DSD - 000001

City of Bellevue
Development Services Department
Land Use Staff Report

Proposal Name:	Park Pointe Planned Unit Development (PUD)
Proposal Address:	7219 and 7331 Lakemont Blvd SE
Proposal Description:	Proposal for a Planned Unit Development (PUD) consisting of 35 single-family detached residences on a 12.2-acre site. The site includes steep slope critical areas, wetlands, streams and coal mine hazard areas. The residential development is concentrated on the eastern 5.9 acres of the site adjacent to Lakemont Blvd SE and the critical areas/critical area buffers on the site are proposed to be contained in a separate 6.3-acre critical areas tract.
File Number:	16-143970-LK, 16-145946-LO
Applicant:	Coal Creek Holdings LLC, Jeff LePage
City Planner:	Reilly Pittman, Environmental Planning Manager
Decisions Included:	**Process II** Critical Areas Land Use Permit (LUC 20.30P) SEPA (BCC 22.02)
Recommendation Included:	**Process I** Planned Unit Development (LUC 20.30D)
State Environmental Policy Act Threshold Determination:	**Mitigated Determination of Non-Significance** *Elizabeth Stead* Elizabeth Stead, Environmental Coordinator Development Services Department
Director's Decision:	**Approval with Conditions**
Director's Recommendation:	**Approval with Conditions** *Elizabeth Stead* Elizabeth Stead, Interim Co-Director Development Services

Application Date	October 10, 2106
Complete Application Date	November 7, 2016
Notice of Application Date	December 1, 2016
Decision Publication Date	January 26, 2022
SEPA Appeal Deadline	February 9, 2023
Public Hearing Date	March 2, 2023

For information on how to appeal a proposal, visit the Development Services Center at City Hall or call (425) 452-6800.

Comments on State Environmental Policy Act (SEPA) Determinations can be made with or without appealing the proposal within the noted comment period for a SEPA Determination. Appeal of the Decision must be received in the City Clerk's Office by 5 PM on the date noted for appeal of the decision.

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Staff Report ..... DSD 000001 - 000135
Plans and Property Information ..... DSD 000136 - 000385
SEPA MDNS ..... DSD 000386 - 000388
SEPA Checklist ..... DSD 000389 - 000402
Technical Reports and Studies ..... DSD 000403 - 001393
Notice of Application Certification ..... DSD 001390 - 001398
Communication with Agencies ..... DSD 001399 - 001432
Communication with Applicant ..... DSD 001433 - 001668
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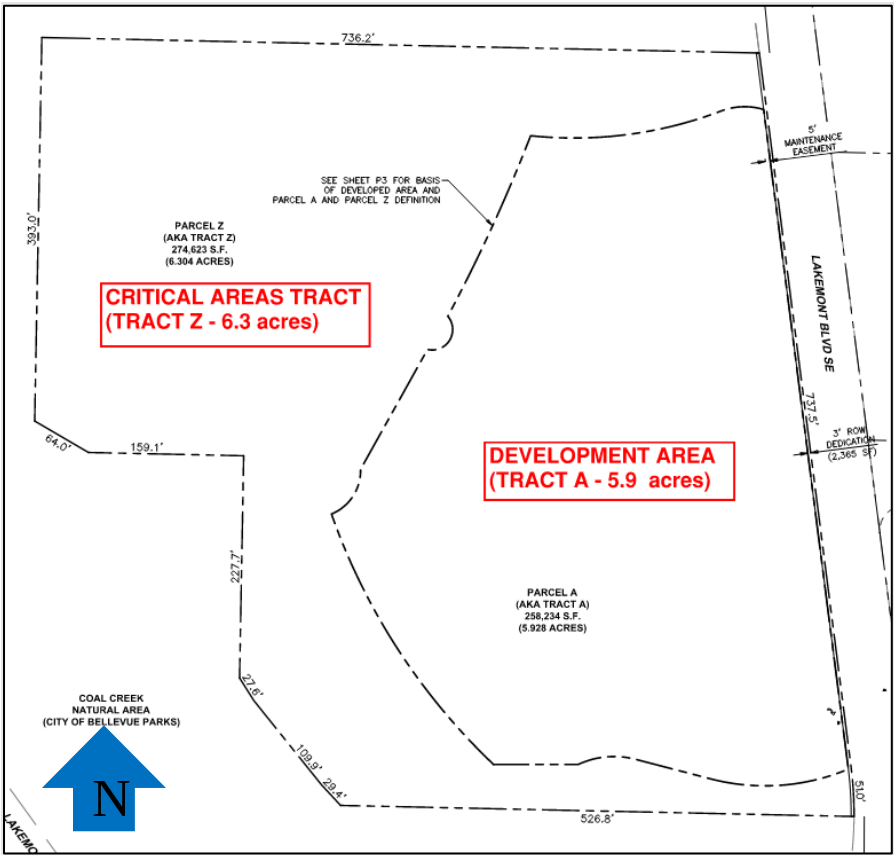
I. PROJECT DESCRIPTION AND REVIEW PROCESS

A. PROJECT DESCRIPTION

The applicant proposes a Planned Unit Development (PUD) consisting of 35 single-family detached residences on a 12.2-acre site. The site contains critical areas including steep slopes, wetlands, streams and coal mine hazard areas. The residential development is concentrated on the eastern portion of the site (Tract A), on approximately 5.9 acres of the site adjacent to Lakemont Blvd SE. The proposed single-family detached residences are clustered on the development parcel and are not proposed on separate platted lots. Critical areas and critical area buffers are proposed to be contained in a separate 6.3-acre critical areas tract (Tract Z) comprising the west portion of the site and 51.5% of the total site area.

Figure 1: Development Area and Critical Areas Tract



i. Proposed on-site improvements include:

1. **Two private roads and improvements**. Road A connects to Lakemont Blvd. in two locations and provides a main access loop around the developed portion of the property. Road A is 20-foot private road (two 10-foot vehicle lanes) with a 7-foot-wide continuous sidewalk on one side of the road. Road B is a 20-foot wide, pervious paver alley that is internal to the site and connects between the ends of the Road A loop with a 20-foot width to be constructed with pervious pavers. For road sections, see Preliminary Civil Plans, Sheets E1, E2, and E3 in the Project File (DSD 000141 - 000143).

2. **Utility Improvements**. Improvements to provide sewer, water, and stormwater utilities are proposed on-site. A sanitary sewer lift station is proposed to be constructed by the applicant on the south portion of the site and will be owned and operated by the City of Bellevue. A stormwater vault is proposed on the south portion of the site, with the stormwater outlet pipe directionally bored to discharge above the ordinary-high-water-mark (OHWM) of Stream 1. The stormwater vault will remain privately owned and maintained. For utility improvements, see Preliminary Civil Plans in the Project File (DSD 000136 - 000149).

3. **Landscaping**. The development area includes landscaped areas intended for screening and recreational use. The frontage along Lakemont Blvd is proposed to have a landscape buffer, approximately 30 to 85 feet wide, to screen the view of the development area from Lakemont Blvd SE and provides 39,037 SF of passive recreation area to residents. A landscaped recreation area (14,125 SF) is proposed on top of the stormwater vault located on the south portion of the site. A common open space neighborhood park (3,100 SF) is included in the north portion of the development area, where Road A intersects with Road B. For proposed landscaping, see Preliminary Landscaping Plan, Sheet L1 in the Project File (DSD 000151).

4. **Residential Site Design**. The proposed layout of the residential units is intended to eliminate continuous driveway cuts onto Road A, minimize impervious surfaces, and to improve design by incorporating rear-facing garages. Units are arranged around Road A which forms a rough arc around the homes that connect to the Road B alley. Units 1-22 connect to Road A and are arranged to limit driveway cuts by typically clustering 2-4 residences around shared pervious access auto courts that connect to the Road A loop road. Units 23-35 are proposed with rear facing garages that access onto the Road B alley. For site design, see PUD Site Plan in the Project File (DSD 000140) and Figure 2 in this Staff Report.

5. **35 Detached Single-Family Residences**. No building permit applications for these structures have been submitted at this time, but the PUD proposes single-family residential structures. The structures have architectural designs that incorporate design features and details commonly found in single-family residential construction to ensure the proposal has compatible residential scale and design. The proposed residences are 2 levels and between 3,110 SF and 3,275 SF in size. The design and architecture of proposed houses is intended to reduce the number of driveway cuts and the predominant view of garages facing the street. The submitted architectural plans provide building designs to demonstrate how the proposal achieves the intent and vision of the PUD and include elevations, sections, and floor plans for four (4) housing options. Each structure will be reviewed for conformity with all applicable codes and standards when reviewed under future building permit applications. For design of residences, see Conceptual Residential Building Elevations, Sections and Floor Plans in the

Project File (DSD 000158 - 000194).

6. **Trail Improvements**. The site plan includes a pedestrian trail system through the site. A soft-surface publicly accessible trail is included in the landscape buffer along Lakemont Blvd SE. This trail connects to a central trail corridor which connects to the existing public trail system in the proposed critical area tract. The trail in the critical area tract connects to the regional trail system in the Coal Creek Natural Area. For trails, see Proposed PUD Site Plan in the Project File (DSD 000140) and Figure 2 in this Staff Report.

7. **Critical Area Tract**. Though a subdivision is not part of the current proposal, the applicant proposes to reconfigure the two existing parcels so that the site's critical areas are contained within one 6.3-acre parcel (Tract Z) with the proposed development contained in a separate parcel (Tract A). The parcel with the critical areas also contains the existing public trail and the applicant has offered to dedicate this parcel to the City to ensure future public ownership. The proposed trail improvements to reach this parcel will be placed in easements across the developed parcel that will ensure continued public access. Tract Z will also contain the tax restricted covenant parcels that were previously created by King County. See dedication of tract to the public in the Project File (DSD 001438 - 001441) and Figure 1 in this Staff Report.

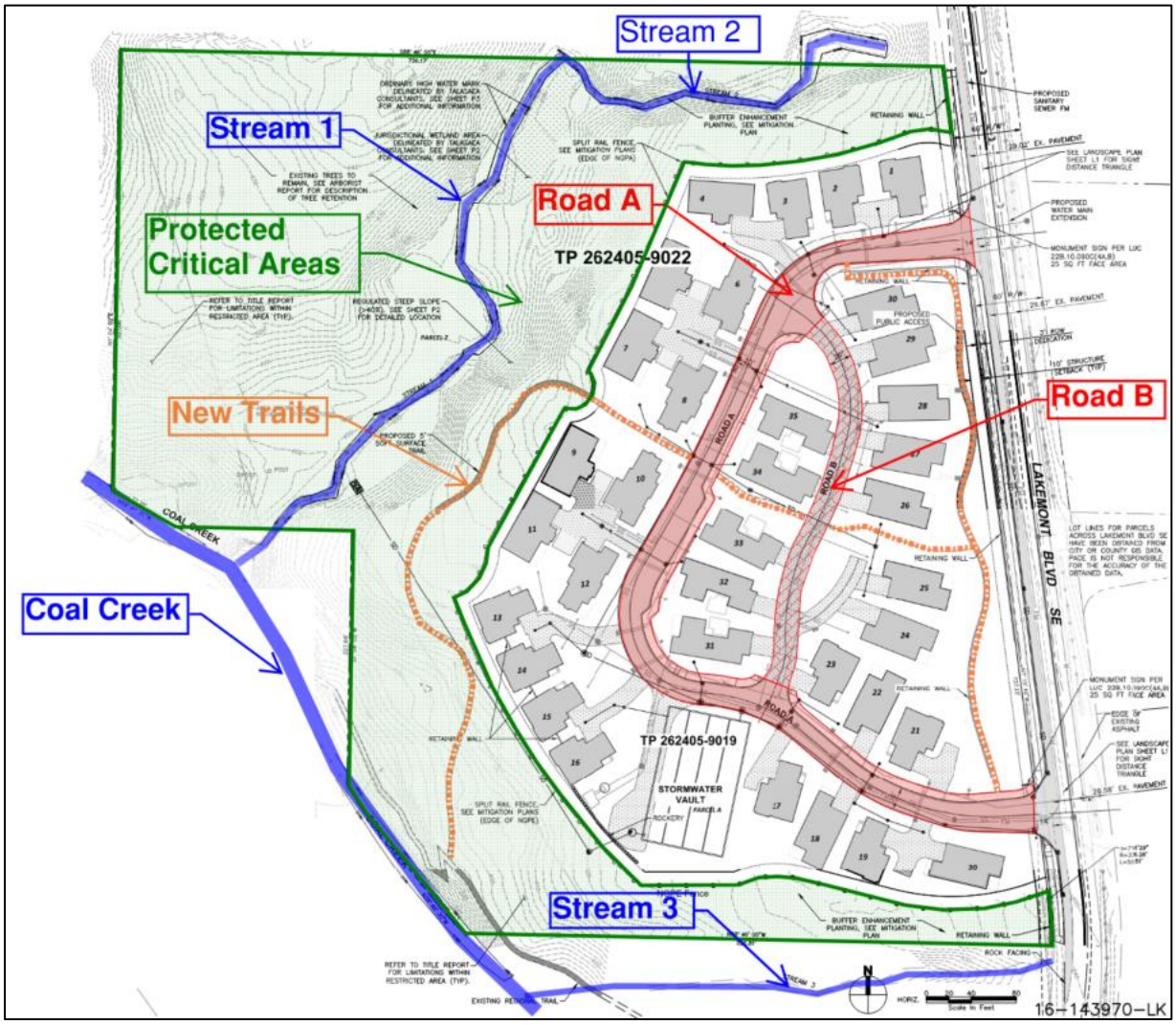
ii. **Proposed off-site improvements include**:

1. **Road Frontage Improvements to Lakemont Blvd**. The site's frontage along Lakemont Blvd SE is proposed to be improved with a 6-foot-wide sidewalk, planter strip, and the existing road expanded to add a 7-foot-wide bike lane. A 3-foot dedication to create and accommodate these improvements is included. For road sections, see Preliminary Civil Plans, Sheets E1, E2, E3 in the Project File (DSD 000141 - 000143).

2. **Off-Site Utility Improvements**. To serve the proposed development the applicant must extend a 4-inch sewer force main extending off-site approximately 2,984 feet along Lakemont Blvd SE from the intersection with SE Forest Drive. An 8-inch water transmission line would loop through the site and would also be extended 1,700 linear-feet off-site, to the north along Lakemont Blvd SE. The off-site sewer and water system extensions running north in Lakemont Blvd SE, would cross two unnamed streams, both of which are identified as potentially fish-bearing. Both streams currently cross beneath Lakemont Blvd SE through 36-inch concrete culverts and are between 15 and 25 feet below the road surface. The proposed water and sewer line extensions would be confined to the existing road prism and are not expected to impact the existing culverts or streams. After construction, the sewer and water system improvements will be owned, operated, and maintained by the City of Bellevue. For off-site sewer and water line extensions, see sheets E-8 and E-9 of the Preliminary Civil Plans in the Project File (DSD 000148 - 000149).

3. **Pedestrian Crossing**. The existing public trails that cross the subject site are part of the trail system in the Coal Creek Natural Area. Off-site and across Lakemont Blvd. SE to the east is the King County Red Town trailhead and trailhead parking area. The parking area is also utilized to access the Coal Creek trail system. To improve safe public access from the trailhead parking area across Lakemont Blvd SE to reach the Coal Creek Trail, the applicant will install a marked pedestrian crosswalk with an RRFB (Rectangular Rapid Flashing Beacon) to alert motorists when a pedestrian is crossing.

Figure 2: Proposed PUD Site Plan (DSD 000140)



B. REVIEW PROCESS

The proposal includes a Planned Unit Development (PUD) application and a Critical Areas Land Use Permit (CALUP). Review under the State Environmental Policy Act (SEPA) is also required and requires the City's SEPA official to consider impacts from the proposal, determine if any impacts are significant adverse impacts to the environment, and issue a SEPA threshold determination. These applications were originally submitted in 2016 as paper applications. In 2019 the City made all application submittals paperless. To facilitate review of these applications they were converted to a paperless format in 2021. This required the applicant to reapply online, providing the most current versions of all required plans and

materials which were linked to the original 2016 permit numbers. The updated online reapplication was submitted to the City on April 13, 2021.

A PUD permit is a Process I quasi-judicial decision which requires the Director of Development Services to issue a recommendation to the City's Hearing Examiner, who conducts a public hearing and issues the City's final decision. The Critical Areas Land Use Permit (CALUP) and SEPA Determination are Process II land use decisions made administratively by the Director of Development Services and are administratively appealable to the Hearing Examiner.

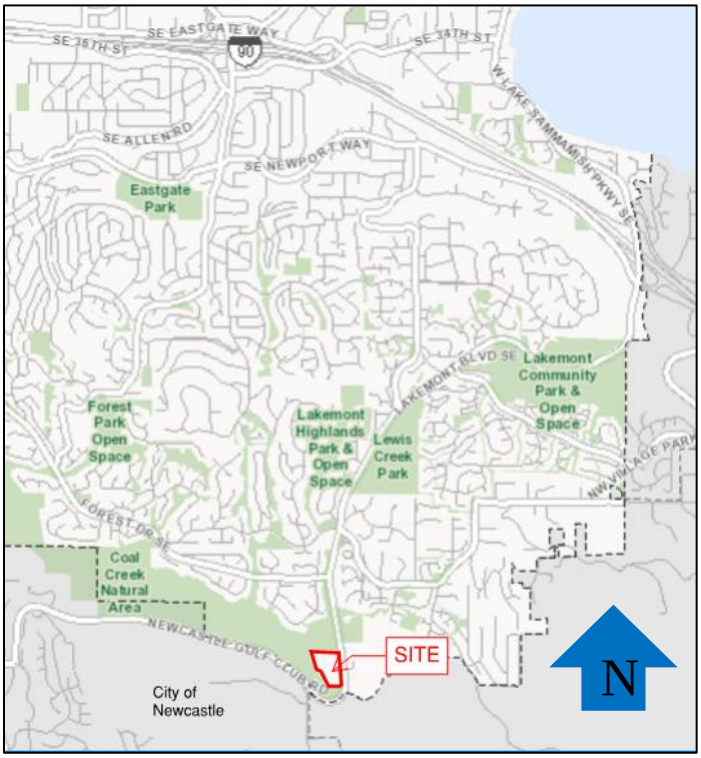
The Process I and II permits are reviewed concurrently and merged into a consolidated staff report per LUC 20.35.080. This staff report combines the review of the PUD, CALUP, and SEPA review and includes the Development Services Director's decision on Process II applications (CALUP, SEPA) and a recommendation on the Process I application (PUD) for review by the Hearing Examiner. Upon issuance of this staff report a 14-day administrative appeal period will begin for the CALUP and SEPA determination. Following the appeal period, a public hearing will be held with the City's Hearing Examiner on the PUD. Upon issuance of a decision by the Hearing Examiner a 21-day judicial appeal period will apply in accordance with the Land Use Petition Act, Chapter 36.70C RCW, and BCC 20.35.070(A).

II. SITE CONTEXT AND SITE DESCRIPTION

A. SITE CONTEXT

The subject site is located in the southern portion of the City of Bellevue, in the Newcastle subarea, near the municipal boundary with the City of Newcastle. See Figure 3, Vicinity Map below.

Figure 3: Vicinity Map



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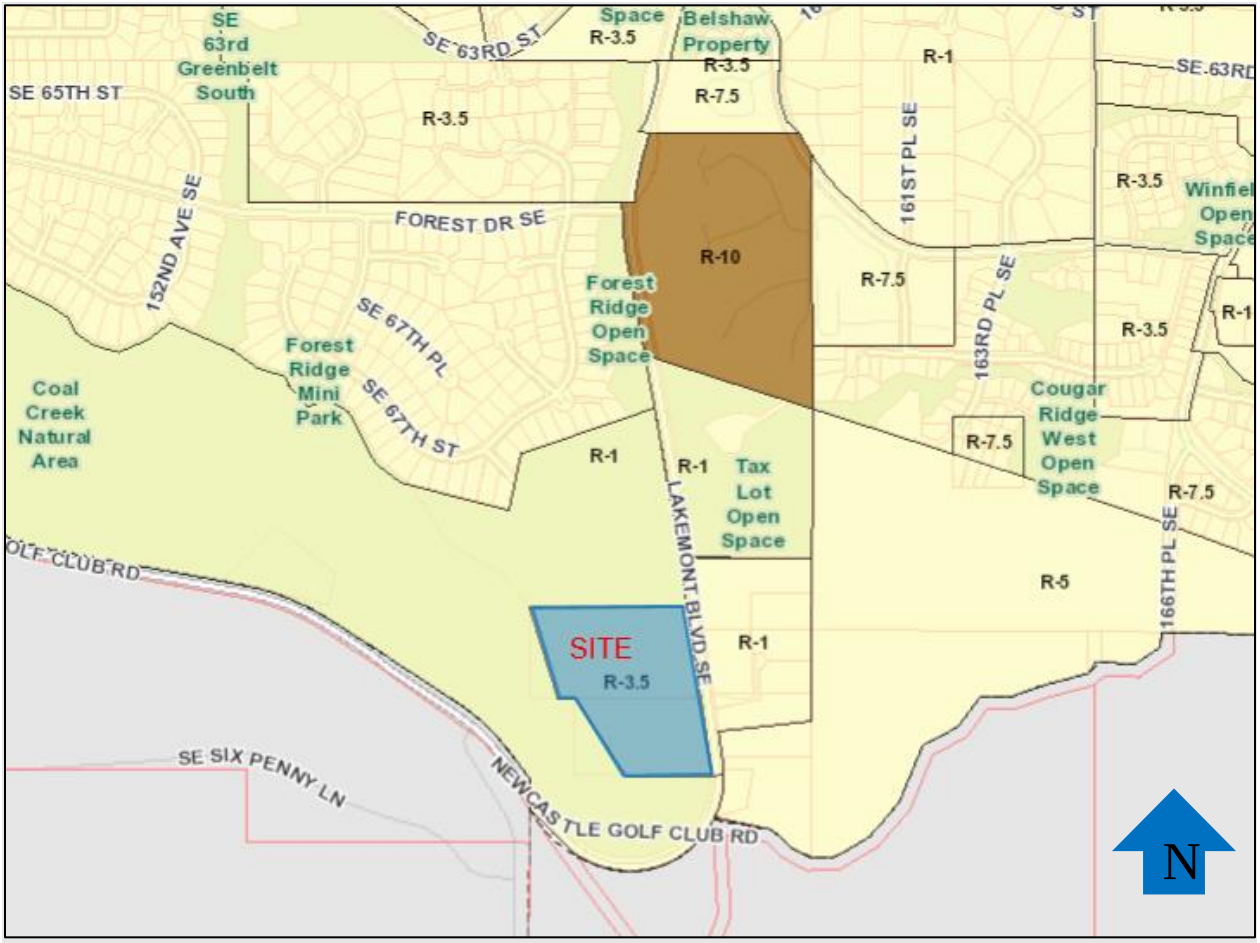
The site's Comprehensive Plan designation is Single-Family Medium (SF-M). The development parcels are zoned R-3.5, which is a single-family residential zone allowing for a maximum of 3.5 dwelling units per acre. The development parcels include two tax parcels zoned R-1, which are deed restricted.

The site is surrounded on the north, west and south by the city-owned Coal Creek Natural Area (approximately 450 acres), which is a heavily forested area managed by the City as natural open space. To the southeast of the site is the Red Town Trailhead and the King County Cougar Mountain Regional Wildland Park, approximately 3,100 acres of natural open space.

To the east of the subject site, across Lakemont Blvd SE, is R-1 zoning to achieve a density of approximately one unit per acre. These residential lots are not currently served by City water or sewer utilities. Further to the north of the subject site and abutting the Coal Creek Natural Area is the Forest Ridge neighborhood. This neighborhood is zoned R-3.5 and developed with more than 250 residences on typical lot sizes ranging from approximately 9,500 SF to 12,500 SF. See Figure 4 Zoning Map, below.

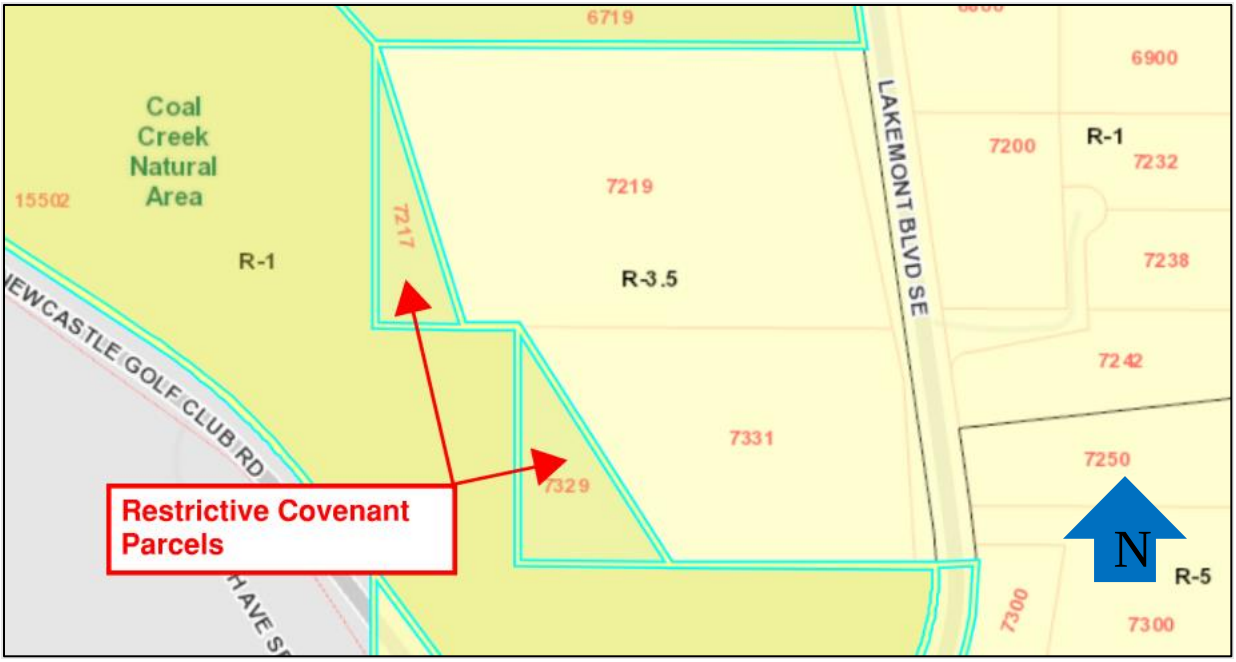
Figure 4: Zoning Map



B. SITE DESCRIPTION

The subject site is comprised of two lots: the Jentry lot (APN 262405-9022, 7.45 acres) on the north portion of the site and the Swanson lot (APN 262405-9019, 4.84 acres) on the south portion of the site. King County established restrictive covenants on the western portion of the Jentry and Swanson lots which are shown as two separate tax parcels on each of the two lots to create four tax parcels total. The King County Assessor's Office established the two tax parcels on each lot to allow two different tax rates; one rate is reserved for the residential property, the second is for untaxed parkland. The untaxed parkland (Tax Parcels 262405-9056 and 9057) is zoned R-1 and is defined by a deed restriction that was granted to prevent development adjacent to the Coal Creek regional trail and park. These tax parcels are not distinct legal lots for zoning and land use purposes; they cannot be segregated from the development proposal and are under private ownership but with restricted usage. See property survey and records in the Project File (DSD 000184 – 000373). The PUD proposal does not include the R-1 tax parcels in the calculation of residential density and no development is proposed on the parcels consistent with the deed restrictions. See Figure 5 Restrictive Covenant Parcels, below.

Figure 5: Restrictive Covenant Parcels

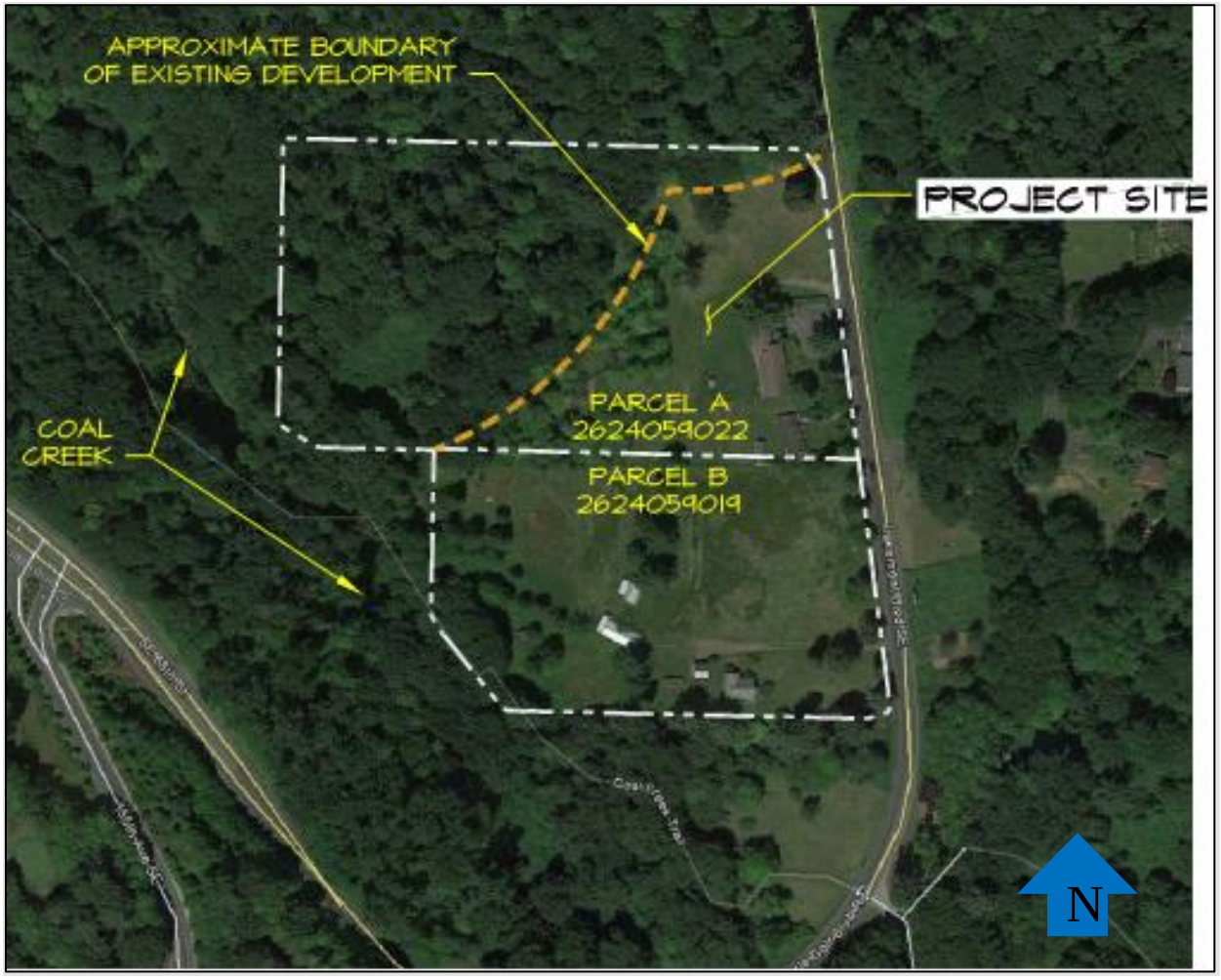


There are three houses, one barn and five outbuildings (nine total) currently located on the site. Two houses are located on the north parcel (address 7219 Lakemont Blvd SE) and one house on the south parcel (address 7331 Lakemont Blvd SE). A Cultural Resources Assessment by Tierra Right of Way dated April 19, 2017, in the Project File (DSD 001090 - 001191) determined that none of the existing structures on the site are eligible for local, State, or Federal historic registers. The existing structures would be removed for the proposed development. See SEPA Review Section V of this Staff Report for more information on historic structures and cultural resources.

The site is divided into two distinct topographic and vegetation areas. The eastern portion of

the site (approximately 5.9 acres) fronting on Lakemont Blvd SE has been historically developed with single-family residences and maintained mowed lawn or open pasture. This area of the site was an active working farm for more than 60 years, used for grazing as well as for growing hay and alfalfa crops. This east part of the site has moderate topography, sloping down from east to west from an elevation of 662 feet to 620 feet, with slopes ranging from approximately 6 to 10%. The edges of the open pasture area include early successional forest that has been historically disturbed by the previous farm operations. The site topography steepens significantly from the edges of the maintained pasture area, transitioning to the western forested stream ravines. The proposed development area is limited to this eastern portion of the site area. See Figure 6 for existing site, below.

Figure 6: Aerial View of Site (DSD 000456)

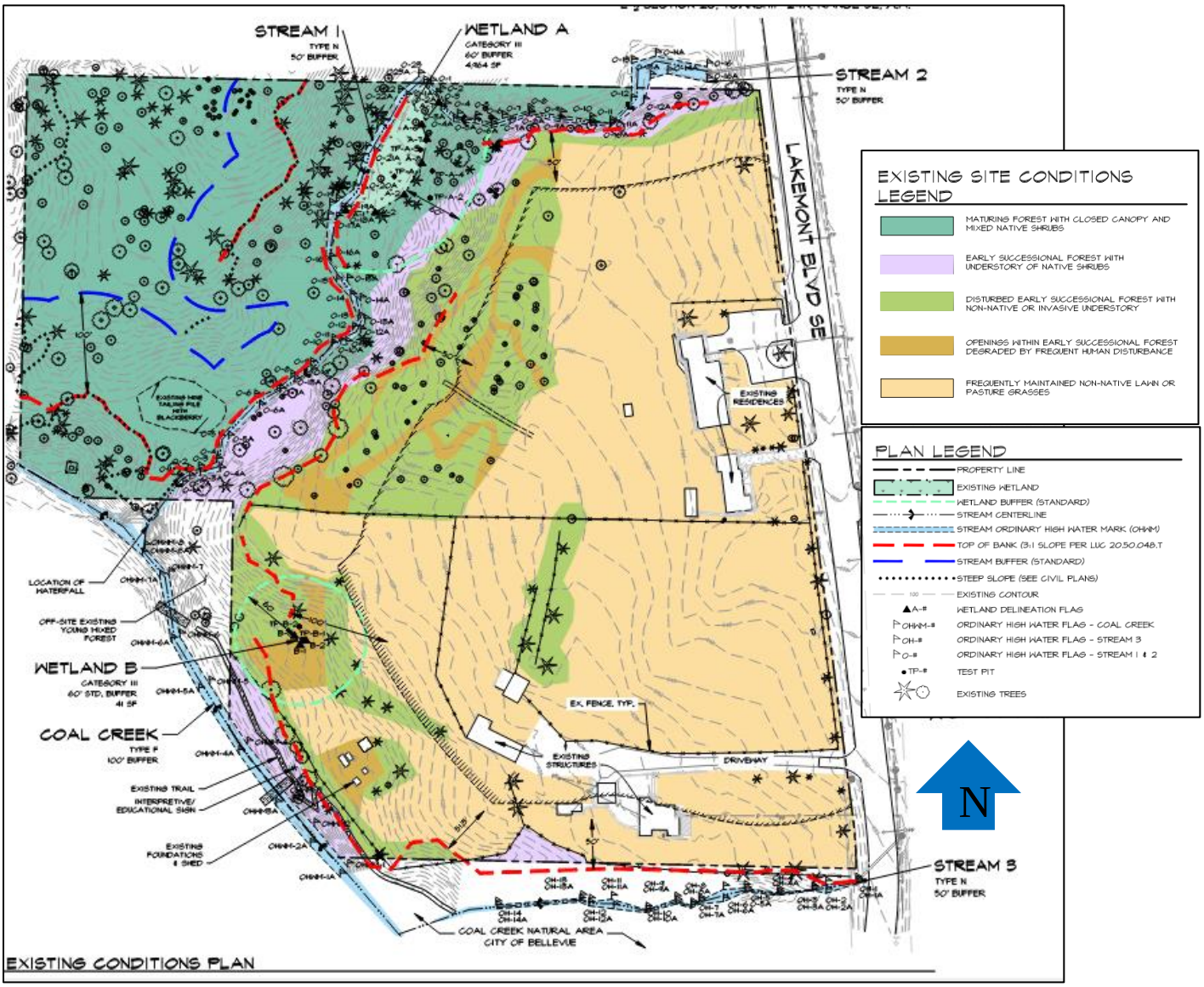


The west portion of the site is encumbered with environmental critical areas including forested steep slope areas, streams and wetlands The west portion of the site is separated from the development area by a steep-sloped stream ravine (Stream 1). Stream 1 bisects the site, with the proposed development area to the east of the stream ravine. The site area to the west of Stream 1 is undeveloped with mixed deciduous and coniferous forest. To the north of the proposed development area, the site slopes steeply down to Stream 2. Stream 2 flows west into Stream 1. Off site to the south is Stream 3, located within the Coal Creek Natural Area. Stream 3 flows west into Coal Creek which is located along the southwestern property

boundary, merging off-site near the southwest corner of the site. See Figure 7, Existing Site Vegetation Conditions, below for the stream locations. The streams and critical areas are discussed in detail in Section III of this Staff Report.

Figure 7 below, shows existing site conditions including streams, wetlands and existing vegetation conditions on the site. The figure characterizes the existing site vegetation, indicating the undisturbed forested area on the western portion of the site (Teal), the maintained pasture on the eastern portion of the site (Tan), and the early successional forest vegetation (Purple) and disturbed areas along the interface between the proposed development area and the critical area tract (Green). Figure 7 is plan sheet W1.0 in the Critical Areas Report in the Project File (DSD 000496).

Figure 7: Existing Site Vegetation Conditions (DSD 000496)



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III. DESCRIPTION OF CRITICAL AREAS, FUNCTIONS, IMPACTS, AND MITIGATION

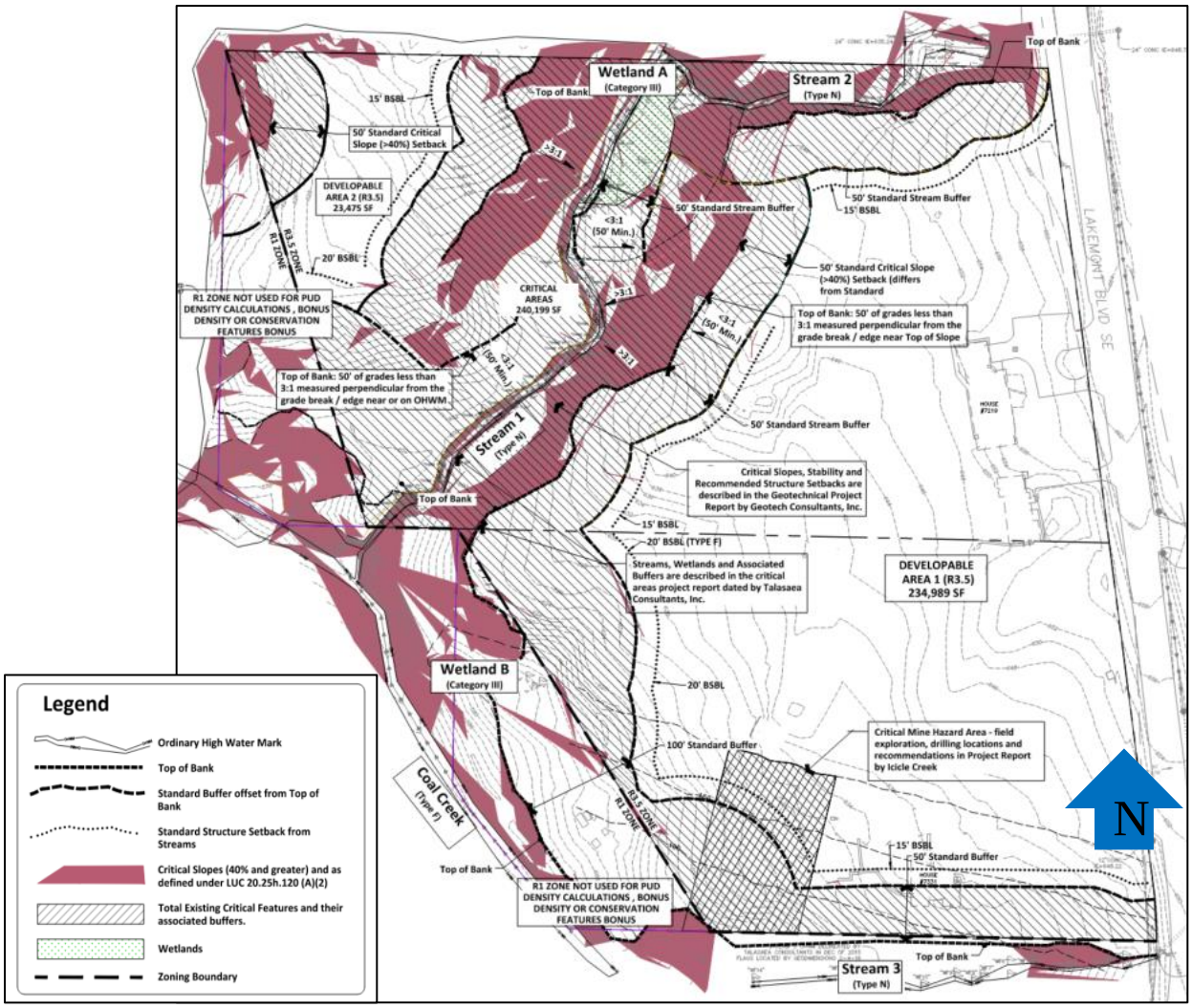
A. OVERVIEW OF CRITICAL AREAS, IMPACTS, AND MITIGATION

i. Overview

Critical areas on the subject site include streams, wetlands, and geologic hazard areas including steep slopes and coal mine hazard areas. Habitat areas associated with species of local importance are also considered critical areas, although determination of the boundaries or delineation of these areas is not specifically defined in the code. Per LUC 20.25H.050.B, areas of habitat, seismic hazards and coal mines "do not include absolute restrictions on development or activity", which is allowed so long as applicable performance standards are met.

Steep slope critical areas, streams, wetlands and their associated buffers constitute approximately 6.2 acres or 51% of the total site area and comprise the western portion of the site that is within proposed Tract Z. Due to the overlapping nature of the critical areas on the site and the applicant's intent to place the western portion of the site into a separate tract, the area of Tract Z has been considered entirely critical area or buffer. Impacts within this area are not itemized per critical area but considered cumulatively. For the purposes of calculating density discussed later in this report, the calculation of density is based on the specific extent of critical areas and buffers present. Figure 8 below shows a composite map of the critical areas and critical area buffers present on the site. Figure 8 is civil plan sheet P2 in the Project File (DSD 000137).

Figure 8: Critical Areas Map (DSD 000137)

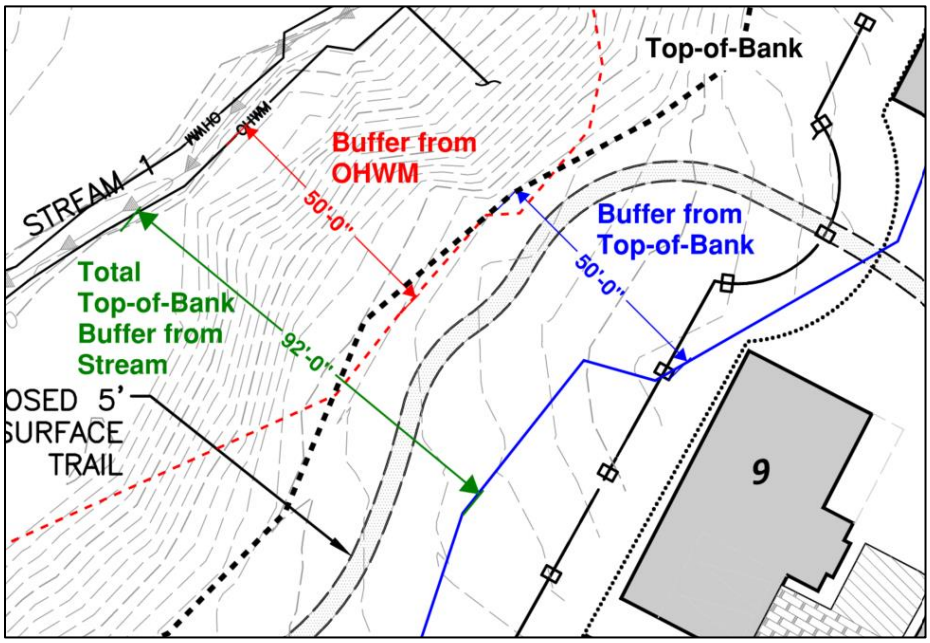


Critical areas and critical area buffers (i.e., stream, wetland and steep slope buffers) overlap on the subject site. Streams surround the development area in ravines and the stream banks qualify as steep slope critical areas. A 50-foot buffer is measured from the "top-of-slope," a term defined in Land Use Code 20.50 which establishes the edge of qualifying steep slope critical areas. Identified streams 1, 2, and 3 are Type-N streams per the submitted Critical Areas Report in the Project File (DSD 000403 - 000543). Type-N streams require a 50-foot stream buffer. Coal Creek is a Type-F stream and requires a 100-foot buffer. Stream buffers are measured from the "top-of-bank," which is defined in Land Use Code 20.50.048. The result of the "top-of-bank" definition is that the stream buffers are measured from the top of the steep sloped stream banks and largely coincide and overlap with the "top-of-slope" steep slope buffers. The wetlands and wetland buffers on the west portion of the site are all located within the stream buffer and in steep slope/steep slope buffer areas.

It is important to note that the definition of "top-of-bank" in Bellevue's Land Use Code results in a stream buffer that contains much more of the riparian corridor and functions

that support the stream than traditional methodology that measures a buffer from the edge of the stream channel Ordinary High-Water Mark (OHWM). Measurement from a stream's OHWM only results in protecting the stream channel. Buffers measured from the top-of-bank as defined in Bellevue's Land Use Code result in significantly larger or wider stream buffers. For example, the non-fish-bearing Stream 1 on-site requires a 50-foot stream buffer. Measuring this buffer from the top-of-bank yields a buffer width that reaches between 80 to 130 feet from the actual stream channel OHWM due to the ravines adjacent to the streams. See Figure 9 below for an approximate example. Measuring the stream buffer from the top-of-bank provides additional water quality and hydrology protection and recognizes that the steep slopes adjacent to the streams provide riparian and habitat functions.

Figure 9: Top-of-Bank Buffer Comparison to OHWM Buffer



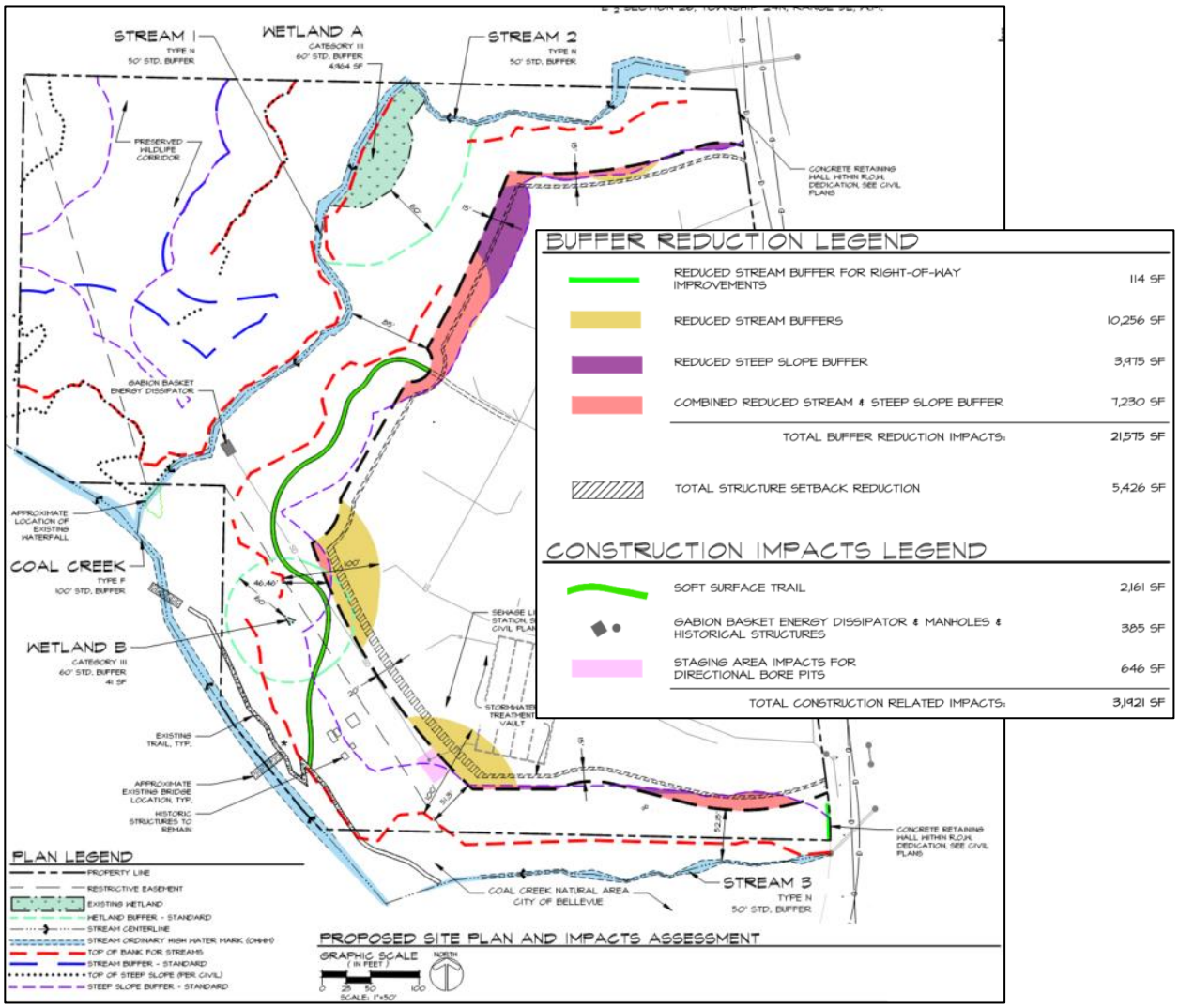
ii. Overview of Critical Area Impacts

There are 269,220 SF (6.2 acres) total critical area and buffers on the subject site. The proposed buffer reductions total 21,575 SF (0.5 acres) or 8% of the total. Proposed impacts to critical areas include construction-related impacts of 2,161 SF for the construction of a soft-surface trail in the critical area tract, 104 SF for the gabion basket energy dissipator for the stormwater outfall, and 646 SF for the stormwater directional bore staging area. See Figure 10 of this Staff Report below for critical area impacts. Figure 10 is plan sheet W1.1 in the Critical Areas Report in the Project File (DSD 000497).

The buffer impacts are located along the interface or boundaries between the historically developed and managed area that transition to the undeveloped and functional critical areas. The impacts would occur primarily within site areas that have been previously disturbed or modified and currently have lower habitat quality (i.e., areas of pasture, mowed lawn, invasive species, areas of human disturbance). Figure 7 of this Staff Report above, shows that the outer edges of the buffers that would be

impacted by the project are composed of disturbed early successional forest with non-native or invasive plant understory and open areas degraded by frequent human disturbance associated with the historic farm operations. Forested areas and higher quality habitat areas would not be reduced or otherwise impacted by the proposed development.

Figure 10: Critical Area Impacts (DSD 000497)



iii. Overview of Proposed Mitigation

To mitigate for the critical area buffer reduction the proposal would enhance the overlapping steep slope buffer and stream buffer areas. The mitigation plan proposes 128,934 SF (3.0 acres) of buffer enhancement, restoration, and reestablishment (See Figure 11 of this Staff Report for critical area buffer mitigation. Figure 11 is plan sheet W1.2 in the Critical Areas Report in the Project File (DSD 000498). The buffer mitigation would be located between the streams and the proposed development area. The existing vegetation in the mitigation area is characterized primarily as disturbed early successional forest with non-native or invasive understory, areas of early successional forest with an understory of native shrubs, and openings with early successional forest degraded by frequent human disturbance. Refer to Figure 7 of

this Staff Report for a visual depiction of existing site vegetation conditions.

The proposal would also add 1,889 SF of enhanced buffer adjacent to the development area, an additional buffer area beyond the extent of the standard stream and steep slope buffer standards. The total proposed buffer mitigation area (130,823 SF) relative to the total buffer impact and reduction area (21,575 SF) would equate to a between a 5:1 and 6:1 mitigation to impact ratio. Considering the impacts in the buffer are primarily temporary disturbance this proposal achieves a 6:1 mitigation to impact ratio when considering only the buffer reduction that is proposed, which is the primary impact.

The mitigation plan also includes a 23,675 SF area to the west of Stream 1, which is outside of critical area buffers and would be preserved as a wildlife corridor. This upland area is contiguous with the Coal Creek Natural Area and would provide habitat value as a wildlife corridor maintained in its existing state.

iv. Mitigation Plan – Concept and Approach

The type or level of the proposed mitigation depends on existing vegetation conditions; the most heavily disturbed buffer areas adjacent to the development area would have the most intensive replanting. The lesser disturbed buffer areas further west, that are currently forested with native tree species, would be interplanted where trees are lacking but planting here would be focused on establishing a native shrub understory. The mitigation objective is to improve the critical area buffer functions and values, particularly habitat functions, based on enhancing the existing vegetation conditions on the site in the impacted area between the ecologically intact western parcel and the historically disturbed eastern parcel. See Figure 12 of this Staff Report below for Conceptual Buffer Mitigation Plan which is plan sheet W2.0 in the Critical Areas Report in the Project File (DSD 000499).

