City of Bellevue
Development Services Department
Land Use Staff Report

Proposal Name:	Lam/Keldorph Residence
Proposal Address:	16025 SE 16th St
Proposal Description:	The applicant requests a Critical Areas Land Use Permit to modify a Category II wetland buffer. The proposal would demolish an existing single family residence currently encroaching into the wetland buffer to construct a new residence in approximately the same building footprint.
File Number:	16-148403-LO
Applicant:	George Ostrow, Velocipede Architects
Decisions Included	Critical Areas Land Use Permit (Process II. 20.30P)
Planner:	Peter Rosen, Senior Planner
State Environmental Policy Act Threshold Determination:	Exempt
Director's Decision:	**Approval with Conditions** Michael A. Brennan, Director Development Services Department By: _____ Elizabeth Stead, Land Use Director

Application Date:	December 8, 2016
Notice of Application Date:	January 12, 2017
Decision Publication Date:	May 25, 2017
Project Appeal Deadline:	June 8, 2017

For information on how to appeal a proposal, visit Development Services Center at City Hall or call (425) 452-6800. Appeal of the Critical Areas Land Use Permit decision must be received in the City's Clerk's Office by 5 PM on the date noted for appeal of the decision.

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Attachments

1. Site and Mitigation Plans – Enclosed
2. Critical Areas Report – In File
3. Application Forms, Materials – In File

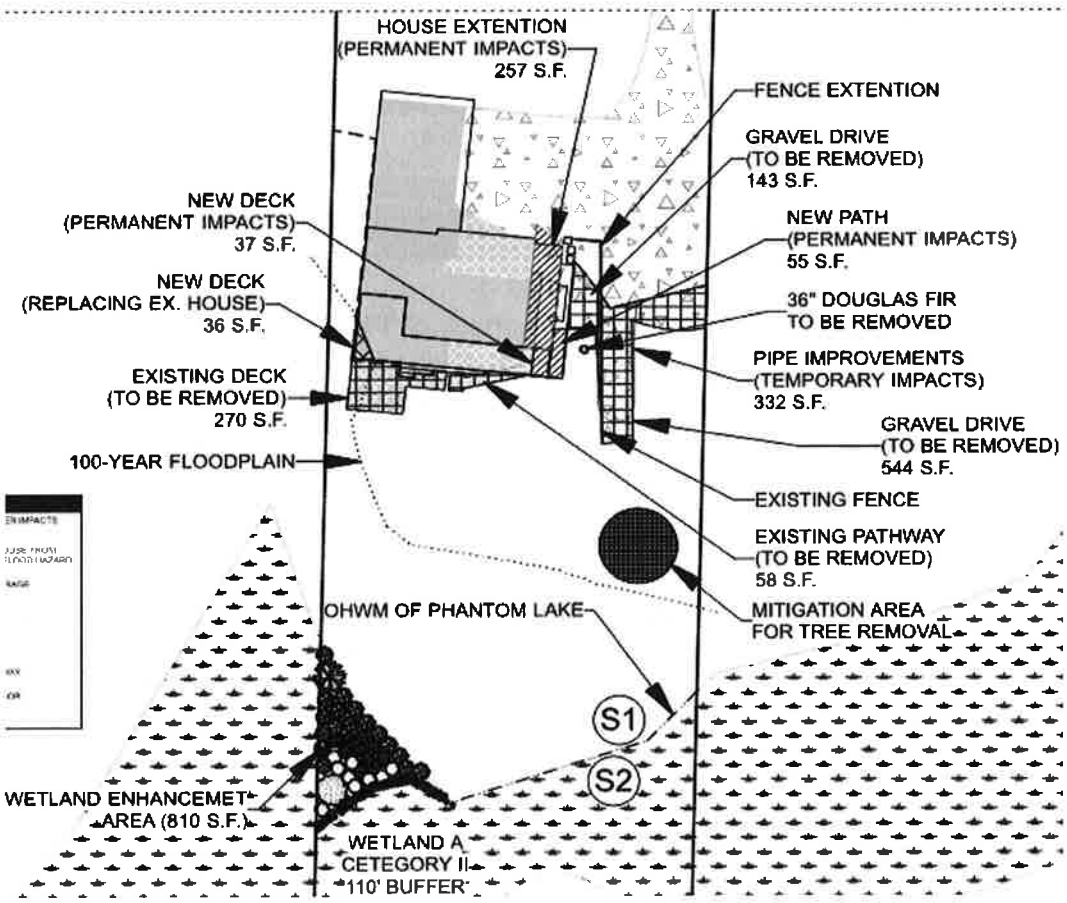
I. Proposal Description

The applicant is requesting approval of a Critical Areas Land Use Permit to modify a Category II wetland buffer. The proposal would demolish an existing single family residence, which currently encroaches into the wetland buffer, in order to construct a new residence in approximately the same building footprint.

The 1.91 acre site is located on the north shore of Phantom Lake. A Category II wetland fringes the north shore of Phantom Lake and requires a 110-foot standard wetland buffer width. The existing single-family residence on the site currently encroaches into the wetland buffer, with the closest point located approximately 65 feet from the wetland edge. However, consistent with LUC 20.25H.035.B the wetland buffer and structure setback are modified to exclude the footprint of the existing primary structure for houses constructed prior to 2006. The proposed new residence would be constructed 9 to 20 feet further away from the wetland than the existing residence.

The proposed, new residence would modify or reconfigure the footprint of the existing structure. The major changes are: 1) the new house would be expanded 8 feet to the east (257 SF buffer impact); 2) the south portion of the existing house would be retracted 9 to 20 feet away from edge of the lake and replaced with a new deck (37 SF buffer impact); 3) the existing deck along the south edge of the existing residence, which is the closest part of the current residence to the lake, would be removed (270 SF of impervious surface reduction) and converted to lawn. Details of the proposed changes to the footprint of the existing residence and proposed changes to other elements of the site are shown on Figure 1 below.

Figure 1



The proposal also includes alterations to the existing driveway configuration and pathways around the house, which would result in permanent buffer impacts and impervious surface removal from the buffer.

Overall, the proposal would result in 349 SF of permanent impacts within the wetland buffer, with 229 SF of this impact over existing impervious surface area. The proposal would remove or reduce 1,014 SF of impervious surface area within the wetland buffer, resulting in a net reduction of 665 SF. Figure 2 below shows the permanent wetland buffer impacts relative to proposed reductions in the impervious surface area.

Figure 2

PROPOSED LAND USE ACTIVITY	PERMANENT BUFFER IMPACT (SqFt)	IMPERVIOUS SURFACE REDUCTION (SqFt)
House Alterations		
Eastern house extension	257	-
Southern house retraction	-	-
Deck Alterations		
New deck area (outside of existing development footprint)	37	-
Southern deck to be converted to lawn	-	270
Pathway Alterations		
southern portion of existing path to be removed and converted to lawn	-	58
New path along the eastern portion of the house	55	-
Driveway Alterations		
Southern portion of gravel drive way to be removed and converted to lawn	-	544
west portion of gravel drive to be removed and converted to lawn	-	142
Fence Alterations		
Construction of fence extension (man-made structure) over the current impervious driveway	-	-
TOTAL	**349**	**1014**
NET TOTAL (REDUCTION)	**665**	

The subject site is located along the north shore of Phantom Lake; within the Shoreline Overlay District (LUC 20.25E) which extends landward 200 feet from the ordinary high water mark (OHWM) of Phantom Lake. The site is considered a "developed site" because it contains a primary structure and therefore requires a 25-foot buffer from the OHWM of the lake and a 25-foot structure setback from the shoreline buffer. The proposed residence would be constructed outside the required 25-foot lake buffer and the 25-foot structure setback.

The 100-year floodplain from Phantom Lake extends onto the site and the west section of the existing south house deck and the southwest corner of the house (36 SF) are within the area of special flood hazard (LUC 20.25H.175). The applicant proposes to retract the southern portion of the existing residence by between 9 to 20 feet, which would remove the corner of the primary residence encroaching into the floodplain. Within the footprint of the retracted house structure, a new deck would constructed. The new deck area within the floodplain (36 SF) would be constructed to comply with code provisions that allow for intrusions into special flood areas (LUC 20.25H.180.C.1).

