
**CRITICAL AREAS REPORT
&
MITIGATION PLAN**

**King County Tax Parcel 085550-0260
Vashon, Washington**

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Report To: Leah Tuominen

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King County, Washington

Project Number: EE-681

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1. Introduction

1.1 Report Purpose

Eastside Environmental Pros, Inc. was contracted by Leah Tuominen (the “applicant”) to conduct a critical area (*i.e.*, wetland and stream) evaluation for the property located along 96th Place SE (King County Tax Parcel 085550-0260), hereafter referred to as “Project Site” or “Site”. The applicant proposes to construct a single-family residence, ADU and associated driveway onsite. As part of this assessment, we evaluated critical areas (*i.e.* wetlands and streams) within 250 feet of the Site work area limits. The area within 250 feet of the Site is referred to as the “Study Area”.

This report has been prepared to comply with the requirements of King County Zoning Code (KCC) Title §21A.24.110 – *Critical Area Report Requirements*, KCC §21A.24.130 – *Mitigation and Monitoring*, and KCC §21A.24.070 – *Alteration Exception*.

1.2 Limitations

This report and the information provided herein was prepared per the guidance of the best available science and technical guidance documents available during the time of report preparation. The findings, discussions, and conclusions made in this report are based on the best professional judgement of the author(s) and field technicians available during the Site evaluation. All project work was limited by the scope, budget, and timing requirements of the project. The findings and conclusions provided in this report are subject to confirmation by applicable Local, State, and Federal agencies, depending on the scope of the project. No other warranty, expressed or implied, is made.

2. General Property Description and Land Use

2.1 Project Location

The Site is a single King County tax parcel (Tax Parcel 085550-0260) located along 96th Place SE, in unincorporated King County (**Figure 1**). The Site is located within the southwest quarter of Section 29, Township 23 North, Range 03 East, of the Willamette Meridian of the Public Land Survey System.

2.2 General Property Description

The Site is an entirely undeveloped property. The Site is bordered to the north by a multi-family dwelling, to the east by a King County Wastewater owned forested parcel that contains a stream and to the south by undeveloped parcels and single-family residences, to the south by another undeveloped forested parcel.

Vegetation

Vegetation within the Site is comprised of a dense forest stratum from the top of slope down to stream with relatively dense underlying shrub and herbaceous strata onsite. Species onsite included red alder (*Alnus rubra*), scotch broom (*Cystisus scoparius*), Himalayan blackberry (*Rubus*

bifrons), cut-leaf blackberry (*Rubus laciniatus*), English ivy (*Hedera helix*), sword fern (*Polystichum munitum*), western bracken fern (*Pteridium aquilinum*).

Topography

Topography onsite is mostly flat, but slopes to the east with a steep slope down towards the east. The lowest elevation point is located along the eastern Site boundary at approximately 325 feet and the highest elevation along the eastern Site boundary at 335 feet.

Weather Conditions

Climatic condition ranges were determined using the methodology described by Sprecher and Warne (2000) through the Army Corps of Engineers (Corps) Antecedent Precipitation Tool (APT). The Site evaluation on 7 October 2025 APT determined that **normal** climatic conditions were present during Site evaluations (**Appendix B**).

3. Methodology

3.1 Field Investigation Procedures

3.1.1 Routine Methodology

The Site investigation was conducted on 7 October 2025. Critical Areas delineations utilized the routine approach described in the *Corps of Engineers Wetland Delineation Manual* (Corps 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (U.S. Army Corps of Engineers, 2010) (referred to as “Corps Manual”), and the stream OHWM determined using the Washington State Department of Ecology’s publication, *Determining the Ordinary High Water Mark for Shoreline Management Compliance in Washington State* (2016). Aquatic areas were classified according to KCC §21A.24.355 and their buffers established per KCC §21A.24.358.

Plant species were identified according to the taxonomy of *Flora of the Pacific Northwest* (Hitchcock and Cronquist 2018). Taxonomic nomenclature and facultative statuses have been updated according to the U.S. Army Corps of Engineers *National Wetland Plant List* (2022) and used as references. Wetland classes were determined per the *Classification of Wetlands and Deepwater Habitats of the United States* (FGDC, 2013). Hydrophytic vegetation was determined using the standard procedures described in the Army Corps of Engineers (Corps) Regional Supplement, which requires use of the dominance test, except when positive indicators of wetland hydrology and hydric soils are met, in which case the prevalence index or alternative indicators of hydrophytic vegetation may also be required.

Wetland hydrology was determined based on the presence of hydrologic indicators listed in the Army Corps of Engineers (Corps) regional supplement. Hydrology indicators include both Primary Indicators and Secondary Indicators. To meet the definition of wetland hydrology, one Primary Indicator or two Secondary Indicators must be observed. Examples of wetland hydrology indicators include but are not limited to: drainage patterns drift lines, sediment

deposition, watermarks, stream gauge data and flood predictions, historic records, visual observation of saturated soils, and visual observation of inundation.

Soil test pits were excavated to a depth of at least 20 inches below the soil surface to categorize and describe soil and hydrologic conditions within the Study Area. Soils on the Site were considered hydric if one or more of the hydric soil indicators listed in the Corps Regional Supplement were present. Examples of hydric soil indicators include: presence of organic soils, reduced matrix, depleted or gleyed soils, or, redoximorphic features in association with a reduced soil matrix. Soil colors were determined using the Munsell Soil Color Charts (Munsell Color 2009).

Appendix A contains wetland determination datasheets prepared by Eastside Environmental Pros for representative locations within the Study Area. These datasheets document vegetation, soils, and hydrology characteristics. Climatic conditions were evaluated through the Army Corps of Engineers Antecedent Precipitation Tool application (**Appendix B**). Climatic conditions present during the 7 October 2025 Site visit were normal. **Appendix C** contains Jason Engineering & Consulting Business, Inc., LLC's Geotechnical Engineering Report Evaluation, see their report for more details on their geotechnical evaluation. **Appendix D** contains King County iMap's stormwater infrastructure map. **Appendix E** contains Washington Department of Fish and Wildlife's Priority Habitat & Species map.

Photos are located at the end of the report, before the figures section.

4. Results

4.1 Analysis of Existing Site Conditions

No wetland or aquatic areas were identified onsite during the 7 October 2025 Site evaluation. One unregulated ditch was identified and is depicted by King County iMap's stormwater infrastructure layer (**Appendix D**). However, one stream (Gorsuch Creek) was identified off-site to the east. Additionally, Per King County's iMap mapping application, steep slopes (>40%) exist onsite that meet the County definition of a steep slope hazard area per KCC 21A.06.1230. Please note *Eastside Environmental Pros, Inc.*, does not conduct geological evaluations, and the steep slope hazard / landslide hazard areas are considered approximate only. However, Per True North Geotechnical Services Geologic Hazard Assessment dated September 2, 2025, the potentially geologically hazardous areas (Steep slope hazard area, Landslide hazard area) onsite meet the definition of steep slope hazards and there is no evidence of landslide activity or severe erosion. Please see True North Geotechnical Services Geologic Hazard Assessment for more details on their geotechnical investigation and findings (**Appendix C**).

Sample points were taken at two representative locations within the Site to document vegetation, soils, and hydrological characteristics. The sample points at these locations did not meet wetland criteria per the Regional Supplement to the Corps of Engineers Wetland Delineation Manual. Gorsuch Creek is described below in **Table 1**.

Table 1. Critical Areas Summary Table.

Critical Area	Category / Type	Channel Width	Standard Buffer*
Gorsuch Creek	Type F	~3-6 feet	165 feet

*Critical Area buffers also require a standard 15-foot building setback measured from the edge of the buffer per KCC §21A.24.200.

4.1.1 Gorsuch Creek

Gorsuch Creek is located off-site to the east, generally flowing northward (**Figure 1**). The stream's contributing basin includes undeveloped forested and residential areas. Gorsuch Creek originates to the south of the Site and continues northwards where it eventually connects with Gorsuch Creeks main channel. Overall, the stream has an average bankfull width of ~3-6 feet based on the measurements between the ordinary high water mark flags collected onsite and a gradient of approximately 6% based on topography between the portion of stream adjacent to the Site and SW 171st street making it gradient accessible to fish.

Due to Gorsuch Creek having a connection to a Type F surface water and its physical characteristics, this watercourse meets the definition of a Type F aquatic area. WDFW Biologist Julian Douglas was contacted by the applicant, and the designation was confirmed by a desktop review to be accurate. Type F aquatic areas require a standard **165-foot buffer** per KCC §21A.24.358 measured from the OHWM plus a **15-foot building setback** per KCC §21A.24.200.

4.1.2 Steep Slope Hazard Areas

Per King County's iMap, steep slopes (>40%), and exist onsite that would meet the County definition of a steep slope per KCC §21A.06.1230. *Eastside Environmental Pros, Inc.*, does not conduct geological evaluations, and the steep slope hazard areas are considered approximate only. However, Per True North Geotechnical Services Geologic Hazard Assessment dated September 2, 2025, the potentially geologically hazardous areas (Steep slope hazard area, Landslide hazard area) onsite meet the definition of steep slope hazards and there is no evidence of landslide activity or severe erosion.

Per True North Geotechnical Services' Geologic Hazard Assessment, *"Based on field observations, none of the proposed development at the site is to be located within the mapped "steep slope hazard areas" or the landslide buffer area as defined by King County. Based on our observations and understanding of the proposed residential development, it will be set back sufficiently from steep slopes, and construction of the home is not expected to create a risk of increased instability to slopes on site"*. Per True North's recommendation the building setback buffer required between the steep slope hazard and any proposed development is 10-feet. Please see True North Geotechnical Services Geologic Hazard Assessment for more details on their geotechnical investigation and findings (**Appendix C**).

4.1.3 Unregulated Ditch

One mapped surface water feature, identified as a ditch, is located north of the subject property. This ditch is shown on the King County iMap stormwater infrastructure layer as a surface water ditch (**Photos 1 & 2**). Review of the King County parcel data, and site observations indicates that this feature was constructed as part of a **drainage system** designed to convey stormwater runoff from surrounding residences and upland areas. The feature does not correspond to a mapped stream channel, and the surrounding areas.

Per KCC §21A.06.072C, above-ground open water conveyance systems, such as ditches, are unregulated unless “any portion of the contributing water is from either a wetland or a nonwetland water feature listed in subsection A.1. or A.2.” Likewise, KCC §21A.06.1391 specifies that “Wetlands do not include those artificially created wetlands intentionally created from nonwetlands sites, including, but not limited to: Surface water conveyances for drainage or irrigation, [or] Grass-lined swales.”

These definitions establish that artificial drainage features are not regulated as streams or wetlands unless they receive hydrology from an existing regulated resource. The **direction of hydrologic influence** is therefore a critical factor in classification.

A previous 2002 Sensitive Area Notice completed (Recording #20020401001960) and associated with the multi-family dwelling north of the Site identified only two stream features in proximity to the parcel #0855500270. A review of historic aerial imagery, Site topography, and previous sensitive area notice on the adjacent parcel in which the feature was located indicates that the ditch was constructed in uplands and historically did not receive hydrology from any mapped wetland or stream source. Over time, deferred maintenance of the feature such as lack of vegetation removal or sediment management has likely resulted in created **localized hydric conditions** and colonization by wetland indicator vegetation.

When wetland conditions arise **because of** a drainage feature – rather than pre-existing wetlands contributing flow to it – the ditch remains classified as an **artificial surface water conveyance**, not a regulated wetland or aquatic area. This interpretation aligns with King County’s critical areas definitions, WAC 173-22-030, and federal guidance under 33 CFR §328.3, which excludes stormwater drainage features constructed wholly in uplands and not receiving perennial or intermittent flow from regulated waters from jurisdiction.

Based on the available evidence, the feature north of the Site does not meet the criteria of a regulated wetland or stream area under King County Code. The **hydrologic origin is artificial**, and the observed indicators are a function of drainage conditions rather than an existing natural resource. Therefore, no regulated wetland or aquatic area is present directly adjacent to the Site.



Photo 1. Photo of the unregulated stormwater feature just to the north of the property. Aerial imagery sourced from the King County iMap.

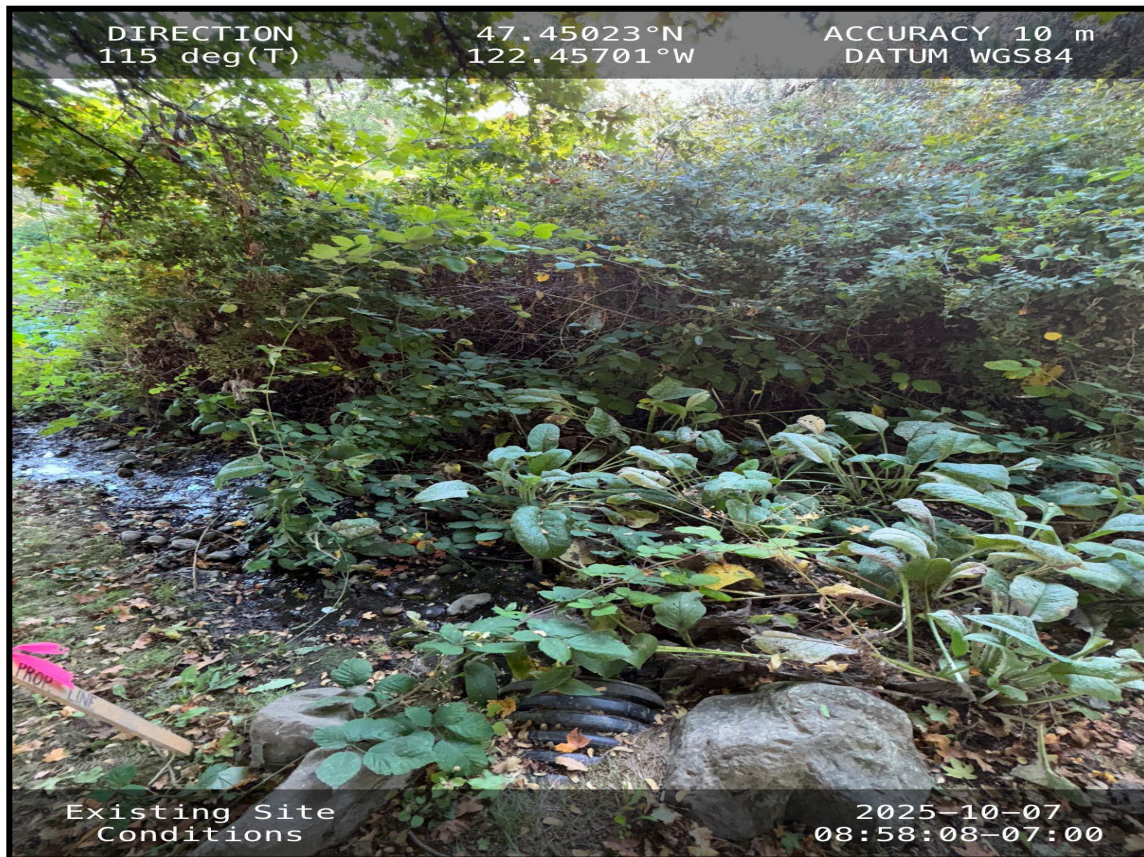


Photo 2. Photo of the unregulated stormwater feature.

