height	Tree Credit	Drip-Line/Limits of Disturbance (feet) N	S	E	W	Condition	Viability	Comments
9411	Douglas-fir	N	23	110	7.5	10	18	19	8	good	viable	
9412	Douglas-fir	N	23	105	7.5	15	12	14	15	good	viable	ivy on lower trunk
9413	holly	P	6	26	1	8	10	6	10	good	viable	
9414	dogwood	P	9	34	1	10	10	12	12	good	viable	
9415	big leaf maple	N	9	40	1	12	15	15	16	good	viable	
9428	Douglas-fir	N	29	125	10.5	20	9	12	13	good	viable	
9429	Douglas-fir	N	26	105	9	15	22	10	25	fair	viable	thin, lopsided crown
9430	Douglas-fir	N	11	50	1.5	4	15	6	10	good	viable	looks fine though overtopped
9512	Douglas-fir	N	31	130	11.5	15	21	22	20	good	viable	
9513	Douglas-fir	N	27	112	9.5	12	14	10	16	good	viable	past broken top, now cod. stems
9514	Douglas-fir	N	35	150	13.5	15	18	24	28	good	viable	
9515	Douglas-fir	N	26	125	9	16/na	8/12	8/12	12/10	good	viable	
9516	Douglas-fir	N	10	55	1	10/na	11/8	9/8	8/8	good	viable	
9517	Douglas-fir	N	10	50	1	15/na	6/8	10/8	11/8	good	viable	
9518	big leaf maple	N	29	70	10.5	30	10	20	30	good	viable	uneven crown, recommend reduction
9519	Douglas-fir	N	8	45	1	8/na	9/8	6/na	9/8	good	viable	
9520	Douglas-fir	N	15	68	3.5	12	11/10	14	12	good	viable	
9551	weeping willow	V	16	25	4	8/na	0/10	0/10	30/na	fair	viable	heavy lean to NW; potential liability
9557	apple	P	10 cal	15	1	6/6	4/6	6/6	6/na	fair	viable	topped at 6' in past
9594	Douglas-fir	N	18	105	5	6	8	7	4	fair	viable	small crown
9595	Douglas-fir	N	20	115	6	0	8	6	10	fair	viable	ivy, thin crown - suspect root rot
9596	Douglas-fir	N	26	128	9	18	8	10	15	good	viable	dominant tree, ivy on lower trunk
9597	Douglas-fir	N	25	105	8.5	18	16	15	22	good	viable	
9600	bitter cherry	N	8	45	1	12	10	6	8	fair	viable	getting crowded, will die
9601	western red cedar	N	8	35	1	6	8	6	6	fair	viable	crowded beneath other trees
9602	western hemlock	N	10	52	1	10	8	8	8	fair	viable	crowded from below, poor live crown
9603	Portuguese laurel	P	7	20	1	10	8	6	8	good	viable	leaf blotches: sign of anthracnose
9604	dogwood	P	11	40	1.5	8	15	10	16	poor	viable	
9605	Douglas-fir	N	28	120	10	20/15	20/na	18/15	18/12	good	viable	
9616	Douglas-fir	N	11	72	1.5	5	10	8	8	fair	viable	crooked top, overtopped
9617	Douglas-fir	N	18	106	5	10	10	15	6	good	viable	
9620	Douglas-fir	N	13	70	2.5	6	12	12	15	fair	viable	past broken top, so crooked stem
9621	Douglas-fir	N	25	120	8.5	15	10	16	20	fair/good	viable	thin crown, ivy on lower trunk

Tree Summary Table

For: Glenealy Court Short Plat

International Forestry Consultants, Inc

Date: 6/28&29/2007

Inspector: Layton/Riely

Tree/Tag #	Species	Native/ Planted/ Volunte	DBH	Height	Tree Credit	Drip-Line/Limits of Disturbance (feet) N	S	E	W	Condition	Viability	Comments
9631	Douglas-fir	N	12	80	2	6	10	12	8	good	viable	surrounded by taller trees
9632	Douglas-fir	N	20	120	6	15	20	6	15	fair/poor	viable	wounds/bleeding pitch near base
9634	Douglas-fir	N	15	100	3.5	6	15	12	8	fair	viable	thin crown, suspect root rot
9635	big leaf maple	N	15	70	3.5	15	0	20	16	fair	viable	top broken twice, codominant stems
9636	Douglas-fir	N	32	145	12	14	10	20	12	good	viable	ivy on lower trunk
9639	Douglas-fir	N	32		12	10	13	8	12	fair/good	viable	no concerns
9642	Douglas-fir	N	30	150	11	25	6	30	25	good	viable	ivy on lower trunk
9643	Douglas-fir	N	34	150	13	6	30	25	15	good	viable	ivy on lower trunk
9644	Douglas-fir	N	25	110	8.5	10	12	12	8	good	viable	
9645	European white birch	V	15	70	3.5	15	10	20	8	fair	viable	lean to east
9647	Douglas-fir	N	19	88	5.5	9	8	11	3	fair	viable	minor sweep
9648	Douglas-fir	N	31	140	11.5	18	20	20	18	good	viable	
9649	Douglas-fir	N	34	130	na	15	12	12	14	fair/poor	nonviable	chlorotic, thin crown; some dieback
9651	Douglas-fir	N	29	103	10.5	6	10	18	4	fair	viable	thin crown, wind damaged top
9653	western red cedar	N	24	70	8	6	12	10	10	good	viable	suspect minor decay in lower trunk
9654	western red cedar	N	35	85	13.5	15	10	20	12	good	viable	
9655	Norway maple	N	11	35	1.5	15	16	15	18	good	viable	codominant stems
9656	Douglas-fir	N	24	105	8	6	14	10	6	fair	viable	thin crown, crooked top
9686	Douglas-fir	N	17	75	4.5	10	12	12	20	fair	viable	leaning to north, wind damaged top
9689	mountain ash	N	6	25	1	6/na	10/6	12/6	8/6	good	viable	
9696	western red cedar	N	12	60	2	10	18	8	8	good	viable	no concerns
9697	western red cedar	N	19	65	5.5	10	18	8	8	good	viable	no concerns
9698	Sitka spruce	N	13	56	2.5	11	18	12	8	fair	viable	overtopped and suppressed
9699	Lombardy poplar	P	40	125	16	8	8	8	8	fair/good	viable	bleeding lower trunk, suspect decay
9702	Douglas-fir	N	21	90	6.5	8/na	10/10	6/na	8/10	fair	viable	broken top, slight lean north
9703	Douglas-fir	N	31	105	11.5	10/na	15/12	18/12	10/12	fair/poor	viable	bleeding & ants at base; in decline
9706	black cottonwood	N	23	130	7.5	16/na	10/12	18/12	16/10	good	viable	
9715	black cottonwood	N	6	40	na	0	6	0	12	fair	nonviable	poor taper, overtopped - will die out
9716	black cottonwood	N	9	45	na	8	10	12	6	fair-poor	nonviable	intermediate/overtopped
9717	black cottonwood	N	29	130	10.5	10/na	20/12	15/12	20/10	good	viable	
9719	Lombardy poplar	P	36	120	14	8	8	8	8	fair/good	viable	typical form, covered in ivy
9720	western white pine	N	16	60	4	6	12/12	6	20/12	fair	viable	natural lean to west-ivy on trunk
9722	silver maple	P	53	75	22.5	24/14	30/15	42/na	20/na	fair	viable	3 stems - 13, 10, 30"; heavy lean to E