The proposal includes the following mitigation measures to address the impacts of constructing the new residence and modifying the wetland buffer:

- The proposal would move the development further away, increasing the distance between the new residence and the on-site wetland and Phantom Lake shoreline.
  - The south deck of the house (270 SF), the closest part of the house toward the wetland and lake, would be removed and converted to lawn.
  - The south portion of the house (380 SF) would be retracted by between 9 to 20 feet from the wetland and lake and replaced with a new deck. A semi-pervious deck replacing the existing house footprint would increase infiltration within the wetland buffer.
- The southwest corner (36 SF) of the primary structure would be replaced with a new deck; effectively removing the primary structure completely from the 100-year floodplain. The new deck would be constructed to maintain base flood elevation thereby restoring floodplain storage capacity.
- The proposal would result in a net reduction of 665 SF of impervious surface area within the wetland buffer. The proposal would result in 349 SF of permanent buffer impact compared to 1,014 SF of impervious surface reduction, a 2.9:1 ratio. Of the 349 SF of buffer impact, 229 SF would be over existing impervious surface area.
- The proposal includes a mitigation/restoration plan to enhance the on-site wetland as well as the adjacent fringe of the lake. Vegetation within the on-site wetland is predominantly lawn grasses, with patches of soft rush and toad rush. Yellow flag iris is present along the shoreline of the lake. The proposed mitigation plan would enhance 677 SF of the on-site wetland with native tree and shrub species. Along the fringe between Phantom Lake and the landward wetland area, invasive vegetation such as Yellow-flag iris would be removed and the area enhanced with Hardstem bulrush.
- To mitigate for the removal of one 26-inch Douglas fir tree located within the wetland buffer, the applicant would plant 3 conifers (1 Douglas fir, 1 Western cedar, 1 Western hemlock) adjacent to an existing group of conifers to the southeast of the proposed structure.

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

A. Site Description

The 1.91 acre project site is located at 16025 SE 16th St in the Southeast Bellevue subarea. The site is located on the northern shore of Phantom Lake. The property is accessed from the north via a driveway off SE 16th St which connects to SE Phantom Way. The property is currently developed with a single-family residence and gravel driveway. The site slopes moderately to the south, towards the lake.

A Category II wetland (Wetland A) is on the south portion of the site, part of a larger lake-fringe wetland along the northwest shoreline of Phantom Lake. The wetland has a moderate habitat score and requires a 110 foot buffer per LUC 20.25H.035.A. This wetland buffer width is required for an "undeveloped" site, where the wetland and wetland buffer have not been

previously recorded in a Native Growth Protection Area (NGPA) and Native Growth Protection Easement (NGPE), LUC 20.25H.095.C.1.a.i.

Vegetation within the onsite portion of Wetland A is predominantly lawn grasses (Agrostis spp.), with patches of bird's fool trefoil (Lotus corniculatus), toad rush (Juncus bufonius) and lamp rush (Juncus effuses. Yellow flag iris (Iris pseudacorus), a non-native invasive plant specie, is present along the lakeshore. The on-site wetland buffer area is actively maintained as lawn.

The 100-year floodplain of Phantom Lake extends onto the subject site. The base flood elevation for Phantom Lake is 265 feet according to the FIRM. The southwest corner of the existing deck and residence is at approximately 265 feet and within the area of special flood hazard (100-year floodplain).

The north portion of the site (outside the wetland buffer area) is vegetated with conifers (Douglas fir and Western hemlock); part of a small, vegetated corridor running along the south edge of SE 16th St. There is another patch of conifer trees southeast of the primary structure, located within the wetland buffer. The understory of the trees is maintained as open landscaping, lacking a shrub component.

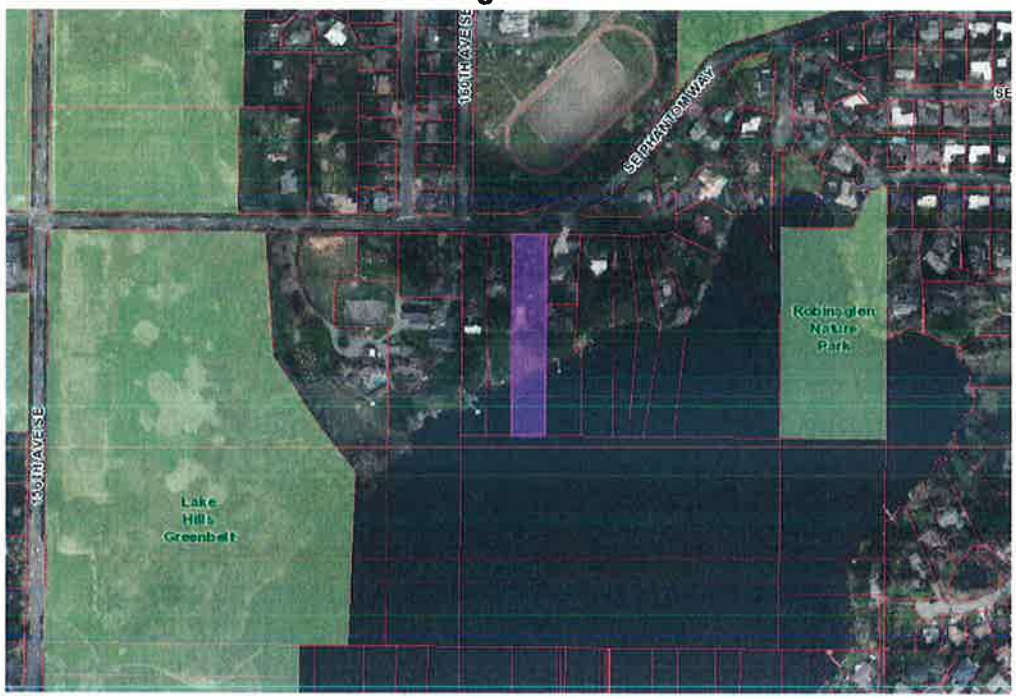
B. Zoning

The property is zoned R-1.8, Single-Family Residential. All private parcels on Phantom Lake are zoned R-1.8, and most are currently developed with single family residences. The site area within 200 feet of the ordinary high water mark (OHWM) of Phantom Lake is within the Shoreline Overlay District (LUC 20.25E). See Figure 3.

C. Land Use Context

The property has a Comprehensive Plan Land Use Designation of SF-L, Single-Family Low Density. Single family residences are consistent with the SF-L designation.

Figure 3



D. Critical Areas Functions and Values

i. Wetlands

Wetlands provide important functions and values for both the human and biological environment—these functions include flood control, water quality improvement, and nutrient production. These "functions and values" to both the environment and the citizens of Bellevue depend on their size and location within a basin, as well as their diversity and quality. While Bellevue's wetlands provides various beneficial functions, not all wetlands perform all functions, nor do they perform all functions equally well (Novitski et al., 1995). However, the combined effect of functional processes of wetlands within basins provides benefits to both natural and human environments. For example, wetlands provide significant stormwater control, even if they are degraded and comprise only a small percentage of area within a basin. See description of on-site wetland above.

ii. Shorelines

Shorelines provide a variety of functions including shade, temperature control, water purification, woody debris recruitment, channel, bank, and beach erosion, sediment delivery, and terrestrial-based food supply (Gregory et al. 1991; Naiman et al. 1993; Spence et al. 1996).

Shorelines provide a wide variety of functions related to aquatic and riparian habitat, flood control, water quality, economic resources, and recreation. Each function is a product of physical, chemical, and biological processes at work within the overall landscape. In lakes, these processes take place within an integrated system of coupled aquatic and riparian habitats. Hence, it is important to have an ecosystem approach which incorporates an understanding of shoreline functions and values.

iii. Areas of Special Flood Hazard

The value of floodplains can be described in terms of both the hydrologic and ecological functions that they provide. Flooding occurs when either runoff exceeds the capacity of rivers, lakes, and streams to convey water within their banks, or when engineered stormwater systems become overwhelmed. Studies have linked urbanization with increased peak discharge and channel degradation (Dunne and Leopold 1978; Booth and Jackson 1997; Konrad 2000). Floodplains diminish the effects of urbanization by temporarily storing water and mediating flow to downstream reaches. The capacity of a floodplain to buffer upstream fluctuations in discharge may vary according to valley confinement, gradient, local relief, and flow resistance provided by vegetation. Development within the floodplain can dramatically affect the storage capacity of a floodplain, impact the hydrologic regime of a basin and present a risk to public health and safety and to property and infrastructure.