5. Proposed Project

The applicant proposes to construct a single-family residence, proposed accessory building, covered porch, normal appurtenances and utilities commonly associated with similar residences and driveway within the westernmost portions of the Site. The project has been situated as far as possible from Gorsuch Creek; however, due to the parcel size and stream location, the Site is almost entirely encumbered by the stream buffer. To accommodate the proposed development, 5,345 sf of permanent stream buffer impacts are required. This project has been designed to adhere to the development standards listed within KCC §21A.24.070 – *Alteration Exception* which are outlined in further detail within **Section 6.1** of this report.

6. Regulatory Review

6.1 Criteria for Critical Area Alteration Exception Approval

The proposed project has been prepared to meet the requirements of KCC §21A.24.070.A: *Alteration Exception*. The requirements of this code section are listed below in *italicized* text and a response as to how this project meets each requirement follows in regular text:

1. For nonlinear alterations the director may approve alterations to critical areas except wetlands, unless otherwise allowed under subsection A.3.h. of this section, aquatic areas and wildlife habitat conservation areas, and alterations to critical area buffers and critical area setbacks, when all of the following criteria are met.

a. there is no feasible alternative to the development proposal with less adverse impact on the critical area;

Gorsuch Creek and its associated buffer, encumbers the entirety of the Site. Without this alteration exception, the Site would be unbuildable. The project has been designed to accommodate the development proposed and has been reduced to the smallest footprint practical to accommodate that purpose.

b. the alteration is the minimum necessary to accommodate the development proposal;

The proposed project has been located as far away from Critical Areas west as possible to limit any unnecessary impacts from the structures and driveway.

c. the approval does not require the modification of a critical area development standard established by this chapter;

The proposed project complies with all applicable critical area development standards established by this chapter. No modification, variance, or reduction of these standards is required for project approval.

d. the development proposal does not pose an unreasonable threat to the public health, safety or welfare on

or off the development proposal site and is consistent with the general purposes of this chapter and the public interest;

The proposed development is a single-family residence, and ADU that does not pose any activities that would threaten public health, safety or welfare on or off the development Site. The proposed development has been planned to ensure the safety and well-being of the public, both on and off-site.

*e. for dwelling units, no more than five thousand square feet or ten percent of the site, whichever is greater, may be disturbed by structures, building setbacks or other land alteration, including grading, utility installations and landscaping, **but not including the area used for a driveway** or for an on-site sewage disposal system. When the site disturbance is within a critical area buffer, the building setback line shall be measured from the building footprint to the edge of the approved site disturbance;*

The proposed development, **excluding driveway areas**, totals 4,914 sf and is below the 5,000-sf threshold.

f. to the maximum extent practical, access is located to have the least adverse impact on the critical area and critical area buffer;

The proposed driveway has been designed to be as short as practicable, while adhering to front- and side yard setbacks. The proposed residence has been situated as far away as feasible from Critical Areas to limit adverse impacts to the critical area and its associated buffer. Critical areas fencing and signage are proposed to be installed at the clearing limits to define the project area and deter any future human encroachment or pet disturbances.

g. The critical area is not used as a salmonid spawning area; and

Gorsuch Creek, a Type F stream is off-site to the east and within its Study Area; However, no impacts are proposed within the off-site stream. The buffer of the stream encompasses the entire Site and only the buffer will need to be impacted.

h. The director may approve an alteration in a category II, III, and IV wetland for development of a public-school facility; and

This proposed development is not a public-school facility; therefore, this subsection does not apply.

b. development proposal does not pose an unreasonable threat to the public health, safety or welfare on or off the development proposal site and is consistent with the general purposes of this chapter and the public interest;

This development proposal is similar to adjacent land uses and developments and poses no threat to the public health, safety or welfare on- or off-site.

c. any authorized alteration to the critical area or critical area buffer is the minimum necessary to allow for reasonable use of the property; and

The development has been pushed as far as possible to the west as possible and is the minimum necessary width to accommodate reasonable use of the property.

d. for dwelling units, no more than five thousand square feet or ten percent of the site, whichever is greater, may be disturbed by structures, building setbacks or other land alteration, including grading, utility installations and landscaping but not including the area used for a driveway or for an on-site sewage disposal system; and

All onsite development area, excluding driveway areas, is proposed to occupy 4,914 sf which is underneath the 5,000-sf threshold, thereby meeting this criterion.

6.2 Alterations to Critical Areas Setbacks

As part of the above-described project, the proposed development is allowed to reduce the typical 15-foot building setback to develop the property should it meet the following requirements. The requirements of KCC §21A.24. 070.B are listed below in *italicized* text and a response as to how this project meets each requirement follows in regular text:

a. there is no other reasonable use with less adverse impact on the critical area;

The proposed development avoids impacting the stream or steep slope directly and only impacts the buffer of the stream which would cause more adverse impacts to the critical area.

b. development proposal does not pose an unreasonable threat to the public health, safety or welfare on or off the development proposal site and is consistent with the general purposes of this chapter and the public interest;

This development proposal is similar to adjacent land uses and developments and poses no threat to the public health, safety or welfare on- or off-site.

c. any authorized alteration to the critical area or critical area buffer is the minimum necessary to allow for reasonable use of the property; and

The development has been pushed as far as possible to the west and is the minimum necessary width to accommodate reasonable use of the property.

d. for dwelling units, no more than five thousand square feet or ten percent of the site, whichever is greater,

may be disturbed by structures, building setbacks or other land alteration, including grading, utility installations and landscaping but not including the area used for a driveway or for an on-site sewage disposal system; and

All onsite developments, not including driveway areas, will occupy 4,914 sf which is underneath the 5,000-sf threshold, thereby meeting this criterion.

7. Critical Area Impacts and Mitigation

Reasonable efforts have been made by the applicant to minimize impacts to critical area buffers onsite with the design and location of the development. The resulting Site Plan consists of a modest sized home and ADU that will require some critical area buffer impacts, as nearly the entire Site is located within buffer areas.

7.1 Alternatives Analysis

The Site was evaluated for alternative development locations following a thorough critical areas assessment. The proposed development has been strategically angled to push the proposed residence as far west as property-line setbacks will allow. Driveway areas and lengths have been designed to be as short as possible to minimize the overall project's footprint. Placing the residence in the northern and north-eastern portions of the Site facilitates access from the existing public roadway and reduces the need for additional impervious surfaces. Complete avoidance of critical areas and buffer impacts is not possible, as the entire Site is encumbered with buffers, but. The size of the property does not allow for sufficient area for enhancement, and therefore, off-site mitigation is proposed as compensation for this project. Overall, the applicant has made reasonable efforts to avoid and minimize impacts to critical areas and their buffers by shifting the proposed development north and east to reduce buffer encroachment, installing critical area fencing and signage to deter human intrusion while maintaining wildlife passage, and reducing the standard critical area building setback to 5 feet 6 inches to avoid direct impacts to wetland areas. The resulting Site Plan consists of a reasonably sized home that allows for practical use of the property per zoning allowances (**Figure 2**).

7.2 Proposed Critical Areas Impacts

Although all direct stream or slope impacts have been avoided, the proposed single-family residence, driveway, and cleared areas for house maintenance totals 5,345 sf of total permanent stream buffer impacts. Onsite mitigation via enhancement is limited to a 3,016 sf area as outlined in **Figures 2 - 4**. Due to insufficient space for onsite mitigation, a total of 2,329 sf of stream buffer credits for the remaining impacts is required and 4,658 sf (mitigation at a 2:1 ratio per KCC 21A.24.380.E) will be purchased through King County's In-Lieu Fee (ILF) Program for thorough compensation.

Functions and Values Impacted

The proposed development will result in 5,345 sf of permanent stream buffer impacts from clearing, grading, and onsite developments. As part of the development clearing of mostly invasive scotch broom, and Himalayan blackberry is required. This will maintain to the best extent practicable any potential habitat for songbirds that may rely on these features for perching or nesting. This proposed development may impact hydrologic functions and habitat by removing buffer vegetation which may reduce the Site's capacity to filter sediments and nutrients, provide shade, and decrease some foraging opportunities for local small mammals and songbirds. In order to minimize impacts the project proposes to implement relevant best management practices (BMPs), installation of critical areas fencing and signage to preserve the remaining buffer areas and prevent human encroachment, as well as preserve all other remaining onsite snags.

The Site has limited opportunity for onsite mitigation through vegetation enhancement due to the small size of the property and does not provide sufficient area to adequately compensate for the proposed project's impacts. Therefore, both onsite mitigation is proposed and what cannot be mitigated for onsite will require off-site mitigation credit purchase through the King County's ILF Program is proposed to provide appropriate compensation for functional losses that cannot be addressed onsite.

7.3 Proposed Mitigation

Due to the property's limited size and the location, size, and configuration of Gorsuch Creek, and its buffer, there is insufficient space to provide entirely onsite mitigation. **Only 3,016 sf of onsite mitigation area is available for enhancement plantings as outlined in Figures 2 - 4. This leaves 2,329 sf of remaining buffer impact area that requires off-site mitigation via King County's ILF program at a 2:1 ratio.** Prior to development, a double layer of silt fencing will be installed along the clearing and grading limits. Afterward, flexible high-visibility construction fencing will be placed along the exterior edge of the silt fencing limits. Once clearing and grading activities are complete, the high-visibility construction fencing will be removed and critical area fencing and signage will be installed in its place to deter any potential encroachment during construction activities of the proposed single-family residence and to clearly demark the boundary of allowed disturbance limits. The project proposes to mitigate buffer impacts with onsite mitigation plantings and the purchase of off-site mitigation bank credits. Credits will be purchased through the King County's ILF Program. **Per King County 21A.24.380.E, mitigation is required at a 2:1 ratio; therefore, a total of 4,658 sf (2,329 x 2 = 4,898) of mitigation credits will be purchased prior to Site development. Each of these elements are outlined below in further detail.**

Selected Native Species

The mitigation area is currently comprised of the invasive species Himalayan blackberry (*Rubus bifrons*). This mitigation plan involves the hand removal of invasive species while protecting and preserving any mature trees or shrubs and installing native plantings according to **Figures 2 - 4.**

The proposed mitigation plantings include grand fir (*Abies grandis*), Douglas fir (*Pseudotsuga menziesii*), thimbleberry (*Rubus parviflorus*), red flowering currant (*Ribes sanguineum*), ocean spray (*Holodiscus discolor*), common snowberry (*Symphoricarpos albus*), baldhip rose (*Rosa pisocarpa*), red elderberry (*Sambucus racemosa*), coastal strawberry (*Fragaria chiloensis*), yarrow (*Achillea millefolium*), and fireweed (*Epilobium ciliatum*) (**Figure 3**).

These plantings are anticipated to increase the overall ecological functions of the critical area buffers vegetation structure, enhancing habitat quality, and supporting natural ecological processes. Native species are well adapted to local conditions and provide a range of ecological benefits, including soil stabilization, stormwater filtration, and habitat for pollinators, birds, and small mammals. Planting a variety of native plants that have varied strata contribute to food webs by offering nectar, seeds, berries, and shelter that support a greater diversity of wildlife. Their root systems also help prevent erosion and improve infiltration before entering critical areas. By removing invasive species and installing native plants to the degraded onsite critical area buffers, ecological functions such as the buffer's capacity to support habitat connectivity, promote water infiltration, slow surface water velocities, and contribute to overall ecosystem health is significantly improved.

Best Management Practices Aquatic areas - development standards and alterations

To minimize impacts from the proposed development, best management practices (BMPs) must be implemented in accordance with KCC §21A.24.365 which outlines the relevant BMPs that will reduce onsite disturbance to the remaining critical areas, identifying potential sources of disturbance and the corresponding measures proposed for this project. The project will comply with King County's aquatic area development standards within the Type F stream buffer by limiting activities to those specifically permitted under code and ensuring that grading occurs only during the approved seasonal window of May 1 through October 1 to reduce erosion and protect fish habitat. Construction practices will be designed to preserve the moisture-holding capacity of soils by minimizing compaction and restoring infiltration where disturbance occurs. New structures will be carefully sited to avoid creating hazard trees and to minimize impacts on groundwater movement. Vegetation management will emphasize maintaining the soil duff layer, redistributing it where disturbance is unavoidable, and preserving continuity between buffer and adjacent vegetation to reduce wind throw hazards. If any hazard trees are identified within the buffer, they will be retained and managed by topping or directing them toward the stream to enhance habitat value. Restoration and mitigation measures will be implemented with consideration for ecological function and safety, ensuring that the project protects aquatic resources while meeting regulatory requirements.

Temporary Erosion and Sediment Control (Silt Fencing)

A double layer of temporary silt fencing is proposed to be installed along the clearing and grading limits as depicted in **Figure 2**. This installation will prevent mobilized sediment from entering Gorsuch Creek during all construction activities. This temporary erosion and sediment control (TESC) method will help trap any disturbed soil and debris, reducing the risk of sedimentation

in adjacent critical areas. By stabilizing this along the construction limits, silt fencing will protect water quality, minimize habitat disruption, and prevent excess runoff from entering the stream, ensuring that construction-related impacts are effectively mitigated. Additionally, the onsite contractor will install a high-visibility construction fence along the exterior edge of the temporary silt fencing to restrict access to critical areas southward of the proposed development during construction activities. The silt fencing will be removed after all construction activities have been completed and onsite stabilization has been reached. The high visibility construction fencing will be removed after all onsite clearing and grading has been completed where it will be subsequently replaced with critical areas fencing and signage.