Tree Summary Table
For: Glenealy Court Short Plat

International Forestry Consultants, Inc
Date: 6/28&29/2007
Inspector: Layton/Riely

Tree/Tag #	Species	Native/ Planted/ Volunte	DBH	Height	Tree Credit	Drip-Line/Limits of Disturbance (feet) N	S	E	W	Condition	Viability	Comments
9758	Douglas-fir	N	42	132	17	16	18	16	16	fair/good	viable	trunk consumed in ivy, minor crooks
9759	cypress	V	6	40	1	5	6	5	5	good	viable	no concerns
9760	tulip poplar	P	23	94	7.5	20	16	25	15	good	viable	sweeping lower bole, leaning to NE
9762	bitter cherry	N	6	30	1	15	6	8	5	fair	viable	branch dieback
9782	bitter cherry	N	14	45	3	20	15	25	20	good	viable	short-lived, pioneer species
9783	bitter cherry	N	7	35	1	18	15	8	12	fair	viable	branch dieback
9785	western red cedar	N	10	40	1	10	12	4	4	fair	viable	
9786	western red cedar	N	11	45	1.5	12	12	4	6	good	viable	
9787	Malus-apple	P	8	40	na	8	20	6	10	poor	nonviable	broken lower fork/extensive decay
9788	western red cedar	N	12	55	2	8	5	10	6	good	viable	
9789	western red cedar	N	8	45	1	4	10	10	12	good	viable	
9790	Douglas-fir	N	16	100	4	8	16	15	10	good	viable	
9791	holly	V	7	35	1	5	6	8/6	5	good	viable	
9792	holly	V	5	35	na	4	10	8/6	5	good	viable	non-significant
9793	holly	V	8	35	1	8	6	8/6	8	good	viable	fork-codominant stems
9794	holly	V	6	35	1	4	5	6/6	10	good	viable	
9795	Lombardy poplar	P	28	125	10	10/8	12	15/12	6	good	viable	
9800	western red cedar	N	15	53	3.5	4	16/10	12/10	10	good	viable	ivy on lower trunk
9801	western red cedar	N	10	48	1	8/8	4	12/10	8	good	viable	ivy on lower trunk
9807	Douglas-fir	N	32	95	12	30	16	20/15	15	fair	viable	old broken top-crook, new leader
9808	Douglas-fir	N	25	115	8.5	20	8	16/15	24	good	viable	
9809	Douglas-fir	N	27	105	9.5	10	16	30/15	25	good	viable	significant fork
9810	Douglas-fir	N	25	115	8.5	20/12	15/15	20/15	12/na	good	viable	
9818	holly-variegated	P	8	25	1	4	8	6	4	fair	viable	lean to south
9821	Lawson cypress	P	8	35	na	x	x	x	x	dead	nonviable	recently dead
9822	Lawson cypress	P	6	35	na	x	x	x	x	dead	nonviable	recently dead
9823	big leaf maple	N	13	45	2.5	10/7	13/8	16/na	20/8	good	viable	typical form
9824	western red cedar	N	13	45	2.5	10/7	4/na	12/na	10/7	fair	viable	overtopped but OK in grouping
9825	western red cedar	N	9	40	1	5/na	2/na	15/na	12/8	good	viable	
9826	western red cedar	N	12	40	2	2/na	10/8	15/na	16/8	good	viable	
9830	Lawson cypress	P	9	40	na	4	2	6	8	poor	nonviable	overcrowded/suppressed
9831	Lawson cypress	P	6	40	na	2	8	6	7	poor	nonviable	overcrowded/suppressed
9832	Deodar cedar	P	14	60	3	8/8	8/na	12/na	12/8	fair-good	viable	overcrowded/suppressed