III. Consistency with Land Use Code Requirements:

A. Zoning District Dimensional Requirements:

The site is zoned R-1.8 and the zoning dimensional requirements in LUC 20.20.010 apply to the proposed home construction. The plans submitted generally demonstrate conformance

with the R-1.8 zoning dimensional standards. A building permit will be required and full compliance with zoning standards will be verified during building permit review. **See Conditions of Approval in Section X of this report.**

B. Critical Areas Requirements LUC 20.25H:

The City of Bellevue Land Use Code Critical Areas Overlay District (LUC 20.25H) establishes performance standards and procedures that apply to development on any site which contains in whole or in part any portion designated as critical area, critical area buffer or structure setback from a critical area or buffer. Critical areas on the subject site include a Category II wetland, the shoreline of Phantom Lake, and the 100-year floodplain of Phantom Lake.

i. Consistency with LUC 20.25H.100 – Wetland Performance Standards

Development on sites with a wetland or wetland critical area buffer shall incorporate the following performance standards in design of the development, as applicable

1. **Lights shall be directed away from the wetland**
   The front of the proposed house would face north, away from the on-site wetland and lake. Therefore, any lights associated with the driveway, garage, or front door of the residence will be directed away from the wetlands. Lighting at the rear of the residence would be over 60 feet from the wetland. The south part of the existing gravel driveway (a 33-foot length closest toward the wetland) would be removed, reducing the impact of car headlights directed toward the wetland. Lighting at the rear and sides of the residence shall be limited to that necessary to provide adequate access and security and light fixtures shall be shielded to prevent light from reaching the areas of on-site wetlands. **See Conditions of Approval in Section X of this report.**

2. **Activity that generates noise such as parking lots, generators, and residential uses, shall be located away from the wetland, or any noise shall be minimized through use of design and insulation techniques.**
   The driveway, garage, and front door of the residence would be situated on the north side of the new residence. Therefore, the majority of noise-generating activities would occur on the north side of the residence, which faces away from the on-site wetland and lake. The new residence would be constructed 9 to 20 feet further back from the wetland than the existing residence, increasing the distance of human activity and noise sources from the edge of the wetland.

4. **Toxic runoff from new impervious area shall be routed away from the wetlands.**
   An existing stormwater pipe that underlies the driveway would be replaced and realigned to function properly in accordance with the approved stormwater manual. A portion of the pipe improvement work would extend approximately 20 feet into the wetland buffer. This work would be completed with the gravel driveway removal.

   Runoff from new impervious surfaces associated with the project would discharge into the replaced stormwater pipe. The stormwater system will discharge into the lake, so no runoff would be directly discharged into the wetland. The stormwater system will be required to meet design requirements for flow control and water quality, per the City

stormwater manual.

5. **Treated water may be allowed to enter the wetland critical area buffer.**
Water from new impervious surfaces would not enter the wetland buffer, but rather would be directly discharged into Phantom Lake using a stormwater system that meets water quality requirements of the City stormwater manual.

6. **The outer edge of the wetland critical area buffer shall be planted with dense vegetation to limit pet or human use.**
The on-site wetland buffer has been consistently maintained as lawn. Routine landscape maintenance would allow the property owner to maintain access to the Lake Phantom shoreline. The on-site wetland area would be enhanced with native plant species. The outer edge of the proposed planting includes swamp rose, which will be an effective barrier planting to limit pet and human intrusion into the wetland. The plant selection and planting density is consistent with the City's *Critical Areas Handbook* planting template for wetlands. The mitigation/restoration planting plan shall be included with the building permit application. **See Conditions of Approval in Section X of this report.**

7. **Use of pesticides, insecticides and fertilizers within 150 feet of the edge of the stream critical area buffer shall be in accordance with the City of Bellevue's "Environmental Best Management Practices", now or as hereafter amended.**
The use of pesticides, insecticides, or fertilizers within the wetland buffer and within 150 feet of the lake shall be in accordance with the City of Bellevue's "Environmental Best Management Practices." The mitigation/restoration plan shall detail the method that will be used to remove the Yellow-flag iris from the lake shoreline. **See Conditions of Approval in Section X of this report.**

ii. Consistency with LUC 20.25H.110 – Critical areas report – Additional provisions

A. Limitation on Modification
A critical areas report may not be used to fill a wetland critical area, except where filling is required to allow a use set forth in LUC 20.25H.055.

Finding: No wetland fill is proposed with the project.

B. Additional Content
In addition to the general requirements of LUC 20.25H.230, a critical areas report for wetlands shall include a written assessment and accompanying maps of the wetland and buffers within 300 feet of the project area, including the following information at a minimum:

1. **A discussion of measures, including avoidance, minimization, and mitigation, proposed to preserve existing wetlands and restore any wetland that were degraded prior to the current proposed land use activity.**
The proposal avoids and minimizes impacts by relocating the new residence further from the on-site wetland, increasing the distance and intervening buffer

area between the new residence and wetland. The proposal includes a mitigation/restoration plan to enhance the on-site degraded wetland area with native plant species.

2. **A habitat and native vegetation conservation strategy that addresses methods to protect and enhance on-site habitat and wetland functions.**
The proposal has been designed to conserve existing native trees within the wetland buffer. The proposal includes a mitigation/restoration plan to enhance the degraded wetland area with native plant species, which would improve on-site habitat and wetland functions.

   The proposal would remove one (1) 26-inch Douglas fir tree located within the wetland buffer because the house expansion to the east would encroach significantly into the drip zone. To mitigate for this tree removal, the applicant proposes to plant 3 conifers (1 Douglas fir, 1 Western cedar, 1 Western hemlock) adjacent to an existing group of conifers to the southeast of the proposed structure.

   Site Plan Sheet A0.3 identifies trees to be removed and retained with construction of the new residence. The Building Permit plan submittal shall show tree protection measures to preserve those trees identified for retention on Site Plan Sheet A0.3. **See Conditions of Approval in Section X of this report.**

3. **Functional evaluation for the wetland and adjacent buffer using a local or state agency staff-recognized method and including reference of the method and all data sheets.**
The wetland was rated for functions using the Washington Department of Ecology's *Washington State Wetland Rating System for Western Washington* (Hruby 2014). The wetland rating form and wetland determination data forms (U.S. Army Corps of Engineers) are included in the Critical Areas Report, Attachment 2, (Wetland Resources, Inc., March 30, 2017).

iii. Consistency with LUC 20.25H.115 – Shorelines – Designation of critical area and buffers.

A. Designation of Shoreline Critical Areas.

Finding: The subject site is located along the north shore of Phantom Lake. Phantom Lake is a shoreline of the state and the subject site is located within the Shoreline Overlay District (LUC 20.25E), which extends landward 200 feet from the ordinary high water mark (OHWM) of Phantom Lake.

B. Designation of Shoreline Critical Area Buffers.

Finding: The proposed residence would be constructed within the Shoreline Overlay District and therefore is subject to the shoreline critical area buffer and structure setback standards. The site is considered a "developed site" because it contains a primary structure. A developed site requires a 25-foot buffer, as measured from the ordinary high water mark (OHWM) of Phantom Lake, and a 25-foot structure setback from the shoreline

buffer. The proposed residence would be constructed outside the 25-foot lake buffer and the 25-foot structure setback.

iv. Consistency with IX. Areas of Special Flood Hazard

20.25H.175 Designation of Critical Area.

A special flood hazard area is defined as land subject to the 100-year flood, including areas identified on Flood Insurance Rate Maps (FIRM) as within the base floodplain. The 100-year floodplain of Phantom Lake extends onto the subject site. The base flood elevation for Phantom Lake is 265 feet according to the FIRM. The southwest corner of the existing deck and residence is at approximately 265 feet and within the area of special flood hazard (100-year floodplain).

20.25H.180 Development in the area of special flood hazard.

C. General Performance Standards.

Where use or development is allowed pursuant to LUC 20.25H.055, the following general performance standards apply:

1. Intrusion Over the Area of Special Flood Hazard Allowed. Any structure may intrude over the area of special flood hazard if:

a. The intrusion is located above existing grade, and does not alter the configuration of the area of special flood hazard;

Finding: The southwest corner (36 SF) of the existing residence is located within the 100-year floodplain/area of special flood hazard area associated with Phantom Lake. The proposal would replace this corner of the existing primary structure with a cantilevered deck located above existing grade. The deck would not modify the base flood elevation (BFE) of the floodplain.

b. The intrusion is at an elevation and orientation which maintains the existing vegetation of the area of special flood hazard in a healthy condition. Solar access to vegetation must be maintained at least 50 percent of daylight hours during the normal growing season; and

Finding: The applicant states the deck area constructed over the floodplain will be designed to allow for solar access to vegetation for at least 50% of daylight hours. The deck design will be reviewed with the building permit to comply with this standard. **See Conditions of Approval in Section X of this report.**

c. The intrusion does not encroach into the regulated floodway except in compliance with subsection C.5 of this section.

Finding: There is not a regulated floodway on the site.

v. Consistency with VIII. Habitat Associated with Species of Local Importance – LUC 20.25.H.150

A habitat assessment is an investigation of the site to evaluate the potential presence or absence of designated species of local importance or habitat for species of local

importance. A critical areas report for habitat for species of local importance shall contain an assessment of habitats including the following site- and proposal-related information at a minimum:

1. Detailed description of vegetation on and adjacent to the site;
2. Identification of any species of local importance that have a primary association with habitat on or adjacent to the site, and assessment of potential project impacts to the use of the site by the species;
3. A discussion of any federal, state, or local special management recommendations, including Washington Department of Fish and Wildlife habitat management recommendations, that have been developed for species or habitats located on or adjacent to the site;
4. A detailed discussion of the direct and indirect potential impacts on habitat by the project, including potential impacts to water quality;
5. A discussion of measures, including avoidance, minimization, and mitigation, proposed to preserve existing habitats and restore any habitat that was degraded prior to the current proposed use or activity and to be conducted in accordance with the mitigation sequence set forth in LUC 20.25H.215; and
6. A discussion of ongoing management practices that will protect habitat after the site has been developed, including proposed monitoring and maintenance programs.

