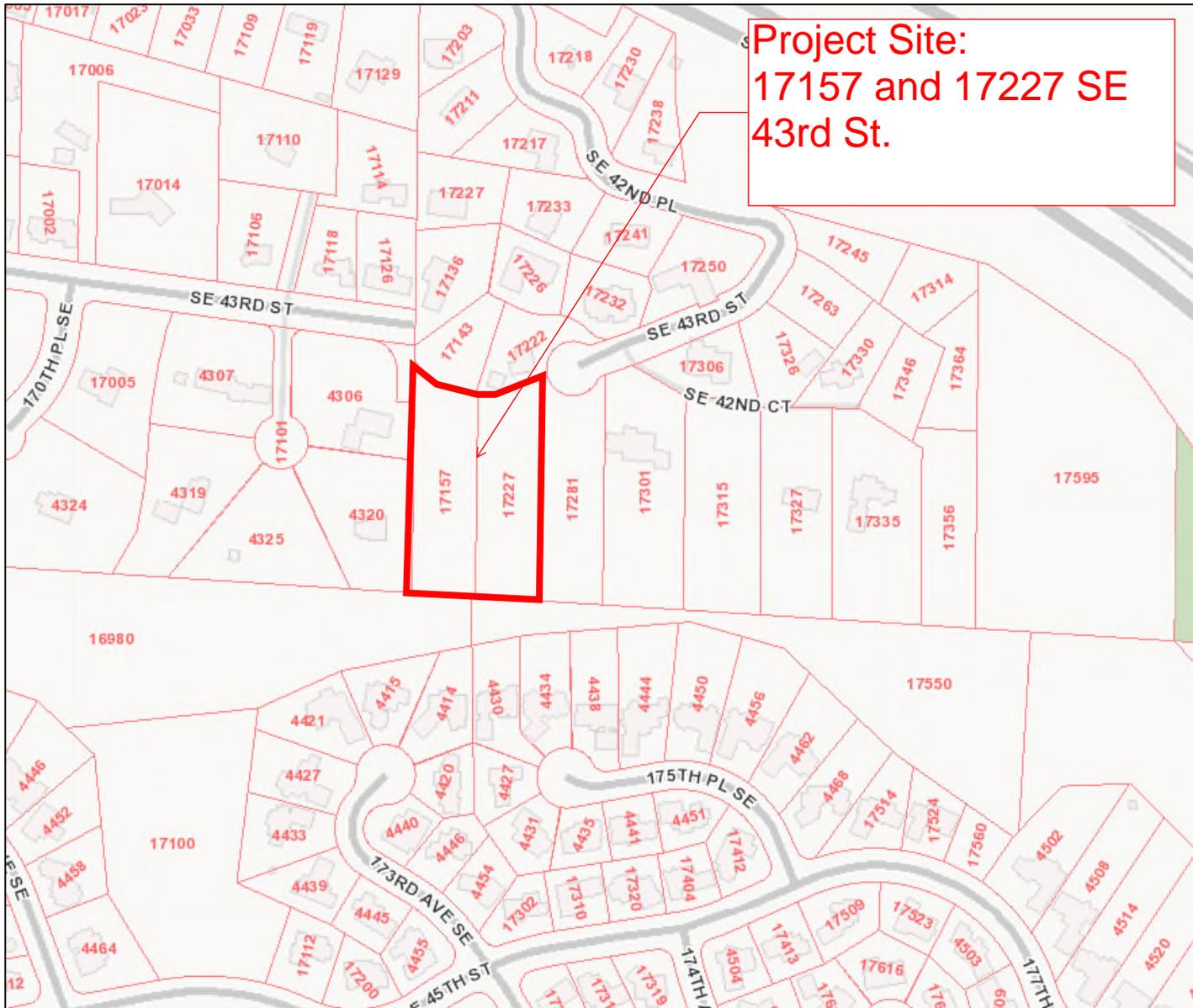


St. Francis Wood Lots 13 and 14 Vicinity Map





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

OPTIONAL DETERMINATION OF NON-SIGNIFICANCE (DNS) NOTICE MATERIALS

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

File No. 15-107162-LO

Project Name/Address: St. Francis Wood Lots 13 and 14

Planner: Reilly Pittman

Phone Number: 425-452-4350

Minimum Comment Period: 17157 and 17227 SE 43rd St.

Materials included in this Notice:

- Blue Bulletin
- Checklist
- Vicinity Map
- Plans
- Other:

OTHERS TO RECEIVE THIS DOCUMENT:

- State Department of Fish and Wildlife / Stewart.Reinbold@dfw.gov; Christa.Heller@dfw.wa.gov;
- State Department of Ecology, Shoreline Planner N.W. Region / Jobu461@ecy.wa.gov; sepaunit@ecy.wa.gov
- Army Corps of Engineers Susan.M.Powell@nws02.usace.army.mil
- Attorney General ecyolyef@atg.wa.gov
- Muckleshoot Indian Tribe Karen.Walter@muckleshoot.nsn.us; Fisheries.fileroom@muckleshoot.nsn.us

SEPA Checklist reviewed by Reilly Pittman - addendum to checklist submitted to ensure completeness and a revised checklist will be requested.

City of Bellevue Submittal Requirements	27
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ENVIRONMENTAL CHECKLIST

10/9/2009

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

INTRODUCTION

Purpose of the Checklist:

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

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." Giving 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 Planner in the Permit Center 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. Include reference to any reports on studies that you are aware of which are relevant to the answers you provide. The City may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impacts.

Use of a Checklist for Nonproject Proposals: *A nonproject proposal includes plans, policies, and programs where actions are different or broader than a single site-specific proposal.*

For nonproject proposals, complete the Environmental Checklist even though you may answer "does not apply" to most questions. In addition, complete the Supplemental Sheet for Nonproject Actions available from Permit Processing.

For nonproject actions, the references in the checklist to the words *project*, *applicant*, and *property* or *site* should be read as *proposal*, *proposer*, and *affected geographic area*, respectively.

Attach an 8 ½" x 11 vicinity map which accurately locates the proposed site.



BACKGROUND INFORMATION

Property Owner: Puget Sound Investors Group, LLC

Proponent:

Contact Person: Vadim Scherbinin

(If different from the owner. All questions and correspondence will be directed to the individual listed.)

Address: One Lake Bellevue Drive, Suite 111
Bellevue WA 98005

Phone: (425) 220-5151

Proposal Title: St Francis Wood lots 13 14 & 15 **Lot 15 will be reviewed under a separate permit**

Proposal Location: SE 43rd Street Culdesac 3 lots # 13, 14 & 15

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

parcel#'s 75040-0130 / 0140 / 0150 see attached

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

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

1. General description: Construct three homes on adjacent steep lots as close as possible to the right of way with as little impact to the slope as possible
2. Acreage of site: .86 / .86 / .87
3. Number of dwelling units/buildings to be demolished: 0
4. Number of dwelling units/buildings to be constructed: 3
5. Square footage of buildings to be demolished: 0
6. Square footage of buildings to be constructed: 5603 / 4461 / 4461
7. Quantity of earth movement (in cubic yards):
8. Proposed land use: 3 separate Single Family Dwellings
9. Design features, including building height, number of stories and proposed exterior materials:
3 Daylight basement residences, all within the 35' hgt restriction, with Hardie reveal Panel and cedar siding with composition roofing
10. Other 

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

If construction can begin by June of 2015 we expect the majority of site work and framing to be completed October of 2015 with remaining interior finishes and overall construction activities completed by Dec 2015

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

No

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

Arborist Report, Geotechnical report, vegetation management plan, wetlands report

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

Residential Building permits for all three lots 14 142538 BS / 14 139047 BS / 14 139089 BS

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

14 142727 TG / 14 39049 TG / 14 139048 TG

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

- Land Use Reclassification (rezone) Map of existing and proposed zoning
- Preliminary Plat or Planned Unit Development
Preliminary plat map
- Clearing & Grading Permit
Plan of existing and proposed grading
Development plans
- Building Permit (or Design Review)
Site plan
Clearing & grading plan
- Shoreline Management Permit
Site plan

A. ENVIRONMENTAL ELEMENTS

1. Earth

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

b. What is the steepest slope on the site (approximate percent slope)? 60% +/-

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

Weathered glacial sand and gravel with silt overlying sedimentary bedrock described as Siltstone. See Geotechnical report

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

None observed at the time of the site observations or reported on or near the proposed development.
See Geotechnical report

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

Grading and Filling on the site will utilize onsite soil with a minimum of import. Soil will be used to level driveways and access to the three lots. Placement and testing of fill soils as recommended in the Geotechnical Report.

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Yes, erosion control techniques will be utilized prior to and throughout site development.

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

Estimated 1/3 or less. (30%)

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

Curtain Drain up-slope from all proposed cuts, silt fencing down slope of all areas of possible disturbance, disturbed surface areas to be protected with straw or other temporary cover until vegetation can be established.

2. AIR

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

Minimum of exhaust emissions from excavation equipment during initial development of the foundations. Minimal dust will be created during construction. Following development of the three lots, emissions, dust and odors will be consistent with residential land use.

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

None Known

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

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.

Seasonal seep and small stream of water on the east side of Lot 15. This seep will be collected and directed into the storm water control system and diverted to the storm system serving the three lots. The small stream of seasonal water currently flows onto the south side of the cul-de-sac and is collected by a catch basin on the south side of the driving surface.

- (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.

The seasonal seep will be collected on the east side of Lot 15.

A small Type-O stream identified on lot 15 flowing from seep and entering storm system. Lot 15 will require separate permit review.

- (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.

N/A

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

Small seasonal seep on east side of Lot 15 to be captured and diverted through the storm control system for the lot. **Lot 15 is not under this permit review.**

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

No

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

No

b. Ground

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

Possible ground water will be intercepted via a curtain drain up-slope from the proposed excavations and diverted around the site per the recommendations of the Geotechnical Report.

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

Surface storm water runoff is to the north, ground water migration is to the north which will be intercepted by a curtain drain up-slope from the excavations and diverted around. Ground water and surface storm water captured will be diverted into the existing storm water system. Roof and footing drains are recommended for each of the structures per the recommendations of the Geotechnical 

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

No

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

A curtain drain is proposed up-slope from the development which will capture surface and ground water runoff before it gets to the building areas to be disturbed. Surface water and ground water runoff impacts should be negligible.

4. Plants

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

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

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

Various native second growth trees (alder, maple, fir, cedar, hemlock) will be removed from the building areas only. Steep slopes south of the proposed home sites will not be disturbed other than danger or dead trees.

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

No threatened plant species are known or were observed to be on site. Madrone - which could be considered a sensitive plant species - may inhabit areas near the site, but were not directly observed on site.

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

Protection of approximately 2/3 of the site in a native growth protection easement is proposed. Re-planting mitigation for the loss of significant trees on site is also proposed. Please see tree assessment and vegetation management report associated with permit.

5. ANIMALS

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

- Birds: hawk, heron, eagle, songbirds, other:
- 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 Known

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

None Known

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

N/A

6. Energy and Natural Resources

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

Each of the three homes will utilize available municipal water, gas and electric services.

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

No, the site are situated on the north slopes and shaded from effective use of Solar.

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

Homes will be partially embedded into the native slope which will provide for insulation and cooling of the structure and its foundation.

7. Environmental Health

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

No Environmental health hazards are known, the site is adjacent to moderately forested slopes.

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

None Anticipated

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

b. Noise

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

Excavation and construction noise while homes are being constructed. Following site development typical residential noise can be expected.

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

Short term, construction based noise and traffic. Long term, typical residential noise and traffic.

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

8. Land and Shoreline Use

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

The land is currently vacant surrounded by similar residential development.

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

No

- c. Describe any structures on the site.

None

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

No

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

R 3.5

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

SF-M

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

NONE

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

The site contains moderate to steep slopes (30 to 60 %)

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

Typical Single Family Residential Structure

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

None

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

None

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

Compliance with current City Zoning, building and Critical Areas ordinances. Residential structures will be complimentary to existing residential development surrounding the project.