Figure 11: Critical Area Buffer Mitigation (DSD 000498)

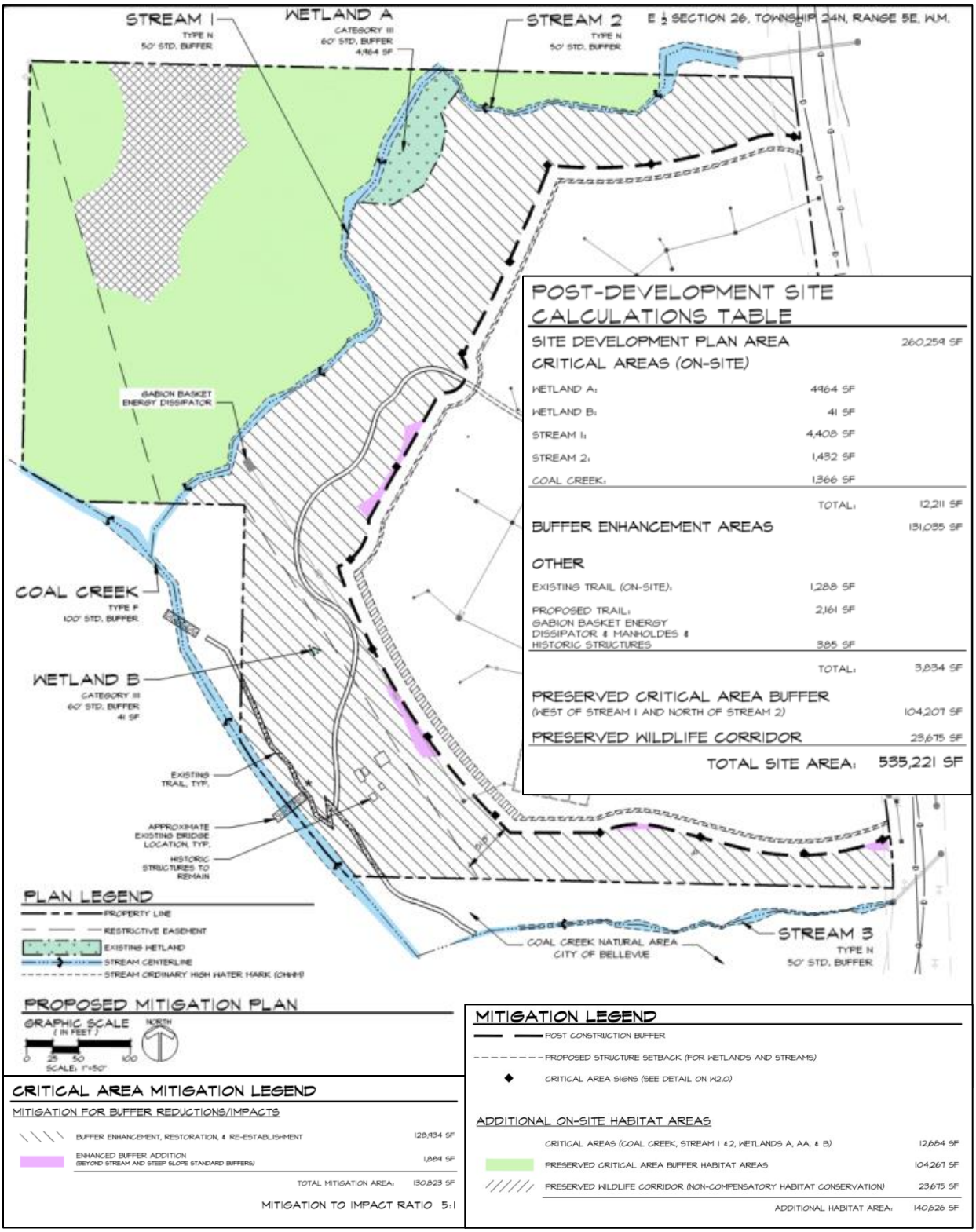
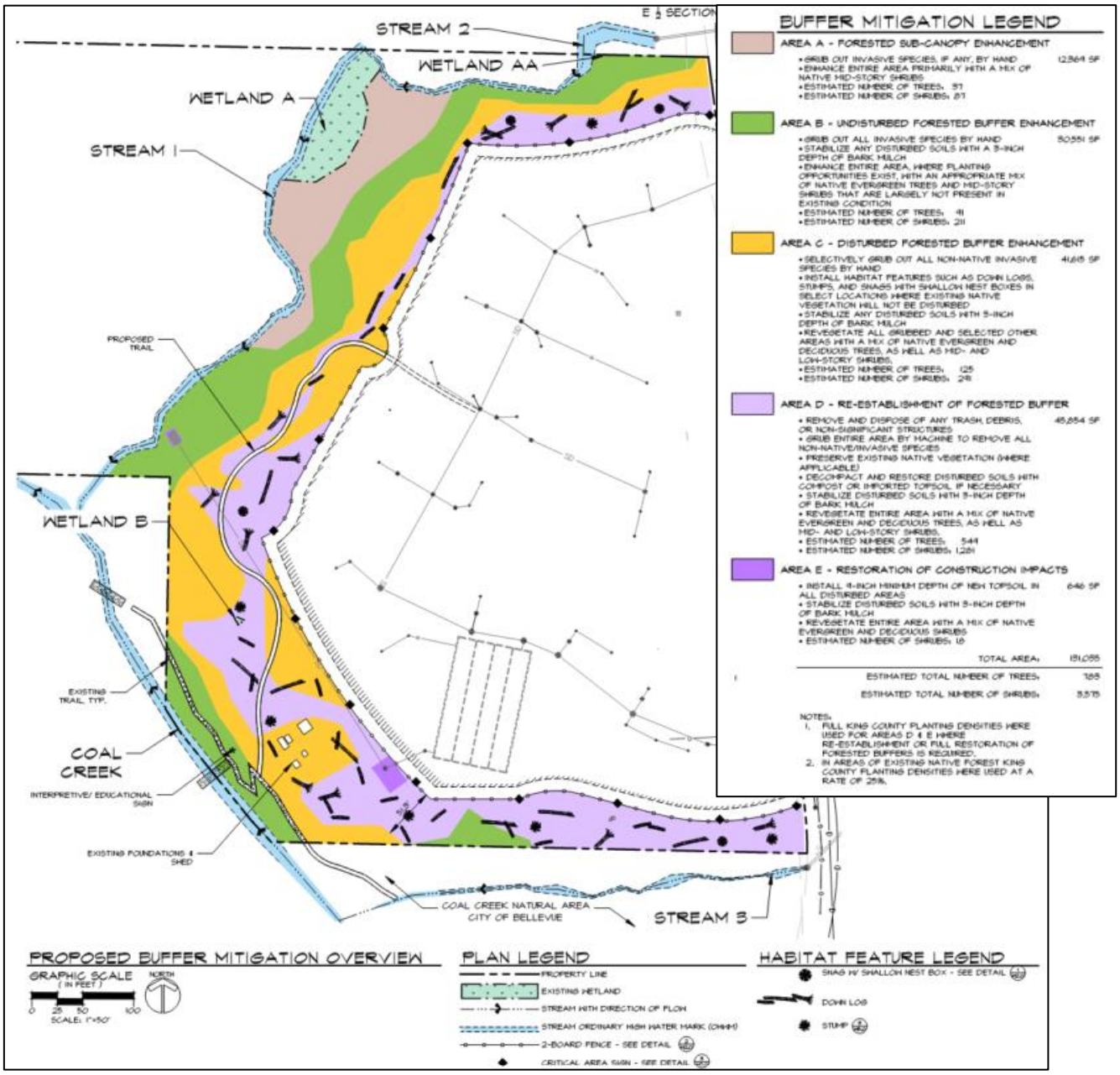


Figure 12: Conceptual Buffer Mitigation Plan (DSD 000499)



B. STREAM DESCRIPTION, FUNCTIONS, IMPACTS, AND MITIGATION

i. Stream Description

Four (4) streams have been identified as on or adjacent to the subject site, please refer to Figure 12 of this Staff Report above for stream locations.

1. **Coal Creek**. The headwaters of Coal Creek are to the southeast of the site in the Cougar Mountain Regional Wildland Park and the stream flows generally to the northeast through the Coal Creek Natural Area to Lake Washington. Coal Creek flows along the southwest boundary of the subject site, mostly off-site, and is

classified as a “Type-F water;” defined as waters that contain fish or fish habitat (LUC 20.25H.075.B.2). Coal Creek supports salmonid habitat from its mouth at Lake Washington up to the location of a natural fish passage barrier (waterfall) approximately 760 feet to the northwest of the northwest corner of the site, or approximately 1,260 feet downstream from where Coal Creek joins with Stream 1. The fish passage barrier is also identified in the Washington State Department of Fisheries Catalog of Washington Streams and Salmon Utilization, (Williams, Laramie, and Ames 1975). The fish passage barrier would prevent the migration of anadromous salmon up Coal Creek where adjacent to the site. The Critical Areas Report also states there are likely no resident fish upstream of the natural blockage due to coal mining in the area; however there have been no definitive studies of fish presence upstream of the natural blockage.

The City code definition for a “Type-F water” includes fish habitat and the physical characteristics of Coal Creek were found to meet the criteria for fish habitat in Western Washington per WAC 222-16-031(3), as discussed in the Park Pointe Coal Creek Typing Study (DSD 000502 - 000507). Type-F waters require a 100-foot buffer and 20-foot structure setback from the buffer edge on undeveloped sites (LUC 20.25H.035).

2. **Stream 1 (DSD 000422 – 000425)**. Stream 1 is a perennially flowing stream that drains a large basin (approximately 1,480 acres) located on the south side of Newport Hill and Cougar Mountain. Stream 1 bisects the site; separating the historic farm and maintained pasture area on the eastern portion of the site from the undeveloped and relatively undisturbed mixed deciduous and coniferous forest on the west portion of the site. Stream 1 flows into Coal Creek off-site along the west boundary of the site. A large natural waterfall over a rock formation is near to where Stream 1 intersects with Coal Creek, and this constitutes a natural fish passage barrier as noted above. The Critical Areas Report noted that the stream is fed by groundwater rich in dissolved iron and the streambed was coated by oxidized iron deposits, which significantly reduces the presence of aquatic macroinvertebrates and can be damaging to fish gills (Gerhardt and Westermann 1995; Johnson and Ritchie 2003; Peuranen et al. 1994; Vuori 1995). The heavy iron precipitates observed in Stream 1 likely preclude the potential of resident fish populations in the stream. Stream 1 is rated as a “Type-N water;” defined as a water that is not a Type-S or F-stream but is physically connected by an above-ground channel to a Type-S or F water. Type-N streams require a 50-foot buffer and 15-foot structure setback from the buffer edge on undeveloped sites (LUC 20.25H.035).

3. **Stream 2 (DSD 000425 – 000426)**. Stream 2 is a perennial tributary to Stream 1 and drains a small basin (approximately 80 acres) on the west side of Cougar Mountain. It crosses under Lakemont Blvd SE through a 4-foot diameter concrete culvert located just north of the northeast corner of the site. Stream 2 flows westerly along the north boundary of the site for approximately 235 feet to Stream

1. Stream 2 has a natural steep gradient greater than 16% and a demonstrated lack of fish habitat and is therefore classified as a "Type-N water." Type-N streams require a 50-foot buffer and 15-foot structure setback from the buffer edge on undeveloped sites (LUC 20.25H.035).

4. **Stream 3 (DSD 000426)**. Stream 3 is a small off-site drainage located just south of the site boundary. It is conveyed underneath Lakemont Blvd SE through a pipe located approximately 14 feet south of the southeast corner of the site. Stream 3 flows westerly in a deep, well-vegetated ravine for approximately 430 feet before meeting with Coal Creek. The average gradient is greater than 16%, the stream is likely ephemeral and upstream of the natural fish barrier on Coal Creek. Stream 3 is classified as a "Type-N water," requiring a 50-foot buffer and 15-foot structure setback from the buffer edge on undeveloped sites (LUC 20.25H.035).

ii. Stream Functions and Values of Streams and Riparian Areas

Most of the elements necessary for a healthy aquatic environment rely on processes sustained by dynamic interaction between the stream and the adjacent riparian area (Naiman et al., 1992). Riparian vegetation in floodplains and along stream banks provides a buffer to help mitigate the impacts of urbanization (Finkenbine et al., 2000 in Bolton and Shellberg, 2001). Riparian areas support healthy stream conditions. Riparian vegetation, particularly forested riparian areas, affect water temperature by providing shade to reduce solar exposure and regulate high ambient air temperatures, slowing or preventing increases in water temperature (Brazier and Brown, 1973; Corbett and Lynch, 1985).

Upland and wetland riparian areas retain sediments, nutrients, pesticides, pathogens, and other pollutants that may be present in runoff, protecting water quality in streams (Ecology, 2001; City of Portland 2001). The roots of riparian plants also hold soil and prevent erosion and sedimentation that may affect spawning success or other behaviors, such as feeding. Both upland and wetland riparian areas reduce the effects of flood flows. Riparian areas and wetlands reduce and desynchronize peak crests and flow rates of floods (Novitzki, 1979; Verry and Boelter, 1979 in Mitsch and Gosselink, 1993). Upland and wetland areas can infiltrate floodflows, which in turn, are released to the stream as baseflow.

Stream riparian areas, or buffers, can be a significant factor in determining the quality of wildlife habitat. For example, buffers comprised of native vegetation with multi-canopy structure, snags, and down logs provide habitat for the greatest range of wildlife species (McMillan, 2000). Vegetated riparian areas also provide a source of large woody debris that helps create and maintain diverse in-stream habitat, as well as create woody debris jams that store sediments and moderate flood velocities.

Sparsely vegetated or vegetated buffers with non-native species may not perform the needed functions of stream buffers. In cases where the buffer is not well vegetated, it is necessary to either increase the buffer width or require that the standard buffer width

be restored or revegetated (May 2003). Until the newly planted buffer is established the near-term goals for buffer functions may not be attained.

Riparian areas often have shallow groundwater tables, as well as areas where groundwater and surface waters interact. Groundwater flows out of riparian wetlands, seeps, and springs to support stream baseflows. Surface water that flows into riparian areas during floods or as direct precipitation infiltrates into groundwater in riparian areas and is stored for later discharge to the stream (Ecology, 2001; City of Portland, 2001).

iii. Stream and Stream Buffer Impacts

The proposal would result in no direct impacts to streams. The stream buffers border the development area, and the project proposes to reduce stream buffer widths to accommodate the development footprint.

The proposal would encroach into or reduce stream buffers by a total of 17,600 SF; with 10,256 SF of stream buffer reduction, 7,230 SF of combined or overlapping stream and steep slope buffers, and 114 SF of reduced stream buffer for right-of-way improvements on Lakemont Blvd SE (see Figure 10 of this Staff Report, Critical Areas Impacts). The buffer impacts are located toward the outer edge of the development area, where the development area interfaces with the outer portion of the critical area buffers. Stream buffer impacts would occur within areas of low habitat quality, areas that have been disturbed and modified (i.e., pasture, mowed lawn, invasive species, human disturbance, trash, etc.). In addition to the above stream buffer impacts, the proposal would have 3,192 SF of temporary construction-related impacts.

A structure setback is required from the edge of critical area buffers to allow for access and maintenance of buildings without encroaching into buffers. The standard structure setback from stream buffers on undeveloped sites is 20 feet for Type-F streams (Coal Creek) and 15 feet for a Type-N streams (Streams 1, 2 and 3). The proposal would reduce the structure setback from the edge of the stream buffers that surround the proposed area of development to 12 feet. The total reduction to the structure setback area would be 5,426 sf. This reduction to the structure setback minimizes additional reductions to the stream buffer. The Critical Areas Report addresses the structure setbacks and states the proposed 12-foot structure setback will be adequate to allow for maintaining the structures and allowing for access without intrusion into the stream buffer (DSD 000438 - 000439). The Critical Area code allows for waiving or modifying the structure setback on undeveloped sites, provided an applicant meets the criteria in LUC 20.25H.075.D.3. See Section IV of this Staff Report - Consistency with Part 20.25H Critical Areas Overlay District.

iv. Stream and Stream Buffer Mitigation

The proposal includes a total of 130,823 SF of critical area buffer enhancement, restoration, and re-establishment (see Figure 11 of this Staff Report and DSD 000498 in the Project File for Critical Area Buffer Mitigation). This mitigation includes the

overlapping steep slopes and streambank/stream buffer areas surrounding the development area of the site. See above Section III.A.3-4 of this Staff Report for further information about the overall mitigation concept, approach, and the conceptual mitigation plan.

C. WETLANDS DESCRIPTION

i. Wetland Description

Three (3) wetlands, A, AA, and B have been found on-site during the review of this project. These were delineated consistent with methodology described in the U.S. Army Corps of Engineers Regional Supplement to the Corps of Engineers Wetland Delineation and Identification Manual: Western Mountains, Valleys, and Coast Region, Version 2 (U.S. Army Corps of Engineers 2010. At the time of application submittal, these wetlands were rated using the Washington State Wetland Rating System for Western Washington of 2004 which was consistent with the Land Use Code at the time. The City updated its critical area ordinance and shoreline regulations in 2018 which included LUC 20.25H.095.C that adopted the 2014 wetland rating system or "as amended" by the Department of Ecology. In 2018 DOE issued guidance that amended the habitat score ranges due to feedback and review of the data used to create the scoring system. The applicant revised their Critical Areas Report to update the wetland rating forms to be consistent with the 2014 update from the Department of Ecology. This revised report, dated January 11, 2023, is consistent with the City's current wetland regulations and amendments made by the Department of Ecology to the habitat scoring system. Please refer to Figure 10 of this Staff Report, for the location of wetlands on the site and the Critical Areas Report in the Project File (DSD 000403 – 000543) for complete wetland analysis.

Wetland A and B are Category III wetlands that require a 60-foot buffer, based on their habitat score of five points. The remaining wetland AA that was previously identified as a category IV wetland with no wetland buffer is no longer regulated as a wetland. This wetland was shown to be off-site and adjacent to Stream 2, near where the stream crosses under Lakemont Boulevard. During the recent update of the report the project biologist found that this previously identified wetland is a "settling basin" facility that is part of a larger City of Bellevue plan to remove sediment from Coal Creek (Critical Areas Report, DSD 000420). As a result, wetland AA is no longer a regulated wetland, but there is no change to the project plans as this wetland had no buffer required previously.

Wetlands A and B and their associated 60-foot buffers are all contained within overlapping steep slope and stream buffer areas which is the same condition that existed under prior wetland rating that used the 2004 rating system. The wetlands and wetland buffer areas are preserved in the proposed critical area tract (Tract Z). No impacts are proposed to any wetlands or wetland buffers by this proposal.

The proposed development would not result in direct or indirect impacts to regulated

wetlands or wetland buffers on the site. See Figure 10 of this Staff Report, Critical Areas Impacts. The wetlands and wetland buffers are all located within the interior of the proposed critical areas tract (Tract Z) and distant from the boundary of the development area where critical area buffer impacts would occur. Despite no proposed impacts, wetland buffers are included in the overall critical area buffer enhancement, restoration, and re-establishment mitigation (130,823 SF). See Figure 11 of this Staff Report, Critical Area Buffer Mitigation, DSD 000498.

D. GEOLOGIC HAZARD AREAS DESCRIPTION, FUNCTIONS, IMPACTS, MITIGATION

i. Geologic Hazard Area Description

Geological Hazard Areas that are described in the Land Use Code include hazards posed from steep slopes, areas prone to landslides, areas susceptible to seismic issues, and areas where historic coal mining activities occurred. The site was evaluated for the hazards listed below. Steep slope critical areas and coal mine hazard areas were found to be present on the site.

1. **Steep Slope Critical Areas**. Steep slope areas are defined in the Critical Areas code as: Slopes of 40 percent or more that have a rise of at least 10 feet and exceed 1,000 square feet in area, LUC 20.25H.120.A.2. Steep slopes and the steep slope buffer areas on the site have not been separately quantified, but are depicted on Figure 8, Critical Areas Map. As previously discussed in Section III.A of this Staff Report, steep slope areas and associated buffers overlap or are contained within stream buffers on the site.

2. **Landslide Hazard Areas**. Landslide hazard areas are defined in the Critical Areas code (LUC 20.25H.120.A.1) as slopes of 15% or more exhibiting characteristics such as areas of historic slope failures, areas with seeps indicating shallow groundwater, etc. The Geotechnical Engineering Study states they did not observe signs of slope instability or historic landslides (Geotech Consultants, Inc., January 19, 2016, DSD 000545). Groundwater seepage was observed at a few locations, perched on denser underlying soil layers. The seepage areas are primarily located in areas designated as steep slope critical areas that are outside the proposed development area. The Geotechnical Response to Corrections Letter concluded the perched groundwater doesn't significantly affect deep slope stability. (Geotech Consultants, Inc., January 19, 2018, DSD 000596). There are no landslide hazards identified on-site and these are not discussed further in this report.

3. **Seismic Hazard Areas**. Land Use Code 20.25H.120.A.4 describes seismic hazards areas as areas of known faults or Holocene displacement, based on the most up-to-date information, or mapped areas of "moderate to high" or "high" hazard liquefaction susceptibility by the Washington Department of Natural Resources Liquefaction Susceptibility Map of King County, Washington, 2004, as amended. The Geotechnical Engineering Study states "the site soils are not

susceptible to seismic liquefaction because of their dense nature and the absence of near-surface groundwater (Geotech Consultants, Inc., January 19, 2016, DSD 000549). There are no specific seismic hazards identified on-site and these are not discussed further in this report.

4. **Coal Mine Hazard Areas**. Areas mapped or designated by the City as potentially affected by abandoned coal mines. Due to the presence of coal mines on the site and the unique nature of these critical areas, they are discussed separately in more detail in section E below.

ii. Geologic Hazard Areas Functions and Values

Geologic hazards pose a threat to the health and safety of citizens when commercial, residential, or industrial development is inappropriately sited in areas of significant hazard. Some geologic hazards can be reduced or mitigated by engineering, design, or modified construction practices. When technology cannot reduce risks to acceptable levels, building in geologically hazardous areas is best avoided (WAC 365-190).

Geologically hazardous areas may serve several other functions and possess other values for the City and its residents. Several of Bellevue's remaining large blocks of forest are in these areas, providing habitat for a variety of wildlife species and important linkages between habitat areas in the City. These areas also act as conduits for groundwater, which drains from hillsides to provide a water source for the City's wetlands and stream systems. Vegetated slopes also provide a visual amenity in the City, providing a "green" backdrop for urbanized areas enhancing property values and buffering urban development.

iii. Steep Slope/Buffer Impacts

The proposed development would not result in direct impacts to the steep slope critical areas identified on the site. Steep slope and landslide hazard areas require a 50-foot buffer from the identified top-of-slope (LUC 20.25H.120.B1). The proposed development would impact or reduce a total of 11,205 SF of steep slope buffer area; with 3,975 SF of impact to steep slope buffers and 7,230 SF of impact to combined steep slope buffer and stream buffer areas. See Figure 10 of this Staff Report, Critical Area Impacts and DSD 000497 in the Project File.

The geotechnical report recommends that the 50-foot steep slope buffer can be reduced to 10 feet to allow for the proposed development, "based on the absence of past landslides on the site slopes and the competent conditions of the native soils that compose the core of the site" and recommends an additional 10-foot structure setback from the reduced steep slope buffer (Geotechnical Engineering Study, Geotech Consultants, Inc., January 19, 2016, Conclusions and Recommendations, DSD 000547). The site plan generally provides a 40-to-65-foot buffer from the identified top-of-slope to the boundary of the development area. However, the steep slope buffer is reduced to a minimum of 10 feet in some areas in the north portion of the site. The

report recommends a 10-foot structure setback from the buffer. A 15-foot structure setback is provided from the edge of the buffer to the boundary of the development area in the north. The overall result is that the proposed residences in the north would be setback a minimum of 25 feet from the top of the steep slope critical areas.

iv. Steep Slope/Steep Slope Buffer Mitigation

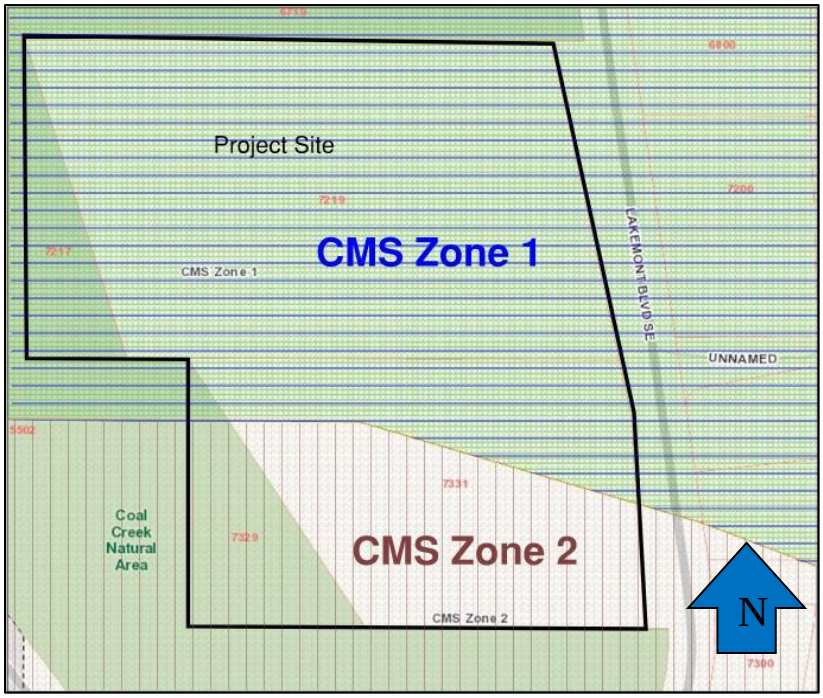
The proposal includes a total of 130,823 SF of critical area buffer enhancement, restoration, and re-establishment (see Figure 11 of this Staff Report, Critical Area Buffer Mitigation, and DSD 000498 in the Project File). This mitigation includes the overlapping areas of steep slopes/steep slope buffers and stream buffer areas surrounding the development area of the site. See Section III.A.iii-iv of this Staff Report for further information about the overall mitigation concept and approach and the conceptual mitigation plan.

E. COAL MINE HAZARDS DESCRIPTION, IDENTIFICATION AND CLASSIFICATION, IMPACTS, AND MITIGATION

i. Coal Mine Hazard Description

The direct hazard posed to any development on a site with coal mining activity arises from the potential for collapse or subsidence of underground mines that could impact any development above. LUC 20.25H.130 classifies coal mine hazards as Coal Mine Subsidence (CMS) Zones 1 and 2. Properties are placed into CMS zones based on Bellevue's identification and mapping of historical coal mining locations. This initial designation is based on general information and site-specific assessment is required as part of any proposal on a site with indication of past coal mining. Sites are required to be evaluated as part of development proposals to determine if the mines are classified as CMS Zone 1 or CMS Zone 2. Projects are then required to meet the requirements of the specific CMS zone that is determined to exist on the property or demonstrate which specific CMS Zone classification is warranted based on site analysis. See Figure 13 of this Staff Report for generalized Coal Mine Hazard Area Map of the subject site.

Figure 13: Coal Mine Area Map



ii. Coal Mine Hazard Identification and Classification

The subject site is located within the Newcastle mining district, which was actively mined from about 1879 to 1930, with intermittent activity from 1930 to about 1960. The applicant prepared a Preliminary Coal Mine Hazard Assessment (Icicle Creek Engineers, December 1, 2014, DSD 000626 - 000639) and a Revised Report Coal Mine Hazard Assessment and Ground Proofing Program (Icicle Creek Engineers, October 5, 2016, DSD 000697 - 000753), which include a summary of the historic coal mining activity underlying the site.

Three abandoned underground coal mines underly a portion of the site, based on review of historic mine maps: the Newcastle Mines (No. 4 Mine/Coal Seam and the No. 3 Mine/Coal Seam) and the Ford Slope (Muldoon Mine/Coal Seam). All these mines were large-scale operations. The coal was extracted underground using "room and pillar" mining methods on seams dipping about 40 degrees below the horizontal to the north-northeast.

The preliminary report provides the following description of coal mine features underlying the subject site:

"A tunnel (main slope) that accessed the No. 4 Mine underlies the south end of the Swanson property at approximately 0 feet at the collapsed mine entry) to about 140 feet below the ground surface. The entrance to the No. 4 Mine main slope, as shown on Figure 3, can be observed from the Coal Creek Trail about 20 feet south of the Swanson property and is partially filled in. As shown on Figure 3, the No. 4 Coal Seam is unmined along strike adjacent to the access tunnel underlying

the south end of the Swanson property. A second access tunnel is located about 175 feet south of the southeast corner of the Swanson property as shown on Figure 3. This access tunnel is now buried under Lakemont Boulevard SE and has been "opened" at various times by a sinkhole (that a car fell into) and during the installation of a main gas line in the early 1990s. The thickness of the No. 4 Coal Seam was reported to be approximately 6 feet (Skelly and Loy, 1985). The coal seam was worked on multiple levels that were partially to completely worked out using room-and-pillar mining methods (coal extraction exceeding 80 percent). The thickness of the No. 3 Coal Seam was approximately 5 to 10 feet (Skelly and Loy, 1985). The coal seam was worked similar to the No. 3 Coal Seam with coal extraction exceeding 90 percent. The thickness of the Muldoon Coal Seam was approximately 6 feet (Skelly and Loy, 1985) and was extensively mined with extraction ratios exceeding 90 percent."

The subject site is comprised of two parcels, the Jentry property (north parcel) which was mapped within the CMS Zone 1 and the Swanson property (south parcel) mapped in the CMS Zone 2. The Preliminary Coal Mine Hazard Assessment identified the individual mines and mining depths on each of the parcels, as shown on Figures 14 and 15 of this Staff Report and DSD 000637 and 000629 respectively in the Project File.

Figure 14: Mine Locations (DSD 000637)

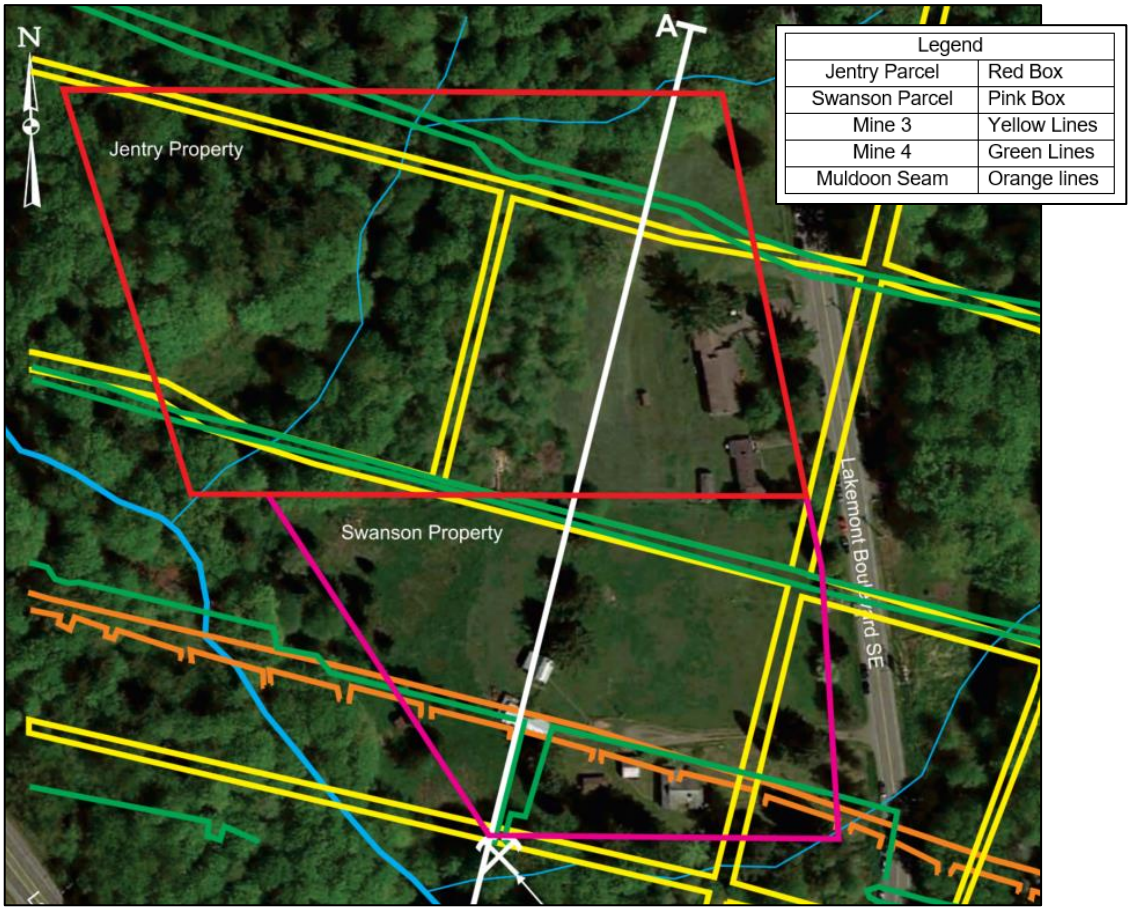


Figure 15 – Mine Depths for Each Property (DSD 000629)

Mine	Jentry Property Depth to Mine Workings (feet)	Swanson Property Depth to Mine Workings (feet)
No. 4 Mine	350 to 685	<20 to 350
No. 3 Mine	630 to 960	300 to 630
Ford Slope (Muldoon Coal Seam)	not mined (coal seam is intact)	>930

The Preliminary Coal Mine Hazard Assessment (Icicle Creek Engineers, December 1, 2014, DSD 000631) estimated the potential for regional trough subsidence from the combined effects of the mine workings of the No. 4, No. 3 and Muldoon Coal Seams underlying the properties using the procedures described in LUC 20.25H.130.H; including a detailed review of historic data and direct subsurface information. The analysis concluded that a Coal Mine Subsidence (CMS) Zone 1 does not exist on the subject site because the magnitude of ground tilt and ground strain are less than the code-defined thresholds for damage.

The report concluded (DSD 000631 – 000632) that the south portion of the subject site is within a Coal Mine Subsidence (CMS) Zone 2 area, because the area is underlain by shallow coal mine workings and the access tunnel of the No. 4 Mine at a depth less than 200 feet, consistent with LUC 20.25H.130.C.2.

A Revised Report Coal Mine Hazard Assessment and Ground Proofing Program (Icicle Creek Engineers, October 5, 2016, DSD 000697 - 000753) was prepared to focus on the south portion of the site, which was identified as a CMS Zone 2 area in the preliminary assessment. The revised report included a surface reconnaissance and a site-specific subsurface investigation to better evaluate the hazards related to abandoned underground coal mines and identifies mitigation measures to eliminate the risk of sinkholes and potential subsidence effects.

The CMS Zone 2 area was classified as the area underlain by the access tunnel (Main Slope) and the No. 4 Mine working at a depth less than 200 feet (DSD 000700). Subsurface investigation or ground-proofing was conducted in the identified CMS Zone 2 area, where the No.4 mine workings were identified at a depth of less than 20 feet to 350 feet below the ground surface. Sixteen shallow test borings were drilled for mine targets less than 100-feet deep and deeper test borings were drilled for mine targets to approximately 170 feet.

Within the CMS Zone 2 area, the report identifies (DSD 000699) a “Primary Area of Interest” (PAOI) where residential development is proposed and a “Secondary Area of Interest” (SAOI) where a stormwater underground vault is proposed to be located. The report recommends declassifying the identified “Primary Area of Interest” (PAOI) outside of the “Secondary Area of Interest” (SAOI), the Lower Risk and Higher Risk CMS Zone 2 areas. An updated map of the location of abandoned underground mine workings was provided in the report based on the current ground proofing study (See Figure 16 of this Staff Report and DSD 000709 in the Project File). The Coal Mine Hazards Map was also modified based on the results of the ground proofing (see

Figure 17 of this Staff Report and DSD 000710 in the Project File).

Figure 16: Focused Study of CMS Zone 2 On-Site (DSD 000709)

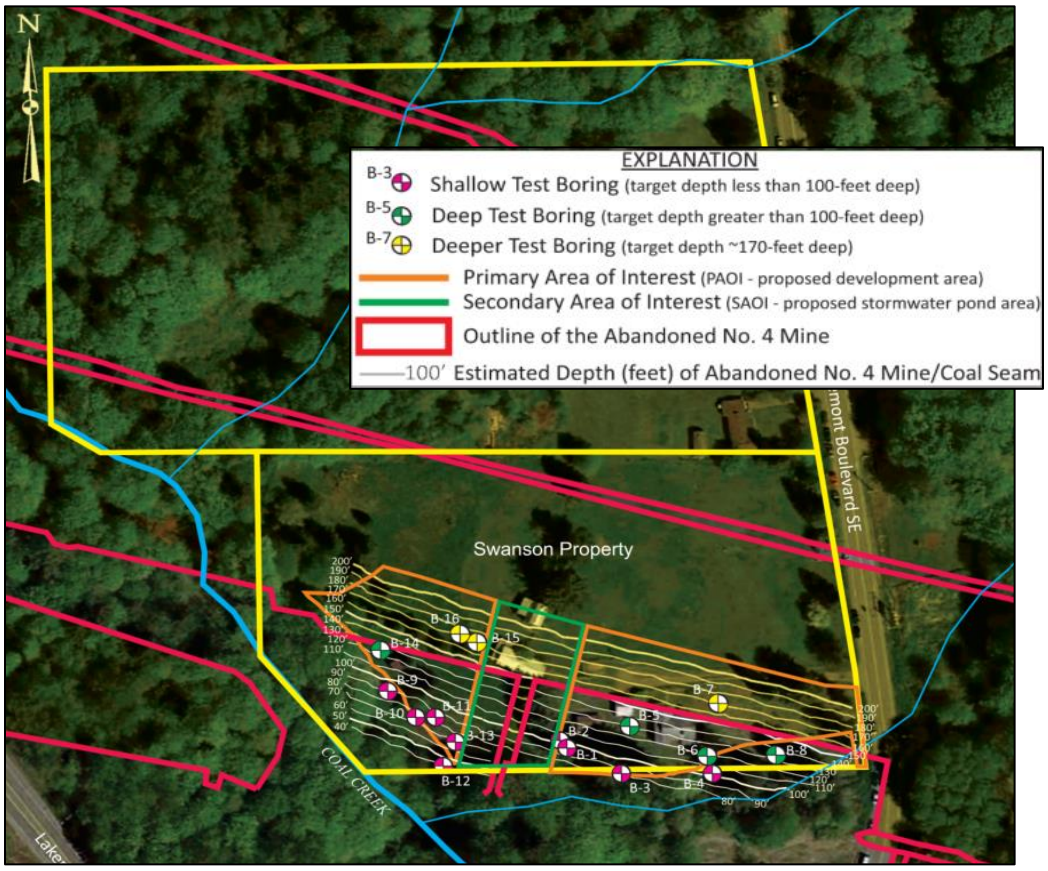
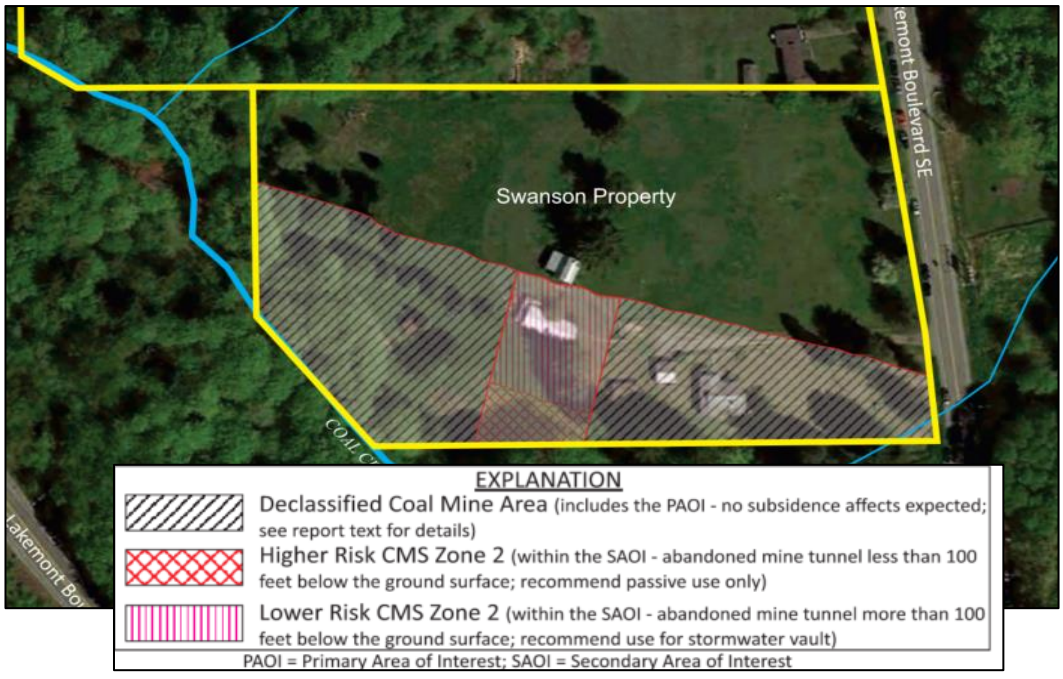


Figure 17: Updated Coal Mine Hazards Map (DSD 000710)



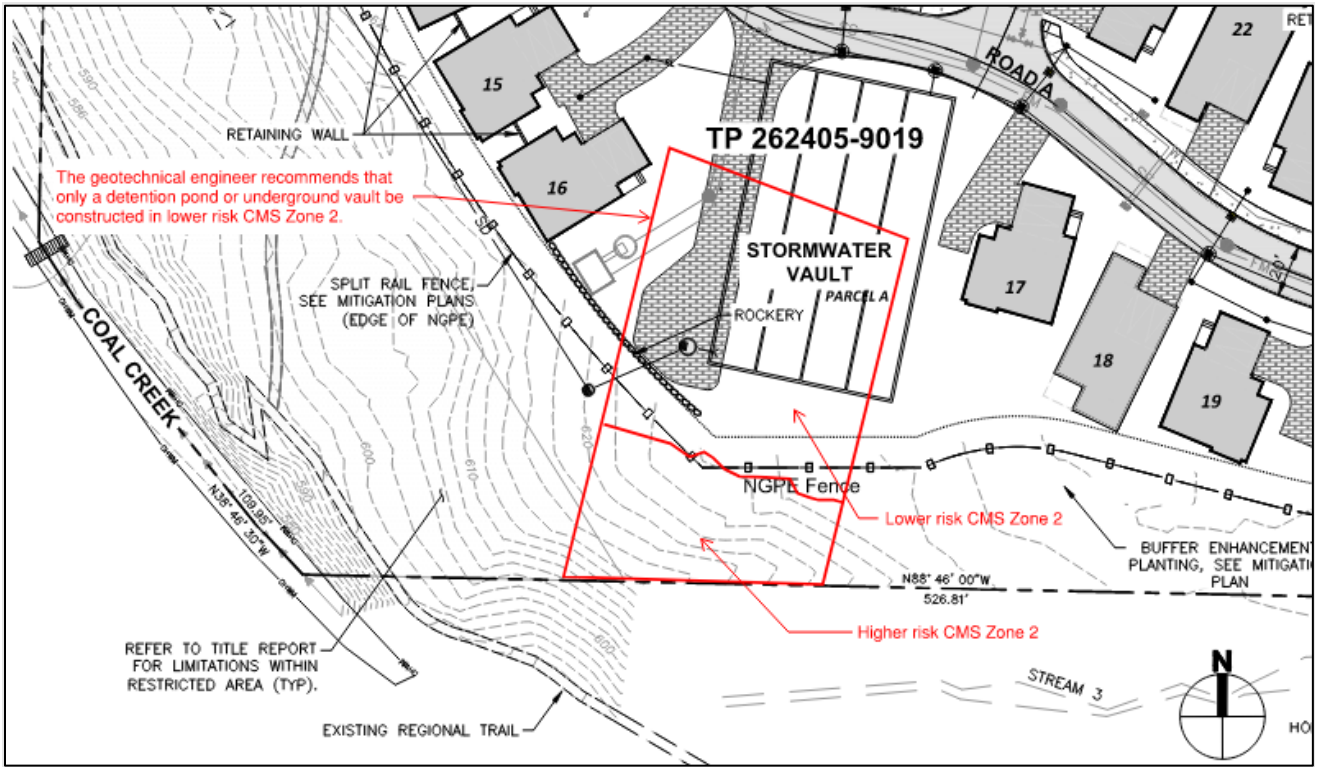
iii. Coal Mine Hazard Area Impacts and Mitigation

Development in coal mine hazard areas could result in subsidence or sinkholes due to the collapse of abandoned coal mines. This could result in impacts to structures, infrastructure, site improvements, and risks to human safety. The mitigation for coal mine hazard areas is primarily avoiding development in the identified hazard areas.

The report recommends that a 100-foot wide "corridor," where the No. 4 mine inclined mine shaft is located, be classified as a CMS Zone 2 (DSD 000704). Based on the results of the sub-surface ground-proofing, the report identifies a Lower Risk CMS Zone 2 and a Higher Risk CMS Zone 2. The report recommends that development in the Lower Risk CMS Zone 2 be limited to a stormwater detention pond or underground vault, and that no development occur within the higher risk zone. See Figure 18 of this Staff Report for a depiction and DSD 000704 in the Project File for recommendations. The proposed site plan meets the report's recommendations, no development is shown in the Higher Risk CMS Zone 2 and the stormwater vault is located in Lower Risk CMS Zone 2.

The report concludes that the Lower Risk CMS Zone 2 could be used for a stormwater vault, provided that the stormwater vault is sited within the area where the mine shaft is more than 100 feet below the ground surface (Revised Report Coal Mine Hazard Assessment and Ground Proofing Program, October 5, 2016, DSD 000704).

Figure 18: Coal Mine Subsidence (CMS) Zone 2



F. HABITAT ASSOCIATED WITH SPECIES OF LOCAL IMPORTANCE DESCRIPTION, FUNCTIONS, IMPACTS AND MITIGATION

i. Habitat Description

The subject site includes forested steep slopes, streams and associated riparian areas and wetlands. These critical areas all provide habitat for animals and birds. The Critical Areas code LUC 20.25H.150 specifies 23 specific animal, bird, and fish species of local importance.

The Critical Areas Report includes a table that lists the species of local importance with an analysis of the likelihood of a species presence on the site (Section 4.2.4, Table 1., Critical Areas Report, Habitat Evaluation, and Conceptual Mitigation Plan, Talasaea Consultants, Inc., Revised January 11, 2023, DSD 000427 - 000429). The report concluded that six (6) of the listed species have a likelihood of being present on the site, and that likelihood is typically low to very low. These species are Bald eagle (migration only), Pileated woodpecker, Red-tailed hawk, Townsend's big-eared bat, Keen's myotis, and the Long-eared myotis. Townsend's big-eared bat is a Federally listed species of concern and a State-listed candidate species. Pileated woodpecker is a State-listed candidate species.

Areas with mature forests (forests with significant numbers of dead or dying conifers and soft-wood deciduous trees) are found on the west portion of the subject site and in the surrounding natural areas and provide habitat for these six species and for a multitude of other species not currently included on Federal or State priority species lists.

The Critical Areas Report (Appendix G) also includes an evaluation of potential habitat functions on the site using the City's Urban Wildlife Habitat Functional Assessment Model (The Watershed Company 2010). This model assesses and rates the ability of a property to provide usable habitat for wildlife. See DSD 000520 - 000532 for more details and conclusions of the model.

ii. Habitat Functions and Values

Urbanization, the increase in human settlement density and associated intensification of land use, has a profound and lasting effect on the natural environment and wildlife habitat (McKinney 2002, Blair 2004, Marzluff 2005, Munns 2006), is a major cause of native species local extinctions (Czech et al 2000), and is likely to become the primary cause of extinctions in the coming century (Marzluff et al. 2001a). Cities are typically located along rivers, on coastlines, or near large bodies of water. The associated floodplains and riparian systems make up a relatively small percentage of land cover in the western United States, yet they provide habitat for rich wildlife communities (Knopf et al. 1988), which in turn provide a source for urban habitat patches or reserves. Consequently, urban areas can support rich wildlife communities. In fact, species richness peaks for some groups, including songbirds, at an intermediate level of development (Blair 1999, Marzluff 2005). Protected wild areas alone cannot be

depended on to conserve wildlife species. Impacts from catastrophic events, environmental changes, and evolutionary processes (genetic drift, inbreeding, colonization) can be magnified when a taxonomic group or unit is confined to a specific area, and no one area or group of areas is likely to support the biological processes necessary to maintain biodiversity over a range of geographic scales (Shaughnessy and O'Neil 2001). As well, typological approaches to taxonomy or the use of indicators present the risk that evolutionary potential will be lost when depending on reserves for preservation (Rojas 2007). Urban habitat is a vital link in the process of wildlife conservation in the U.S.

iii. Impacts to Habitat Associated with Species of Local Importance

The proposal would not result in significant impacts to habitat associated with species of local importance as determined in the submitted Critical Areas Report. The impacts to critical area buffers (total of 21,575 SF, see Figure 10 of this Staff Report) are primarily limited to areas where the existing buffer conditions are degraded and provide low habitat functions. The critical areas tract (Tract Z) comprising the 6.3-acre west portion of the site would be preserved and provides the most significant habitat functions and values as this site area contains mature forest with a continuous canopy interfacing with the site's streams and wetlands.

The proposed development area on the east portion of the site has been maintained as mowed pasture. This open meadow area may be used by Merlin and Red-tailed Hawks as foraging habitat. Both bird species are listed as species of local importance. The Critical Areas Report (Table 1) noted that Red-tailed Hawks are likely to be present on the site with the open pasture providing a population of suitable prey species while trees along the edges of the pasture provide perches and potential nest trees. Merlin were noted to have a low or very low probability of presence on the site because the species generally prefer open country to dense forest, although the pasture may provide enough open ground.

The Critical Areas Report provides an assessment of the potential impact to Merlin and Red-tailed Hawk habitat as a result of the potential loss of pasture as foraging habitat (DSD 000426 - 000430). It assessed the open areas that may be used by Red-tailed Hawks and Merlin within approximately ½ mile around the subject site. The total assessment area of 503 acres contains approximately 34.7 acres of open area that has potential foraging habitat. The subject site contains approximately 4.8 acres or 14% of the 34.7 acres identified as potential foraging habitat. The report notes that although the impact to the potential foraging habitat is small compared to the overall assessment area, that continued small losses over a larger area could lead to more significant losses of habitat for Red-tailed Hawk and Merlin. However, the report also noted that nationwide the populations of Merlin and Red-tail Hawks are seen as stable and increasing despite the increases in urbanization.

iv. Mitigation to Habitat Associated with Species of Local Importance

The proposal includes 130,823 SF of critical area buffer enhancement, restoration and

re-establishment as shown on Figure 11 of this Staff Report. The proposed buffer mitigation (130,823 SF) relative to the total buffer reduction (21,575 SF) would equate to a 6:1 mitigation to impact ratio. See Section III.A.iii-iv of this Staff Report above for more information on the mitigation approach and concept.

In addition to the buffer mitigation vegetation improvements, the Conceptual Buffer Mitigation Plan (Figure 12) shows habitat features that would be incorporated into the buffer mitigation area, including downed logs, stumps, and snags with swallow nesting boxes. See Critical Area Mitigation Plans, Sheets W2.0 and W3.0 (DSD 000499 - 000500). These habitat features are intended to mimic features found in more mature forests and are intended to foster overall habitat use on the site.

IV. CONSISTENCY WITH LUC 20.25H CRITICAL AREAS OVERLAY DISTRICT

The City of Bellevue Land Use Code Critical Areas Overlay District (LUC 20.25H) establishes procedures, standards and performance standards that apply to development on any site which contains in whole or in part any portion designated as critical area or critical area buffer. The Land Use Code also establishes applicability and standards for development proposed through a Critical Areas Report that is part of a Critical Areas Land Use Permit.

The following performance standards found in LUC 20.25H for each critical areas category apply to this project.

LUC Section	Performance Standard	Applicable Critical Area
20.25H.080	Performance Standards for Type-F Streams and Associated Stream Buffers	Streams
20.25H.075.D.3	Structure Setback Modification	Streams
20.25H.100	Performance Standards for Wetlands and Wetland Critical Area Buffers	Wetlands
20.25H.125	Performance Standards for Steep Slopes and Buffers	Steep Slopes
20.25H.130	Performance Standards for Coal Mine Hazard Areas	Coal Mine Hazards
20.25H.160	Performance Standards – Species of Local Importance	Habitat and Important Species

The following code sections found in LUC 20.25H apply to projects that are proposed under a Critical Areas Report**.**

LUC Section	Critical Areas Report or Mitigation Standard
20.25H.230	Critical Areas Report – Purpose
20.25H.245	Incorporation of Best Available Science
20.25H.215	Mitigation Sequencing
20.25H.135	Mitigation and Monitoring – Additional Provisions for Steep Slopes
20.25H.140	Critical Areas Report – Additional Provisions for Steep Slopes
20.25H.145	Critical Areas Report – Approval of Modification of Steep Slopes
20.25H.165	Critical Areas Report – Additional Provisions for Habitat
20.25H.220	Mitigation and Restoration Plan Requirements

Staff reviewed the following reports and information submitted by the applicant to describe and delineate critical areas on the site, describe and quantify proposed impacts and mitigation to critical areas, and address requirements of the Land Use Code applicable to critical areas. These documents are referenced throughout this report and are found in the Project File at the pages noted.

- SEPA Environmental Checklist, Pace Engineers, Inc., Revised November 30, 2020 (DSD 000389 - 000402)
- Critical Areas Report, Habitat Evaluation, And Conceptual Mitigation Plan, Talasaea Consultants, Inc., Revised January 23, 2023 (DSD 000403 - 000543)
- Geotechnical Engineering Study - Geotech Consultants, Inc., January 19, 2016 (DSD 000544 - 000585)
- Supplemental Letter - Geotech Consultants, Inc., March 29, 2017 (DSD 000586 - 000594)
- Geotech Consultants, Inc. Response to Corrections, January 19, 2018 (DSD 000595 - 000605)
- Geotech Consultants, Inc. Response to Corrections 2, June 5, 2018 (DSD 000606 - 000608)
- Geotech Consultants, Inc. Memorandum, Groundwater Recharge Concerns, November 10, 2020 (DSD 000609 - 000610)
- Coal Mine Hazard Assessment, Associated Earth Sciences, October 15, 2014 (DSD 000611 - 000625)
- Preliminary Coal Mine Hazard Assessment, Icicle Creek Engineers, December 1, 2014 (DSD 000626 - 000639)
- Coal Mine Hazard Assessment and Ground Proofing Program, Icicle Creek Engineers, August 2, 2016 (DSD 000640 - 000696)
- Revised Report, Geological Engineering Services, Proposed Park Pointe Property Development, Coal Mine Hazard Assessment and Ground Proofing Program Swanson

Property, Icicle Creek Engineers, October 5, 2016 (DSD 000697 - 000753)

- Letter, Geotechnical Consultation, Response to Comments – Coal Mine Hazards, Icicle Creek Engineers, May 17, 2018 (DSD 000754 - 000755)
- Geotechnical Consultation, Response to Comments, Icicle Creek Engineers, November 4, 2020 (DSD 000756 - 000757)
- Park Pointe Preliminary Storm Drainage Report, PACE Engineers, Revised November 30, 2020 (DSD 000758 - 000803)
- Park Pointe PUD Drainage Report, Davido Consulting Group, Revised November 15, 2022 (DSD-000804 - 000978)
- Arborist Report, Shoffner Consulting, September 27, 2016, revised May 21, 2018 (DSD 001390 - 001394)

A. CONSISTENCY WITH PERFORMANCE STANDARDS FOR STREAMS AND WETLANDS

i. Performance Standards for Streams and Associated Stream Buffers – LUC 20.25H.080

Development on sites with a Type S or F stream or associated critical area buffer shall incorporate the following performance standards in design of the development, as applicable:

1. **Lights shall be directed away from the stream.**
   Finding: Street lighting and outdoor residential lighting will be directed away from streams and stream buffer areas and shielded to prevent light spillover. The proposed stream buffer enhancement planting would also effectively screen lighting impacts on the streams. **Refer to Section XI.C of this Staff Report for Condition of Approval Regarding Screening of Outdoor Lighting.**

2. **Activity that generates noise such as parking lots, generators, and residential uses, shall be located away from the stream or any noise shall be minimized through use of design and insulation techniques.**
   Finding: Site roadways and activity areas are directed towards the center of the site; the development area is not adjacent to streams. The mitigation plans include planting dense vegetation in the stream and steep slope buffer areas around the periphery of the development area which would function to reduce noise impacts to the streams and riparian areas. The hours of construction that generate noise are regulated per BCC 9.18.

3. **Toxic runoff from new impervious area shall be routed away from the stream.**
   Finding: Road runoff and runoff from new impervious surface areas will be collected and conveyed to the project's on-site stormwater treatment and detention facilities prior to discharging to Stream 1.
   During construction, the contractor will operate under an NPDES permit that requires a project specific Temporary Erosion and Sediment Control Plan, Spill Containment and Counter Measures Plan and requirements for water quality

monitoring and a reporting protocol. These measures will be enforced under the Clearing & Grading Permit. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Clearing and Grading Permit Required.**

4. **Treated water may be allowed to enter the stream critical area buffer.**
   Finding: All road runoff will be detained and treated before discharging into Stream 1. Clean rooftop runoff will be routed to stream buffers to maintain pre-development hydrology. See Sheet E4 of Preliminary Civil Plans in the Project File, DSD 000144.

5. **The outer edge of the stream critical area buffer shall be planted with dense vegetation to limit pet or human use.**
   Finding: The outer edge of stream buffer areas will be densely planted with native plant species, and in combination with split-rail fencing will provide a clear limit between the development area and critical area tract. The proposal includes a trail system to allow for pedestrian access and passive enjoyment of the critical area tract while precluding multiple informal trails and disturbance. The Final Mitigation Plan shall include dense plantings along the boundary of the development area to limit human and pet intrusion into the critical area tract. The planting density shall be consistent with the City's Critical Areas Handbook. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Final Mitigation Plans and Fencing and Signage**.

6. **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.**
   Finding: The applicant has offered to dedicate the critical area tract (Tract Z) to the City of Bellevue and, if the dedication occurs, the Parks Department will assume the long-term landscape maintenance of stream buffer areas after the applicant's 10-year mitigation monitoring and maintenance period.

   The Critical Areas Report includes a Vegetative Management Plan (Appendix H, DSD 000533 - 000537) to guide general landscape maintenance practices as well as maintenance practices for the mitigation area and it incorporates measures from the City's "Environmental Best Management Practices."

   In addition, the Salmon-Safe Certification includes a condition (Condition 6, Report of the Science Team, October 8, 2018, DSD 001079) which requires preparing an owner's manual for landscape maintenance practices related to integrated pest management (IPM) and fertilizer use.