Critical Areas Fencing and Signage

Two- or Three-board, split rail critical areas fencing and signage will be installed along the post-construction buffer (**Figure 2**). These installations will occur after all clearing and grading activities have been accomplished and will clearly define the allowed construction limits. These installations will prevent unauthorized human interference and serve as a long-term deterrent against anthropogenic influences that could degrade the ecological functions of these areas. By establishing signage and physical barriers, this will help to minimize human encroachment, prevent unauthorized vegetation clearing or dumping, and reduce potential soil compaction that could alter hydrology. Additionally, strategically placed critical areas signage will reinforce awareness by informing the public and property users of the environmental sensitivity of these areas. Together, these measures will help preserve the integrity of the critical area buffer, ensuring that its ecological functions and values remain intact over time.

Functions and Values Replaced

The King County ILF Program was established in 2004, and mitigation credit purchase is approved per KCC §21A.24.137. The mitigation credits are purchased through the King County mitigation reserves program. This program ensures that water quality functions, hydrologic functions, and habitat functions are reestablished within approved wetland creation processes, which involved converting farm field areas to a high-functioning wetland systems.

8. Monitoring Plan

8.1 Mitigation Goals, Objectives, and Performance Standards

The overall goal of this mitigation plan is to restore and enhance the ecological functions of the stream buffer to offset the impacts associated with the proposed development area. The mitigation area will be monitored for a period of 5 years. Performance monitoring and maintenance reviews will be scheduled according to **Table 2**. A Baseline assessment will be provided to King County in Fall of Year 1, and a final performance monitoring report will be submitted to King County in Fall of Year 5.

Table 2. Projected Schedule for Performance Monitoring

Year	Season	Maintenance Review	Performance Monitoring	Report Due to Agencies
0				
	Fall 2026	X	X	BA ¹
1	Spring 2027			
	Fall 2027	X	X	X
2	Spring 2028			
	Fall 2028	X	X	X
3	Spring 2029			
	Fall 2029	X	X	X
4	Spring 2030			
	Fall 2030	X		
5	Spring 2031			
	Fall 2031	X	X	X ²

- BA = Planting as built to be completed after installation. Baseline Assessment to be completed after mitigation approval by King County and annual monitoring reports will be submitted starting Fall 2027, after one full growing season.
- Obtain final approval from King County (presumes performance criteria are met).

Objective A: *Ensure Long-Term Survival and Maintenance of Planted Vegetation*

Performance Standard A1: *Installed plants mitigation area will have a 100% survival rate during the Year 1 Performance Monitoring Site Visit. At least 80% of newly planted trees and vegetation must survive in subsequent years, with 80% total survival by the end of Year 5. Plants deceased during Year 1 will be replaced entirely.*

Objective B: *Control and Limit Invasive and Non-Native Species*

Performance Standard B1: *No more than 10% cover of non-native or invasive species (e.g., Himalayan blackberry, Japanese knotweed, Himalayan blackberry, reed canarygrass, Scots broom, morning glory, etc.) is permissible in any monitoring year.*

Upon completion of mitigation plantings, King County will be notified for an initial Site review to confirm compliance with these standards. The mitigation area will be monitored and maintained for five (5) years, with monitoring reports provided to the County in accordance with **Table 2** to confirm compliance with the enhancement area's performance standards.

8.2 Mitigation Monitoring Reports

Monitoring reports will meet the requirements of the critical area's mitigation guidelines document, KCZC §21A.24.110, KCZC §21A.24.130 and will include key elements necessary for assessing the success of the mitigation efforts. These reports will provide a comprehensive project overview, and outline report requirements and performance monitoring criteria. Additionally, they will evaluate vegetation establishment to ensure compliance with mitigation goals. The monitoring period will extend to a minimum of five (5) years or until the County accepts the mitigation as complete.

9. Mitigation Construction Management

9.1 Mitigation Construction Sequencing

Prior to the start of work, the property owner or a project proponent will stake out the work limits to ensure no additional critical area buffer impacts occur. After construction has been completed, the mitigation plan will be sequenced to ensure the success and completion of the project. The following list of activities will be completed in sequence or concurrently as the project progresses:

1. Conduct a meeting with involved parties; the landscape contractor (if applicable), Eastside Environmental Pros, and the Owner and/or Owner's representative. This meeting will discuss the mitigation plan, staging and stockpile areas, and disposal areas.
2. The maintenance and removal of any invasives that may pioneer within the mitigation area.
3. Installation of silt fencing per the details located at the end of the **figures** section.
4. Installation of the native plant species per **Figures 2 - 4**, located at the end of this report.

9.2 Mitigation Approval

Upon completion of mitigation area construction, Eastside Environmental Pros will notify King County in writing and schedule a Site inspection and approval. The mitigation will be considered complete once King County approves the work in writing.

9.3 Maintenance and Contingency Plan

A Bond Quantity Worksheet has been prepared as financial security for this mitigation project (**Appendix F**). This bond will include plant procurement, installation, and monitoring costs if mitigation is unsuccessful. The most probable maintenance and contingency items include the following:

- Replacement of any dead or dying plants after Year 1 monitoring. Replacements should be the same species or an approved substitute species.
- Replanting of any dead or dying plants during the remaining monitoring period and an assessment of causation of plant mortality (*e.g.*, lack of irrigation, exposure to sun)
- Soil amendments, including topsoil and mulch where needed.

- Control of invasive species within the enhancement and mitigation area. This should be done by hand.

10. Summary

The subject property is located along 96th Place SE, (Tax Parcel 085550-0260), on Vashon Island in unincorporated King County. One (1) aquatic area (Gorsuch Creek) was identified off-site but within the Study Area during the 7 October 2025 Site evaluation. Gorsuch Creek is a Type F stream that requires a **165-foot buffer**. All critical area buffers require **15-foot building setback** per KCC §21A.24.200. The applicant proposes to a construct single-family residence, ADU, covered porch, and driveway in the western portion of the Site.

This development project has been designed to meet the requirements of KCC §21A.24.070 - *Alteration Exception* which has been outlined in **Section 6.1**. Buffer averaging is not possible and only 3,016 sf of stream buffer enhancement is possible as outlined in **Figures 2 - 4**. To mitigate for the remaining 2,329 sf permanent stream buffer impact area, 4,658 sf of Type F stream buffer mitigation credits will be purchased through King County's ILF Program representing a 2:1 mitigation to impact ratio. There is no alternative location for development and impacts have been limited to the maximum extent practicable. Critical areas fencing and signage is proposed to be placed around the edge of the development limits and to deter additional buffer disturbances and encroachment. This project will result in increased protection to habitat for the remaining buffer areas of Gorsuch Creek, the steep slope and its buffer areas from implementing BMPs and establishing protected areas.

References

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FIGURES

Critical Areas Impact and Mitigation Plan

Eastside Environmental Pros, 2025.

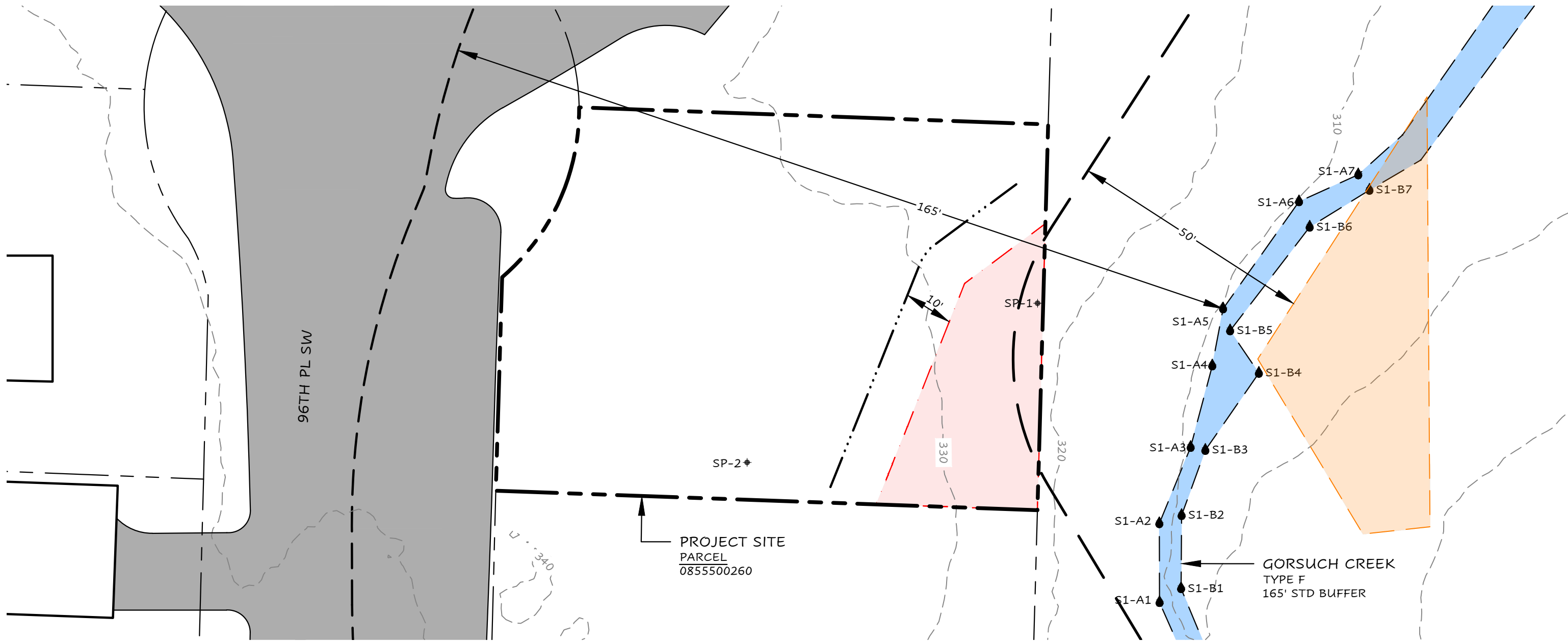
Figure 1: Existing Conditions Map

Figure 2: Site Plan & Impacts & Mitigation Overview

Figure 3: Planting Plan

Figure 4: Planting Specs

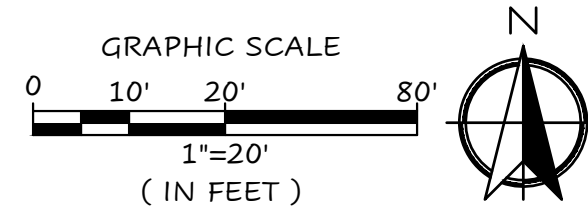
Figure 5: Silt Fence Detail



EXISTING CONDITIONS MAP

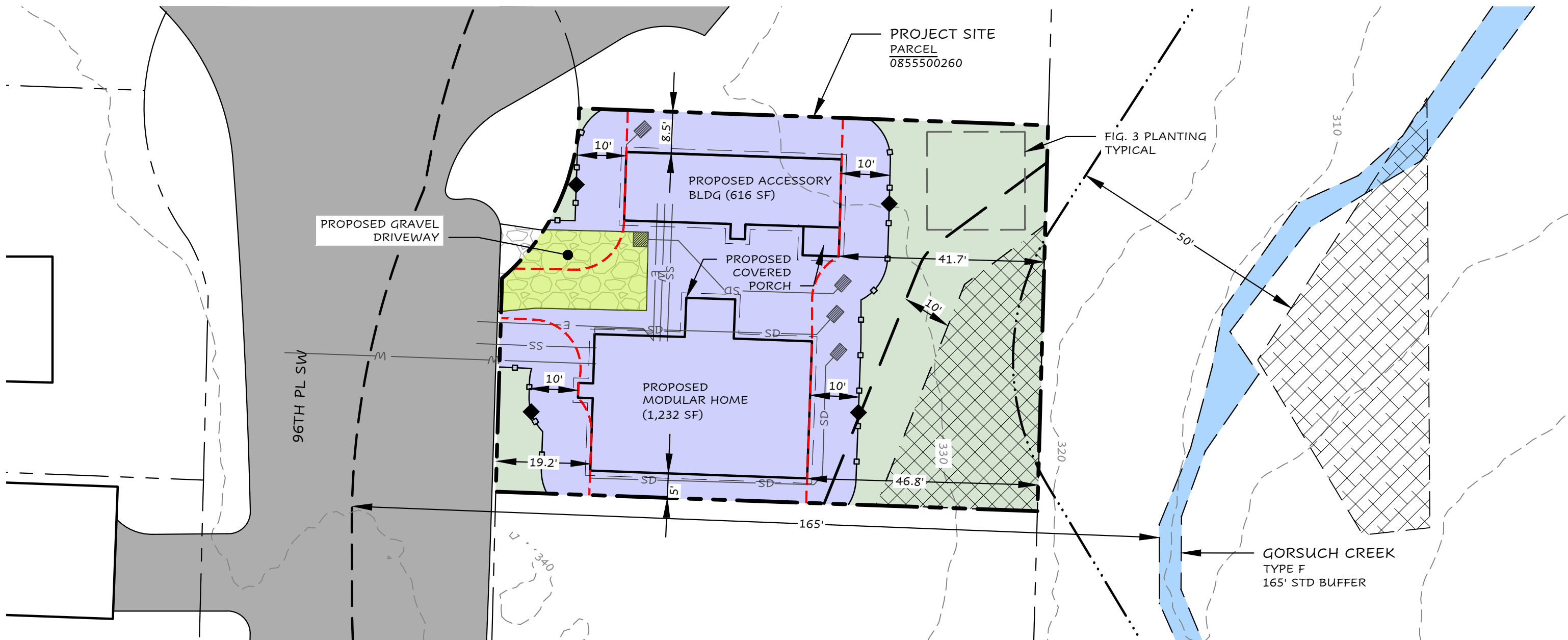
PLAN LEGEND

- PROPERTY LINE
- SOIL TEST PIT LOCATION
- STREAM ORDINARY HIGH WATER MARK (OHWM)
- STREAM BUFFER
- STREAM OHWM FLAG LOCATION
- STEEP SLOPE AREAS
- 10' STEEP SLOPE SETBACK PER GEOTECH
- LANDSLIDE HAZARD AREAS
- 50' LANDSLIDE HAZARD AREA BUFFER
- 15-FT BUILDING SETBACK (BSBL)
- EXISTING CONTOURS (2-FT)



PARCEL DATA EXTRACTED FROM KING COUNTY GIS.
 ELEVATION DATA EXTRACTED FROM 2021 LIDAR DATA.
 STREAM BOUNDARIES LOCATED WITH EOS ARROW 100 SUB-METER GPS DEVICE.