9. Housing

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

One middle to high income SFR units per lot.

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

None

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

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?

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

None

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

Building locations and construction consistent with surrounding SFR Development.

11. Light and Glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
Minimal
- 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?
Unknown
- d. Proposed measures to reduce or control light or glare impacts, if any:

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?
Lake Samammish is located within 3 miles to the north.
- 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. Historic and Cultural Preservation

- a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.
No
- b. Generally describe any landmarks or evidence of historic, archeological, scientific, or cultural importance known to be on or next to the site.
None
- c. Proposed measures to reduce or control impacts, if any:
N/A

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.
SE 43rd Street Cul-de-sac at the north end of each of the three lots.
- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?
Unknown
- c. How many parking spaces would be completed project have? How many would the project eliminate?
Private parking in driveway or garage. No parking will 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).

No Improvements planned

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.

Typical Residential Development (Estimated 5 to 10 trips per day per lot)

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

15. Public Services

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

Each lot will utilize existing services with no know increase.

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

16. Utilities

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

Electricity, Natural Gas, Water, Refuse, Telephone, Cable, Sanitary Sewers, Storm Collection

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

Signature

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

Signature.....Date Submitted.....



3. WATER

a. Surface

(1) Is there any surface water body ...

A seasonal seep and associated short City of Bellevue Type “O” Water were identified on the eastern side of Lot 15. A Type “O” Water is defined as not physically connected to Type S (shoreline), Type F (fish bearing), Type N (non fish bearing) Waters by an above ground channel, stream, or wetland. As a part of homesite development this seasonal seep would be collected and directed into the storm water control system and diverted to the storm system serving the three lots. The Type “O” Water currently flows a short distance from the seep onto the south side of the existing cul-de-sac and is collected by an existing catch basin on the south side of the driving surface.

4. Plants

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

<http://sepaguidance.epermitting.org/DesktopModules/help.aspx?project=0&node=618>

- X deciduous tree: **alder, maple**, aspen, other, **cascara**
 X evergreen tree: **fir, cedar**, pine, other, **Western hemlock**
 X shrubs: **blackberries, vine maple, Oregon grape, red elderberry**
 grass
 pasture
 crop or grain
 X wet soil plants: cattail, **buttercup**, bullrush, skunk cabbage, other
 water plants: water lily, eelgrass, milfoil, other
 X other types of vegetation: **sword ferns, nettle, foam flower**

See Critical Areas Assessment prepared by Habitat Technologies dated January 15, 2015

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

The deciduous forest plant community dominated by big leaf maple would be removed from the proposed homesite envelopes. A few reproduction Douglas fir, Western red cedar, Western hemlock, and red alder trees would also be removed within these envelopes.

A few “danger trees” within the retained forest adjacent to the homesite envelopes may also be removed to protect the new homesite and new families.

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

No know or documented threatened or endangered plant species on or near the site.

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

The existing forest community within the central and southern portions of the project site (i.e. those areas outside the new homesite envelopes) would be retained and not adversely impacted. This un-impacted area (approximately 2/3 of the project site) would also be protected within a “native growth protection easement” to be established as a part of the new homesite permitting. Re-planting mitigation for the unavoidable removal of significant and danger trees within the homesite envelopes is also proposed to be completed within the area of the native growth protection easement.

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: woodpeckers, owls,
mammals: deer, bear, elk, beaver, other: coyote, skunk,
eastern gray squirrel, Townsend chipmunk
fish: bass, salmon, trout, herring, shellfish, other _____

**See Critical Areas Assessment prepared by Habitat Technologies
dated January 15, 2015**

b. List any threatened or endangered species known to be on or near the site.
<http://sepaguidance.epermitting.wa.gov/DesktopModules/help.aspx?project=0&node=624>

No know or documented federally or state listed threatened or endangered animal species on or near the site.

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

The project site is adjacent to a mixed forest area and provides a regular movement corridor for black tailed deer and coyote. The project site is also located within the seasonal migratory corridor for passerine birds.

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

The existing forest community within the central and southern portions of the project site (i.e. those areas outside the new homesite envelopes) would be retained and not adversely impacted. This un-impacted area (approximately 2/3 of the project site) would also be protected within a “native growth protection easement” to be established as a part of the new homesite permitting. Re-planting mitigation for the unavoidable removal of significant and danger trees within the homesite envelopes is also proposed to be completed within the area of the native growth protection easement.

The retention and protection of this forested area would continue to provide a movement corridor for local wildlife and continue to provide a variety of habitats for a variety of wildlife species.

- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).
No Improvements planned
- 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.
Typical Residential Development (Estimated 5 to 10 trips per day per lot)
- g. Proposed measures to reduce or control transportation impacts, if any:

15. Public Services

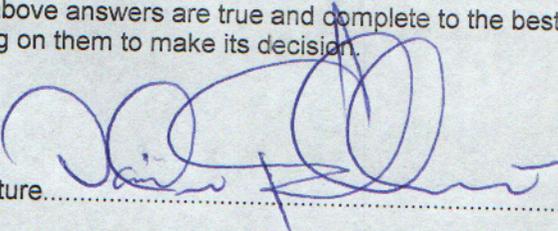
- a. Would the project result in an increased need for the public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.
Each lot will utilize existing services with no know increase.
- b. Proposed measures to reduce or control direct impacts on public services, if any:

16. Utilities

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.
Electricity, Natural Gas, Water, Refuse, Telephone, Cable, Sanitary Sewers, Storm Collection
- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Signature

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

Signature  Date Submitted 05/28/15

LEGAL DESCRIPTION

NE 13-24-05
 TAX PARCELL # 1504500130
 ST FRANCIS WOOD LOT # 13
 37,437 SQ FT 0.86 ACRES
 172XX SE 43rd ST
 BELLEVUE, WA 98006
 KING COUNTY / CITY OF BELLEVUE

ZONED R-3.5
LOT COVERAGE BY STRUCTURE

AREA SUMMARY:

PROPOSED BLDG FOOTPRINT
 TOTAL HOUSE = 2,744 SQ. FT.
 EXISTING LOT SQUARE FOOTAGE
 TOTAL = 37,437 SQ. FT.

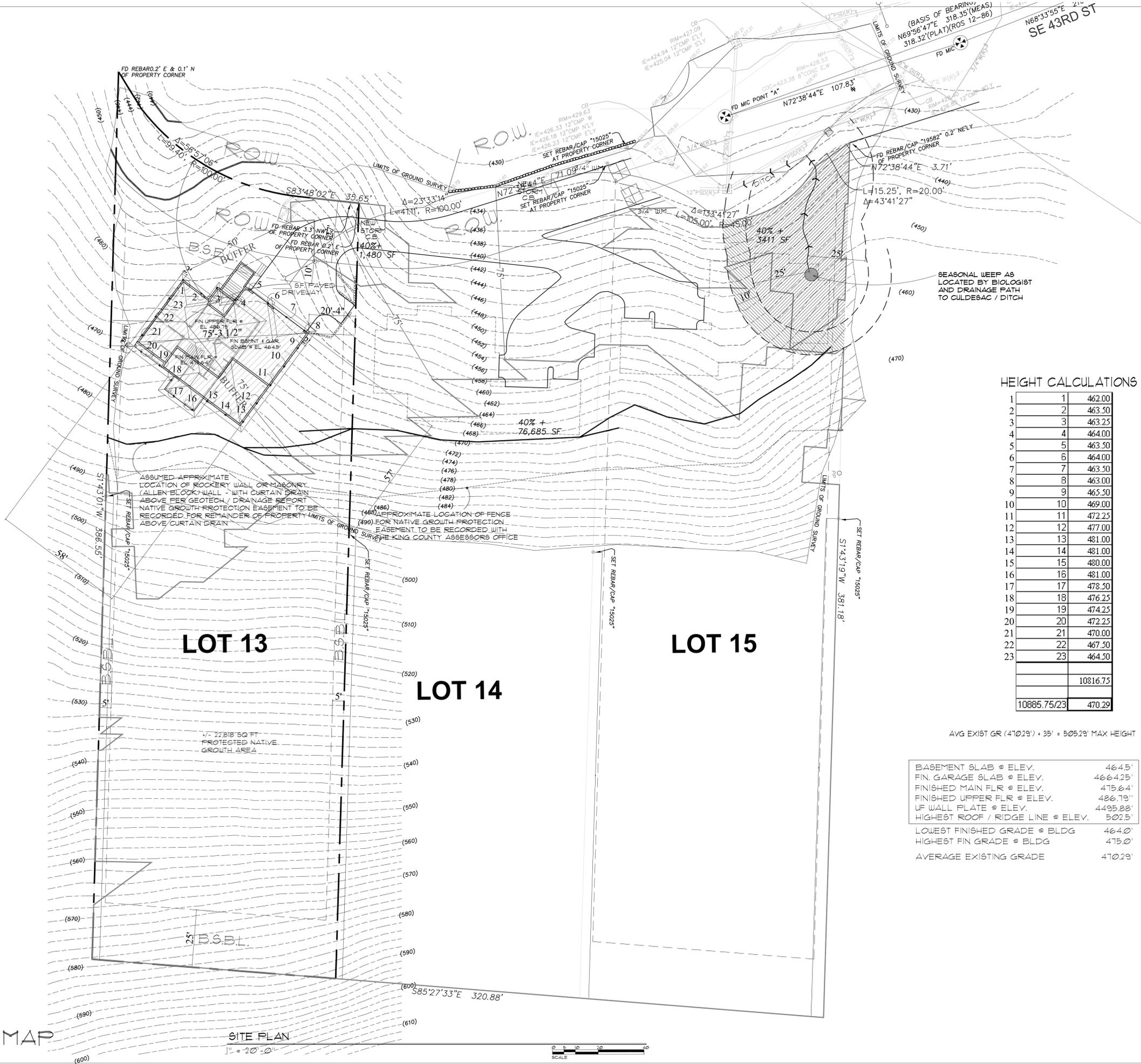
$$2,744 / 37,437 = 7.32 \%$$

IMPERVIOUS SURFACES

AREA SUMMARY:

BUILDING FOOTPRINT
 TOTAL HOUSE = 2,744 SQ. FT.
 IMPERV. PATIO/DRIVEWAY/WALKS
 TOTAL = 1,568 SQ. FT.
 TOTAL ALL IMPERVIOUS SURF.
 TOTAL (ALL) = 4,312 SQ. FT.
 EXISTING LOT SQUARE FOOTAGE
 TOTAL = 37,437 SQ. FT.

$$4,312 / 37,437 = 11.5 \%$$



HEIGHT CALCULATIONS

1	462.00
2	463.50
3	463.25
4	464.00
5	463.50
6	464.00
7	463.50
8	463.00
9	465.50
10	469.00
11	472.25
12	477.00
13	481.00
14	481.00
15	480.00
16	481.00
17	478.50
18	476.25
19	474.25
20	472.25
21	470.00
22	467.50
23	464.50
10885.75/23	
470.29	

AVG EXIST GR (470.29) + 35' = 505.29' MAX HEIGHT

BASEMENT SLAB @ ELEV.	464.5'
FIN. GARAGE SLAB @ ELEV.	466.425'
FINISHED MAIN FLR @ ELEV.	475.64'
FINISHED UPPER FLR @ ELEV.	486.79'
UF WALL PLATE @ ELEV.	4495.88'
HIGHEST ROOF / RIDGE LINE @ ELEV.	502.5'
LOWEST FINISHED GRADE @ BLDG	464.0'
HIGHEST FIN GRADE @ BLDG	475.0'
AVERAGE EXISTING GRADE	470.29'

RESIDENTIAL
 DESIGN ASSOCIATES
 929 E 58th ST
 TACOMA, WA
 425-830-6713

This drawing is copy printed and is to be used solely for the construction of the subject project by the person named herein. No other use of the drawing shall be permitted without the written consent of the designer. The designer shall not be responsible for any errors or omissions in the drawing. The contractor shall verify all dimensions, conditions, etc. pertaining to the work before proceeding. This office shall be notified of any variations from the dimensions and/or conditions within the work, or the contractor shall accept full responsibility for cost. The contractor shall also accept full responsibility for any claims, damages, or liabilities that may arise from the work. The contractor shall also accept full responsibility for any claims, damages, or liabilities that may arise from the work. The contractor shall also accept full responsibility for any claims, damages, or liabilities that may arise from the work.