   The use of pesticides, herbicides and fertilizers within the development area and the critical areas tract shall be consistent with the City's "Environmental Best Management Practices," the Vegetative Management Plan and the Salmon-Safe Certification. The use of herbicides to control non-native, invasive species during

routine mitigation monitoring and maintenance shall be limited to those approved to be used adjacent to aquatic environments. These measures shall be included in the Declaration of Covenants, Conditions and Restrictions (CC & Rs) and recorded as a legal document. **Refer to Section XI.D of this Staff Report for Condition of Approval Regarding Environmental Best Management Practices.**

ii. Structure Setback Modification – Open Streams on Undeveloped Sites. – LUC 20.25H.075.D.3

The Director may waive or modify the structure setback on an undeveloped site as part of the permit or approval for the underlying proposal if the applicant demonstrates that:

1. **Water quality, or slope stability as documented in a geotechnical report, will not be adversely affected;**
2. **Encroachment into the structure setback will not disturb habitat of a species of local importance within a critical area or critical area buffer;**
3. **Vegetation in the critical area and critical area buffer will not be disturbed by construction, development or maintenance activities and will be maintained in a healthy condition for the anticipated life of the development; and**
4. **Enhancement planting on the boundary between the structure setback and the critical area buffer will reduce impacts of development within the structure setback.**

Finding: Per LUC 20.25H.075.D.1, structure setbacks are measured from the edge of critical area buffers and are required to minimize long-term impacts of development adjacent to critical areas and critical area buffers; and protect critical areas and critical area buffers from adverse impacts during construction.

On undeveloped sites, the structure setback from a Type-F stream buffer (Coal Creek) is 20 feet and 15 feet for a Type-N streams (Streams 1, 2, 3). Please note that for steep slope areas, there is a 50-foot top-of-slope buffer and no structure setback is required from the steep slope buffer.

The total structural setback area reduction proposed is 5,426 SF (Critical Area Mitigation Plans Sheet W1.1, DSD 000497). The Critical Areas Report (Section 7.2, DSD 000438 - 000439) states that proposed structure setback is a reasonable width for building maintenance and pedestrian access. The reduced structure setback would not affect critical area buffer functions or subject the critical area buffer to damage from building activities. The proposal maintains a 12-foot structure setback from the adjusted or reduced critical area buffers that are contained in Tract Z.

The proposed reduction to the structure setback meets the above code criteria as follows:

- Water quality would not be adversely affected because stormwater from

impervious surfaces will be conveyed to a storm drainage facility that will provide filtration. The stormwater system is designed to not discharge onto slopes to protect slope stability.

- The geotechnical report determined that slope stability will not be compromised by a reduced building setback. The geotechnical engineer recommends a 10-foot buffer from the top-of-slope and a 10-foot structure setback from the reduced buffer which is maintained by the proposed 12-foot setback from the tract.
- The reduced structure setback area would not disturb habitat of a species of local importance within a critical area or critical area buffer. The structure setback area is located at the periphery of the development area which has been disturbed and modified by past human activity and where habitat functions are low.
- The mitigation plans include extensive enhancement planting adjacent to the perimeter of the critical area tract and development area, which will mitigate for temporary construction impacts to vegetation at the edge of the critical area buffer.

iii. Performance Standards for Wetland and Associated Wetland Buffers – LUC 20.25H.100

Finding: No impacts are proposed to on-site wetlands or buffers and these features are entirely contained within other critical areas and buffers on the site, within proposed Tract Z. The standards for wetlands in LUC 20.25H.100 are identical to those required for streams in LUC 20.25H.080. Compliance with these standards is described previously in this section.

B. CONSISTENCY WITH PERFORMANCE STANDARDS FOR GEOLOGICALLY HAZARDOUS AREAS

i. Performance Standards for Steep Slopes – LUC 20.25H.125

Development within a landslide hazard or steep slope critical area or the critical area buffers of such hazards shall incorporate the following performance standards in design of the development, as applicable.

The applicant has submitted geotechnical reports to address steep slope and landslide hazards and recommendations for reductions to steep slope buffers. The Geotechnical Engineering Study recommends that the standard steep slope buffer, (50 feet from the top-of-slope), may be reduced to 10-foot buffer with a 10-foot structure setback from the buffer (Geotech Consultants, Inc., January 19, 2016, Conclusions and Recommendations, DSD 000544 - 000585).

1. Structures and improvements shall minimize alterations to the natural contour of the slope, and foundations shall be tiered where possible to conform to existing topography;

Finding: No alterations or grading of steep slope critical areas is proposed. The development is concentrated on the eastern 5.9-acre portion of the site which has moderate topography and does not contain steep slope critical areas or landslide hazards.

Sheet E10 of the Preliminary Civil Plans (DSD 000150), indicates approximately 33,154 cubic yards of excavation and 8,283 cubic yards of fill to prepare building sites in the development area. Alterations to the natural contours and existing topography is minimized within the developed portion of the site.

2. **Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation;**

Finding: The proposed development is concentrated on the eastern 5.9-acre portion of the site which is not encumbered by steep slope critical areas. The west 6.3 acres of the site includes combined areas of steep slopes, wetlands, streams and associated buffers and is the most critical portion of the site with the highest level of critical area functions. The natural landforms and vegetation in the west portion of the site would be preserved in a separate critical area tract (Tract Z), which is proposed to be dedicated to the City of Bellevue.

3. **The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties;**

Finding: The proposal limits reductions to critical area buffers to the interior of the site; there would be no development impacts to critical areas or critical area buffers on the periphery of the site adjacent to neighboring properties. The geotechnical report states “that modification of the critical area or critical area buffer will have no adverse impacts on stability of any adjacent slopes and will not impact stability of any existing structures” (Supplemental Letter, Slope Stability Analysis, Geotech Consultants, Inc., March 29, 2017, DSD 000587). The proposed development would not result in a greater risk or need for increased buffers from steep slopes on neighboring properties.

4. **The use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes where graded slopes would result in increased disturbance as compared to use of retaining wall;**

Finding: The development area is moderately sloped and retaining walls are not necessary or proposed to minimize grading of natural slopes. There is a retaining wall (up to 6 feet in height) along the site frontage with Lakemont Blvd, which is necessary for accommodating frontage and street improvements required of the project. There are also 6-9-foot-high retaining walls proposed at the southwest boundary of the development area. See Preliminary Grading Plan, DSD 000150 for wall locations. The proposal is designed to meld the grade of the development

area with the protected critical areas on the west portion of the site.

5. **Development shall be designed to minimize impervious surfaces within the critical area and critical area buffer;**

   Finding: The proposal would not create impervious surfaces within critical areas. The proposed development area is designed to minimize buffer impacts, alterations and introducing impervious surface areas into critical area buffers.

6. **Where change in grade outside the building footprint is necessary, the site retention system should be stepped and regrading should be designed to minimize topographic modification. On slopes in excess of 40 percent, grading for yard area may be disallowed where inconsistent with this criteria;**

   Finding: The development area is moderately sloped and does not include steep slopes over 40%. The site grading does not necessitate stepping of building footprints or separate site retention systems. The project is designed to minimize topographic modification.

7. **Building foundation walls shall be utilized as retaining walls rather than rockeries or retaining structures built separately and away from the building wherever feasible. Freestanding retaining devices are only permitted when they cannot be designed as structural elements of the building foundation;**

   Finding: Not applicable. The proposal does not include separate retaining walls or rockeries, except for the retaining wall along the Lakemont Blvd SE which is needed to accommodate required frontage improvements and along the southwest boundary of the development area. The proposed buildings are not adjacent to steep slope areas where building foundations would need to function as structural elements for slope stability. Revision of plans to include walls or make other changes if necessary, during development review would be addressed through the process to modify an approved PUD.

8. **On slopes in excess of 40 percent, use of pole-type construction which conforms to the existing topography is required where feasible. If pole-type construction is not technically feasible, the structure must be tiered to conform to the existing topography and to minimize topographic modification;**

   Finding: Not applicable. The development area is moderately sloped, there is no development proposed on steep slopes exceeding 40%. The project has been designed to conform to existing topography and to minimize topographic modification.

9. **On slopes in excess of 40 percent, piled deck support structures are required**

where technically feasible for parking or garages over fill-based construction types; and

Finding: Not applicable. There are no slopes over 40% in the proposed development area.

10. **Areas of new permanent disturbance and all areas of temporary disturbance shall be mitigated and/or restored pursuant to a mitigation and restoration plan meeting the requirements of LUC 20.25H.210. (Ord. 5680, 6-26-06, § 3)**

Finding: Permanent impacts to critical area buffers are limited to the periphery of the area of past disturbance that has been maintained over time and is proposed for the development area. Critical area buffer impacts are mitigated on the conceptual mitigation plan which meets requirements of LUC 20.25H.210.

In addition to the peripheral impacts the proposal includes construction-related impacts within Tract Z of 2,161 SF for a soft-surface trail, 104 SF for a gabion basket energy dissipator for the stormwater outfall, and 646 SF for the stormwater directional bore staging area. All critical area buffers that are impacted during construction will be restored with appropriate native plantings. The Buffer Mitigation Overview Plan (Sheet W2.0, Critical Area Mitigation Plans, DSD 000499) shows the restoration of construction impact areas (Area E). Review by the project arborist and on-site guidance of the construction of any improvements within Tract Z is required to ensure that the soft-surface trail and construction of storm improvements does not damage protected trees. If damage occurs to trees or other critical area functions that is not anticipated then assessment and restoration can be addressed through an exemption or amendment to the PUD described in LUC 20.30D.285. **Refer to Section XI.A of this Staff Report for Condition of Approval regarding work within Tract Z and changes to the PUD from critical area impacts.**

ii. **Performance Standards for Coal Mine Hazard Areas – LUC 20.25H.130**

The following code sections of LUC 20.25H.130 are described to clarify their intent or requirement and are not the exact text of the section.

1. **Disclosure of Coal Mine Hazard (LUC 20.25H.130.A).** *Any subdivision or short subdivision that includes property designated as within a CMS Zone shall disclose the designation on the face of the plat and shall include a reference to the requirements of this section.*

Finding: The proposal does not include a subdivision or short subdivision of the property. However, future property owners should be informed that coal mine hazards underlay the site. The Coal Mine Hazard Assessment and Ground Proofing Program states: “Potential owner(s) of this property should be informed of the hazards that do exist and be provided a copy of this report for their own

evaluation of risk acceptance." (Icicle Creek Engineers, August 2, 2016, DSD 000647). The approved PUD plan shall be recorded with King County and shall include information disclosing the coal mine hazards existing on the site. **Refer to Section XI.D of this Staff Report for Condition of Approval Regarding Recording of the PUD, Disclosure of Coal Mine Hazards, and Hold Harmless Agreement.**

2. **Determination of CMS Zone Classification (LUC 20.25H.130.C.1 and 2).** *A surface reconnaissance report and site-specific evaluations are required prior to permitting subdivision or development on any site in a CMS Zone. Methods of analysis shall be described as appropriate. Construction will be permitted in any CMS Zone after elimination of risk to public safety associated with abandoned coal mines, and mitigation of coal mine waste dumps (if any) and potential trough subsidence.*

   Finding: The text of LUC 20.25H.130 acknowledges that City mapping of Coal Mine Subsidence (CMS) Zones is based on generalized evaluation of available mine maps and records, that alternative interpretations of potential subsidence effects could result from site-specific evaluation and analysis, and as a result, requires a surface reconnaissance report and site-specific evaluation prior to permitting development on any site in a CMS Zone. The report is required to evaluate the site to determine the classification of CMS zone that may exist on a property, based on prescribed criteria.

   A surface reconnaissance report and site-specific evaluation of coal mine hazards was prepared consistent with the methods prescribed in the code. The Preliminary Coal Mine Hazard Assessment (Icicle Creek Engineers, December 1, 2014, DSD 000626 – 000639) includes a site-specific evaluation based on detailed review of historic data and direct subsurface information to investigate potential sinkhole development and if any mine workings could potentially cause trough subsidence.

   The Preliminary Coal Mine Hazard Assessment estimated the potential for regional trough subsidence from the combined effects of the mine workings of the No. 4, No. 3 and Muldoon Coal Seams underlying the properties using the procedures described in LUC 20.25H.130 H. Coal mine hazards are classified in two zones, CMS Zone 1and CMS Zone 2. A CMS Zone 1 is defined in the code where the strain exceeds 0.003 and the tilt exceeds 1:350 (LUC 20.25H.130.C.1 and 2). The report determined (DSD 000631) the ground tilt is up to about 1:500 (damage threshold is 1:350) and a ground strain of up to about 0.0005 inches per inch (damage threshold is 0.003 in/in), which is lesser in magnitude than the code thresholds for damage. Based on these findings, the report concluded (DSD 000631) that a CMS Zone 1 does not exist on the subject site because the magnitude of ground tilt and ground strain are less than the code-defined thresholds for the CMS Zone 1. See DSD 000631). The report did conclude (DSD 000631 – 000632) that the south portion of the subject site is within a CMS Zone

2, because the area is underlain by shallow coal mine workings and the access tunnel of the No. 4 Mine is at a depth less than 200 feet.

To define the limits of the CMS Zone 2, the code requires evaluating areas within 100-feet of coal mine workings at a depth of 200 feet or less (LUC 20.25H.130.C.2). The report recommends the 100-feet be reduced to 50 feet along the updip limit of the mine workings (including the access tunnel) for the No. 4 Mine, based on their confidence in the accuracy of mine mapping in the area from several nearby ground proofing (subsurface exploration) projects. The report also recommends the "buffer" be reduced to 0 feet along the downdip limit of the mine workings (where the No.4 Mine is about 200 feet deep) because sinkhole development in western Washington typically occurs in areas where abandoned coal mine workings are less than 100 feet deep. (Preliminary Coal Mine Hazard Assessment, Icicle Creek Engineers, December 1, 2014, DSD 000632 - 000633).

3. **Evaluation of Potential Undocumented Workings (LUC 20.25H.130.C.3)**. *CMS Zones are based on an evaluation of documented workings. There is, however, some potential for undocumented workings to exist in the vicinity of outcropping or subcropping seams. The potential for undocumented workings must be evaluated for any property within 100 feet of the subcrop lines of the Jones and Primrose seams between and beyond known coal mine workings, except for construction of attached additions to, or miscellaneous structures accessory to and within 50 feet of, existing residential buildings. The subcrop lines indicating those areas of potential undocumented workings are shown on the Coal Seams Map.*

   Finding: The report states that the subject property is more than 100 feet from the subcrop of the Jones and Primrose coal seams and beyond known coal mine workings, and that it is unlikely that other undocumented mining-related prospects and surface features exist within the properties based on their review of available information and site observations. (Preliminary Coal Mine Hazard Assessment, Icicle Creek Engineers, December 1, 2014, DSD 000628).

   No evidence of undocumented mining and mine rock fill was observed on the site. However, it is possible that undocumented mining-related features such as excavated bedrock, coal spoils or a prospect opening may be encountered during site grading and preparation. A qualified expert will evaluate and confirm whether undocumented mine workings are present during site grading as provided below.

   The project Coal Mine expert (ICE) or other qualified expert is required to evaluate and confirm potential undocumented mine workings during site grading work. The expert shall be contacted immediately if a shallow void or evidence of mine rock fill is encountered during site development. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Engineering Evaluation During Site Grading.**

4. **Changing a CMS Zone Designation (LUC 20.25H.130.C.4).** *The CMS Zone designation for a property in CMS Zone 1 may be removed if it is demonstrated by site-specific evaluation of trough subsidence that magnitudes of potential surface strains and tilts at the property are less than the levels specified. If the evaluation results in a proposed change to the CMS Zone designation based on additional information identified from mine records, or new information available from direct investigation of subsurface conditions by drilling or other means, then the engineer shall be required to demonstrate that the tilts and strains calculated represent the maximum tilts and strains at the site for all possible time sequences of mine collapse. Any change in a CMS Zone designation must be accepted by the Director of the Development Services Department or his or her designee.*

   Finding: The City's Coal Mine Area (CMA) Maps identify coal mine subsidence (CMS) zones underlying the subject site, including CMS Zone 1 on the north portion of the site and CMS Zone 2 on the south area of the site, see Figure 14 above. The City's mapping of CMS Zones is based on generalized evaluation of available mine maps and records. The CMS Zone designation may be changed or removed if it is demonstrated by site-specific evaluation of trough subsidence that magnitudes of potential surface strains and tilts at the property are less than the levels specified in the code.

   The Preliminary Coal Mine Hazard Assessment concluded that a CMS Zone 1 does not exist on the subject site because the magnitude of ground tilt and ground strain are less than the code-defined thresholds for the CMS Zone 1. A CMS Zone 1 is defined in the code where the strain exceeds 0.003 and the tilt exceeds 1:350 (LUC 20.25H.130.C.1 and 2). The report determined the ground tilt is up to about 1:500 and a ground strain of up to about 0.0005 inches per inch, which is less in magnitude than the code thresholds for damage (Preliminary Coal Mine Hazard Assessment, Icicle Creek Engineers, December 1, 2014, DSD 000631). Subsequent subsurface exploration (ground proofing) was completed to determine the potential for sinkholes and the results reinforced conclusions that the CMS Zone 1 is not applicable to the subject site. See Figure 18 of this Staff Report, for the revised map of CMS Zones on the subject site. See Coal Mine Hazard Assessment and Ground Proofing Program, Icicle Creek Engineers, August 2, 2016, DSD 000640 - 000696 and Revised Report on Coal Mine Hazard Assessment and Ground Proofing Program dated October 5, 2016, DSD 000697 - 000753.

5. **General Requirements (LUC 20.25H.130.D.1)**. *A surface reconnaissance shall be undertaken for the CMS Zones and for areas of potential undocumented workings. All surface reconnaissance and evaluation of coal mine hazards and potential trough subsidence shall be performed by, or under the direct supervision of, a qualified engineer or geologist.*

   Finding: Icicle Creek Engineers provided a qualified engineer and geologist who

reviewed the site for coal mine hazards and all aspects related to coal mines on this site. ICE describes having 30 years of experience, primarily in Washington State, developing geotechnical design parameters for projects, with particular expertise in dealing with coal mine hazards.

6. **CMS Zone 2. Applicants (LUC 20.25H.130.D.3) shall:**
   - *Conduct a surface reconnaissance and submit, at application, a report identifying all public safety mine hazards, coal mine waste dumps, and evidence of mine subsidence.*
   - *Conduct site-specific evaluation of potential for sinkhole development, including subsurface investigation. Test pits may be used to investigate coal mine waste dumps and other shallow hazards such as slope entry portals and shaft collar areas. Drilling is required for coal mine workings or other hazards that cannot be adequately investigated by investigations from surface. Drilling may demonstrate that there is no risk of sinkhole development due to the absence or fully collapsed condition of mine workings. Alternatively, drilling may document sinkhole risks, and the applicant must then design a mitigation program to eliminate all such risks.*
   - *Eliminate risk of sinkhole development and mitigate other public safety mine hazards and/or coal mine waste dumps after acceptance of an evaluation and remediation plan by DSD.*
   - *If the site could be subject to trough subsidence due to coal mine workings, conduct a site-specific evaluation of potential trough subsidence.*
   - *Mitigate for trough subsidence including future surface settlements above collapsed mine workings by developing site-specific design that can accommodate calculated potential subsidence effects as required for CMS Zone 1.*

   Finding: A Coal Mine Hazard Assessment and Ground Proofing Program (Icicle Creek Engineers, August 2, 2016, DSD 000640 - 000696) was prepared to focus on the south portion of the site, which was identified as a CMS Zone 2 area in the preliminary assessment. The report includes a surface reconnaissance and a site-specific subsurface investigation of the potential for sinkholes and trough subsidence to better evaluate the hazards related to abandoned underground coal mines. The report used appropriate methods of analysis as required by this code section and identifies mitigation measures to eliminate the risk of sinkholes and potential subsidence effects.

   An updated map of the abandoned underground mine location is provided in the report based on the current ground proofing study (see Figure 16 of this Staff Report). The results of the ground proofing also resulted in modifications to the Coal Mine Hazards Map (see Figure 18 of this Staff Report).

7. **Surface Reconnaissance Reports (LUC 20.25H.130.E).** *A surface reconnaissance shall be undertaken for all CMS Zones and for areas of potential*

undocumented workings. The surface reconnaissance shall be undertaken following review of available geologic hazard maps, mine maps, mine hazard maps, and air photographs to identify any subsidence features or mine hazards including but not limited to surface depressions, sinkholes, mine shafts, mine entries, coal mine waste dumps, and any indication of combustion in underground workings or coal mine waste dumps that are present on or within 100 feet of the property. The surface reconnaissance shall include, but not be limited to, inspection, review, and documentation of any known hazards that have previously been documented by the Office of Surface Mining, Abandoned Mined Land Program (Skelly and Loy, 1985), or that have been identified from review and interpretation of air photographs or other sources.

Finding: The Preliminary Coal Mine Hazard Assessment (Icicle Creek Engineers, December 1, 2014) identified a portion of the site as CMS Zone 2 and a Coal Mine Hazard Assessment and Ground Proofing Program (Icicle Creek Engineers, August 2, 2016, DSD 000640 - 000696) was done (revised in October 5, 2016 (DSD 000697 - 000753) to focus on this area in more detail and included surface reconnaissance and a detailed review of available geologic hazard maps, mine maps, mine hazard maps, air photographs, and historic information to identify mine related features and mine hazards, consistent with the requirements of this code section.

8. **Remediation or Mitigation of Hazards Other Than Trough Subsidence (LUC 20.25H.130.F).** *If hazards are identified in the surface reconnaissance report:*
   - *Include a separate section in the surface reconnaissance report that proposes a program of detailed site investigation to support engineering for remediation of the hazards.*
   - *Upon acceptance of the site investigation approach by the DSD, conduct the evaluation. Submit the results to the DSD along with a proposal for remediation design including the following types of mitigation:*
     - *Mine Entries and Shafts.*
     - *Existing Sinkholes and Shallow Prospect Excavations.*
     - *Potential Sinkholes*
     - *Coal Mine Waste Dumps*
     - *Mine Gases*
     - *Mine Fires*
   - *Once the proposed remediation approach is accepted by DSD, complete the engineering design drawings and specifications for the remediation. Upon acceptance by the DCD, complete the actual remediation.*
   - *Document the hazard mitigation by submitting as-builds and a remediation construction report. DSD must agree that hazards have been mitigated before any construction is allowed on the site.*
   - *Any public safety mine hazards shall be eliminated prior to any other development activities on the site. Hazard mitigation shall be performed by or under the direction of a qualified engineer or geologist. Any hazards found*

during any development activities shall be immediately reported to DSD.

- *No construction shall be allowed within 100 feet of an existing public safety mine hazard, regardless of whether the hazard is located on the property for which the permit application is being submitted or not. The decision on whether to permit construction directly over a public safety mine hazard that has been mitigated will be made on a case-by-case basis based on the type of mitigation and the proposed construction.*

Finding: The Preliminary Coal Mine Hazard Assessment (Icicle Creek Engineers, December 1, 2014, DSD 000626 - 000639) completed a surface reconnaissance of the site to observe and evaluate features such as mine openings or irregular topographic features associated with subsidence caused from collapsed underground coal mine workings. The consultants did not observe topographic depressions or other ground surface irregularities within or adjacent to property that may be associated with past underground mining activities, except for the off-site entrance to the No. 4 Mine main slope south of the Swanson property. The consultant did not observe evidence of coal fines or fragments on the properties that may suggest disposal of waste coal from historical mining. Mine waste (coal fines) was observed along the Coal Creek Trail west of the Swanson property. ICE shall be contacted immediately if contractors find evidence of other undocumented coal mine hazards and will evaluate and confirm whether other coal mine hazards are present or encountered during site grading. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Engineering Evaluation During Site Grading.**

Public safety mine hazards have been eliminated by restricting development in the identified Higher Risk CMS Zone 2 and limiting the development within the Lower Risk CMS Zone 2 to the stormwater vault. The applicant is required by LUC 20.30P.140.170 to submit a hold harmless agreement in a form approved by the City Attorney which releases the City from liability for any damage arising from the location of the development improvements in coal mine hazard areas. The hold harmless agreement is required to be recorded with King County prior to final approval of construction permits. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Hold Harmless Agreement for Coal Mine Hazards.**

9. **Site-Specific Evaluation – Potential Trough Subsidence (LUC 20.25H.130.G)**.
Finding: The coal mine hazard reports include a detailed review of available copies of original mine records for mine workings in coal seams that could potentially influence the site by trough subsidence. The locations, depths, and thicknesses of coal mine seams and workings underlying the site are documented.

Subsurface investigation or ground-proofing was conducted in the identified CMS Zone 2 area, where the No.4 mine workings were identified at a depth of less than 20 feet to 350 feet below the ground surface. Sixteen shallow test borings were

drilled for mine targets less than 100-feet deep and deeper test borings were drilled for mine targets to approximately 170 feet. The drilling methods are consistent with the code standards. (Coal Mine Hazard Assessment and Ground Proofing Program, Icicle Creek Engineers, August 2, 2016, DSD 000642 - 000643) and revised report (DSD 000699 - 000700).

The coal mine hazard report calculated trough subsidence magnitudes, tilts and strains consistent with the methods in the code. The coal mine hazard reports include a detailed site evaluation and identify the boundaries of CMS Zones on the site based on the calculated magnitudes of potential subsidence, strains, and tilts. The reports include recommendations limiting development within the CMS-Zone 2, which have been incorporated in the site plan and civil engineering plans.

10. **Site-Specific Evaluation – Potential Sinkhole Development or Other Public Safety Mine Hazards (LUC 20.25H.130.H).**
Finding: The coal mine hazard reports were prepared by a qualified engineering geologist and include a detailed review of available original mine records and historic information for mine workings that could potentially influence the subject property. The locations, depths, and thicknesses of such coal mine seams underlying the site are documented.

Subsurface investigation or ground-proofing was conducted in the identified CMS Zone 2 area, where the No.4 mine workings were identified at a depth of less than 20 feet to 350 feet below the ground surface. 16 Shallow test borings were drilled for mine targets less than 100-feet deep and deeper test borings were drilled for mine targets to approximately 170 feet. The drilling methods are consistent with the code standards. Investigation results and interpretation of the findings resulted in revised mapping of the CMS zones and recommended measures to avoid coal mine hazards which have been incorporated into the project design.

11. **Mitigation of Trough Subsidence: Roads, Utilities, Grading, Retaining Walls (LUC 20.25H.130.J)**. *Utilities shall be designed to accommodate the magnitudes of strains and tilts specified in these regulations by using available engineering design techniques, such as those presented by Yokel and others (1981). The following requirements shall apply to CMS Zones 1 and 2.*

Finding: The report recommends that development in the Lower Risk CMS Zone 2 be limited to a stormwater detention pond or underground vault, and that no development occur within the higher risk zone. The stormwater vault site may be sited within the Lower Risk CMS Zone 2 where the mine shaft is more than 100 feet below the ground surface (Coal Mine Hazard Assessment and Ground Proofing Program, Icicle Creek Engineers, August 2, 2016, DSD 000647).

There is a 40-foot section of sanitary sewer line and 50-foot section of a sewer forced main that extend across the northwest corner of the Lower Risk CMS Zone

2. Where the utility lines cross the area, the abandoned mine is about 150 to 200 feet below the ground surface. Borings (B-15, B-16) were completed less than 50 feet from the utility crossings and the borings encountered over a 50-foot depth of glacial till overlying the Renton formation bedrock. Glacial till has the strength of reinforced concrete. Icicle Creek Engineers recommends that the utility line segments within the Lower Risk CMS Zone 2 be "sleeved" with a structural pipe capable of providing support to span a 10-foot void to mitigate sinkhole risk within the Lower Risk CMS Zone 2 (Geotechnical Consultation, Response to Comments, Icicle Creek Engineers, November 4, 2020, DSD 000757). **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Construction Details for Sanitary Sewer Line and Sewer Forces Main Located Within the Lower Risk CMS Zone 2.**

12. **Background Information – References, and Sources for Site Evaluation (LUC 20.25H.130.K)**. *The Coal Mine Subsidence Zone Maps have been developed in general by using conservative design criteria for shallow workings and by explicitly considering the condition of the workings in some of the northernmost deeper workings. The Zone 1 boundary is intended to represent the limit of subsidence effects that could potentially occur; the probable magnitudes of future subsidence within Zone 1 may be less or more severe based on site specific analysis. The methods used to develop the maps are described below to facilitate calculation of potential subsidence effects at specific sites.*

Finding: The City's Coal Mine Subsidence (CMS) Zone Maps were developed using conservative design criteria. The code requires a site-specific analysis to evaluate the potential magnitude of future subsidence and to confirm the CMS Zone classification.

The Preliminary Coal Mine Hazard Assessment (Icicle Creek Engineers, December 1, 2014, DSD 000626 - 000639) concluded that a CMS Zone 1 does not exist on the subject site because the magnitude of ground tilt and ground strain are less than the code-defined thresholds for the CMS zone 1. Subsequent subsurface exploration (ground proofing) was completed, and the results reinforced conclusions that the CMS Zone 1 is not applicable to the subject site.

The coal mine hazard reports concluded that the south portion of the subject site is within a Coal Mine Subsidence (CMS) Zone 2 area, because the area is underlain by shallow coal mine workings and the off-site access tunnel of the No. 4 Mine is at a depth less than 200 feet, consistent with code standards. The reports used the references and sources listed in this code section in the detailed site evaluation.

C. CONSISTENCY WITH PERFORMANCE STANDARDS FOR HABITAT ASSOCIATED WITH SPECIES OF LOCAL IMPORTANCE

i. Designation of Critical Area and Species of Local Importance (LUC 20.25H.150). *Habitat (other than the critical areas and critical area buffers otherwise designated in LUC 20.25H.025) associated with species of local importance is hereby designated a critical area; provided, that compliance with these species of local importance regulations, LUC 20.25H.150 through LUC 20.25H.170 inclusive, shall constitute compliance with the requirements of this part where such habitat is located outside of other critical areas designated in this part.*

Finding: The Critical Areas Report includes a table that lists all the species of local importance identified in the code, with an analysis of the likelihood of a species presence on the site (Table 1, Critical Areas Report, Talasaea Consultants, Revised January 11, 2023, DSD 000427 - 000429). The report determined that six (6) of the listed species have any likelihood of being present on the site and that likelihood is typically low to very low. These species are Bald eagle (migration only), Pileated woodpecker, Red-tailed hawk, Townsend's big-eared bat, Keen's myotis, and the Long-eared myotis. Townsend's big-eared bat is a Federally-listed species of concern and a State-listed candidate species. Pileated woodpecker is a State-listed candidate species.

Generally, Pileated woodpeckers inhabit mature and old-growth forests, and second growth forests with large snags and fallen trees. Although they are also known to occur in suburban habitats, they are more typically found in larger forested tracts. Their key breeding habitat need is the presence of large snags or decaying live trees for nesting, as this species generally excavates a new nest cavity each year. The breeding and nesting periods of the pileated woodpecker extends from late March to early July. The bat species (Townsend's big-eared bat, Keen's myotis, and the Long-eared myotis) are also typically found in larger forested and undisturbed habitats versus smaller remnant forested patches within suburban environments.

The proposed critical areas tract, Tract Z, contains the site's most undisturbed and mature natural forest community; forests with a continuous canopy and significant numbers of dead or dying conifers and soft-wood deciduous trees provide the highest habitat functions. The forested area interfaces with stream riparian areas and wetlands in the critical area tract increasing the habitat functions. This site area provides the most significant habitat functions and values for species of local importance and for other wildlife species.

ii. Performance Standards (LUC 20.25H.160). *If habitat associated with species of local importance will be impacted by a proposal, the proposal shall implement the wildlife management plan developed by the Department of Fish and Wildlife for such species. Where the habitat does not include any other critical area or critical area buffer, compliance with the wildlife management plan shall constitute compliance with this part.*

Finding: If nesting or breeding habitat for species of local importance is found during

construction activity, the area shall be protected, and the Washington Department of Fish and Wildlife contacted for recommendations on specie management plans. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Species of Local Importance.**

D. CONSISTENCY WITH CRITICAL AREAS REPORT AND MITIGATION STANDARDS

i. **Critical Areas Report – Purpose (LUC 20.25H.230).** *The critical areas report is intended to provide flexibility for sites where the expected critical area functions and values are not present due to degraded conditions or other unique site characteristics, or for proposals providing unique design or protection of critical area functions and values not anticipated by this part. The scope and complexity of information required in a critical areas report will vary, depending on the scope and complexity and magnitude of impact on critical areas and critical area buffers associated with the proposed development. Generally, the critical areas report must demonstrate that the proposal with the requested modifications leads to equivalent or better protection of critical area functions and values than would result from the application of the standard requirements. Where the proposal involves restoration of degraded conditions in exchange for a reduction in regulated critical area buffer on a site, the critical areas report must demonstrate a net increase in certain critical area functions.*

Finding: As documented in the submitted Critical Areas Report (DSD 000403-000543) and discussed previously in this report, the site has critical areas that are functional and relatively undisturbed on the western portion of the site. The outer periphery of the buffers that protect these critical areas has been historically disturbed from prior human uses and management of the area. This buffer area that is between the intact western critical areas and the uses on the eastern portion of the site lack expected ecological functions, due to human disturbances.

The proposal requests reduction of the overlapping stream and slope buffers on the site as well as minor disturbance proposed from construction of trail and storm water improvements within the proposed critical areas tract. The proposed mitigation is at a 6:1 ratio of mitigation area to buffer reduction in order to achieve the required restoration of degraded conditions and net increase of critical area functions that is needed for a project to be approved through a critical areas report.

ii. **Incorporation of Best Available Science (LUC 20.25H.245).** *The critical areas report shall use scientifically valid methods and studies in the analysis of critical area data and field reconnaissance and reference the source of science used, where applicable. The critical area report shall evaluate the proposal and all probable impacts to critical areas in accordance with the provisions of this part.*

Finding: The City of Bellevue has an Urban Wildlife Functional Assessment Model, which is intended to provide a standardized, reproducible means of evaluating habitat in an urban or urbanized setting based on best available science. The model identifies

the ability of a site to perform habitat functions, assesses the opportunities in the greater landscape, and the methodology allows for comparisons of a site's potential and actual habitat functions as compared to other sites and scenarios.

The applicant used the Wildlife Habitat Functional Assessment Model to review three scenarios: 1) existing site conditions; 2) post-construction buffer functions assuming no buffer reductions and no mitigation or buffer enhancement; and 3) post-construction buffer functions assuming the proposed buffer reductions with the proposed mitigation and buffer enhancement. Section 7.3 of the Critical Areas Report provides the findings of the model and the data sheets used to quantify the habitat functions is included in Appendix G of the Critical Areas Report (Talasaea Consultants, Revised January 11, 2023, DSD 000439 – 000440, 000520 - 000532).

The report concluded that scenario 1) existing site conditions would score 41 points for habitat functions, scenario 2) post-construction buffer functions assuming no buffer reductions and no mitigation or buffer enhancement would score 40 points for potential habitat functions, and scenario 3) post-construction buffer functions, assuming the proposed buffer reductions with the proposed mitigation/buffer enhancement, would score 46 points for potential habitat functions. See Appendix G of the Critical Areas Report DSD 000520 - 000532.

The applicant is pursuing "Salmon-Safe Certification" which represents a best available science methodology to evaluate development impacts on sites with streams, wetlands and critical areas. Salmon-Safe Inc. has developed a comprehensive certification framework and Urban Certification Standards oriented towards reducing impacts on water quality and fish habitat from urban land and water management practices. "Salmon Safe Certification" works with independent scientists and technical experts with expertise in aquatic ecosystems, innovative storm-water management, land management, and integrated pest management (IPM). The Salmon-Safe science team recommended that the Park Pointe development be certified as salmon-safe subject to the conditions in their report (Report of the Science Team Regarding Salmon-Safe Certification of the Park Pointe Planned Unit Development Bellevue, Washington, October 8, 2018, DSD 001067 - 001089). The recommendation summary states: "Isola Homes, the Park Pointe developer, has prepared a design for a residential community that will result in a net improvement in the ecological functions provided by this environmentally sensitive property that is immediately adjacent to the Coal Creek Natural Area." (DSD 001069).

Salmon-Safe Certification includes standards that apply during construction and post-construction and includes construction management guidelines, stormwater management guidelines, review of mitigation planting, and landscape maintenance. Annual verifications are required. The report includes seven conditions with specified timelines for submittals. The applicant shall comply with the guidelines and conditions in the Salmon-Safe Certification report and shall follow the certification conditions as specified in the October 8, 2018, report (DSD 001076 - 001080) through the

construction process and post-construction. The applicant shall provide reports to DSD demonstrating compliance with the conditions according to the timelines in the report. **Refer to Section XI.A of this Staff Report for Condition of Approval Regarding Completion of Salmon-Safe Certification.**

iii. **Mitigation Sequencing (LUC 20.25H.215).** *Applicants shall demonstrate that all reasonable efforts have been examined with the intent to avoid and minimize impacts to the critical area and/or critical area buffer. When an alteration to a critical area is proposed, such alteration shall be avoided, minimized, or compensated for through mitigation.*

1. **Avoidance.** *Avoiding the impact altogether by not taking a certain action or parts of an action;*

   Finding: The Critical Areas Report includes a detailed section on mitigation sequencing (Section 8.2, Critical Areas Report, Talasaea Consultants, Revised January 11, 2023, see DSD 000441 - 000445). The proposal avoids direct impacts on critical areas. The site's critical areas including steep slopes, landslide hazard areas, wetlands, and streams are all located and protected in a separate 6.3-acre critical area tract (Tract Z), which is proposed to be dedicated to the City of Bellevue. The development area is concentrated on the eastern 5.9 acres of the site where there are no critical areas present and where the site area has been historically used for single family residences and managed pasture area.

2. **Minimization.** *Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;*

   Finding: The site development has been designed to minimize impacts to critical areas and critical area buffers to the maximum extent practical. The site design minimizes dimensions for roadways, building footprints, and utility improvements to reduce impervious surfaces and the footprint of the development area. The proposal has minimized impacts to critical area buffers; reduction of the buffer (total of 21,575 SF) is primarily limited to site areas currently consisting of pasture, mowed lawn, areas with invasive plant species, and areas with a history of human disturbance, where the existing buffer conditions provide low habitat functions.

3. **Compensation.** *Performing the following types of mitigation (listed in order of preference). Mitigation for individual actions may include a combination of the above measures.*
   - *Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;*
   - *Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; or*

- *Compensating for the impact by replacing, enhancing, or providing substitute resources or environments;*

Finding: The proposal includes 130,823 SF of critical area buffer enhancement and restoration, restoring habitat areas along the periphery of the development area that are currently degraded and providing low habitat functions. The proposed buffer mitigation (130,823 SF) relative to the total buffer reduction (21,575 SF) would equate to a 6:1 mitigation to impact ratio. The proposal includes adequate mitigation to compensate for project impacts. The proposed buffer enhancement would result in higher habitat functions at maturity compared to existing site conditions. The Critical Areas Report utilized the City of Bellevue's Urban Wildlife Habitat Functional Assessment Model to demonstrate habitat functions would increase with the proposed development and its mitigation over existing site conditions and if the site was developed without buffer reductions and the mitigation (Section 7.3.1-7.3.3 and Appendix G, Critical Areas Report, Talasaea Consultants, Revised January 11, 2023, see DSD 000439 - 000440, 000520 - 000532).

iv. Mitigation and Monitoring – Additional Provisions for Steep Slopes (LUC 20.25H.135).

Finding: Erosion and Sediment Control Plans, Drainage Plans, and Monitoring Surface Waters are all submittal requirements for a Clearing & Grading Permit. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Clearing and Grading Permit Required.**

v. Critical Areas Report – Additional Provisions of Steep Slopes (LUC 20.25H.140.B).

Finding: The geotechnical reports assess the geologic characteristics of the project area, review the site history regarding landslides, erosion and prior grading, and include a soils analysis and slope stability analysis. The Geotechnical Engineering Study recommends that the standard steep slope buffer, (50 feet from the top-of-slope), may be reduced to 10-foot buffer with a 10-foot structure setback from the buffer (Geotech Consultants, Inc., January 19, 2016, Conclusions and Recommendations, DSD 000547). The Supplemental Letter states "that modification of the critical area or critical area buffer will have no adverse impacts on stability of any adjacent slopes and will not impact stability of any existing structures" (Geotech Consultants, Inc., March 29, 2017, DSD 000587).

vi. Critical Areas Report – Approval of Modification of Steep Slopes (LUC 20.25H.145). *Modifications to geologic hazard critical areas and critical area buffers shall only be approved if the Director determines that the modification:*

1. Will not increase the threat of the geological hazard to adjacent properties

over conditions that would exist if the provisions of this part were not modified;

Finding: Modifications or reductions to steep slope buffers are limited to the interior of the site. The geotechnical engineer's Supplemental Letter states "that modification of the critical area or critical area buffer will have no adverse impacts on stability of any adjacent slopes and will not impact stability of any existing structures." (Geotech Consultants, Inc., March 29, 2017, DSD 000587). The proposed modifications to the steep slope buffers would not increase the threat of geologic hazards on adjacent properties.

2. **Will not adversely impact other critical areas;**

Finding: The proposed modifications or reductions to the steep slope buffers are limited to the periphery of the development area. The forested steep slope critical area on the site would not be impacted. Streams and wetlands on the site are located within the interior of the critical area tract, downslope and distant from the proposed buffer reductions. Therefore, streams and wetlands would not be adversely impacted by the proposed reduction to steep slope buffers.

3. **Is designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than would exist if the provisions of this part were not modified;**

Finding: The geotechnical Supplemental Letter included a slope stability analysis, stating: "Based on the analysis, potential deep-seated slope failure for both the existing and post-development conditions have factors of safety greater than 1.5 under static conditions and 1.15 under seismic conditions. We believe these safety factors are very appropriate for the proposed development" (Geotech Consultants, Inc., March 29, 2017, DSD 000587).

4. **Is certified as safe as designed and under anticipated conditions by a qualified engineer or geologist, licensed in the state of Washington;**

Finding: The applicant's geotechnical engineer is a qualified engineer licensed in the state of Washington and has certified the proposed development is safe as designed, provided their construction recommendations are followed: "Provided that the foundation, grading, and retaining recommended in our previous report are observed in the proposed development of the property, it is our opinion that the modification of the critical area or critical area buffer will have no adverse impacts on stability of any adjacent slopes and will not impact stability of any existing structures." (Geotech Consultants, Inc., Geotechnical Supplemental Letter, Slope Stability Analysis, March 29, 2017, DSD 000587). The geotechnical engineer shall review construction plans and provide documentation that the plans adhere to the geotechnical recommendations. **Refer to Section XI.B of this Staff**

Report for Condition of Approval Regarding Geotechnical Review of Construction Plans.

5. **The applicant provides a geotechnical report prepared by a qualified professional demonstrating that modification of the critical area or critical area buffer will have no adverse impacts on stability of any adjacent slopes, and will not impact stability of any existing structures. Geotechnical reporting standards shall comply with requirements developed by the Director in City of Bellevue Submittal Requirements Sheet 25, Geotechnical Report and Stability Analysis Requirements, now or as hereafter amended;**

   Finding: The geotechnical reports were prepared by a qualified professional and included a slope stability analysis consistent with City of Bellevue submittal requirements and standards. The geotechnical Supplemental Letter concluded the factors of safety will be met and the proposed steep slope buffer reduction would have no adverse impacts on the stability of adjacent slopes and existing structures. "Based on the analysis, potential deep-seated slope failure for both the existing and post-development conditions have factors of safety greater than 1.5 under static conditions and 1.15 under seismic conditions. We believe these safety factors are very appropriate for the proposed development" (Geotech Consultants, Inc., March 29, 2017, DSD 000587).

   The applicant shall submit and execute a hold harmless agreement in a form approved by the City Attorney which releases the City from liability for any damage arising from the location of improvements proximate to steep slope areas. The hold harmless agreement is required to be recorded with King County and a copy provided to DSD prior to final approval of construction permits. **Refer to Section XI.D of this Staff Report for Condition of Approval Regarding Hold Harmless Agreement for Steep Slope Hazards.**

6. **Any modification complies with recommendations of the geotechnical support with respect to best management practices, construction techniques or other recommendations; and**

   Finding: The site plan's proposed modifications to the steep slope buffer standards comply with recommendations in the geotechnical reports. The reports include recommendations for best management practices and construction techniques. Construction plans shall be reviewed by a licensed geotechnical engineer and documentation shall be provided to DSD that the plans adhere to the geotechnical recommendations. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Geotechnical Review of Construction Plans.**

7. **The proposed modification to the critical area or critical area buffer with any associated mitigation does not significantly impact habitat associated with species of local importance, or such habitat that could reasonably be**

expected to exist during the anticipated life of the development proposal if the area were regulated under this part.

Finding: The proposed modifications or reductions to the steep slope buffer would be located at the periphery of the development area, in portions of the buffer area that currently lack native vegetation communities and have been degraded by past human activities and provide low habitat value. Habitat associated with species of local importance is primarily found in the forested west portion of the site, which is protected in a critical area tract.

vii. Critical Areas Report – Additional Provisions for Habitat (LUC 20.25H.165).
In addition to the general critical areas report requirements of LUC 20.25H.250, critical areas reports to modify the performance standards for habitat for species of local importance must meet the requirements of this section.

Finding: The Critical Areas Report in the Project File includes a habitat evaluation (DSD 000520 - 000532) which includes an investigation of the potential presence for the designated species of local importance. It provides a rationale for their presence, which considers the habitat conditions necessary to support the species and species' life cycle needs.

The report includes a detailed description of vegetation conditions and habitat functions on and adjacent to the site and an assessment of potential project impacts. The report concluded that six (6) of the listed species of local importance have any likelihood of being present on the site and that likelihood is typically low to very low. The report identifies species that are Federally listed species of concern and State-listed candidate species. Townsend's big-eared bat is a Federally listed species of concern and a State-listed candidate species. Pileated woodpecker is a State-listed candidate species. These species typically are found in larger forested and undisturbed habitats, with more suitable habitat conditions in the protected critical areas tract.

The open pasture area on the east portion of the site provides for perching and prey opportunities for Red-tail hawks and Merlin. The Critical Areas Report provides an assessment of the potential impact to Red-tailed hawks and Merlin habitat as a result of the potential loss of the pasture area as foraging habitat (Section 4.2.4, Critical Areas Report, Talasaea Consultants, January 11, 2023, DSD 000426 - 000430). The report concluded that the open pasture area on the site contains approximately 14% of the potential foraging habitat within the ½ mile assessment area around the site (Figure 6 - Pasture Grasses in ½-Mile Vicinity, Critical Areas Report, Talasaea Consultants, Revised January 11, 2023, DSD 000460).

The Critical Areas Report also includes a section on mitigation sequencing (Section 8.2, Critical Areas Report, Talasaea Consultants, Revised January 11, 2023, DSD 000441 - 000445) which discusses measures to avoid, minimize and to mitigate for

project impacts on habitat areas. The proposal has avoided and minimized impacts to critical area buffers; the impacts (total of 21,575 SF) are primarily limited to areas where the existing buffer conditions are degraded and provide low habitat functions. The proposal includes 130,823 SF of critical area buffer enhancement and restoration, restoring habitat areas along the periphery of the development area that are currently degraded and providing low habitat functions. The proposed buffer mitigation (130,823 SF) relative to the total buffer reduction (21,575 SF) would equate to a 6:1 mitigation to impact ratio.

The proposal includes extensive critical area buffer enhancement to mitigate for project impacts. Due to the scale, extent and complexity of the proposed mitigation a monitoring and maintenance period of 10 years from the time of installation will be required to ensure the enhancement planting is maintained and successfully established in accordance with the approved mitigation plan. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Maintenance and Monitoring Period.**

viii. Mitigation and Restoration Plan Requirements (LUC 20.25H.220).

Finding: The Critical Areas Report by Talasaea Consultants, Revised January 11, 2023 (DSD 000403 - 000543 includes Conceptual Mitigation Plans for Existing Site Conditions (DSD 000496), Proposed Impacts Assessment (DSD 000497), Proposed Mitigation Concept (DSD 000498), Proposed Buffer Mitigation Overview (DSD 000499), and Preliminary Plant List, Details and Notes (DSD 000500). The mitigation plans meet requirements of this code section. A Final Mitigation Plan is required to be submitted and approved with a Clearing and Grading Permit. The Final Mitigation Plan shall be consistent with the approved conceptual Critical Areas Mitigation Plans. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Final Mitigation Plan.**

Construction impacts are shown on Sheet W1.1 of the Conceptual Mitigation Plans (DSD 000497). Construction impacts include the soft-surface trail (2,161 SF), the stormwater outfall gabion basket energy dissipator (104 SF) and the staging area for the stormwater directional bore (646 SF). The Buffer Mitigation Overview Plan (Sheet W2.0, DSD 000499) shows the restoration of construction impact areas (Area E).

The Proposed Buffer Mitigation Overview (DSD 000499) identifies the type or level of the mitigation planting in response to existing vegetation conditions and the site plan location. For example, the most heavily disturbed, low-functioning buffer areas adjacent to the development area would have the most intensive replanting while buffer areas that are currently forested with native tree species would be interplanted with trees, but the enhancement strategy is more focused on establishing a native shrub understory. The planting mitigation adjacent to the development area includes Area C – Disturbed Forest Buffer Enhancement and Area D – Re-Establishment of Forested Buffer. These are areas where native vegetation has been disturbed by the historic use of the site, non-native invasive vegetation is prevalent and will require the

most intensive enhancement planting.

The Preliminary Plant List, Details and Notes, (Sheet W3.0, DSD 000500), does not specify the plant spacing or plant quantities. The successful establishment of dense, self-sustaining buffer vegetation adjacent to the development area is essential to improving critical area buffer functions and limiting human and pet intrusions into the critical areas tract. The City of Bellevue's Critical Areas Handbook includes planting templates for steep slope areas, stream buffers and wetland buffers, recommending appropriate plant species and plant spacing for mitigation and enhancement planting in critical area buffers. The Critical Areas Handbook recommends that trees be planted at a typical spacing of 9 feet on-center and shrubs at 4.5 – 6-foot on-center spacing depending on the plant species, and groundcovers at 2-foot on-center spacing. The project's mitigation plant spacing in the areas adjacent to the development area should be consistent with the City's Critical Areas Handbook. The Final Mitigation Plan shall include typical plant spacing consistent with the Critical Areas Handbook in Area C – Disturbed Forest Buffer Enhancement and Area D – Re-Establishment of Forested Buffer. The typical plant spacing is trees at 9 feet on-center and shrubs at 4.5 – 6-foot on-center spacing depending on the plant species, and groundcovers at 2-foot on-center spacing. Based on plant spacing and the planting area, Area C would need approximately 416 trees, 2,185 shrubs, and 11,271 ground covers and Area D would need approximately 459 trees, 2,407 shrubs, and 12,419 ground covers. These plant quantities do not account for existing vegetation and would be reduced to allow for existing native vegetation. The goal is to ensure resulting coverage is consistent with the spacing requirement. Based on the plan spacing, the final plans must specify the quantity of each plant to be installed. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Final Mitigation Plan Typical Plant Spacing and Quantity.**

The mitigation planting shall be fully installed and inspected by the City prior to dedication of the tract to the City or recording of the Native Growth Protection Easement. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Timing of Mitigation Planting Installation.**

Critical area mitigation is required to be monitored for a period necessary to demonstrate that performance standards have been met, but not for a period less than five years (LUC 20.25H.220.D). Due to the scale, extent and complexity of the proposed mitigation, the monitoring and maintenance period for the mitigation planting shall be 10 years from the time of installation. This will also allow the mitigation planting to be established and self-sustaining prior to the City inheriting responsibility for the critical areas tract. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Required Monitoring and Maintenance Period.**

An assurance device or financial surety is required to ensure that the planting is installed and that monitoring, and maintenance is conducted to fully implement the mitigation plan and to meet required performance standards. An installation

assurance device in the amount of 150 percent of all costs to install the mitigation is required to be submitted prior to clearing and grading permit issuance. A monitoring and maintenance assurance device that is equal to 20% of the cost of plants, installation, and the cost of monitoring is required to be held for a period of ten years from the date of successful installation. The amounts of these assurance devices shall be confirmed by submittal of a cost estimate for all costs associated with installation and 10 years of maintenance and monitoring. The cost estimate is required to be submitted with the clearing and grading permit. **Refer to Section XI.B of this Staff Report for Conditions of Approval Regarding Installation and Maintenance and Monitoring Assurance Devices and Cost Estimate.**

V. STATE ENVIRONMENTAL POLICY ACT (SEPA) PROCESS AND ENVIRONMENTAL ELEMENTS

A. SEPA PROCESS

An Expanded Environmental Checklist has been submitted by the applicant and includes technical studies and reports that are intended to be part of the SEPA record and have been considered in this SEPA Determination. The Environmental Checklist and associated technical reports and studies adequately disclose the potential environmental impacts of the proposal and do not identify probable significant adverse environmental impacts. Please refer to the list of technical reports and studies that were prepared to evaluate the potential impacts of the proposal (See DSD 000403 - 001393).

Using the Optional Determination of Non-Significance (DNS) process under WAC 197-11-355, a DNS was anticipated with the Notice of Application (NOA) for the Planned Unit Development and Critical Areas Land Use permits, on December 1, 2016. The ODNS process allows for a consolidated SEPA public comment period concurrent with the comment period for land use actions. The City of Bellevue has a standard practice of accepting and considering public comments on the potential environmental impacts until a decision or recommendation is issued. The SEPA checklist was revised, based on comments received from both the public and interested agencies over the course of the years this project has been reviewed. This expanded Environmental Checklist was submitted by the applicant which included the technical studies and reports that have been prepared as part of the project.

SEPA Rules require first considering whether local, state, or federal requirements and enforcement would adequately mitigate any identified significant adverse impacts (WAC 197-11-158). The City codes and requirements, including the Clear and Grade Code, Utility Code, Land Use Code, Noise Ordinance, Building Code and other construction codes are expected to mitigate the potential adverse environmental impacts disclosed in the submitted reports and analysis. SEPA mitigation measures required by the City address the potential adverse environmental impacts that are not clearly addressed and mitigated by local code and state or federal requirements.

The Expanded Environmental Checklist with associated technical reports and studies

adequately disclose the potential environmental impacts of the proposal and do not identify significant adverse environmental impacts, as a result of mitigation. The SEPA Environmental Review concludes that environmental impacts associated with the proposal will be mitigated by existing City codes and through mitigation measures required by the City using SEPA substantive authority. This mitigation reduces the identified impacts down to a non-significant, non-adverse level. Therefore, the City's Environmental Coordinator has determined that the proposal, as conditioned herein, will not result in any significant adverse environmental impacts. In this case a "mitigated DNS" (MDNS) is appropriate to be issued in lieu of a Determination of Significance (DS) and preparation of an EIS.

The City also carefully reviewed the proposal to identify the potential for any cumulative impacts with respect to the pertinent elements of the environment. Except to the extent specifically noted in this report, no such cumulative impacts were identified, and none were identified that would alter the Environmental Coordinator's SEPA analysis and the threshold determination for this proposal. The limited new development that would occur because of this proposal is consistent with and anticipated by the City's Comprehensive Plan and development regulations, the SEPA analysis for which has already been performed prior to adoption of those regulations and documents.

B. ENVIRONMENTAL ELEMENTS

i. Earth

1. Coal Mine Hazard impacts

Site-specific investigations were conducted to evaluate coal mine hazards underlying the subject site (Preliminary Coal Mine Hazard Assessment, Icicle Creek Engineers, December 1, 2014, DSD 000626 - 000639 and Revised Report Coal Mine Hazard Assessment and Ground Proofing Program, Icicle Creek Engineers, October 5, 2016, DSD 000697 - 000753). The investigations included subsurface drill borings to determine the depth of mining features. The report concluded that the south portion of the subject site is within a Coal Mine Subsidence (CMS) Zone 2 area, because the area is underlain by shallow coal mine workings and the access tunnel of the No. 4 Mine at a depth less than 200 feet. The investigations are consistent with methods prescribed in the Bellevue Land Use Code (LUC 20.25H.130) and meets all applicable engineering criteria.

Based on the results of the sub-surface ground-proofing, the report identifies a Lower Risk CMS Zone 2 and a Higher Risk CMS Zone 2. The report recommends that development in the Lower Risk CMS Zone 2 be limited to a stormwater detention pond or underground vault, and that no development occur within the higher risk zone. The proposed site plan meets the report's recommendations; no development is shown in the Higher Risk CMS Zone 2 and the stormwater vault is located in Lower Risk CMS Zone 2. See Figure 15, Coal Mine Subsidence (CMS) Zone 2.