Tree Summary Table

For: Glenealy Court Short Plat

International Forestry Consultants, Inc

Date: 6/28&29/2007

Inspector: Layton/Riely

Tree/Tag #	Species	Native/ Planted/ Volunte	DBH	Height	Tree Credit	Drip-Line/Limits of Disturbance (feet) N	S	E	W	Condition	Viability	Comments
9833	Deodar cedar	P	14	58	3	5/na	8/7	8/na	15/8	fair/good	viable	
9834	Deodar cedar	P	12	60	2	8/na	8/6	16/na	10/6	fair-good	viable	overcrowded/suppressed
9835	Deodar cedar	P	13	65	2.5	6	8	8	10	fair/good	viable	slight crooks
9836	Douglas-fir	N	16	67	4	10	10	14	8	fair/good	viable	minor sweep, slight lean
9837	Douglas-fir	N	8	49	1	6	6	6	6	fair	viable	
9838	Malus-apple	P	16	40	4	10	16	12	15	good	viable	typical form
9839	silver maple	P	27	55	9.5	12	25	30	18	fair	viable	lean to east/ large crown spread
9839	western red cedar	N	17	48	4.5	10	10	14	10	good	viable	no concerns
9843	Douglas-fir	N	19	45	5.5	16	15	18	15	fair	viable	crook from broken top
9844	big leaf maple	N	12	40	2	20	18	18	20	good	viable	clump of 3 stems
9845	Douglas-fir	N	11	45	1.5	8	6	12	6	fair	viable	
9846	western red cedar	N	11	25	1.5	9	12	8	8	fair	viable	
9847	western red cedar	N	15	25	3.5	10	13	8	11	fair/poor	viable	topped for utility lines
9848	western red cedar	N	9	30	1	8	8	8	8	fair/poor	viable	topped for utility lines
9849	western red cedar	N	11	32	1.5	7	7	7	7	fair/poor	viable	topped for utility lines
9850	Douglas-fir	N	16	32	4	12	11	16	11	fair/poor	viable	topped for utility lines
9944	shore pine	P	14		3	8	3	9	6	poor	viable	two 7" stems; poor form & pruning
9945	red pine	P	16		4	9	12	11	6	fair	viable	codominant stems
10039	silver maple	P	26	82	9	18	35	35	20	fair	viable	multiple forks, leaning to E
10040	western red cedar	N	13	35	2.5	5	10	8	0	fair	viable	codominant stems/overtopped
10041	western red cedar	N	9	35	na	6	10	0	0	poor	nonviable	thin, suppressed
10042	western red cedar	N	9	35	na	4	12	4	4	poor	nonviable	thin crown/overcrowded
10047	bitter cherry	N	6	30	1	10	8	6	10	good	viable	short-lived, pioneer species
10057	Douglas-fir	N	20	85	6	20	15	8	6	good	viable	
10058	Douglas-fir	N	7	45	1	15	12	15	10	good	viable	
10059	bitter cherry	N	7	30	1	12	10	15	7	good	viable	
10060	Douglas-fir	N	19	70	5.5	8	8	18	6	fair	viable	overtopped
10062	Douglas-fir	N	22	110	7	20/12	18/15	12/10	16/na	good	viable	
10065	Douglas-fir	N	22	115	7	15/12	18/15	15/14	20	good	viable	tag on tree reads 10064
10066	Douglas-fir	N	31	140	11.5	18/15	22/15	20/14	25	good	viable	
10068	Douglas-fir	N	32	110	12	20/12	20/15	25/14	15	good	viable	
10069	Douglas-fir	N	28	100	10	25	15	18	20	good	viable	
10070	Douglas-fir	N	16	65	4	0/12	12/15	20/10	10	fair	viable	overtopped, lopsided top

Tree Summary Table

For: Glenealy Court Short Plat

International Forestry Consultants, Inc

Date: 6/28&29/2007

Inspector: Layton/Riely

Tree/Tag #	Species	Native/ Planted/ Volunteer	DBH	Height	Tree Credit	Drip-Line/Limits of Disturbance (feet) N	S	E	W	Condition	Viability	Comments
10071	Douglas-fir	N	19	95	5.5	6/na	25/15	12/12	15	good	viable	
10072	bitter cherry	N	8	45	na	8	6	15	0	dead	nonviable	snag, conks on lower trunk
10080	Douglas-fir	N	23	90	7.5	18/12	20	15/10	12	good	viable	
10081	western red cedar	N	7	45	1	4/5	8	5	0	fair	viable	crowded in row
10082	western red cedar	N	6	45	1	5/5	10	0	3	fair	viable	crowded in row
10083	western red cedar	N	17	50	4.5	8/10	15	4	12	good	viable	
10127	big leaf maple	N	21	50	6.5	20	20	30	20	good	viable	large crown
10132	Pacific dogwood	N	15	34	3.5	9/8	11/8	7/7	11/8	fair/good	viable	two trunks - 9, 6"