PROJECT: CUSTOM TWO-STORY DAY/LT BSMT
 PUGET SOUND INVESTMENT GROUP LLC
 ST FRANCIS WOOD LOT 13 TPN 1504500130 NE-13-24-05
 172XX SE 43rd ST - SITE PLAN
 DATE: 11-01-14

FILE NO:
 14-010 SITE

SHEET
 SITE

VICINITY MAP

SITE PLAN



LEGAL DESCRIPTION

NE 13-24-05
 TAX PARCELL # 1504500140
 ST FRANCIS WOOD LOT # 14
 37,927 SQ FT 0.81 ACRES

172XX SE 43rd ST
 BELLEVUE, WA 98006
 KING COUNTY / CITY OF BELLEVUE

ZONED R-3.5

LOT COVERAGE BY STRUCTURE

AREA SUMMARY:

PROPOSED BLDG FOOTPRINT
 TOTAL HOUSE = 3,100 SQ. FT.
 EXISTING LOT SQUARE FOOTAGE
 TOTAL = 37,927 SQ. FT.

$3,100 / 37,927 = 8.17\%$

IMPERVIOUS SURFACES

AREA SUMMARY:

BUILDING & ROOF OVERHANGS OVER 24"
 TOTAL HOUSE = 3,100 SQ. FT.

DECKS GREATER THAN 18" ABOVE GRADE
 TOTAL HOUSE = 220 SQ. FT.

IMPERV. PATIO/DRIVEWAY/WALKS
 TOTAL = 4,516 SQ. FT.

TOTAL ALL IMPERVIOUS SURF.
 TOTAL (ALL) = 7,836 SQ. FT.

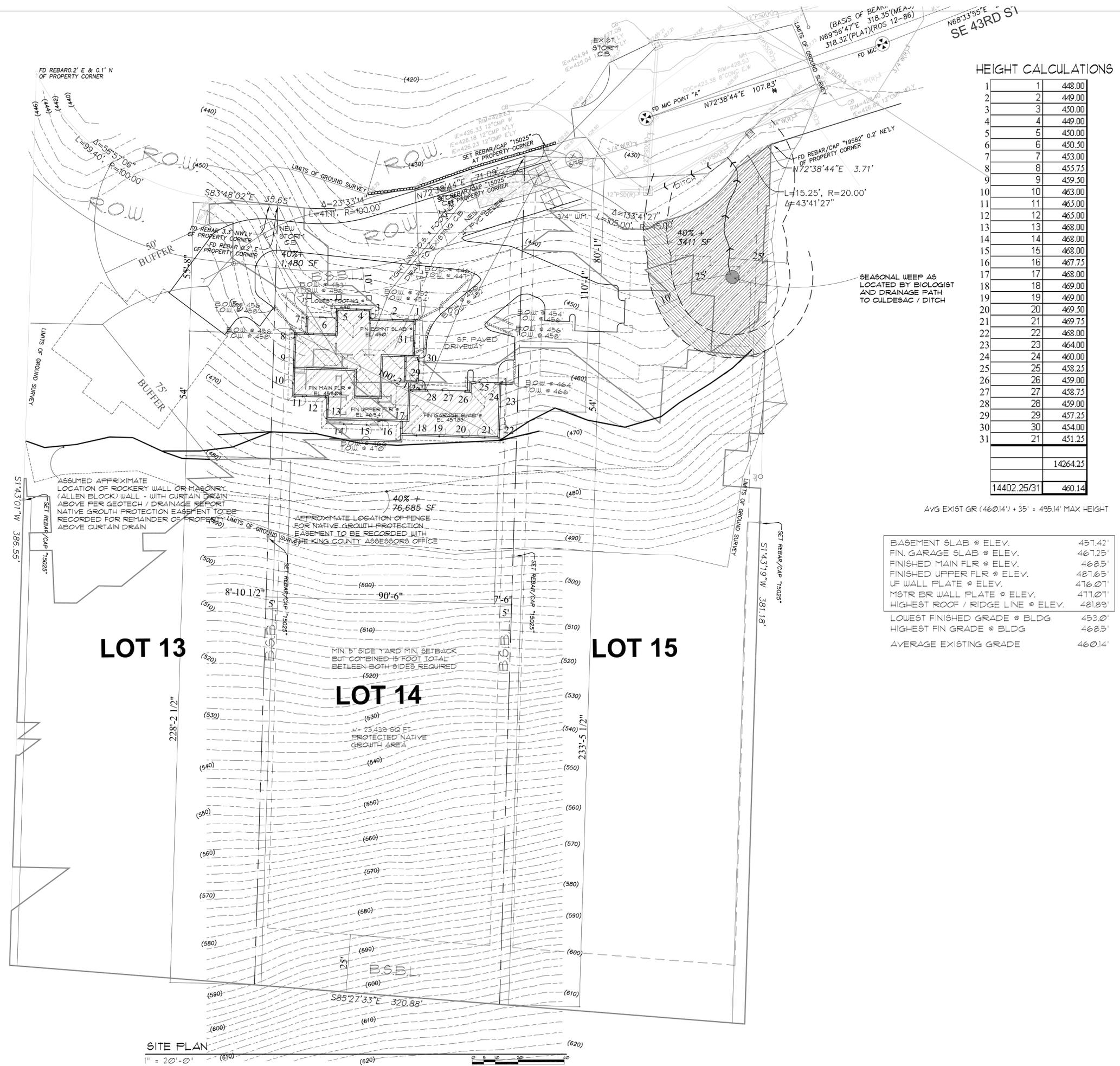
EXISTING LOT SQUARE FOOTAGE
 TOTAL = 37,927 SQ. FT.

$7,836 / 37,927 = 20.66\%$

TOTAL LOT AREA = 37,927 SF.
 TOTAL FLOOR AREA = 6,114 SF.
 $6,114 \text{ SF.} / 37,927 \text{ SF.} = 16.12\%$
 F.A.R. = 16.12%



VICINITY MAP



HEIGHT CALCULATIONS

1	1	448.00
2	2	449.00
3	3	450.00
4	4	449.00
5	5	450.00
6	6	450.50
7	7	453.00
8	8	455.75
9	9	459.50
10	10	463.00
11	11	465.00
12	12	465.00
13	13	468.00
14	14	468.00
15	15	468.00
16	16	467.75
17	17	468.00
18	18	469.00
19	19	469.00
20	20	469.50
21	21	469.75
22	22	468.00
23	23	464.00
24	24	460.00
25	25	458.25
26	26	459.00
27	27	458.75
28	28	459.00
29	29	457.25
30	30	454.00
31	31	451.25
		14264.25
		14402.25/31 = 460.14

AVG EXIST GR (460.14) + 35' = 495.14' MAX HEIGHT

BASEMENT SLAB @ ELEV.	457.42'
FIN. GARAGE SLAB @ ELEV.	467.25'
FINISHED MAIN FLR @ ELEV.	468.5'
FINISHED UPPER FLR @ ELEV.	487.65'
UF WALL PLATE @ ELEV.	476.07'
MSTR BR WALL PLATE @ ELEV.	477.07'
HIGHEST ROOF / RIDGE LINE @ ELEV.	481.83'
LOWEST FINISHED GRADE @ BLDG	453.0'
HIGHEST FIN GRADE @ BLDG	468.5'
AVERAGE EXISTING GRADE	460.14'

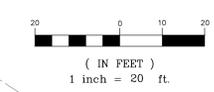
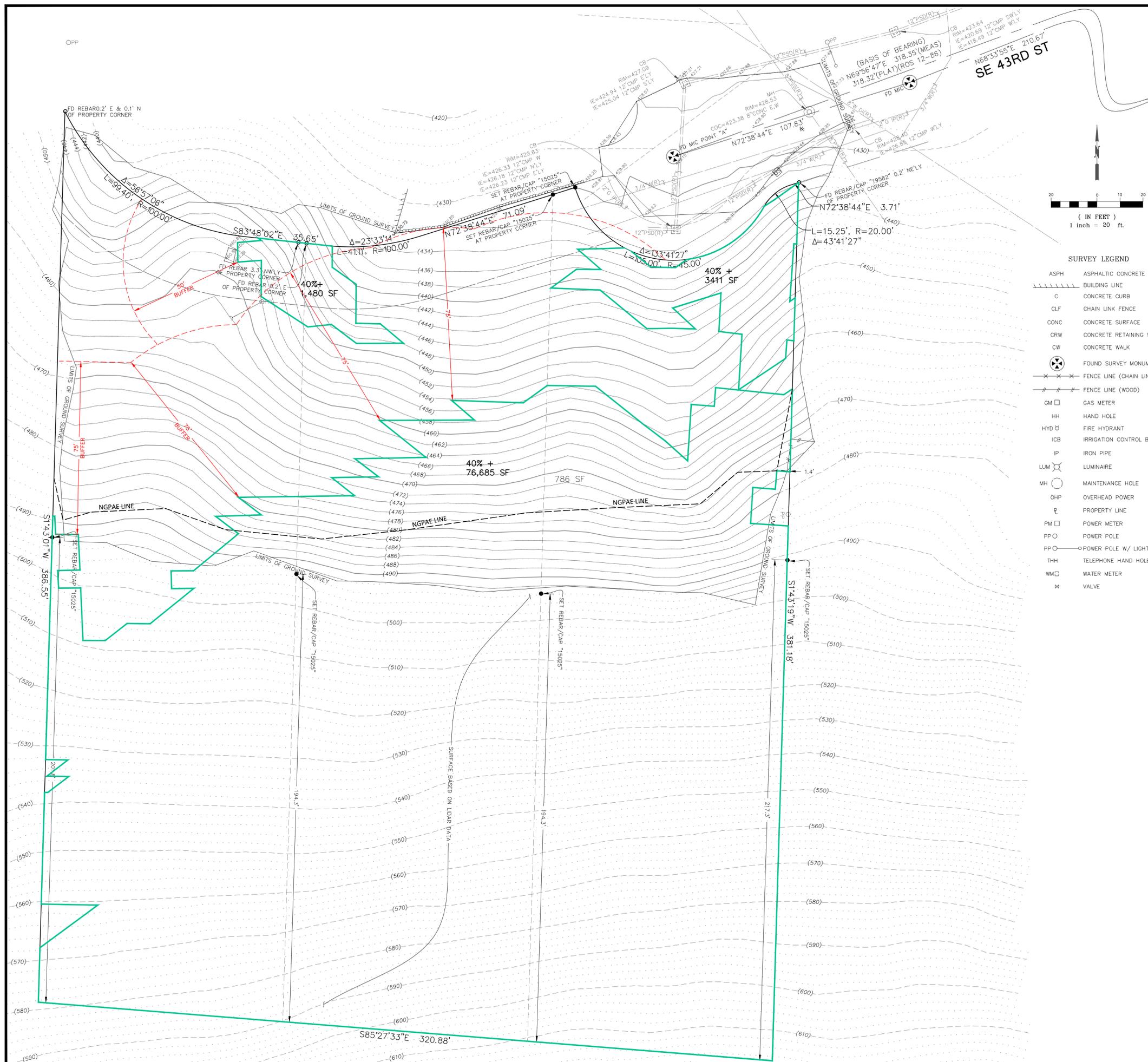