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Per LUC 20.25H.130.B, subdivisions within coal mine hazard areas are required to have a statement on the face of the plat to disclose the presence of abandoned coal mines and the potential for coal mine hazards to exist. This requirement is not specifically made for developments lacking a subdivision application, despite section LUC 20.25H.130 being applicable to subdivisions and general "development of land" within areas designated as potential coal mine hazards. This requirement is applicable to this project and the future owners of these homes and therefore the applicant is required to include a note on the recorded PUD to disclose the presence of potential coal mine hazards and the requirement for development to meet the performance standards for work in coal mine hazard areas. This condition to disclose the potential for coal mine hazards is required using the City's SEPA substantive authority per BCC 22.02.140 in support of achieving the City's Comprehensive Plan policies. Supportive policies include but are not limited to the Environmental Element (Policies EN-41 and EN-42) and the Newcastle Subarea Plan (Objective 2 and Policy S-NC-38). These policies of the City's Comprehensive Plan specifically address disclosure and notification to purchasers of property when there are potential hazards that may exist on a property due to past coal mining activities. **Refer to Section XI.D of this Staff Report for Condition of Approval Regarding Recording of the PUD, Disclosure of Coal Mine Hazards, and Hold Harmless Agreement**

2. Geologic Hazard Areas

The proposed development would not result in direct impacts to the steep slope critical areas identified on the site. Steep slope and landslide hazard areas require a 50-foot buffer from the identified top-of-slope (LUC 20.25H.120.B1). The geotechnical report recommends that the 50-foot steep slope buffer can be reduced to 10 feet, "based on the absence of past landslides on the site slopes and the competent conditions of the native soils that compose the core of the site" and recommends an additional 10-foot structure setback from the reduced steep slope buffer (Geotechnical Engineering Study, Geotech Consultants, Inc., January 19, 2016, Conclusions and Recommendations, DSD 000547). The site plan generally provides a 40-to-65-foot buffer from the identified top of slope to the boundary of the development area. However, the steep slope buffer is reduced to a minimum of 10 feet in some areas in the north portion of the site. The report recommends a 10-foot structure setback from the buffer. A 15-foot structure setback is shown from the edge of the development area. Proposed residences would be setback a minimum of 25 feet from the top of the steep slope critical areas. See Section III.D and Section IV.B of this Staff Report for additional information on geologic hazards.

ii. Water

1. Surface Water (streams and wetlands)

Streams and wetlands on the subject site are located and protected in a proposed critical areas tract (Tract Z), which the applicant has offered to dedicate to the City of Bellevue (DSD 001438 - 001441). There are 264,349 SF (6.07 acres) of total

critical area buffers on the subject site. The proposal would reduce 21,575 SF (0.5 acres) or 8% of the total critical area buffers. The stream and steep slope buffer reductions are located along the interface or boundary between the development area and the critical area tract, within site areas that have been previously disturbed and where native vegetation has been modified and currently has low habitat quality (i.e., areas of pasture, mowed lawn, invasive species, areas of human disturbance).

It is important to note that under the Bellevue Land Use Code stream buffers are measured from the "top-of-bank" resulting in significantly larger or wider stream buffers (combining the horizontal length of the steep slope and the required stream buffer width) as compared to stream buffers measured from the ordinary-high-water-mark (OHWM). For example, the non-fish-bearing Streams 1, 2 and 3 require a 50-foot stream buffer, but the buffer as measured from the top-of-bank would yield a buffer width between 80 feet and 130 feet from the actual stream. See Figure 9. Measuring the stream buffer from the top-of-bank provides additional water quality and hydrology protection and recognizes that the steep slopes adjacent to the streams provide important habitat functions. The stream buffer impacts are distant from the actual streams and limited to buffer areas that are currently degraded and provide low buffer functions.

To mitigate for the critical area buffer impacts the proposal would enhance the overlapping steep slope buffer and stream buffer areas adjacent to the development area and the critical areas tract. The mitigation plan indicates 130,823 SF of buffer enhancement, restoration and reestablishment (See Figure 11 of this Staff Report, Critical Area Buffer Mitigation, DSD 000498). The proposed buffer mitigation area (130,823 SF) relative to buffer reduction (21,575 SF) would equate to a 6:1 mitigation to impact ratio. The proposed buffer mitigation/enhancement would improve overall ecological functions when established and located along the edges of the development area and critical areas tract would prevent intrusions and impacts from the development area.

The proposal has received Salmon-Safe Certification, see report dated October 8, 2018, DSD 001067 - 001089. Salmon-Safe works with independent scientists and technical experts to review development proposals for the purpose of reducing impacts on water quality and fish habitat. The Science Team recommended the certification after review of the development plans and a field visit with the project proponent and City staff.

2. Water runoff (including stormwater)

Stormwater discharge must meet the minimum requirements in Ecology's Stormwater Management Manual for Western Washington (SWMMWW), which includes controlling the rate of release of stormwater to match a pre-development forested condition for modeled storm events up to a 100-year storm event. The stormwater standards are specifically intended to mitigate for potential erosion

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impacts, water quality impacts, and impacts to fish habitat. The stormwater discharge pipe will be bored from the stormwater vault to avoid surface impacts and stormwater will be released into the buffer of Stream 1, just upgradient from the 8-foot tall waterfall on Stream 1. The base material of the waterfall is rock. This plan for stormwater discharge significantly reduces the potential for increased erosion or damage to downstream resources. The proposed stormwater management system meets not only the minimum requirements of the SWMMWW, but also the requirements for enhanced stormwater treatment. In addition, the stormwater management system was reviewed by Salmon-Safe and met its requirements for conditional certification.

iii. Plants and Animals

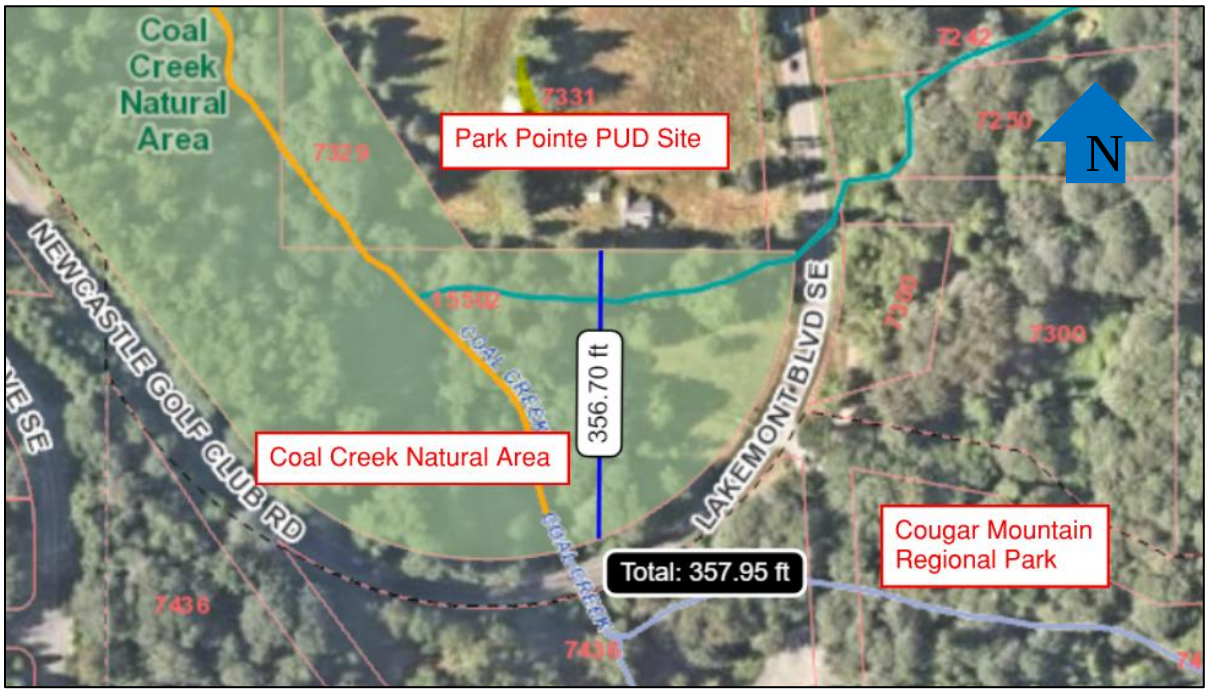
The project proposal includes a 6.3-acre critical areas tract (Tract Z), which will completely surround the development area, and contains all the site's critical areas and buffers including forested steep slopes, streams and wetlands. This portion of the site is heavily forested and provides the highest ecological functions and values to support wildlife habitat. The applicant has offered to dedicate the critical areas tract (DSD 001438 - 001441) to the City of Bellevue and the tract would be contiguous to and expand the Coal Creek Natural Area.

Most wildlife species and their life cycles are supported by the natural, mature forested conditions in the critical areas tract. For example, deer may graze in the pasture area but typically live within forested areas. Bobcats may utilize the site and at times hunt in the open pasture. However, their prey includes rabbits, small mammals, insects, birds, and sometimes deer. This wildlife is most supported by the forested habitat conditions that are protected on the west portion of the site.

It should be noted that Lakemont Blvd SE is an existing barrier to wildlife movement, and it currently fragments and breaks the habitat connections between the Coal Creek Natural Area and Cougar Mountain Regional Wildland Park. The subject property is also presently fenced along Lakemont Blvd SE, which limits wildlife movement across the site. Residential traffic associated with the proposed development may slow traffic speeds and benefit wildlife crossings.

The Coal Creek Natural Area extends to Lakemont Blvd SE to the south of the site, at the curve where Lakemont Blvd SE meets Newcastle Golf Club Road. This provides an approximate 350-foot-wide forested corridor directly connecting to Cougar Mountain Regional Wildland Park. This corridor contains Coal Creek and a tributary stream (Stream 0276B, Stream 3 on Park Pointe PUD plans). Wildlife movement frequently follows stream channels and riparian corridors. See Figure 19 of this Staff Report below for Wildlife Corridor south of the site.

Figure 19: Wildlife Corridor



The Critical Areas Report includes a table that lists the species of local importance with an analysis of the likelihood of a species presence on the site (DSD 000427 - 000429). The report determined that six (6) of the listed species has any likelihood of being present on the site, and that likelihood is typically low to very low. These species are Bald eagle (migration only), Pileated woodpecker, Red-tailed hawk, Townsend's big-eared bat, Keen's myotis, and the Long-eared myotis. Townsend's big-eared bat is a Federally listed species of concern and a State-listed candidate species. Pileated woodpecker is a State-listed candidate species. See Section III.F and Section IV.C of this Staff Report for more information on species of local importance.

Areas with mature forests (forests with significant numbers of dead or dying conifers and soft-wood deciduous trees) are found on the subject site and in the surrounding natural areas and provide habitat for these six species and for a multitude of other species not currently included on Federal or State priority species lists.

The development area is clustered on the east 5.2 acres of the site. This area of the site has been previously developed with single-family residences and historically maintained as mowed grass and pasture. The open pasture area on the east portion of the site provides for perching and prey opportunities for Red-tail hawks and Merlin. The Critical Areas Report provides an assessment of the potential impact to Red-tailed hawks and Merlin habitat as a result of the potential loss of the pasture area as foraging habitat (DSD 000426 - 000430). The report concluded that the open pasture area on the site contains approximately 14% of the potential foraging habitat within the ½ mile assessment area around the site (Figure 6 - Pasture Grasses in ½-Mile Vicinity, Critical Areas Report, Talasaea Consultants, Revised January 11, 2023, DSD 000460).

The proposal would not result in significant impacts to wildlife habitat or to habitat areas associated with species of local importance. The impacts to critical area buffers (total of 21,575 SF, see Figure 10 of this Staff Report) would be primarily limited to areas where the existing buffer vegetation conditions are degraded and provide low habitat functions. The critical areas tract (Tract Z) comprising the 6.3-acre west portion of the site would be preserved and provides the most significant habitat functions and values as this site area contains mature forest with a continuous canopy interfacing with the site's streams and wetlands. The applicant applied the City's Urban Wildlife Functional Assessment Model and determined the proposal, with the extensive critical area buffer mitigation/enhancement, would provide higher functional habitat value than the existing site conditions (Critical Areas Report, Section 7.3.3.1, DSD 000440).

The headwaters of Coal Creek are to the southeast of the site in the Cougar Mountain Regional Wildland Park and the stream flows generally to the northeast through the Coal Creek Natural Area to Lake Washington. Coal Creek flows along the southwest boundary of the site, mostly off-site, and is classified as a "Type-F water;" defined as a water that contains fish or fish habitat (LUC 20.25H.075.B.2). Coal Creek supports salmonid habitat from its mouth at Lake Washington up to the location of a natural fish passage barrier approximately 760 feet to the northwest of the northwest corner of the site, or approximately 1,260 feet downstream from where Coal Creek joins with Stream 1. The fish passage barrier is also identified in the Washington State Department of Fisheries Catalog of Washington Streams and Salmon Utilization, (Williams, Laramie, and Ames 1975). The fish passage barrier would prevent the migration of anadromous salmon up Coal Creek where adjacent to the site. The rating of Type-F reflects that the stream could support fish if the barrier were removed.

Although the subject site is located upstream of where salmonids are present in Coal Creek, the proposal incorporates best management practices, stormwater treatment, and the protection and enhancement of tributary stream buffers to support water quality and habitat conditions downstream in Coal Creek. The proposal would not result in erosion or water quality impacts that would affect downstream salmon habitat conditions in Coal Creek.

iv. Noise

The proposed development would increase noise levels over the current site conditions. However, the noise generated by the addition of 35 residences clustered adjacent to Lakemont Blvd SE would not result in significant adverse impacts on wildlife or critical areas. The proposed buffer vegetation enhancement would reduce and ameliorate noise and lighting impacts on critical areas to an insignificant level. Current noise levels from vehicles travelling on Lakemont Blvd SE is a constant source of noise and this noise level would exceed the sporadic noise from residents of the development. Noise is regulated by Bellevue City Code 9.18.

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v. Land and Shoreline Use

The project site is located in the southern portion of the City of Bellevue, in the Newcastle subarea, adjacent to the municipal boundary with the City of Newcastle. The project site abuts the City-owned Coal Creek Natural Area along the north, south, and west property boundaries. The on-site critical areas and buffers along the peripheries of the site will be preserved and enhanced. Therefore, the boundaries of the PUD site will blend with and would not impact the existing natural, forested conditions along the site's north, south and west boundaries.

Because the Coal Creek Natural Area surrounds the site, there is no residential development directly adjacent to the site. The Forest Ridge neighborhood is located approximately 600-900 feet to the north of the project site; it is zoned R-3.5 (the same as the project site) and is developed with 10,000 SF lots. The Forest Ridge Estates Division 1 consists of 140 residential lots and Division II consists of 122 lots. See Figure 4 of this Staff Report, Zoning Map. Six parcels are across from the site, on the east side of Lakemont Blvd. Three of these parcels are developed with residences.

The subject site is designated Single-Family Medium (SF-M) in the Comprehensive Plan and the R-3.5 land use district is consistent with the Comprehensive Plan designation. The site is within the City's utility service area. Although the site may currently appear to be isolated, semi-rural and not directly connected to existing development, the site is within City limits and utility service areas and is anticipated in the Comprehensive Plan and zoning to be developed at urban densities. Because over half of the site is comprised of critical areas/critical area buffers, the proposed 35 residential units on the 12.2-acre site would result in an overall density of 2.87 dwelling units per acre.

The proposed Planned Unit Development includes measures in the site design and architecture to address the size, scale, mass and the architectural design of the proposal for compatibility with surrounding, existing land uses. See Section IX.C of this Staff Report for more information.

vi. Light and Glare

Performance standards for streams and wetlands in the City's critical areas code requires lighting to be shielded and directed away from critical areas and buffers and is a required condition of approval. **Refer to Section XI.C of this Staff Report for Condition of Approval Regarding Screening of Outdoor Lighting**. Street lighting on Lakemont Blvd SE would not be located close enough to illuminate the critical areas tract, which includes the site's most ecologically significant and sensitive areas.

vii. Recreation

The subject site is surrounded by the Coal Creek Natural Area, a city-owned natural open space. There is an existing public trail access located to the south of the development site and the proposal would not alter or impact the current level of public access to the natural area. The trail crosses the subject property, located within one

of the existing restrictive covenant parcels. The existing trail is included in the critical area tract which the applicant has offered to dedicate to the City of Bellevue.

The King County "Red Town trailhead" is located across Lakemont Blvd SE and provides access to the Cougar Mountain Regional Wildland Park. There is a parking area at the trailhead for users of the Coal Creek Natural Area. The applicant will install a flashing beacon and controlled pedestrian crossing over Lakemont Blvd SE to improve a safer pedestrian access to the Coal Creek Natural Area trail.

The subject site is currently developed with older residences and outbuildings with an open area historically maintained as pasture and yard area. The development proposal is largely limited to the existing historically improved area of the site. The proposal includes extensive landscaping and buffer enhancement around the peripheries of the development area which would screen the visibility of the development area from the Coal Creek Natural Area and trail system. The development proposal would not result in significant impacts to the existing trail access, to users of the surrounding natural areas, or to the visual experience of recreation users.

viii. Historic and Cultural Preservation

Cultural resources on the site were evaluated under two assessments prepared by Tierra Right-of-Way:

- A Cultural Resources Assessment (April 19, 2017, see DSD 001090 - 001191)
- Cultural Resources Assessment Addendum (May 24, 2018, see DSD 001264 - 001323)

Tierra's first assessment in 2017 consisted of background review and field investigation. Background review determined the project area to be located in an area with a high probability for historic properties. The project area and surrounding properties are part of a major historical mining complex that includes historic towns that are no longer present on the landscape. Field investigation included visual reconnaissance, pedestrian survey, and subsurface testing. This assessment recorded six (6) historic structures and four (4) historic era archaeological sites and one (1) historic era archaeological isolate. The Washington State Department of Archaeology & Historic Preservation (DAHP) reviewed the Cultural Resources Assessment and concurred that the 6 historic structures are not eligible for listing in the National Register of Historic Places (NRHP) and require no further documentation (DAHP Letter, December 26, 2017, DSD 001431 - 001432). The DAHP letter also concurred that 3 of the 4 archaeological resources are not eligible for listing in the National Register of Historic Places (NRHP) and will not require DAHP permits to disturb.

DAHP did determine that one (1) archeological resource (Site 45KI325) was eligible for listing in the National Register of Historic Places (DAHP Letter, December 17, 2020, DSD 001428). The site corresponds to an area designated on historical maps as "Finn

Town," an area that was occupied by Finnish coal miners which grew around the operation of the Ford Slope Mine beginning around 1905. The site is located along the eastern edge of the project area. The site was investigated in 2018 under a DAHP permit (Permit 2018-12). The applicant must submit a site protection plan indicating how they would avoid and protect the archeological site during project grading and construction prior to issuance of a Clearing and Grading Permit. The site protection plan shall be reviewed and approved by DAHP. A DAHP Site Alteration & Excavation Permit will be required for site work in this area if DAHP determines there would be potential impacts to the archaeological site. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Archeological Site Protection Plan and DAHP Site Alteration & Excavation Permit.**

Tierra's second assessment of the site in 2018, addendum to their initial report, was prepared to evaluate an additional site area outside of and to the southwest of the original proposed disturbance area (Tierra Right-of-Way, May 24, 2018, DSD 001264 - 001323). There was no sub-surface investigation conducted. The Addendum identified six (6) above-ground building foundations (different from 6 historic structures previously identified) that may have been related to the production of electricity for the historic-era mining operation. There is a wooden structure on top of one of the foundations that does not appear to be an original structure. DAHP concurred that the foundations are eligible for listing in the National Register of Historic Places, identified as Site 45KI01452. The wooden structure was determined not eligible (Resource #715713).

The foundations are nearby the pedestrian trail into the Coal Creek Natural Area and there is existing City of Bellevue interpretive signage to educate the public about this local historic-era resource. The foundations appear to be located within the PUD's critical areas tract. The applicant must submit a site protection plan indicating how they would avoid and protect the site during project grading and construction prior to issuance of a Clearing and Grading Permit. The site protection plan shall be reviewed and approved by DAHP. A DAHP Site Alteration & Excavation Permit will be required for site work in this area if DAHP determines there are potential impacts to the archeological site. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Archeological Site Protection Plan and DAHP Site Alteration & Excavation Permit.**

Due to the high probability of historic resources in the project area, the site should be monitored during the initial ground clearance, site preparation and grading activity as it is likely additional historical period archaeological resources will be found. The applicant shall develop a project-specific Monitoring & Inadvertent Discovery Plan (MIDP) for the entire site area, and specifically for areas outside of the two eligible archaeological sites. This plan shall be reviewed and approved by DAHP prior to issuance of a Clearing & Grading Permit. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding a Monitoring & Inadvertent Discovery Plan (MIDP).**

The project archaeologist should provide training for all workers on-site on archaeological laws, how to identify archaeological materials, and how to appropriately report incidental finds. If archaeological materials are encountered during project grading or construction, the project archaeologist should be immediately notified, and work should be halted in the vicinity of the find until the materials can be inspected and assessed. At that time, the appropriate persons are to be notified of the exact nature and extent of the resource so that measures can be taken to secure them. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Archeological Training and Reporting.**

There is existing interpretive signage of coal mining history along the Coal Creek Natural Area trail installed by the Bellevue Parks Department. However, there is no signage that addresses the more recent history of Milt Swanson who lived on the development site for 90 years and was a locally renowned coal mining historian. The applicant shall provide additional signage to recognize the historic role of Milt Swanson. The location and content of the signage shall be coordinated with the Bellevue Parks Department. **Refer to Section XI.D of this Staff Report for Condition of Approval Regarding Interpretive Signage for Coal Mining History.**

The above conditions of approval related to archeological protection and recognition are required using the City's SEPA substantive authority granted per RCW 43.21C.060 and BCC 22.02.140. The City's Comprehensive Plan polices, including but not limited to the Urban Design and Arts Element (Policies UD-82, UD-83, and UD-84) as well as the Newcastle Subarea Plan (Goal, Objectives, Intent, and Policies S-NC-27, S-NC-28, and S-NC-29) provide a basis for the exercise of authority under SEPA to apply the listed conditions of approval to this proposal.

ix. Transportation

1. Long Term Impacts

The City has prepared a traffic forecasting model for the 2030 horizon year to assess cumulative impacts that may result from growth and development during that period. This modeling analysis is based on a projected land use scenario and improvements to the transportation system that would occur during this time period.

Under the level of service standard detailed in the Transportation Code, the City is divided into 14 Mobility Management Areas (MMAs), each with an area average standard and a congestion management standard. The traffic modeling shows that all of the MMAs would meet both standards. This project proposes to add a maximum net increase of 32 dwelling units in MMA 11, Southeast Bellevue. This level of development is within the assumptions of the City's traffic modeling and does not require additional mitigation.

In addition, transportation impact fees are used by the City to fund street improvement projects to alleviate traffic congestion caused by the cumulative impacts of

development throughout the City. Payment of the transportation impact fee, as required by Chapter 22.16 BCC, contributes to the financing of transportation improvement projects in the current adopted Transportation Facilities Plan, and is considered to be adequate mitigation of long-term traffic impacts. Fee payment is required at the time of building permit issuance. Impact fees are subject to change and the fee schedule in effect at the time of building permit issuance will apply. **Refer to Section XI.C of this Staff Report for Condition of Approval Regarding Transportation Impact Fee.**

2. Mid-Range Impacts

Project impacts anticipated to occur in the next six years are assessed through a concurrency analysis. The Traffic Standards Code (BCC 14.10) requires that development proposals generating 30 or more new p.m. peak hour trips undergo a traffic impact analysis to determine if the concurrency requirements of the State Growth Management Act are maintained.

The Park Pointe development will generate approximately 32 new p.m. peak hour trips. That number was used to check for concurrency. City staff distributed and then assigned project-generated trips to the street network using the City's EMME-2 travel forecasting model with the current Capital Investment Program network. By adding the expected project-generated trips to the traffic volumes in the model, the area average levels of service were determined. To create a baseline condition for comparison, the levels of service were also determined using traffic volumes without the project-generated trips.

Neither the maximum area-average levels of service nor the congestion allowances would be exceeded as a result of traffic generated from this proposal. Therefore, the proposed development passes the concurrency test. The concurrency test results are included in the Transportation Department file for this development. A concurrency determination is issued on the date of issuance of the land use decision. This project complies with the Traffic Standards Code and is receiving a Certificate of Concurrency (DSD 000979).

The rules of concurrency reservation are outlined in the Traffic Standards Code Director's Rules. The concurrency determination is reserved to this project at the land use decision date. The concurrency reservation expires one year from the land use decision date unless a complete building permit application is filed (BCC 14.10.040.F). At the time of a complete building permit application, the concurrency reservation will remain in effect for the life of the building permit application, pursuant to BCC 23.05.090.H. Upon issuance of the building permit, concurrency is reserved for the life of the building permit as provided for in BCC 23.05.100.E.

3. Short Term Operational Impacts

A Traffic Impact Analysis (TIA) dated February 2021, (DSD 001022 – 001054) was prepared for this project by Gibson Traffic Consultants to analyze the operational

impacts to this proposal in order to recommend mitigation if necessary. Issues that were analyzed in the TIA included traffic operations conditions during the a.m. and p.m. peak hours, sight distance analysis at the development intersections with Lakemont Boulevard, vehicular and pedestrian circulation, delivery and fire truck circulation/operations, and accident history for the past three years. This development will distribute 32 new p.m. peak hour trips onto Lakemont Boulevard via a private access road, Road A, that has two points of access to Lakemont Boulevard. Due to the restricted vehicular sight distance out of the southern private road approach, vehicle access to the southern private road entrance will be limited to right-in/right-out access only. Due to the low volume of new trip generation created by this development, short term vehicle traffic operational impacts are anticipated to be negligible. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Vehicular Access Restrictions**.

To mitigate the impact of pedestrians crossing Lakemont Boulevard SE to access the Red Town trail head parking, the applicant will be responsible for installing a marked pedestrian crosswalk with an RRFB (Rectangular Rapid Flashing Beacon) to alert motorists when a pedestrian is crossing. Due to the horizontal curve in the road a more substantial RRFB crossing is warranted. The cost estimated by city staff puts the price at approximately double the original RRFB crossing price. With assistance from city levee project funds, the City will contribute the main components of the upgraded RRFB, resulting in a cost that was in line with the original RRFB design. This project is included on the City's levy project list for 2023. Based on this designation, it is anticipated and intended that the City provide the following components for the RRFB, subject to and contingent upon the funding and policy priorities of the City Council: One Type III signal pole with mast arm with anchor bolts, a luminaire for the type III pole, two PS poles for the advanced warning, and four RRFB assemblies. The applicant shall reasonably coordinate with the City and make a request 6 months in advance of needing these major components. The City shall provide notice if and when all major components are ready to be picked up by the applicant from the signal shop. However, there is no guarantee of City assistance which is subject to City Council approval. If approval is not given these improvements are required to be fully funded by the applicant. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Lakemont Blvd SE Pedestrian Crossing.**

x. Cumulative Impacts of Proposed Planned Unit Development (PUD)

The proposal would cluster development on 5.9 acres adjacent to Lakemont Blvd SE and dedicate a 6.3-acre critical areas tract to the City of Bellevue. All the site's critical areas and critical area buffers, except for eight percent reduction requested, are contained within the critical area tract. The proposed eight percent buffer reduction is located on the outer edge of the buffer, primarily in areas where the native vegetation has been modified by historic use of the property and that currently provides low ecological functions. The impacts of the development would not result in cumulative impacts to wildlife, wildlife corridors or the Coal Creek ecosystem.

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The PUD proposal would require the extension of off-site water and sewer utilities to serve the development. This would provide urban-level utility services that are not currently present in the immediate area. There are six privately-owned parcels, approximately one to three acres in size, on the east side of Lakemont Blvd which are not currently served with City water and sewer utilities. Three of the six parcels are currently developed with single-family residences. These parcels are likely encumbered by critical areas, similar to the subject site. The extension of public utilities may create the potential for future development at a higher residential density on these nearby parcels. However, all the parcels are currently zoned R-1, which allows for one dwelling unit per acre. Increasing density on these parcels would require an amendment of the City's Comprehensive Plan and Rezone which are both subject to approval by the City Council. So, although the proposal would extend urban-level utilities to the area, the nearby properties could not immediately develop at a higher density without further environmental analysis and City Council evaluation and approval. When and if such additional development would occur, as well as its extent, is speculative. The extension of utilities and development on this site does not represent a cumulative land use impact, but rather an anticipated and planned transition to urban-level residential density within the Bellevue city limits and utility service area and only affects the few remaining properties that are not publicly owned in this location along Lakemont Blvd.

VI. PUBLIC NOTICE, COMMENT, AND RESPONSE

A. PUBLIC NOTICE

Files 16-143970-LK and 16-145946-LO

Application Date:	October 10, 2016
Notice of Application:	December 1, 2016
Public Notice Sign:	December 1, 2016
Minimum Comment Period:	December 15, 2016
Public Meeting:	December 14, 2016

File 19-121109-LL (Withdrawn by Applicant)

Application Date:	August 21, 2019
Notice of Application:	September 12, 2019
Public Notice Sign:	September 12, 2019
Minimum Comment Period:	September 24, 2019
Public Meeting:	September 24, 2019
Application Withdrawn:	November 30, 2020

The Notice of Application (NOA) for the Planned Unit Development (16-143970-LK) and Critical Areas Land Use (16-145946-LO) permits was issued on December 1, 2016. An Optional Determination of Non-Significance (DNS) (SEPA) was issued anticipated with the Notice of Application through the Optional DNS Process discussed in Section V of this Staff Report. There was a 14-day minimum public comment period (ending December 15, 2016) for the permit applications and the SEPA comment period. A public meeting was

held on December 14, 2016.

The applicant later submitted a Preliminary Plat application (19-121109) on August 21, 2019. The Notice of Application (NOA) was issued on September 12, 2019, with a minimum 14-day comment period ending September 26, 2019. A DNS was still anticipated with the Notice of Application. A public meeting was held on September 24, 2019. However, the applicant requested the Preliminary Plat application be withdrawn on November 30, 2020. All comments and parties of record under the second notice were included as part of the PUD.

B. PUBLIC COMMENT AND RESPONSE

As has been noted, the City of Bellevue's practice is to accept and consider public comments on the permit applications and a SEPA determination up to the issuance of a decision or recommendation. Numerous public comments have been received from nearby property owners and members of organizations including the Issaquah Alps Club, Newcastle Historic Society, and Save Coal Creek. In preparing and issuing this Staff Report, the City has carefully and in good faith considered all of these various comments. The comment letters and emails can be found in the Project File at DSD 001669 - 002137. The comments received are summarized below and are categorized by general subject with the response from the City following.

i. SEPA Process and Request for an Environmental Impact Statement (EIS)

Comment Summary: The City should require an Environmental Impact Statement (EIS) because of the project's environmental impacts.

Response: The initial public notice for this proposal (DSD 001399) indicated that the City anticipated issuing a Determination of Non-Significance (DNS) through the Optional DNS process allowed under WAC 197-11-355. The ODNS process allows for a comment period that is consolidated with the comment period on the subject land use action. However, the City of Bellevue's practice is to accept and consider comments on a proposal up to the point that a decision or recommendation is issued. The original SEPA checklist was revised, based on comments received over the years this project has been under review, from both the public and interested agencies. This Expanded Environmental Checklist (DSD 000389) was submitted by the applicant which included the technical studies and reports that have been prepared as part of the project, similar in the level of detail to what would be prepared for an Environmental Impact Statement (EIS).

The Environmental Checklist and associated technical reports and studies adequately disclose the potential environmental impacts of the proposal and do not identify significant adverse environmental impacts. The submitted information does not show that this site has unanticipated or unique features, not found on other properties, that warrants an EIS-level of analysis. No unexpected critical areas issues were found that cannot be addressed by standard application of Bellevue's codes that apply to any proposal within Bellevue, a city that plans under the Growth Management Act and

applies an established and tested critical area ordinance that mitigates impacts.

The City's Environmental Coordinator has carefully considered the proposal in light of the available information and the applicable SEPA standards. Under SEPA, a Determination of Significance (DS) is warranted where a proposal will result in probable significant adverse environmental impacts. "Environmental impacts" are the effects or consequences of the proposal upon the elements of the environment that are recognized by SEPA for review and protection. "Probable" in this context means "likely or reasonably likely to occur." SEPA differentiates "likely" impacts from "those that merely have a possibility of occurring but are remote or speculative." An impact is "significant" for purposes of SEPA review if it implicates "a reasonable likelihood of more than a moderate adverse impact on environmental quality." The test for significance is not strictly formulaic or quantifiable, but instead is context-dependent and varies with the proposal's physical setting.

Based upon the available information, no probable significant adverse impacts have been identified that would warrant issuance of a DS and the preparation of an EIS. Environmental impacts will result from the project; some have negative effects, and some have positive effects on the environment. However, no impacts have been identified, on or off the site, that have a significant adverse impact or effect on the environment which require a Determination of Significance and the project to be reviewed under an Environmental Impact Statement. Please refer to the technical reports and studies (DSD 000403 – 001393) that were prepared to evaluate the potential impacts of the proposal that are referenced in this report and found in the associated Project File.

Based on the submitted information, the City's review concluded that an EIS is not warranted because any adverse environmental impacts to critical areas, infrastructure, and other elements of the environment associated with the proposal, as conditioned herein, will be mitigated by existing City codes and standards. Issues found that are not addressed in the City's codes are those related to protection of archeological resources and notification of coal mine hazards. Mitigation measures to address and avoid impacts to archeological resources and to require notification of the potential for coal mine hazards have been identified. Conditions of approval required through the City's SEPA substantive authority require the applicant to work with the Washington Department of Archaeology and Historic Preservation (DAHP) to address the potential adverse environmental impacts that are not mitigated by local code, state or federal requirements.

Archeological impacts as well as the impacts to critical areas and buffers discussed previously are not probable significant adverse impacts as they are anticipated, localized, quantifiable, and mitigated without the level of analysis provided by an EIS. As explained above, the level of analysis an EIS provides is warranted for the most complex projects or proposals that have such a large scale and undefined scope that there is potential to have impacts that cannot easily be anticipated, quantified, and that

are not easily mitigated. These projects require the EIS process to inform the scope of the review and the analysis required. The results of the analysis are then reviewed in a draft and final statement of findings that are open to public comment at each stage.

Specific measures have been provided and required as conditions of approval under both the City's code authority and the City's SEPA substantive authority. Conditions that are made using the City's SEPA authority address measures that are required as regulations do not exist and are not anticipated in Bellevue's codes to address archeological preservation or coal mine hazard notification when not associated with a subdivision of land. These conditions of approval change the DNS that was initially anticipated, to a Mitigated Determination of Non-significance (MDNS) and ensure the identified potential for adverse impacts to archeological resources are avoided or remain at a non-significant level. Therefore, the proposal will not result in significant adverse environmental impacts that require and EIS. In this case a MDNS is appropriate to be issued in lieu of a Determination of Significance (DS) and preparation of an EIS.

ii. Environmental Critical Area Issues

Comment Summary: The impacts to streams (including Coal Creek), wetlands and steep slope critical areas and associated buffers are too significant to be allowed.

Response: The proposed development would not have direct impacts on streams, wetlands, or steep slope critical areas. All streams, wetlands and steep slope critical areas on the subject site are located on the west portion of the site and protected in a critical area tract (Tract Z, 6.3 acres), which comprises over half of the total site area. The applicant has offered, and intends, to dedicate the critical areas tract to the City of Bellevue (DSD 001438 - 001441).

The proposal would have relatively minor impacts on critical area buffers which are intended to protect the functions of critical areas. The proposal would reduce the buffers by approximately eight percent (21,575 SF, 0.5 acres) of the total critical area buffers on the site. The stream and steep slope buffer reductions are primarily located along the interface or boundary between the development area and the critical area tract; within site areas that have been previously disturbed and where the native vegetation has been modified and currently provides low habitat quality (i.e., areas of pasture, mowed lawn, invasive species, areas of human disturbance). The proposed mitigation, enhancement of critical area buffers with native vegetation, is expected to improve critical area functions over the existing site conditions. See Critical Areas Report, Section 7.3.3.1, DSD 000440).

Coal Creek is located off-site, to the southeast of the project site and within the Coal Creek Natural Area that is a public open space managed by the City of Bellevue. A natural fish barrier (waterfall) downstream of the site prevents the migration of anadromous salmon up Coal Creek where adjacent to the site. The proposal incorporates best management practices, stormwater treatment, and the protection

and enhancement of tributary stream buffers to support water quality and habitat conditions downstream in Coal Creek. The proposal would not result in erosion or water quality impacts that would affect downstream salmon habitat conditions in Coal Creek as there is no development on steep slopes and drainage from the site is required to comply with stormwater detention and treatment requirements.

The proposal has received Salmon-Safe Certification (report dated October 8, 2018, DSD 001067 - 001089). Salmon-Safe Inc. works with independent scientists and technical experts to review development proposals for the purpose of reducing impacts on water quality and fish habitat. The Science Team recommended the certification after review of the development plans and a field visit with the project proponent and City staff. The applicant has committed to working with Salmon-Safe throughout the construction process and conditions of approval require the applicant's continued participation.

iii. Wildlife and Wildlife Corridor

Comment Summary: The proposed development will impact the habitat connections and wildlife corridor between the Coal Creek Natural Area and Cougar Mountain Regional Wildland Park.

Response: Lakemont Blvd SE is an arterial road and existing barrier to wildlife movement and currently fragments and breaks the habitat connections between the Coal Creek Natural Area and Cougar Mountain Regional Park. This road is heavily used and has at least 7,000 trips per day (pre-pandemic). This road is not only accessed by hikers but is a primary access to the Newcastle Golf Club, Coal Creek Parkway, the commercial area of Newcastle, and westward toward I-405. The subject property is presently fenced along Lakemont Blvd SE, which further limits wildlife movement across the site.

The Coal Creek Natural Area extends to Lakemont Blvd SE to the south of the site, at the curve where Lakemont Blvd SE meets Newcastle Golf Club Road. This provides an approximate 350-foot-wide forested corridor directly connecting to Cougar Mountain Regional Wildland Park. This corridor contains Coal Creek and a tributary stream (Stream 0276B, Stream 3 on Park Pointe PUD plans). Wildlife movement frequently follows stream channels and riparian corridors which are maintained by the proposal. See Figure 18 of this Staff Report.

Comments that this project cannot be developed because it will impact a wildlife corridor would place the burden and responsibility for maintaining habitat connection on a relatively few privately-owned properties that exist in this area. Development of housing to the north and the golf course to the south have created the corridor effect by removing and impacting vegetation and critical areas. The result is that the remaining vegetation is within a corridor that is primarily publicly owned, with the exception of the subject site and properties to the east, across Lakemont Blvd. Comments assert that this development will clearcut the headwaters of Coal Creek

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and that this project will impact fish bearing streams which is incorrect and not supported by the proposed plans or record of review. The proposed development is located in the same location that development and use on this site has historically been found. Over 80 percent of the trees on this site are proposed to remain with the steep slopes, streams, and wetlands that are to be left completely undisturbed and fully tree covered.

The project proposal includes a 6.3-acre critical areas tract (Tract Z), which will completely surround the development area and contains all the site's critical areas and buffers except for the previously noted proposed buffer reduction of the outer buffer, that is already disturbed, and amounts to eight percent or 21,575 square feet of impact. The preserved portion of the site is forested and provides the highest ecological functions and values to support wildlife habitat. As an additional assurance, the applicant has offered, and intends to, dedicate the critical areas tract to the City of Bellevue (DSD 001438 - 001441), adding this area to the contiguous Coal Creek Natural Area.

iv. Recreation Impacts

Comment Summary: The proposed development would impact the recreational opportunities, access, and the park experience in the Coal Creek Natural Area.

Response: The development site is surrounded by the Coal Creek Natural Area, a City-owned natural open space. The proposal would not alter or impact the existing trailhead or trail access to the Coal Creek Natural Area located to the south of the site. The existing trail crosses the subject property and is included in the critical area tract which the applicant has proposed to be dedicated to the City of Bellevue. This will ensure continued public access to the Coal Creek Natural Area.

The King County "Red Town trailhead" is located across Lakemont Blvd SE and the parking area is utilized by visitors of the Coal Creek Natural Area. The crossing over Lakemont Blvd SE is located at the curve where Lakemont Blvd SE meets Newcastle Golf Club Road and sightlines make the crossing difficult for pedestrians. The applicant will install a rapid flashing beacon (RRFB) to provide a safer pedestrian crossing over Lakemont Blvd SE.

The subject site is currently developed with older residences and outbuildings with an open area historically maintained as pasture and yard area. The development proposal is largely limited to the existing historically improved area of the site. The proposal includes extensive landscaping and buffer enhancement around the peripheries of the site which would screen the visibility of the development from the Coal Creek Natural Area and trail system. The development proposal would not impact the existing public trail access or the visual experience of recreation users.

v. City Acquisition

Comment Summary: The City must acquire the subject property to preserve it as open

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space for public use.

Response: The current property owner has not expressed an interest in selling the property. The City cannot compel the owner to sell their property. Bellevue Parks has an open door to talk to any willing seller about potential acquisition. Under the current circumstances, the City is limited to working with the property owner through the land use permit review and approval process to preserve critical areas and potential public trail easements. In sum, any potential future acquisition of the project site by the City is separate and distinct from the City's regulatory role in reviewing the applicant's current development proposal, and is not an appropriate consideration for this report. The applicant has offered, and intends to, dedicate the 6.3-acre critical areas tract to the City of Bellevue. This tract surrounds the development area and contains all the site's critical areas and buffers including forested steep slopes, streams and wetlands. A portion of the existing Coal Creek Natural Area trail is also located within the tract. The critical areas tract is contiguous to and would expand the Coal Creek Natural Area.

vi. Residential Density and Compatibility with Surrounding Development

Comment Summary: The proposed development is incompatible with surrounding development and the "rural" character of the immediate vicinity.

Response: The proposal is for detached single-family residences which is consistent with Bellevue's long-range planning and the existing zoning. The site is planned for single-family residential development in both the Comprehensive Plan [designated Single-Family Medium (SF-M)] and the R-3.5 zoning designation. It is also within the City's utility service area. The lack of existing roads and systems on this section of Lakemont Blvd. is not an indication of intent to preserve a rural character but is a result of lack of development in the area that has been planned to receive some growth. The publicly owned nature of much of the area along with the cost of constructing improvements as well as numerous environmental restrictions has limited growth here until recent years as land values have increased.

The proposed 35 units is not out of character or an increase above the density on the site that would be possible if not for the critical areas present. Assuming all bonus density is achieved by the PUD proposal there is a maximum density of 42 units possible but only 35 units are proposed due to site and development constraints. The gross site area of 12.29 acres and zoning of 3.5 units per acre would allow 43 units, if not counting critical areas. Therefore, the proposed 35 units is less than what the site qualifies for under basic zoning and what is possible through bonus density of the PUD. The design choice to construct detached single-family residences with a traditional neighborhood layout rather than attached dwelling units or other multi-unit construction limits the maximum density that can be achieved by the proposal but provides a design that is compatible with the surrounding character of detached residences on separate lots.

The site is mostly surrounded by the Coal Creek Natural Area and therefore it is not contiguous with other single-family development. The Forest Ridge neighborhood, which is located approximately 600-900 feet to the north of the project site, consists of over 250 residences. See Figure 4 of this Staff Report, Zoning Map. The Newcastle Golf Club is also to the south on the other side of Lakemont Blvd. which turns into Newcastle Golf Club Road. Although the site currently appears to be semi-rural forest and pasture and is not directly abutting existing development, the site is within City limits and utility service areas and is anticipated in the Comprehensive Plan and zoning to be developed at urban densities.

The proposed PUD includes several measures in the site design, landscaping, and architecture to address the compatibility with surrounding, existing land uses. Please refer to Section IX.C of this Staff Report for additional information.

vii. Historic and Cultural Resources

Comment Summary: The proposed development will impact the site and historical structures which are part of the historic coal mining uses on this property and in the area.

Response: The site is known to be a part of the Coal Creek Mining Complex and Milt Swanson, a locally renown coal mining historian, lived on the development site for 90 years. A Cultural Resources Assessment April 19, 2017(DSD 001090 - 001191) and Cultural Resources Assessment Addendum May 24, 2018 (DSD 001264 - 001323) were prepared by Tierra Right-of-Way. This assessment determined that historic structures on the development site, including Milt Swanson's house, are not eligible for listing in the National Register of Historic Places (NRHP). The Washington Department of Archaeology and Historic Preservation (DAHP) reviewed this assessment and concurred with the determination. See SEPA Section V.B.viii of this Staff Report for additional information.

Two archaeological sites have been identified on the site and determined eligible for the National Register of Historic Places. One of the sites corresponds to an area designated on historical maps as "Finn Town," an area that was occupied by Finnish coal miners which grew around the operation of the Ford Slope Mine beginning around 1905. Another archaeological site was identified as eligible containing six (6) above-ground building foundations that may be tied to the production of electricity for the historic-era mining operation. These foundations are not proposed to be disturbed by the development.

If the archaeological sites will be impacted or disturbed by site grading or any construction activity, a DAHP Site Alteration & Excavation Permit will be required. Monitoring by a professional archaeologist will be required and if archaeological materials are encountered during the site grading the work will be halted until the materials can be inspected and assessed. See SEPA Section V.B.viii of this Staff Report for additional information and mitigation measures.

There is existing interpretive signage of coal mining history along the Coal Creek Natural Area trail installed by the Bellevue Parks Department. However, there is no signage that addresses the more recent history or Milt Swanson who lived on the development site for 90 years and was a locally renown coal mining historian. To recognize the historic role of Milt Swanson, a permit condition of approval will require the applicant to provide additional interpretive signage in coordination with the Bellevue Parks Department.

viii. Traffic and Pedestrian Safety:

Comment Summary: Comments were received noting existing, high traffic levels on Lakemont Blvd SE and concerns regarding project traffic impacts, sightlines for the site access, and traffic and pedestrian safety along the curve where Lakemont Blvd SE meets Newcastle Golf Club Road. There were also comments regarding the lack of connecting bike lanes and sidewalks in the vicinity of the site.

Response: The Park Pointe PUD is anticipated to generate 304 new average daily trips and 32 new PM peak hour trips (Traffic Impact Analysis, Gibson Traffic Consultants, February 2021). There are over 7,000 average daily trips on Lakemont Blvd SE and Forest Dr according to traffic counts taken prior to the Covid pandemic in November 2016 (City Traffic Study, Idax Data Solutions, date range 11/12/2016 to 11/18/2016). Current traffic counts across the City are close to pre-pandemic levels. The traffic trips that would be generated by the proposal would represent a very small percentage increase to the existing traffic trips on Lakemont Blvd SE. A traffic concurrency model was required and determined that neither the maximum area-average levels of service nor the congestion allowances would be exceeded as a result of traffic generated from this proposal. The existing road curve and conditions along Lakemont Blvd SE to the south of the project site limit vehicle sight distance and therefore a project condition of approval will require the development's southern driveway access to be limited to right-in/right-out only.

The King County Red Town trailhead, across Lakemont Blvd SE from the site, provides parking for users of the Coal Creek Natural Area. To improve pedestrian safety across Lakemont Boulevard, the development will be required to install an RRFB (Rectangular Rapid Flashing Beacon), a controlled pedestrian crossing to alert motorists when a pedestrian is crossing.

There are currently no sidewalks or bicycle lanes along Lakemont Blvd SE in the immediate vicinity of the site. The applicant will provide improvements along the site's frontage on Lakemont Blvd SE including a new 7-foot-wide bike lane and a 6-foot-wide sidewalk. The City has long-term plans to construct sidewalks and bike lanes on Lakemont Blvd SE to the site. The improvements are on the list of capital improvements but are not currently funded. Pedestrian plan S-371-E will construct a sidewalk on the east side of Lakemont Blvd SE and Bike project B-159-W will add a bike lane on the west side of Lakemont Blvd SE.

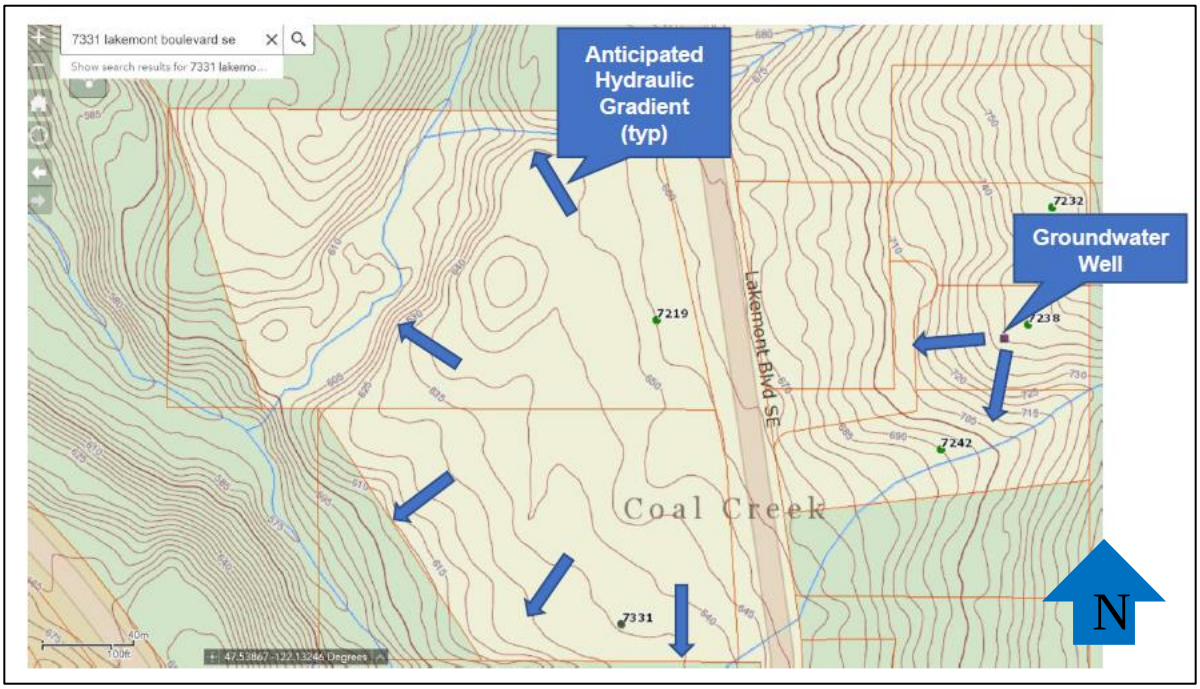
ix. Impacts to Drinking Water Supply to Neighboring Properties:

Comment summary: Three households located across Lakemont Blvd SE to the east of the development site on the larger lots (R-1 zoning) currently depend on a well for domestic water supply and are concerned that the proposed development could impact their drinking water source.

Response: The applicant's geotechnical engineer provided the following response to address this comment and the map shown as Figure 20 of this Staff Report below which depicts the hydraulic gradient of the site in relation to nearby properties. The site does not contribute or diminish water recharge quantity or quality of the well that is upslope of the site.

"The subject site is significantly downgradient from the well to the east. As can be seen in the GIS clip of King County's IMAP below, the site is approximately 85 feet lower than the wellhead in question. Based on the topography and our understanding of the subsurface conditions, shallow groundwater flow (hydraulic gradient) on the site would be toward the adjacent streams to the south, west and north, but not to the east. As such, the development at the site would not be expected to contribute or diminish the recharge quantity or quality of the well in question." (Geotech Consultants, Inc. Memorandum – Groundwater Recharge Concerns, November 10, 2020, DSD 000609)

Figure 20: Groundwater Flows and Recharge (DSD 000609)



The proposal would extend water and sewer utilities down Lakemont Blvd SE to serve the development site. These utilities would also be available to serve the neighboring properties if they choose to connect to public utility. The extension of sewer to this area would provide an important improvement that would enable the discontinuation

of septic systems in lieu of more sanitary and ecologically beneficial public sewer system.

x. Stormwater:

Comment summary: comment noted that the Preliminary Storm Drainage Report (Pace Engineers, November 30, 2020) did not use the most recent Department of Ecology (DOE) standards as required under the City of Bellevue's 2019 Phase 2 NPDES stormwater permit and the proposal is not vested to the stormwater requirements that were in effect when land use permits were submitted in 2016.

Response: The applicant prepared the Preliminary Storm Drainage Report according to the standards required at the time of submittal of the land use permit applications. It is understood the proposal will need to comply with the required stormwater standards in effect at the time of submitting construction permit applications. The applicant has updated the Preliminary Storm Drainage Report to the current standards and prepared a new storm report (Park Pointe PUD Drainage Report, Davido Consulting Group, Revised November 15, 2022 DSD-000804 - 000978). Based on Utility staff review of the updated report there are no changes or revisions needed to the site plan to meet the updated standards.

xi. Stream Typing:

Comment summary: Community volunteers made observations of Stream 1 on private property from June to December of 2022. The findings are listed in a summary document (DSD 001673 - 001687) that found Stream 1 is a perennially flowing stream that provides water necessary to support fish use downstream of the project. The summary was provided to the City shortly before this Staff Report was issued in January 2023. The summary concludes that Stream 1 and the entire tributary upstream should be considered Type-F and require a 100-foot buffer.

Response: The submitted critical areas report (DSD 000403 - 00543) states that "Stream 1 is a perennially flowing stream that drains a large basin" and provides "perennial flow to Coal Creek" (DSD 000422). This information was already considered by the project biologists and is not new information. The report provides further information regarding the typing of Stream 1 as Type-N which is primarily based on two natural barriers to fish passage. One barrier is an 8-foot-tall waterfall where Stream 1 joins Coal Creek and the other is a natural rockslide into Coal Creek about 760 feet northwest of the site which are identified by the Washington State Department of Fisheries as fish passage barriers (DSD 000459). The submitted report also documents that Stream 1 is polluted by heavy deposits of dissolved iron that is transported to the stream by groundwater and "high levels of oxidized iron in a stream significantly reduce the presence of aquatic macroinvertebrates and can be damaging to fish gills" (DSD 000422). Based on the physical barriers to fish accessing Stream 1 and the iron heavy water in Stream 1 that is toxic to fish the biologist found that these issues "likely preclude the potential of resident fish populations in the stream.

The stream typing report that was provided on Coal Creek (DSD 000502 - 000507) included examination of Coal Creek and Stream 1 for fish presence, upstream of the fish passage barriers noted. This was done based on City guidance to determine the presence of any resident fish that do not access downstream. No fish were found which was also reported to be consistent with other listed studies and information on this area available from other sources. However, more definitive study has not been completed, likely due to the barriers to fish passage.

The presence of perennially flowing water is not reason to classify a stream a Type-F. Per WAC 222-16-031(4) and LUC 20.25H.075, waters that are perennial nonfish habitat streams are Type N streams. The statement that the entire tributary must also be Type-F to preserve water flow downstream in Coal Creek is a misreading of the code which is specific to fish hatcheries. The language in LUC 20.25H.075 states that a Type-F stream "means all segments of waters that are not type S waters, and that contain fish or fish habitat, *including waters diverted for use by a federal, state, or tribal fish hatchery from the point of diversion for 1,500 feet or the entire tributary if the tributary is highly significant for protection of downstream water quality*." (Italics added for emphasis). The requirement to include the entire tributary is an alternative to 1,500 feet from the point where waters are diverted to a fish hatchery. This is demonstrated by the source language found in the definition of Type-F stream in WAC 222-16-030(2)(b) which reads as follows:

"(b) Waters, which are diverted for use by federal, state, tribal or private fish hatcheries. *Such waters* shall be considered Type F Water upstream from the point of diversion for 1,500 feet, *including tributaries if highly significant for protection of downstream water quality."*

(Emphasis added.)

In summary, this volunteer analysis of Stream 1 accessed private property and does not present new information or information that was not previously considered in the submitted critical areas report. The summary does not consider the fish barriers, water quality issues and lack of habitat conducive to supporting fish use. The summary misreads the code definition of a Type-F stream, which if applied per the comment, would potentially make entire tributary systems be Type-F streams based on their contributing water flow. The information in the submitted critical areas report regarding Stream 1 supports the finding that it is a Type-N stream and that the buffer is correctly shown on the plans.

VII. CHANGES TO PROPOSAL DUE TO CITY REVIEW

Over the course of the review of this project the applicant revised plans and reports in response to City staff review comments. The summary below highlights the major revisions that have been submitted.