Trees on neighboring parcels

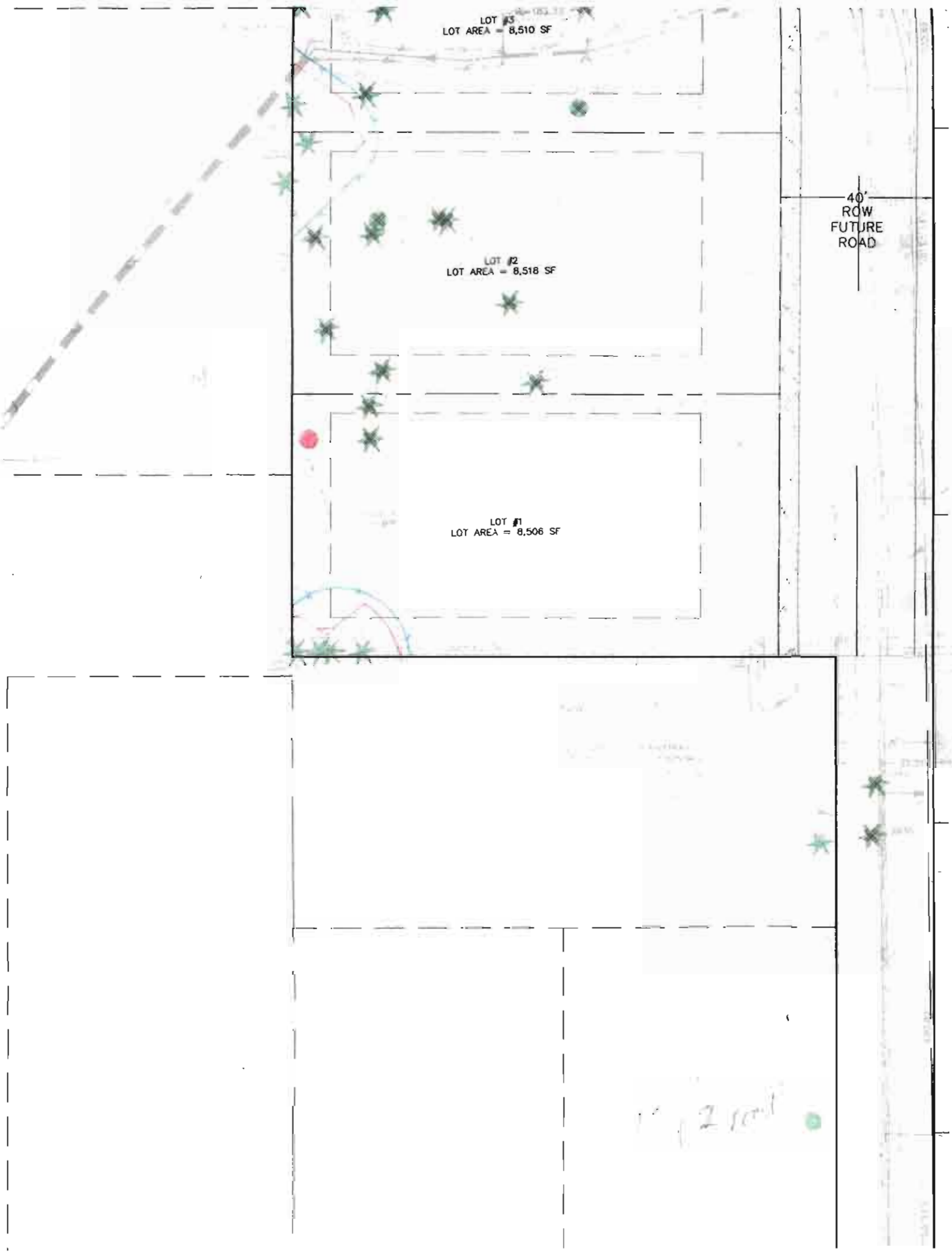
8107	Douglas-fir	P	15	75	3.5	15	8	4	12/10	good	viable	at one end of row of planted trees
8981	white birch	P	10	36	1	22	6	12/8	6	good	viable	one in cluster of 4 birches
8987	western red cedar	P	9	25	1	6	6	5	8/6	good	viable	in row near street/property corner
8988	Douglas-fir	P	10	47	1	10	7	10	6/6	good	viable	in row near street/property corner
9015	apple	P	7	20	1	4	5	8	8	fair	viable	in row of apple trees, topped in past
9016	apple	P	10	34	1	8	7	10	12	good	viable	in row of apple trees, topped in past
9151	Douglas-fir	N	14	38	3	8	16	10/6	16	good	viable	open-grown tree pruned to 12'
9166	Douglas-fir	N	9	60	1	10	8	8	6/10	good	viable	
9167	Douglas-fir	N	29	128	10.5	4	18	12	10/8	good	viable	lopsided crown due to neighbors
9168	Douglas-fir	N	18	74	5	8	6	0	16/8	fair	viable	crowded between two larger firs
9169	Douglas-fir	N	40	145	16	25	10	12	25/12	good	viable	huge dominant tree
9219	Douglas-fir	N	11	56	1.5	10	6	8	8/6	good	viable	ivy on lower trunk
9220	Douglas-fir	N	9	53	1	6	6	7	10/6	good	viable	ivy on lower trunk, slight lean to W
9221	Douglas-fir	N	11	45	1.5	4	8	8	8/6	good	viable	ivy on lower trunk
9225	Douglas-fir	P	19	85	5.5	10	18	12/8	7	good	viable	at one end of row of planted trees
9614	Douglas-fir	N	19	110	5.5	4/4	na	na	na	fair	viable	one-sided crown
9637	Douglas-fir	N	29	140	10.5	20/8	8	10	25/10	good	viable	ivy
9640	Douglas-fir	N	13	50	2.5	20/6	6/8	15/8	8	fair	viable	overtopped/suppressed
9701	bitter cherry	V	11	54	1.5	na	12/5	na	na	fair	viable	wood borers in base
9707	European mountain ash	V	11	33	na	na	na	na	na	poor	nonviable	cracked upper bole; in decline
9732	black cottonwood	N	20	135	6	na	na	na	6/6	fair	viable	poor taper
9739	black cottonwood	N	14	115	3	na	na	na	8/6	fair	viable	poor taper
9740	black cottonwood	N	20	130	6	na	na	na	8/6	fair	viable	poor taper