<p>EASTSIDE ENVIRONMENTAL PROS, INC. 18500 156th Ave NE, Suite 203 Woodinville, Washington 98072 Bus (425) 949-6659</p>	FIGURE #1 EXISTING CONDITIONS MAP TUOMINEN CRITICAL AREAS REPORT KING COUNTY, WASHINGTON	SCALE AS SHOWN	DRAWN BY: AS	
			DATE 11-26-2025	
			FIGURE #1	



SITE PLAN, CRITICAL AREAS IMPACT & MITIGATION OVERVIEW

PLAN LEGEND

- PROPERTY LINE
- STREAM ORDINARY HIGH WATER MARK (OHWM)
- STREAM BUFFER
- STEEP SLOPE AREAS
- 10' STEEP SLOPE SETBACK PER GEOTECH
- LANDSLIDE HAZARD AREAS
- 50' LANDSLIDE HAZARD AREA BUFFER
- 15-FT BUILDING SETBACK (BSBL)
- 100 EXISTING CONTOURS (2-FT)

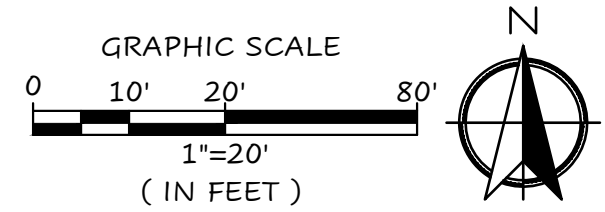
PARCEL DATA EXTRACTED FROM KING COUNTY GIS.
 ELEVATION DATA EXTRACTED FROM 2021 LiDAR DATA.
 STREAM BOUNDARIES LOCATED WITH EOS ARROW 100 SUB-METER GPS DEVICE.

IMPACTS LEGEND

	STREAM BUFFER REDUCTION (NOT INCLUDING DRIVEWAY PER CAEX)	4,914 SF
	STREAM BUFFER REDUCTION (DRIVEWAY ONLY)	431 SF
TOTAL STREAM BUFFER IMPACT:		5,345 SF

MITIGATION LEGEND

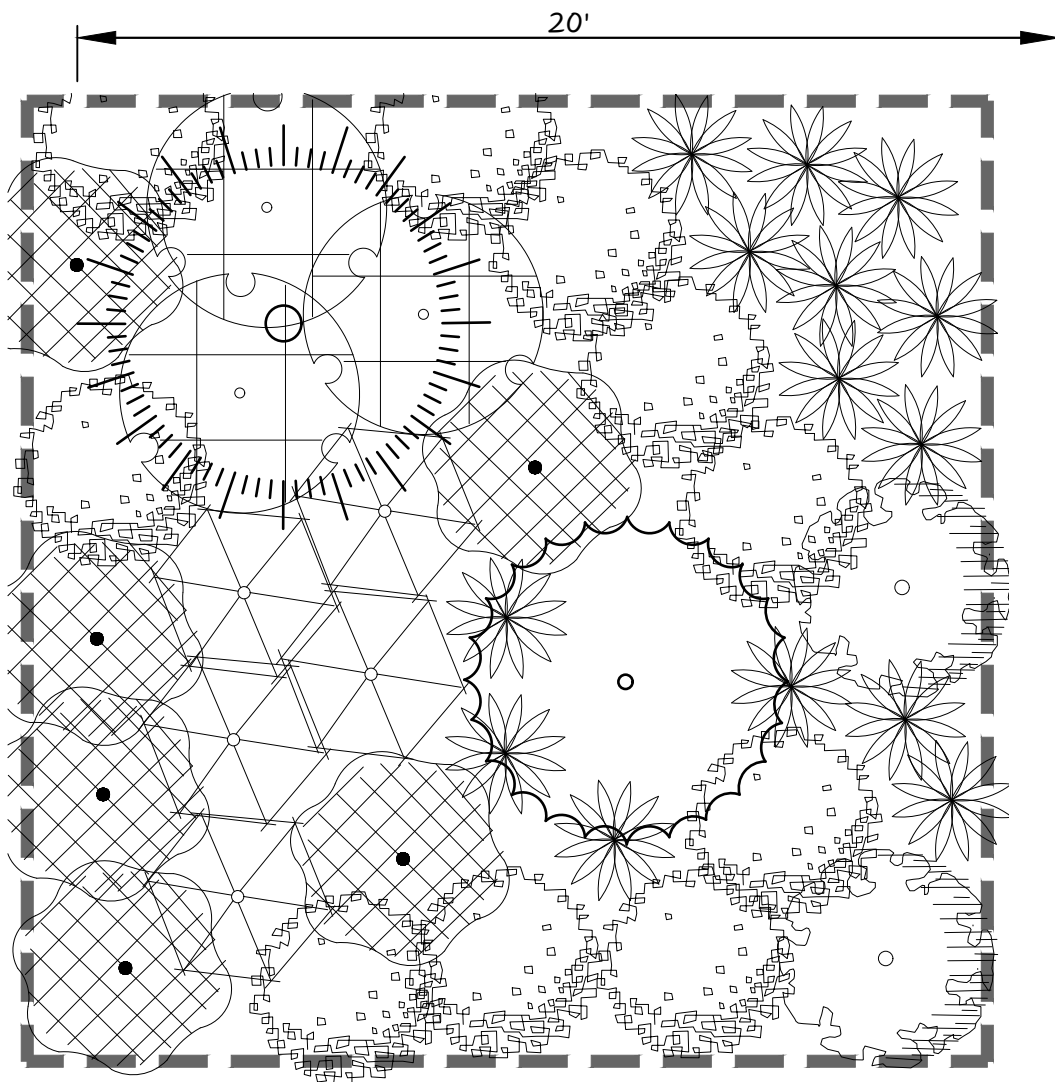
	STREAM BUFFER ENHANCEMENT (ONSITE)	3,016 SF
	REMAINING BUFFER IMPACT TO BE MITIGATED FOR OFFSITE	2,329 SF
	MITIGATION TO IMPACT RATIO: PER KCC §21A.24.380.E	2:1
	TOTAL ILF CREDIT PURCHASE AREA:	4,658 SF
	FINAL BUFFER & 2-BOARD FENCE	1 FIG. 4
	CRITICAL AREAS SIGNAGE	



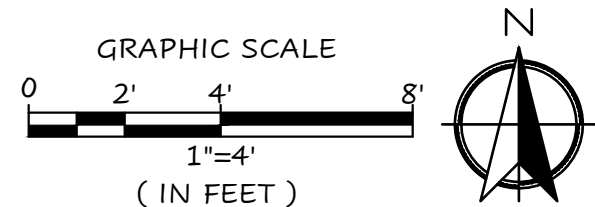
EASTSIDE ENVIRONMENTAL PROS, INC.
 15620 NE WOODINVILLE DUVALL PL, STE 3
 Woodinville, Washington 98072
 Bus (425) 864-6025

FIGURE #2
 SITE PLAN & IMPACTS & MITIGATION OVERVIEW
 TUOMINEN CRITICAL AREAS REPORT
 KING COUNTY, WASHINGTON

SCALE	DRAWN BY:
AS SHOWN	KM
DATE	
12-19-2025	
REVISED	
3-03-2026	
FIGURE	#2



PLANTING TYPICAL 1



KING COUNTY PLANTING DENSITY CALCULATION

PLANTING STRATUM	DENSITY (# PER SF)	TOTAL PLANTING AREA (SF)	# PLANTS REQUIRED
TREES	0.012	3,016 SF	36
SHRUBS	0.028		84
HERBS/GROUNDCOVERS	0.25		754

PLANT SCHEDULE

ENHANCED STREAM BUFFER (3,016 SF)

TREES

SCIENTIFIC NAME	COMMON NAME	QTY.	WL STATUS	AVERAGE SPACING	SIZE (MIN.)	NOTES
ABIES GRANDIS	GRAND FIR	16	UPL	9' O.C.	4-5' HT.	SINGLE TRUNK, WELL BRANCHED
PSUEDOTSUGA MENZIESII	DOUGLAS FIR	16	FAC	9' O.C.	2-3' HT.	SINGLE TRUNK, WELL BRANCHED

SHRUBS

SCIENTIFIC NAME	COMMON NAME	QTY.	WL STATUS	AVERAGE SPACING	SIZE (MIN.)	NOTES
RIBES SANGUINEUM	RED FLOWERING CURRANT	14	FACU	6' O.C.	2-3' HT.	MULTI-CANE (3 MIN.)
HOLODISCUS DISCOLOR	OCEAN SPRAY	14	FACU	4.5' O.C.	2-3' HT.	MULTI-CANE (3 MIN.)
RUBUS PARVIFLORUS	THIMBLEBERRY	14	FACU	4' O.C.	18" HT.	MULTI-CANE (3 MIN.)
SYMPHORICARPOS ALBUS	COMMON SNOWBERRY	14	FACU	4' O.C.	18" HT.	MULTI-CANE (3 MIN.)
ROSA PISOCARPA	BALDHIP ROSE	14	FAC	4' O.C.	18" HT.	MULTI-CANE (3 MIN.)
SAMBUCUS RACEMOSA	RED ELDERBERRY	14	FACU	4' O.C.	18" HT.	MULTI-CANE (3 MIN.)

GROUNDCOVER *

SCIENTIFIC NAME	COMMON NAME	QTY.	WL STATUS	AVERAGE SPACING	SIZE (MIN.)	NOTES
FRAGARIA CHILOENSIS	COASTAL STRAWBERRY	250	FACU	1' O.C.	4" POT	FULL & BUSHY
ACHILLEA MILLEFOLIUM	YARROW	299	NL	1' O.C.	4" POT	FULL & BUSHY
EPILOBIUM ANGSTIFOLIUM	FIREWEED	205	NL	1' O.C.	4" POT	FULL & BUSHY

*GROUNDCOVERS TO BE PLANTED EVENLY IN BETWEEN SHRUBS.

<p>EASTSIDE ENVIRONMENTAL PROS, INC. 15620 NE WOODINVILLE DUVALL PL, STE 3 Woodinville, Washington 98072 Bus (425) 864-6025</p>	<p>FIGURE #3 PLANTING PLAN TUOMINEN CRITICAL AREAS REPORT KING COUNTY, WASHINGTON</p>	SCALE	DRAWN BY:
		AS SHOWN	KM
		DATE	
		12-19-2025	
REVISED		FIGURE	
3-03-2026		#3	

PLANTING SPECIFICATIONS

1. **MITIGATION CONSTRUCTION:** THE FOLLOWING PROVIDES THE GENERAL SEQUENCE OF ACTIVITIES ANTICIPATED TO BE NECESSARY TO COMPLETE THE PLANTING PORTION OF THE MITIGATION PROJECT. SOME OF THESE ACTIVITIES MAY BE CONDUCTED CONCURRENTLY AS THE PROJECT PROGRESSES.

- 1.1. CONDUCT A SITE MEETING BETWEEN A REPRESENTATIVE FROM KING COUNTY, THE CONTRACTOR, THE PROJECT ECOLOGIST, AND THE OWNER TO REVIEW THE PROJECT PLANS AND STAGING/STOCKPILE AREAS.
- 1.2. REMOVE ALL INVASIVE PLANT SPECIES WITHIN ENHANCEMENT AREA, INCLUDING HIMALAYAN BLACKBERRY AND SCOTS BROOM.
- 1.3. INSTALL SOIL AMENDMENTS AS NECESSARY.
- 1.4. PLANT TREES, SHRUBS, AND GROUNDCOVERS AS INDICATED ON PROJECT PLANS.
- 1.5. MULCH PLANTS AS INDICATED ON PLANTING DETAIL.
- 1.6. INSTALL CRITICAL AREAS FENCING AS INDICATED ON PROJECT PLANS.

2. PRIOR TO ANY SITE WORK, THE MITIGATION AREA BOUNDARY WILL BE STAKED BY A SURVEYOR OR FIELD LOCATED BY EASTSIDE ENVIRONMENTAL PROS, INC. (EEP) AND THE LANDSCAPE CONTRACTOR.

3. **QUALITY AND CONDITION:** ALL PLANTS SHALL BE NURSERY GROWN (IN WESTERN WASHINGTON OR OREGON) FOR AT LEAST 1 YEAR FROM PURCHASE DATE, FREE FROM DISEASE OR PESTS AND TRUE TO SPECIES.

3.1. PLANTS SHALL BE NORMAL IN GROWTH, HEALTHY, WELL-BRANCHED, VIGOROUS WITH WELL-DEVELOPED ROOT SYSTEMS, BUT NOT ROOT BOUND.

3.2. DAMAGED, DISEASED, PEST-INFESTED, SCRAPED, DRIED OUT, BROKEN, OR DEFECTIVE PLANTS WILL BE REJECTED AND REMOVED FROM SITE.

4. **HANDLING:** PLANTS SHALL BE HANDLED AS TO AVOID ALL DAMAGE AND MUST BE COVERED DURING TRANSPORT. PLANTS SHALL NOT BE ALLOWED TO DRY OUT AND ALL PLANTS SHALL BE WATERED THOROUGHLY IMMEDIATELY UPON INSTALLATION.

5. **PLANTING SEASON:** INSTALL WOODY PLANTS BETWEEN NOVEMBER 1 AND MARCH 15 WHENEVER THE TEMPERATURE IS ABOVE 32 DEGREES F AND THE SOIL IS IN A WORKABLE CONDITION, UNLESS OTHERWISE APPROVED IN WRITING.

6. **PLANTING AREA CONDITIONS:** CONTRACTOR SHALL VERIFY THAT PLANT INSTALLATION CONDITIONS ARE SUITABLE WITHIN THE RESTORATION AREA. ANY UNSATISFACTORY CONDITIONS SHALL BE CORRECTED PRIOR TO START OF WORK. WHEN CONDITIONS

DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, POOR DRAINAGE, COMPACTED SOILS, SIGNIFICANT INVASIVE VEGETATION, OR OTHER OBSTRUCTIONS, CONTRACTOR SHALL NOTIFY THE PROJECT ECOLOGIST PRIOR TO PLANTING.