DSD - 000085

A. REVISIONS

i. Revision 1 – May 17, 2017

1. Number of residential units proposed reduced from 41 dwelling units to 40 dwelling units.
2. Coal Creek revised to a Type-F stream (Park Pointe Coal Creek Typing Study, Confluence Environmental Co, May 11, 2017) because the stream segment meets the physical criteria for fish habitat in WAC 222-16-031(3).
3. Site plan modified to increase the Coal Creek stream buffer width to a 100-foot buffer and the density calculation revised.
4. Density calculation adjusted to eliminate restrictive covenant parcels (zoned R-1) from the project's density calculation.
5. Grading plan revised to better conform to existing topography and to limit height and extent of retaining walls.
6. Native plant landscaping added to landscape plan to blend backyards with natural vegetation in critical area buffers.
7. Critical area mitigation plans revised to increase restoration of degraded buffer areas.

ii. Revision 2 - January 19, 2018

1. Number of residential units proposed further reduced from 40 dwelling units to 35 dwelling units to better accommodate buffering adjacent to Lakemont Boulevard and increase pedestrian connectivity on the site.
2. Site plans modified to increase the visual-obscuring landscape planting between the proposed residences and Lakemont Blvd SE. The residences fronting along Lakemont Blvd SE were sited at differing angles and setbacks to modulate the residential edge pattern as viewed from the road. The grade or elevation of the development area was lowered to minimize visual impacts from Lakemont Blvd SE.

iii. Revision 3 - June 6, 2018

1. Revised plans decreased reductions to critical area buffers compared to previous plans and increased the stream buffer width in specific areas. The reduction to the stream buffer area decreased by approximately 8,256 SF and the steep slope buffer area reduction decreased by approximately 7,753 SF.
2. Applicant agreed to pursue Salmon-Safe Certification to provide additional conservation features to qualify for density bonus under PUD.

iv. Revision 4 - August 16, 2019

1. Preliminary plat application submitted (19-121109-LL) submitted. All plans revised to show proposed residences on separate, fee-simple lots.
2. Revisions to civil engineering plans for stormwater outfall and road standards.

v. Revision 5 - November 30, 2020

1. Withdrew preliminary plat application (19-121109-LL). The preliminary plat application was withdrawn because the public road standards required for a

preliminary plat would require larger road widths and revisions to the site plan.

2. Location of stormwater discharge outfall revised to discharge to Stream 1.

VIII. SUMMARY OF TECHNICAL REVIEWS

A. CLEARING & GRADING

The Clearing & Grading Division of the Development Services Department has reviewed the proposed site development for compliance with Clearing and Grading codes and standards. Clearing & Grading staff approved the Critical Areas Permit and recommended conditions of approval to apply with the review of Clearing and Grading and construction permits. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Clearing and Grading Permit Required.**

B. UTILITIES

Utility review has been completed on the preliminary plans and reports submitted at the time of the land use permit applications. The review has no implied approvals for construction of water, sewer and storm drainage components of the project. Final civil engineering may require changes to the site layout to accommodate the utilities.

A Utility Extension Agreement will be required for review and approval of the utility design for sewer, water and storm drainage. Submittal of the Utility Extension will coincide with future clearing and grading permit review**. Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Utility Extension Agreement.**

Public and private easements will be required for water mains, water and side sewer services across adjoining properties and will be required to be shown on the plans with appropriate language. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Public and Private Utility Easements.**

Utilities must be constructed and accepted by the Utilities Department or sufficient bonding submitted. No new homes will be allowed to connect to water, sewer or storm utilities until the utilities have final inspection and acceptance by the Utilities Department. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Utilities Final Inspection and Acceptance.**

i. Storm Drainage

Preliminary storm drainage review was completed under the codes and standards in place at the time of the land use permit applications. All Washington Department of Ecology Stormwater minimum requirements apply to new, plus replaced hard surfaces and converted pervious surfaces. The project qualifies as new development under the 2005 Department of Ecology Stormwater Management Department of Ecology Stormwater Management Manual for Western Washington, revised in 2019.

All 9 minimum requirements have been addressed in the submitted drainage report analysis under the PUD permit. A licensed civil engineer in Washington state has proposed to meet the requirements with an engineered design that meets all 9

requirements. Minimum Requirement 4 will be met with engineered outfalls to the historic downstream drainage areas. Minimum requirement 5 must be evaluated against Washington DOE feasibility criteria. For minimum requirement 5, a portion of the site will disperse roof tops to maintain wetland hydroperiod and meet MR 5. Minimum requirement 6 for water quality will be achieved with construction of a filter vault and minimum requirement 7 will be achieved with a detention vault. Minimum requirement 8 is proposed to be met by releasing a portion of the site runoff from a vault at preexisting runoff rates and a portion of the site using direct dispersion to the wetlands.

A multi-use open space recreation area is proposed on top of the private stormwater detention vault. No design for the recreation area has been submitted. The neighborhood open space recreation area on top of the stormwater detention vault shall be designed to allow for vactor truck and maintenance crew access to clean the vault. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Open Space Recreation Area on Top of Stormwater Detention Vault.**

A stormwater line is proposed to be bored sub-surface from the stormwater vault to the discharge outlet above Stream 1. See Sheet E-7, Preliminary Civil Plans, (DSD 000147). The portion of any storm line within the critical area that is proposed to be bored shall constructed in a manner to not cause soil subsidence or fracture. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Stormwater Pipe Boring.**

ii. Water

The project is supplied from the Cougar Mountain 1000 pressure zone. The project will require construction of a Pressure Reducing Valve Station uphill from the proposed project and extension of new water main to the north along Lakemont Blvd SE to the City of Bellevue water system at the intersection of Forest Dr SE and Lakemont Blvd SE.

iii. Sewer

The project proposes gravity sewer mains draining to a new sewer pump station, installed by the applicant and then owned and maintained by the City of Bellevue. The pump station will discharge uphill along Lakemont Blvd SE to the gravity system at an existing manhole in the intersection with Forest Drive SE. The sewer pump station shall be designed to allow for maintenance crew vehicle access. **Refer to Section XI.B of this Staff Report for Condition of Approval on Access to Sewer Pump Station.**

C. TRANSPORTATION REVIEW

i. Site Access

The proposed 35-unit PUD is comprised of two existing lots on the west side of Lakemont Boulevard, between Forest Drive SE and Newcastle Golf Club Road. The site currently has three existing single-family homes taking access from Lakemont

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Boulevard via two single family driveways. Lakemont Boulevard is a two-lane road classified as a major arterial. Access for the PUD will be via two road entrances on the Lakemont Boulevard frontage. The main street, Road A, will provide access to 23 of the 35 total units, and Road B will provide access to the other 13 units.

Due to the restricted vehicular sight distance out of the southern private road approach, vehicle access to the southern private road entrance will be limited to right-in/right-out access only. Due to the low volume of new trip generation created by this development, short term vehicle traffic operational impacts are anticipated to be negligible. No other access connection to city right-of-way is authorized. The road approach must be built per the Transportation Design Manual Standard Drawings. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Vehicular Access Restrictions.**

Per the Transportation Design Manual, a Planned Unit Development may be allowed to use a private street for the internal access even if the number of lots exceeds nine which is the maximum allowed for a private street in a subdivision. This development proposes to use a private street, Road A, that will provide two access points to Lakemont Boulevard as well as a second street, Road B, to provide access internally.

The applicant has requested a deviation from standards for Road A and two deviations from standards for Road B. These deviations were approved to allow the pavement width on both Road A and Road B to be reduced from 24 feet to 20 feet, and to allow the removal of the sidewalk along Road B. These deviations are not expected to affect the safety or operation of the two streets.

Pedestrian access to the site will be provided by a new six-foot-wide sidewalk along the Lakemont Boulevard frontage. There is currently no sidewalk on this portion of Lakemont Boulevard. Due to the vicinity of the development to the Red Town trailhead and other parks around Cougar Mountain, a significant pedestrian volume is expected along and across Lakemont Boulevard. To mitigate the pedestrian impact and improve pedestrian safety across Lakemont Boulevard, this development will be required to install an RRFB controlled pedestrian crossing south of the project near the trailhead. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Lakemont Blvd SE Pedestrian Crossing.**

Bicycle access to the site will be provided by a new 7-foot-wide buffered bike lane on the west side of Lakemont Boulevard. There is currently no bike lane on this portion of Lakemont Boulevard, but the city bike plan includes project S-371-E, a 6-foot-wide sidewalk on the west side of Lakemont Boulevard from SE 63rd Street to this site.

Street names and site addresses will be determined by the City's Parcel and Address Coordinator.

ii. Transportation Infrastructure Improvements

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The Park Pointe PUD is located on the west side of Lakemont Boulevard SE, south of Forest Drive. The lot is bordered by the Coal Creek Natural Area to the south, west, and north. The Red Town trailhead is located just southeast of this project on the east side of Lakemont Boulevard. There is currently a 5-foot-wide paved shoulder along the frontage of the project. The project proposes to construct 35 townhomes accessed by two entrances off Lakemont Boulevard. The existing pavement along the frontage is 30 feet wide. Frontage Improvements and Private Street construction required by the applicant include:

1. **Lakemont Boulevard:**
   - Install new minimum 6-foot-wide concrete sidewalk, minimum 4-foot-wide planter strip, a minimum 7-foot-wide buffered bike lane, and new curb and gutter along the frontage.
   - Install pedestrian safety railing behind the new public sidewalk.
   - Install a new RRFB controlled pedestrian crosswalk across Lakemont Boulevard.
   - An easement is required to be recorded to the City for any portion of the sidewalk located on private property.
   - Minimum City of Bellevue sight distance standards are required to be met.
   - Street lighting is required to meet City of Bellevue Standards.

2. **Internal Private Streets:**
   - Install minimum 20-foot-wide private streets with curb and gutter per Transportation Design Manual standards.
   - Install minimum 6-foot-wide sidewalks along one side of the private access streets, except where alternative pedestrian facilities are provided.

The design of the improvements and the final engineering plans showing those improvements must conform to the requirements of the Americans with Disabilities Act, the Transportation Development Code (BCC 14.60), and the Transportation Department Design Manual prior to approval of the plat infrastructure (GE) permit. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Transportation Infrastructure Improvements.**

All street frontage and infrastructure improvements shown in the final engineering plans or required by city codes and standards must be completed prior to issuance of Certificate of Occupancy. If all the requirements of BCC 14.60.260 are met, the director may accept an acceptable financial assurance device equivalent to 150% of the cost of the unfinished improvements. Installation of improvements that would negatively affect safety if left unfinished may not be delayed through use of a financial assurance device. Improvements must be approved by the Transportation Department inspector before they are deemed complete. **Refer to Section XI.D of this Staff Report for Condition of Approval Regarding Completion of Infrastructure Improvements.**

iii. Use of the Right of Way

Applicants often request use of the right of way and of pedestrian easements for materials storage, construction trailers, hauling routes, fencing, barricades, loading and unloading and other temporary uses as well as for construction of utilities and street improvements. A Right of Way Use Permit for such activities must be applied for prior to issuance of any construction permit including demolition permit. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Right of Way Use Permit.**

iv. Easements

A public sidewalk easement must be provided for portion of the sidewalk that will be located outside of the Lakemont Boulevard right of way.

A public retaining wall maintenance easement must be provided for portion of the wall supporting the sidewalk that will be located outside of the Lakemont Boulevard right of way. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Sidewalk/Utility Easements.**

v. Pavement Restoration

The City of Bellevue has established the Trench Restoration Program to provide applicants with guidance as to the extent of resurfacing required when a street has been damaged by trenching or other activities. Under the Trench Restoration Program, every public street in the City of Bellevue has been examined and placed in one of three categories based on the street's condition and the period of time since it has last been resurfaced. These three categories are "No Street Cuts Permitted," "Overlay Required," and "Standard Trench Restoration." Each category has different trench restoration requirements associated with it. Damage to the street can be mitigated by placing an asphalt overlay well beyond the limits of the trench walls to produce a more durable surface without the unsightly piecemeal look that often comes with small strip patching.

Near the development site, Lakemont Boulevard is classified as Grind and Overlay required. Should street cuts prove unavoidable or if the street surface is damaged in the construction process, a half-street or full-street (depending on the extent of street cuts or damage) grind and overlay will be required for a minimum of 50 feet. **Refer to Section XI.D of this Staff Report for Condition of Approval Regarding Pavement Restoration.**

D. FIRE DEPARTMENT REVIEW

The Fire Department has reviewed and approved the application with conditions for marking and signage of fire department access roads and designing the fire department access roads to support fire apparatus loads. **Refer to Section XI.B of this Staff Report for Conditions of Approval Regarding Fire Department Requirements.**

IX. DECISION CRITERIA

A. CONSISTENCY WITH LUC 20.25H.255.B CRITICAL AREAS REPORT DECISION CRITERIA.

The Director may approve, or approve with modifications, a proposal to reduce the regulated critical area buffer on a site where the applicant demonstrates:

i. The proposal includes plans for restoration of degraded critical area or critical area buffer functions which demonstrate a net gain in overall critical area or critical area buffer functions.

Finding: The proposal includes mitigation plans which would restore and enhance critical area buffers that are currently degraded and provide low functions and values. The mitigation plans include 130,823 SF (3 acres) of buffer enhancement, restoration and reestablishment. The most intensive mitigation is in critical area buffers that are adjacent to the development area and border the critical areas tract. This buffer area has been modified and degraded by previous, historic development on the site and the existing vegetation is characterized as early successional forest with an invasive plant understory. The proposed mitigation would result in a net gain in overall critical area buffer functions. **See Mitigation Overview in Section III.iii of this Staff Report for more information.**

ii. The proposal includes plans for restoration of degraded critical area or critical area buffer functions which demonstrate a net gain in the most important critical area or critical area buffer functions to the ecosystem in which they exist.

Finding: The mitigation plans would restore and enhance overlapping stream and steep slope buffer areas at the edges of the development area and near the tops of the steep slope stream ravines. The proposed enhancement is most intensive in currently degraded buffer areas. The location of the enhancement planting near the top of the stream ravines would improve critical area buffer functions to best protect the downslope critical area tract. This demonstrates a net gain to the functions of the most important critical area buffers on the site.

iii. The proposal includes a net gain in stormwater quality function by the critical area buffer or by elements of the development proposal outside of the reduced regulated critical area buffer.

Finding: The proposed buffer enhancement at the edge of the development area and critical area tract would improve existing vegetation conditions to filter and slow runoff at the top of the stream ravines. The development includes pervious pavement and low impact development techniques to reduce stormwater runoff. Stormwater runoff from the development area will be captured in the stormwater system and the stormwater vault includes advanced filtration and detention before it is discharged via a pipe boring to the base of the slope into Stream 1. The method and location of the

stormwater discharge is designed to avoid erosion and slope instability.

iv. Adequate resources to ensure completion of any required restoration, mitigation and monitoring efforts.

Finding: The most extensive enhancement planting is located at the edge of the development area and critical area tract. The successful establishment of the mitigation planting is essential to prevent impacts and encroachment from the development area into critical area buffers and to protect the critical area tract. The land use code requires a monitoring period to ensure that mitigation performance standards are met. The monitoring period must be a minimum of five (5) years (LUC 20.25H.220.D). The Director may require assurance devices to ensure that the approved mitigation, monitoring program, and conditions of approval are fully implemented (LUC 20.25H.220.F). Due to the extent and complexity of the proposed mitigation (130,823 SF, 3 acres) and the importance of its successful establishment to mitigate for project impacts, the monitoring/maintenance period for the proposed mitigation plan will be extended to a 10-year period. The monitoring/maintenance surety will be released after 10 years after demonstrating it meets the approved performance standards. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Requirement for a 10-year Monitoring/Maintenance Period for the Mitigation Plan.**

v. 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.

Finding: The critical area buffer impacts are primarily located internal to the development area, along the boundary between the development area and critical area tract. The critical areas and critical area buffers at the periphery of the site would not be modified or impacted. The proposal would not be detrimental to the functions and values of off-site critical areas and critical area buffers.

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

Finding: The proposal is for detached single-family residences and this type of land use is compatible with the single-family uses in the same land use district. This report addresses the compatibility of the development with other uses and development in the vicinity in Section IX.C of this Staff Report.

B. CONSISTENCY WITH LUC 20.30P.140 CRITICAL AREAS LAND USE PERMIT DECISION CRITERIA

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

i. The proposal obtains all other permits required by the Land Use Code.

Findings: The applicant must obtain construction permits for all the proposed infrastructure improvements and house construction; including clearing and grading, utility, building, and other permits. Plans submitted for the construction permits must be consistent with the plans reviewed under this approval. **Refer to Section XI.A of this Staff Report for Condition of Approval Regarding Construction Permits Required.**

ii. 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.

Findings: The proposal utilizes the best available design and development techniques resulting in the least impact to critical areas and buffers. All the critical areas on the site including steep slopes, wetlands, and streams are contained in a separate critical area tract (Tract Z, 6.3 acres) which comprises over half of the total site area. The applicant has proposed to dedicate the critical area tract to the City of Bellevue (DSD 001438 - 001441). Impacts to critical area buffers are limited to site areas where the buffer vegetation has been historically modified and are currently low in functions and values.

iii. The proposal incorporates the performance standards of Part 20.25H LUC to the maximum extent applicable.

Findings: As discussed in Section IV of this Staff Report, the applicable performance standards of LUC Section 20.25H Critical Areas Overlay District are met to the maximum extent applicable.

iv. The proposal will be served by adequate public facilities including streets, fire protection, and utilities.

Finding: The proposal will be adequately served by public facilities including streets, fire protection and utilities as discussed in this report.

v. The proposal includes a mitigation or restoration plan consistent with the requirements of LUC 20.25H.210; except that a proposal to modify or remove vegetation pursuant to an approved Vegetation Management Plan under LUC 20.25H.055.C.3.i shall not require a mitigation or restoration plan.

Finding: The proposal includes a mitigation plan (DSD 000496 - 000500) consistent with the requirements of LUC 20.25H.210.

vi. The proposal complies with other applicable requirements of this code.

Finding: The proposal complies with all other applicable code requirements as approved or conditioned.

C. CONSISTENCY WITH PLANNED UNIT DEVELOPMENT STANDARDS AND DECISION CRITERIA

i. Purpose – LUC 20.30D.120.

A Planned Unit Development is a mechanism by which the City may permit a variety in type, design, and arrangement of structures; and enable the coordination of project characteristics with features of a particular site in a manner consistent with the public health, safety and welfare. A Planned Unit Development allows for innovations and special features in site development, including the location of structures, conservation of natural land features, protection of critical areas and critical area buffers, the use of low impact development techniques, conservation of energy, and efficient utilization of open space.

Finding: A Planned Unit Development (PUD) on the subject site meets the purpose statement because it allows the design of the development to be responsive to the particular site characteristics in a manner consistent with public health, safety, and welfare. A large portion of the site is encumbered with critical areas and critical area buffers and the flexibility in development standards permitted with a PUD allows for the development to be more tightly clustered on the buildable portion of the site, thereby conserving the site's natural features and minimizing impacts to critical areas and critical area buffers.

The site design within the development area utilizes the flexible development standards allowed for a PUD to arrange the homes around shared pervious motor courts and incorporate alley-access for residences to create an internal, pedestrian-oriented community and to reduce the overall impervious surface area.

ii. Planned Unit Development Plan - Decision Criteria – LUC 20.30.150

The City may approve or approve with modifications a Planned Unit Development plan if:

1. The Planned Unit Development is consistent with the Comprehensive Plan.

The site is located in the Newcastle Subarea and designated Single-Family Medium Density (SF-M) in the Comprehensive Plan. Land Use District R-3.5 is consistent with the SF-M Comprehensive Plan designation. The proposal is for single family development which is consistent with the long-term vision and the goals and policies of the Comprehensive Plan. The residential density and site design of the PUD proposal complies with the Newcastle Subarea Plan goals and policies, Comprehensive Plan Environmental Policies, Urban Design Policies, and Land Use Policies. The proposal is supported by numerous goals and policies of the Comprehensive Plan, including without limitation the following:

Newcastle Subarea Goals and Policies

- **POLICY S-NC-9.** Require complete topographic surveys, soils reports, drainage information, and habitat evaluation for projects in areas identified as sensitive due to their environmental characteristics.

- **POLICY S-NC-11.** Promote infill development at a density consistent with the existing character of established neighborhoods.

- **POLICY S-NC-27.** Require that the development of property considered historic or property adjacent to an historic site be done in a manner sensitive to preserving the historic character of the site.

- **POLICY S-NC-28.** Encourage the identification, preservation, restoration and/or adaptive use, and interpretation of historic sites and resources.

- **POLICY S-NC-31.** Protect and retain, in a natural state, significant trees and vegetation in designated greenbelt and open space areas.

- **POLICY S-NC-32.** Require complete topographic surveys, soils reports, tree surveys, and drainage information on projects in areas identified as sensitive due to their environmental characteristics.

- **POLICY S-NC-33.** Maintain or enhance the natural hydraulic and habitat functions of streams, lakes, and wetlands. The functions to be preserved or enhanced include storm water storage and conveyance, groundwater recharge, and fish and wildlife habitat.

- **POLICY S-NC-34.** Route storm water runoff from development adjacent to steep slopes so that it does not cause erosion.

- **POLICY S-NC-35.** Require that development adjacent to streams preserve an undisturbed corridor which is wide enough to maintain the natural hydraulic and habitat functions of the stream and 100-year flood plain.

- **POLICY S-NC-38.** Identify all coal mine hazard areas and specify suitable protection measures.

- **POLICY S-NC-46.** Encourage a trail system which incorporates other amenities in the Subarea such as open space systems, historic sites, scenic views, and unique natural features. Where feasible, tie new trail systems to existing trail systems in the Subarea and surrounding neighborhoods.

- **POLICY S-NC-53.** Require the inclusion of trails in private development and park designs consistent with an overall trail system for the Newcastle

community.

Finding: The proposal is consistent with and supported by the Subarea policies of the Newcastle Subarea above. The proposal is infill development proposed at a density consistent with and less than the anticipated R-3.5 zoning. The site's critical areas have been extensively evaluated, including the identification of coal mine hazards. The site's critical areas are to be preserved, with the exception of the modifications discussed in this report. These areas are also to be enhanced through restoration and mitigation planting. The preservation of the critical area tract and compliance with required stormwater regulations ensures existing streams and hydrology is maintained. The site incorporates trails and adds to the public trail network and connections in the vicinity. The project is conditioned through SEPA authority to require archeological preservation and recognition of historical use of the site. As a result, the proposed PUD is consistent with the Newcastle Subarea policies of the Comprehensive Plan.

Environmental Element

- **EN-11.** Support partnerships between the City and private landowners to steward private lands, streams, habitat and other natural resources for public benefit.

- **EN-19.** Retain existing open surface water systems in a natural state and restore conditions that have become degraded.

- **EN-30.** Regulate land use and development to protect natural topographic, geologic, vegetational, and hydrological features.

- **EN-31.** Protect geologically hazardous areas, especially forested steep slopes, recognizing that these areas provide multiple critical areas functions.

- **EN-34.** Promote soil stability and the use of the natural drainage system by retaining critical areas of existing native vegetation.

- **EN-35.** Prohibit development on unstable land and restrict development on potentially unstable land to ensure public safety and conformity with natural constraints.

- **EN-42.** Regulate development in coal mine hazard areas by requiring that a project proponent (with review, oversight, and approval by the City):
  - Conservatively evaluate risks.
  - Eliminate the potential for catastrophic effects and keep development out of catastrophic risk areas.
  - Mitigate any non-catastrophic impacts.
  - Protect ratepayers from costs associated with development in areas potentially impacted by mining.

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  - Provide disclosure mechanisms to inform property purchasers of past mining activities.

- **EN-58.** Encourage property owners to incorporate suitable indigenous plants in critical areas and buffers, consistent with the site's habitat type and successional stage.

- **EN-59.** Recognize and support the broad benefits and educational value of public access to critical areas and appropriate low impact uses such as trails.

- **EN-63.** Preserve and maintain fish and wildlife habitat conservation areas and wetlands in a natural state and restore similar areas that have become degraded.

- **EN-69.** Preserve and enhance native vegetation in Critical Area buffers and integrate suitable native plants in urban landscape development.

- **EN-70.** Improve wildlife habitat especially in patches and linkages by enhancing vegetation composition and structure and incorporating indigenous plant species compatible with the site.

- **EN-75.** Protect wildlife corridors to minimize habitat fragmentation, especially along existing linkages and in patches of native habitat.

- **EN-78.** Manage fish and wildlife habitat conservation areas to protect overall habitat functions and values (food, water, cover, space), except where a "special status species" requires targeted habitat management.

- **EN-81.** Use the best scientific information available in an adaptive management approach to preserve or enhance the functions and values of critical areas through regulations, programs, and incentives.

- **EN-82.** Use prescriptive development regulations for critical areas based on the type of critical area and the functions to be protected; and as an alternative to the prescriptive regulations, allow for a site specific or programmatic critical areas study to provide a science-based approach to development that will achieve an equal or better result for the critical area functions.

- **EN-86.** Facilitate the transfer of development potential away from critical areas and the clustering of development on the least sensitive portion of a site.

- **EN-89.** Explore opportunities for public acquisition and management of key critical areas of valuable natural and aesthetic resources, and fish and wildlife habitat sensitive to urbanization through a variety of land acquisition tools such as conservation easements and fee-simple purchase.

Finding: As stated previously, 6.3 acres of the site is intended to be placed into a tract that the applicant will dedicate to City ownership. This tract contains 264,349 square feet of critical areas. Despite the amount of critical areas present on the site, the proposal avoids most of these and their buffers and proposes a total of 21,575 square feet of impact to the outer edges of the buffers on-site. Combined mitigation and restoration will be at least three acres which results in a 6:1 ratio of mitigation to reduced buffer area. The avoidance and preservation of the site critical areas, clustering and consolidation of development, mitigation far exceeding impacted area, and dedication of the critical area tract to the City is consistent with and is supported by the policies of the Environmental Element of the Comprehensive Plan.

Land Use and Urban Design Elements

- **LU-5.** Accommodate adopted growth targets of 17,000 additional housing units and 53,000 additional jobs for the 2006-2031 period and plan for the additional growth anticipated by 2035.

- **LU-6.** Encourage new residential development to achieve a substantial portion of the maximum density allowed on the net buildable acreage.

- **LU-33.** Preserve open space and key natural features through a variety of techniques, such as sensitive site planning, conservation easements, transferring density, land use incentives and open space taxation.

- **UD-3.** Foster and value the preservation of open space as a dominant element of the City's character.

- **UD-57.** Preserve vegetation, with special consideration given to the protection of groups of trees and associated undergrowth, specimen trees, and evergreen trees.

- **UD-82.** Preserve, enhance, and interpret Bellevue's historical identity.

Finding: The proposed development is for 35 detached residential structures that will be located on one parcel, but separately owned as condominiums. This will require the creation of a Homeowners Association (HOA). The HOA will ensure the maintenance of common area improvements and open space. This design allows for a different housing type so be provided to Bellevue residents that may want an option other than traditional single-family housing on individual lots. This proposal preserves significant open space while achieving most of the density for which the site is eligible. The proposed housing and development are consistent with and supported by the Land Use and Design elements of the Comprehensive Plan.

2. **The Planned Unit Development accomplishes, by the use of permitted flexibility and variation in design, a development that is better than that resulting from traditional development. Net benefit to the City may be demonstrated by one or more of the following:**
    - **Placement, type or reduced bulk of structures; or**
    - **Interconnected usable open space; or**
    - **Recreation facilities; or**
    - **Other public facilities; or**
    - **Conservation of natural features, vegetation and on-site soils; or**
    - **Reduction in hard surfaces; or**
    - **Conservation of critical areas and critical area buffers beyond that required under Part 20.25H LUC; or**
    - **Aesthetic features and harmonious design; or**
    - **Energy efficient site design or building features; or**
    - **Use of low impact development techniques**

    Finding: The proposal meets several of the above criteria, demonstrating that the flexibility allowed with a PUD would result in a development that is better than a traditional development following the standard, underlying zoning provisions and demonstrates a net benefit to the City.

    - **Placement, type or reduced bulk of structures**. The proposal uses the flexibility allowed under a PUD to improve the site design from a traditional development pattern. The residential structures are organized in sub-clusters of 2 to 4 units around shared, pervious pavement parking courts (Units 1-16 and Units 19-20) and alley-access residences (Units 23 to 35). See PUD Site Plan, DSD 000140. The shared driveway cuts and alley-access eliminates continuous driveway cuts along the interior streets resulting in better pedestrian facilities and reducing the dominant visual presence of garage doors from the street that is common to traditional developments.

    - **Interconnected usable open space and Recreation facilities**. The proposal includes usable open spaces and an interconnected trail system. The development area includes 39,037 SF of landscaped, passive recreation areas accessible to residents. See PUD Conservation Features, P3, Preliminary Civil Plans, DSD 000138. The landscape buffer along the Lakemont Blvd SE site frontage (+/- 22.385 SF) includes a publicly accessible trail, which connects to a central trail corridor and to the regional trail system in the Coal Creek Natural Area. Usable open space areas for residents of the project include a multi-use landscaped grass area proposed on top of the stormwater vault (+/- 14,125 SF) located on the south portion of the site. A common neighborhood open space area (3,100 SF) is included in the north portion of the development area, where Road A intersects with Road B.

- **Conservation of natural features, vegetation and on-site soils**. The site's critical areas and critical area buffers are the most significant natural features on the site and contain the most intact native vegetation community. The critical areas and buffers are conserved in a 6.3-acre critical area tract (Tract Z), which is proposed to be dedicated to the City of Bellevue. Natural features on the site will be conserved and improved with the enhancement of degraded critical area buffers.

- **Reduction in hard surfaces**. Reduction in impervious hard surfaces is accomplished by shared pervious pavement driveways and motor courts and with reduced street sections. The proposal includes pervious pavement in Road B (alley access) and driveways, which reduces effective hard surface impervious areas. Low impact development techniques are also incorporated, including use of rain-gardens and bio treatment swales but are limited due to the geological issues on the site. Using the flexibility allowed through a PUD, a deviation to road width was granted by Transportation Department which results in a slightly narrower road on the site that reduces impervious surface on the site and allows more site consolidation.

- **Conservation of critical areas and critical area buffers beyond that required under Part 20.25H LUC**. The proposal includes an area within the critical area tract (Tract Z), identified as a "wildlife corridor," which is located outside of critical areas and required critical area buffers, See PUD Conservation Features, P3, Preliminary Civil Plans, DSD 000138. The wildlife corridor (23,446 SF) is completely surrounded by critical areas and critical area buffers and the Coal Creek Natural Area. Although, the wildlife corridor is not a critical area or within a critical area buffer, the proposed conservation adds to the protected natural area beyond the code requirements in LUC 20.25H.

  The applicant has proposed to dedicate the critical area tract (Tract Z, 6.3 acres) to the City of Bellevue (DSD 001438 - 001441). This land dedication is not required by the code. The critical areas tract is adjacent to the Coal Creek Natural Area and the dedication would add an important private property to the City's natural area and foster consistent management.

  The Conceptual Mitigation Plans (Proposed Mitigation Concept, Sheet W1.2, DSD 000498) shows 1,889 SF of additional buffer area, beyond the standard stream and steep slope buffers. This additional buffer area is adjacent to the development parcel and is included in the proposed buffer enhancement.

  The applicant has also voluntarily designed their project to meet

requirements for certification as a "Salmon-Safe" development. This certification is independent from the City permit review and code requirements and is verified by a third party.

- **Energy efficient site design or building features**. Isola Homes will utilize energy conservation building features and construction methods to conserve energy.

- **Use of low impact development techniques.** Low Impact Development techniques are utilized on the site as best suited to the soil conditions of the site. The development incorporates pervious pavers in the alley access (Road B) and in the shared driveways and motor courts and utilizes rain-gardens and bio-treatment swales.

3. **The Planned Unit Development results in no greater burden on present and projected public utilities and services than would result from traditional development and the Planned Unit Development will be served by adequate public or private facilities including streets, fire protection, and utilities.**

   Findings: The proposal will require utility improvements to serve the development including a sanitary sewer lift station and extending off-site utilities to the site including installation of a sewer force main and water transmission line along Lakemont Blvd SE. These public utilities would also be required for a traditional development on the site and the proposed PUD would not result in a greater burden on present and projected public utilities and services. The proposed PUD would be adequately served with private streets, fire protection and public utilities.

4. **The perimeter of the Planned Unit Development is compatible with the existing land use or property that abuts or is directly across the street from the subject property. Compatibility includes but is not limited to size, scale, mass and architectural design of proposed structures.**

   Findings: The applicant has demonstrated that site plan and design elements of the development provide compatibility with existing land use uses that abut or are directly across the street from the subject property.

   The site's critical areas and critical area buffers (steep slope and stream buffers) directly abut the City-owned Coal Creek Natural Area along the north, south, and west property boundaries. The on-site critical areas and buffers along the periphery of the site will be preserved and enhanced. See Proposed Mitigation Concept, Sheet W1.2, DSD 000498. Therefore, the edges and the perimeter of the PUD will blend with and will be compatible with the existing natural, forested open space conditions along the site's north, south and west boundaries.

   To the east of the site, directly across Lakemont Blvd SE, are single-family

residential properties zoned R-1, which is a low-density residential zone with a minimum lot size of 35,000 SF. The subject site is zoned R-3.5 which allows for residential development with minimum lot sizes of 10,000 SF. Although the subject site allows for denser residential development, the proposed detached single-family residences are a consistent and compatible type of land use with the surrounding residential uses.

The appearance and views of the PUD development from Lakemont Blvd SE are important to ensuring the compatibility with the larger-lot R-1 zoning directly across Lakemont Blvd SE and residential uses in the immediate vicinity. The proposed PUD includes measures in the site design and architecture to address the size, scale, mass of the proposal and to address compatibility with surrounding, existing land uses in the vicinity of the site:

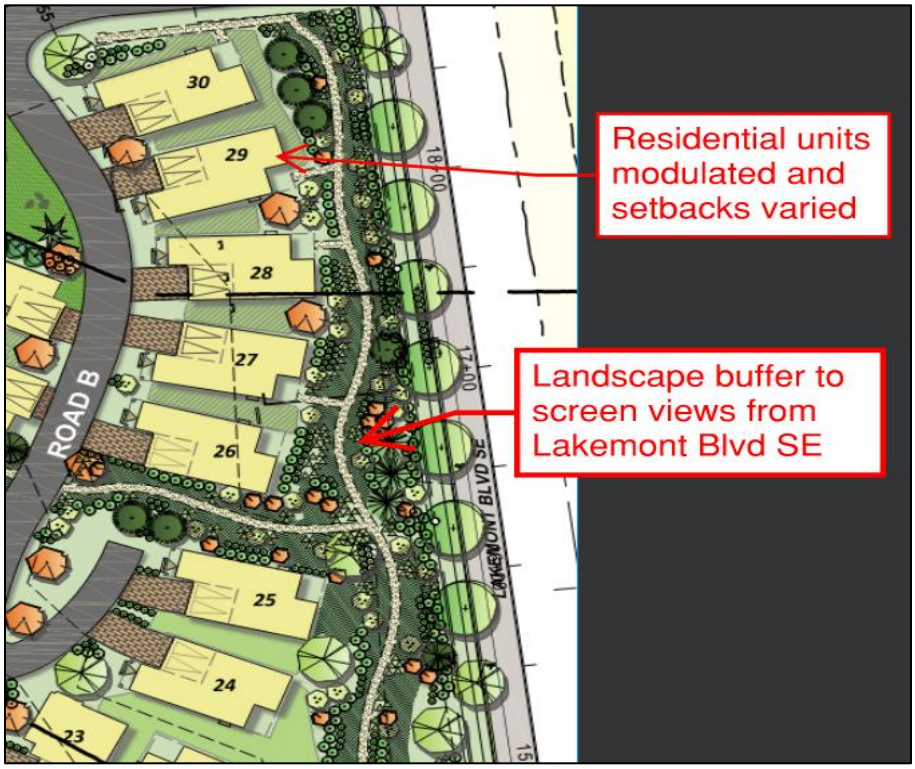
- Landscape buffer - The proposal includes extensive visual-obscuring landscape planting between the residences and Lakemont Blvd SE. The landscape buffer will provide adequate screening and softening of views of the proposed development from Lakemont Blvd SE.

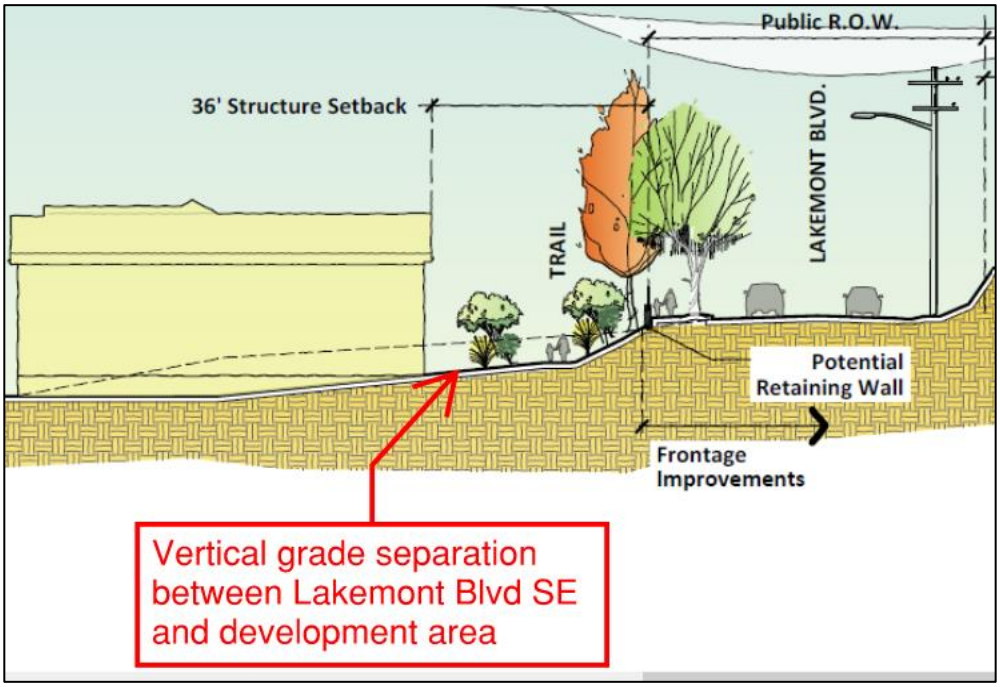
- Structure setbacks - The residences located along Lakemont Blvd SE have staggered, varying setbacks, ranging from a minimum of 30 feet to 86 feet from the street right-of-way. The standard rear yard setback in the R-3.5 zone is 25 feet.

- Modulation - The residences backing Lakemont Blvd SE are sited at differing angles to the street. This non-uniform orientation reduces the appearance of size, scale, and mass of the development from the street.

Vertical grade - The development is at a lower grade or elevation than Lakemont Blvd SE. The lower floor levels of the houses are between 5 to 10 feet below the Lakemont Blvd SE road surface. This reduces the apparent height of the new homes thereby lessening visual impact as viewed from the street. See Site Sections in DSD 000157.

Figure 21: Landscape Buffer and Site Section





- The architectural design of the residences oriented toward Lakemont Blvd SE incorporate design details and features common to single-family residences to ensure the proposed houses are compatible with other residential development in the City. See Residential Building Elevations and Floor Plans in DSD 000158 - 000194.

- Periphery of development area – The critical area buffers along the periphery of the development area will be preserved and extensively enhanced with native plantings, blending the edges of the development area for compatibility with the existing natural, forested open space conditions along the site's north, south and west perimeters.

5. **Landscaping within and along the perimeter of the Planned Unit Development is superior to that required by this code, LUC 20.20.520 and landscaping requirements applicable to specific districts contained in Chapter 20.25 LUC, and enhances the visual compatibility of the development with the surrounding neighborhood.**

   Finding: Perimeter on-site landscaping is not required for single-family development in the R-3.5 zone, per LUC 20.20.520. The proposal includes a wide landscape buffer (30 to 86 feet wide) with the goal of providing extensive visual-obscuring landscape planting between the residences and Lakemont Blvd SE. This landscape buffer will provide adequate screening and softening of views of the development from Lakemont Blvd SE, enhancing the visual compatibility of the development with the surrounding neighborhood. See Figure 21, Landscape Buffer and Site Section of this Staff Report and the plan sheet in the Project File (DSD 000157).

   To ensure the landscape buffer provides the intended screening affect, the number of large, evergreen trees is required to be increased. To achieve the screening in a timely manner, the size or caliper of trees within the landscape buffer should be increased, with at least half of the trees planted at a minimum 2-inch caliper or 6-8 foot height. The applicant has proposed "extensive visual obscuring landscape planting will be installed and established between the homes and the street" (Applicant Response to Comments, January 19, 2018, DSD 001599). This is in order to provide perimeter landscaping that is "far superior to what would be required" for traditional development (Applicant Response to Comments, May 17, 2017, DSD 001635). LUC 20.25B.440 provides increased landscaping standards for projects in the Transition Area Design District, where landscaping needs to be increased to screen development of a higher density and intensity from adjacent development that is less dense. The increased landscaping standards for projects in transition require five trees per 1,000 square feet of planting area which is approximately a spacing of 12 to 15 feet on center. This plant density is superior to the standard landscaping code and is a good standard for visual screening. Future landscaping plans submitted under the clearing and grading permit shall achieve a tree spacing of at least 12 to 15 feet on center. A final landscape plan shall be revised and submitted prior to issuance of the Clearing & Grading Permit. The plan shall specify the planting area square footage, plant spacing, and plant size at installation. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Landscape Plan Revisions.**

   To ensure the installation of the landscaping, which is separate from critical area planting, the applicant is required to provide an installation assurance in the amount of 150 percent of the cost to install all landscaping. The assurance device is required to be submitted

prior to issuance of a clearing and grading permit. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Landscape Assurance Device.**

Public utility facilities are required to be visually screened by a Type-1 15-foot-wide landscaping buffer per Land Use Code 20.20.520.F. Plans submitted under future construction permits are required to provide screening around the sewer pump station facility to meet requirements of the Land Use Code. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Visual Screening of Pump Station.**

6. **At least one major circulation point is functionally connected to a public right-of-way**

Finding: Road A, a private street, provides a primary loop road access through the site and connects at two access or circulation points to the Lakemont Blvd SE public right-of-way.

7. **Open space, where provided to meet the requirements of LUC 20.30D.160.A.1, within the Planned Unit Development is an integrated part of the project rather than an isolated element of the project.**

Finding: The proposal also includes usable open spaces integrated into the development area; 39,037 SF of landscaped, passive recreation areas accessible to residents. See PUD Conservation Features, P3, Preliminary Civil Plans, DSD 000138. This open space includes the landscape buffer and publicly accessible trail along the Lakemont Blvd SE site frontage, a multi-use landscaped grass area proposed on top of the stormwater vault, and a neighborhood open space area in the north portion of the development area. However, these open space areas must be in a separate tract to qualify for credit as a conservation design feature per the requirements of LUC 20.30D.160.A.1.

The proposal includes a critical areas tract (Tract Z, 188,901 SF) as a conservation design feature provided to meet the requirements of LUC 20.30D.160.A.1. The purpose of the critical areas tract is to protect ecologically sensitive critical areas from the development area. The proposal includes trail connections to integrate the natural open space with the adjacent development area. A central trail corridor in the development area connects to a trail in the critical area tract, which then connects to the regional trail system in the Coal Creek Natural Area.

8. **The design is compatible with and responds to the existing or intended character, appearance, quality of development and physical characteristics of the subject property and immediate vicinity.**

Finding: The subject site and property in the immediate vicinity are zoned for single family residential use. The proposal is for detached single family residences and is therefore consistent and compatible with the existing and planned land uses in the immediate vicinity. The site design clusters the allowed residential density on the east portion of the

site to protect the site's critical areas and to respond to the physical characteristics of the property. The site plan's arrangement of the residential structures and the architectural design is compatible with the single-family residential character of the immediate vicinity.

9. **That part of a Planned Unit Development in a transition area meets the intent of the transition area requirements, Part 20.25B LUC, although the specific dimensional requirements of Part 20.25B LUC may be modified through the Planned Unit Development process.**

   Finding: Not applicable. The subject site is not in a transition area. Transition areas apply where multifamily or commercial development or zoning is adjacent to single family residential uses.

10. **Roads and streets, whether public or private, within and contiguous to the site comply with Transportation Department guidelines for construction of streets.**

    Finding: The private streets within the development area comply with the Transportation Department guidelines. See Section VIII.C of this Staff Report, Summary of Technical Reviews, Transportation Review.

11. **Streets and sidewalks, existing and proposed, are suitable and adequate to carry anticipated traffic within the proposed project and in the vicinity of the proposed project.**

    Finding: The Transportation Department reviewed the proposed, internal streets and determined the streets are suitable and adequate for the anticipated traffic within the proposed project site. Road A, a private street, provides a primary loop road access through the site and includes a 7-foot-wide continuous sidewalk on one side of the road. The sidewalk in combination with the project's trail system will provide adequate pedestrian facilities internal to the development.

    Traffic concurrency evaluated the project's traffic volumes and potential impacts on Lakemont Blvd SE. The proposed development would generate 32 new PM peak hour trips to the system. The 32 trips were used in a city traffic model to check for concurrency and used in the applicant's traffic impact analysis to analyze level of service for the site access. The project passed the concurrency model test, and neither the maximum area-average levels of service nor the congestion allowances would be exceeded as a result of traffic generated from this proposal (Certificate of Concurrency, DSD 000979). See Section VIII.C of this Staff Report, Summary of Technical Reviews, Transportation Review.

    Lakemont Blvd SE is not currently improved with sidewalks or a bike lane. The proposal would improve the site's frontage on Lakemont Blvd SE with a 6-foot-wide sidewalk, planter strip, and the expand the existing road surface to add a 7-foot-wide bike lane. See Street Sections, Sheets E1 and E3 of the Preliminary Civil Plans, DSD 000141 and DSD

000143.

There are City capital improvement projects planned to add a sidewalk (Pedestrian Plan S-371-E) and bicycle lane (Bike project B-159-W) on Lakemont Blvd SE. The projects are listed as low and medium priority.

12. **Each phase of the proposed development, as it is planned to be completed, contains the required parking spaces, open space, recreation space, landscaping and utility area necessary for creating and sustaining a desirable and stable environment.**

Finding: The applicant has not identified phasing of the proposed development. The proposed development complies with all parking, open space, recreation, landscaping, and utility requirements.

iii. **Planned Unit Development Plan – Conservation Feature and Recreation Space Requirement – LUC 20.30D.160**
Within a Planned Unit Development including residential uses:

1. **Through the conservation design features included in subsection B of this section, the proposal must earn square footage credit totaling at least 40 percent of the gross land area, which includes any critical area or critical area buffer.**

Finding: Sheet P3 of the Preliminary Civil Plans (DSD 000138) describes the proposed conservation features and square footage credit. Only the site area zoned R-3.5 was used to calculate the PUD density and conservation features.

The site area is 472,685 SF and therefore the applicant must include conservation design features totaling at least 40% or 189,074 square footage credit. The applicant has demonstrated that the proposed conservation design features earn 217,060 square footage credit, equal to 46% of the gross site area. See detailed discussion of the conservation features below under 3. Conservation Design Features of this Staff Report.

2. **At least 10 percent of the gross land area, which includes any critical area or critical area buffer, of the subject property must be retained or developed as common recreation space as defined by LUC 20.50.044; provided, however, that the requirement for recreation space may be waived if the total of critical area and critical area buffer equals at least 40 percent of the gross land area.**

Finding: The gross land area of the site is 472,685 SF and the total area of critical areas/critical area buffers is 214,230 (Sheet P2, Base Density Calculation, Preliminary Civil Plans, DSD 000137), which equates to 45% of the gross land area, allowing the requirement for additional common recreation space to be waived.

The site plan includes common recreation space within the development area; a

landscape grass passive recreation area on top of stormwater vault (14,125 SF) and a neighborhood park (3,100 SF), as well as a trail system. See PUD Conservation Features, P3, Preliminary Civil Plans, DSD 000138.

3. **Recreation space as required by subsection A.2 of this section may be included within non-critical area conservation design features required by subsection A.1 of this section if:**
   - **The common recreation space does not interfere with the purposes and functions of the conservation design feature; and**
   - **At least 20 percent of the gross land area is nonrecreation open space.**
   - **Provided, however, that recreation space may not occur in a critical area or a critical area buffer.**
4. **The area of the site devoted to pedestrian trails shall not be included in the required common recreation space unless public trails are specifically required by the City.**
5. **An outdoor children's play area meeting the requirements of LUC 20.20.540 may be included in the above-described common recreation space requirement.**
6. **For mixed use projects, the required open and recreation space shall be designed to meet the needs of both the residential and commercial uses.**

Finding: The requirement for common recreation space in subsection A.2 of this section is waived as the site is more than 40 percent critical area. However, the site plan includes 39,037 SF of Landscape/Grass Passive Recreation Area (Sheet P3, PUD Conservation Features, Preliminary Civil Plans, DSD 000138). This includes a recreation area on top of stormwater vault (14,125 SF), a neighborhood park (3,100 SF) and a landscape buffer with a pedestrian trail located along Lakemont Blvd SE.

The code section, LUC 20.30D.160.B, identifies the conservation features and associated conservation factors for determining the PUD square footage credit. Sheet P3, PUD Conservation Features, of the Preliminary Civil Plans (DSD 000138) proposes the following conservation design features and calculation of square footage credit:

Tract Z (188,901 SF) x 1.0 conversion factor = 188,901 square footage credit;
Wildlife Corridor (23,466 SF) x 1.2 conversion factor = 28,159 square footage credit;
Landscape/Grass Passive Rec Area (39,037 SF) x 1.0 = 39,037 square footage credit

The site's critical areas and buffers are proposed to be placed in a separate critical areas tract (Tract Z), qualifying for 188,901 square footage credit. The proposed "wildlife corridor" (23,466 SF) is an area that is outside of critical areas and critical area buffers and therefore is a non-protected, potentially developable area. It is completely surrounded by the Coal Creek Natural Area and would provide for wildlife connectivity. The wildlife corridor is included within the critical area tract (Tract Z) and qualifies for 28,159 square footage credit. Plan sheet P3, PUD Conservation Features (DSD 000138), also includes "Landscape/Grass Passive Rec Area" (39,037 SF) as a conservation feature. This includes the landscape buffer along Lakemont Blvd SE, the passive recreation area on top of the stormwater vault, and the neighborhood park. However, to qualify for the square

footage credit the code requires the area to be in a separate tract which cannot be created by the PUD alone. The proposal meets the requirements of this section without including the passive recreation area but if this area is placed into a separate tract by a future action by the applicant it could be included. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding PUD Conservation Features.**

The Critical Areas Tract (188,901 square footage credit) and the Wildlife Corridor (28,159 square footage credit) total 217,060 square footage credit. This is equal to 46% of the 472,685 SF total gross site area, which exceeds the 40% requirement in LUC 20.30D.160.A.1.

In appropriate circumstances the City may require a reasonable performance or maintenance assurance device in conformance with LUC 20.40.490 and LUC 20.25H.220 to assure the retention and continued maintenance of all open and recreation space, conservation design features, and mitigation planting areas in conformance with the Land Use Code and the Planned Unit Development plan approval. The proposal includes extensive critical area buffer enhancement to mitigate for project impacts. The buffer enhancement will be located in the critical area tract (Tract Z), which is included as a conservation design feature. The applicant is required to monitor and maintain the mitigation planting for 10 years to ensure successful establishment of the enhancement planting. LUC 20.25H.220.D gives the City authority to require maintenance and monitoring for "a period necessary to establish that performance standards have been met, but not for a period less than five years." Based on the extent of planting and sensitive nature of the critical areas a 10-year maintenance and monitoring period is required. An assurance device is required to ensure that the enhancement planting within the critical areas tract and conservation feature is maintained and successfully established in accordance with the approved mitigation plan. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Maintenance and Monitoring Assurance Device.**

iv. Planned Unit Development Plan – Request for Modification of Zoning Requirements – LUC 20.30.165

The City may approve a modification of any provision of the Land Use Code, except as provided in LUC 20.30D.170, if the resulting site development complies with the criteria of this part.

1. Consistency with Zoning Dimensional Requirements – LUC 20.20.010 – Chart - Uses in land use districts dimensional requirements.

Findings: LUC Chart 20.20.010 includes the dimensional requirements that apply to development in the R-3.5 zoning district. A Planned Unit Development (PUD) allows for modifications to the dimensional requirements of the underlying zone (R-3.5), except for those requirements specified in LUC 20.30D.170.

The proposed PUD does not currently include a proposed subdivision of the property or the creation of individual lots. Therefore, dimensional requirements that commonly apply

to segregated, individual lots such as lot area and dimensions do not apply to the subject proposal. Zoning requirements for setbacks, lot coverage, and impervious surface apply to the entire site area and structures proposed as discussed below. Construction permits submitted for the proposal will be reviewed for consistency with the zoning dimensional standards and other applicable provisions of the Land Use Code. **Refer to Section XI.A of this Staff Report for Condition of Approval Regarding Construction Permits Required.**

Basic Information		
Zoning District	R-3.5	
Gross Site Area	535,522 Sqft. (12.29 Acres)	
Net Lot Area (Parcel A)	258,234 Sqft. (5.93 Acres)	
Development Standard	**Required by LUC 20.20.010**	**Proposed Minimum Standards**
Front Yard	20’	**20’ from front property line**
Rear Yard	25	**12’ from Tract Z Boundary Modified by PUD (See Discussion Below)**
Side Yard	5’	**12’ from Tract Z Boundary**
2 Side Yards	15’	**24' Combined**
Maximum Lot Coverage by Structures (percent)	35% of Net Lot Area	**25% of Net Lot Area(See Discussion Below)**
Alternative Maximum Impervious Surface (percent)	50% of Gross Lot Area	**27% of Gross Lot Area (See Discussion Below)**

- FAR – not applicable to structures approved by a PUD.

- Setbacks – As a result of the placement of the critical area and buffers into a separate tract and the 12-foot setback from this tract, the rear and side setbacks for all structures is 12 feet, measured from the boundary of Tract Z. This setback modification is requested as part of the PUD proposal and discussed in section 7.2 of the submitted Critical Areas Report (DSD 000438 - 000439). The front setback is a minimum of 20 feet measured from the property line abutting Lakemont Blvd. The site plan notes a 10-foot setback that is a remnant of the withdrawn plat however all structures proposed are at least 29 feet away from the front property line. All minimum setbacks are required to be depicted on the recorded PUD site plan and are required to be survey verified as part of the building permit inspection approval process. Greenscape percentage of the front setback is met by the proposed frontage landscaping. **Refer to Section XI.B of this Staff Report for Conditions of Approval Regarding PUD Site Plan and Survey Verification.**

- Structural Lot Coverage – The maximum lot coverage by structures allowed in the R-3.5 zone is 35 percent. This is calculated by subtracting all critical areas (excluding habitat and coal mine hazards) and the stream buffer area from the gross site area, consistent with Notes (13) and (14) in Chart 20.20.10. Net lot area also includes private roads and utility areas if these are not contained in a separate tract. All proposed roads and utilities are part of the lot and not in separate tracts. The initial Statistical Information on the PUD Site Plan (DSD 000140) was revised by subsequent communication with the applicant (DSD 001436 – 001437) which indicates 64,143 SF of proposed building area. The net lot area, removing critical areas and stream buffer is 258,234 SF (developable area in R-3.5 zone, Sheet P2, Base Density Calculation, Preliminary Civil Plans (DSD 000137). The applicant has erred in their lot coverage calculation and subtracted the area of the private roads and utilities which are not proposed in a tract. As a result, the actual proposed lot coverage is 25 percent rather than the "30.32%" provided by the applicant (DSD 001436). While 35 percent lot coverage is allowed in the R-3.5 zone this PUD is subject to the lot coverage limit of 25% as proposed. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding PUD Site Plan.**

- Impervious Surface – The site is subject to the alternative maximum impervious surface limit in LUC 20.20.010 which is 50 percent of the gross lot area for properties in the R-3.5 zone. The proposed PUD would result in approximately 147,120 SF of impervious surface area per the Statistical Information on the PUD Site Plan (DSD 000140). Impervious surface coverage is based on the total site area of 532,857 SF. The proposed impervious surface area would be 28% of the total site area. The proposed pavers for the alley and other surfaces are counted as impervious surfaces due to the need for drainage collection and dispersal as a result of geotechnical constraints. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding PUD Site Plan.**

- Parking – The minimum number of parking spaces required for detached single family residences is 2 per residential unit (LUC 20.20.590.F). The proposal includes 2 parking spaces per residence (70 total), see Statistical Information PUD Site Plan (DSD 000140). There are also 5 parallel parking spaces shown along Road A, see Sheet E1, Road Plan and Typical Sections, Preliminary Civil Plans (DSD 000141).