Tree Summary Table
For: Glenealy Court Short Plat

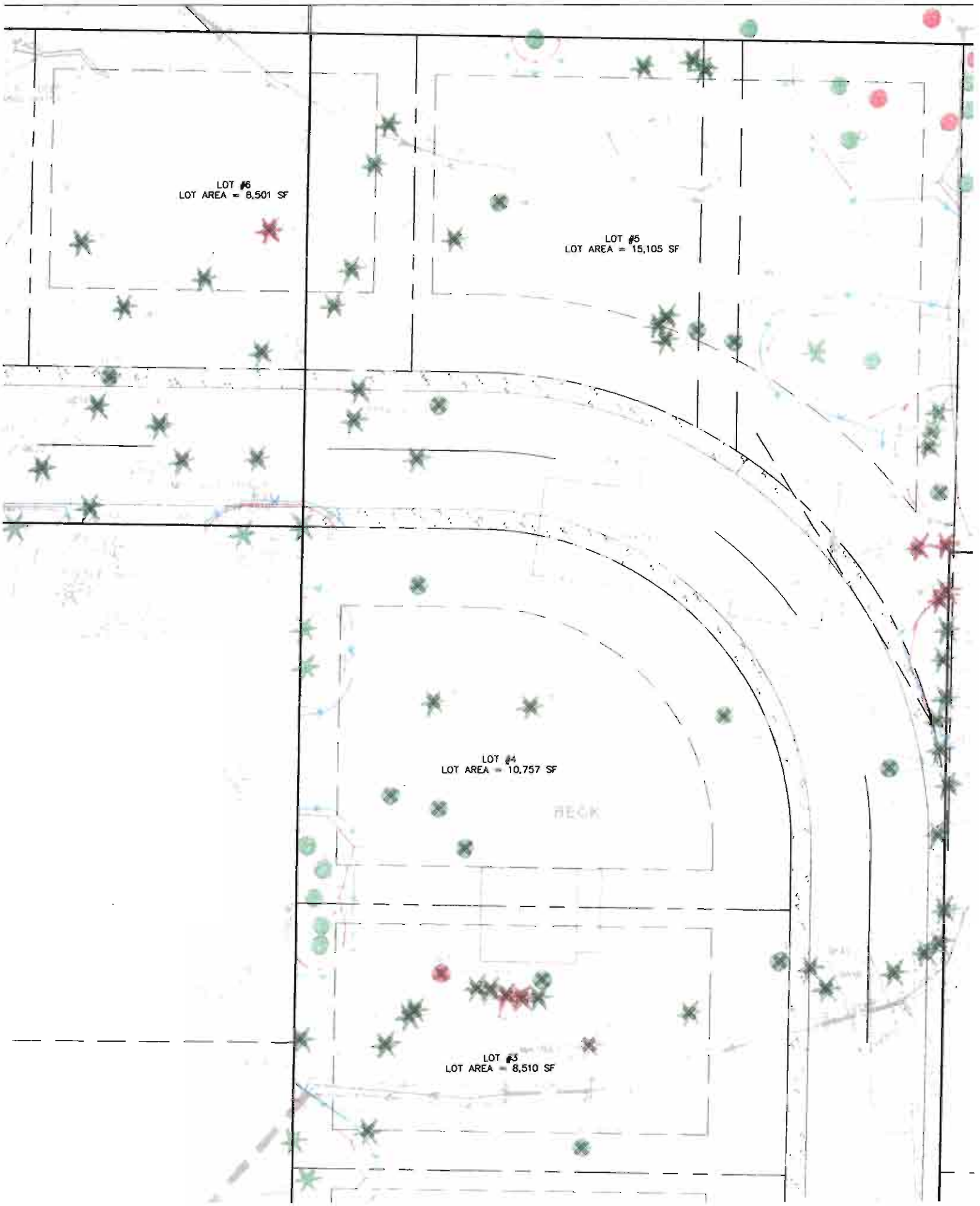
International Forestry Consultants, Inc
Date: 6/28&29/2007
Inspector: Layton/Riely

Tree/Tag #	Species	Native/ Planted/ Volunteer	DBH	Height	Tree Credit	Drip-Line/Limits of Disturbance (feet) N	S	E	W	Condition	Viability	Comments
9741	black cottonwood	N	10	95	na	na	na	na	2/5	fair/poor	nonviable	poor taper, leans north
9946	western hemlock	P	12	26	2	10	10	8/8	12	good	viable	native species planted as yard tree
9947	Scots pine	P	21	42	6.5	15	15	10	12/8	good	viable	forks into three stems at 6'
9948	red pine	P	13	38	2.5	8	12	10	10/8	good	viable	nice symmetrical form
9951	Douglas-fir	N	24	92	8	8	20	12	20/15	good	viable	wide crown, healthy tree
10024	apple	P	16	20	4	10	10	10/8	10	good	viable	enclosed in fenced backyard
10063	red pine	P	9	30	1	12	10	4	15	good	viable	codominant stems/top
no tag	big leaf maple	N	13	51	2.5	10/8	8	7	17	fair/good	viable	fair taper - OK
no tag	big leaf maple	N	10	45	1	12/8	7	14	5	fair/good	viable	fair taper - OK