Finding: The applicant has submitted to the City a Critical Areas Report prepared by Wetland Resources, Inc. dated March 30, 2017, (see Attachment 2). The report meets the standards required by this section and discusses the projects direct and indirect impacts to habitat. This finds that the project is Not Likely to Adversely Affect (NLAA) listed species or habitat associated with species of local importance.

IV. Public Notice and Comment

Application Date:	December 8, 2016
Public Notice (500 feet):	January 12, 2017
Minimum Comment Period:	January 26, 2017

The Notice of Application for this project was published the City of Bellevue weekly permit bulletin and Seattle Times on January 12, 2017. It was mailed to property owners within 500 feet of the project site. No comments were received.

V. Summary of Technical Reviews

A. Clearing and Grading

The Clearing and Grading Division of the Development Services Department has reviewed the proposed site development for compliance with Clearing and Grading codes and standards. The Clearing and Grading staff approved the application.

VI. State Environmental Policy Act (SEPA)

The proposal is exempt from SEPA review, per WAC 197-11-800 and BCC 22.02.032. Construction of a single family residence is a categorical exemption even when located in a

critical area.

VII. Changes to Proposal Due to Staff Review

In response to the January 30, 2017 revision letter, the applicant revised plans to eliminate the stormwater infiltration trench located inside the 100-year floodplain, and responded with a mitigation/restoration plan to enhance the on-site wetland area.

VIII. Decision Criteria

A. Consistency with LUC 20.25H.255 – Critical areas report – Decision criteria

General.

Except for the proposals described in subsection B of this section, the Director may approve, or approve with modifications, the proposed modification where the applicant demonstrates:

1. **The modifications and performance standards included in the proposal lead to levels of protection of critical area functions and values at least as protective as application of the regulations and standards of this code;**

   Finding: The proposed new residence would be constructed in approximately the same footprint as the existing residence, so the proposal would be located in a site area that has already been disturbed and provides minimal critical area functions. The new residence would be retracted approximately 9 to 20 feet, increasing the distance to the edge of the wetland and lake. The proposal would result in a net reduction of 665 SF of impervious surface area within the wetland buffer. Reduction of impervious surface area would increase surface water infiltration within the wetland buffer improving hydrologic and water quality functions. The proposal also includes a mitigation/restoration plan to enhance the on-site wetland area and the lakeshore (810 SF of enhancement); removing invasive plant species (Yellow-flag iris) and planting native wetland plant species, thereby improving wildlife habitat functions adjacent to the lake.

2. **Adequate resources to ensure completion of any required mitigation and monitoring efforts;**

   Finding: The proposed mitigation planting is required to be monitored for five (5) years. A maintenance surety is required prior to issuance of a building permit for an amount equal to the estimated cost of planting, maintenance and monitoring for five years. A cost estimate for the maintenance surety is required to be submitted with the building permit. **See Conditions of Approval in Section X of this report.**

3. **The modifications and performance standards included in the proposal are not detrimental to the functions and values of critical area and critical area buffers off-site; and**

   Finding: The proposed modifications would not be detrimental to the functions and values of critical areas and buffers off-site. The wetland area on the subject site is part of a lake fringe wetland which extends onto adjacent properties on the north shore

of Phantom Lake. The proposal would enhance the on-site wetland area with native plant species, which would improve functions and values of the lake fringe wetland.

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

   Finding: The subject site is zoned for and surrounded by single family development. The proposed single family home would be compatible with other single family uses and development in the same land use district.

B. 20.30P.140 Critical Area Land Use Permit Decision Criteria – Decision Criteria

The Director may approve, or approve with modifications an application for a Critical Area Land Use Permit if:

1. **The proposal obtains all other permits required by the Land Use Code;**
   The applicant must obtain a building permit and any associated permits. **See Conditions of Approval in Section X of this report.**

2. **The proposal utilizes to the maximum extent possible the best available construction, design and development techniques which result in the least impact on the critical area and critical area buffer;**
   The proposal would site the new residence in the same approximate building footprint as the existing residence; thereby locating the development in a site area that has already been disturbed. This minimizes the impacts to existing trees within the wetland buffer and impacts to upland trees. The proposal would result in a net reduction of 665 SF of impervious surface area within the wetland buffer; improving hydrologic and water quality functions in the wetland buffer. The proposed mitigation/restoration plan would enhance the on-site wetland area along the lakeshore (810 SF of enhancement); thereby improving wildlife habitat functions adjacent to the lake.

3. **The proposal incorporates the performance standards of Part 20.25H to the maximum extent applicable, and ;**
   The performance standards related to wetlands are being met by this proposal as described in Section III above.

4. **The proposal will be served by adequate public facilities including street, fire protection, and utilities; and;**
   The proposed activity will be served by adequate public facilities.

5. **The proposal includes a mitigation or restoration plan consistent with the requirements of LUC Section 20.25H.210; and**
   The proposed mitigation/restoration planting of the wetland area is consistent with the City's wetland planting template in the *Critical Areas Handbook*. A final mitigation/restoration planting plan shall be included with the building permit and shall include performance standards to monitor the success of the mitigation planting. **See Conditions of Approval in Section X of this report.**

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

IX. Conclusion and Decision

After conducting the various administrative reviews associated with this proposal, including Land Use Code consistency, City Code and Standard compliance reviews, the Director of the Development Services Department does hereby **approve with conditions** the reduction of the 60-foot wetland buffer to allow construction of a house and associated improvements. **Approval of this Critical Areas Land Use Permit does not constitute a permit for construction. A building permit, clear and grade permit, and/or utility permit is required and all plans are subject to review for compliance with applicable City of Bellevue codes and standards.**

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

X. Conditions of Approval

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

Applicable Ordinances	Contact Person
Clearing and Grading Code- BCC 23.76	Savina Uzunow, 425-452-7860
Land Use Code- BCC Title 20	Peter Rosen, 425-452-5210
Noise Control- BCC 9.18	Peter Rosen, 425-452-5210

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

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

   Authority: Land Use Code 20.30P.140
   Reviewer: Peter Rosen, Development Services Department

2. **Flood Hazard Compliance:** The southwest corner of the new deck would intrude into the 100-year floodplain. The applicant shall demonstrate compliance with the performance standards for areas of special flood hazard in LUC 20.25H.180.C. in their building permit submittal.

   Authority: Land Use Code 20.25H.180.C.
   Reviewer: Peter Rosen, Development Services Department

3. **Lighting:** Lighting at the rear and sides of the residence shall be limited to that necessary to provide adequate access and security and light fixtures shall be shielded to prevent light from reaching the areas of on-site wetlands. Lighting tear sheets or photos of fixtures must be submitted to Development Services with the building permit application for preliminary approval and shall be confirmed by inspection in the field after installation.

   Authority: Land Use Code 20.25H.100
   Reviewer: Peter Rosen, Development Services Department

4. **Final Mitigation and Restoration Plan:** A final mitigation/restoration planting plan for enhancement of the on-site wetland area and planting mitigation for the tree removal is required with the Building Permit submittal, consistent with the Mitigation Plan in the Critical Areas Report (Attachment 1). The plan shall show planting locations, plant species, quantity and size of plant material. The final mitigation plan shall also include performance standards to measure the successful establishment of the mitigation plantings. The following performance standards are required:

   Year 1 (from date of plant installation)
   •100% survival of all installed plants and/or replanting in following dormant season to reestablish 100%
   •10% coverage of invasive plants in planting area

   Year 2 (from date of plant installation)
   •At least 90% survival of all installed material
   •Less than 10% coverage of planting area by invasive species or non-native/ornamental vegetation

   Year 3, 4, & 5 (from date of plant installation)
   •At least 85% survival of all installed material
   •Less than 10% coverage by invasive species or non-native/ornamental vegetation

   Authority: Land Use Code 20.25H.220
   Reviewer: Peter Rosen, Development Services Department

5. **Maintenance and Monitoring Surety:** A financial surety is required to be submitted to ensure the mitigation planting successfully establishes. A maintenance assurance device that is equal to 100% of the cost of plants, installation, and monitoring is required to be held for a period of five years from the date of successful installation. A cost estimate is required to be provided with the building permit. The financial surety is required to be posted prior to building permit issuance. Release of the surety after the 5-year monitoring period is contingent upon a final inspection of the planting by Land Use Staff that finds the maintenance and monitoring plan was successful and meets performance standards.