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PROJECT: CUSTOM TWO-STORY DAY/LT BSMNT
 PUGET SOUND INVESTMENT GROUP LLC
 ST FRANCIS WOOD LOT 14 TPN 1504500140 NE-13-24-05
 DATE: 11-01-14
 172XX SE 43rd ST - SITE PLAN

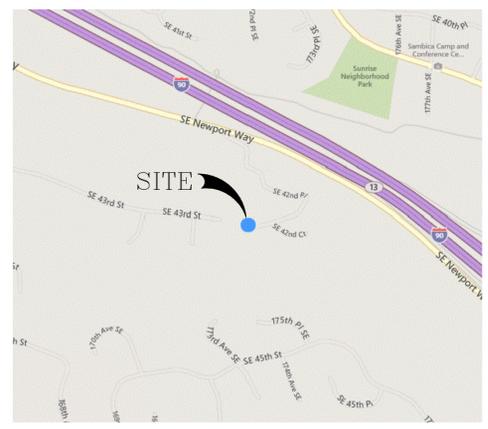
FILE NO:
 14-007 SITE

SHEET
 SITE



SURVEY LEGEND

ASPH	ASPHALTIC CONCRETE
////	BUILDING LINE
C	CONCRETE CURB
CLF	CHAIN LINK FENCE
CONC	CONCRETE SURFACE
CRW	CONCRETE RETAINING WALL
CW	CONCRETE WALK
⊗	FOUND SURVEY MONUMENT
—x—x—	FENCE LINE (CHAIN LINK)
— — —	FENCE LINE (WOOD)
GM □	GAS METER
HH	HAND HOLE
HYD ⊕	FIRE HYDRANT
ICB	IRRIGATION CONTROL BOX
IP	IRON PIPE
LUM ⊗	LUMINAIRE
MH ⊙	MAINTENANCE HOLE
OHP	OVERHEAD POWER
ℓ	PROPERTY LINE
PM □	POWER METER
PP ⊙	POWER POLE
PP ⊙	POWER POLE W/ LIGHT
THH	TELEPHONE HAND HOLE
WMC □	WATER METER
M	VALVE



VICINITY MAP
NOT TO SCALE

SITE ADDRESS:
VACANT LOTS VICINITY OF SOUTHEAST 43RD STREET
BELLEVUE, WASHINGTON 98006

PARCEL NUMBER:
750450-0130 = VACANT LOT
750450-0140 = VACANT LOT
750450-0150 = VACANT LOT

ZONING:
R-3.5 = SINGLE-FAMILY RESIDENTIAL WITH 3.5 DESIGNATED UNITS PER ACRE

FLOOD MAP:
LOCATED IN ZONE "X" AND IS OUTSIDE 500 YEAR FLOODPLAIN PER FLOOD INSURANCE RATE MAP NUMBER 530330666F, PANEL NOT PRINTED.

AREA:
TOTAL SITE AREA IS 112,561 SQUARE FEET OR 2.58 ACRES.

METHOD OF SURVEY:
INSTRUMENTATION FOR THIS SURVEY WAS A LEICA TOTAL STATION UNIT. PROCEDURES USED IN THIS SURVEY WERE DIRECT AND REVERSE ANGLES, NO CORRECTION NECESSARY. MEETS WASHINGTON STATE STANDARDS SET BY WAC 332-130-090.

SURVEYOR NOTE:
ALL MONUMENTS SHOWN ON MAP VISITED SEPTEMBER 16, 2014

UNDERGROUND UTILITIES:
BURIED UTILITIES SHOWN BASED ON RECORDS FURNISHED BY OTHERS AND VERIFIED WHERE POSSIBLE IN THE FIELD. GEODIMENSIONS ASSUMES NO LIABILITY FOR THE ACCURACY OF THOSE RECORDS OR ACCEPT RESPONSIBILITY FOR UNDERGROUND LINES WHICH ARE NOT MADE PUBLIC RECORD. FOR THE FINAL LOCATION OF EXISTING UTILITIES IN AREAS CRITICAL TO DESIGN CONTACT THE UTILITY OWNER/AGENCY. AS ALWAYS, CALL 1-800-424-5555 BEFORE CONSTRUCTION.

VERTICAL DATUM:
NAVD88

ORIGINATING BENCHMARK:
CITY OF BELLEVUE ID #180
LOCATION: TOP CONC WALL 12" WEST OF EAST END GUARDRAIL ON NORTH SIDE OF SE NEWPORT WAY -0.65 MI WEST OF W LK SAMM PRKY SE.
DESCRIPTION: TOP COB BRASS CAP.
ELEV=281.541'

NOTE: THIS SURVEY INTEGRATES LIDAR DATA FROM USGS SPATIAL DATA WAREHOUSE FOR CONVENIENCE ONLY. NO FIELD DATA WAS COLLECTED OUTSIDE THE AREA SHOWN

BASIS OF BEARING:
LINE BETWEEN MONUMENTS (POINT "A" AND POINT "B" ON MAP) BEARS NORTH 69°56'47" EAST PER PLAT AND RECORD OF SURVEY 12-86

LEGAL DESCRIPTION:
LOTS 13, 14 AND 15 OF ST. FRANCIS WOOD, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 86 OF PLATS, PAGES 17 AND 18 IN KING COUNTY, WASHINGTON;
TOGETHER WITH THAT PORTION OF SOUTHEAST 43RD STREET, VACATED ACCORDING TO KING COUNTY ORDINANCE NO. 2003, WHICH ATTACHED TO SAID LOTS 13, 14, AND 15, BY OPERATION OF LAW.
EXCEPT THAT PORTION OF SAID LOT 15 CONVEYED TO KING COUNTY FOR ROAD PURPOSES BY DEED RECORDED UNDER RECORDING NUMBER 7402060099.

REFERENCE:
LEGAL DESCRIPTION BASED ON DEED FURNISHED BY CHICAGO TITLE, RECORDED IN KING COUNTY UNDER INSTRUMENT NUMBER 201406130015113, DATED JUNE 13, 2014.



NO.	1	ADD NATIVE GROWTH PROTECTION AREA EASEMENT LINE	REVISION	3/4/15	DATE
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TOPOGRAPHIC SURVEY & SLOPE ANALYSIS
SW 1/4 OF NE 1/4 OF TWP 24N, RGE 5E, WM
DILUSSO HOMES
SE 43RD ST
BELLEVUE
WASHINGTON

JOB NO.:	141148
DATE:	10/7/2014
DRAFTED BY:	CJC/TLR
CHECKED BY:	EJG
SCALE:	1" = 20'
1 OF 1	



LEROY SURVEYORS & ENGINEERS, INC.

Surveying • Engineering • Geology • Septic Design • GPS • GIS Mapping

Apex Elite Homes
1 Lake Bellevue Drive, Suite 111
Bellevue, WA 98005

December 29, 2014

Attention: Mr. Vadim Scherbinin

St Francis Wood Lot 13 Critical Areas Assessment

Address 172XX SE 43rd Street
Bellevue, WA
Parcel No. 7504500130
LS & E Job No. 10091
Evaluation Performed 12/15/2014

INTRODUCTION

It is the intent of this assessment to describe the surface and near surface soil conditions observed on nearly 0.86 acre lot located on the east-southeast side of an existing cul-de-sac (SE 43rd ST) in Bellevue, WA. The nearly 37,437 square foot parcel is situated on moderate to steep slopes, south of SE Newport Way, near mid slope. The lot is approximately 91 feet wide at SE 43rd ST and extends upslope to the south approximately 380 feet.

This assessment is intended for the exclusive use of Apex Elite Homes, Mr. Vadim Scherbinin, his consultants and contractors for the intended purpose described. Site observations, research and exploration methods described in this evaluation represent the standard of practices for the industry. Sources of information cited are uniformly accepted resources when utilized in conjunction with field reconnaissance as confirmation. Our opinions are based on applying these standardized practices to characterize the local surficial geology and general conditions at the site.

LeRoy Surveyors and Engineers, Inc, (LS&E) visited the site on December 15th, 2014 to observe existing site conditions with regard to current ***City of Bellevue Chapter VII, Geologic Hazard Areas, 20.25H.120 Designation of Critical Area and Buffers.*** LS&E was provided a copy of the geotechnical report prepared by Golder and Associates, titled ***Revised Report on Preliminary Geotechnical Investigation, Undeveloped Lots in St. Francis Wood, King County, Washington,*** site development plans with topography from MDB Residential Design Associates and a copy of the City of Bellevue Comment Letter dated May 21, 2014 from Mr. Reilly Pittman, Associate Planner.

The Golder and Associates report evaluated Lot 13 as a portion of their Geotechnical Investigation. Our site observations found no evidence of site development or surface disturbance having occurred since the geotechnical report was prepared.

Previous studies conducted on or adjacent to the subject property include a WSDOT evaluated a landslide along Newport Way adjacent to the St Frances Wood Plat in 1967 through 1969. Golder and Associates prepared a geotechnical report to the City of Bellevue for a Storm Sewer Alignment on SE 42nd and 43rd Street in Bellevue, WA. This study determined the depth to bedrock along the proposed storm sewer alignment.

LS&E supplemented this historical data with a review of the published geologic mapping prepared by Booth and Minard in 1992, historical and current aerial photography covering the project area and Lidar based mapping for the project area.

Based on our field observations and the definitions in the City's Geologic Hazard Areas ordinance, Lot 13 is considered to be in a Landslide Hazard area. Lot 13 contains slopes in excess of 15 percent and 10 feet in vertical height as well as slope with grades in excess of 40 percent and 10 feet in vertical height and more than 1,000 sf in area. We also observed near surface seepage near the northeast corner of the lot.

In our opinion, development of the 37,437 sf residential property can be accomplished with mitigation applied to the moderate to steep slopes, control of surface water runoff and management of the surface and stability of the native slopes. Capture and control of near surface ground water seepage will also need to be included in foundation planning and drainage design. A ***“Reasonable Use Permit”*** will be required for Lot 13 because there is no area of the property which is not within a critical area or buffer.

SITE AND PROJECT DESCRIPTION

The Residential property is currently undeveloped, forested land near the mid slope, on the south side of the cul-de-sac of SE 43rd Street. Development plans call for construction of a single family residential structure approximately 20 feet above the existing roadway. Access onto the lot will utilize a common driveway serving three lots which will extend up the slope from near southwest quarter of the cul-de-sac. The proposed driveway will extend up slope to the west and southwest to serve the home on Lots 13. Lots 14 and 15 is located east of the subject property will also be accessed from the proposed driveway.

The residential lot covered with a mature growth of hardwood trees, berry vines, small brush and alders. The vegetation coverage is open and traversing the lot on foot was not difficult.

Topographically, the lot climbs with a moderate slope to the southwest from the cul-de-sac of SE 43rd ST with grades of 15 to 20 percent and vertical heights of 15 to 20 feet. The surface grades then increase to 20 to 30 percent across the northern third of the lot where the slope climbs approximately 30 feet. The southern two thirds of the lot has a consistent slope of 50 to 60 percent. Slope grades were confirmed in the field using a hand held clinometer and compared to topographic information provided for the lot.

The new home is proposed in the northern third of the lot on slopes with grades of 15 to 30 percent. The structure is proposed at or above the elevation of 464 ft. approximately 34 feet above the Cul-Of-de-sac of SE 43rd ST. Current plans call for a total impervious surface coverage of 4,312 for the home, walks, patios and driveway on the 37,437 sf lot. Coverage of 11.5 percent.