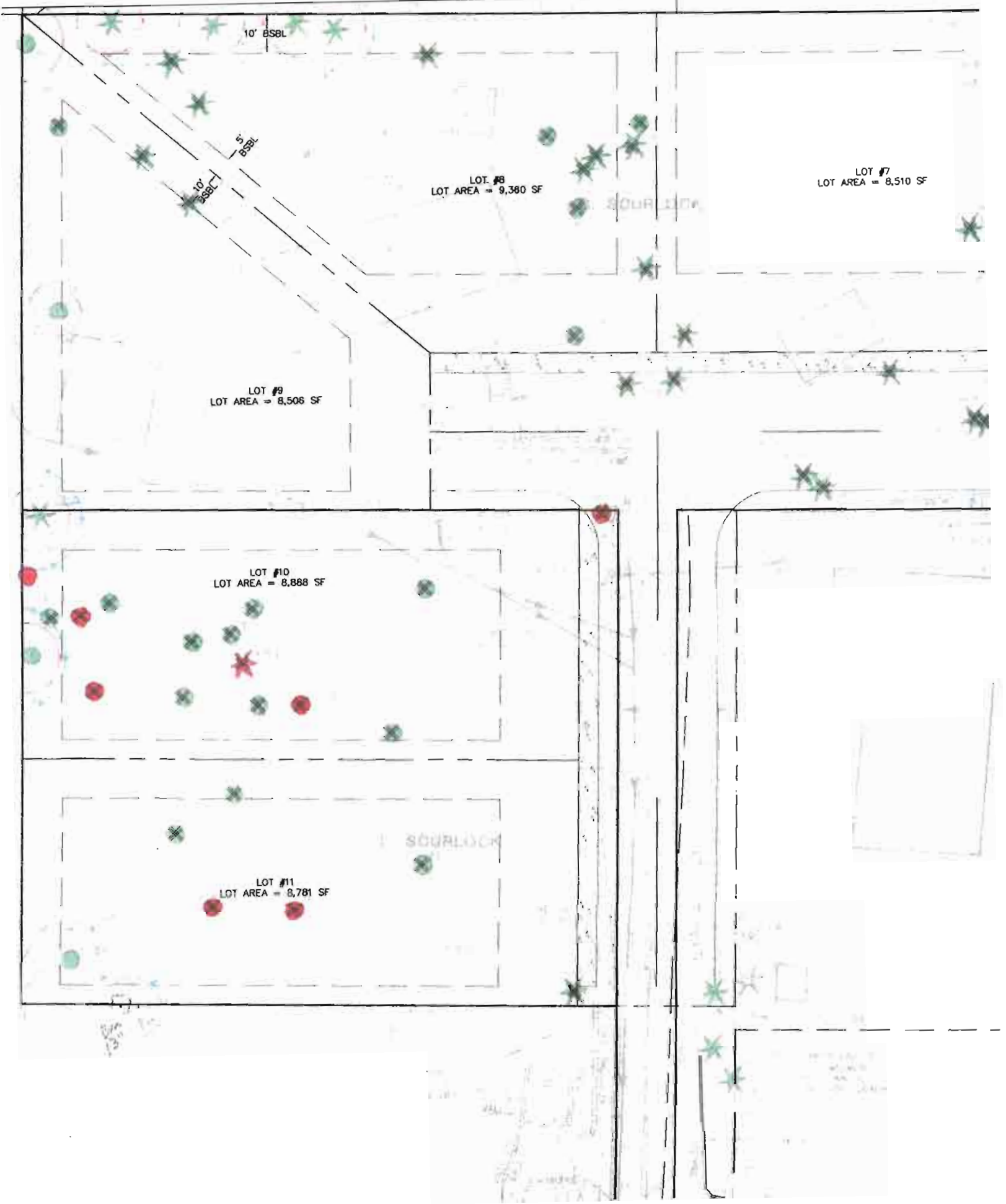
Parcel Trees - Drip-Line and Limits of Disturbance measurements from face of trunk
Trees on neighboring properties - Drip-Line and Limits of Disturbance measurements from property line


LOT #3
LOT AREA = 8,510 SF
LOT #2
LOT AREA = 8,518 SF
LOT #1
LOT AREA = 8,506 SF
40'
ROW
FUTURE
ROAD

7 remove (25 at for road)



Resume 14) (11 for [illegible] road



City of Kirkland-Tree Protection Standards

1. Tree Protection Fencing shall be erected at prescribed distance per arborist report. Fences shall be constructed of chain link and be at least 4 feet high.
2. Install highly visible signs on protection fencing spaced no further than 15 feet apart. Signs shall state "Tree Protection Area-Entrance Prohibited", and "City of Kirkland" code enforcement phone number.
3. No work shall be performed within protection fencing unless approved by Planning Official. In such cases, activities will be approved and supervised by a "Qualified Professional".
4. The original grade shall not be elevated or reduced within protection fencing without the Planning Official authorization based on recommendations from a qualified professional.
5. No building materials, spoils, chemicals or substances of any kind will be permitted within protection fencing.
6. Protection Fencing shall be maintained until the Planning Official authorizes its removal.
7. Ensure that any approved landscaping within the protected zone subsequent to the approved removal of protection fencing be performed with light machinery or hand labor.

In addition to the above, the Planning Official may require the following:

a. If equipment is authorized to operate within the root zone, the area will be mulched to a depth of 6" or covered with plywood or similar material to protect roots from damage caused by heavy equipment.
b. Minimize root damage by excavating a 2-foot deep trench, at edge of protection fencing to cleanly sever the roots of protected trees.
c. Corrective pruning to avoid damage from machinery or building activity.
d. Maintenance of trees throughout construction period by watering.

Copy to City of Kirkland as public comment re Glenealy Court Permit # PSB07-00002

CURTIS AND VIVIAN HOM
11438 NE 112th St.
Kirkland, WA 98033
425-889-9198
C_hom@msn.com (Curtis)
vclhom@hotmail.com (Vivian)

October 2, 2007

Mr. Mark Rigos, P.E.
Project Manager
Concept Engineering, Inc.
455 Rainier Boulevard North
Issaquah, WA 98027

Re: Glenealy Court Development in Kirkland, CEI Job #26054; Kirkland Permit Application #PSB07-00002

Dear Mr. Rigos,

Thank you for your introduction letter earlier this year regarding the proposed Glenealy Court development. We welcome this new project to the neighborhood, and appreciate your courtesy in keep us informed.

We own two properties (11438 NE 112th Street and 11430 NE 112th Street) that are adjacent to one of the parcels to be developed (currently 11406 NE 112th St., Tax parcel #322605-9083). We would like to raise the issue of storm water relating to the drainage ditch running through our property and the proposed development towards 112th Street NE.