   Authority: Land Use Code 20.25H.220
   Reviewer: Peter Rosen, Development Services Department

6. **Maintenance and Monitoring Reports:** The mitigation planting is required to be maintained and monitored for five years to ensure the plants successfully establish. Annual monitoring reports are required to be submitted to document the plants are meeting approved performance standards. Photos from selected photo points shall be included in the monitoring reports to document the planting. Land Use inspection is required by Land Use staff to end the plant monitoring period.

   Reporting shall be submitted no later than the end of each growing season or by October 31st, and shall include a site plan and photos from photo points established at the time of Land Use inspection. Reports shall be submitted to Peter Rosen or Heidi Bedwell by the above listed date and can be emailed to prosen@bellevuewa.gov or mailed directly to:

   Environmental Planning Manager
   Development Services Department
   City of Bellevue
   PO Box 90012
   Bellevue, WA 98009-9012

   Authority: Land Use Code 20.30P.140; 20.25H.220
   Reviewer: Peter Rosen, Development Services Department

7. **Environmental Best Management Practices:** The use of pesticides, insecticides, or fertilizers within the wetland buffer and within 150 feet of the lake shall be in accordance with the City of Bellevue's "Environmental Best Management Practices." The mitigation/restoration plan shall detail the method that will be used to remove the Yellow-flag iris from the lake shoreline.

   Authority: Land Use Code 20.25H.100
   Reviewer: Peter Rosen, Development Services Department

8. **Tree Protection:** The Building Permit plan submittal shall show tree protection measures to preserve those trees identified for retention on Site Plan Sheet A0.3.

   Authority: Land Use Code 20.30P.140
   Reviewer: Peter Rosen, Development Services Department

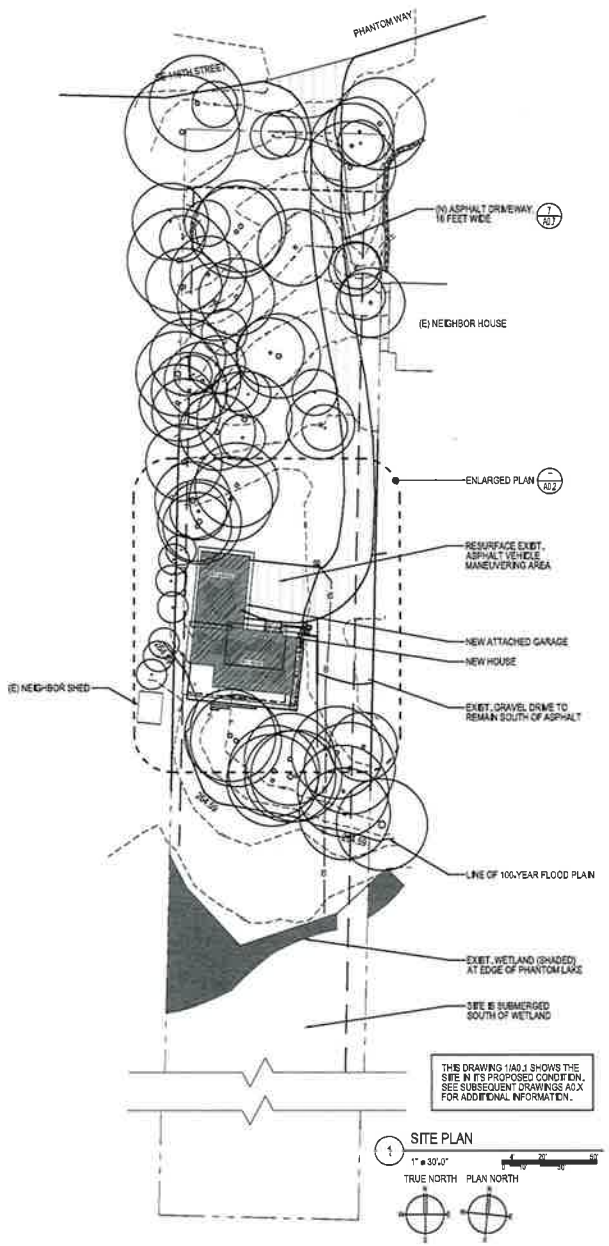
9. **Land Use Inspection:** Following installation of the mitigation planting, the applicant shall contact Land Use staff to inspect the planting area prior to final building inspection. Plantings shall be installed consistent with the approved final mitigation plan.

   Authority: Land Use Code 20.30P.140
   Reviewer: Peter Rosen, Development Services Department

10. **Noise Control:** Noise related to construction is exempt from the provisions of BCC 9.18 between the hours of 7 am to 6 pm Monday through Friday and 9 am to 6 pm on Saturdays,

except for Federal holidays and as further defined by the Bellevue City Code. Noise emanating from construction is prohibited on Sundays or legal holidays unless expanded hours of operation are specifically authorized in advance. Requests for construction hour extension must be done at least one week in advance with submittal of a construction noise expanded exempt hours permit.

Authority: Bellevue City Code 9.18
Reviewer: Peter Rosen, Development Services Department



ENERGY CODE COMPLIANCE: PER 2015 WASHINGTON STATE ENERGY CODE

MARINE 4	REQUIRED	PROVIDED	
NEW WINDOWS	U-0.26	—	TABLE R402.1.1
NEW SKYLIGHTS	U-0.50	(NONE IN PROJECT)	TABLE R402.1.1
NEW OPAQUE DOORS	0.16 (FIRST 24 SF EXEMPT)	—	SECTION R402.3.4
NEW SLABS	R-10 (2 FEET)	—	TABLE R402.1.1
NEW FLOORS	R-30	—	TABLE R402.1.1
NEW WALLS	R-21 (2X6)	—	TABLE R402.1.1
NEW HEADERS	R-10	—	TABLE R402.1.1
NEW WALLS BELOW GRADE	R-15 (INTERIOR)	—	TABLE R402.1.1
NEW CEILINGS	R-38 (ADV FRAM)	—	TABLE R402.1.1
SPACE HEATING EQUIPMENT	SIZED CORRECTLY	—	SECTION R403.5
SPACE HEATING DUCT INSULATION	R-8 (IF OUTSIDE)	—	SECTION R403.2.1
SPACE HEATING DUCT SEALING	4CFM25 / 100FT2	—	SECTION R403.2.2
SPACE HEATING CONTROLS	PROGRAMMABLE	PROGRAMMABLE	SECTION R403.1.1
WATER HEATING EQUIPMENT	NO REQUIREMENT	—	SECTION R403.4
WATER PIPING	R-4	—	SECTION R403.4.2
LIGHTING	75% CFL / LED	—	SECTION R404.1
VENTILATION	WHOLE HOUSE FAN	—	(SCB M1507.1)
AIR LEAKAGE	5.0 ACH 50	—	SECTION R402.4.1.2
DUCT LEAKAGE	4.0 CFM 25 / 100 FT²	—	SECTION R403.2.2
WINDOW LEAKAGE	0.3 CFM/FT²	—	SECTION R402.4.3
ADDITIONAL CREDITS	3.5 CREDITS* (MEDIUM DWELLING UNIT)		SECTION R406.2

*FROM TABLE 406.2
(1G) EFFICIENT BUILDING ENVELOPE (2.0 CREDITS) :
- VERTICAL FENESTRATION U-VALUE ≤ 0.22
- CEILING R-VALUE ≥ 49
- WOOD FRAMED WALLS R-VALUE ≥ R-21 (INTERIOR) + R-12 (EXTERIOR)
- SLAB-ON-GRADE R-VALUE ≥ R-10 PERIMETER AND FIELD

(5C) HIGH EFFICIENCY WATER HEATING (1.5 CREDITS) :
- ELECTRIC HEAT PUMP WITH A MINIMUM EF OF 2.0 AND N.E.E.A COMPLIANT.

UTILITY SERVICE NOTES:

1. FIRE SPRINKLERS ARE REQUIRED. PROVIDE TYPE NFPA 13D.
2. PROVIDE NEW WATER METER AND PIPING FROM MAIN IN THE NORTH STREET.
3. RELOCATE EXISTING MACERATING PUMP. UTILIZE EXISTING FORCE MAIN SIDE SEWER PIPE.
4. NO NATURAL GAS SERVICE REQUIRED FOR THE PROJECT.
5. PROVIDE NEW ON SITE STORMWATER MANAGEMENT PER A.04
6. PROVIDE NEW OVERHEAD POWER SERVICE AND ONE NEW ELECTRICAL METER.
7. PROVIDE NEW 200 AMP PANEL AT MAIN HOUSE.
8. PROVIDE NEW CABLE TV SERVICE AT MAIN HOUSE.
9. PROVIDE NEW TELEPHONE SERVICE AT MAIN HOUSE.

PARCEL #
0224059-8195

LEGAL DESCRIPTION
THE EAST 105 FEET OF THE WEST 283 FEET OF THE NORTH HALF OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 2, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON; EXCEPT THE NORTH 30 FEET FOR THE KING COUNTY ROAD.