- Tree retention – The Land Use Code requires the retention of 30% of the total diameter inches of significant trees (trees 8-inches or greater in diameter) on a planned unit development site (LUC 20.20.900.D.3). The diameter inches of alder and cottonwood trees are discounted by a factor of 0.5. An Arborist Report (Shoffner Consulting, September 27, 2016, revised May 21, 2018, DSD 001390 - 001394) was prepared to inventory trees on the Park Pointe site and to demonstrate how the proposal meets the tree retention requirements.

  The Arborist Report identified a total of 393 significant trees on the site. 296 of the trees surveyed were located in the critical areas tract and 97 trees were inventoried

within the development area and the periphery of the development area. The report concluded there is a total of 6,606 diameter inches of significant trees on the site: 1,282 diameter inches in the development area and 5,324 diameter inches within the critical areas tract. The proposal would retain a total of 5,370 diameter inches or approximately 80% of the total significant tree diameter inches, exceeding the 30% required in the Land Use Code.

The Tree Retention Plan (Sheet L3 Preliminary Civil Plans, DSD 000152) includes a table identifying 96 trees within the development area and the periphery of the development area. The table indicates the tree species, the DBH (tree diameter 4.5 feet above ground), condition notes, rating, and whether the trees are proposed to be retained or removed. The Tree Retention Plan and table indicates 20 of the 96 inventoried trees within the development area and periphery of the development area would be retained. Trees that are shown to be retained on the Tree Retention Plan shall be protected during construction activity per the City's Tree Protection BMPs T101. To ensure tree protection fencing is installed and remains for the duration of all construction or until the City allows removal, an installation assurance device is required for 150 percent of the cost of fencing and other measures required in the City's Tree Protection BMPs T101. Release of the installation assurance device can occur upon inspection approval that verifies installation of tree protection measures. The installation assurance device is required to be submitted prior to issuance of the clearing and grading permit. Tree protection fencing must be installed prior to construction. A maintenance assurance device is required for 100% of the cost fencing and tree protection measures which is to be in place for the duration of construction. The maintenance assurance is required prior to release of the installation assurance and will be held until final inspection approval of the clearing and grading permit. A cost estimate for the full cost of tree protection fencing and measures is required to be submitted with the clearing and grading permit application. Plans submitted under the future grading permit shall depict the tree protection fencing and the project arborist shall provide a letter to confirm the placement of the proposed protection fencing plan meets their recommendations. Removal of tree protection fencing, or intrusion requires arborist approval and request to the City under future construction permits. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Tree Protection.**

The project arborist is required to review the protected trees prior to request of the release of the assurance device for tree protection fencing. The arborist is required to provide a letter confirming trees were protected and confirming if any hazards exist. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Tree Protection.**

2. **Density and Bonus Density – LUC 20.25H.045 and LUC 20.30D.165.A**
   The applicant may request a bonus in the number of dwelling units permitted by the underlying land use district or the maximum FAR (see general dimensional requirements contained in LUC 20.20.010), and district-specific requirements

contained in Chapter 20.25 LUC. The City may approve a bonus in the number of dwelling units allowed by no more than 10 percent over the base density for proposals complying with this subsection A.2. Base density shall be determined on sites with critical areas or critical area buffers pursuant to LUC 20.25H.045. Base density on all other sites shall be determined based on the gross land area of the property excluding either that area utilized for traffic circulation roads or 20 percent, whichever is less. The bonus allowed by this section may be approved only if:

- **The design of the development offsets the impact of the increase in density; and**
- **The increase in density is compatible with existing uses in the immediate vicinity of the subject property.**

Finding: The base density of the proposal, with critical areas and critical area buffers factored per LUC 20.25H.045, is 30 dwelling units (Sheet P2, Base Density Calculation, Preliminary Civil Plans, DSD 000137). Three (3) additional dwelling units (10% of 30-unit base density) may be approved if the proposal meets the above criteria.

The project site is surrounded by the Coal Creek Natural Area along the north, south, and west property boundaries. The site's critical areas and critical area buffers located along the peripheries of the site will be preserved and enhanced, which would screen views of the development from the Coal Creek trail and the natural area. The enhanced buffers at the edges and perimeter of the PUD will blend with and will be compatible with the existing natural, forested conditions along the site's north, south and west boundaries.

The PUD development would be primarily visible to the public and surrounding properties from Lakemont Blvd SE. Despite the proposal to construct single-family residences, the applicant has incorporated elements to demonstrate that the site design and architecture of the development offsets the impact of the increase in density and for compatibility with existing single-family and recreation uses in the immediate vicinity. The elements include a visual-obscuring landscape buffer to screen or soften views of the development from Lakemont Blvd SE, varying building setbacks and modulating the residences, lowering the grade of the development site to reduce height of residences as viewed from Lakemont Blvd SE, and utilizing single-family residential architectural design features (See Figure 21, Landscape Buffer and Site Section of this Staff Report).

Please refer to Section IX.C.ii.4 of this Staff Report for detailed information and site sections regarding how the proposed site plan elements and architectural features offset the increase in density and address compatibility with existing uses in the immediate vicinity of the site. Based on review, the Development Services Department (DSD) recommends that the applicant qualifies for the bonus density allowed under this code section.

3. **Additional Bonus Density for Large-Parcel Projects – LUC 20.30D.167**
   Projects will only be authorized on sites of five acres or more. A project will be approved as part of the PUD approval for the underlying proposal. The City may authorize additional bonus density, up to 30 percent of the base density, for

proposals including additional conservation design features above the amount required in LUC 20.30D.160.A. Base density shall be determined on sites with critical areas or critical area buffers pursuant to LUC 20.25H.045. Base density on all other sites shall be determined based on the gross land area of the property excluding either that area utilized for traffic circulation roads or 20 percent, whichever is less. Bonus density shall be based on the square footage credit earned divided by the minimum lot size of the underlying land use district. Bonus density may be approved only if the proposal meets the criteria of LUC 20.30D.165.A.2.a and A.2.b.

Finding: The subject site is over five acres and therefore is eligible for the additional bonus density, up to 30% over the base density. The base density, as calculated for development on sites with critical areas (LUC 20.25H.045), is 30 dwelling units. The additional bonus density would allow for up to a 30% increase or nine additional residential units over the base density. This is in addition to the three units of bonus density achieved under LUC 20.30D.165.A discussed above. The base density of 30 units, plus the three units achieved under 20.30D.165.A, plus the nine units of bonus density achieved under LUC 20.30D.167 achieves a possible maximum density of 42 units.

A PUD must at a minimum include conservation design features to earn square footage credit totaling at least 40 percent of the gross land area, per LUC 20.30D.160.A. The gross site area for the purposes of calculating density is 472,685 SF (excludes restricted covenant parcels) and therefore a minimum of 189,074 square footage credit is required. The proposal earned a total of 217,060 square footage credit for the proposed conservation design features: the Critical Areas Tract - 188,901 square footage credit and Wildlife Corridor - 28,159 square footage credit. This is equal to 46% of the 472,685 SF total gross site area, which exceeds the 40% requirement in LUC 20.30D.160.A.1. The proposal also provides significant landscaping and trail connection through the site and along the frontage of Lakemont Blvd. However, this landscaping cannot be counted toward conservation credit as the area cannot be placed into a separate tract.

The PUD proposal earned 27,986 square footage credit over the minimum 189,074 square footage credit required for a PUD (217,060 earned square footage credit - 189,074 minimum square footage credit required = 27,986 square footage credit over the minimum). The additional bonus density allowed is the square footage credit earned over the minimum (27,986 SF) divided by the minimum lot size of the underlying land use district (R-3.5 minimum lot size is 10,000 SF). For the subject proposal, this equates to 2.8 additional residential units. The Development Services Department (DSD) typically rounds down to the nearest whole number when calculating residential density. Therefore, DSD supports the applicant's request for two additional residential units of additional bonus density.

The purpose statement of this code section emphasizes that the bonus density is an incentive for site designs that minimize impacts to critical area functions and values and include design techniques and features to offset the increased density, in order to

determine the appropriate amount of density bonus. The proposal includes 2 measures which support their request for additional bonus density:

- Critical area impacts – The proposal would not result in direct impacts to critical areas. Critical area buffer impacts are limited to 21,575 SF (0.5 acres) or 8% of the total critical area buffers. The buffer impacts are limited to the periphery of the development area and the impacted buffer areas are currently degraded and provide low critical area functions. The proposal includes 130,823 SF of buffer enhancement and restoration to mitigate for the buffer impacts. This equates to a 6:1 mitigation to impact ratio. The proposed buffer enhancement would improve critical area buffer functions over the existing conditions, demonstrating that the site design minimizes impacts to critical area functions and values.

  The applicant has proposed to dedicate the critical area tract (Tract Z, 6.3 acres) to the City of Bellevue (DSD 001438 - 001441). The critical area tract contains all of the site's critical areas and critical area buffers and is completely surrounded by the Coal Creek Natural Area, except where the tract borders the proposed development area. Dedication of the critical area tract to public ownership will provide for public access to the tract and allow for more consistent long-term management of the critical areas and natural open space. This tract dedication also includes area that is not within a critical area or buffer and is identified as Wildlife Corridor in this report. The result of including this area creates a larger tract.

- Salmon-Safe Certification – The purpose statement also encourages the use of new design techniques to determine the appropriate density bonus. The applicant is pursuing and has received "Salmon-Safe Certification," see DSD 001067 - 001089. Salmon-Safe is an independent certification body that has developed a comprehensive certification framework and Urban Certification Standards oriented towards reducing impacts on water quality and fish habitat from urban land and water management practices. It is similar to other certification standards or "ecolabels" such as LEED or Green Built but this certification is focused on water quality and habitat. "Salmon-Safe Certification" works with independent scientists and technical experts with expertise in aquatic ecosystems, innovative storm-water management, land management, and integrated pest management (IPM). The Salmon-Safe science team recommended that the Park Pointe development be certified as salmon-safe subject to the conditions in their report (Report of the Science Team Regarding Salmon-Safe Certification of the Park Pointe Planned Unit Development Bellevue, Washington, October 8, 2018, DSD 001069). The recommendation summary states: "Isola Homes, the Park Pointe developer, has prepared a design for a residential community that will result in a net improvement in the ecological functions provided by this environmentally sensitive property that is immediately adjacent to the Coal Creek Natural Area" (DSD 001069). The Salmon-Safe Certification includes recommendations and conditions related to the construction process and monitoring and long-term maintenance of the critical

areas and the critical area mitigation. The applicant shall comply with the guidelines and conditions in the Salmon-Safe Certification Report dated October 8, 2018, as applicable throughout the construction process and monitoring and maintenance period, and in accordance with the timelines specified in the report. The applicant shall provide reports to DSD demonstrating compliance with the Salmon-Safe Certification guidelines and conditions. **Refer to Section XI.A of this Staff Report for Condition of Approval Regarding Completion of Salmon-Safe Certification.**

4. **Residential Density Summary**
   The base density for the subject site, as calculated for development on sites with critical areas (LUC 20.25H.045), is 30 dwelling units. Three (3) additional residential units are recommended for approval based on the bonus decision criteria under the Request for Modification of Zoning Requirements (LUC 20.30.165). DSD also recommends approval for two (2) additional residential units under the Additional Bonus Density for Large-Parcel Projects (LUC 20.30D.167). This equates to a total of 35 residential units. The proposal to construct 35 residential units is consistent with—and less than—the maximum number of residential units, which is 42. See density discussion in Section VI.B.vi of this Staff Report.

5. **Planned Unit Development Plan – Authorized Activity – LUC 20.30.D.175**
   Following approval of the Planned Unit Development plan, the applicant may begin any work that is specifically authorized in the Planned Unit Development approval and is not prohibited by any other applicable regulation. No other work may be done until the final development plan is approved.

   Finding: Construction permits are required and must be consistent with the PUD approval and construction permits must be approved prior to commencing construction. **Refer to Section XI.A of this Staff Report for Condition of Approval Regarding Construction Permits Required.**

6. **Planned Unit Development Plan – Effect of Approval – LUC 20.30D.200**
   The approval of the Planned Unit Development plan constitutes the City's acceptance of the general project, including its density, intensity, arrangement and design. Upon final Planned Unit Development approval that is not merged with a subdivision, the Development Services Department will forward an approved Planned Unit Development to the King County Department of Records and Elections for recording. No administrative approval of a Planned Unit Development is deemed final until the Planned Unit Development is recorded, and proof of recording is received by the Development Services Department.

   Finding: The approved Planned Unit Development (PUD) plan shall be recorded with the King County Department of Records and Elections and a copy submitted to the City prior to the issuance of a construction permit. The applicant may complete a boundary line adjustment, binding site plan per LUC 20.30D.280 and RCW 58.17.040(7), or other means

to create Tract Z as a separate tract that will be dedicated to the City. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Recording of Planned Unit Development.**

7. **Planned Unit Development in the Critical Area Overlay District.**
Where a Planned Unit Development within the Critical Area Overlay District is not merged with a subdivision, the Planned Unit Development recorded under this section shall have designated on the face of the final document a Native Growth Protection Easement(s) (NGPE). The NGPE(s) shall contain all critical areas, critical area buffers, and retained significant trees. The final Planned Unit Development shall contain the restrictions for use, development and disturbance of the NGPE in a format approved by the City Attorney.

Finding: The proposal includes a critical areas tract (Tract Z) containing the site's critical areas and critical area buffers that the applicant has offered to dedicate to the City of Bellevue (DSD 001438 - 001441). Dedication of this area as a tract exceeds the requirements of the Land Use Code that would otherwise merely require the critical areas to be placed into a Native Growth Protection Easement. Dedication of a critical areas tract will provide equivalent or greater protection to the critical areas at issue than a Native Growth Protection Easement. This tract will be created through a subdivision, short subdivision, boundary line adjustment, binding site plan, or other applicable means. It is the applicant's sole responsibility to apply for and obtain any and all regulatory approvals necessary to create the proposed tract. Pursuant to BCC 4.30.010, the City's acceptance of the proposed dedication will also require the discretionary approval of the Bellevue City Council. It is the applicant's sole responsibility to apply for and obtain the City's Council's approval of the proposed dedication. If dedication of the critical areas tract to the City of Bellevue, including the City Council's acceptance of the dedication, is not completed prior to building permit issuance, the applicant shall record a Native Growth Protection Easement(s) (NGPE) to contain the site critical areas prior to building permit issuance. The final recorded Planned Unit Development (PUD) plan shall reference the recorded NGPE or other recorded document that creates a NGPA tract. **Refer to Section XI.B of this Staff Report for Condition of Approval Regarding Designating a Native Growth Protection Easement(s) (NGPE).**

v. Amendment of an Approved Planned Unit Development – LUC 20.30D.285
There are three ways to modify or add to an approved Planned Unit Development: process as a new decision, process as a Land Use Exemption, or process as an administrative amendment.

Finding: All modifications, revisions, additions or amendments to the approved Planned Unit Development plan shall follow the processes as specified in LUC 20.30D.285. Future development and any modifications to this PUD may alter but shall maintain design concepts of shared driveways, alley loading, pavers, trail connections, perimeter setback from the NGPA Tract Z, landscaping along Lakemont Blvd., and required mitigation planting in the NGPA tract. The Critical Area Land Use Permit is combined with this PUD and the expiration

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is linked to the PUD that will be recorded. Changes to the PUD plans that are determined during initial construction and are implementing an improvement, structure, or element anticipated under the PUD but that alter impacts to a critical area, buffer, or setback can be reviewed as a modification to the PUD. New improvements and substantial modifications that are not anticipated in this approval will require new environmental permitting. **Refer to Section XI.A of this Staff Report for Condition of Approval Regarding Amendment of an Approved Planned Unit Development.**

X. CONCLUSION AND DECISION/RECOMMENDATION

After conducting the various administrative reviews associated with this proposal, including Land Use consistency, SEPA and City Code and Standard compliance reviews, the Director of the Development Services Department does hereby approve with conditions the Critical Areas Land Use Permit (16-145946-LO). The SEPA Responsible Official does hereby approve a Mitigated Determination of Non-Significance (MDNS).

After conducting the various administrative reviews associated with this proposal, including Land Use consistency and City Code and Standard compliance reviews, the Director of the Development Services Department does hereby recommend approval with conditions to the Hearing Examiner of the Planned Unit Development Permit (16-143970-LK).

As applicable, any finding set forth herein shall also be construed as a conclusion, and any conclusion set forth herein shall also be construed as a finding.

Note - Expiration of Approval: The Critical Areas Land Use Permit is combined with the Planned Unit Development which if approved by the Hearing Examiner will expire 5 years from the date of approval. Therefore, the Critical Areas Land Use Permit approval expires and is void if the applicant fails to file for a clearing and grading permit or other necessary development permits within 5 years of the effective date of the approval of the Planned Unit Development.

XI. CONDITIONS OF APPROVAL

The conditions set forth in this Section XI collectively reflect the conditions imposed by the Director in relation to the approved Critical Areas Land Use Permit and the MDNS, as well as the conditions recommended by the Director in relation to the Planned Unit Development Permit. Except where expressly noted in this Section XI and/or where the surrounding context clearly indicates a different intent, all such conditions shall be applicable to the proposal as a whole.

In the development and use of the subject property, and in implementing and effectuating the conditions set forth herein, the applicant shall comply fully with all applicable Bellevue City Codes, Standards, and Ordinances including but not limited to:

Applicable Ordinances	Contact Person
Clearing and Grading Code- BCC 23.76	Tom McFarlane, 425-452-5207

Land Use Code- BCC Title 20	Reilly Pittman, 425-452-4350
Transportation Code- BCC 14.60	Ian Nisbet, 425-452-4851
Utility Code- BCC Title 24	Mark Dewey, 425-452-6179
Fire Code- BCC 23.11	Scott Gerard, 425-452-6808
Construction Codes- BCC Title 23	Bldg. Division, 425-452-6864

Nothing herein shall be construed as excusing the applicant's compliance with all regulatory permitting and approval requirements applicable to the development and use of the subject property. Without limitation of the foregoing, the applicant shall be responsible for obtaining approval of any subdivision, binding site plan, boundary line adjustment, and/or other applicable regulatory mechanism needed in order to divide the subject property, or any portion thereof, into separate legal lots or tracts, if and to the extent that such division is necessary to effectuate the applicant's development intent.

A. GENERAL CONDITIONS
The following conditions apply to all phases of development.

1. **Construction Permits Required:** Approval of this Critical Areas Land Use Permit and Planned Unit Development Permit does not constitute an approval of any construction permit. The proposal is required to obtain construction permits prior to the commencement of any clearing/grading or construction activity. Site improvements and right-of-way improvements will be required and reviewed with construction permits. Plans submitted as part of any permit application shall be consistent with the activity permitted under this approval. Conformance with all zoning requirements will be verified as part of the required Building Permit review.

   Authority: Land Use Code 20.30P.140
   Reviewer: Reilly Pittman, Development Services Department

2. **Critical Area and Critical Area Buffer Modification Limitations:** The modifications to the critical area buffers approved in this report are limited to the approved PUD Site Plan and Critical Areas Mitigation Plans (DSD 000140 and 000496 - 000500). There is no implied approval for future modifications or expansion of any sort within the prescribed critical area, critical area buffer, or structure setback.

   Authority: Land Use Code 20.25H.230; 20.25H.055
   Reviewer: Reilly Pittman, Development Services Department

3. **Amendment of an Approved Planned Unit Development:** All modifications, revisions, additions or amendments to the approved Planned Unit Development plan shall follow the processes as specified in LUC 20.30D.285, and/or other City regulations, as applicable.

   Authority: Land Use Code 20.30D.285
   Reviewer: Reilly Pittman, Development Services Department

4. **Salmon-Safe Certification:** The applicant shall continue with annual verifications and shall comply with the guidelines and certification conditions in the Salmon-Safe Certification Report dated October 8, 2018, as applicable throughout the construction process and ten-year monitoring and maintenance period, and in accordance with the timelines specified in the report. The applicant shall provide reports to DSD demonstrating compliance with the Salmon-Safe Certification guidelines and conditions. Once the maintenance and monitoring is complete the development must maintain salmon-safe certification and update as needed per the guidelines of this certification process.

   Authority: Land Use Code 20.30.167; 20.25H.245
   Reviewer: Reilly Pittman, Development Services Department

B. PRIOR TO ISSUANCE OF CLEAR AND GRADE PERMIT

5. **Clearing and Grading Permit Required:** Approval of this Critical Areas Land Use Permit and Planned Unit Development Permit does not constitute an approval of any other development permit. Without limitation of the foregoing, an application for a Clearing & Grading Permit must be submitted and approved before construction can begin. Plans submitted as part of any permit application shall be consistent with the activity permitted under this approval.

   During construction, the contractor will operate under an NPDES permit that requires a project-specific Temporary Erosion and Sediment Control Plan, Spill Containment and Counter Measures Plan and requirements for water quality monitoring and a reporting protocol. These measures will be enforced under the Clearing & Grading Permit.

   Authority: Clearing & Grading Code 23.76.035
   Reviewer: Tom McFarlane; Development Services Department, Clearing & Grading

6. **Rainy Season Restrictions:** No clearing and grading activity may occur during the rainy season, which is defined as October 1 through April 30 without written authorization of the Development Services Department. Should approval be granted for work during the rainy season, increased erosion and sedimentation measures, representing the best available technology must be implemented prior to beginning or resuming site work.

   Authority: Bellevue City Code 23.76.093
   Reviewer: Tom McFarlane, Development Services Department, Clearing & Grading

7. **Geotechnical Review of Construction Plans:** The project geotechnical engineer of record shall review construction plans and provide documentation that the plans adhere to the geotechnical recommendations.

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Authority: Land Use Code 20.25H.145
Reviewer: Reilly Pittman, Development Services Department

8. **Geotechnical Monitoring:** The project geotechnical engineer of record or his representative must be on site during critical earthwork operations. The geotechnical engineer shall observe all excavations and fill areas. In addition, the engineer shall monitor the soil cuts prior to construction of rockeries and verify compaction in fill areas. The engineer must submit a field report in writing to the DSD inspector for soils verification and foundation construction. All earthwork must be in general conformance with the recommendations in the geotechnical reports.

   Authority: Bellevue City Code 23.76.160
   Reviewer: Tom McFarlane, Development Services Department, Clearing & Grading

9. **Engineering Evaluation During Site Grading:** Icicle Creek Engineers, or other qualified expert shall evaluate and confirm potential undocumented coal mine workings during site grading. The expert shall be contacted immediately if a shallow void or evidence of mine rock fill is encountered during site development. ICE shall in that event promptly provide a report to the DSD inspector.

   Authority: Land Use Code 20.25H.130
   Reviewer: Reilly Pittman, Development Services Department

10. **Construction Limits of Disturbance:** Construction limits of disturbance, consistent with the approved plans, shall be shown on the Clearing & Grading permit and the limits shall be clearly delineated in the field prior to construction. There shall be no site disturbance outside the identified temporary disturbance construction limits, except for the mitigation planting.

    Authority: Land Use Code 20.25H.205
    Reviewer: Reilly Pittman, Development Services Department

11. **Tree Protection, Intrusion Approval, Installation and Maintenance Assurance Devices:** The Clearing & Grading permit submittal shall include tree protection measures to protect existing, retained trees during construction activity per City BMP T101 as well as the following measures.
    i. To ensure tree protection fencing is installed and remains for the duration of all construction or until the City allows removal, an installation assurance device is required for 150% of the cost of fencing and other measures required in the City's Tree Protection BMPs T101. Release of the installation assurance device can occur upon inspection approval that verifies installation of tree protection measures. The installation assurance device is required to be submitted prior to issuance of the clearing and grading permit. Tree protection fencing must be installed prior to construction.

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ii. A maintenance assurance device is required for 100% of the cost fencing and tree protection measures which is to be in place for the duration of construction. The maintenance assurance is required prior to release of the installation assurance and will be held until final inspection approval of the clearing and grading permit.

iii. A cost estimate for the full cost of tree protection fencing and measures is required to be submitted with the clearing and grading permit application.

iv. Plans submitted under the future grading permit shall depict the tree protection fencing and the project arborist shall provide a letter to confirm the placement of the proposed protection fencing plan meets their recommendations. Removal of tree protection fencing, or intrusion requires arborist approval and request to the City under future construction permits.

v. Arborist review of protected trees is required prior to request of the release of the assurance device for tree protection fencing. The arborist is required to provide a letter confirming trees were protected and confirming if any hazards exist.

Authority: Land Use Code 20.20.900, 20.40.490, BCC 23.76
Reviewer: Reilly Pittman, Development Services Department

12. **Utility Extension Agreement:** A Utility Extension Agreement approved by the City shall be required for review and approval of the utility design for sewer, water and storm drainage. Submittal of the Utility Extension shall coincide with future clearing and grading permit review.

    Authority: Bellevue City Code 24.02, 24.04, 24.06
    Reviewer: Mark Dewey, Development Services Department, Utilities Review

13. **Public and Private Utility Easements:** Public and private easements will be required for water mains, water and side sewer services across adjoining properties and will be required to be shown on the plans with appropriate language. The applicant shall be responsible for securing all such easements. Prior to recording any easements, they shall be reviewed and approved by City staff as part of the clearing and grading permit and utilities permits.

    Authority: Bellevue City Code 24.02, 24.04, 24.06
    Reviewer: Mark Dewey, Development Services Department, Utilities Review

14. **Utilities Final Inspection and Acceptance:** Utilities shall be constructed and accepted by the Utilities Department or sufficient bonding submitted. No new homes will be allowed to connect to water, sewer or storm utilities until the utilities have received final inspection approval and acceptance by the Utilities Department.

    Authority: Bellevue City Code 24.02, 24.04, 24.06
    Reviewer: Mark Dewey, Development Services Department, Utilities Review

15. **Open Space Recreation Area on Top of Stormwater Detention Vault:** The

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neighborhood open space recreation area on top of the stormwater detention vault shall be designed to allow for vactor truck and maintenance crew access to clean the vault.

Authority: Bellevue City Code 24.02, 24.04, 24.06
Reviewer: Mark Dewey, Development Services Department, Utilities Review

16. **Stormwater Pipe Boring:** The stormwater drainage pipe is proposed to be bored sub-surface from the stormwater vault to the outlet above Stream 1. The portion of any storm line within the critical area that is proposed to be bored shall be designed and constructed in a manner to not cause soil subsidence or fracture.

    Authority: Bellevue City Code 24.02, 24.04, 24.06
    Reviewer: Mark Dewey, Development Services Department, Utilities Review

17. **Access to Sewer Pump Station:** The sewer pump station shall be designed and constructed to allow for adequate maintenance crew vehicle access.

    Authority: Bellevue City Code 24.02, 24.04, 24.06
    Reviewer: Mark Dewey, Development Services Department, Utilities Review

18. **Construction Details for Sanitary Sewer Line and Sewer Forces Main Located Within the Lower Risk CMS Zone 2:** Segments of sanitary sewer lines and sewer force mains within the Lower Risk CMS Zone 2 shall be sleeved with a structural pipe capable of providing support to span a 10-foot void to mitigate sinkhole risk.

    Authority: Bellevue City Code 23.76.050, BCC Title 24.02, 24.04, 24.06, LUC 20.25H.130
    Reviewer: Tom McFarlane, Development Services Department, Clearing & Grading
    Mark Dewey, Development Services Department, Utilities Review

19. **Vehicular Access Restrictions:** Access to the project site from the southern private road entrance shall be restricted to right-turn-in and right-turn-out access only. This will be achieved through installation of a c-curb and signage, as specified in the final civil engineering plans for the development.

    Authority: Bellevue City Code 14.60.150
    Reviewer: Ian Nisbet, Development Services Department, Transportation Review

20. **Lakemont Blvd SE Pedestrian Crossing:** To improve pedestrian safety crossing Lakemont Blvd SE from the Red Town trailhead parking area, the applicant shall be responsible for installing a marked pedestrian crosswalk with an RRFB (Rectangular Rapid Flashing Beacon) to alert motorists when a pedestrian is crossing.

    Authority: Bellevue City Code 14.60.150

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Reviewer: Ian Nisbet, Development Services Department, Transportation Review

21. **Transportation Infrastructure Improvements - Civil Engineering Plans:** A street lighting plan and site (civil engineering) plan produced by a qualified engineer must be approved by the City prior to clear and grading permit approval. The design of all street frontage and private street improvements must be in conformance with the requirements of the Americans with Disabilities Act and the Transportation Development Code, and the provisions of the Transportation Department Design Manual.

    Frontage Improvements and Private Street construction required by the applicant shall include:

    i. Lakemont Boulevard:
    - Install new minimum 6-foot-wide concrete sidewalk, minimum 4-foot-wide planter strip, a minimum 7-foot-wide buffered bike lane, and new curb and gutter along the frontage.
    - Install pedestrian safety railing behind the new public sidewalk.
    - Install a new RRFB controlled pedestrian crosswalk across Lakemont Boulevard.
    - An easement to the City is required to be recorded for any portion of the sidewalk located on private property.
    - Minimum City of Bellevue sight distance standards are required to be met.
    - Street lighting is required to meet City of Bellevue Standards.

    ii. Internal Private Streets:
    - Install minimum 20-foot-wide private streets with curb and gutter per Transportation Design Manual standards.
    - Install minimum 6-foot-wide sidewalks along one side of the private access streets, except where alternative pedestrian facilities are provided.

    Construction of all street and street frontage improvements must be completed prior to closing the clear and grade permit and right of way use permit for this project. A Design Justification Form must be provided to the Transportation Department for any aspect of any pedestrian route adjacent to or across any street that cannot feasibly be made to comply with ADA standards. Forms must be provided prior to approval of the clear and grade plans for any deviations from standards that are known in advance. Forms provided in advance may need to be updated prior to project completion. For any deviations from standards that are not known in advance, Forms must be provided prior to project completion.

    Authority: Bellevue City Code 14.60; Transportation Department Design Manual; Americans with Disabilities Act
    Reviewer: Ian Nisbet, Development Services Department, Transportation Review

22. **Right of Way Use Permit:** The applicant is required to apply for and obtain a Right of Way Use Permit before the issuance of any clearing and grading, building, foundation, or demolition permit. Depending upon the circumstance and the timing of the developments, more than one Right of Way Use Permit may be required, such as one for hauling and one for construction work within the right of way. A Right of Way Use Permit regulates activity within the City right of way, including but not limited to the following:

    - Designated truck hauling routes.
    - Truck loading and unloading activities.
    - Hours of construction and hauling.
    - Continuity of pedestrian facilities.
    - Temporary traffic control and pedestrian detour routing for construction activities.
    - Street sweeping and maintenance during excavation and construction.
    - Location of construction fences.
    - Parking for construction workers.
    - Construction vehicles, equipment, and materials in the right of way.
    - All other construction activities as they affect the public street system.

    In addition, the applicant shall submit for City review and approval a plan for providing pedestrian access during construction of this project. Access shall be provided at all times during the construction process, except when specific construction activities such as shoring, foundation work, and construction of frontage improvements prevents access. General materials storage and contractor convenience are not reasons for preventing access.

    Authority: Bellevue City Code 14.30
    Reviewer: Mazen Wallaia, Transportation Review

23. **Sidewalk/Utility Easements:** A permanent public sidewalk easement shall be provided for portion of the sidewalk that will be located outside of the Lakemont Boulevard right of way. A permanent public retaining wall maintenance easement shall be provided for portion of the wall supporting the sidewalk that will be located outside of the Lakemont Boulevard right of way.

    Authority: Bellevue City Code 14.60.150
    Reviewer: Ian Nisbet, Development Services Department, Transportation Review

24. **Access Road Signage for Fire:** The fire department access roads shall be marked and signed in accordance with BCCA 23.11.503.3. See Public Information Handout F-11.

    Authority: BCCA 23.11.503.3; BCCA 23.11.503.2.3
    Reviewer: Scott Gerard, Fire Department Review

25. **Access Road Design for Fire Apparatus:** The fire department access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all weather driving capability (BCCA 23.11.503.2.3). See Public information Handout B-1.

    Authority: BCCA 23.11.503.3; BCCA 23.11.503.2.3
    Reviewer: Scott Gerard, Fire Department Review

26. **Final Mitigation Plan:** A Final Mitigation Plan is required to be submitted and approved with the Clearing & Grading Permit. The Final Mitigation Plan shall be consistent with the approved conceptual Critical Areas Mitigation Plans (DSD 000496 - 000500). The Final Mitigation Plans shall show planting locations, plant species, plant quantities, size of plant material and temporary irrigation.

    Authority: Land Use Code 20.25H.100, 20.25H.220
    Reviewer: Reilly Pittman, Development Services Department

27. **Final Mitigation Plan Typical Plant Spacing:** The Final Mitigation Plan shall include plant spacing consistent with the Bellevue Critical Areas Handbook in Area C – Disturbed Forest Buffer Enhancement and Area D – Re-Establishment of Forested Buffer. The typical plant spacing is trees at 9 feet on-center and shrubs at 4.5–6-foot on-center spacing depending on the plant species, and groundcovers at 2-foot on-center spacing. Existing retained native tree and shrub vegetation may be counted toward the planting requirements.

    Authority: Land Use Code 20.25H.220
    Reviewer: Reilly Pittman, Development Services Department

28. **Fencing and Signage:** The Final Mitigation Plan shall include a split-rail fence and critical area signage around the development area to limit pet or human encroachment into the critical areas/critical area buffers.

    Authority: Land Use Code 20.25H.100, 20.25H.220,
    Reviewer: Reilly Pittman, Development Services Department

29. **Final Mitigation Plan Performance Standards:** The Final Mitigation Plan shall include performance standards to measure the successful establishment of the mitigation plantings. The following performance standards are acceptable and shall be included on the Final Mitigation Plans:

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

Year 2 (from date of plant installation)

3. At least 90% survival of all installed material
4. Maximum 10% coverage of invasive plants in planting area

Years 3 - 10 (from date of plant installation)

5. At least 85% survival of all installed material
6. Maximum 10% coverage of invasive plants in planting area

Authority: Land Use Code 20.25H.220
Reviewer: Reilly Pittman, Development Services Department

30. **Timing of Mitigation Planting Installation:** The mitigation planting shall be fully installed and have inspection approval by the City prior to dedication of the tract to the City or recording of the Native Growth Protection Easement.

    Authority: Land Use Code 20.25H.220
    Reviewer: Reilly Pittman, Development Services Department

31. **Installation Assurance Device:** An assurance device is required to be submitted to the City to ensure the mitigation planting is successfully installed per the approved plans in a timely manner. An assurance device that is equal to 150% of all installation costs is required prior to issuance of the clearing and grading permit. A cost estimate for this assurance device is required to be provided with the Clearing & Grading permit. Release of the assurance device is contingent upon inspection approval of the planting by DSD staff to verify the planting is installed per the approved plans.

    Authority: Land Use Code 20.25H.220, 20.40.490
    Reviewer: Reilly Pittman, Development Services Department

32. **Required Monitoring and Maintenance Period:** A monitoring and maintenance period is required to demonstrate that mitigation performance standards have been met. Due to the scale, extent, and complexity of the proposed mitigation, the monitoring and maintenance period shall be 10 years from the time of installation.

    Authority: Land Use Code 20.25H.220
    Reviewer: Reilly Pittman, Development Services Department

33. **Maintenance and Monitoring Assurance Device:** An assurance device is required to be submitted to the City to ensure the mitigation planting is successfully established and meets performance standards. A monitoring and maintenance assurance device that is equal to 20% of the cost of plants, installation, and the cost of monitoring is required to be held for a period of ten years from the date of successful installation. A cost estimate is required to be provided with the Clearing & Grading permit and the financial surety is required to be posted prior to issuance of the Clearing & Grading permit. Release of the assurance device after the 10-year monitoring period is

contingent upon a final inspection approval of the planting by DSD staff that finds the maintenance and monitoring plan was successful and the mitigation meets the required performance standards.

Authority: Land Use Code 20.25H.220, 20.40.490
Reviewer: Reilly Pittman, Development Services Department

34. **Annual Maintenance and Monitoring Reports:** The mitigation planting is required to be maintained and monitored for five years to ensure the plants are successfully established. 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 approval is required by Land Use staff to end the plant monitoring period.

    Reporting shall be submitted no later than December 31st of each monitoring year and shall include a site plan and photos from photo points established at the time of Land Use inspection. Reports shall be submitted to DSD by the above listed date and shall be emailed to rpittman@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: Reilly Pittman, Development Services Department

35. **Species of Local Importance:** If nesting or breeding habitat for species of local importance is found during construction activity, the area shall be protected, and the Washington Department of Fish and Wildlife contacted for recommendations on species management plans.

    Authority: Land Use Code 20.25H.160
    Reviewer: Reilly Pittman, Development Services Department

36. **Revision to PUD Conservation Features:** The recorded PUD shall be revised to eliminate the conservation feature credit for Landscape/Grass Passive Rec Area (39,037 SF) if this area is not contained in a tract. The draft PUD for recording shall be submitted for review by the City prior to issuance of a Clearing & Grading Permit.

    Authority: Land Use Code 20.30D.160
    Reviewer: Reilly Pittman, Development Services Department

37. **Landscape Plan Revisions:** To ensure the landscape buffer along Lakemont Blvd

SE provides the intended screening affect, the number of large, evergreen trees shall be increased. To achieve the screening in a timely manner, the size or caliper of trees within the landscape buffer shall be increased, with at least half of the trees planted at a minimum 2-inch caliper or 6-8 foot height. Tree spacing is required to be at least 12 to 15 feet on center. The plan shall specify the planting area square footage, plant spacing, plant quantity and plant size at installation. A final landscape plan shall be revised and submitted prior to issuance of the Clearing & Grading Permit.

Authority: Land Use Code 20.30.150
Reviewer: Reilly Pittman, Development Services Department

38. **Visual Screening of Sewer Pump Station:** The proposed public sewer pump station is required to be visually screened per LUC 20.20.650 and LUC 20.20.520. Sewer pumping stations are required to provide a Type-1 15-foot-wide perimeter landscape buffer around the facility. Type-1 standards are described in LUC 20.20.520.G. The final landscaping plan submitted with the clearing and grading permit is required to show this screening.

    Authority: Land Use Code 20.20.650, 20.20.520
    Reviewer: Reilly Pittman, Development Services Department

39. **Updated Arborist Assessment:** The applicant's arborist is required to provide the City with an updated assessment of retained trees with root protection zones in vicinity of construction to verify their health prior to construction commencement. This update shall also clarify monitoring of trees during construction.

    Authority: Land Use Code 20.20.900
    Reviewer: Reilly Pittman, Development Services Department

40. **Archeological Site Protection Plan and Washington State Department of Archaeology & Historic Preservation (DAHP) Site Alteration & Excavation Permit:** The applicant shall submit a site protection plan to demonstrate how project grading and construction will avoid impacts and protect the two (2) archeological sites identified as eligible for listing in the National Register of Historic Places. The site protection plan shall be reviewed and approved by DAHP. A DAHP Site Alteration & Excavation Permit may be required if DAHP determines site work may result in potential impacts to the archeological sites.

    Authority: SEPA Authority, RCW 27.53 and 27.44
    Reviewer: Reilly Pittman, Development Services Department

41. **Monitoring & Inadvertent Discovery Plan (MIDP):** The applicant shall develop a project-specific Monitoring & Inadvertent Discovery Plan (MIDP) for the entire site area, and specifically for areas outside of the two eligible archaeological sites. This plan shall be reviewed and approved by the Washington State Department of

Archaeology & Historic Preservation (DAHP) prior to issuance of a Clearing & Grading Permit.

Authority: SEPA Authority, RCW 27.53 and 27.44
Reviewer: Reilly Pittman, Development Services Department

42. **Archeological Training and Reporting**: The applicant's project archaeologist shall provide training for all on-site workers regarding archaeological laws, how to identify archaeological materials, and how to appropriately report incidental finds. In the event that archaeological materials are encountered during project grading or construction, the project archaeologist shall be immediately notified, and work shall be halted in the vicinity of the find until the materials can be inspected and assessed. At that time, DAHP shall notified of the exact nature and extent of the resource so that measures can be taken to secure them.

    Authority: SEPA Authority, RCW 27.53 and 27.44
    Reviewer: Reilly Pittman, Development Services Department

43. **Hold Harmless Agreement for Steep Slope Hazards:** The applicant shall submit and execute a hold harmless agreement in a form approved by the City Attorney which releases the City from liability for any damage arising from the location of improvements proximate to steep slope areas. The hold harmless agreement is required to be recorded with King County and a copy submitted to DSD prior to final approval of construction permits.

    Authority: Land Use Code 20.25H.145; 20.30P.170
    Reviewer: Reilly Pittman, Development Services Department

44. **Hold Harmless Agreement for Coal Mine Hazards:** The applicant shall submit and execute a hold harmless agreement in a form approved by the City Attorney which releases the City from liability for any damage arising from the location of the development improvements in coal mine hazard areas. The hold harmless agreement is required to be recorded with King County and a copy submitted to DSD prior to final approval of construction permits.

    Authority: Land Use Code 20.25H.130.F
    Reviewer: Reilly Pittman, Development Services Department

45. **Recording of Planned Unit Development Plan:** The approved Planned Unit Development plan shall be recorded with the King County Department of Records and Elections and proof of the recording shall be provided to the Bellevue Development Services Department (DSD) prior to building permit issuance for the site.

    Authority: Land Use Code 20.30D.200
    Reviewer: Reilly Pittman, Development Services Department

DSD - 000131

46. **Recording of the Planned Unit Development Plan and Disclosure of Coal Mine Hazards:** The approved Planned Unit Development plan shall be recorded with King County and shall include information disclosing the potential for coal mine hazards existing on the site.

    Authority: SEPA Authority, Land Use Code 20.25H.130
    Reviewer: Reilly Pittman, Development Services Department

47. **Granting a Native Growth Protection Easement(s) (NGPE) or Dedicating the Critical Areas Tract:** Prior to any building permit issuance for the site, the applicant shall: (I) dedicate the critical areas tract (Tract Z) to the City, or (ii) grant the City a permanent Native Growth Protection Easement (NGPE). Such NGPE shall, at a minimum, be coextensive with the boundaries of the proposed tract, shall comply with applicable City standards, including without limitation BCC 20.30D.200(B), and shall be in form approved by the City Attorney. The final recorded Planned Unit Development plan shall contain and reflect the restrictions for use, development and disturbance as provided herein in a format approved by the City Attorney.

    Authority: Land Use Code 20.30D.200
    Reviewer: Reilly Pittman, Development Services Department

C. PRIOR TO ISSUANCE OF ANY BUILDING PERMIT

48. **Screening of Outdoor Lighting:** The applicant shall provide lighting fixture shield details on all exterior lights to prevent spillover light levels outside of the development area. The applicant may comply with this requirement by providing shielding to exterior lighting c. No unshielded light shall be directed toward the critical areas Tract Z.

    Authority: Land Use Code 20.25H.080; 20.25H.100
    Reviewer: Reilly Pittman, Development Services Department

49. **Transportation Impact Fee:** Transportation impact fees are used by the City to fund street improvement projects to alleviate traffic congestion caused by the cumulative impacts of development throughout the City. Payment of the transportation impact fee contributes to the financing of transportation improvement projects in the current adopted Transportation Facilities Plan and is considered to be adequate mitigation of long-term traffic impacts. Fee payment is required at the time of building permit issuance. Impact fees are subject to change and the fee schedule in effect at the time of building permit issuance will apply.

    Authority: Bellevue City Code Chapter 22.16
    Reviewer: Ian Nisbet, Development Services Department, Transportation Review

DSD - 000132

50. **School Impact Fee:** The site is within the Issaquah School District and per BCC 22.18.100 the project is subject to paying school impact fees. Fee payment is required at the time of building permit issuance. Impact fees are subject to change and the fee schedule in effect at the time of building permit issuance will apply.

    Authority: Bellevue City Code 22.18.100
    Reviewer: Reilly Pittman, Development Services Department

D. PRIOR TO APPROVAL OF CERTIFICATE OF OCCUPANCY

51. **Environmental Best Management Practices:** The use of pesticides, herbicides and fertilizers within the development area and the critical areas tract shall be consistent with the City's "Environmental Best Management Practices," the Vegetative Management Plan and the Salmon-Safe Certification. The use of herbicides to control non-native, invasive species during routine mitigation monitoring and maintenance shall be limited to those approved to be used adjacent to aquatic environments. These measures shall be included in the Declaration of Covenants, Conditions and Restrictions (CC & Rs) in a form approved by the City Attorney and recorded as a legal document.

    Authority: Land Use Code 20.25H.080; 20.25H.100
    Reviewer: Reilly Pittman, Development Services Department

52. **Final Arborist Assessment:** The arborist is required to provide post-construction assessment of retained trees with root protection zones in vicinity of construction to verify their health and retention following construction. Any tree removals shall be replaced per approved project mitigation ratios prior to inspection approval.

    Authority: Land Use Code 20.20.900
    Reviewer: Reilly Pittman, Development Services Department

53. **Mitigation and Landscaping Installation:** The mitigation and landscaping planting shall be fully installed and have inspection approval by the City prior to issuance of any occupancy approval. Allowance to delay planting due to weather, season, or other reasons can be considered through assurance device submittal.

    Authority: Land Use Code 20.20.
    Reviewer: Reilly Pittman, Development Services Department

54. **Completion of Infrastructure Improvements:** All street frontage and infrastructure improvements shown in the final engineering plans or required by city codes and standards must be completed prior to issuance of Certificate of Occupancy. If all the requirements of BCC 14.60.260 are met, the director may accept an acceptable

DSD - 000133

financial assurance device equivalent to 150% of the cost of the unfinished improvements. Installation of improvements that would negatively affect safety if left unfinished may not be delayed through use of a financial assurance device. Improvements must be approved by the Transportation Department inspector before they are deemed complete.

Authority: Bellevue City Code 14.60.100, 110, 130, 150, 170, 190, 210, 240, 241, 260 and Transportation Department Design Manual Sections 3, 4, 5, 7, 11, 14, 19
Reviewer: Ian Nisbet, Development Services Department, Transportation Review

55. **Pavement Restoration:** Pavement restoration associated with street frontage improvements or to repair damaged street surfaces shall be provided as follows:

Lakemont Boulevard: Based on this street's excellent condition, it is classified with the City's overlay program as "Overlay Required." Should street cuts prove unavoidable or if the street surface is damaged in the construction process, a half-street or full-street (depending on the extent of street cuts or damage) grind and overlay will be required for a minimum of 50 feet.

Authority: Bellevue City Code 14.60. 250; Design Manual Design Standard #23
Reviewer: Mazen Wallaia, Transportation Review

56. **Interpretive Signage for Coal Mining History:** The applicant shall provide, install and permanently maintain additional interpretive signage to recognize the historic role of Milt Swanson. The location and content of the signage shall be coordinated with the Bellevue Parks Department.

Authority: SEPA Authority
Reviewer: Reilly Pittman, Development Services Department

57. **Survey Verification of Setbacks:** The setback of structures from the edge of the NGPA tract Z shall be verified by survey as part of the inspection approval process.

Authority: Land Use Code 20.20.010
Reviewer: Reilly Pittman, Development Services Department

58. **Lot Coverage and Impervious Surface:** The maximum coverage of impervious surface and structural lot coverage is limited to the maximum amounts discussed in section IX.C of this report.

Authority: Land Use Code 20.20.010, 20.30D.165
Reviewer: Reilly Pittman, Development Services Department

DSD - 000134

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PARK POINTE PUD
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE, WA 98006
APRIL 2021

PROJECT TEAM

OWNER/APPLICANT

ISOLA HOMES
CONTACT: JEFF WEGENER
ADDRESS: 13555 SE 36TH STREET, SUITE 320
BELLEVUE, WA 98006
PHONE: (206) 413-6361
EMAIL: JEFF.WEGENER@ISOLAHOMES.COM

CONSULTANTS

PACE ENGINEERS, INC.
CIVIL ENGINEERING, LANDSCAPE ARCHITECTURE AND PLANNING
CONTACT: SCOTT SHERROW, PE (CIVIL ENGINEER)
ADDRESS: 11255 KIRKLAND WAY, STE 300
KIRKLAND, WA 98033
PHONE: (425) 827-2014
EMAIL: SCOTTS@PACEENGRS.COM

CONTACT: BRIAN WAY, RLA (LANDSCAPE ARCHITECT & PLANNER)
EMAIL: BRIANW@PACEENGRS.COM

GEOTECH CONSULTANTS, INC.
GEOTECHNICAL ENGINEERING
CONTACT: JAMES H. STRANGE, PE
ADDRESS: 2401 10TH AVE EAST
SEATTLE, WA 98102
PHONE: (425) 747-5618
EMAIL: JAMESS@GEOTECHNW.COM

SHOFFNER CONSULTING
CONSULTING ARBORIST
CONTACT: TONY SHOFFNER
ADDRESS: 21529 4TH AVE W #C31
BOTHELL, WA 98021
PHONE: (206) 755-2871
EMAIL: TONY@TONYSHOFFNER.COM

TALASAEA CONSULTANTS, INC.
WETLAND AND STREAM BIOLOGIST
CONTACT: ANN OLSON, PWS
ADDRESS: 15020 BEAR CREEK ROAD, NE
WOODINVILLE, WA 98007
PHONE: (425) 861-7550
EMAIL: AOLSON@TALASAEA.COM

ICICLE CREEK ENGINEERS, INC.
MINE HAZARD ASSESSMENT
CONTACT: BRIAN BEAMAN, LEG
ADDRESS: 29335 NE 20TH STREET
CARNATION, WA 98014
PHONE: (425) 333-0093
EMAIL: BBEAMAN@ICICLECREEKENGINEERS.COM

TERRANE
LAND SURVEYING
CONTACT: SEAN ROULETTE-MILLER, PLS
ADDRESS: 10801 MAIN STREET, SUITE 102
BELLEVUE, WA 98004
PHONE: (425) 458-4488
EMAIL: SEANR@TERRANE.NET

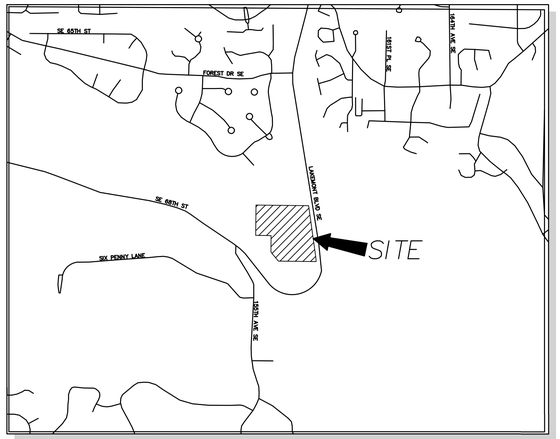
INTOLIGHT
STREET LIGHT DESIGN
CONTACT: LARS LARSON
ADDRESS: PO BOX 90868
BELLEVUE, WA 98009-0868
PHONE: (425) 456-2701
EMAIL: LARS.LARSON@PSE.COM

GIBSON TRAFFIC CONSULTANTS, INC.
TRAFFIC STUDY
CONTACT: MATTHEW PALMER, PE
ADDRESS: 2813 ROCKEFELLER AVENUE, SUITE B
EVERETT, WA 98201
PHONE: (425) 339-8266
EMAIL: MATTP@GIBSONTRAFFIC.COM

LEMONS ARCHITECTURE PLLC
ARCHITECT
CONTACT: JONATHAN LEMONS
ADDRESS: 98 YESLER WAY
SEATTLE, WA 98104
PHONE: (206) 306-5952
EMAIL: JON@LEMONSARCHITECTURE.COM

CONFLUENCE ENVIRONMENTAL COMPANY
STREAM BIOLOGIST
CONTACT: CHRIS BERGER
ADDRESS: 161 N. CANAL STREET, SUITE 111
SEATTLE, WA 98103
PHONE: (206) 395-7657
EMAIL: CHRIS.BERGER@CONFENV.COM

TIERRA RIGHT OF WAY SERVICES
CULTURAL RESOURCES
CONTACT: JENNIFER HUSHOUR
ADDRESS: 444 NE RAVENNA BLVD., SUITE 103
SEATTLE, WA 98115
PHONE: (206) 363-1556
EMAIL: JHUSHOUR@TIERRA-ROW.COM



VICINITY MAP
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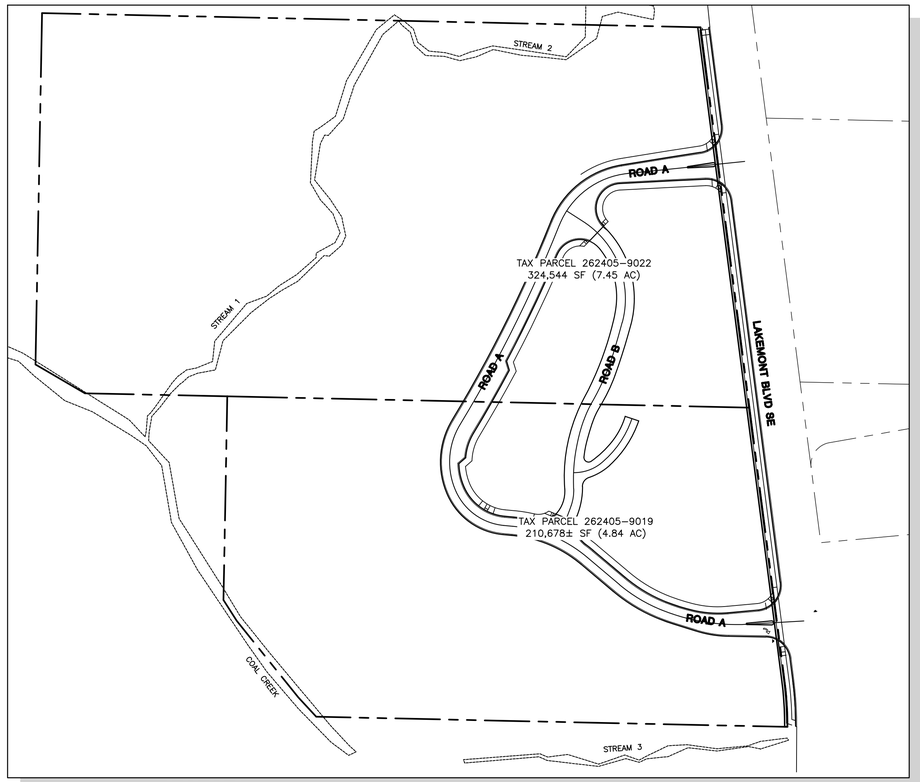

SITE MAP
SCALE= 1"=80'

SHEET INDEX

SHEET	TITLE
	PUD DOCUMENTS
P1	COVER SHEET
P2	BASE DENSITY CALCULATION
P3	PUD CONSERVATION FEATURES
P4	PUD BUILDABLE AREAS
P5	SITE PLAN B
	PRELIMINARY ENGINEERING DOCUMENTS
E1	ROAD PLAN & TYPICAL SECTIONS
E2	ROAD PROFILES
E3	ROAD PROFILES & TYPICAL SECTIONS
E4	STORMWATER COMPLIANCE SUMMARY
E5	PRELIMINARY STORMWATER SITE PLAN
E6	STORMWATER VAULT PLAN
E7	STORMWATER VAULT OUTFALL
E8	PRELIMINARY UTILITY PLAN
E9	OFFSITE SEWER AND WATER EXTENSIONS
E10	PRELIMINARY GRADING PLAN
	PRELIMINARY LANDSCAPE PLANS
L1	PRELIMINARY LANDSCAPE PLAN
L2	SITE SECTIONS (NOT INCLUDED) PREVIOUSLY PROVIDED
L3	TREE RETENTION PLAN
	PLANS BY TERRANE
1-3	TOPOGRAPHIC SURVEY
	PLANS BY TALASAEA CONSULTANTS
	UNDER SEPARATE COVER
	PLANS BY INTOLIGHT
1	INSTALL NEW AND UPGRADE EXISTING STREET LIGHTS

UTILITY PURVEYORS

WATER & SEWER SERVICE
UTILITY: CITY OF BELLEVUE UTILITIES DEPARTMENT
ADDRESS: 450 110TH AVENUE NE
PO BOX 90012
BELLEVUE, WA 98009
PHONE: (425) 452-6932
EMAIL: UTILITIES@BELLEVUEWA.GOV

GAS & ELECTRICAL SERVICE
UTILITY: PUGET SOUND ENERGY
ADDRESS: 10885 NE 4TH ST
BELLEVUE, WA 98004

CABLE SERVICE
UTILITY: XFINITY/COMCAST
ADDRESS: 3630 FACTORIA BOULEVARD SE
BELLEVUE, WA 98006

TELEPHONE SERVICE
UTILITY: FRONTIER COMMUNICATIONS
ADDRESS: (888) 982-3235

SITE INFORMATION

ADDRESS
7219 AND 7331 LAKEMONT BOULEVARD SE
BELLEVUE, WA 98006

PARCEL NUMBERS
262405-9022 (324,544 SF), 262405-9019 (210,678 SF)

BASIS OF BEARING
NAD 83 (2011) WASHINGTON NORTH COORDINATE SYSTEM PER CITY OF BELLEVUE CONTROL LINE BETWEEN POINTS #1407 AND #1405 BEARS N 07°58'42" W

DATUM
NAVD 88 PER CITY OF BELLEVUE CONTROL PT V280, ELEV=732.168'

BENCHMARKS
SEE DATUM

ZONING
R1, R-3.5

NOTE:
ENGINEERING DESIGN SOLUTIONS DEPICTED WITH THE PARK POINTE PUD PLAN SET ARE INTENDED TO GENERALLY SHOW COMPLIANCE WITH AGENCY CODES AND REQUIREMENTS, AND ANY CHANGE DURING THE DEVELOPMENT OF FINAL CONSTRUCTION DOCUMENTS.