7. PRIOR TO PLANTING, PLANT LAYOUT SHALL BE APPROVED BY PROJECT ECOLOGIST. MINOR ADJUSTMENTS TO THE ORIGINAL DESIGN MAY BE REQUIRED PRIOR TO AND DURING CONSTRUCTION.

8. ALL PLANTS SHALL BE PIT-PLANTED IN PLANTING PITS EXCAVATED 2X THE DIAMETER OF THE PLANT. PITS SHALL BE BACKFILLED WITH NATIVE SOIL AND SETTLED WITH WATER. PROVIDE A 24-INCH DIAMETER, 3-INCH DEEP MULCH RING AROUND THE BASE OF EACH SHRUB.

9. **SOIL AMENDMENT:** THE MITIGATION AREA SHALL RECEIVE NO LESS THAN 2 TO 4 INCHES OF ORGANIC COMPOST AFTER INVASIVE REMOVAL AND ANY REQUIRED DECOMPACTION IS COMPLETED.

9.1. COMPOST SHALL MEET THE DEFINITION FOR COMPOSTED MATERIALS AS DEFINED BY THE WASHINGTON STATE DEPARTMENT OF ECOLOGY.

10. **MULCH:** BARK OR WOODCHIP MULCH SHALL BE DERIVED FROM DOUGLAS FIR, PINE, OR HEMLOCK SPECIES. THE MULCH SHALL NOT CONTAIN RESIN, TANNIN, OR OTHER COMPOUNDS IN QUANTITIES THAT WOULD BE DETRIMENTAL TO ANIMAL, PLANT LIFE, OR WATER QUALITY. SAWDUST SHALL NOT BE USED AS MULCH.

10.1. MULCH SHALL BE MEDIUM-COARSE GROUND WITH AN APPROXIMATELY 3-INCH MINUS PARTICLE SIZE. FINE PARTICLES SHALL BE MINIMIZED SO THAT NOT MORE THAN 30%, BY LOOSE VOLUME, WILL PASS THROUGH A US NO. 4 SIEVE.

11. PLANTINGS SHALL BE HAND-WATERED OR WATERED VIA A TEMPORARY IRRIGATION SYSTEM CAPABLE OF PROVIDING 1/2" OF FLOW TO EACH PLANT AT LEAST 2 TIMES PER WEEK FROM JULY 1 - OCTOBER 31 FOR THE FIRST TWO YEARS AFTER PLANTING.

12. **HERBICIDES/PESTICIDES:** CHEMICAL CONTROLS SHALL NOT BE USED IN THE RESTORATION AREA. HOWEVER, LIMITED USE OF HERBICIDES MAY BE APPROVED DEPENDING ON SITE-SPECIFIC CONDITIONS, ONLY IF APPROVED BY KING COUNTY.

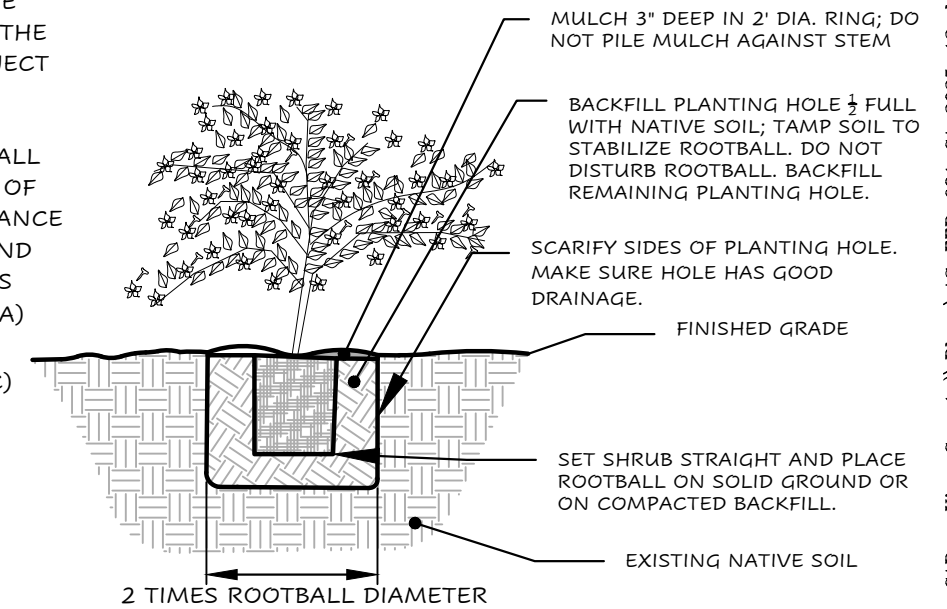
13. UPON APPROVAL OF PLANTING INSTALLATION BY EEP, KING COUNTY WILL BE NOTIFIED TO CONDUCT A SITE REVIEW FOR FINAL APPROVAL OF CONSTRUCTION.

14. **MAINTENANCE:** THESE MAINTENANCE SPECIFICATIONS APPLY TO THE ONE-YEAR CONTRACTOR WARRANTY PERIOD ONLY. IF THIS MITIGATION PROJECT REQUIRES LONG-TERM PERFORMANCE MONITORING, AS DETERMINED BY THE GOVERNING JURISDICTION, THE MAINTENANCE SPECIFICATIONS AND GUIDELINES ASSOCIATED WITH THE PERFORMANCE MONITORING STANDARDS ARE INCLUDED IN THE MITIGATION REPORT

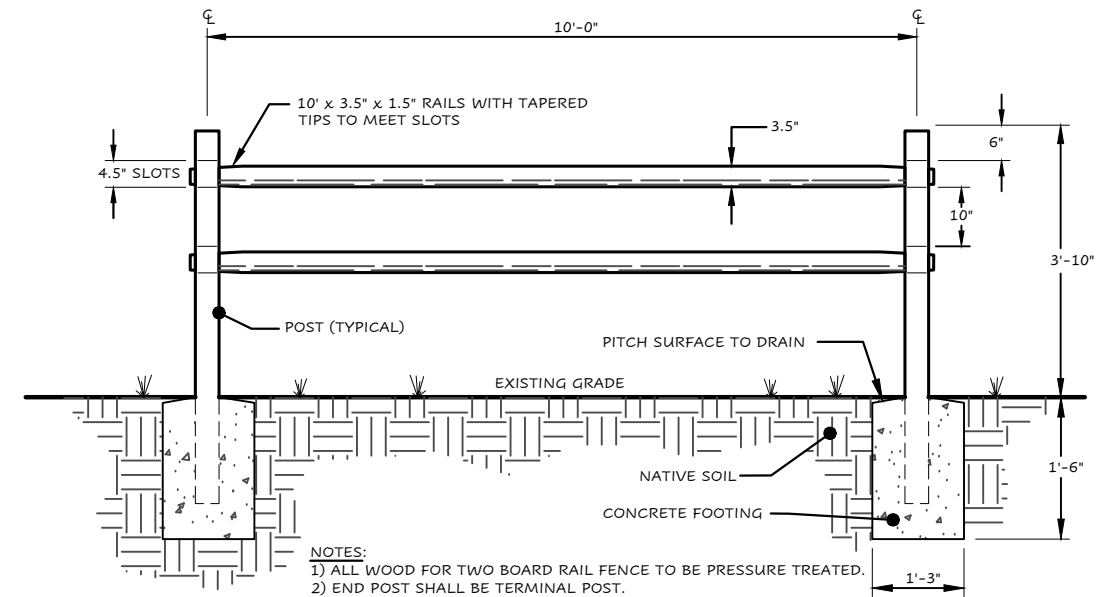
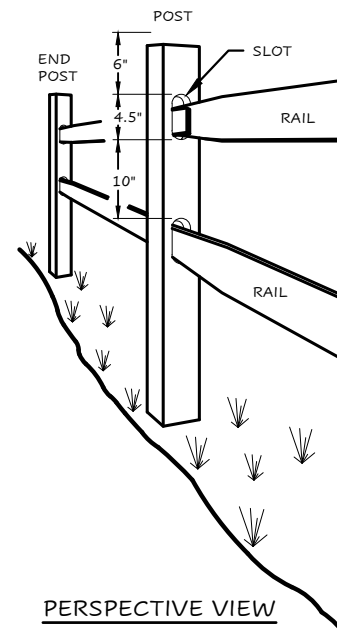
ASSOCIATED WITH THIS PLAN SET.

14.1. **REVIEW OF MAINTENANCE REQUIREMENTS:** CONTRACTOR SHALL REVIEW LANDSCAPE MAINTENANCE RECOMMENDATIONS WITH THE PROJECT ECOLOGIST WHO IS FAMILIAR WITH THE STATED GOALS AND OBJECTIVES OF THE PROJECT PLAN.


14.2. **MAINTENANCE ACTIVITIES:** CONTRACTOR SHALL MAINTAIN TREES AND SHRUBS FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE IN ORDER TO MAINTAIN HEALTHY GROWTH AND HABITAT DIVERSITY. MAINTENANCE ACTIVITIES SHALL INCLUDE, BUT ARE NOT LIMITED TO: (A) REPLACING PLANTS DUE TO MORTALITY, (B) TIGHTENING AND REPAIRING TREE STAKES, (C) RESETTling PLANTS TO PROPER GRADES AND UPRIGHT POSITIONS, AND (D) CORRECTING DRAINAGE PROBLEMS AS REQUIRED.

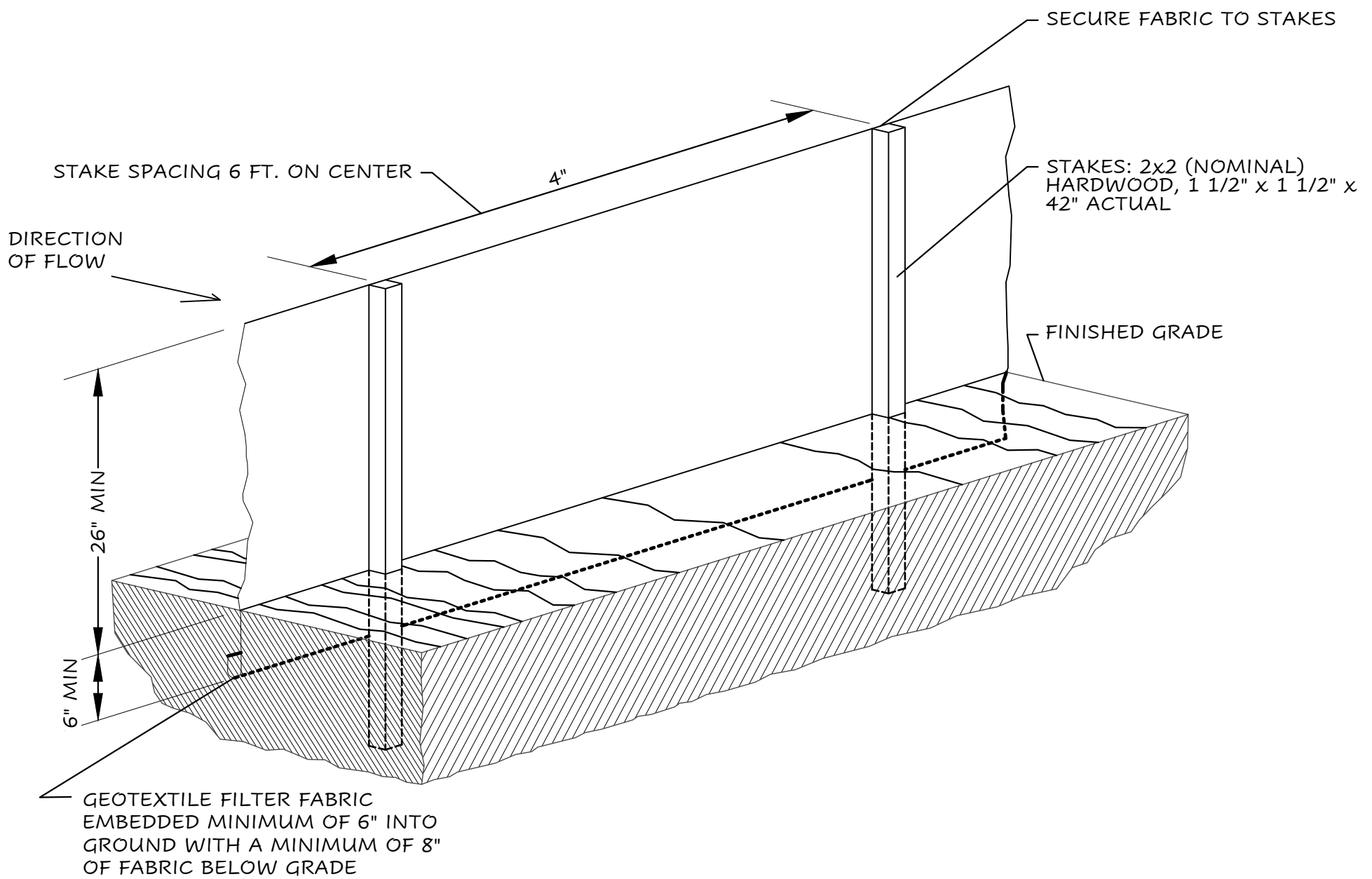


2 CONTAINER SHRUB PLANTING DETAIL
N.T.S.




1 TWO BOARD FENCE DETAIL
N.T.S.

 EASTSIDE ENVIRONMENTAL PROS, INC. 15620 NE WOODINVILLE DUVALL PL, STE 3 Woodinville, Washington 98072 Bus (425) 864-6025	FIGURE #4	SCALE	DRAWN BY:
	PLANTING SPECS	AS SHOWN	KM
	TUOMINEN CRITICAL AREAS REPORT	DATE	
	KING COUNTY, WASHINGTON	12-19-2025	
		FIGURE	#4



1. SILT FENCE DETAIL

1. SILT FENCE SHALL BE CONSTRUCTED BEFORE ANY GRADING WORK IS STARTED.
2. WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
3. A RUN OF SILT FENCE SHOULD FOLLOW THE CONTOUR AS CLOSE AS POSSIBLE WITH THE ENDS TURNED UPSLOPE TO POND WATER BEHIND THE FENCE.
4. THE SILT FENCE SHOULD BE BURIED AT LEAST 6" DEEP AND HAVE A TOTAL OF 8" OF FABRIC BELOW THE GROUND. THIS CAN BE ACCOMPLISHED WITH A TRENCHER, CABLE LAYING MACHINE, SLICING MACHINE OR OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.
5. THE STAKES SHALL BE PLACED ON THE DOWN SLOPE SIDE OF THE GEOTEXTILE. THE STAKES SHALL BE A MINIMUM OF 2X2 NOMINAL (1-1/2" X 1-1/2" ACTUAL) HARDWOOD STAKE OF SOUND QUALITY. T-POSTS MAY BE SUBSTITUTED IF GROUND CONDITIONS REQUIRE.
6. WHERE TWO SILT FENCE SECTIONS ARE COMBINED INTO ONE RUN THE END STAKES SHALL BE CONNECTED TOGETHER, NOT SIMPLY OVERLAPPED.
7. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) AN ADDITIONAL RUN OF SILT FENCE SHALL BE PLACED UPSTREAM, 2) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 3) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 4) OTHER PRACTICES SHALL BE IMPLEMENTED.