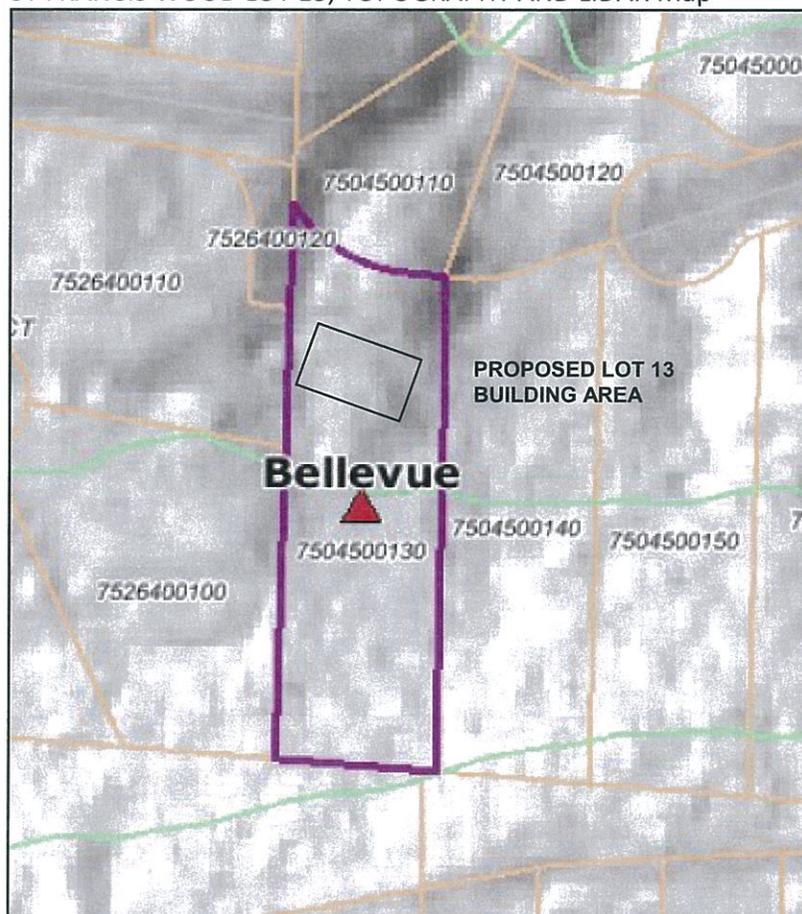
SITE ASSESSMENT METHODS

We observed surface and subsurface conditions at the project site on December 15th, 2014. Our review of the property comprised the following elements:

- Review documents provided by the owner, architect and engineer related to house location and access to the property.
- A site visit to observe existing site conditions as they relate to the City of Bellevue Critical Areas ordinance
- A review of published geologic, King County, City of Bellevue and public literature available.

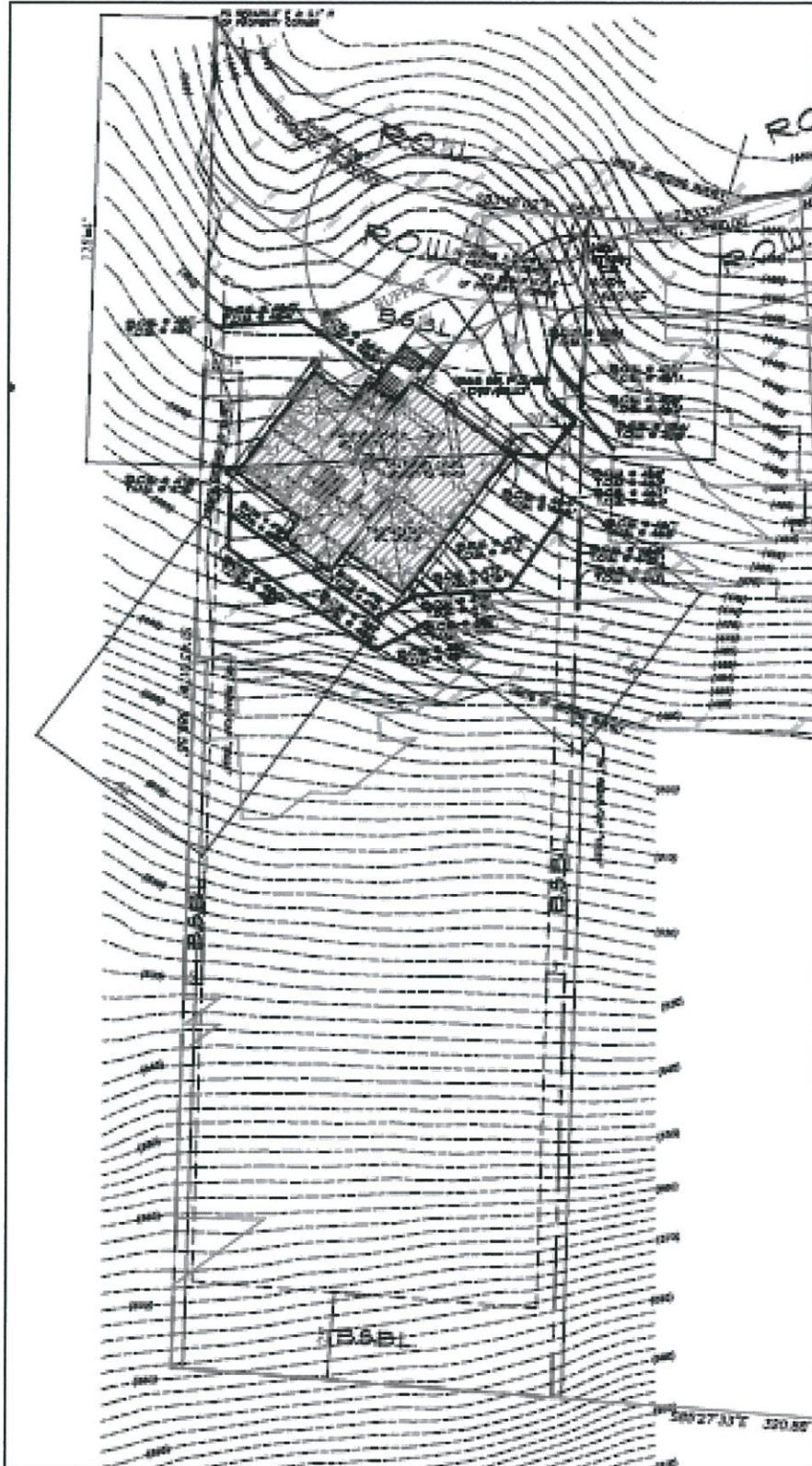
Public information related to the St Francis Wood development and surrounding area included topographic coverage, shaded lidar and aerial photography and geologic mapping. Excerpts from each of the information resources are provided below;

ST FRANCIS WOOD LOT 13, TOPOGRAPHY AND LIDAR Map



King County View Excerpt. (NTS)

MDB SITE TOPOGRAPHY AND SITE DEVELOPMENT (nts)



SITE DEVELOPMENT PLANS 11/01/2014

SITE SOILS

The Soil Conservation Service (SCS) now the NRCS, describe the soils across the property as being dominated by the Alderwood AgD, Alderwood AkF and Everett EvC series.

NRCS Soil Mapping (Excerpt)



Map Unit Legend

King County Area, Washington (WA633)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AgD	Alderwood gravelly sandy loam, 15 to 30 percent slopes	9.6	18.6%
AkF	Alderwood and Kitsap soils, very steep	28.6	51.4%
BeC	Beausite gravelly sandy loam, 8 to 15 percent slopes	4.6	8.8%
EwC	Everett-Alderwood gravelly sandy loams, 8 to 15 percent slopes	11.0	21.2%
Totals for Area of Interest		51.8	100.0%

Alderwood – Kitsap Soils, very steep (AkF)

This mapping unit is almost 50 percent Alderwood gravelly sandy loam and 25 percent Kitsap silt loam. Slopes are 25 to 70 percent. Distribution of the soils varies greatly within short distances. About 15 percent of some mapped areas are an included, unnamed, very deep, moderately coarse textured soil; and about 10 percent of some areas are a very deep, coarse-textured Indianola soil.

Drainage and permeability vary. Runoff is rapid to very rapid, and the erosion hazard is severe to very severe. The slippage potential is severe.

Alderwood – Alderwood gravelly sandy loam, 15 – 30 percent slopes (AgD)

Soils included with this soil in mapping make up no more than 30 percent of the total acreage. Some areas are up to 25 percent Everett soils that have slopes of 15 to 30 percent, and some areas are up to 2 percent Bellingham, Norma, and Seattle soils, which are in depressions. Some area, especially on Squak Mountain, in Newcastle Hills, and North of Tiger Mountain, are 25 percent Beausite and Ovall Soils. Beausite soils are underlain by sandstone and Ovall soils by andesite.

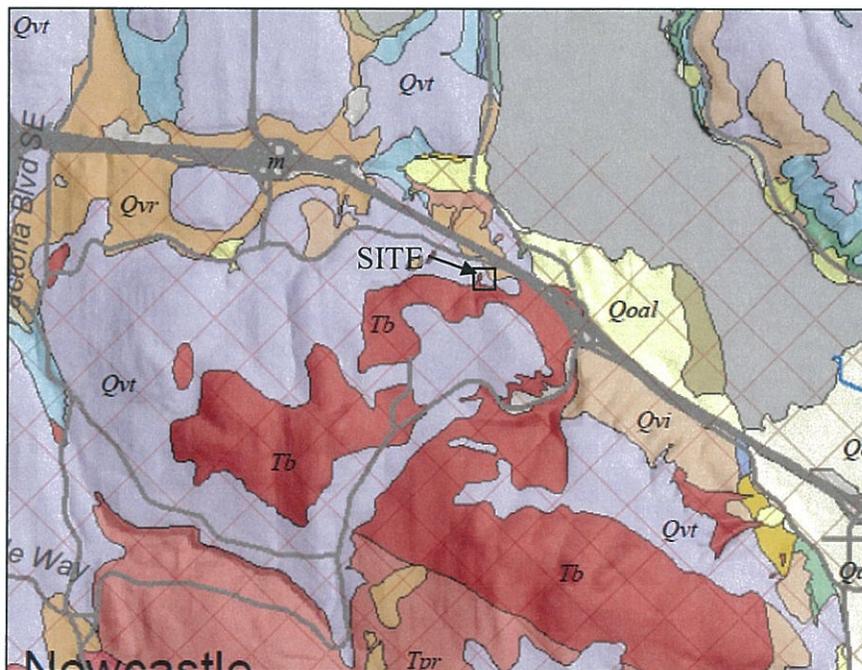
Runoff is medium, and the erosion hazard is severe. The slippage potential is moderate. This Alderwood soil is used mostly for timber. Some areas on the lower parts of slopes are used for pasture.

Everett-Alderwood gravelly sandy loams, 6 to 15 percent slopes (EwC)

This mapping unit is about equal parts Everett and Alderwood soils. The soils are rolling. Slopes are dominantly 6 to 10 percent, but range from gentle to steep. Most areas are irregular in shape and range from 15 to 100 acres or more in size. In areas classified as Everett soils, field examination and geologic maps indicate the presence of consolidated substratum at a depth of 7 to 20 feet. This substratum is the same material as that in the Alderwood soils.

Some areas are up to 5 percent included Norma, Seattle, and Tuckwila soils, all of which are poorly drained. Runoff is slow to medium, and the erosion hazard is slight to moderate.

SITE GEOLOGY



Geologic Map of King County, WA, (Excerpt)



SITE DEVELOPMENT RECOMMENDATIONS

Based on our field observations, geotechnical explorations by Golder and Associates and others along with our review of the City of Bellevue requirements for residential development, we offer the following recommendations.

Soils

Two soil test pits were completed by Golder and Associates (GA) and reported in their study for the area. Soils observed in the GA test pits confirmed geologic mapping and clarified the contact between NRCS soil groups. Un-weathered glacial till was encountered at depths of 7 ft. The un-weathered till is overlain by a mantling of weather till and colluvial sand, silts and small gravel. Unweathered glacial till is a dense to very dense silty fine sand with gravel. This till layer is considered to be impervious or very slowly permeable creating a restrictive layer to vertical groundwater migration. The glacial till is considered suitable for supporting conventional spread footings and foundation pier pads.

Evidence of the Blakely Formation siltstone was not observed in the GA test pits. This siltstone and fine sandstone formation was mapped by Booth and Minard. The Blakely formation consists of moderately weathered, very weak to weak siltstone. The southern slopes were not explored by GA or LS&E but are mapped by Booth and Minard as being Blakely Formation.