There were some blockage/flooding problems on our properties and other neighboring parcels in the past during heavy rainy season. Such problems abated after the drainage channel was cleaned out and/or dredged. We would like to be assured that your design and construction plan properly addresses the storm water drainage issues relating to not only the new development but also the neighboring parcels to prevent future runoff problems. In addition, we would like to see procedures or covenants to take place which will keep the storm drainage channel clear and flowing during the construction and after the new development is complete.

ENCLOSURE 9
SEP08-00002

We are also mailing a copy of this letter to the City of Kirkland as a written public comment regarding the Glenealy Court Development. Please feel free to contact either of us if necessary. Our contact information is above.

Very truly yours,

Curtis and Vivian Hom

cc: Mr. David Barnes of Kirkland Planning and Community Development Dept.

Jane and Cyril Hylton
11250 NE 112th St
(also 11248 NE 112th St)
Kirkland, WA. 98033
(425) 822-3096

October 19th, 2007

City of Kirkland
123 5th Ave
Kirkland, WA 98033

To Whom It May Concern:

Comments on the Glenealy Development Project (11240 NE 112th St)

We are the owners of the property being surrounded by the new proposed development. This development will greatly impact three sides of our property as well as affect access to our home. We've tried to only list tangible items in our concerns, but of course, there will be a large impact on the intangibles as well -- such as atmosphere changes from rural to higher density, impacts to our privacy, etc.

These are the concerns we have:

- We do not want our driveway to become part of a loop road.

- The proposal indicates that our driveway will be temporarily barricaded, that a portion will be paved and a portion left gravel in front of our house. We are concerned that access to our home is planned to be through this new neighborhood and our driveway (property) will be cut off in the middle. We are also concerned about the use of the word "temporary" for the barricading – how long does that mean?.

- The proposal suggests giving the property (15 feet – previously owned by the Scurlocks) on the west side of the driveway to the city. What would that mean as far as driveway and drainage ditch maintenance? Will the city enter into an agreement for road maintenance with us? This includes things like pot hole repairs, gravel purchase and spreading, snow removal, fallen trees, keeping the ditches clear, etc.

- What are the future chances of the City taking our side of the driveway under eminent domain laws?

ENCLOSURE 10
SEP08-00002

- Storm water runoff is already at/over capacity - we want to be sure that this is addressed in the plan, some of the area floods in heavy rain.

  During heavy rains:
  - Our front yard ponds
  - Our neighbor's basement floods
  - The drainage ditch at the south end on the west side of the property overflows
  - The drainage ditch at the south end on the east side of the property fills.
  - The neighbors on both sides of the driveway at the south end have flooding problems

  Who will be responsible for maintaining the ditch that currently is used for storm water runoff if the new project is planning to utilize it for storm water runoff?

- The set backs on the north side of our property needs to be verified for compliance with requirements.

- We are concerned that there will be street lights shining into our home, but as far as we could tell, the plans didn't indicate if there would be any, or where they may be positioned.

Possible solutions:

- The barricade could be placed on the north side of our driveway, at our north property line and access provided to the two lots in question via access that extends into the planned front yards of the new homes.

- Alternatively, access to the two new homes (directly across the driveway from our house) could be from the north sides of the lots if the houses were positioned to make that possible. (Such as a pie shaped configuration as was originally planned for the project.)

- Deed the 15 feet of the west side of the driveway to the adjacent properties or to us.

Sincerely,

Jane and Cyril Hylton

Reyes Canales, III
11226 110th Ave. NE
Kirkland, WA 98033
October 22, 2007

David Barnes
Planner
City of Kirkland Planning Department

RE: PSB07-00002

Dear Mr Barnes:

I object to parts of the above referenced application. Specifically, I object to the reduction of the wetland buffer and the proposed new road to which would connect directly to NE 112th Street.

The wetland buffer is necessary to maintain the goals set for the by the state in protecting wetlands. Hamish Anderson has show a blatant disregard for both the environment and adhering to environmental limitations imposed by the city. In the development of the property at the NE corner of NE 112th Street and 110th Ave. NE, Hamish began clearing trees from the property before a the permit was received. As a result, they were issued a stop work order. Work continued despite the stop work order. The approved plans called for Hamish to provide protective measures to trees not scheduled for removal. After the remove of the approved trees and inspection but before the required protective measures were taken, Hamish removed addition trees. The removal of additional trees on the NE lot of the two new houses weakened the remaining tree. As a result, the remaining tree fell during last winter's wind storm damaging and adjacent house. The owner of this home has a financial interest in Hamish and told a resident of the damaged house, "I guess I shouldn't have cut down those extra trees". The reduction of the of the wetland buffer will further encourage Hamish to disregard any environmental impacts to the area.

I also object to the addition of a new road. Hamish has shown blatant disregard for safety and traffic issues in the past. In the afore mentioned development, Hamish proposed moving a portion of 112th Ave NE and narrowing the street along their development to allow a greater buffer between the building and the street without regard to the school buses that use the street (as it is very close to A.G. Bell Elementary) as a turnaround. We now have a situation where parents are parking further down the street since parking is not allowed next to the new development. This creates an increased danger to pedestrians walking to and from school. The mismatch in paved areas (the road has a sudden 8' shift to the east when traveling north) creates another safety problem as well as a problem for larger vehicles such as those used for garbage collection. The notice Hamish posted during the planning process was also insufficient. The notice was only for proposed water and waste water relocation and street drainage modifications, not the

ENCLOSURE 11
SEP08-00002

street "improvements". When speaking with public works about the street modifications, we were told the reduction in the street width was an effort to reduce the amount of street surface to be maintained by the city. If this is the case, then the addition street surface proposed in this application will have a detrimental effect to the city's already overburdened street maintenance budget and should not be approved. The proposed street will also increase the impervious cover in close to a wetland which will affect the runoff which eventually reaches Forbes Creek.