 <p>EASTSIDE ENVIRONMENTAL PROS, INC. 15620 NE WOODINVILLE DUVALL PL, STE 3 Woodinville, Washington 98072 Bus (425) 864-6025</p>	FIGURE # 5	SCALE	DRAWN BY:
	SILT FENCE DETAIL	DATE	KM
	TUOMINEN CRITICAL AREAS REPORT KING COUNTY, WASHINGTON	3-04-2026	
		FIGURE	#5

APPENDIX A

Wetland Determination Datasheets

Eastside Environmental Pros, Inc.

7 October, 2025

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: EE-681 City/County: King County Sampling Date: 2025-10-07
 Applicant/Owner: Leah Tuohinen State: WA Sampling Point: SP-1
 Investigator(s): TA Section, Township, Range: S29T23R03
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 37.5%
 Subregion (LRR): A Lat: 47.45011725249999 Long: -122.45666657916667 Datum: NAD83
 Soil Map Unit Name: Alderwood gravelly sandy loam, 8 to 15 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Sample point taken within close to top of steep slope area. Normal climatic conditions present during Site Evaluation. Sample point does not meet wetland criteria.	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status		
Tree Stratum (Plot size: <u>30 ft</u>)					
1. <u><i>Prunus avium</i></u>	<u>80%</u>	<u>YES</u>	<u>FACU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.33%</u> (A/B)	
2. <u><i>Pseudotsuga menziesii</i></u>	<u>10%</u>	<u>NO</u>	<u>FACU</u>		
3. <u><i>Acer Macrophyllum</i></u>	<u>10%</u>	<u>NO</u>	<u>FACU</u>		
4. _____					
		<u>100%</u> = Total Cover		Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____	
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)					
1. <u><i>Rubus bifrons</i></u>	<u>100%</u>	<u>YES</u>	<u>FAC</u>		
2. _____					
3. _____					
4. _____					
		<u>100%</u> = Total Cover			
Herb Stratum (Plot size: <u>5 ft</u>)					
1. <u><i>Polystichum munitum</i></u>	<u>80%</u>	<u>YES</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. <u><i>Pteridium aquilinum</i></u>	<u>10%</u>	<u>NO</u>	<u>FACU</u>		
3. <u><i>Rubus ursinus</i></u>	<u>5%</u>	<u>NO</u>	<u>FACU</u>		
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
		_____ = Total Cover			
Woody Vine Stratum (Plot size: <u>15 ft</u>)					
1. <u><i>None</i></u>					
2. _____					
		_____ = Total Cover			
% Bare Ground in Herb Stratum <u>0%</u>		% Cover of Biotic Crust <u>0%</u>			
Remarks: Hydrophytic vegetation criteria not met.				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

SOIL

Sampling Point: SP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	10YR 5/4	100%					SALO	

Project/Site: EE-681 City/County: King County Sampling Date: 2025-10-07
 Applicant/Owner: Leah Tuohinen State: WA Sampling Point: SP-2
 Investigator(s): TA Section, Township, Range: S29T23R03
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 9.7%
 Subregion (LRR): A Lat: 47.45011725249999 Long: -122.45666657916667 Datum: NAD83
 Soil Map Unit Name: Alderwood gravelly sandy loam, 8 to 15 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Sample point taken within flatter areas on southern portion of Site west of slope. Normal climatic conditions present during Site Evaluation. Sample point does not meet wetland criteria.	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30 ft</u>)				
1. <u><i>Alnus rubra</i></u>	<u>30%</u>	<u>YES</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.33%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		<u>30%</u> = Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				
1. <u><i>Cytisus scoparius</i></u>	<u>90%</u>	<u>YES</u>	<u>NL/UPL</u>	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. <u><i>Rubus bifrons</i></u>	<u>10%</u>	<u>NO</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		<u>100%</u> = Total Cover		
Herb Stratum (Plot size: <u>5 ft</u>)				
1. <u><i>Pteridium aquilinum</i></u>	<u>5%</u>	<u>NO</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u><i>Rubus ursinus</i></u>	<u>30%</u>	<u>YES</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
		<u>35%</u> = Total Cover		
Woody Vine Stratum (Plot size: <u>15 ft</u>)				
1. <u>None</u>	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
		_____ = Total Cover		
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____		
Remarks: Hydrophytic vegetation criteria not met.				

SOIL

Sampling Point: SP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10YR 5/4	100%					GRSALO	
14-20	10YR 7/4	95%	10YR 6/4	5%			GRSALO	Concretions

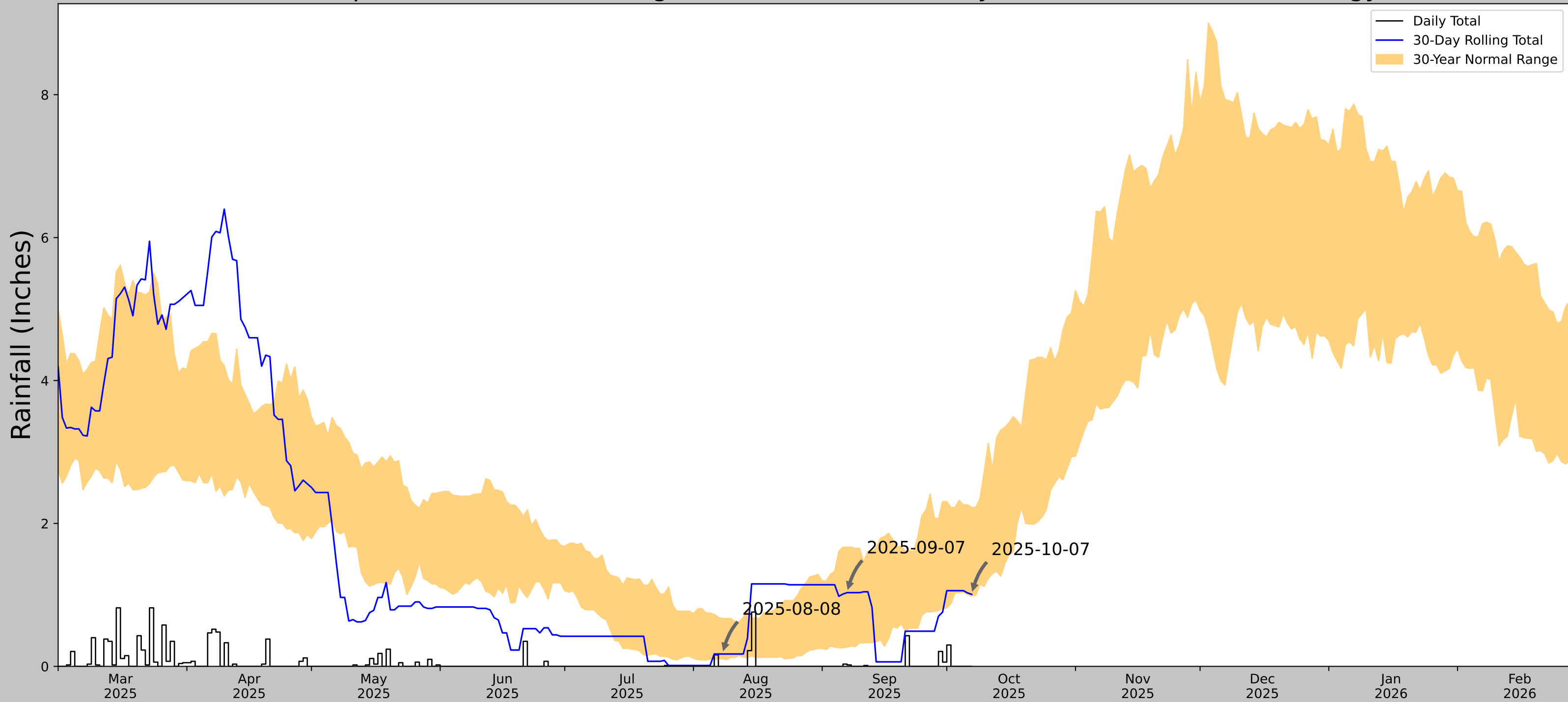
APPENDIX B

Normal Precipitation Worksheet

Eastside Environmental Pros, 2025.

This normal precipitation analysis follows the methodology described by Sprecher and Warne (2000). The Corps Antecedent Precipitation application tool was used to determine that **normal** conditions were present during the 7 October 2025 Site Evaluation.

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	47.45021, -122.45692
Observation Date	2025-10-07
Elevation (ft)	331.104
Drought Index (PDSI)	Not available (2025-09)
WebWIMP H ₂ O Balance	Wet Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-10-07	0.983465	2.224016	1.007874	Normal	2	3	6
2025-09-07	0.27126	1.667717	1.031496	Normal	2	2	4
2025-08-08	0.105512	0.669291	0.173228	Normal	2	1	2
Result							Normal Conditions - 12

Figures and tables made by the
Antecedent Precipitation Tool
Version 3.0



Developed by:
U.S. Army Corps of Engineers and
U.S. Army Engineer Research and
Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
SEATTLE TACOMA AP	47.4447, -122.3144	369.094	6.67	37.99	3.255	11346	90
BURIEN 2.1 NNW	47.4919, -122.365	129.921	4.028	239.173	2.776	1	0
KENT	47.4172, -122.2433	28.871	3.828	340.223	3.025	6	0

APPENDIX C

Geotechnical Engineering Report Evaluation

Jason Engineering & Consulting Business, Inc., LLC

April 25, 2005

September 2, 2025



Wolf Industries, Inc.
607 SE Eaton Blvd
Battle Ground, WA 98604

Attn: Leah Touminen
ltouminen@wolfind.com
360-912-9521

Subject: Geologic Hazard Assessment

Luoma Residence
Unaddressed, off 96th PI SW
Vashon, WA 98070
True North Project # 25-0318-1

Dear Ms. Tuominen:

In accordance with your request, we are providing you with this report summarizing our geotechnical services for the proposed new residence to be located off 96th PI SW (King County Parcel No. 0855500260) in Vashon, Washington (site). The purpose of the evaluation is to provide an opinion of the general site conditions and potential geohazards in the vicinity of the proposed development, as required due to the presence of mapped steep and unstable slopes within the project vicinity. The conclusions and recommendations presented in this report are based on our site visit, a review of available geologic maps, well logs, and topographic mapping.

PROJECT UNDERSTANDING

The subject 0.195-acre property is located on Vashon Island, about 0.25 miles northeast of Vashon, WA town center, on the east side of 96th Place SW, where the ground surface slopes down variably to nearby Gorsuch Creek. The location of the site with respect to nearby features and topography is shown in the Vicinity Map, Figure 1. We understand that the proposed new residence will be a 1,232 square-foot modular home with an attached 80 square-foot porch, to be placed on a poured concrete foundation southeast of a new driveway parking area. We understand a future 616 square foot ADU with 80 square-foot porch is also being considered north of the proposed modular home. The location of the proposed new home, driveway and future ADU are shown on the attached site plan – Figure 2.

SITE CONDITIONS

Reconnaissance

Based on the publicly available King County KCGIS Center, iMap and Parcel Viewer, the project site is located within proximity to mapped “Potential steep slope hazard areas” and “Potential landslide hazard areas”, and as such is subject to additional scrutiny prior to development. On August 21, 2025, we visited the site and observed existing surficial slope conditions.

Information Portal, and features of ongoing or historic deep-seated landslides and instability are not evident in the lidar imagery.

CONCLUSIONS AND RECOMMENDATIONS

Based on field observations, none of the proposed development at the site is to be located within the mapped “steep slope hazard areas” or the landslide buffer area as defined by King County. Based on our observations and understanding of the proposed residential development, it will be set back sufficiently from steep slopes, and construction of the home is not expected to create a risk of increased instability to slopes on site. We offer the following additional general recommendations for foundations, slope setbacks, site drainage, erosion control, and wet weather construction to be considered in design and construction of the new residence and potential future ADU.

Foundations

We recommend that all foundations and footings be embedded through any fill material and founded in native soil, or newly placed structural fill extending down to the native soils. For either native soils or properly placed structural fill, the anticipated foundation subgrade conditions for the proposed residence are expected to be suitable for support of the presumptive code-specified allowable bearing capacity of **1,500 pounds per square foot** we anticipate will be used in the structural design of the modular residence and proposed future ADU.

Geotechnical Slope Setback

There is some inherent risk with development at the site, as with any property located near a steep slope. To reduce the risk of slope instability at the site, we recommend that all new structures be set back from the steeper slopes at the ratio of $H/3$, where H is equal to the total height of the slope. The slope setback for the proposed residence will be on the order of 10 feet, as the slope elevation loss is approximately 30 ft. The limitation recommendation is intended to reduce potential for slope instability by limiting the dynamic and static loading resulting from construction and permanent structures.

The setback based on the horizontal distance of the outside base of footings from the adjacent slope. With increased embedment of the footings, structures may be founded closer to the adjacent top of slope, providing the horizontal distance from the slope surface is maintained.

To reduce the risk of slope instability, clearing, grading, soil stockpiling, utility installation and other major construction activities should not be permitted within the limitation area or along the slopes themselves. The probability for slope instability increases with disturbance or alteration of existing slope vegetation. The setback zone is not intended to be an undisturbed conservation area, and small disturbances such as minor landscaping or construction of decks or fences are acceptable. The recommendations provided are intended to address the geotechnical aspects of construction within the recommended limitation zones. We have included a typical slope setback figure for guidance as Figure 4 of this report.