No ground water was not observed in the GA test pits at the time of their field explorations (10/8/1996). Field observations by LS&E on the date of our site visit did not find indications of seeps or springs.

No landslide topographic features were observed by GA or LS&E. The trunks and stumps of the older conifer and hardwood trees were observed to be straight. Some of the younger hardwood trees exhibited a curvature of the trunk near the base of the tree referred to as being "Pistol-Butted". This pronounced up-slope curvature of the tree trunk can indicate shallow soil creep is occurring near the steeper southern slopes or the younger trees were chasing sunlight as they grew. The potential for near surface soil creep should be considered in the design and development of the lot. GA recommended site development is best suited for the more moderate slopes on the northern third of the lot. LS&E concurs with that recommendation.

Soil bearing capacities on the unweathered glacial till are considered to meet or exceed 1,500 psf for foundation and footing design. The GA report indicates the un-weathered glacial till will be encountered at depths of 7 feet or more. Deep foundations excavation should consider the potential for near surface soil creep up-slope from the excavation and the potential for seasonal near surface ground water migration.

Footing and foundation drains are recommended due to the nearly impervious nature of the glacial till described at footing elevations.

Storm Water and Erosion Control

Development of the residential lot should include interception and diversion of seasonal near surface ground water to prevent seepage into the excavation and possible sloughing of the surface soils. An interceptor trench or curtain drain may be sufficient to capture the water up slope of the proposed excavation. The interceptor trench / curtain drain should extend deep enough to intersect the underlying, unweathered till or bedrock to a depth of 6 inches and a mylar liner installed across the bottom and down slope sides of the trench.

We recommend retaining walls, rockeries and foundation walls along the upslope side of excavations be protected from groundwater seepage and a collection and diversion system be included in the foundation and footing design. In addition to the exterior collection and diversion system for storm and ground water, we recommend the crawl space floor and underlying exposed foundation soils be graded to a system of collection drains to capture and divert any groundwater from collecting in the crawl space. This system can be gravity flow out from below the home and directed into the exterior drain system. Care should be taken not to allow storm water from the exterior system to back flow into the crawl space.

Landslide Hazard Assessment

On December 23rd, 2014, we inspected the site for the presence of indicators associated with landforms susceptible or undergoing mass movement due to a combination of geologic, seismic, topographic, hydrologic, or manmade factors. Bellevue defines a landslide hazard area as having slopes of 15 percent or more with more than 10 feet of rise, and display any of the characteristics listed below:

1. Areas of historic failures, including those areas designated as quaternary slumps, earthflows, mudflows, or landslides.
2. Areas that have shown movement during the Holocene Epoch (past 13,500 yrs.) or that are underlain by landslide deposits...
3. Slopes parallel or sub-parallel to planes of weakness, such as bedding planes, joint systems, and fault planes in subsurface materials.
4. Slopes exhibiting geomorphological features indicative of past failures, such as hummocky ground and back-rotated benches on slopes.
5. Areas of seeps indicating a shallow ground water table on or adjacent to the slope face.
6. Areas of potential instability because of rapid stream incision, stream bank erosion, and undercutting by wave action...

7. The occurrence of topping, leaning, bowed, or jackstraw trees that are caused by disruption of ground surface by active movement
8. Areas with slopes containing soft or liquefiable soils.
9. Areas where gullyng and surface erosion have caused dissection of the bluff edge or slope face as a result of drainage or discharge from pipes, culverts, ditches, and natural drainage courses.
10. Areas that are at risk of mass movement due to seismic events.

In addition to the prescribed 15 percent slopes with 10 feet of vertical rise, Lot 13 contains at least two of the parameters listed above to be categorized as a landslide hazard area.

Steep slopes

Slopes with grades of 40 percent or more with 10 feet or more vertical elevation change and 1,000 sf of surface area. The subject property contains all three parameters.

FINDINGS

In addition to our review of the site for any of the indicators; we reviewed aerial photography over time, topographical maps generated by the Puget Sound LiDAR consortium, and the USGS map for the presence of landslide deposits and/or features.

The residential lot contains indicators defined by the City as Landslide hazards with steep slopes. Development of the lot will require a Reasonable Use Permit because development cannot avoid critical areas as defined and associated buffers.

Subsurface soil conditions explored and reported by GA and confirmed by LS&E indicate the lot can be developed for a residential structure. Soil bearing capacities are estimated to meet or exceed 1,500 psf on undisturbed, unweathered glacial till or bedrock. Soil bearing capacity and consistency should be confirmed at the time of excavation and prior to placement of the foundation footings.

Access, excavation and development on the existing slope will encounter a variety of soil conditions. Soft, wet or unsuitable soils should be removed from below driving surfaces, foundations or areas of support to retaining walls or rockeries. Development will require incorporation of ground water collection and diversion systems, engineering of foundation walls and exterior walls as retaining structures and an integrated storm water collection system for the foundation footings, crawl space, under-slab areas, rockeries, retaining walls and driveways.

Ground water seepage was not observed on the lot although seasonal near surface groundwater could be expected along the contact with the glacial till. Control of surface water runoff adjacent to and on the moderate to steep slopes is essential in managing or preventing near surface erosion or shallow surface sloughing.

No uncontrolled soil fill or loose debris should be placed onto the slopes above or below the proposed residential development. Areas of fill should be evaluated and the fill material approved by the structural engineer or geotechnical professional prior to placement. Placement of fill soils should be monitored and tested as necessary or as required by the City of Bellevue.

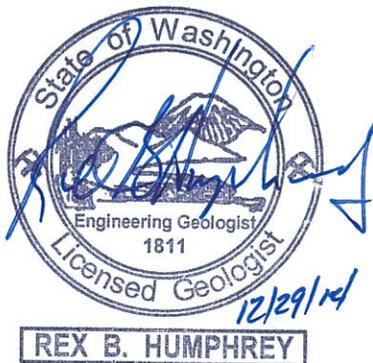
CLOSURE

The conclusions and recommendations presented in this evaluation are based, in part, on our research, existing mapping and reports at the time, exploration reports completed by others which included subsurface explorations and our field observations and confirmations for this study; therefore, variations in the subgrade conditions may be discovered. Future performance and integrity of site development depends largely on proper initial site preparation, drainage, and construction procedures. Monitoring and testing by experienced geotechnical professional should be considered an integral part of the planning, development and construction process. LS&E is available to provide geotechnical monitoring of soils throughout construction.

We appreciate the opportunity to be of service on this project. If you have any questions regarding this report or any aspects of the project, please feel free to contact our office.

Please feel free to call me at 253-848-6608 if you have any questions.

Respectfully Submitted,
LeRoy Surveyors & Engineers, Inc.



Rex Humphrey, L.E.G.
Engineering Geologist



Damon DeRosa, P.E.
Professional Engineer



LEROY SURVEYORS & ENGINEERS, INC.

Surveying • Engineering • Geology • Septic Design • GPS • GIS Mapping

Apex Elite Homes
1 Lake Bellevue Drive, Suite 111
Bellevue, WA 98005

December 29, 2014

Attention: Mr. Vadim Scherbinin

St Francis Wood Lot 14 Critical Areas Assessment

Address 172XX SE 43rd Street
Bellevue, WA

Parcel No. 7504500140

LS & E Job No. 10091

Evaluation Performed 12/15/2014

INTRODUCTION

It is the intent of this assessment to describe the surface and near surface soil conditions observed on nearly 0.87 acre lot located on the south side of an existing cul-de-sac (SE 43rd ST) in Bellevue, WA. The nearly 37,927 square foot parcel is situated on moderate to steep slopes, south of SE Newport Way, near mid slope. The lot is approximately 91 feet wide at SE 43rd ST and extends upslope to the south approximately 380 feet.

This assessment is intended for the exclusive use of Apex Elite Homes, Mr. Vadim Scherbinin, his consultants and contractors for the intended purpose described. Site observations, research and exploration methods described in this evaluation represent the standard of practices for the industry. Sources of information cited are uniformly accepted resources when utilized in conjunction with field reconnaissance as confirmation. Our opinions are based on applying these standardized practices to characterize the local surficial geology and general conditions at the site.

LeRoy Surveyors and Engineers, Inc. (LS&E) visited the site on December 15th, 2014 to observe existing site conditions with regard to current ***City of Bellevue Chapter VII, Geologic Hazard Areas, 20.25H.120 Designation of Critical Area and Buffers.*** LS&E was provided a copy of the geotechnical report prepared by Golder and Associates, titled ***Revised Report on Preliminary Geotechnical Investigation, Undeveloped Lots in St. Francis Wood, King County, Washington,*** site development plans with topography from MDB Residential Design Associates and a copy of the City of Bellevue Comment Letter dated May 21, 2014 from Mr. Reilly Pittman, Associate Planner.

The Golder and Associates report evaluated Lot 14 as a portion of their Geotechnical Investigation. Our site observations found no evidence of site development or surface disturbance since the geotechnical report was prepared.

Previous studies conducted on or adjacent to the subject property include a WSDOT evaluated a landslide along Newport Way adjacent to the St Frances Wood Plat in 1967 through 1969. Golder and Associates prepared a geotechnical report to the City of Bellevue for a Storm Sewer Alignment on SE 42nd and 43rd Street in Bellevue, WA. This study determined the depth to bedrock along the proposed storm sewer alignment.

LS&E supplemented this historical data with a review of the published geologic mapping prepared by Booth and Minard in 1992, historical and current aerial photography covering the project area and Lidar based mapping for the project area.

Based on our field observations and the definitions in the City's Geologic Hazard Areas ordinance, Lot 14 is considered to be in a Landslide Hazard area. Lot 14 contains slopes in excess of 15 percent and 10 feet in vertical height as well as slope with grades in excess of 40 percent and 10 feet in vertical height and more than 1,000 sf in area. We also observed near surface seepage near the northeast corner of the lot.

In our opinion, development of the 37,927 sf residential property can be accomplished with mitigation applied to the moderate to steep slopes, control of surface water runoff and management of the surface and stability of the native slopes. Capture and control of near surface ground water seepage will also need to be included in foundation planning and drainage design. A ***“Reasonable Use Permit”*** will be required for Lot 14 because there is no area of the property which is not within a critical area or buffer.

SITE AND PROJECT DESCRIPTION

The Residential property is currently undeveloped, forested land near the mid slope, on the south side of the cul-de-sac of SE 43rd Street. Development plans call for construction of a single family residential structure approximately 20 feet above the existing roadway. Access onto the lot will utilize a common driveway serving three lots which will extend up the slope from near southwest quarter of the cul-de-sac. The proposed driveway will extend up slope to the west curving back around to the east to serve Lots 13 and 15. Lot 14 is located between the other two lots with access from the proposed driveway.

The residential lot covered with a mature growth of hardwood trees, berry vines, small brush and alders. The vegetation coverage is open and traversing the lot on foot was not difficult.

Topographically, the land rises steeply to the south from the road cut along the south side of SE 43rd ST with grades of 30 to 50 percent and vertical heights of 15 to 20 feet. The surface grades moderate to 20 to 30 percent across the northern third of the slope rising approximately 30 feet. The southern two thirds of the lot has a consistent slope of 50 to 70 percent. Slope grades were confirmed in the field using a hand held clinometer and compared to topographic information provided for the lot.

The new home is proposed in the northern third of the lot on slopes with grades of 15 to 30 percent. The structure is proposed at or above the elevation of 454 ft. approximately 24 feet above the Cul-De-sac of SE 43rd ST. Current plans call for a total impervious surface coverage of 7,836 for the home, walks, patios and driveway on the 37.927 sf lot. Coverage of 20.6 percent.