02 VICINITY MAP
NTS

LAND USE CODE 20.20.10 FOR R-1.8		
ITEM	LIMIT	NOTES
MIN. SIDE YARD	5 FEET	15 FEET TOTAL FOR TWO SIDE YARDS
MAX LOT COVERAGE BY STRUCTURES	35%	AFTER REDUCING LOT AREA BY ENVIRONMENTALLY CRITICAL AREAS AND BUFFERS, PUBLIC ROW'S AND PRIVATE ROADS
MAX IMPERVIOUS SURFACE	50%	EXCLUDES DECKS WITH 1/8" GAPS OVER PERVIOUS SURFACES
MAX HARD SURFACE	75%	EXCLUDES DECKS WITH 1/8" GAPS OVER PERVIOUS SURFACES
MAX BUILDING HEIGHT	30 FEET	FOR SHED ROOFS, FROM AVERAGE EXISTING GRADE ELEVATION

2015 WASHINGTON STATE ENERGY CODE
SECTION R401.3 ENERGY CERTIFICATE

A PERMANENT CERTIFICATE SHALL BE POSTED WITHIN 3 FEET OF THE ELECTRICAL DISTRIBUTION PANEL.

THE CERTIFICATE SHALL BE COMPLETED BY THE BUILDER OR REGISTERED DESIGN PROFESSIONAL.

THE CERTIFICATE SHALL LIST THE PREDOMINANT R-VALUES OF INSULATION INSTALLED IN OR ON CEILING/ROOF, WALLS, FOUNDATION (SLAB, BELOW GRADE WALL, AND/OR FLOOR), AND DUCTS OUTSIDE CONDITIONED SPACES;

U-FACTORS FOR FENESTRATION; AND THE SOLAR HEAT GAIN COEFFICIENT (SHGC) OF FENESTRATION;

AND THE RESULTS FROM ANY REQUIRED DUCT SYSTEM AND BUILDING ENVELOPE AIR LEAKAGE TESTING DONE ON THE BUILDING.

WHERE THERE IS MORE THAN ONE VALUE FOR EACH COMPONENT, THE CERTIFICATE SHALL LIST THE VALUE COVERING THE LARGEST AREA.

THE CERTIFICATE SHALL LIST THE TYPES AND EFFICIENCIES OF HEATING, COOLING, AND SERVICE WATER HEATING EQUIPMENT.

DRAWING INDEX

JURISDICTIONAL:
- SURVEY

ARCHITECTURAL:

STRUCTURAL:
- —
- —
- —

OWNER
WENDY LAM & RUSSELL KELDORPH
4706 13TH AVENUE SOUTH
SEATTLE, WA 98108
CONTACT: WENDY LAM
(425) 765-4481

ARCHITECT
VELOCIPEDE architects inc
3104 WESTERN AVENUE #102
SEATTLE, WA 98121
(206) 596-2896
CONTACT: JOHN NOVAK

STRUCTURAL
MALSAM TSANG STRUCTURAL ENGINEERING CORP.
122 S. JACKSON STREET #210
SEATTLE WA 98104
CONTACT: GERALD EGGINK
(206) 789-5036

CIVIL
MARX ENVIRONMENTAL CONSULTING LLC
2710 SW 164TH PLACE
BURIEN WA 98166
CONTACT: KURT MARX, P.E.
(206) 954-3190

GEOTECH
GEOTECH CONSULTANTS, INC.
2401 12TH AVENUE E
SEATTLE WA 98002
CONTACT: JAMES STRANGE, P.E.
(425) 747-5618

GENERAL CONTRACTOR
SUNSHINE CONSTRUCTION LLC
8709 FOREST HILL PL NW
SEATTLE, WA 98117
CONTACT: JON ALEXANDER
(206) 650-7006

PROJECT LOCATION:
16025 S.E. 16TH STREET
BELLEVUE, WASHINGTON 98008

PROJECT DESCRIPTION:
DEMOLISH EXISTING SINGLE FAMILY HOUSE AND CONSTRUCT A NEW SINGLE-FAMILY HOUSE WITH ATTACHED GARAGE.

APPLICABLE CODES:
2016 TITLE 20 OF THE BELLEVUE CITY CODE (LAND USE)
2015 INTERNATIONAL BUILDING CODE (STRUCTURAL ONLY)*
2015 INTERNATIONAL RESIDENTIAL CODE*
2015 INTERNATIONAL MECHANICAL CODE*
2015 INTERNATIONAL FIRE CODE*
2015 WASHINGTON STATE ENERGY CODE (WAC 51-11R)
2015 UNIFORM PLUMBING CODE CODE*

*ALL CODES INCLUDE WASHINGTON STATE & CITY OF BELLEVUE AMENDMENTS

CODE HIGHLIGHTS:
ZONE: R-1.8
OCCUPANCY: R-3, U
CONSTRUCTION: TYPE V-B

CONDITIONED SQUARE FOOTAGE:

1ST FLOOR	1,602 SF
2ND FLOOR	1,510 SF
TOTAL:	3,112 SF

UN-CONDITIONED SQUARE FOOTAGE:

ATTACHED GARAGE (LOWER)	1,034 SF
ATTACHED GARAGE (UPPER)	1,034 SF
BACK DECK (LOWER)	544 SF
BACK DECK (UPPER)	347 SF
TOTAL:	2,959 SF

CONSTRUCTED SQUARE FOOTAGE:

TOTAL:	6,071 SF

LOT AREA:

LOT AREA (PER SURVEY)	66,182 SF
LOT AREA (EXCLUDING CRITICAL AREAS)	43,016 SF

LOT COVERAGE BY STRUCTURES:

HOUSE ROOF	2,352 SF
GARAGE ROOF	1,141 SF
BACK DECK (LOWER, NOT UNDER ROOF)	120 SF
TOTAL	3,613 SF
MAX ALLOWED (43016 X 35%)	15,055 SF

IMPERVIOUS AND HARD SURFACE:

HOUSE ROOF	2,352 SF
GARAGE ROOF	1,141 SF
BACK DECK (LOWER, NOT UNDER ROOF)	EXEMPT
EXISTING ASPHALT	1,619 SF
EXISTING GRAVEL	1,303 SF
NEW ASPHALT DRIVEWAY	4,255 SF
NEW CONC. FOOTPATH (NOT UNDER ROOF)	73 SF
TOTAL	10,143 SF
MAX ALLOWED (43016 X 50%)	21,508 SF
MAX ALLOWED (43016 X 75%)	32,262 SF

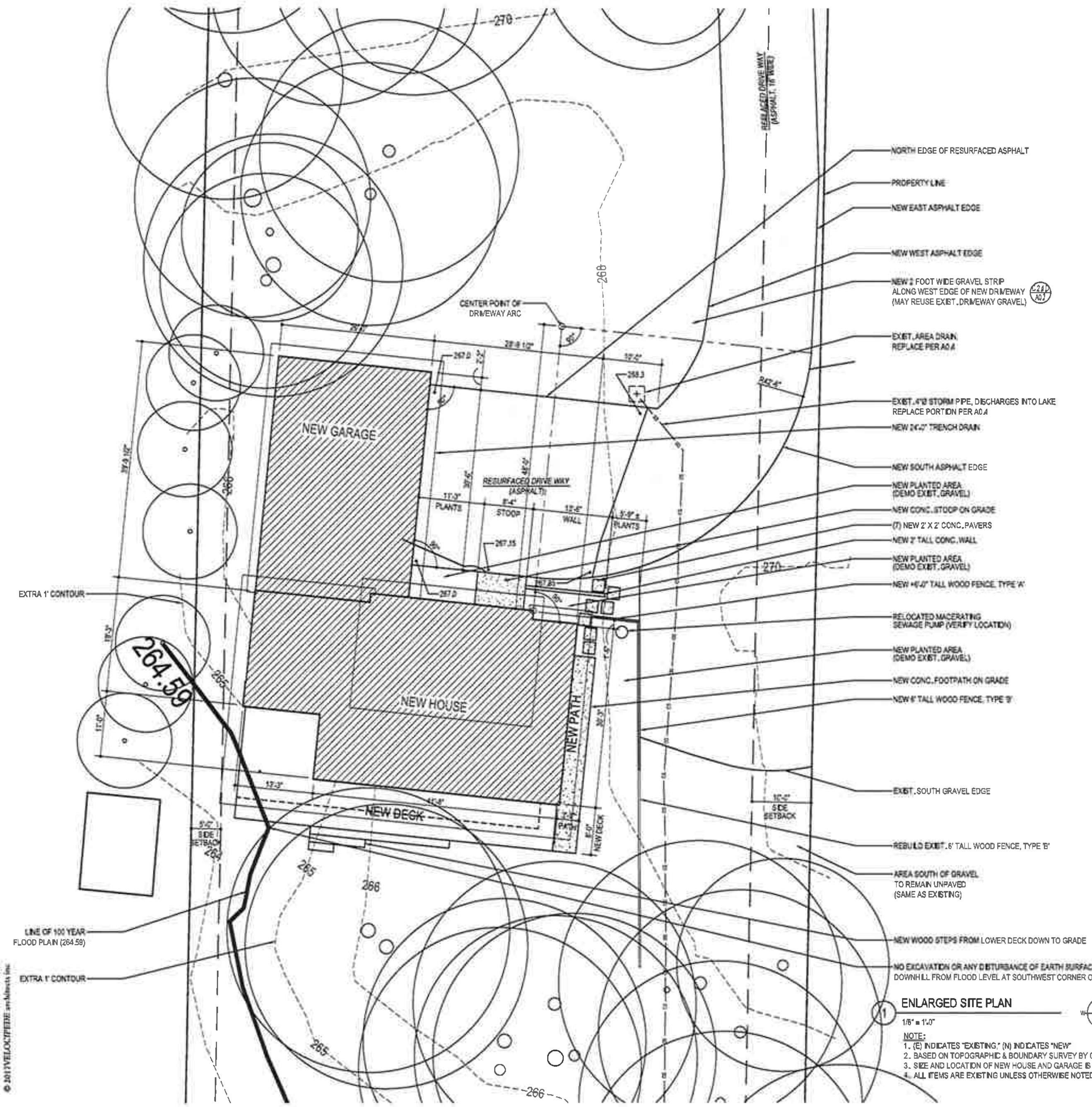
VELOCIPEDE architects inc
3104 Western Avenue #102
Seattle WA 98121