SYM	REVISION	DATE
	REVISED PER CITY OF BELLEVUE UTILITY COMMENTS	4/2/21
	REVISED PER CITY OF BELLEVUE TRAFFIC COMMENTS	2/23/21
	RESPOND TO CITY COMMENTS/REMOVE PRELIMINARY PLAT	11/30/20
	ADDITION OF PRELIMINARY PLAT	8/16/19
	RESPOND TO CITY REVIEW COMMENTS	6/6/18

PACE
An Engineering Services Company
11255 Kirkland Way, Suite 300
Kirkland, WA 98033
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Civil | Structural | Planning | Survey
paceengrs.com

SCOTT A. SHERROW — STATE OF WASHINGTON — 21808 — REGISTERED PROFESSIONAL ENGINEER
2021.04.05 12:02:25-07'00'
Original copy of digitally signed document available upon request.

ISOLA HOMES
13555 SE 36TH ST SUITE 320
BELLEVUE, WA 98006
206.582.7900

PARK POINTE PUD
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE WASHINGTON

COVER SHEET

SCALE:	DATE:
AS NOTED	4/2/21
DESIGNED BY: SS	CHECKED BY: JA
JOB NUMBER 15436	
SHEET: P1	
SHEET 1 OF 17	

16-143970-LK

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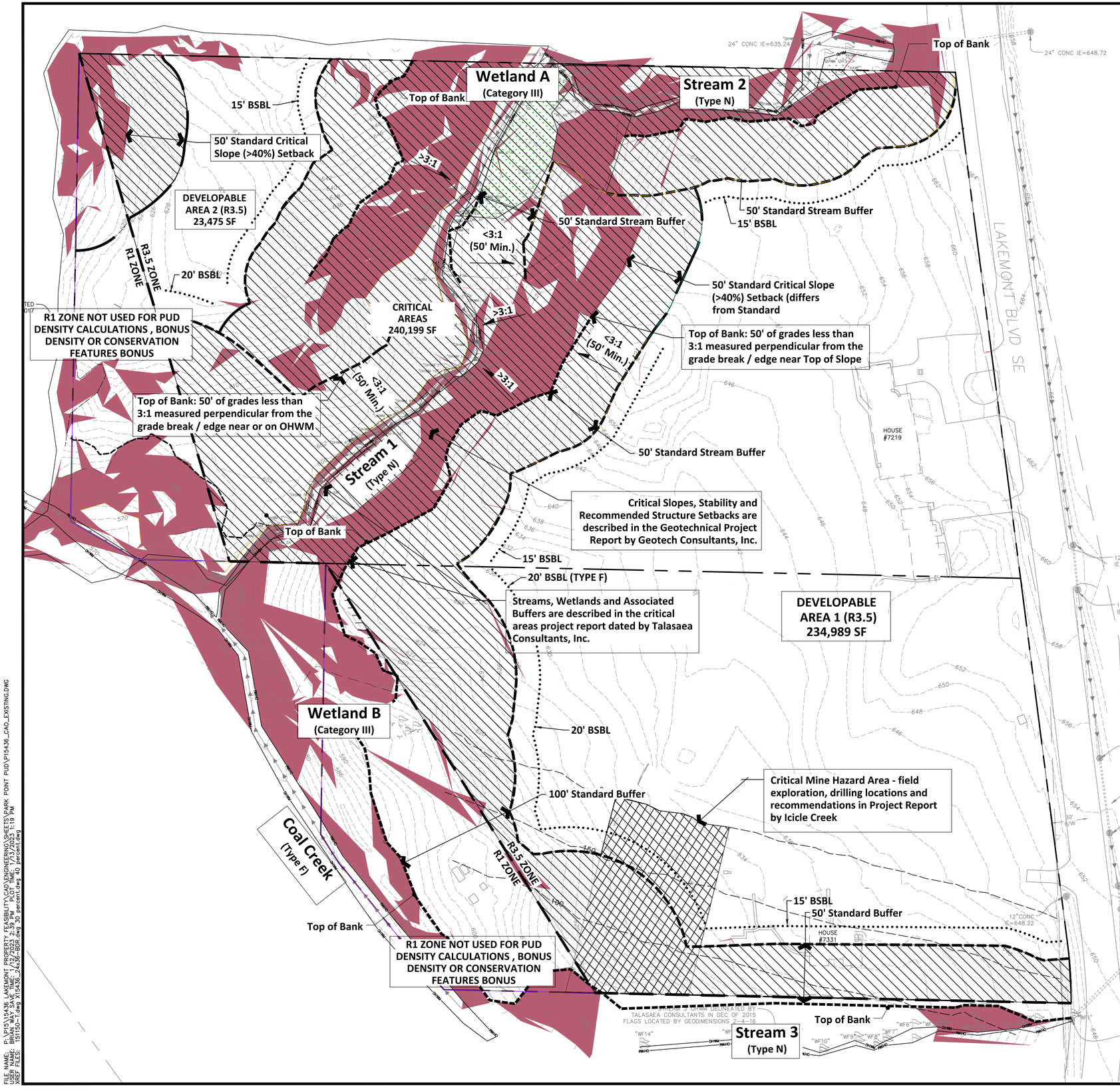

Legend

- Ordinary High Water Mark
- Top of Bank
- Standard Buffer offset from Top of Bank
- Standard Structure Setback from Streams
- Critical Slopes (40% and greater) and as defined under LUC 20.25h.120 (A)(2)
- Total Existing Critical Features and their associated buffers.
- Wetlands
- Zoning Boundary

R1 ZONE
PROJECT AREA (R1) = 62,547 SF

CRITICAL AREAS (R1) = 54,990 SF

DEVELOPABLE (R1) = 3,779 SF

R3.5 ZONE
PROJECT AREA (R3.5) = 472,685 SF

CRITICAL AREAS (R3.5) = 214,230 SF

DEVELOPABLE AREA (R3.5) 258,464 SF

Density Calculations

TABLE 1. Critical Areas Overlay Base Density (LUC 20.25H.045)

(DU/Ac) X (Buildable Area) + (DU/Ac) X (Total CA & Buffer, in ac) X (Development Factor) = Maximum Dwelling Unit Potential

Total Site Area / Gross Site Area (GA)	Du/Acre	Sq. Ft.	Acres
Parcels 262405-9022, 262405-9019 R3.5	3.5	472,685	10.85
Non-Buildable Areas (NBA)		**Sq. Ft.**	**Acres**
Critical Areas and Buffers		214,230	4.92
Total Restricted Area		214,230	4.92
Buildable Areas (BA)		**Sq. Ft.**	**Acres**
Developable Area 1		234,989	5.39
Developable Area 2		23,475	0.54
Total Buildable Area		258,464	5.93
BA + NBA		472,694	10.85
Development Factor (DF)			
BA / Total Site Area (BA/GA)			55%
Calculation			
(3.5 Du/Ac X BA) + (3.5 Du/Ac X NBA) X (DF)			
Base Density R3.5			**30.18**
Base Density R1			
Total Base Density			**30.18**

AREAS NOTE:

THE AREAS NOTED ON THIS SHEET REPRESENT THE BUILDABLE AREAS (BA) AND NON-BUILDABLE AREAS (NBA) FOR THE R3.5 ZONE ONLY. FOR TOTAL CRITICAL AREA AND BUFFERS SEE PLANS AND CRITICAL AREAS REPORTED BY TALASEA.

HORIZ. 0 20 40 80 Scale In Feet

N

DATE	REVISION
1/12/23	WETLAND RATINGS UPDATED BY PROJECT BIOLOGIST
4/2/21	REVISED PER CITY OF BELLEVUE UTILITY COMMENTS
2/23/21	REVISED PER CITY OF BELLEVUE TRAFFIC COMMENTS
11/30/20	RESPOND TO CITY COMMENTS/REMOVE PRELIMINARY PLAT
8/16/19	ADDITION OF PRELIMINARY PLAT
6/6/18	RESPOND TO CITY REVIEW COMMENTS
S'YM	

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pacaengrs.com

JOHN E. ANDERSEN
STATE OF WASHINGTON
26878
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PROFESSIONAL ENGINEER
2023.01.13 13:42:40-08'00'

ISOLA HOMES
13555 SE 36TH ST SUITE 320
BELLEVUE, WA 98006
206.582.7900

PARK POINTE PUD
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE WASHINGTON

BASE DENSITY CALCULATION

SCALE:	DATE:
AS NOTED	1/12/23
DESIGNED BY:	CHECKED BY:
SS	JA
JOB NUMBER	15436
SHEET:	P2
SHEET 2 OF	17

16-143970-LK

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XREF FILES: 15150-1.dwg X15436_24x36-BDR.dwg 30 percent.dwg 40 percent.dwg

DSD - 000138

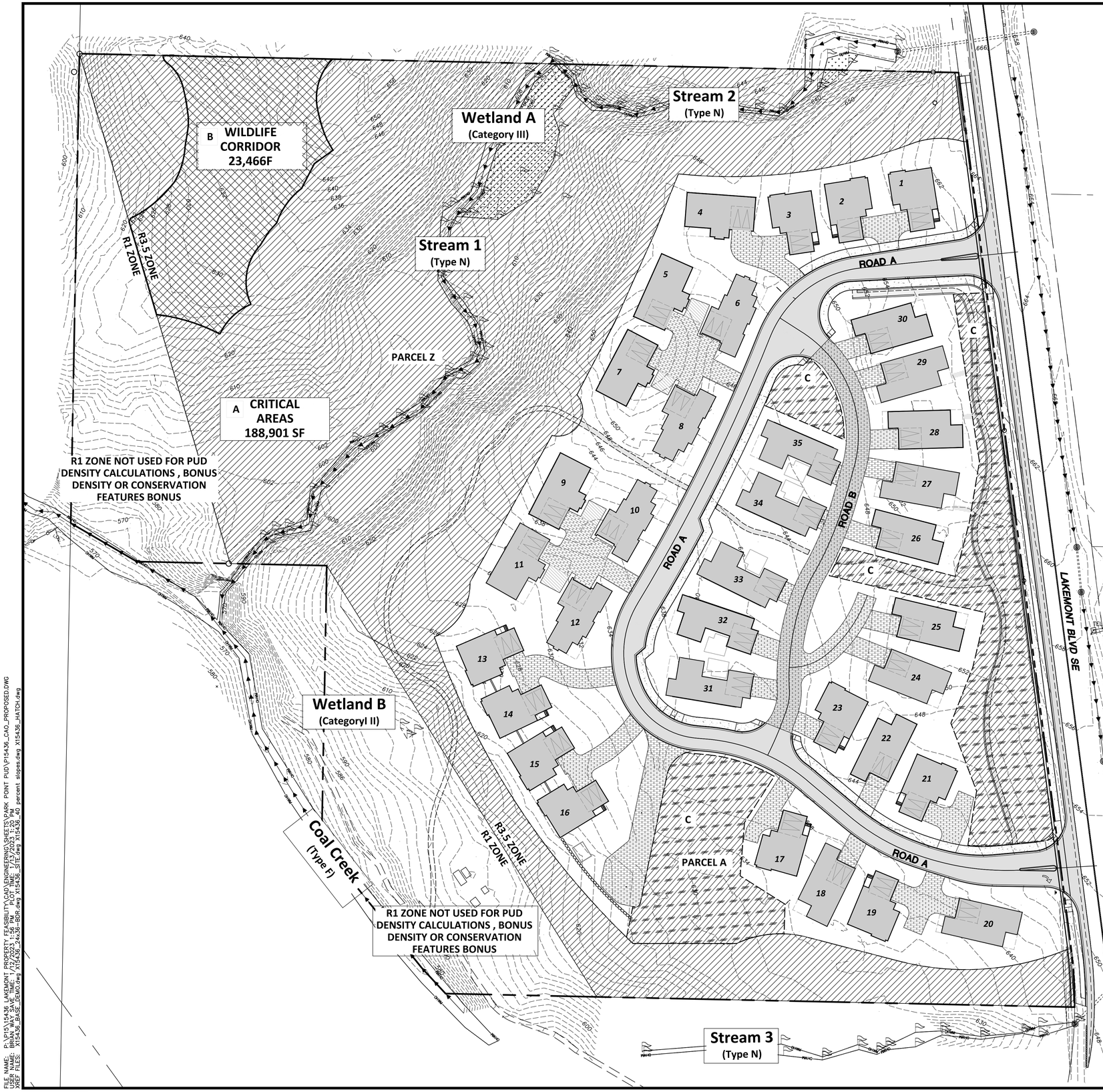


TABLE 2 PUD Conservation & Rec Space Requirements (LUC 20.30D.160)			
Conservation Design Feature	**Sq. Ft.**	**Conservation Factor**	**Sq.Ft x Con Factor**
Critical Areas Placed in a Tract	188,901	1.0	188,901
Forest Preservation (New Areas)		1.2	0
Wildlife Corridor	23,466	1.2	28,159
Critical Area Buffer Expansion		1.2	0
Soil and Tree preservation in Open Space		1.1	0
Stormwater Community LID Tract		1.1	0
Landscape/Grass Passive Rec Area	39,037	1.0	39,037
Pervious Paved Open Space	0	1.0	0
Paved Open Space	0	1.0	0
Total Area Provided			**256,097**
Percent of Gross Area (40% Min.)			54%
(20.30D.160.A.1)			40%
		Min. Req.	189,074
Minimum Common Rec Space Area (20.30D.160.A.2), percentage(10%)	Critical Areas & Buffers >40%, Requesting Requirement to be waived.		
Minimum Non-Rec Space Area (20.30D.160.A.2), percentage (20%)			

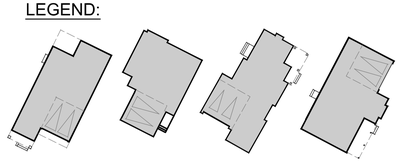
TABLE 3 Additional Bonus Density Options (LUC 20.30D.167.D)			
Additional bonus densities may be granted for additional conservation design features above the minimums required in LUC			
Conservation and Rec Space Elligible for Bonus (R3.5)			68,021
Bonus = Area / underlying zone min lot size (R3.5) R3.5 (10,000 sq. ft)			6.80
Conservation Bonus	**Percent Possible**	**22.54%**	**6.80**

TABLE 4 20.30D Planned Unit Development Density Summary			
Base Density		Base Density	**30.18**
LUC 20.25H.045 Development Density / Intensity under Critical Areas Overlay District			
Discretionary Bonus Density	10%	30.18	3.02
LUC 20.30D.165 Planned Unit Development Plan - Request for modification of zoning requirements No more than 10% additional units over Base Density			
Additional Bonus Density	23%	30.18	6.80
LUC 20.30D.167 Planned Unit Development Plan - Additional Bonus Density for large-parcel projects. Up to 30% of the Base Density			
TOTAL POTENTIAL DU YIELD			**40.00**
TOTAL UNITS PROVIDED			**35.00**

AREAS NOTE:

ONLY THOSE AREAS ZONED AS R3.5 WERE USED FOR PUD DENSITY, BONUS DENSITY, AND CONSERVATION FEATURES. FOR TOTAL PROPOSED CRITICAL AREAS AND MITIGATION REFER TO PLANS AND CRITICAL AREA REPORT BY TALASEA.

LEGEND:



PRELIMINARY HOUSING UNITS

- ASPHALT PAVING
- CONCRETE PAVING
- PERVIOUS PAVEMENT
- SOFT SURFACE TRAIL

N

HORIZ. 0 20 40 80 Scale in Feet

16–143970–LK

DATE	REVISION	BY
6/6/18	RESPOND TO CITY REVIEW COMMENTS	
8/16/19	ADDITION OF PRELIMINARY PLAT	
11/30/20	RESPOND TO CITY COMMENTS/REMOVE PRELIMINARY PLAT	
2/23/21	REVISED PER CITY OF BELLEVUE TRAFFIC COMMENTS	
4/2/21	REVISED PER CITY OF BELLEVUE UTILITY COMMENTS	
1/12/23	WETLAND RATINGS UPDATED BY PROJECT BIOLOGIST	

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pacaengrs.com

JOHN E. ANDERSON — STATE OF WASHINGTON — 21614 — REGISTERED PROFESSIONAL ENGINEER

2023.01.13 13:43:16-08'00'

ISOLA HOMES
13555 SE 36TH ST SUITE 320
BELLEVUE, WA 98006
206.582.7900

PARK POINTE PUD

7219 & 7331 LAKEMONT BLVD SE
BELLEVUE WASHINGTON

PUD CONSERVATION FEATURES

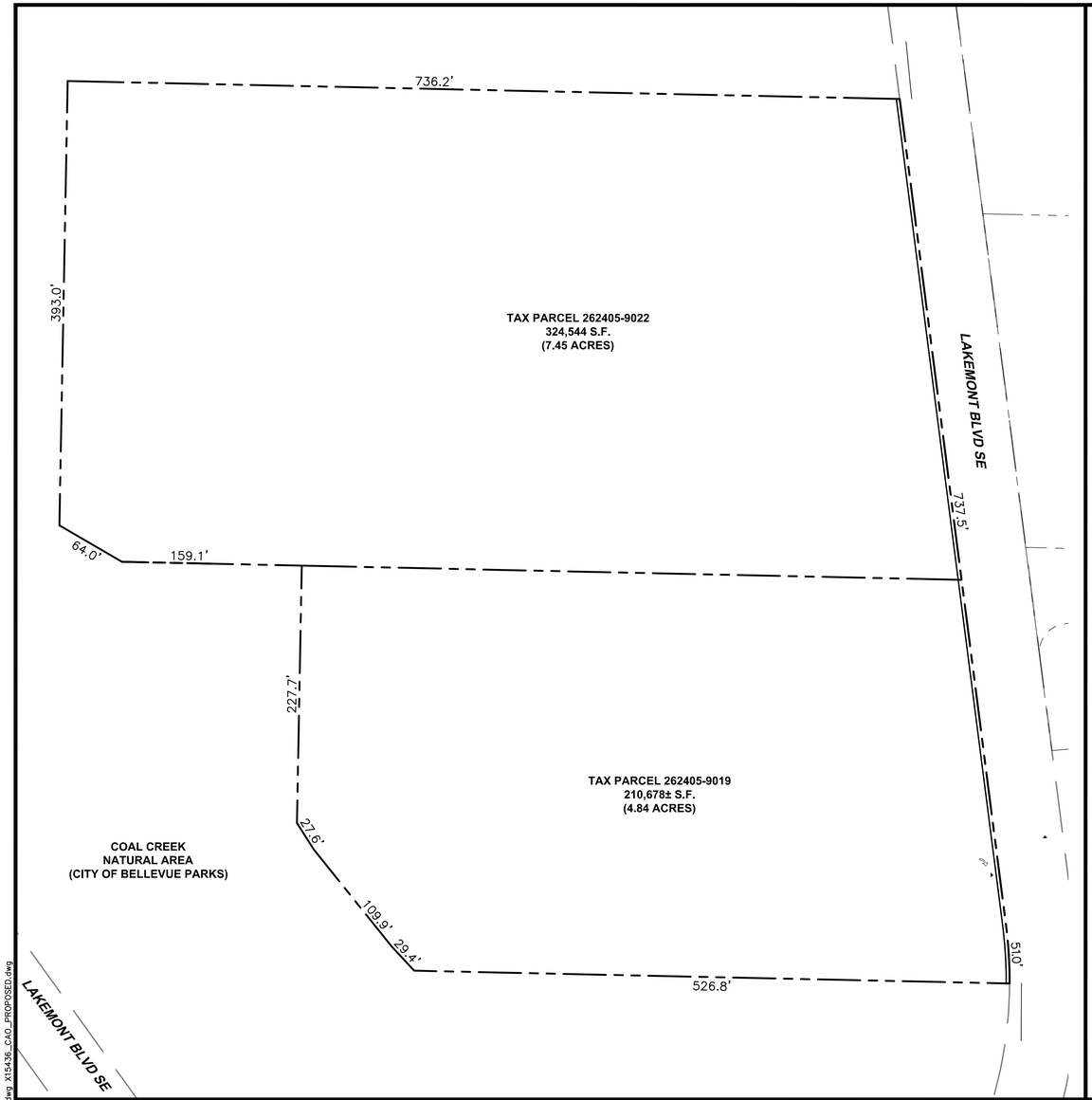
SCALE:	DATE:
AS NOTED	1/12/23
DESIGNED BY:	CHECKED BY:
SS	JA

JOB NUMBER 15436

SHEET: P3

SHEET 3 OF 17

FILE NAME: P:\P15\15436 LAKEMONT PROPERTY FEASIBILITY\CAD\ENGINEERING\SHEETS\PARK POINT PUD\P15436_CAO_PROPOSED.DWG
PLOT DATE: 1/12/2023 1:55:38 PM PLOTTED BY: SUSAN SCHWARTZ
XREF FILES: X15436_BASE_DEMO.dwg X15436_24x36_BDR.dwg X15436_SITE.dwg X15436_40 percent slopes.dwg X15436_HATCH.dwg



EXISTING PARCEL CONFIGURATION

SCALE: AS SHOWN

PROJECT AREA SUMMARY

EXISTING

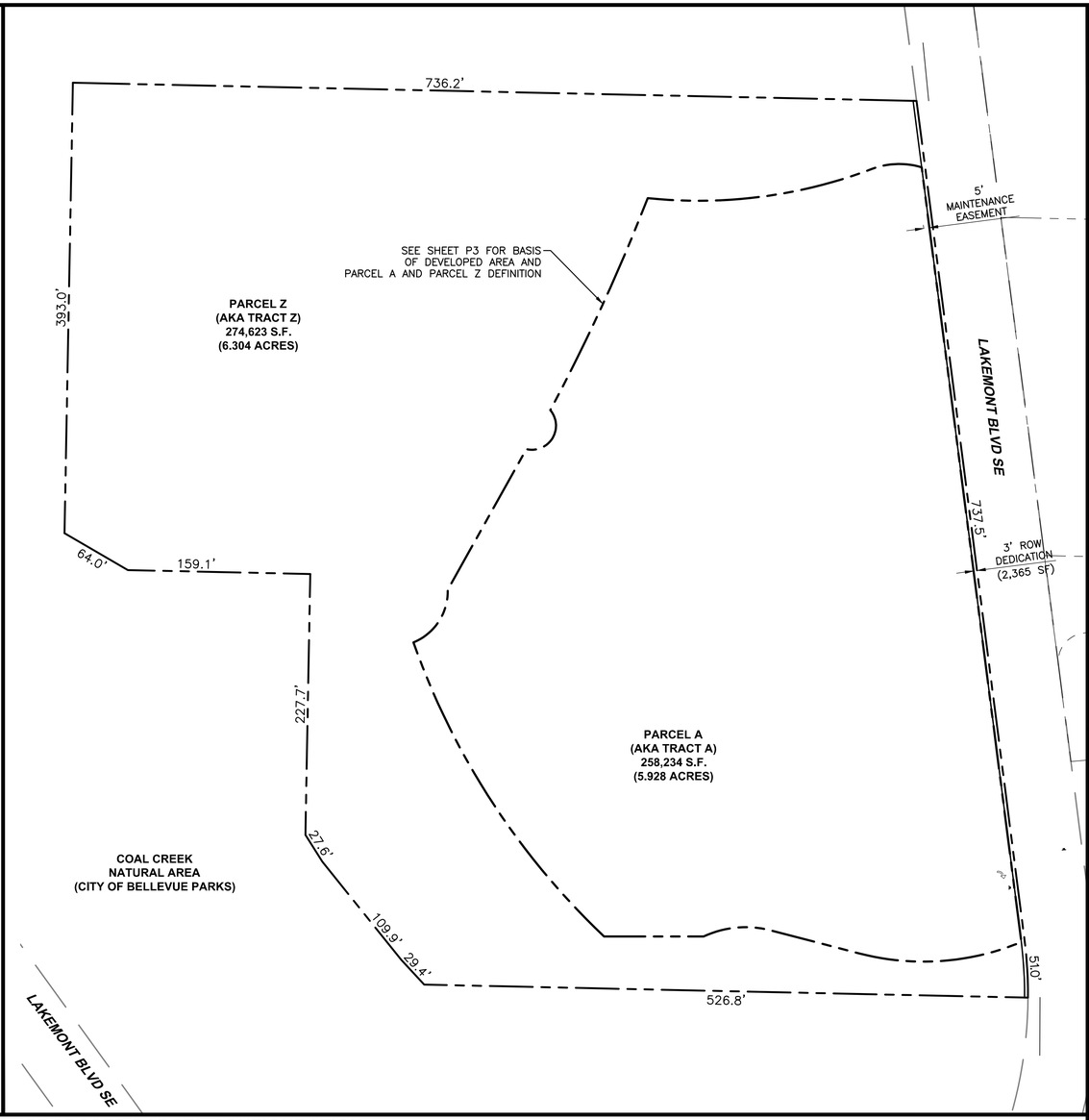
NORTH PARCEL	324,544 SF
SOUTH PARCEL	210,678 SF
TOTAL	535,222 SF

PROPOSED

PARCEL Z	274,623 SF
PARCEL A	258,234 SF
ROW DEDICATION (LAKEMONT BLVD.)	2,365 SF
TOTAL	535,222 SF

PROPERTY EASEMENT REQUIREMENTS

1. PROPERTY SUBJECT TO A BOUNDARY LINE ADJUSTMENT (BLA) TO RECONFIGURE TWO EXISTING TAX PARCELS.
2. PURPOSE OF BLA WOULD BE TO ESTABLISH PARCEL Z CONTAINING OPEN SPACE.
3. IF THE PARK POINTE HOMEOWNERS ASSOCIATION OR OTHER ENTITY RETAINS PARCEL Z OWNERSHIP, A TRAIL EASEMENT WOULD BE GRANTED ACROSS THE AREA DEFINED AS PARCEL Z, MAY NEED SEPARATE TRACT FOR LIFT STATION.
4. PARCEL A AND PARCEL Z WILL BE RETAINED BY THE PARK POINTE HOA OR OTHER OWNERSHIP ENTITY.
5. BUILDING SITES WILL BE ESTABLISHED BY CONDOMINIUM DOCUMENTS ON PARCEL A.
6. ADDITIONAL EASEMENTS WILL BE REQUIRED ACROSS PARCEL A TO ACCOMMODATE BOTH MUNICIPAL UTILITIES AND PRIVATE FRANCHISE UTILITIES.
7. ADDITIONAL EASEMENTS WILL BE REQUIRED TO ALLOW LIMITED PUBLIC ACCESS TO THE PROPERTY.
8. EASEMENT WILL BE GRANTED TO THE CITY OF BELLEVUE FOR USE AND MAINTENANCE OF THE EXISTING COAL CREEK REGIONAL TRAIL.



PROPOSED PARCEL CONFIGURATION

SCALE: AS SHOWN

PUD DESIGN FEATURE SUMMARY

1. PARCEL Z WILL CONTAIN THE FOLLOWING PUD CONSERVATION DESIGN FEATURES DESCRIBED IN TABLE 2 ON SHEET P3:
   - CRITICAL AREAS PLACED IN A TRACT [AREA A]
   - WILDLIFE CORRIDOR [AREA B]
2. PARCEL A WILL CONTAIN THE FOLLOWING PUD CONSERVATION DESIGNED FEATURES DESCRIBED IN TABLE 2 ON SHEET P3:
   - LANDSCAPE/GRASS PASSIVE REC

RIGHT OF WAY REQUIREMENTS

1. A 3-FOOT STRIP OF LAND WILL BE DEDICATED ALONG LAKEMONT BLVD SE TO ACCOMMODATE FRONTAGE IMPROVEMENTS.
2. TOTAL DEDICATION AREA = 2,365 SF

N

HORIZ. 0 30 60 120
Scale In Feet

16-143970-LK

SYM	REVISION	DATE
	REVISED PER CITY OF BELLEVUE UTILITY COMMENTS	4/2/21
	REVISED PER CITY OF BELLEVUE TRAFFIC COMMENTS	2/23/21
	RESPOND TO CITY COMMENTS/REMOVE PRELIMINARY PLAT	11/30/20
	ADDITION OF PRELIMINARY PLAT	8/16/19
	RESPOND TO CITY REVIEW COMMENTS	6/6/18

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SCOTT A. SHERIDAN
STATE OF WASHINGTON
21006
REGISTERED
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2021.04.05 12:02:44-07'00'
Original copy of digitally signed document available upon request.

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PARK POINTE PUD

7219 & 7331 LAKEMONT BLVD SE
BELLEVUE WASHINGTON

PUD BUILDABLE AREAS

SCALE: AS NOTED	DATE: 4/2/21
DESIGNED BY: SS	CHECKED BY: JA
JOB NUMBER 15436	
SHEET: P4	
SHEET 4 OF 17	

FILE NAME: P:\P15436 LAKEMONT PROPERTY FEASIBILITY\CAD\ENGINEERING\SHEETS\PARK POINT PUD\P15436_SITE.DWG
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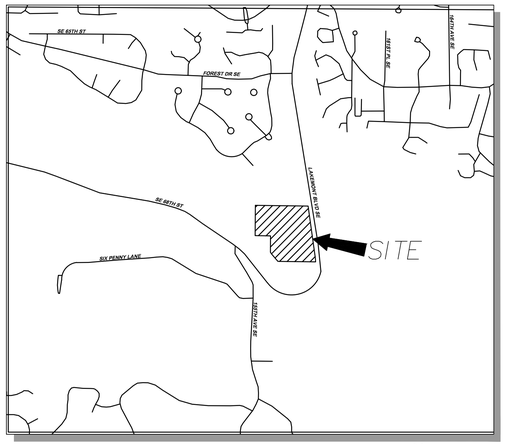
DSD - 000140



VICINITY MAP
SCALE= 1"=1000'

N

SIGHT DISTANCE ANALYSIS NOTE

SEE GIBSON TRAFFIC CONSULTANTS, INC. SIGHT DISTANCE ANALYSIS FOR SIGHT DISTANCE TRIANGLES. SIGHT DISTANCE TRIANGLES SHOWN ON THIS SHEET AND THE LANDSCAPE SHEETS IN THIS PLANSET ARE SHOWN IN CONCEPT. REFER TO GIBSON TRAFFIC CONSULTANTS, INC. SIGHT DISTANCE ANALYSIS FOR ACCURATE SIGHT DISTANCE TRIANGLES.

LEGAL DESCRIPTION

PARCEL #262405-9019
PER OLD REPUBLIC NATIONAL TITLE INSURANCE CO. ORDER NO. 52071317O6, DATED AUGUST 31, 2015.

THE SOUTHERLY 356 FEET OF THE NORTHERLY 680 FEET OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 26, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M. LYING WEST OF EDWARD LEIFHELM ROAD;
EXCEPT THE WESTERLY 215 FEET THEREOF;
EXCEPT ANY PORTION THEREOF LYING WESTERLY OF THE THREAD OF AN UNNAMED CREEK, AS CONVEYED TO KING COUNTY BY INSTRUMENT RECORDED MAY 29, 1987 UNDER RECORDING NO. 8602270567.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

SPECIAL EXCEPTIONS:
RECORDING NUMBER 3254208
"NOT PLOTTED – BLANKET IN NATURE"
RECORDING NUMBER 5494713
AFFECTS : PORTION ADJOINING THE ROAD
"NOT PLOTTED – BLANKET IN NATURE"
RECORDING NUMBER 20050519001622
"NOT PLOTTED – BLANKET IN NATURE"

PARCEL #262405-9022
PER OLD REPUBLIC NATIONAL TITLE INSURANCE CO. ORDER NO. 5216013607, DATED APRIL 8, 2015.

THAT PORTION OF SECTION 26, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

THE NORTH 324 FEET OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER LYING WEST OF THE EDWARD LEIFHELM ROAD SURVEY #1344 BEING BOUND ON THE SOUTH BY NORTH LINE OF TRACT OF LAND CONVEYED BY PACIFIC COAST COAL CO. TO ERNEST SWANSON BY DEED DATED JULY 15, 1942 AND RECORDED IN VOLUME 2066 OF DEEDS, PAGES 475 AND 476, AND THE EXTENSION OF SAID NORTH LINE OF THE ERNEST SWANSON PROPERTY EXTENDED WEST; ALSO THE SOUTH 100 FEET OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER LYING WEST OF THE EDWARD LEIFHELM CO. ROAD SURVEY #1344;

EXCEPT ANY PORTION LYING WESTERLY OF THE THREAD OF AN UNNAMED STREAM, TO–WT

BEGINNING AT THE CENTER OF SECTION 26, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON; THENCE NORTH 01°04'35"EAST ALONG THE NORTH–SOUTH CENTERLINE OF SAID SECTION 26, A DISTANCE OF 100 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 16°27'31" EAST 445.05 FEET; THENCE NORTH 88°46'03" WEST, PARALLEL TO THE EAST–WEST CENTERLINE OF SAID SECTION, 134.09 FEET TO SAID NORTH–SOUTH CENTERLINE; THENCE NORTH 01°04'35" EAST 424.00 FEET, ALONG SAID NORTH–SOUTH CENTERLINE, TO THE TRUE POINT OF BEGINNING, AS CONVEYED TO KING COUNTY BY DEED RECORDED UNDER KING COUNTY RECORDING NO. 8602270565.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

SPECIAL EXCEPTIONS:
RECORDING NUMBER 3070389
"NOT PLOTTED – AS CONSTRUCTED"
RECORDING NUMBER 3913538
RECORDING NUMBER 20050419000925,
UNDER RECORDING NUMBER 20050519001620.
"NOT PLOTTED – BLANKET IN NATURE"
RECORDING NUMBER 5481732
"NOT PLOTTED – BLANKET IN NATURE"
RECORDING NUMBER 8602270568
"PLOTTED"
RECORDING NUMBER 20051212000275
"NOT SURVEY RELATED"
RECORDING NUMBER 20060831002323
"NOT SURVEY RELATED"

Development Services

Statistical Information

Land Use Zone: R-1 and R-3.5

Site area in square feet and acres: 535,522 square feet and 12.29 acres

Site Data Summary

	Required/Allowed	Proposed
Number of dwelling units per acre	3.5 (per zoning)	2.85
Total number of dwelling units	40 (PUD)	35
Area of each proposed structure:		
Net	N/A	N/A
Net leasable (Shopping Center)	N/A	N/A
Gross	N/A	N/A
Floor Area Ratio (F.A.R.)	N/A	N/A
Area of proposed building by use:		
Net	74,720 +/-	74,720 +/-
Gross	N/A	TBD
Percentage of lot coverage	35%	35% +/-
Amount of impervious area (sq. ft.)	267,761 (50%)	147,120 (27%)
Cut/fill (cubic yards)	33,154 cut	8,283 fill
Building height	N/A	N/A
Shoreline & Transition Areas: measured from avg. existing grade		
All other areas: measured from average finished grade		

Parking

Total number of spaces for the project	70	70
Number of spaces by each proposed use	2 per house	2.0 per house
The percentage of compact stalls	N/A	N/A
The percentage of handicapped stalls	N/A	N/A

Area of Proposed Landscaping or Mitigation

Adjacent to right-of-way	7,900	14,790
Adjacent to interior property lines	17,990	30,206
Within the parking area	N/A	N/A
Significant Trees to be retained	N/A	N/A

S88° 46' 00"E 736.17'
N1° 04' 02"E 393.00'
S1° 04' 02"W 227.68'
N58° 47' 21"W 71.70'
N88° 46' 00"W 526.81'
N35° 46' 30"W 103.85'
N1° 04' 02"E 272.93'
S88° 46' 00"E 103.85'

ORDINARY HIGH WATER MARK DELINEATED BY TALASAEA CONSULTANTS. SEE SHEET P3 FOR ADDITIONAL INFORMATION
JURISDICTIONAL WETLAND AREA DELINEATED BY TALASAEA CONSULTANTS. SEE SHEET P2 FOR ADDITIONAL INFORMATION
EXISTING TREES TO REMAIN, SEE ARBORIST REPORT FOR DESCRIPTION OF TREE RETENTION
REFER TO TITLE REPORT FOR LIMITATIONS WITHIN RESTRICTED AREA (TYP).
REGULATED STEEP SLOPE (>40%). SEE SHEET P2 FOR DETAILED LOCATION
PARCEL Z
AREA RESTRICTED PER RECORDING NO 8602270568
PROPOSED 5' SOFT SURFACE TRAIL
STREAM 1
STREAM 2
STREAM 3
COAL CREEK
BUFFER ENHANCEMENT PLANTING, SEE MITIGATION PLAN
SPLIT RAIL FENCE, SEE MITIGATION PLANS (EDGE OF NGPA)
RETAINING WALL
PROPOSED SANITARY SEWER FM
60' R/W
29.02' EX. PAVEMENT
SEE LANDSCAPE PLAN SHEET L1 FOR SIGHT DISTANCE TRIANGLE
PROPOSED WATER MAIN EXTENSION
MONUMENT SIGN PER LUC 22B.10.090C(4A,B) 25 SQ FT FACE AREA
14'
29.67' EX. PAVEMENT
PROPOSED PUBLIC ACCESS
3' ROW DEDICATION
10' STRUCTURE SETBACK (TYP)
TP 262405-9022
TP 262405-9019
PARCEL A
STORMWATER VAULT
ROCKERY
The geotechnical engineer recommends that only a detention pond or underground vault be constructed in lower risk CMS Zone 2.
NGPE Fence
Lower risk CMS Zone 2
Higher risk CMS Zone 2
ROAD A
ROAD B
LAKEMONT BLVD SE
LOT LINES FOR PARCELS ACROSS LAKEMONT BLVD SE HAVE BEEN OBTAINED FROM CITY OR COUNTY GIS DATA. PACE IS NOT RESPONSIBLE FOR THE ACCURACY OF THE OBTAINED DATA.
MONUMENT SIGN PER LUC 22B.10.090C(4A,B) 25 SQ FT FACE AREA
EDGE OF EXISTING ASPHALT
SEE LANDSCAPE PLAN SHEET L1 FOR SIGHT DISTANCE TRIANGLE
29.58' EX. PAVEMENT
Δ=7°41'29" R=376.26' L=50.51'
ROCK FACING
REFER TO TITLE REPORT FOR LIMITATIONS WITHIN RESTRICTED AREA (TYP).
EXISTING REGIONAL TRAIL
N
HORIZ. 0 20 40 80 Scale In Feet

16–143970–LK

DATE	REVISION
1/12/23	WETLAND RATINGS UPDATED BY PROJECT BIOLOGIST
4/2/21	REVISED PER CITY OF BELLEVUE UTILITY COMMENTS
2/23/21	REVISED PER CITY OF BELLEVUE TRAFFIC COMMENTS
11/30/20	RESPOND TO CITY COMMENTS/REMOVE PRELIMINARY PLAT
8/16/19	ADDITION OF PRELIMINARY PLAT
6/6/18	RESPOND TO CITY REVIEW COMMENTS
S'YM	

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JOHN E. ANDERSEN STATE OF WASHINGTON 26878 REGISTERED PROFESSIONAL ENGINEER
2023.01.13 13:43:50-08'00'

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BELLEVUE, WA 98006
206.582.7900

PARK POINTE PUD
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE WASHINGTON

SITE PLAN B

SCALE:	DATE:
AS NOTED	1/12/23
DESIGNED BY:	CHECKED BY:
SS	JA
JOB NUMBER	
15436	
SHEET:	
P5	
SHEET 5 OF 17	

FILE NAME: P:\P15\X15436_LAKEMONT PROPERTY_FEASIBILITY\CAD ENGINEERING\SHEETS\PARK POINT PUD\P15436-SITEPLAN-B.DWG
PLOT NAME: BRIAN M. WILLIAMS, 1/13/2023 1:43:50 PM
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DSD - 000141

MATCHLINE (SEE BELOW RIGHT)

LOCATION OF RRFB & CROSSING DIRECTED BY THE CITY OF BELLEVUE. THE CITY IS RESPONSIBLE FOR MAINTAINING SAFE PEDESTRIAN CLEAR ZONES WITHIN THE SIGHT DISTANCE TRIANGLES FOR THIS CROSSWALK.

EXISTING REGIONAL TRAIL

NEW PEDESTRIAN CROSSING SIGN PER CITY OF BELLEVUE DETAIL SL-150-1 WITH RECTANGULAR RAPID FLASHING BEACON (RRFB)

NEW CROSSWALK MARKINGS PER COB STD. DETAIL CW-100-1

PARKING LOT ENTRY

NEW PEDESTRIAN CROSSING SIGN (MUTCD W11-2 & W16-7P) WITH RECTANGULAR RAPID FLASHING BEACON (RRFB)

BICYCLE LANE CHANNELIZATION PER COB STD. DETAIL CH-240-1

STREAM 2

5' CONCRETE SIDEWALK PER COB STD. DETAIL SW-110-1, TYP.

DRIVEWAY APPROACH W/O SIDEWALK, PER COB STD. DETAIL SW-180-1, TYP

PARCEL Z

5' SOFT SURFACE TRAIL

STREAM 1

7.5'X22' PARALLEL PARKING, (TYP)

PERVIOUS PAVERS PARKING AREA

PROPOSED 5' SOFT SURFACE TRAIL

LIFT STATION

FIXED AND REMOVABLE BOLLARDS PER COB STD DETAIL DEV-14 (ACCESS TO SEWER LIFT STATION AND DETENTION VAULT)

EXISTING REGIONAL TRAIL

STA: 58+19.41 RD-A = STA: 74+20.13 RD-B

STA: 59+02.30 RD-A = STA: 59+02.30 RD-A

ROAD A

ROAD B

STA: 53+43.44 RD-A = STA: 70+14.12 RD-B

Stormwater Vault
PARCEL A

NGPE Fence

SIDEWALK OVER TREE CRZ. REFER TO COB STD. DETAIL SW-120-1, TYP.

LAKEMONT BLVD SE

PROPOSED 5' SOFT SURFACE TRAIL

6' CONCRETE SIDEWALK PER COB STD. DETAIL SW-110-1, TYP.

DOUBLE CENTER LINE CHANNELIZATION PER COB STD. DETAIL CH-100-1

3' ROW DEDICATION

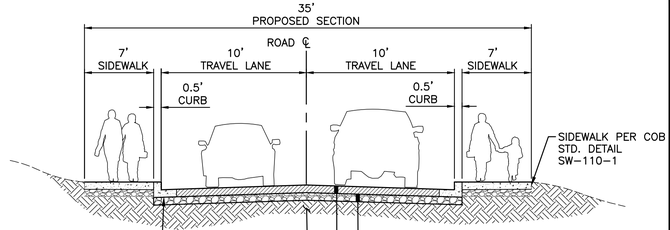
BICYCLE LANE CHANNELIZATION PER COB STD. DETAIL CH-240-1

MATCHLINE (SEE ABOVE LEFT)

KEY NOTES:

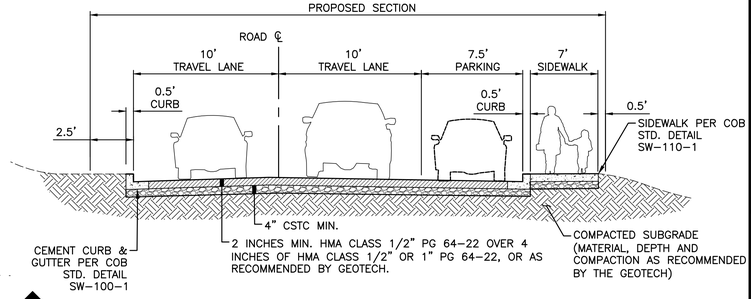
1. "NO PARKING-FIRE LANE" SIGN PER CITY OF BELLEVUE STANDARDS (R8-31).
2. TYPE 2 PARALLEL CEMENT CONCRETE CURB RAMP PER CITY OF BELLEVUE STANDARD SW-210-1.
3. TYPE 3 DIRECTIONAL CEMENT CONCRETE CURB RAMP PER CITY OF BELLEVUE STANDARD SW-240-1.
4. CLUSTER MAILBOX PER CITY OF BELLEVUE STANDARD RC-280-1. 24-BOX UNITS (SOUTH) AND 16-BOX UNITS (NORTH).
5. STREET NAME SIGN PER CITY OF BELLEVUE STANDARD SG-160-1.
6. CAST IN PLACE RETAINING WALL PER WSDOT STANDARD PLAN D-10 SERIES.
7. VARY COLOR OR TEXTURE SURFACING TO DIFFERENTIATE PARKING AREAS FROM DRIVEWAY.
8. RESIDENTIAL DRIVEWAY PER DETAIL SW-170-1.
9. RIGHT TURN ONLY SIGN PER MUTCD R3-5R, VERIFY SIZE WITH CITY ENGINEER. INSTALL PER STD DETAIL SG-100-1.
10. NO LEFT TURN SIGN PER MUTCD R3-2. VERIFY SIZE WITH CITY ENGINEER. INSTALL PER STD DETAIL SG-100-1.

REFER TO COB STD. PLAN RC-110-1 FOR MATERIAL AND ADDITIONAL REQUIREMENTS



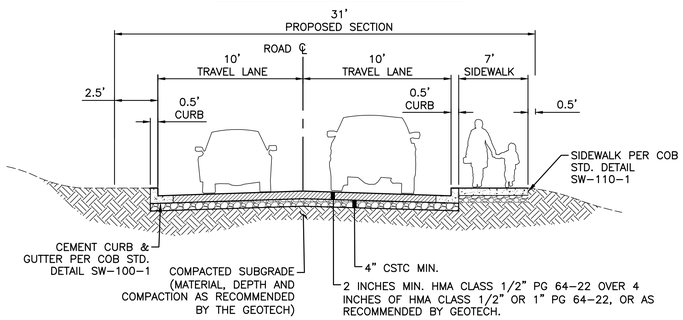
1 ROAD A SECTION - 20' PRIVATE STREET W/ 2 SIDEWALKS
SCALE: NTS

REFER TO COB STD. PLAN RC-110-1 FOR MATERIAL AND ADDITIONAL REQUIREMENTS



2 ROAD A SECTION - 20' PRIVATE STREET W/ PARKING & SIDEWALK
SCALE: NTS

REFER TO COB STD. PLAN RC-110-1 FOR MATERIAL AND ADDITIONAL REQUIREMENTS



3 ROAD A SECTION - 20' PRIVATE STREET W/ 1 SIDEWALK
SCALE: NTS

NOTE:
SEE SHEET E3 FOR ROAD SECTIONS 4, 5, AND 6.

N

HORIZ. 0 20 40 80
Scale In Feet

16-143970-LK

SYM	REVISION	DATE
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	ADDITION OF PRELIMINARY PLAT	8/16/19
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PARK POINTE PUD
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE WASHINGTON

ROAD PLAN & TYPICAL SECTIONS

SCALE:	DATE:
AS NOTED	4/2/21
DESIGNED BY:	CHECKED BY:
SS	JA
JOB NUMBER	15436
SHEET:	E1
SHEET 6 OF	17

FILE NAME: P:\P15\15436 LAKEMONT PROPERTY FEASIBILITY\CAD\ENGINEERING\SHEETS\PARK POINT PUD\P15436-PP.DWG
USE NAME: Jacob Sisk PLOT DATE: Apr 2, 2021 - 12:02pm PLOTTED BY: Jacob Sisk
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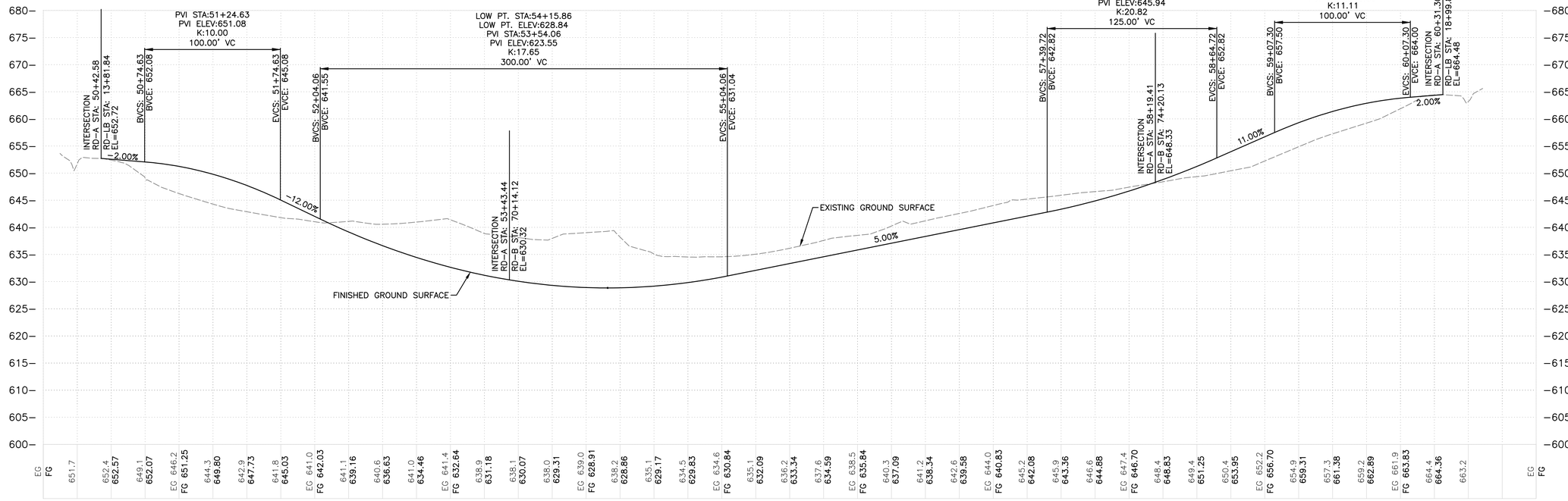
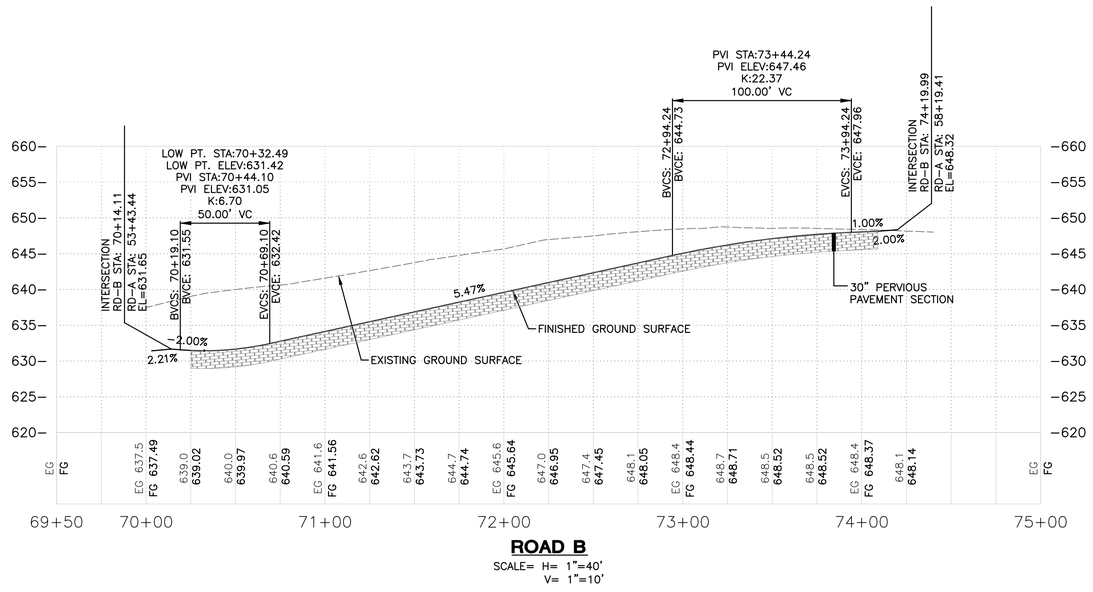


ROAD A

SCALE= H= 1"=40'
V= 1"=10'



ROAD B

SCALE= H= 1"=40'
V= 1"=10'

	DATE
REVISED PER CITY OF BELLEVUE UTILITY COMMENTS	4/2/21
REVISED PER CITY OF BELLEVUE TRAFFIC COMMENTS	2/23/21
RESPOND TO CITY COMMENTS/REMOVE PRELIMINARY PLAT	11/30/20
ADDITION OF PRELIMINARY PLAT	8/16/19
RESPOND TO CITY REVIEW COMMENTS	6/6/18
REVISION	DATE

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2021.04.05 12:03:02-07'00'

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PARK POINTE PUD
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE WASHINGTON

ROAD PROFILES

SCALE:	DATE:
AS NOTED	4/2/21
DESIGNED BY:	CHECKED BY:
SS	JA
JOB NUMBER	15436
SHEET:	E2
SHEET 7 OF	17

16-143970-LK

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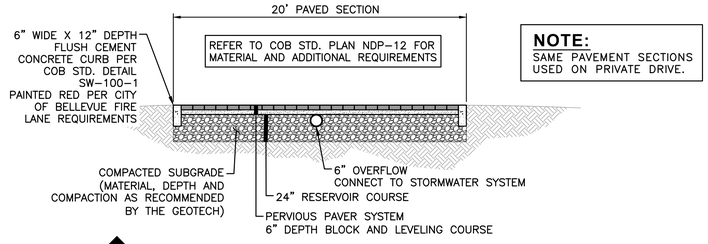
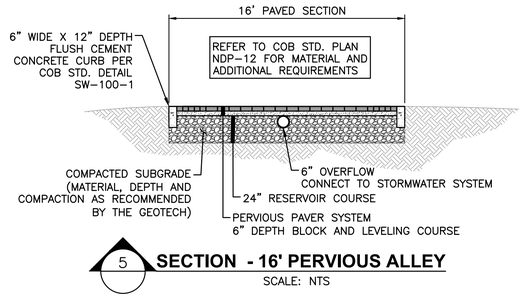
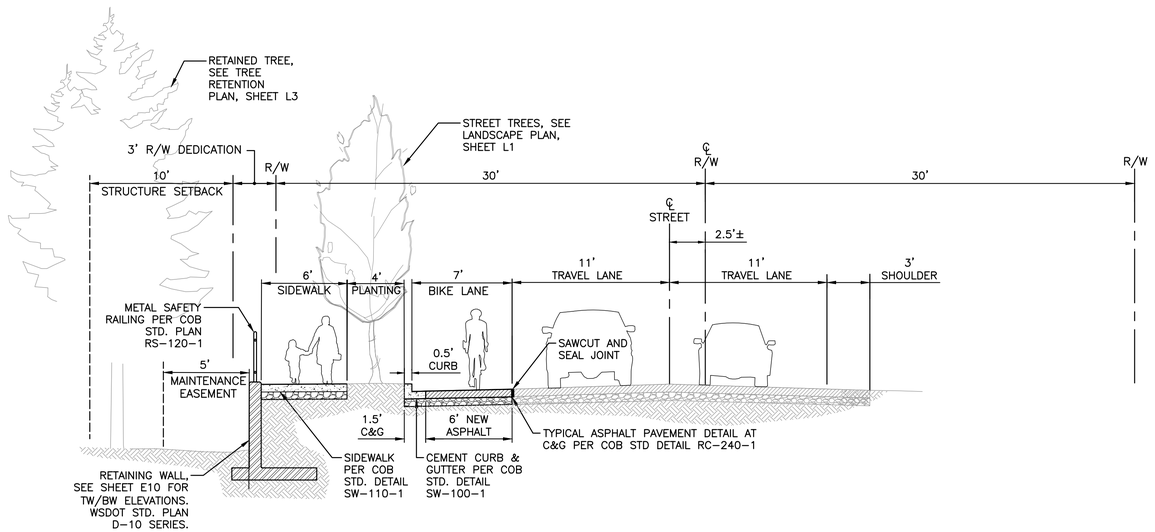


NOTE:
SAME PAVEMENT SECTIONS USED ON PRIVATE DRIVE.