The subdivision of the property will most likely require the removal of a significant amount of trees in the area however this is not stated in the documentation. On the premise that this will reduce the number of older trees in the area close to a wetland, I object to the subdivision of the property.

My neighbors and I are tired of seeing the developers ruin environmentally sensitive areas and adversely affecting our neighborhood for the sake of making millions. We will attend any hearings and monitor the progress of this application. If the plan to modify the buffer zone and/or add the street are approved, we are prepared to file for an injunction until the matter can be resolved by the courts.

Sincerely,

Reyes Canales, III

Dear David Barnes

Date 10/19/2007

I'm the owner of 11414 N.E 112th St Kirkland, Wa 98033

RECEIVED
OCT 23 2007
PLANNING DEPARTMENT
BY

File Number (PSB07-00002)

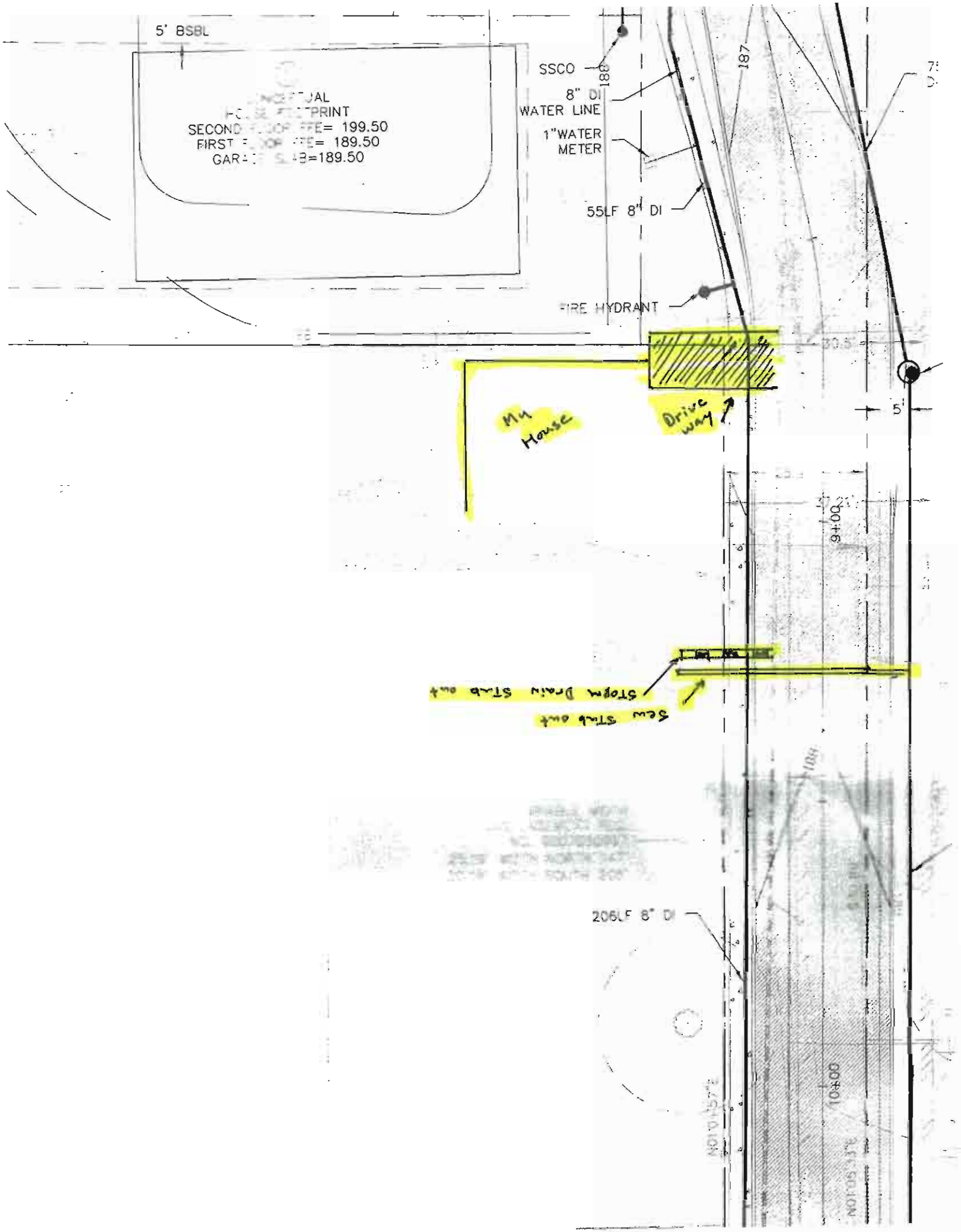
(1) The New road that is going in front of my house By Hamish Anderson.
That will make my existing driveway about 14 feet long.
My truck is 18.5 feet long, making it impossible for me to park at home.

(2) Clear cutting the up lot's will increase more water too my lot.
Can you put a storm drain stubout from the road to my lot for Run off?

(3) Setbacks North Side of house is 2.5 feet and 14.7 Feet in front of house.
What will that do if I want to remodel my house ?

Tom Smith
Phone 425-208-1557

ENCLOSURE 12
SEP08-00002


5' BSBL
SECOND FLOOR FFE= 199.50
FIRST FLOOR FFE= 189.50
SSCO
8" DI
WATER LINE
1"WATER
METER
55LF 8" DI
FIRE HYDRANT
My House
Drive way
5'
9+00
Sew Stub out
Storm Drain Stub out
206LF 8" DI
10+00