Drainage

The Contractor should be made responsible for temporary drainage of surface water and groundwater as necessary during construction to prevent standing water and/or erosion at the site.

As a matter of good construction practice, we recommend that perimeter drains be installed for the proposed residence. Perimeter drains should consist of perforated drainpipe embedded in a zone of free draining fill that is wrapped in a non-woven geotextile filter. The pipe should be connected to a tightline drainpipe leading to storm drain facilities. Foundation and crawl space drainage should be sloped to drain to a sump or low point drain outlet. Water should not be allowed to pond within crawl spaces. Roof drains should be connected to a tightline drainpipe leading to storm drain outlet facilities.

In our opinion, all concentrated surface drainage should be prevented from being disposed directly on any natural or man-made slopes steeper than approximately 25 percent, and should avoid concentrated flows. We anticipate that due to the small project footprint, significant setback from the top of slope, and the mapped highly infiltrating soil type for the project area, stormwater infiltration can be easily managed without causing an increased risk to site stability.

Water should not be allowed to “pond” or collect anywhere on the site. The ground surface around structures should be sloped to drain away from building foundations for a distance of at least 5 feet. Surface water should be directed away from all buildings into drainage swales or other approved drainage areas. “Trapped” planting areas should not be created next to any buildings without providing means for drainage. Foundation and crawl space drainage should be sloped to drain to a sump or low point drain outlet. Water should not be allowed to pond within crawl spaces.

Soil Erosion

Overall, implementation of standard erosion and sediment control BMPs should adequately mitigate erosion risk on site. Site-specific erosion control measures should be implemented to address the maintenance of slopes or exposed areas. This may include silt fence, bio-filter bags, straw wattles, or other suitable methods. During construction, all exposed areas should be well compacted and protected from erosion. Temporary slopes or expose areas may be covered with straw, crushed aggregate, or rip in localized areas to minimize erosion.

Finished slopes should be vegetated as soon as possible with erosion-resistant native grasses and plants. Once established, slope vegetation should be properly maintained. Concentrated water should be prevented from flowing over slope faces.

Wet Weather Construction

Due to the presence of fine-grained silt and clay in the near-surface materials at the site, construction equipment may have difficulty operating on the near-surface soils when the moisture content of the surface soil is more than a few percentage points above the optimum moisture

required for compaction. Soils that have been disturbed during site preparation activities, or unsuitable areas identified during proofrolling or probing, should be removed and replaced with compacted structural fill.

Site earthwork and subgrade preparation should not be completed during freezing conditions.

Protection of the subgrade is the responsibility of the contractor. Construction of granular haul roads may help reduce further damage to the pavement and disturbance of site soils. The thickness of the granular material for haul roads and staging areas will depend on the amount and type of construction traffic. The actual thickness of haul roads and staging areas should be based on the contractors' approach to site development, and the amount and type of construction traffic. The imported granular material should be placed in one lift over the prepared, undisturbed subgrade and compacted using a smooth-drum, non-vibratory roller. A geotextile fabric should be used to separate the subgrade from the imported granular material in areas of repeated construction traffic.

CONSTRUCTION OBSERVATIONS

Satisfactory earthwork performance depends on the quality of construction. Sufficient monitoring of the contractor's activities is a key part ensuring that work is completed in accordance with the construction drawings and specifications.

King County may require a final letter of geotechnical compliance before they will finalize a permit. If required, a representative from True North must observe foundation subgrades prior to placing the foundation. If True North does not perform this observation, we cannot provide a final letter of geotechnical compliance, and a permit may not be eligible for final sign-off. It is the owner's responsibility to ensure True North be notified in a timely manner (i.e., at least 72 hours prior to the required site observation) of the need for our services on site during construction.

LIMITATIONS

We have prepared this report for use by the owner/developer and other members of the design and construction team for the proposed new Luoma Residence. The opinions and recommendations contained within this report are not intended to be construed as a warranty of subsurface conditions, but are forwarded to assist in the planning and design process.

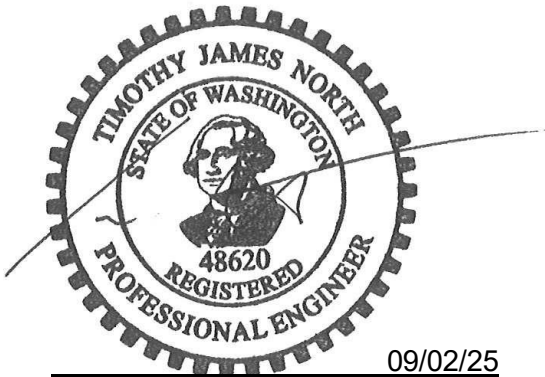
The conclusions and recommendations contained in this report are based on our understanding of the currently proposed project and potential future development, as derived from written and verbal information supplied to us by you. When the design has been finalized, we recommend that we review the design and specifications to see that our recommendations have been interpreted and implemented as intended. If design changes are made, we request that we be retained to review our conclusions and recommendations and to provide a written modification or verification.

Within the limitations of scope, schedule, and budget, our services have been executed in accordance with the generally accepted practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

CLOSING

We appreciate the opportunity to be of service to you. If you have any questions, or if we can be of further assistance to you, please contact us at (360) 984-6584.

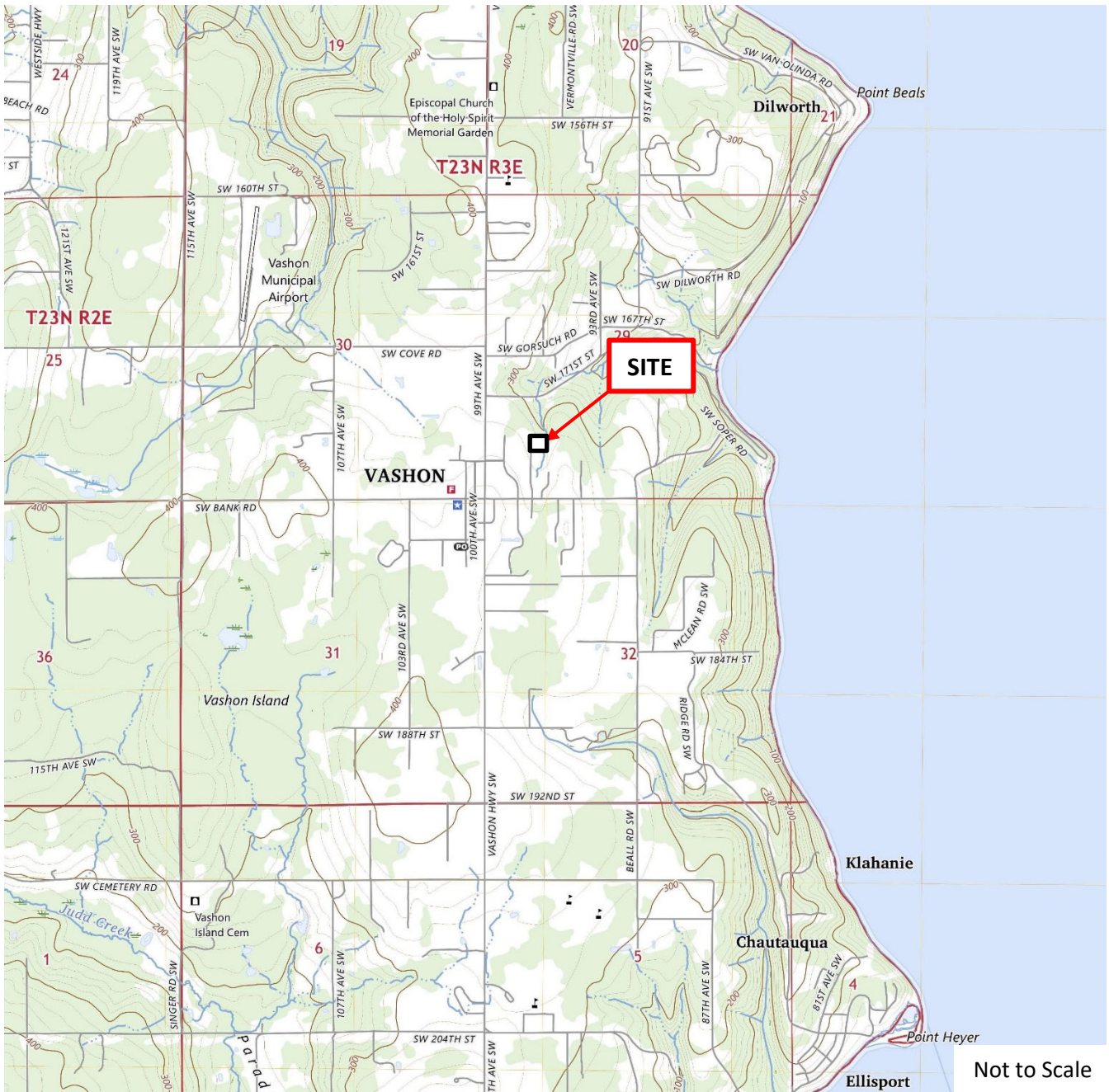
Respectfully Submitted,



09/02/25

Timothy J. North, P.E.
Geotechnical Engineer

Attachment: Figure 1 – Vicinity Map
Figure 2 – Site Plan
Figure 3 – Site Photographs
Figure 4 – Typical Slope Setback Detail



Source: "Topographic Map of the Vashon, WA Quadrangle, 7.5 minute series" 2023, United States Geological Survey (USGS).



TRUE NORTH
 ◆ GEOTECHNICAL ◆

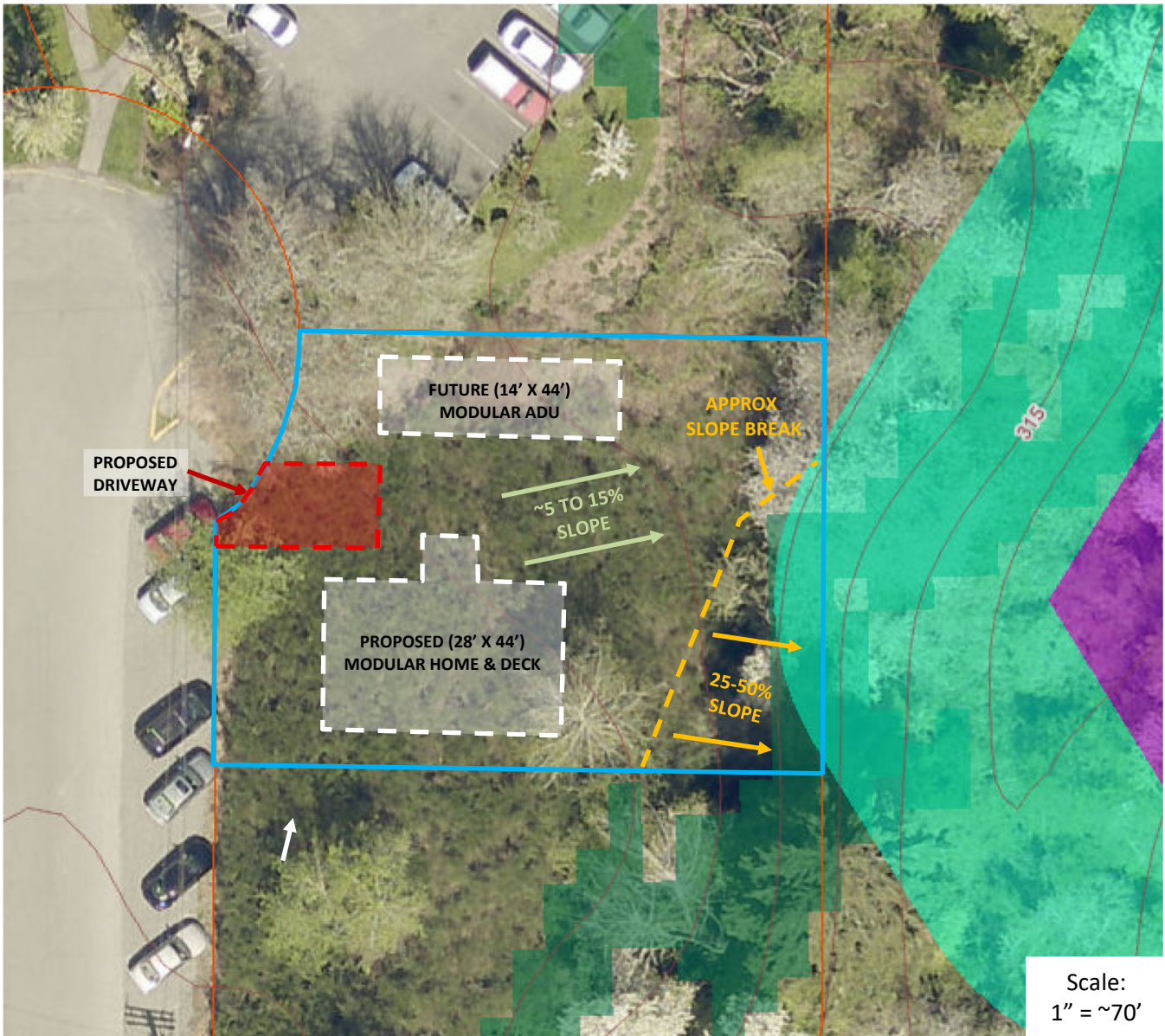
Wolf Industries
 Luoma Residence
 Vashon, WA

Project # 25-0318-1

219 West 4th Street
 Vancouver, WA 98660
 360-984-6584

September 2025

Figure 1 – Vicinity Map



Note: Green shading indicates mapped “potential steep slope hazard areas”.
 Purple shading indicates mapped “potential landslide hazard areas”.
 Teal shading indicates mapped 50-foot buffer to landslide hazard areas.



Source: King County iMap, accessed August 29, 2025.

<p>TRUE NORTH ◆ GEOTECHNICAL ◆</p>	<p>Wolf Industries Luoma Residence Vashon, WA</p>	<p>Project # 25-0318-1</p>
<p>219 West 4th Street Vancouver, WA 98660 360-984-6584</p>	<p>September 2025</p>	<p>Figure 2 – Site Plan & EPIC Map</p>



Photo 1. Project site – looking northeast into property from 96th PI SW.