LAM | KELDORPH RESIDENCE
16025 S.E. 16TH STREET, BELLEVUE WA 98008

DATE 10 MAR 2017
PHASE LU SUBMITTAL
PROJECT 1619
DRAWN CMO, JWN
SCALE NOTED

SITE PLAN & PROJECT INFO

A0.1

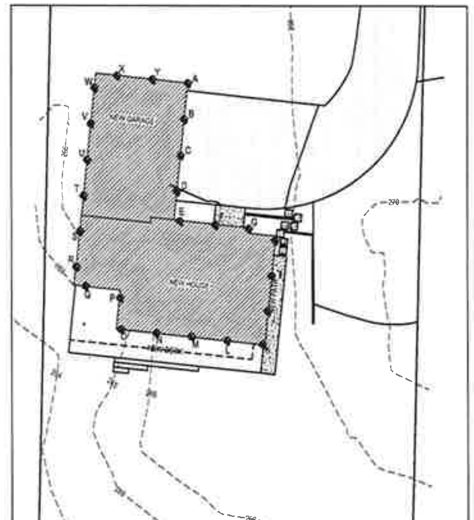


1 ENLARGED SITE PLAN

1/8" = 1'-0"

PLAN NORTH

NOTE:
1. (E) INDICATES "EXISTING," (N) INDICATES "NEW"
2. BASED ON TOPOGRAPHIC & BOUNDARY SURVEY BY GEODIMENSIONS, INC., DATED 14 MAY 2015
3. SIZE AND LOCATION OF NEW HOUSE AND GARAGE IS ACCURATE
4. ALL ITEMS ARE EXISTING UNLESS OTHERWISE NOTED



1	A	268.0
2	B	268.0
3	C	268.0
4	D	268.0
5	E	268.0
6	F	268.0
7	G	268.0
8	H	268.0
9	I	268.0
10	J	268.0
11	K	267.5
12	L	265.0
13	M	266.5
14	N	266.0
15	O	265.0
16	P	265.0
17	Q	265.0
18	R	265.5
19	S	266.0
20	T	266.0
21	U	266.0
22	V	266.5
23	W	267.0
24	X	267.0
25	Y	267.0
TOTAL	25	6671
AVERAGE GRADE	—	266.84

2 AVERAGE GRADE CALCULATION

1/16" = 1'-0"

VELOCIPEDE architects inc.
2104 Western Avenue #102
Seattle WA 98121

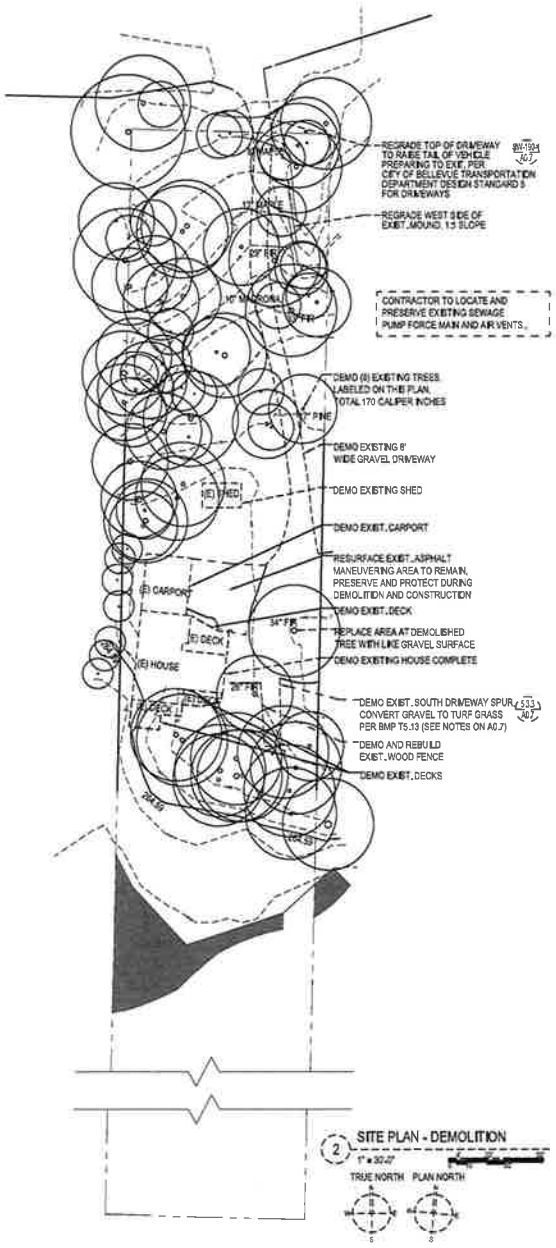
LAM | KELDORPH RESIDENCE

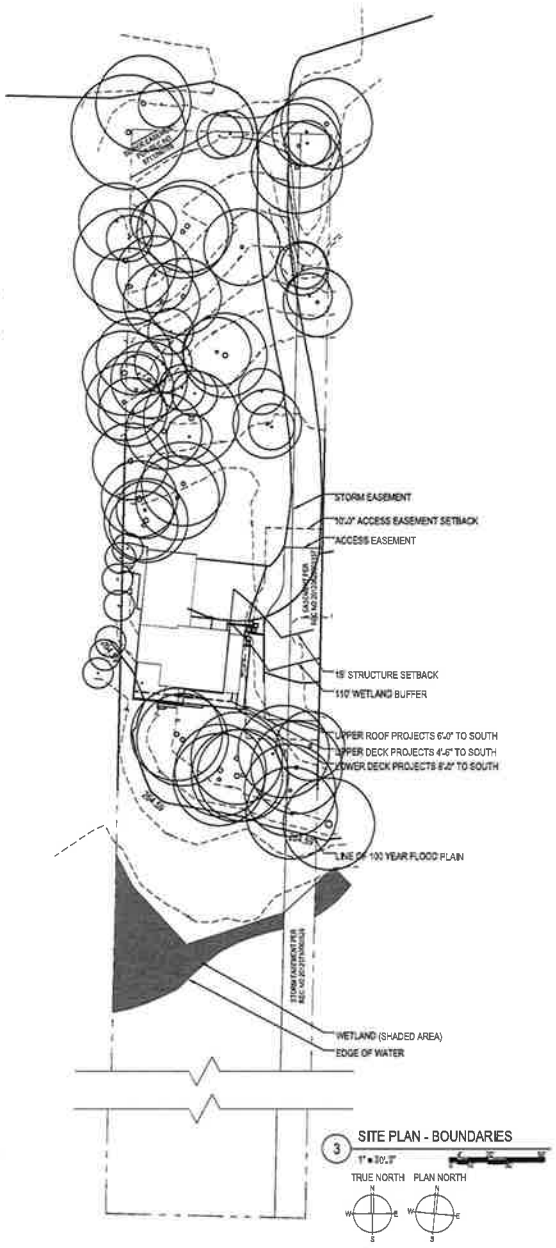
16025 S.E. 16TH STREET, BELLEVUE WA 98008