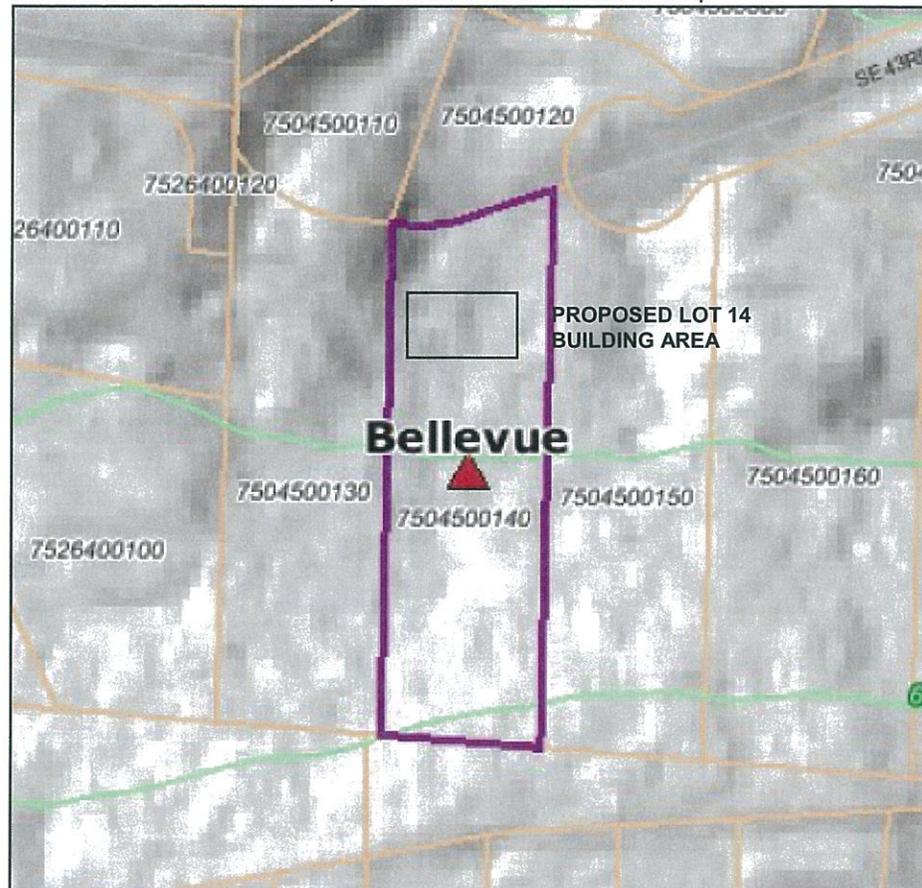
SITE ASSESSMENT METHODS

We observed surface and subsurface conditions at the project site on December 15th, 2014. Our review of the property comprised the following elements:

- Review documents provided by the owner, architect and engineer related to house location and access to the property.
- A site visit to observe existing site conditions as they relate to the City of Bellevue Critical Areas ordinance
- A review of published geologic, King County, City of Bellevue and public literature available.

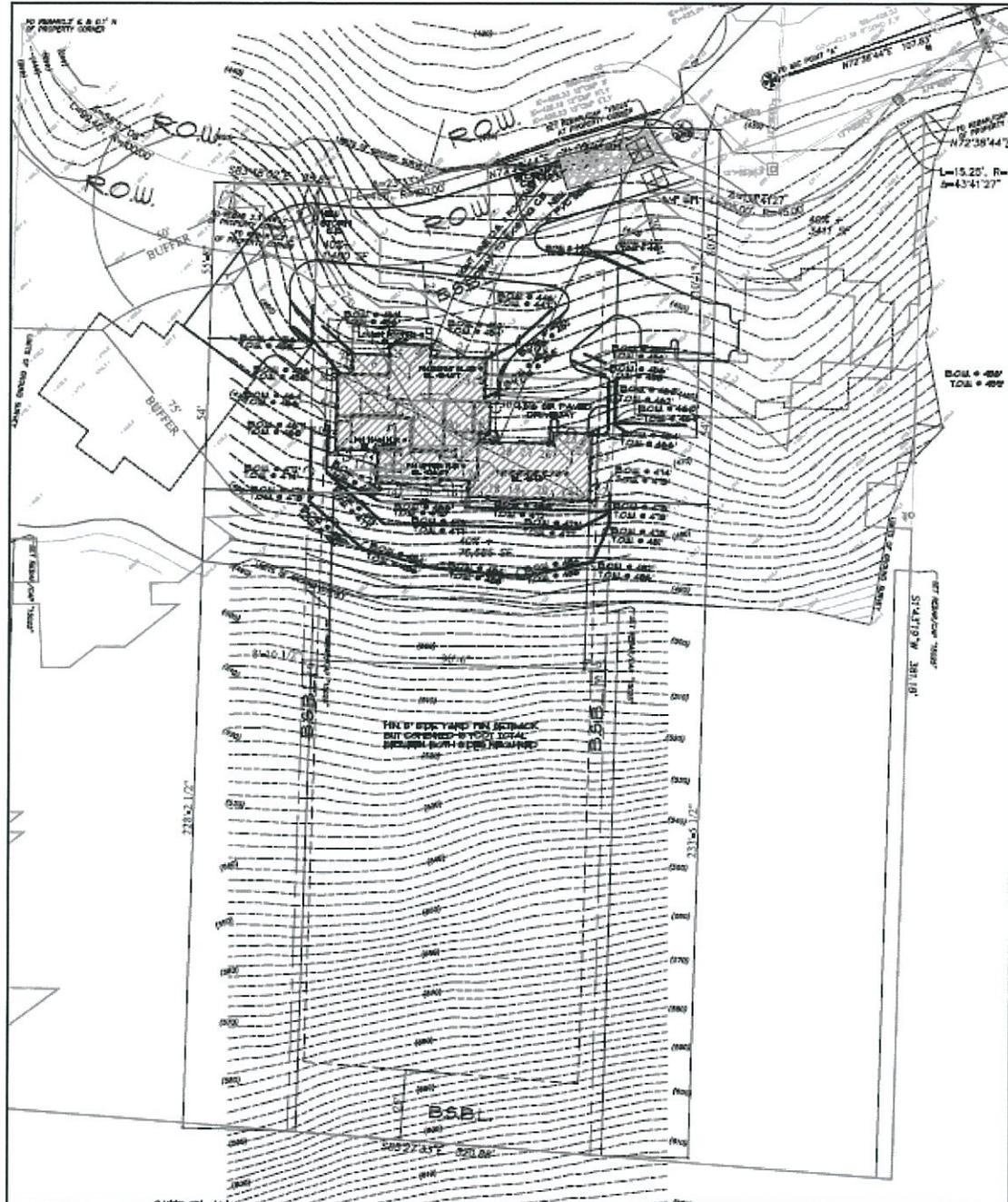
Public information related to the St Francis Wood development and surrounding area included topographic coverage, shaded lidar and aerial photography and geologic mapping. Excerpts from each of the information resources are provided below;

ST FRANCIS WOOD LOT 14, TOPOGRAPHY AND LIDAR Map



King County View Excerpt. (NTS)

MDB SITE TOPOGRAPHY AND SITE DEVELOPMENT (nts)

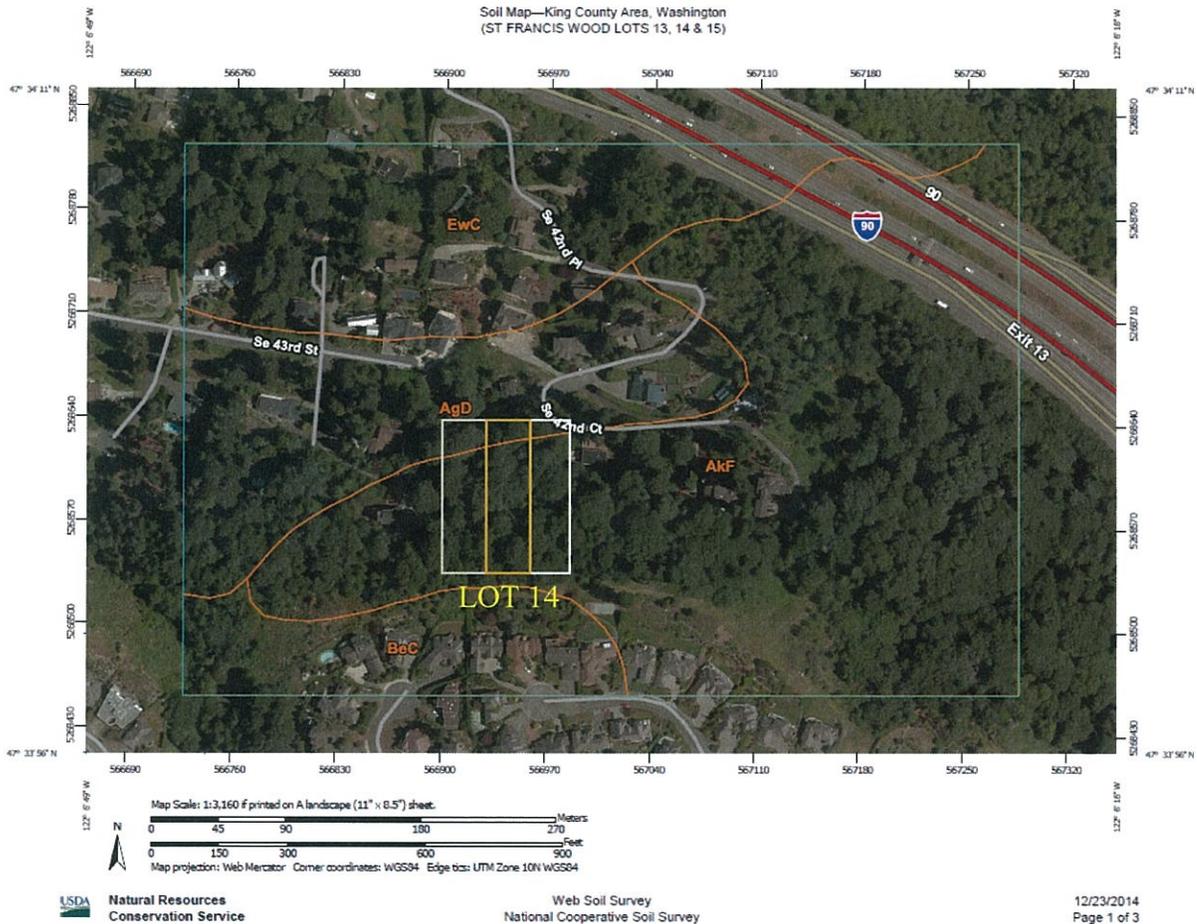


SITE DEVELOPMENT PLANS 11/01/2014

SITE SOILS

The Soil Conservation Service (SCS) now the NRCS, describe the soils across the property as being dominated by the Alderwood AgD, Alderwood AkF and Everett EvC series.

NRCS Soil Mapping (Excerpt)



Map Unit Legend

King County Area, Washington (WA633)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AgD	Alderwood gravelly sandy loam, 15 to 30 percent slopes	9.6	18.6%
AkF	Alderwood and Kitsap soils, very steep	26.6	51.4%
BeC	Beausite gravelly sandy loam, 6 to 15 percent slopes	4.6	8.8%
EwC	Everett-Alderwood gravelly sandy loams, 6 to 15 percent slopes	11.0	21.2%
Totals for Area of Interest		51.8	100.0%

Alderwood – Kitsap Soils, very steep (AkF)

This mapping unit is almost 50 percent Alderwood gravelly sandy loam and 25 percent Kitsap silt loam. Slopes are 25 to 70 percent. Distribution of the soils varies greatly within short distances. About 15 percent of some mapped areas are an included, unnamed, very deep, moderately coarse textured soil; and about 10 percent of some areas are a very deep, coarse-textured Indianola soil.

Drainage and permeability vary. Runoff is rapid to very rapid, and the erosion hazard is severe to very severe. The slippage potential is severe.