Photo 2. Project site – looking east into property.

TRUE NORTH
 ◆ GEOTECHNICAL ◆

Wolf Industries
 Luoma Residence
 Vashon, WA

Project # 25-0318-1

219 West 4th Street
 Vancouver, WA 98660
 360-984-6584

September 2024

Figure 3A – Site Photographs
 (1 of 2)



Photo 3. Project site – typical surface conditions at upper flatter area.



Photo 4. Project site – looking south along top of slope, slopes at left and more level area at right.

TRUE NORTH
 ◆ GEOTECHNICAL ◆

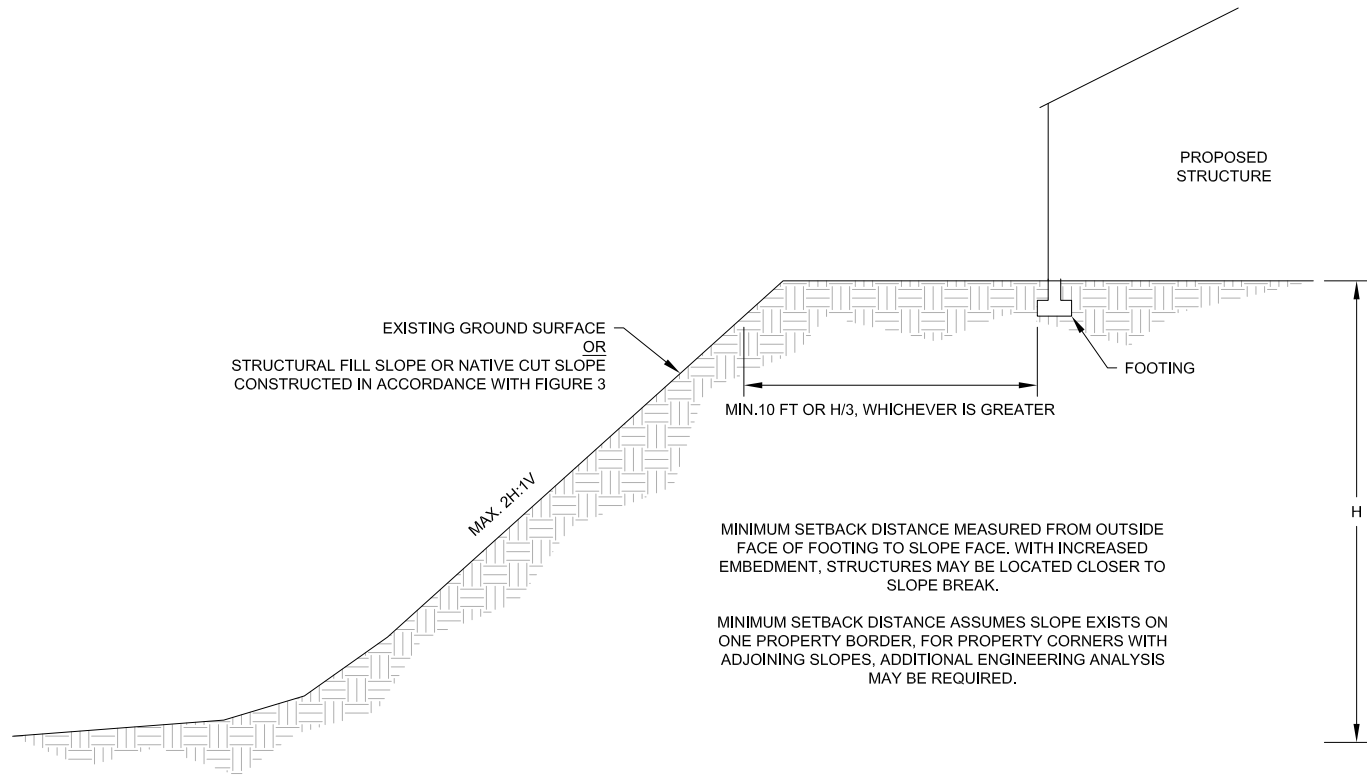
Wolf Industries
 Luoma Residence
 Vashon, WA

Project # 25-0318-1

219 West 4th Street
 Vancouver, WA 98660
 360-984-6584

September 2024

Figure 3B – Site Photographs
 (2 of 2)



MINIMUM SETBACK DISTANCE MEASURED FROM OUTSIDE FACE OF FOOTING TO SLOPE FACE. WITH INCREASED EMBEDMENT, STRUCTURES MAY BE LOCATED CLOSER TO SLOPE BREAK.

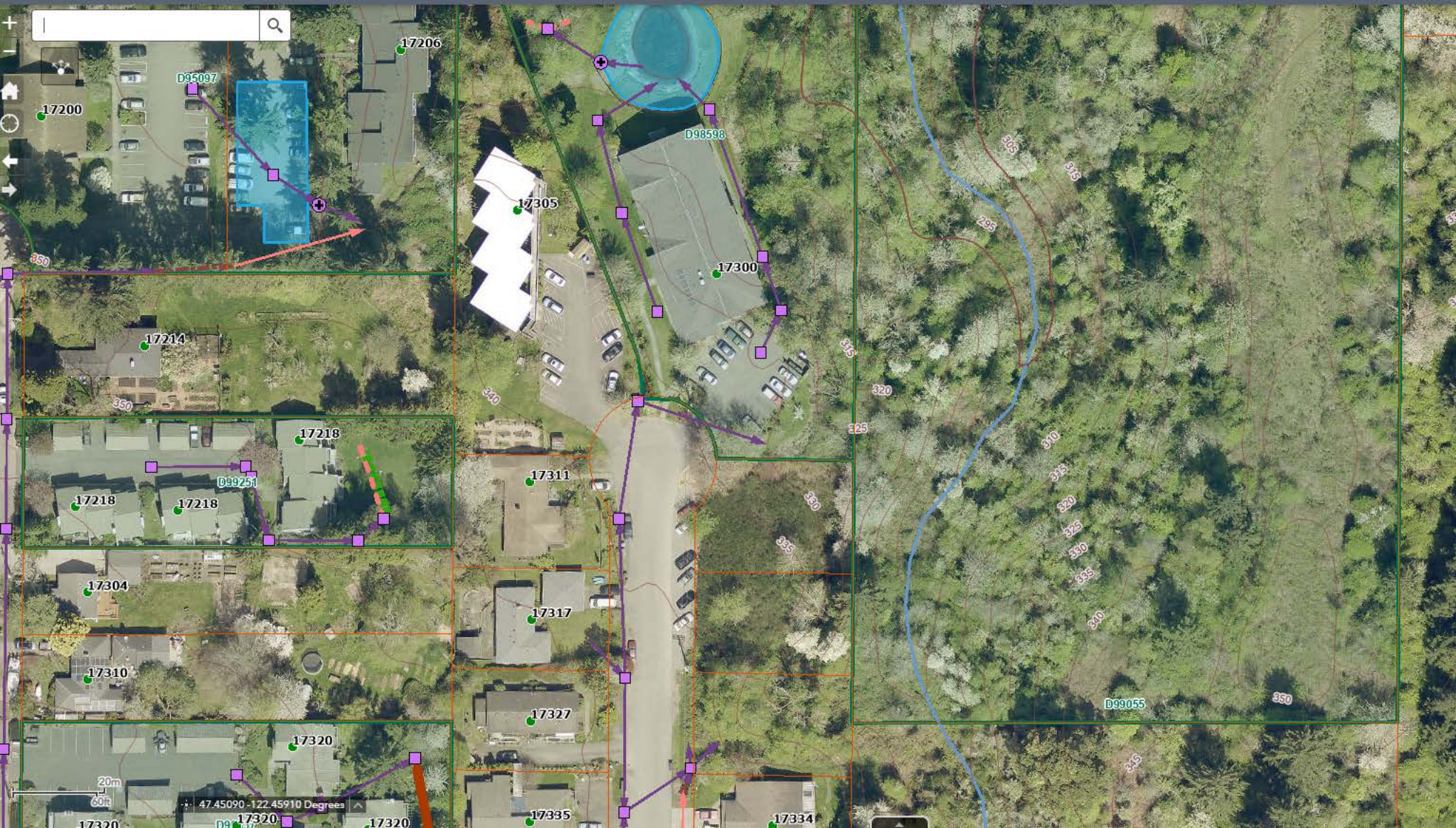
MINIMUM SETBACK DISTANCE ASSUMES SLOPE EXISTS ON ONE PROPERTY BORDER, FOR PROPERTY CORNERS WITH ADJOINING SLOPES, ADDITIONAL ENGINEERING ANALYSIS MAY BE REQUIRED.

- NOTES:**
1. DRAWING IS NOT TO SCALE.
 2. SLOPES AND PROFILES SHOWN ARE APPROXIMATE
 3. DRAWING REPRESENTS TYPICAL SLOPE SECTION, AND IS NOT SITE SPECIFIC.

<p>TRUE NORTH ◆ GEOTECHNICAL ◆</p>	<p>Wolf Industries Luoma Residence Vashon, WA</p>	<p>Project # 25-0318-2</p>
<p>219 West 4th Street Vancouver, WA 98660 360-984-6584</p>	<p>September 2025</p>	<p>Figure 4 – Typical Slope Setback Detail</p>

APPENDIX D

King County Stormwater Map
10 December 2025.



Legend

King County Address Points

- Address points:
- Address labels:

Property Layers

- Parcels:

Elevation Contours

- index contours - 100 foot:
- contours - 5 foot (below 1000 feet) and 10 foot:

Stormwater Services

Stormwater activities

- Drainage complaint or study:

Stormwater infrastructure

- Catch basin or inlet:
- Maintenance hole:
- Pump:
- Control structure:
- Proprietary treatment structure:
- Dispersion or infiltration structure:
- Weir:

APPENDIX E

PHS on the Web

Washington Department of Fish and Wildlife, 2025



Priority Habitats and Species on the Web



Report Date: 12/19/2025

The Priority Habitats and Species (PHS) datasets do not contain information for your project area. This does not mean that species and habitats do not occur in your project area. PHS data, points, lines and polygons are mapped only when occurrences of these species or habitats have been observed in the field. Unfortunately, we have not been able to comprehensively survey all sections in the state and therefore, it is important to note that priority species and habitats may occur in areas not currently known to the Department.

DISCLAIMER. This report includes information that the Washington Department of Fish and Wildlife (WDFW) maintains in a central computer database. It is not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife. This information only documents the location of fish and wildlife resources to the best of our knowledge. It is not a complete inventory and it is important to note that fish and wildlife resources may occur in areas not currently known to WDFW biologists, or in areas for which comprehensive surveys have not been conducted. Site specific surveys are frequently necessary to rule out the presence of priority resources. Locations of fish and wildlife resources are subject to variation caused by disturbance, changes in season and weather, and other factors. WDFW does not recommend using reports more than six months old.

APPENDIX E

Bond Quantity Worksheet

Eastside Environmental Pros, Inc.

4 March 2026

GENERAL ITEMS					
ITEMS	Unit Cost	Unit			Cost
Fencing, chain link, 6' high	\$18.89	LF			\$ -
Fencing, chain link, corner posts	\$111.17	Each			\$ -
Fencing, chain link, gate	\$277.63	Each			\$ -
Fencing, split rail, 3' high (2-rail)	\$10.54	LF	150.00		\$ 1,581.00
Fencing, temporary (NGPE)	\$1.20	LF			\$ -
Signs, sensitive area boundary (inc. backing, post, install)	\$28.50	Each	4.00		\$ 114.00
TOTAL					\$ 1,695.00
OTHER				<i>(Construction Cost Subtotal)</i>	\$ 9,557.55
ITEMS	Percentage of Construction	Unit			Cost
Mobilization	10%	1			\$ 955.75
Contingency	30%	1			\$ 2,867.26
TOTAL					\$ 3,823.02
<p>MAINTENANCE AND MONITORING</p> <p>NOTE: Projects with multiple permit requirements may be required to have longer monitoring and maintenance terms. This will be evaluated on a case-by-case basis for development applications. Monitoring and maintenance ranges may be assessed anywhere from 5 to 10 years.</p>					
Maintenance, annual (by owner or consultant)					
Less than 1,000 sq.ft. and buffer mitigation only	\$ 1.08	SF		(3 X SF total for 3 annual events; Includes monitoring)	\$ -
Less than 1,000 sq.ft. with wetland or aquatic area mitigation	\$ 1.35	SF		(3 X SF total for 3 annual events; Includes monitoring)	\$ -
Larger than 1,000 sq. ft. but less than 5,000 sq.ft. of buffer mitigation	\$ 180.00	EACH	1.00	(4hr @\$45/hr)	\$ 180.00
Larger than 1,000 sq. ft. but less than 5,000 sq.ft. of wetland or aquatic area mitigation	\$ 270.00	EACH		(6hr @\$45/hr)	\$ -
Larger than 5,000 sq.ft. but < 1 acre -buffer mitigation only	\$ 360.00	EACH		(8 hrs @ 45/hr)	\$ -
Larger than 5,000 sq.ft. but < 1 acre with wetland or aquatic area mitigation	\$ 450.00	EACH		(10 hrs @ \$45/hr)	\$ -
Larger than 1 acre but < 5 acres - buffer and / or wetland or aquatic area mitigation	\$ 1,600.00	DAY		(WEC crew)	\$ -
Larger than 5 acres - buffer and / or wetland or aquatic area mitigation	\$ 2,000.00	DAY		(1.25 X WEC crew)	\$ -
Monitoring, annual (by owner or consultant)					
Larger than 1,000 sq.ft. but less than 5,000 wetland or buffer mitigation	\$ 720.00	EACH	1.00	(8 hrs @ 90/hr)	\$ 720.00
Larger than 5,000 sq.ft. but < 1 acre with wetland or aquatic area impacts	\$ 900.00	EACH		(10 hrs @ \$90/hr)	\$ -
Larger than 1 acre but < 5 acres - buffer and / or wetland or aquatic area impacts	\$ 1,440.00	DAY		(16 hrs @ \$90/hr)	\$ -
Larger than 5 acres - buffer and / or wetland or aquatic area impacts	\$ 2,160.00	DAY		(24 hrs @ \$90/hr)	\$ -
TOTAL					\$ 900.00
Total					\$14,280.57