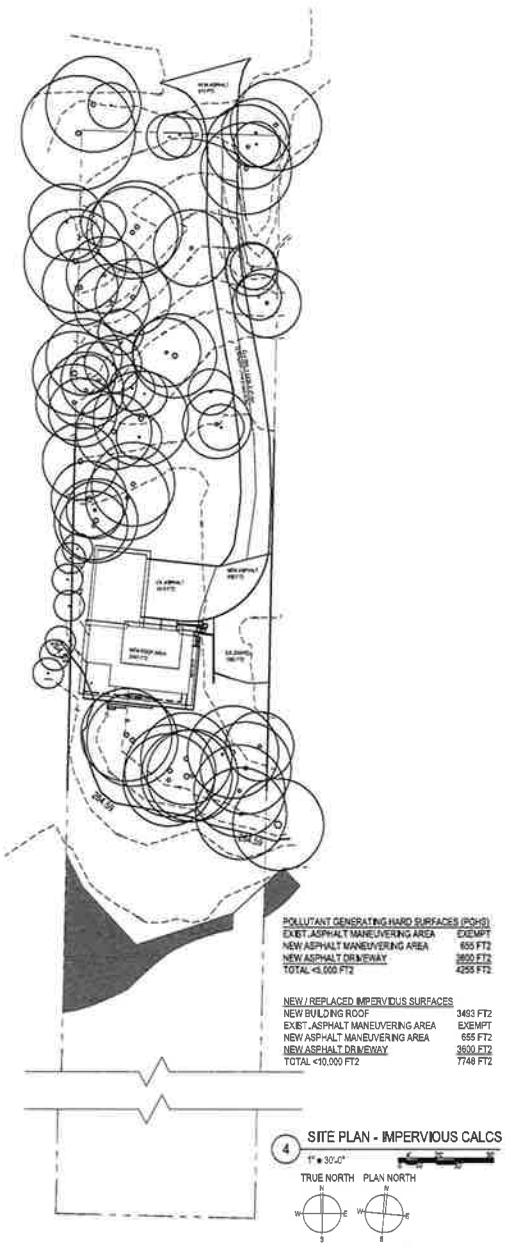
DATE: 30 MAR 2017
PHASE: L.U. PERMITTING
PROJECT:
DRAWN:
SCALE:

ENLARGED SITE PLAN

A0.2







VELOCIPEDE architects inc
2124 Western Avenue #320
Seattle WA 98121

LAM | KELDORPH RESIDENCE

16025 S.E. 16TH STREET, BELLEVUE WA 98008

DATE: 10 MAR 2017
PHASE: LU SUBMITTAL
PROJECT: 1619
DRAWN: GHO
SCALE: 1" = 30'-0"

SITE PLAN DIAGRAMS

A0.3

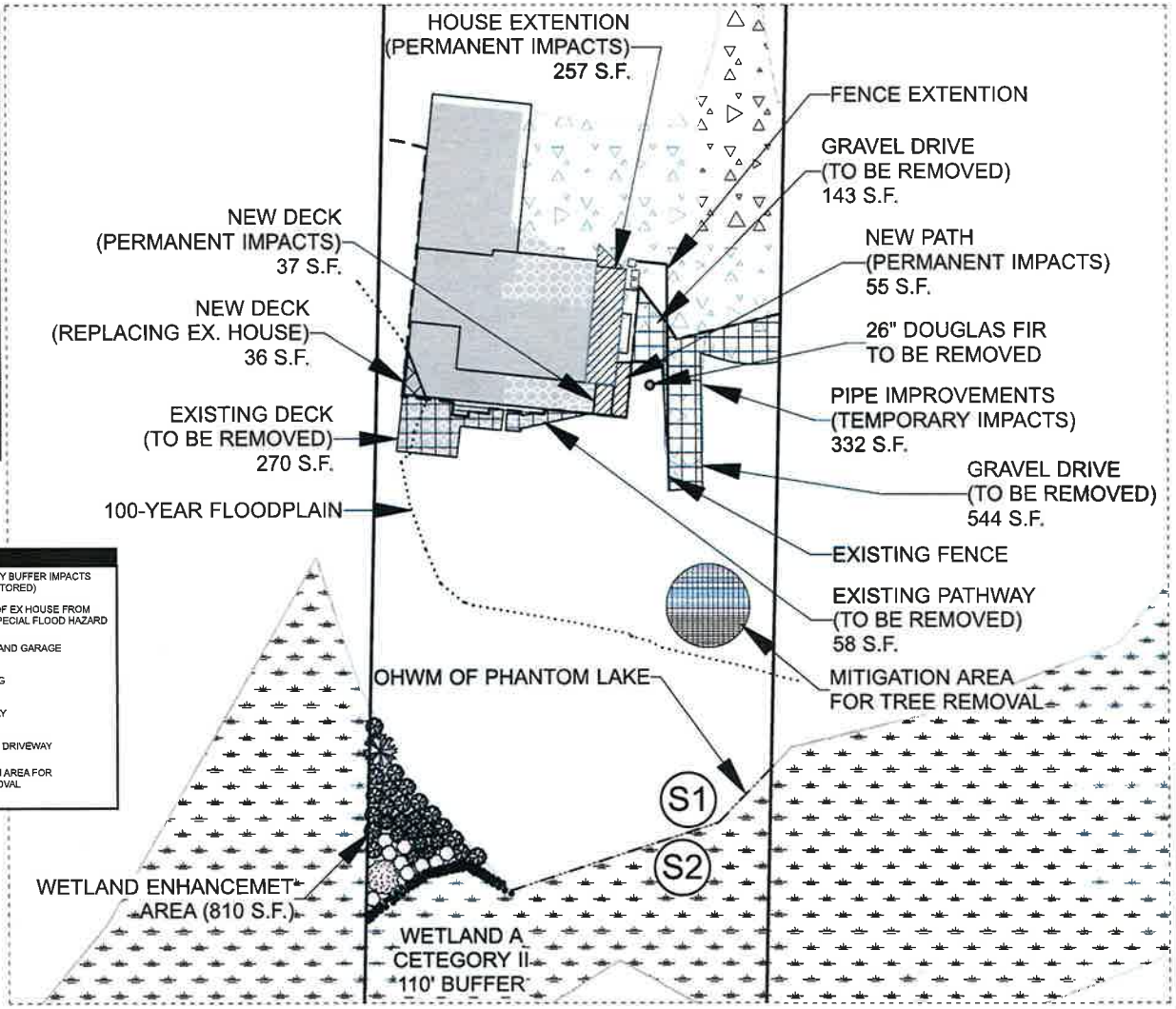
CRITICAL AREAS REPORT MAP

16025 SE 16TH STREET

PORTION OF SECTION 2, TOWNSHIP 24N, RANGE 5E, W.M.

PROPOSED LAND USE ACTIVITY	PERMANENT BUFFER IMPACT (SqFt)	IMPERVIOUS SURFACE REDUCTION (SqFt)
House Alterations		
Eastern house extension	257	-
Southern house retraction	-	-
Deck Alterations		
New deck area (outside of existing development footprint)	37	-
Southern deck to be converted to lawn	-	270
Pathway Alterations		
southern portion of existing path to be removed and converted to lawn	-	58
New path along the eastern portion of the house	55	-
Driveway Alterations		
Southern portion of gravel drive way to be removed and converted to lawn	-	544
west portion of gravel drive to be removed and converted to lawn	-	142
Fence Alterations		
Construction of fence extension (man-made structure) over the current impervious driveway	-	-
TOTAL	349	1014
NET TOTAL (REDUCTION)	665	

INSET FROM SHEET 1



LEGEND

- WETLAND
- OHWM OF LAKE
- 100-YR FLOODPLAIN
- BUFFER
- S1-S2 DATA SITES
- IMPERVIOUS SURFACE REMOVAL
- PERMANENT BUFFER IMPACTS
- 26" DOUGLAS FIR TO BE REMOVED
- TEMPORARY BUFFER IMPACTS (TO BE RESTORED)
- REMOVAL OF EX HOUSE FROM AREA OF SPECIAL FLOOD HAZARD
- EX HOUSE AND GARAGE
- EX DECKING
- EX PATHWAY
- EX GRAVEL DRIVEWAY
- MITIGATION AREA FOR TREE REMOVAL

INSET DETAIL

SCALE: 1" = 30'

0 30 60

LEGEND

- PACIFIC WILLOW
- PAPER BIRCH
- SWAMP ROSE
- NINEBARK
- RED-OSIER DOGWOOD
- HARDSTEM BULLRUSH

Wetland Resources, Inc.
Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance
9505 19th Avenue S.E. Suite 106 Everett, Washington 98208
Phone: (425) 337-3174
Fax: (425) 337-3045
Email: mailbox@wetlandresources.com

CRITICAL AREAS REPORT MAP
16025 SE 16th Street
Bellevue, Washington

Russ Keldorph
and Wendy Lam
16205 SE 16th Street
Bellevue, WA 98008

Sheet 2/3
WRI Job # 15090
Drawn by: S. Walters
Date: March 30, 2017