Alderwood – Alderwood gravelly sandy loam, 15 – 30 percent slopes (AgD)

Soils included with this soil in mapping make up no more than 30 percent of the total acreage. Some areas are up to 25 percent Everett soils that have slopes of 15 to 30 percent, and some areas are up to 2 percent Bellingham, Norma, and Seattle soils, which are in depressions. Some area, especially on Squak Mountain, in Newcastle Hills, and North of Tiger Mountain, are 25 percent Beausite and Ovall Soils. Beausite soils are underlain by sandstone and Ovall soils by andesite.

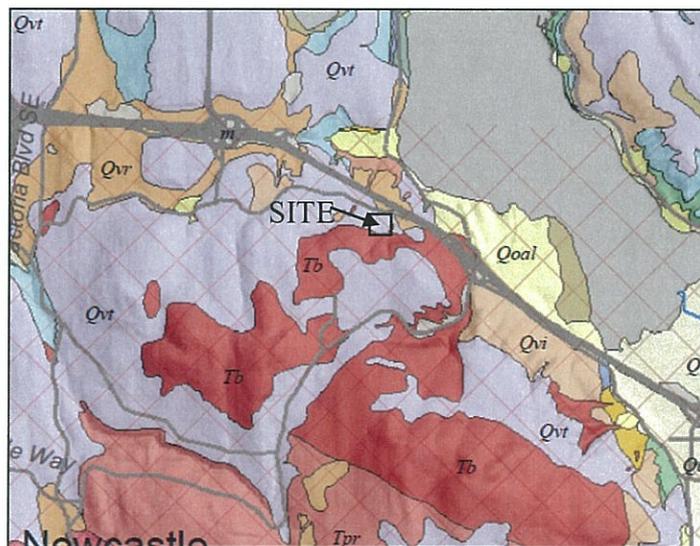
Runoff is medium, and the erosion hazard is severe. The slippage potential is moderate. This Alderwood soil is used mostly for timber. Some areas on the lower parts of slopes are used for pasture.

Everett-Alderwood gravelly sandy loams, 6 to 15 percent slopes (EwC)

This mapping unit is about equal parts Everett and Alderwood soils. The soils are rolling. Slopes are dominantly 6 to 10 percent, but range from gentle to steep. Most areas are irregular in shape and range from 15 to 100 acres or more in size. In areas classified as Everett soils, field examination and geologic maps indicate the presence of consolidated substratum at a depth of 7 to 20 feet. This substratum is the same material as that in the Alderwood soils.

Some areas are up to 5 percent included Norma, Seattle, and Tuckwila soils, all of which are poorly drained. Runoff is slow to medium, and the erosion hazard is slight to moderate.

SITE GEOLOGY



Geologic Map of King County, WA, (Excerpt)

<ul style="list-style-type: none"> Qf - Fan deposits Qal - Alluvium Qoal - Older alluvium Qom - Osceola mudflow <p>Deposits of Fraser Glaciation (Pleistocene)</p> <ul style="list-style-type: none"> Qvr - Vashon recessional outwash deposits Qvrl - Vashon recessional lacustrine deposits Qvrlc - Vashon recessional coarse-grained lacustrine deposits Qvrc - Vashon recessional coarse-grained deposits Qvrs - Vashon recessional sand-dominated deposits Qvi - Vashon ice-contact deposits Qvim - Vashon ice-contact deposits, morainal Qvie - Vashon ice-contact deposits, esker 	<ul style="list-style-type: none"> Qvt - Vashon subglacial till Qvtm - Vashon subglacial meltout till Qvu - Vashon deposits, undifferentiated Qva - Vashon advance outwash Qvic - Lawton Clay <p>Older Glacial and Nonglacial Deposits (Pleistocene)</p> <ul style="list-style-type: none"> Qpf - Pre-Fraser deposits, undifferentiated Qpfc - Pre-Fraser coarse-grained deposits Qpff - Pre-Fraser fine-grained deposits Qpfn - Pre-Fraser nonglacial deposits Qpfn - Pre-Fraser coarse-grained nonglacial deposits Qpfnf - Pre-Fraser fine-grained nonglacial deposits Qob - Olympia beds 	<p>Bedrock</p> <ul style="list-style-type: none"> Tsc - Tertiary sedimentary rocks Thb - Hammer Bluff Formation Tb - Blakeley Formation Tv - Tertiary volcanic rocks Ti - intrusive rocks Tpr - Renton Formation Tpt - Tukwila Formation Tptm - Tiger Mountain Formation Tp - Puget Group, undivided Tu - Tertiary rocks, undifferentiated K - Cretaceous rocks, undifferentiated
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SITE DEVELOPMENT RECOMMENDATIONS

Based on our field observations, geotechnical explorations by Golder and Associates and others along with our review of the City of Bellevue requirements for residential development, we offer the following recommendations.

Soils

Three soil test pits were completed by Golder and Associates (GA) and reported in their study for the area. Soils observed in the GA test pits confirmed geologic mapping and clarified the contact between NRCS soil groups. Glacial till was encountered at depths of 6.5 ft. which overlain by a mantling of weather till and colluvial sand, silts and small gravel. Unweathered glacial till is a dense to very dense silty fine sand with gravel. This till layer is considered to be impervious or very slowly permeable creating a restrictive layer to vertical groundwater migration. The glacial till is considered suitable for supporting conventional spread footings and foundation pier pads.

The middle third of the lot appears to be underlain at a shallow depth of 2.5 to 3.5 ft. by siltstone bedrock of the Blakely Formation. This siltstone and fine sand formation was mapped by Booth and Minard and described in test pits by GA at a depth of about 4 feet. The Blakely formation consists of moderately weathered, very weak to weak siltstone. The GA test pit encountered approximately 1.5 to 2.5 feet of colluvium consisting of very soft to firm silt and sandy silt. The colluvium is also overlain by about 1 to 1.5 feet of organic silty topsoil. The southern slopes were not explored by GA or LS&E but are mapped by Booth and Minard as being Blakely Formation.

No ground water was not observed in the GA test pits at the time of their field explorations (10/8/1996). Field observations by LS&E on the date of our site visit did not find indications of seeps or springs.

Soil bearing capacities on the unweathered glacial till are considered to meet or exceed 1,500 psf for foundation and footing design. The GA report indicates the bedrock siltstone and sandstone will be encountered at shallow depths and may require specialized excavation equipment. Deep foundations elements may require a pneumatic chipper or controlled blasting.

Footing and foundation drains are recommended due to the nearly impervious nature of the glacial till and bedrock described at footing elevations.

Storm Water and Erosion Control

Development of the residential lot should include interception and diversion of seasonal near surface ground water to prevent seepage into the excavation and possible sloughing of the surface soils. An interceptor trench or curtain drain may be sufficient to capture the water up slope of the proposed excavation. The interceptor trench / curtain drain should extend deep enough to intersect the underlying, unweathered till or bedrock to a depth of 6 inches and a mylar liner installed across the bottom and down slope sides of the trench.

We recommend retaining walls, rockeries and foundation walls along the upslope side of excavations be protected from groundwater seepage and a collection and diversion system be included in the foundation and footing design. In addition to the exterior collection and diversion system for storm and ground water, we recommend the crawl space floor and underlying exposed foundation soils be graded to a system of collection drains to capture and divert any groundwater from collecting in the crawl space. This system can be gravity flow out from below the home and directed into the exterior drain system. Care should be taken not to allow storm water from the exterior system to back flow into the crawl space.

Landslide Hazard Assessment

On December 23rd, 2014, we inspected the site for the presence of indicators associated with landforms susceptible or undergoing mass movement due to a combination of geologic, seismic, topographic, hydrologic, or manmade factors. Bellevue defines a landslide hazard area as having slopes of 15 percent or more with more than 10 feet of rise, and display any of the characteristics listed below:

1. Areas of historic failures, including those areas designated as quaternary slumps, earthflows, mudflows, or landslides.
2. Areas that have shown movement during the Holocene Epoch (past 13,500 yrs.) or that are underlain by landslide deposits...
3. Slopes parallel or sub-parallel to planes of weakness, such as bedding planes, joint systems, and fault planes in subsurface materials.
4. Slopes exhibiting geomorphological features indicative of past failures, such as hummocky ground and back-rotated benches on slopes.
5. Areas of seeps indicating a shallow ground water table on or adjacent to the slope face.
6. Areas of potential instability because of rapid stream incision, stream bank erosion, and undercutting by wave action...
7. The occurrence of topping, leaning, bowed, or jackstraw trees that are caused by disruption of ground surface by active movement
8. Areas with slopes containing soft or liquefiable soils.
9. Areas where gullying and surface erosion have caused dissection of the bluff edge or slope face as a result of drainage or discharge from pipes, culverts, ditches, and natural drainage courses.
10. Areas that are at risk of mass movement due to seismic events.

In addition to the prescribed 15 percent slopes with 10 feet of vertical rise, Lot 14 contains at least two of the parameters listed above to be categorized as a landslide hazard area.

Steep slopes

Slopes with grades of 40 percent or more with 10 feet or more vertical elevation change and 1,000 sf of surface area. The subject property contains all three parameters.

FINDINGS

In addition to our review of the site for any of the indicators; we reviewed aerial photography over time, topographical maps generated by the Puget Sound LiDAR consortium, and the USGS map for the presence of landslide deposits and/or features.

The residential lot contains indicators defined by the City as Landslide hazards with steep slopes. Development of the lot will require a Reasonable Use Permit because development cannot avoid critical areas as defined and associated buffers.

Subsurface soil conditions explored and reported by GA and confirmed by LS&E indicate the lot can be developed for a residential structure. Soil bearing capacities are estimated to meet or exceed 1,500 psf on undisturbed, unweathered glacial till or bedrock. Soil bearing capacity and consistency should be confirmed at the time of excavation and prior to placement of the foundation footings.

Access, excavation and development on the existing slope will encounter a variety of soil conditions. Soft, wet or unsuitable soils should be removed from below driving surfaces, foundations or areas of support to retaining walls or rockeries. Development will require incorporation of ground water collection and diversion systems, engineering of foundation walls and exterior walls as retaining structures and an integrated storm water collection system for the foundation footings, crawl space, under-slab areas, rockeries, retaining walls and driveways.

Ground water seepage was not observed on the lot although seasonal near surface groundwater could be expected along the contact with the bedrock or glacial till. Control of surface water runoff adjacent to and on the moderate to steep slopes is essential in managing or preventing near surface erosion or shallow landslides.

No uncontrolled soil fill or loose debris should be placed onto the slopes above or below the proposed residential development. Areas of fill should be evaluated and the fill material approved by the structural engineer or geotechnical professional prior to placement. Placement of fill soils should be monitored and tested as necessary or as required by the City of Bellevue.

CLOSURE

The conclusions and recommendations presented in this evaluation are based, in part, on our research, existing mapping and reports at the time, exploration reports completed by others which included subsurface explorations and our field observations and confirmations for this study; therefore, variations in the subgrade conditions may be discovered. Future performance and integrity of site development depends largely on proper initial site preparation, drainage, and construction procedures. Monitoring and testing by experienced geotechnical professional should be considered an integral part of the planning, development and construction process. LS&E is available to provide geotechnical monitoring of soils throughout construction.

We appreciate the opportunity to be of service on this project. If you have any questions regarding this report or any aspects of the project, please feel free to contact our office.

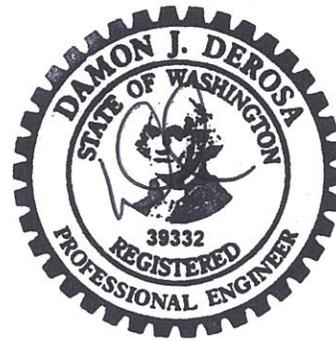
Please feel free to call me at 253-848-6608 if you have any questions.

Respectfully Submitted,
LeRoy Surveyors & Engineers, Inc.



REX B. HUMPHREY

Rex Humphrey, L.E.G.
Engineering Geologist



Damon DeRosa, P.E.
Professional Engineer