4 **ROAD B SECTION - 20' PERVIOUS ALLEY**
SCALE: NTS



5 **SECTION - 16' PERVIOUS ALLEY**
SCALE: NTS



6 **LAKEMONT BOULEVARD SE SECTION**
SCALE: NTS

16-143970-LK

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ROAD PROFILES & TYPICAL SECTIONS

SCALE:	DATE:
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DESIGNED BY:	CHECKED BY:
SS	JA
JOB NUMBER	15436
SHEET:	E3
SHEET 8 OF	17

FILE NAME: P:\P15\15436 LAKEMONT PROPERTY FEASIBILITY\CAD\ENGINEERING\SHEETS\PARK POINT PUD\P15436-PP.DWG
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DSD - 000144

LEGEND:

ASPHALT PAVEMENT

CEMENT CONCRETE SIDEWALK

STORMWATER COMPLIANCE SUMMARY:

MINIMUM REQUIREMENT 5 – ON–SITE STORM WATER MANAGEMENT

FOLLOWING SUMMARY OUTLINES APPROACHED USED TO MEET THE ON–SITE STORM WATER MANAGEMENT REQUIREMENTS DESCRIBED IN CHAPTER D6 OF THE CITY OF BELLEVUE SURFACE WATER ENGINEERING STANDARDS. REVIEW FOLLOWS MULTI–TIER APPROACH.

TIER 1 BMP'S USED TO MINIMIZE RUNOFF GENERATION.

TIER 1 BMP'S:

BMP'S USED ON PROJECT

SMART SITE DESIGN
PRESERVE NATIVE VEGETATION

AMENDED SOILS
(LANDSCAPE & LAWN)

BMP'S NOT USED ON PROJECT:

- FULL DISPERSION NOT FEASIBLE BECAUSE 100 FOOT NATIVE VEGETATED FLOWPATH IS NOT AVAILABLE OUTSIDE OF CRITICAL AREAS OR ASSOCIATED BUFFERS.
- FULL INFILTRATION NOT FEASIBLE BECAUSE OF THE EXTREMELY LOW INFILTRATION RATES OF THE NATIVE SOIL (~0.25 IN PER HR) AND THE SEASONALLY HIGH GROUNDWATER.

TIER 2 BMP'S USED TO RETAIN RUNOFF ON–SITE:
- PERVIOUS PAVEMENT: 0.510 ACRES
- BIORETENTION BOTTOM AREA: 0.134 ACRES

TIER 2 BMP'S:

ROOF DOWNSPOUT DISPERSION TO STREAM/WETLAND BUFFERS

ROOF DOWNSPOUT DISPERSION TO DEVELOPED SITE W/ SPLASHBLOCKS

ROOF DOWNSPOUT INFILTRATION TO PERVIOUS PAVEMENT UNDERDRAIN GALLERIES

PERVIOUS PAVEMENT

RAINWATER CAPTURE & RECYCLING

BIORETENTION SWALE

TIER 3 BMP'S USED TO INFILTRATE OR DISPERSE RUNOFF PRIOR TO DISCHARGE
- PERFORATED STUB OUT CONNECTIONS: 35 CONNECTIONS WHERE SPLASH BLOCKS NOT USED.

TIER 3 BMP'S:

DISPERSION TRENCH (NO LONGER PROPOSED)

MINIMUM REQUIREMENT 6 – RUNOFF TREATMENT

FOLLOWING SUMMARY OUTLINES APPROACHED USED TO MEET THE RUNOFF TREATMENT REQUIREMENTS DESCRIBED IN CHAPTER D5 OF THE CITY OF BELLEVUE SURFACE WATER ENGINEERING STANDARDS.
- NOTE – DUE TO SHALLOW GROUNDWATER, THE BIORETENTION BMP CANNOT BE USED TO FULFILL RUNOFF TREATMENT REQUIREMENT.
- BASIC TREATMENT REQUIRED PER SURFACE WATER ENGINEERING STANDARDS 5–03.
- SELECTED BASIC TREATMENT FACILITY CONTECH STORMFILTER WITH ZPG FILTER MEDIA.

MINIMUM REQUIREMENT 7 – FLOW CONTROL

FOLLOWING SUMMARY OUTLINES APPROACHED USED TO MEET THE FLOW CONTROL REQUIREMENTS DESCRIBED IN CHAPTER 4 OF THE CITY OF BELLEVUE SURFACE WATER ENGINEERING STANDARDS D4–06. A DETENTION VAULT PROVIDES FLOW CONTROL.

N

HORIZ. 0 20 40 80
Scale In Feet

16–143970–LK

SYM	REVISION	DATE
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BELLEVUE WASHINGTON

STORMWATER COMPLIANCE SUMMARY

SCALE:	DATE:
AS NOTED	4/2/21
DESIGNED BY:	CHECKED BY:
SS	JA
JOB NUMBER	15436
SHEET:	E4
SHEET 9 OF	17

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LEGEND:

- SD — STORM DRAINAGE PIPE
- RL — ROOF LEADER PIPE
- TYPE 2 48" CB
- TYPE 1 CB
- ROOF LEADER CLEANOUT
- CONTECH STORMFILTER MANHOLE
- OUTFALL PROTECTION

NOTE:

SEE SHEET E4 FOR STORMWATER CONSERVATION FEATURES AND BMPS.

HORIZ. 0 20 40 80
Scale In Feet

16-143970-LK

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PRELIMINARY STORMWATER SITE PLAN

SCALE:	DATE:
AS NOTED	4/2/21
DESIGNED BY:	CHECKED BY:
SS	JA

JOB NUMBER 15436

SHEET: E5

SHEET 10 OF 17

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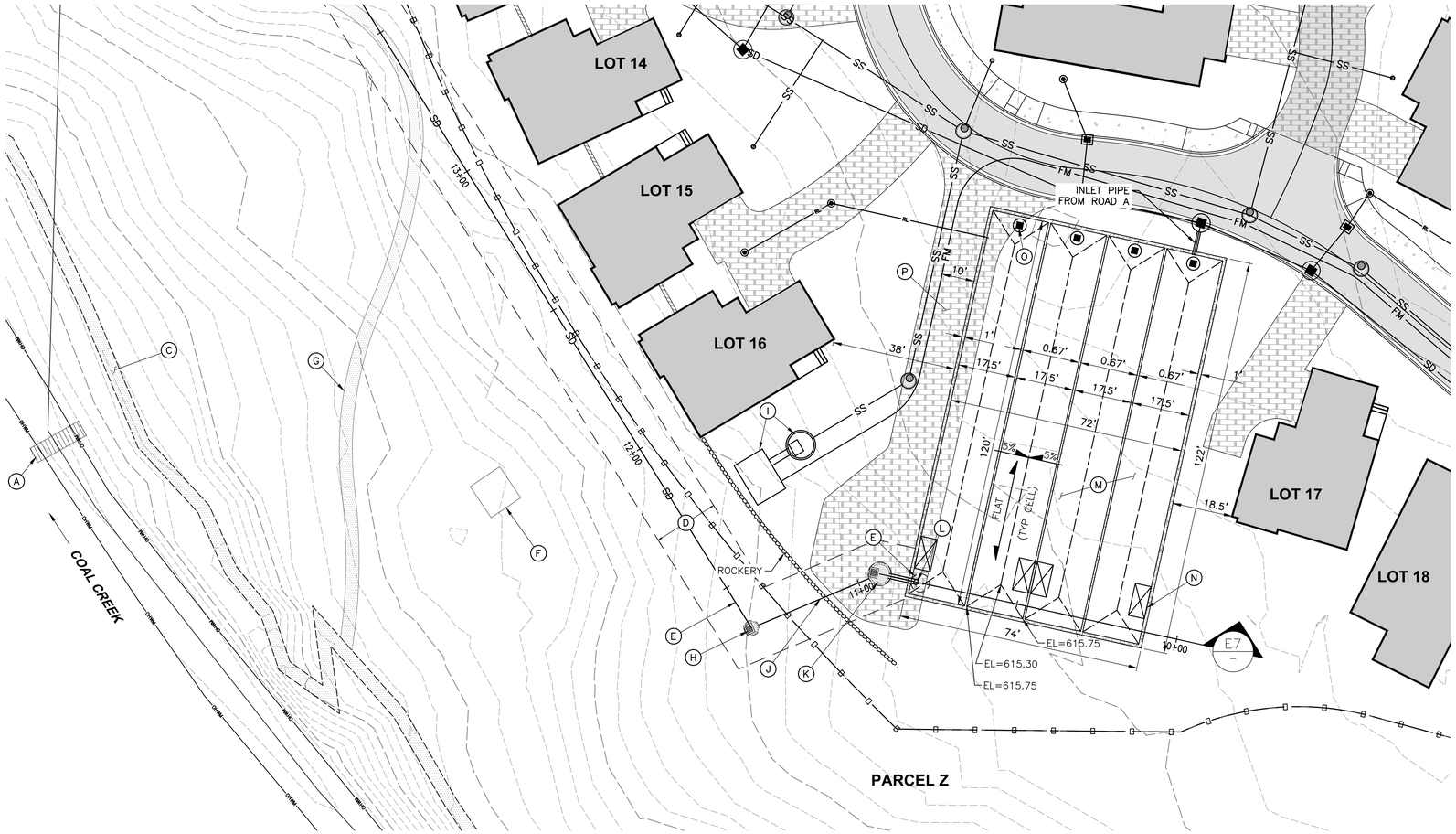

NOTE:
VAULT TO BE DESIGNED FOR VACTOR TRUCK LOAD OF 66,000 LBS IN AREAS SUBJECT TO VEHICLE LOADS.

N

1 VAULT PLAN VIEW
SCALE: 1" = 20'

#KEYED NOTES:

A. APPROXIMATE LOCATION OF EXISTING BRIDGE. LOCATION NOT SURVEYED!

B. SEE SHEET E7 FOR OUTFALL PROTECTION LOCATION. NO WORK PROPOSED WITHIN ORDINARY HIGH WATER MARK OF COAL CREEK.

C. EXISTING REGIONAL TRAIL.

D. PROPOSED 20–FOOT WIDE STORM DRAIN EASEMENT.

E. 18" SD. PRIVATE STORM LINE OWNED AND MAINTAINED BY PARK POINTE HOA. SEE SHEET E7 FOR PROFILE OF PROPOSED STORM LINE.

F. EXISTING STRUCTURES AND FOUNDATIONS TO REMAIN.

G. PROPOSED SOFT SURFACE TRAIL ACROSS.

H. PROPOSED TYPE 2 CATCH BASIN.

I. PROPOSED SANITARY SEWER LIFT STATION.

J. INSTALL STEEL 10' LENGTH CASING SLEEVE BENEATH ROCKERY.

K. 72" CONTECH STORMFILTER MANHOLE. SEE STORM DRAINAGE REPORT FOR RUNOFF TREATMENT DESIGN PARAMETERS.

L. 18" RISER AND OUTLET STRUCTURE LOCATED INSIDE DETENTION VAULT.

M. DETENTION VAULT. FOUR CHAMBERS AT 17'6" X 120'8" X 11'0" PROVIDES TOTAL STORAGE VOLUME IN EXCESS OF 92,400 CUBIC FEET.

N. 5' X 10' ACCESS HATCH (TYPICAL).

O. STANDARD 24" DIAMETER BOLT–DOWN MANHOLE COVER (TYPICAL).

P. 12' WIDE ACCESS DRIVE FOR VAULT AND SANITARY SEWER LIFT STATION.

LEGEND

FG – FINISHED GRADE
EL – ELEVATION AT BOTTOM OF STRUCTURE
IE – INVERT ELEVATION

SYM	REVISION	DATE
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BELLEVUE WASHINGTON

STORMWATER VAULT PLAN

SCALE:	DATE:
AS NOTED	4/2/21
DESIGNED BY:	CHECKED BY:
SS	JA
JOB NUMBER	
15436	
SHEET:	
E6	
SHEET 11 OF 17	

16–143970–LK

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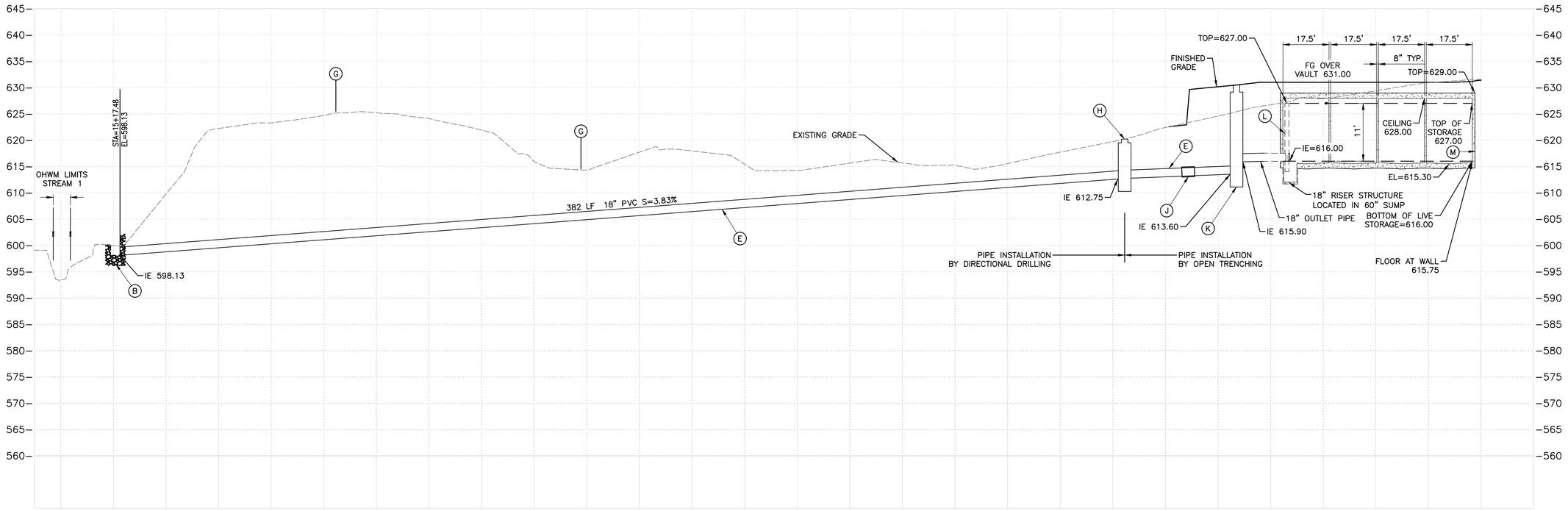

OUTFALL PROFILE

SCALE= H= 1"=20'
V= 1"=10'

KEYED NOTES:

A. APPROXIMATE LOCATION OF EXISTING BRIDGE. LOCATION NOT SURVEYED!

B. OUTFALL PROTECTION. NO WORK PROPOSED WITHIN ORDINARY HIGH WATER MARK OF STREAM.

C. EXISTING REGIONAL TRAIL.

D. PROPOSED 20-FOOT WIDE STORM DRAIN EASEMENT.

E. 18" SD. PRIVATE STORM LINE OWNED AND MAINTAINED BY PARK POINTE HOA.

F. EXISTING STRUCTURES AND FOUNDATIONS TO REMAIN.

G. PROPOSED CENTERLINE OF SOFT SURFACE TRAIL ACROSS.

H. PROPOSED TYPE 2 CATCH BASIN.

I. PROPOSED SANITARY SEWER LIFT STATION.

J. INSTALL STEEL 10' LENGTH CASING SLEEVE BENEATH ROCKERY.

K. 72" CONTECH STORMFILTER MANHOLE. SEE STORM DRAINAGE REPORT FOR RUNOFF TREATMENT DESIGN PARAMETERS.

L. 18" RISER AND OUTLET STRUCTURE LOCATED INSIDE DETENTION VAULT.

M. DETENTION VAULT. FOUR CHAMBERS AT 17'6" X 120'8" X 11'0" PROVIDES TOTAL STORAGE VOLUME IN EXCESS OF 92,400 CUBIC FEET.

N. 5' X 10' ACCESS HATCH (TYPICAL).

O. STANDARD 24" DIAMETER BOLT-DOWN MANHOLE COVER (TYPICAL).

P. 12' WIDE ACCESS DRIVE FOR VAULT AND SANITARY SEWER LIFT STATION.

LEGEND

FG – FINISHED GRADE
EL – ELEVATION AT BOTTOM OF STRUCTURE
IE – INVERT ELEVATION

16-143970-LK

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BELLEVUE WASHINGTON

STORMWATER VAULT OUTFALL

SCALE:	DATE:
AS NOTED	4/2/21
DESIGNED BY:	CHECKED BY:
SS	JA

JOB NUMBER 15436

SHEET: E7

SHEET 12 OF 17

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EXAMPLE PUMP STATION PHOTOGRAPHS

LIFT STATION NOTES:

1. LIFT STATION SHOWN ON THE PHOTOS ABOVE WAS DESIGNED FOR A SIMILAR SIZED COMMUNITY AND IS INTENDED TO CONVEY THE OVERALL SCALE OF THE PROPOSED IMPROVEMENTS.
2. LIFT STATION INCLUDES IN–GROUND SUMP, BUILDING HOUSING CONTROL AND ELECTRICAL SYSTEMS, AND DIESEL GENERATOR TO PROVIDE BACK–UP POWER SOURCE.
3. BUILDING APPEARANCE WILL CHANGE TO REFLECT PROJECT'S GOALS.
4. LIFT STATION CONFIGURATION MAY CHANGE TO REFLECT CITY OF BELLEVUE DESIGN STANDARDS.
5. PACE ENGINEERS DESIGNED LIFT STATION FOR CEDAR RIVER WATER & SEWER DISTRICT, 2000.

PROPOSED UTILITY SUMMARY

1. ON SITE WATER SYSTEM IMPROVEMENTS WILL INCLUDE 8" DI WATER MAIN LOOPED THROUGH SITE.
2. WHERE ON SITE WATER MAINS DEAD–END WITHOUT FEEDING A FIRE HYDRANT, PIPE SIZE WILL BE REDUCED TO 4" DI.
3. 1,700 FEET OF WATER DI TRANSMISSION LINE WILL EXTEND FROM SOUTH END OF CITY WATER SYSTEM ON LAKEMONT BLVD TO ROAD A SOUTH ENTRANCE. SEE OFFSITE SEWER AND WATER EXTENSION PLAN, SHEET E9 FOR SIZES.
4. PRESSURE REDUCING VALVE REQUIRED FOR NEW WATER SERVICE TO REDUCE WATER SYSTEM PRESSURE FROM 1000 ZONE TO 850 ZONE. SEE SHEET E8.
5. ONSITE GRAVITY COLLECTION SEWER SHALL BE 8" PVC.
6. LIFT STATION REQUIRED.
7. 2,984 FEET OF 4" SANITARY SEWER FORCE MAIN REQUIRED TO CONVEY WASTEWATER FROM SITE TO MANHOLE AT INTERSECTION OF LAKEMONT BLVD SE AND SE FOREST DRIVE.
8. ALL WATER AND SEWER SYSTEM IMPROVEMENTS TO BE PUBLIC FACILITIES OWNED, MAINTAINED AND OPERATED BY THE CITY OF BELLEVUE.

COAL CREEK NATURAL AREA

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PRELIMINARY UTILITY PLAN

SCALE:	DATE:
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DESIGNED BY:	CHECKED BY:
SS	JA

JOB NUMBER 15436

SHEET: E8

SHEET 13 OF 17

16–143970–LK

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DSD - 000149

MATCH LINE 1

4" HDPE FORCE MAIN
2,972 FEET TOTAL LENGTH

LAKEMONT BLVD SE

END WATER MAIN

3ø OVERHEAD POWER SUPPLY

8" POTABLE WATER MAIN EXTENSION

8" SEWER EXTENSION TO SERVE PARCELS TO EAST

EXISTING STREET LIGHTING ON EAST SIDE OF LAKEMONT BLVD. POLE-MOUNTED COBRA-HEAD LUMINAIRES (TYPICAL)

12" POTABLE WATER MAIN

MATCH LINE 1

MATCH LINE 2

4" HDPE FORCE MAIN
2,972 FEET TOTAL LENGTH

PRESSURE REDUCING VALVE

CULVERT CONVEYS UNCATEGORIZED STREAM

LAKEMONT BLVD SE

FH

POTABLE WATER MAIN EXTENSION

SEE CONNECTION DETAIL BELOW

MATCH LINE 2

HORIZ. 0 20 40 80
Scale In Feet

MATCH LINE 2

4" HDPE FORCE MAIN
2,984 FEET TOTAL LENGTH

FOREST DRIVE SE

EXISTING SANITARY MANHOLE
RIM=732.05
IE EX 12" PVC (W,NE)=723.90
IE NEW 8" PVC GRAVITY MAIN=724.23

LAKEMONT BLVD SE

CONNECT 4" HDPE FORCE MAIN TO 8" PVC GRAVITY MAIN WITH APPROVED ADAPTOR

50 LF OF 8" PVC GRAVITY MAIN MIN. 2.00% SLOPE

HORIZ. 0 5 10 20
Scale In Feet

LAKEMONT BLVD SE

PRESSURE REDUCING VALVE VAULT PER CITY OF BELLEVUE STANDARD DRAWING NUMBER W-17

CITY OF BELLEVUE FIRE HYDRANT 107481

EX 12" DI PIPE

NEW 12" DI

EX 12"x6" TEE WITH CAP ON SOUTH RUN. REMOVE AND CONNECT NEW PIPE.

EXISTING 12" WATER MAIN FROM COUGAR MOUNTAIN WAY

850 ZONE — 1000 ZONE — NEW — EXIST

16-143970-LK

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SCOTT A. SHERIDON
STATE OF WASHINGTON
21806
REGISTERED
PROFESSIONAL ENGINEER
2021.04.05 12:03:43-07'00'
Original copy of digitally signed document available upon request.

ISOLA HOMES
13555 SE 36TH ST SUITE 320
BELLEVUE, WA 98006
206.582.7900

PARK POINTE PUD
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE WASHINGTON

OFFSITE SEWER AND WATER EXTENSIONS

SCALE: AS NOTED	DATE: 4/2/21
DESIGNED BY: SS	CHECKED BY: JA
JOB NUMBER 15436	
SHEET: E9	
SHEET 14 OF 17	

FILE NAME: P:\P15\15436_LAKEMONT PROPERTY-FEASIBILITY\CAD\ENGINEERING\SHEETS\PARK POINT PUD\P15436_UT.DWG
USER NAME: AARON LAMOREAUX, PE DATE/TIME: 4/2/2021 2:24 PM
XREF FILES: X15436_BASE.dwg X15436_24x36-BBR.dwg X15436_HATCH.dwg X15436_SD.dwg X15436_SS.dwg X15436_WA.dwg X15436_SITE.dwg X15436_WA_COB_AB.dwg W17plt.dwg X15436_FG.dwg

CUT/FILL SUMMARY

CUT	FILL	NET
33,154 CY	8,283 CY	24,870 CY

SYM	REVISION	DATE
	REVISED PER CITY OF BELLEVUE UTILITY COMMENTS	4/2/21
	REVISED PER CITY OF BELLEVUE TRAFFIC COMMENTS	2/23/21
	RESPOND TO CITY COMMENTS/REMOVE PRELIMINARY PLAT	11/30/20
	ADDITION OF PRELIMINARY PLAT	8/16/19
	RESPOND TO CITY REVIEW COMMENTS	6/6/18

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ISOLA HOMES
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BELLEVUE, WA 98006
206.582.7900

PARK POINTE PUD

7219 & 7331 LAKEMONT BLVD SE
BELLEVUE WASHINGTON

PRELIMINARY GRADING PLAN

SCALE:	DATE:
AS NOTED	4/2/21
DESIGNED BY:	CHECKED BY:
SS	JA

JOB NUMBER 15436

SHEET: E10

SHEET 15 OF 17

HORIZ. 0 20 40 80
Scale In Feet

16-143970-LK

FILE NAME: P:\P15\15436 LAKEMONT PROPERTY DEVELOPMENT\CAD\ENGINEERING\SHEETS\PARK POINT PUD\P15436_GP.DWG
PLOT DATE: 4/2/2021 11:07:24 AM PLOTTED BY: JOSH TIMM
XREF FILES: X15436_BASE.dwg X15436_24x36-BRR.dwg X15436_SITE.dwg X15436_CAO_PROPOSED.dwg X15436_SD.dwg X15436_FG.dwg

DSD - 000151

PROPERTY LINE

STREAM 2

INTERIOR TREE RETENTION, 1,570 DIAMETER INCHES, SEE ARBORIST REPORT

BUFFER ENHANCEMENT PLANTING AREA AND TRAIL, SEE CRITICAL AREAS REPORT AND MITIGATION PLANS BY TALASAEA CONSULTANTS

PRELIMINARY VEHICLE SIGHT DISTANCE TRIANGLES, REFER TO TRAFFIC REPORT FOR FINAL CONDITION. NO OBJECTS ARE PERMITTED BETWEEN 2' TO 7.5' ABOVE PAVEMENT SURFACE INCLUDING STREET TREES AND OTHER VEGETATION.

PSE STREET LIGHTS LOCATED ON EAST SIDE OF LAKEMONT BLVD.

OPEN SPACE / NATIVE LANDSCAPE AREA, SEE NATIVE PLANT PALETTE FOR PROPOSED PLANT SPECIES

PEDESTRIAN SIGHT DISTANCE TRIANGLES PER STD PLAN RL-120-1

FENCING, SEE MITIGATION PLANS

VEHICLE SIGHT DISTANCE TRIANGLES PER STD PLAN RL-110-1

ROAD A

PROPERTY LINE

OPEN SPACE TRACT

COMMON OPEN SPACE / PICNIC TABLES

TRAIL/OPEN SPACE ACCESS

PARCEL Z

BUFFER ENHANCEMENT PLANTING AREA AND 5' SOFT SURFACE TRAIL, SEE CRITICAL AREAS REPORT AND MITIGATION PLANS BY TALASAEA CONSULTANTS

OPEN SPACE / NATIVE LANDSCAPE AREA, SEE NATIVE PLANT PALETTE FOR PROPOSED PLANT SPECIES

ROAD A

ROAD B

30" HEIGHT MAX., LANDSCAPE WALL

4' WIDE PLANTER STRIP SOIL PREPARATION TO CONFORM TO CITY OF BELLEVUE STANDARD PLAN SW-130-1

OPEN SPACE / NATIVE LANDSCAPE AREA, SEE NATIVE PLANT PALETTE FOR PROPOSED PLANT SPECIES

LAKEMONT BLVD SE

PROPERTY LINE (CENTERLINE STREAM)

BUFFER ENHANCEMENT PLANTING AREA SEE CRITICAL AREAS REPORT AND MITIGATION PLANS BY TALASAEA CONSULTANTS

COAL CREEK

VEHICLE SIGHT DISTANCE TRIANGLES PER STD PLAN RL-110-1

PRELIMINARY VEHICLE SIGHT DISTANCE TRIANGLES, REFER TO TRAFFIC REPORT FOR FINAL CONDITION.

SANITARY SEWER LIFT STATION

PARCEL A

ROAD A

30" HEIGHT MAX., LANDSCAPE WALL

TRAIL/OPEN SPACE ACCESS

PEDESTRIAN SIGHT DISTANCE TRIANGLES PER STD PLAN RL-120-1.

COAL CREEK NATURAL AREA

PROPERTY LINE (CENTERLINE STREAM)

STORMWATER LIFT STATION

LIFT STATION ACCESS

OPEN SPACE / NATIVE LANDSCAPE AREA, SEE NATIVE PLANT PALETTE FOR PROPOSED PLANT SPECIES

PSE STREET LIGHTS LOCATED ON EAST SIDE OF LAKEMONT BLVD.

CONNECTION TO EXISTING TRAIL, SEE MITIGATION PLANS

NEIGHBORHOOD RECREATION SPACE
- POTENTIAL NEIGHBORHOOD FLOWER GARDEN - PEA PATCH
- OPEN MULTI-USE GRASS AREA
- PICNIC TABLES

TREE #72
20" DBH
PONDEROSA PINE
EL. 643.39

PROPERTY LINE

PRELIMINARY VEHICLE SIGHT DISTANCE TRIANGLES, REFER TO TRAFFIC REPORT FOR FINAL CONDITION. NO OBJECTS ARE PERMITTED BETWEEN 2' TO 7.5' ABOVE PAVEMENT SURFACE INCLUDING STREET TREES AND OTHER VEGETATION.

EXISTING PARK TRAIL

LAKEMONT BLVD

STREAM 3

N

HORIZ. 0 20 40 80
Scale In Feet

16-143970-LK

PLANT SCHEDULE

SYMBOL	BOTANICAL NAME/COMMON NAME	SIZE/CONDITIONS

STREET AND PARK PLANT PALETTE

	ACER PLATANOIDES / NORWAY MAPLE	1-1/2" CAL. B&B
	ACER X FREEMANII 'SCARCEN' / SCARLET SENTINEL MAPLE	1-1/2" CAL. B&B
	CORNUS X NUTTALLII 'EDDIE'S WHITE WONDER' / HYBRID DOGWOOD	1-1/2" CAL. B&B
	ACER TRUNCATUM X 'WARRENRED' / PACIFIC SUNSET MAPLE	1-1/2" CAL. B&B
	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE' / SERVICEBERRY	1-1/2" CAL. B&B
	PICEA OMORIKA / SERBIAN SPRUCE	6'-8' HT. B&B
	LARIX OCCIDENTALIS / WESTERN LARCH	6'-8' HT. B&B
	CHAMAECYPARIS OBTUSA 'GRACILIS' DWARF HINOKI CYPRESS	4' HT. B&B

SHRUBS
LAVANDULA ANGUSTIFOLIA 'HIDCOTE' / LAVENDER
SENECIO GREYI 'SUNSHINE' / SENECIO
JUNIPERUS SQUAMATA 'BLUE STAR' / BLUE STAR JUNIPER
LONICERA PILEATA / BOX-LEAF HONEYSUCKLE
SPIRAEA JAPONICA 'LITTLE PRINCESS' / DWARF SPIREA
RHODODENDRON 'NOBLE MOUNTAIN' / DWARF EVERGREEN AZALEA
VIBURNUM DAVIDII / DAVID'S VIBURNUM
PINUS MUGO 'PUMILIO' / DWARF MUGO PINE
HYDRANGEA QUERCIFOLIA 'PEE WEE' / DWARF OAKLEAF HYDRANGEA
VIBURNUM x BODNANTENSE 'DAWN' / DAWN VIBURNUM
ARBUTUS UNEDO 'COMPACTA' / DWARF STRAWBERRY TREE
ABELIA 'EDWARD GOUCHER' / GLOSSY ABELIA
ILEX CRENATA 'CONVEXA' / JAPANESE HOLLY

GROUND COVERS
RUBUS PENTALOBUS / CREEPING BRAMBLE
ERICA CARNEA 'PORTER'S RED' / WINTER HEATH
MISC. PERENNIALS & GRASSES

TURF LAWN

NATIVE PLANT PALETTE

	PSEUDOTSUGA MENZIESII / DOUGLAS FIR	5'-6' HT. B&B
	THUJA PLICATA / WESTERN RED CEDAR	5'-6' HT. B&B
	TSUGA HETEROPHYLLA / WESTERN HEMLOCK	5'-6' HT. B&B
	ACER CIRCINATUM / VINE MAPLE	5'-6' HT. B&B 3 TRUNKS MIN.

SHRUBS
OEMLERIA CERASIFORMIS / INDIAN PLUM
PHYSOCARPUS CAPITATUS / PACIFIC NINEBARK
RHODODENDRON MACROPHYLLUM / PACIFIC RHODODENDRON
SAMBUCUS RACEMOSA / RED ELDERBERRY
SYMPHORICARPOS ALBUS / SNOWBERRY
MAHONIA AQUIFOLIUM / TALL OREGON GRAPE
VACINIUM OVATUM / EVERGREEN HUCKLEBERRY
CORYLUS CORNUTA / WESTERN HAZELNUT
CORNUS SERICEA / RED OSIER DOGWOOD
MYRICA CALIFORNICA / PACIFIC WAXMYRTLE
PHILADELPHUS LEWISII / MOCK ORANGE
RIBES SANGUINEUM / RED FLOWERING CURRANT

GROUND COVERS
MAHONIA NERVOSA / CASCADE MAHONIA
ASARUM CAUDATUM / WESTERN WILD GINGER
GAULTHERIA SHALLON / SALAL
OXALIS OREGONA / EVERGREEN REDWOOD SORREL
CORNUS CANADENSIS / BUNCHBERRY
FRAGARIA CHILOENSIS / BEACH STRAWBERRY
ARCTOSTAPHYLOS UVA-URSI / KINNIKINNICK

FERNS
POLYSTICHUM MUNITUM / SWORD FERN
ADIANTUM ALEUTICUM / MAIDENHAIR FERN
BLECHNUM SPICANT / DEER FERN
ATHYRIUM FILIX-FEMINA / LADY FERN

PERENNIALS
AQUILEGIA FORMOSA / WESTERN COLUMBINE
VANCOUVERIA HEXANDRA / INSIDE-OUT FLOWER

LEGEND:
- ASPHALT PAVING
- CONCRETE PAVING
- PERVIOUS PAVEMENT
- SOFT SURFACE TRAIL
- PEDESTRIAN SIGHT DISTANCE TRIANGLES PER STD PLAN RL-120-1, NO OBJECTS ARE PERMITTED 1' ABOVE PAVEMENT SURFACE.
- PRELIMINARY VEHICLE SIGHT DISTANCE TRIANGLES, REFER TO TRAFFIC REPORT FOR FINAL CONDITION ON LAKEMONT BLVD. PER STD. DETAIL RL-110-1 FOR ROAD A AND ROAD B INTERSECTIONS.

SYM	REVISION	DATE
	RESPOND TO CITY REVIEW COMMENTS	6/6/18
	ADDITION OF PRELIMINARY PLAT	8/16/19
	RESPOND TO CITY COMMENTS/REMOVE PRELIMINARY PLAT	11/30/20
	REVISED PER CITY OF BELLEVUE TRAFFIC COMMENTS	2/23/21
	REVISED PER CITY OF BELLEVUE UTILITY COMMENTS	4/2/21

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STATE OF WASHINGTON
BRIAN MAY
NUMBER 833 EXPIRES 10/21/2021
REGISTERED LANDSCAPE ARCHITECT

ISOLA HOMES
13555 SE 36TH ST SUITE 320
BELLEVUE, WA 98006
206.582.7900

PARK POINTE PUD
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE WASHINGTON

PRELIMINARY LANDSCAPE PLAN

SCALE: AS NOTED	DATE: 4/2/21
DESIGNED BY: SS	CHECKED BY: JA
JOB NUMBER 15436	
SHEET: L1	
SHEET 16 OF 17	

FILE NAME: P:\P15\15436 LAKEMONT PROPERTY FEASIBILITY\CAD\ENGINEERING\SHEETS\PARK POINT PUD\P15436_LP.DWG
USER NAME: JACOBS, JAMES PLOT DATE: 4/2/2021 PLOT TIME: 2:47:24 PM
XREF FILES: X15436_BASE_DEMO.dwg X15436_24x36-BDR.dwg X15436_JMATCH.dwg X15436_SD.dwg X15436_FG.dwg X15436_SS.dwg X15436_WA.dwg X15436_SITE.dwg X15436_CAO_PROPOSED.dwg X15436_LP.dwg

DSD - 000152

855 DIAMETER INCHES RETAINED IN DEVELOPMENT AREA DESIGNATED AS WILDLIFE CORRIDOR PUD CONSERVATION FEATURE AND PROTECTED IN NGPA (DIAMETER OF ALDER AND COTTONWOOD TREE SPECIES HAVE BEEN REDUCED BY 50%)

736.2'

STREAM 2

BUFFER ENHANCEMENT PLANTING AREA AND TRAIL, SEE CRITICAL AREAS REPORT AND MITIGATION PLANS BY TALASAEA.

TREE TO BE REMOVED, TYP.

INTERIOR TREE RETENTION, 5,324 TOTAL DIAMETER INCHES, IN NGPA AREA, SEE ARBORIST REPORT

393.0'

PARCEL Z

ROAD A

COMMON OPEN SPACE / PICNIC TABLES

OPEN SPACE TRACT

BUFFER ENHANCEMENT PLANTING AREA AND TRAIL, SEE CRITICAL AREAS REPORT AND MITIGATION PLANS BY TALASAEA.

ROAD B

LAKEMONT BLVD SE

64.0'

TREE TO BE REMOVED, TYP.

227.7'

COAL CREEK

COAL CREEK NATURAL AREA

MULTI-USE OPEN SPACE AND RECREATION

PARCEL A

TREE #72
20" DBH
PONDEROSA
PINE
EL. 643.39

TREE TO BE REMOVED, TYP.

526.8'

BUFFER ENHANCEMENT PLANTING AREA AND TRAIL, SEE CRITICAL AREAS REPORT AND MITIGATION PLANS BY TALASAEA.

STREAM 3

FOR ADDITIONAL TREE INFORMATION AND PROTECTION MEASURES REFER TO ARBORIST REPORT BY TONY SHOFFNER CONSULTING ARBORIST DATED MAY 21, 2018

Tree Tag	Species	DBH	Crown	Rating	Condition Notes	Status
1	WH/Th	32	44	2	Generally good condition and health, defect free	To be Removed
2	BC/Cpb	8	22	1	Good condition and health, young and vigorous	To be Removed
3	DF/Pm	27	46	2	Generally good condition and health, defect free	To be Removed
4	WH/Th	13	34	1	Good condition and health, young and vigorous	To be Removed
5	DF/Pm	19	36	1	Good condition and health, young and vigorous	To be Removed
6	PP/Pp	23	36	2	Generally good condition and health, defect free	To be Removed
7	DC/Cd	34	46	2	Generally good condition and health, defect free	To be Removed
8	EH/Ia	16	28	1	Good condition and health, young and vigorous	To be Removed
9	EH/Ia	10	14	1	Good condition and health, young and vigorous	To be Removed
10	EH/Ia	10	12	1	Good condition and health, young and vigorous	To be Removed
11	EH/Ia	15	18	1	Good condition and health, young and vigorous	To be Removed
12	WRC/Tp	70	44	3	Two trunks at 8', large and old, somew hat	To be Removed
13	BLM/Am	38		4	Dead	To be Removed
14	BLM/Am	37		4	Dead	To be Removed
15	RA/Ar	17	40	1	Good condition and health, young and vigorous	To be Removed
16	RA/Ar	23	28	2	Generally good condition and health, defect free	To be Removed
17	RA/Ar	25	52	2	Generally good condition and health, defect free	RETAINED
18	RA/Ar	15	34	1	Good condition and health, young and vigorous	To be Removed
19	RA/Ar	15	30	1	Good condition and health, young and vigorous	To be Removed
20	RA/Ar	10	24	1	Good condition and health, young and vigorous	To be Removed
21	RA/Ar	10	24	1	Good condition and health, young and vigorous	To be Removed
22	RA/Ar	10	24	1	Good condition and health, young and vigorous	To be Removed
23	RA/Ar	10	24	1	Good condition and health, young and vigorous	To be Removed
24	RA/Ar	10	24	1	Good condition and health, young and vigorous	To be Removed
25	RA/Ar	10	24	1	Good condition and health, young and vigorous	To be Removed
26	RA/Ar	10	24	1	Good condition and health, young and vigorous	To be Removed
27	RA/Ar	9	20	1	Good condition and health, young and vigorous	To be Removed
28	RA/Ar	10		4	Dead	To be Removed
29	RA/Ar	12	20	1	Good condition and health, young and vigorous	To be Removed
30	RA/Ar	12	20	1	Good condition and health, young and vigorous	To be Removed
31	RA/Ar	17	32	1	Good condition and health, young and vigorous	To be Removed
32	RA/Ar	17	24	4	Dying	To be Removed
33	RA/Ar	17	32	1	Good condition and health, young and vigorous	To be Removed
34	RA/Ar	17	32	1	Good condition and health, young and vigorous	To be Removed
35	RA/Ar	14	26	1	Good condition and health, young and vigorous	To be Removed
36	RA/Ar	14	26	1	Good condition and health, young and vigorous	To be Removed
37	RA/Ar	14	26	4	Dying	To be Removed
38	RA/Ar	14	26	1	Good condition and health, young and vigorous	To be Removed
39	RA/Ar	12	20	1	Good condition and health, young and vigorous	To be Removed
40	RA/Ar	20	32	2	Generally good condition and health, defect free	To be Removed
41	RA/Ar	22	36	2	Generally good condition and health, defect free	To be Removed
43	RA/Ar	15	28	1	Good condition and health, young and vigorous	To be Removed
44	RA/Ar	14	28	1	Good condition and health, young and vigorous	To be Removed
45	RA/Ar	14	20	1	Good condition and health, young and vigorous	To be Removed
46	RA/Ar	14	28	1	Good condition and health, young and vigorous	To be Removed
47	RA/Ar	12	28	1	Good condition and health, young and vigorous	To be Removed
48	RA/Ar	18	28	1	Good condition and health, young and vigorous	To be Removed
49	RA/Ar	15	34	1	Good condition and health, young and vigorous	To be Removed
50	RA/Ar	14		4	Dead	To be Removed
51	RA/Ar	14	20	1	Good condition and health, young and vigorous	RETAINED
52	BLM/Am	12	32	1	Good condition and health, young and vigorous	RETAINED
53	RA/Ar	12	24	1	Good condition and health, young and vigorous	RETAINED
54	RA/Ar	18	24	1	Good condition and health, young and vigorous	RETAINED
55	RA/Ar	10	20	1	Good condition and health, young and vigorous	RETAINED
56	RA/Ar	14	20	1	Good condition and health, young and vigorous	To be Removed
57	RA/Ar	12	16	1	Good condition and health, young and vigorous	To be Removed
58	RA/Ar	14	20	1	Good condition and health, young and vigorous	RETAINED
59	RA/Ar	14	24	1	Good condition and health, young and vigorous	RETAINED
60	BLM/Am	23	46	2	Generally good condition and health, defect free	RETAINED
61	RA/Ar	10	24	1	Good condition and health, young and vigorous	To be Removed
62	LC/Cl	24	18	2	Generally good condition and health, defect free	To be Removed
Tree Tag	Species	DBH	Crown	Rating	Condition Notes	Status
63	MA/Sa	14	26	1	Good condition and health, young and vigorous	To be Removed
64	SS/Ps	18	24	1	Good condition and health, young and vigorous	To be Removed
65	MA/Sa	16	14	1	Good condition and health, young and vigorous	To be Removed
66	L/Ls	19	30	1	Good condition and health, young and vigorous	To be Removed
67	WRC/Tp	55	44	2	Generally good condition and health, defect free	To be Removed
68	Ap/Md	23	38	2	Generally good condition and health, defect free	To be Removed
69	SS/Ps	22	28	2	Generally good condition and health, defect free	To be Removed
70	PP/Pp	20	30	2	Generally good condition and health, defect free	To be Removed
71	PP/Pp	12	20	1	Good condition and health, young and vigorous	To be Removed
72	PP/Pp	20	36	2	Generally good condition and health, defect free	RETAINED
73	PP/Pp	12	16	1	Good condition and health, young and vigorous	To be Removed
74	SS/Ps	25	36	2	Generally good condition and health, defect free	To be Removed
75	SS/Ps	15	24	1	Good condition and health, young and vigorous	To be Removed
76	DF/Pm	36	48	3	Multi-trunked, fair condition	To be Removed
77	DF/Pm	21	44	2	Generally good condition and health, defect free	To be Removed
78	PP/Pp	11	26	1	Good condition and health, young and vigorous	To be Removed
79	DF/Pm	32	44	2	Generally good condition and health, defect free	To be Removed
80	DF/Pm	22	36	2	Generally good condition and health, defect free	To be Removed
81	DF/Pm	25	46	2	Generally good condition and health, defect free	To be Removed
82	SS/Ps	23	48	2	Generally good condition and health, defect free	To be Removed
84	WH/Th	8	30	1	Good condition and health, young and vigorous	To be Removed
85	WRC/Tp	17	24	1	Good condition and health, young and vigorous	To be Removed
86	PP/Pp	12	30	1	Good condition and health, young and vigorous	RETAINED
87	WRC/Tp	22	32	2	Generally good condition and health, defect free	RETAINED
88	WRC/Tp	23	34	2	Generally good condition and health, defect free	RETAINED
89	BLM/Am	23	80	2	Generally good condition and health, defect free	RETAINED
90	RA/Ar	17	34	1	Good condition and health, young and vigorous	RETAINED
91	RA/Ar	17	36	1	Good condition and health, young and vigorous	RETAINED
92	DF/Pm	23	42	2	Generally good condition and health, defect free	RETAINED
93	DF/Pm	23	36	2	Generally good condition and health, defect free	RETAINED
94	DF/Pm	13	28	1	Good condition and health, young and vigorous	RETAINED
95	WRC/Tp	18	24	1	Good condition and health, young and vigorous	To be Removed
96	DF/Pm	22	42	2	Generally good condition and health, defect free	RETAINED

1710

Tree Tag # Number assigned to tree on survey tag

Species Species code:
- Ap/Md=Apple (Malus domestica)
- BC/Cpb=Boulevard cypress (Chamaecyparis pisifiera 'boulevard')
- BLM/Am=Big-leaf maple (Acer macrophyllum)
- DC/Cd=Deodar cedar (Cedrus deodars)
- DF/Pm=Douglas fir (Pseudotsuga menziesii)
- EH/Ia=English holly (Ilex aquifolium)
- L/Ls=Larch (Larix species)
- LC/Cl=Law son's cypress (Chamaecyparis law soniana)
- MA/Sa=Mountain ash (Sorbus aucuparia)
- PP/Pp=Ponderosa pine (Pinus ponderosa)
- RA/Ar=Red alder (Alnus rubra)
- SS/Ps=Sitka spruce (Picea sitchensis)
- WH/Th=Western hemlock (Tsuga heterophylla)
- WRC/Tp=Western red cedar (Thuja plicata)

Dbh Diameter at 4.5' above ground surface

Crown diameter Maximum diameter of crown spread in feet

Rating Condition rating (1=Excellent condition and health; 2=Generally good condition and health; 3=fair condition and health, minor defects or stress 4=Poor condition and/or health)

Condition Notes General notes about health, condition and vigor

Status To be removed or retained

TREE 72 TO BE RETAINED AND PROTECTED. TREE WILL BE EVALUATED BY THE ARBORIST DURING FINAL DESIGN FOR POTENTIAL IMPACTS

HORIZ. 0 20 40 80
Scale In Feet

16-143970-LK

DATE	REVISION	SYM
6/6/18	RESPOND TO CITY REVIEW COMMENTS	
8/16/19	ADDITION OF PRELIMINARY PLAT	
11/30/20	RESPOND TO CITY COMMENTS/REMOVE PRELIMINARY PLAT	
2/23/21	REVISED PER CITY OF BELLEVUE TRAFFIC COMMENTS	
4/2/21	REVISED PER CITY OF BELLEVUE UTILITY COMMENTS	

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Civil | Structural | Planning | Survey
pacaengrs.com

STATE OF WASHINGTON
BRIAN JA
CERTIFICATE NO. 830 EXPIRES 2/23/2021
REGISTERED LANDSCAPE ARCHITECT

ISOLA HOMES
13555 SE 36TH ST SUITE 320
BELLEVUE, WA 98006
206.582.7900

PARK POINTE PUD
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE WASHINGTON

TREE RETENTION PLAN

SCALE:	DATE:
AS NOTED	4/2/21
DESIGNED BY:	CHECKED BY:
SS	JA

JOB NUMBER 15436

SHEET: L3

SHEET 17 OF 17

FILE NAME: P:\P15\15436 LAKEMONT PROPERTY FEASIBILITY\CAD\ENGINEERING\SHEETS\P ARK POINT PUD\P15436_TREE.DWG
USER NAME: AMBER LAMB DATE/TIME: 2021-04-02 11:24 AM
XREF FILES: X15436_BASE_DEMO.dwg X15436_24x36-BDR.dwg X15436_ATTACH.dwg X15436_SD.dwg X15436_FG.dwg X15436_SS.dwg X15436_WA.dwg X15436_SITE.dwg X15436_CAO_PROPOSED.dwg X15436_LP.dwg X15436_ED.dwg

TOPOGRAPHIC SURVEY

LEGAL DESCRIPTION

PARCEL #262405-9019
PER OLD REPUBLIC NATIONAL TITLE INSURANCE CO. ORDER NO. 5207131706, DATED AUGUST 31, 2015.

THE SOUTHERLY 356 FEET OF THE NORTHERLY 680 FEET OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 26, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M. LYING WEST OF EDWARD LEIFHELM ROAD;
EXCEPT THE WESTERLY 215 FEET THEREOF;
EXCEPT ANY PORTION THEREOF LYING WESTERLY OF THE THREAD OF AN UNNAMED CREEK, AS CONVEYED TO KING COUNTY BY INSTRUMENT RECORDED MAY 29, 1987 UNDER RECORDING NO. 8602270567.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

SPECIAL EXCEPTIONS:
ITEM #8 & #9
TERMS AND PROVISIONS AS CONTAINED IN AN INSTRUMENT,
ENTITLED : DEED
EXECUTED BY : PACIFIC COAST COAL COMPANY
RECORDED : JULY 24, 1942 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 3254208
"NOT PLOTTED – BLANKET IN NATURE"

ITEM #10
AN EASEMENT AFFECTING THAT PORTION OF SAID LAND AND FOR THE PURPOSES STATED HEREIN AND INCIDENTAL PURPOSES AS PROVIDED IN THE FOLLOWING
GRANTED TO : KING COUNTY
FOR : SLOPES FOR CUTS AND FILLS
RECORDED : OCTOBER 18, 1962 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 5494713
AFFECTS : PORTION ADJOINING THE ROAD
"NOT PLOTTED – BLANKET IN NATURE"

ITEM #11
TERMS AND PROVISIONS AS CONTAINED IN AN INSTRUMENT,
ENTITLED : STATEMENT OF CLAIM OF MINERAL INTEREST (CONTINUING)
EXECUTED BY : PALMER COKING COAL COMPANY, A WASHINGTON PARTNERSHIP
DATED : MAY 11, 2005
RECORDED : MAY 19, 2005 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 20050519001622
"NOT PLOTTED – BLANKET IN NATURE"

BASIS OF BEARINGS

NAD 83(2011) WASHINGTON NORTH COORDINATE SYSTEM
PER CITY OF BELLEVUE CONTROL LINE BETWEEN POINTS #1407 AND #1405 BEARS N 07°58'42" W

REFERENCES

1. RECORD OF SURVEY BOOK 107, PG 39, 39A, RECORDS OF KING COUNTY, WASHINGTON.
2. CITY OF BELLEVUE SURVEY CONTROL NETWORK.

VERTICAL DATUM

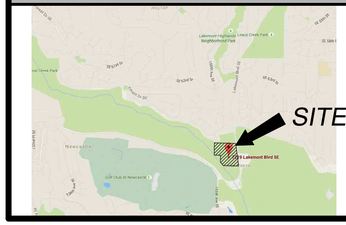
NAVD 88 PER CITY OF BELLEVUE CONTROL PT V280, ELEV=732.168'

SURVEYOR'S NOTES

1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN SEPTEMBER OF 2015, APRIL OF 2016 & MARCH OF 2017. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEVATIONS.
2. BURIED UTILITIES SHOWN BASED ON RECORDS FURNISHED BY OTHERS AND VERIFIED WHERE POSSIBLE IN THE FIELD. GEODIMENSIONS ASSUMES NO LIABILITY FOR THE ACCURACY OF THOSE RECORDS OR ACCEPT RESPONSIBILITY FOR UNDERGROUND LINES WHICH ARE NOT MADE PUBLIC RECORD. FOR THE FINAL LOCATION OF EXISTING UTILITIES IN AREAS CRITICAL TO DESIGN CONTACT THE UTILITY OWNER/AGENCY. AS ALWAYS, CALL 1-800-424-5555 BEFORE CONSTRUCTION.
3. SUBJECT PROPERTY TAX PARCEL NO. 26245-9019 & 262405-9022.
4. SUBJECT PROPERTY AREA PER THIS SURVEY IS 535,222± S.F. (12.3± ACRES)
5. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST THAT ARE NOT SHOWN HEREON.
6. INSTRUMENTATION FOR THIS SURVEY WAS A TRIMBLE ELECTRONIC DISTANCE MEASURING UNIT. PROCEDURES USED IN THIS SURVEY WERE DIRECT AND REVERSE ANGLES, NO CORRECTION NECESSARY. MEETS STATE STANDARDS SET BY WAC 332-130-090.

VICINITY MAP

N.T.S.



LEGAL DESCRIPTION

PARCEL #262405-9022
PER OLD REPUBLIC NATIONAL TITLE INSURANCE CO. ORDER NO. 5216013607, DATED APRIL 8, 2015.

THAT PORTION OF SECTION 26, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

THE NORTH 324 FEET OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER LYING WEST OF THE EDWARD LEIFHELM ROAD SURVEY #1344 BEING BOUND ON THE SOUTH BY NORTH LINE OF TRACT OF LAND CONVEYED BY PACIFIC COAST COAL CO. TO ERNEST SWANSON BY DEED DATED JULY 15, 1942 AND RECORDED IN VOLUME 2066 OF DEEDS, PAGES 475 AND 476, AND THE EXTENSION OF SAID NORTH LINE OF THE ERNEST SWANSON PROPERTY EXTENDED WEST; ALSO THE SOUTH 100 FEET OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER LYING WEST OF THE EDWARD LEIFHELM CO. ROAD SURVEY #1344;

EXCEPT ANY PORTION LYING WESTERLY OF THE THREAD OF AN UNNAMED STREAM, TO-WIT

BEGINNING AT THE CENTER OF SECTION 26, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON; THENCE NORTH 01°04'35"EAST ALONG THE NORTH-SOUTH CENTERLINE OF SAID SECTION 26, A DISTANCE OF 100 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 16°27'31" EAST 445.05 FEET; THENCE NORTH 88°46'03" WEST, PARALLEL TO THE EAST-WEST CENTERLINE OF SAID SECTION, 134.09 FEET TO SAID NORTH-SOUTH CENTERLINE; THENCE NORTH 01°04'35" EAST 424.00 FEET, ALONG SAID NORTH-SOUTH CENTERLINE, TO THE TRUE POINT OF BEGINNING, AS CONVEYED TO KING COUNTY BY DEED RECORDED UNDER KING COUNTY RECORDING NO. 8602270565.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

SPECIAL EXCEPTIONS:
ITEM #8
AN EASEMENT AFFECTING THAT PORTION OF SAID LAND AND FOR THE PURPOSES STATED HEREIN AND INCIDENTAL PURPOSES AS PROVIDED IN THE FOLLOWING
GRANTED TO : PUGET SOUND POWER AND LIGHT COMPANY
FOR : POWER TRANSMISSION POLE LINES
RECORDED : OCTOBER 27, 1939 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 3070389
AFFECTS : THE DESCRIPTION CONTAINED THEREIN IS NOT SUFFICIENT TO DETERMINE ITS EXACT LOCATION WITHIN THE PROPERTY HEREIN DESCRIBED
"NOT PLOTTED – AS CONSTRUCTED"

ITEM #9
TERMS AND PROVISIONS AS CONTAINED IN AN INSTRUMENT,
ENTITLED : EXCEPTIONS AND RESERVATIONS CONTAINED IN DEED
EXECUTED BY : PACIFIC COAST COAL COMPANY
RECORDED : JUNE 24, 1949 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 3913538

STATEMENT OF CLAIM OF MINERAL INTEREST AS A CONTINUING CLAIM UPON SAID REAL ESTATE DATED APRIL 12, 2005, RECORDED APRIL 19, 2005 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 20050419000925.

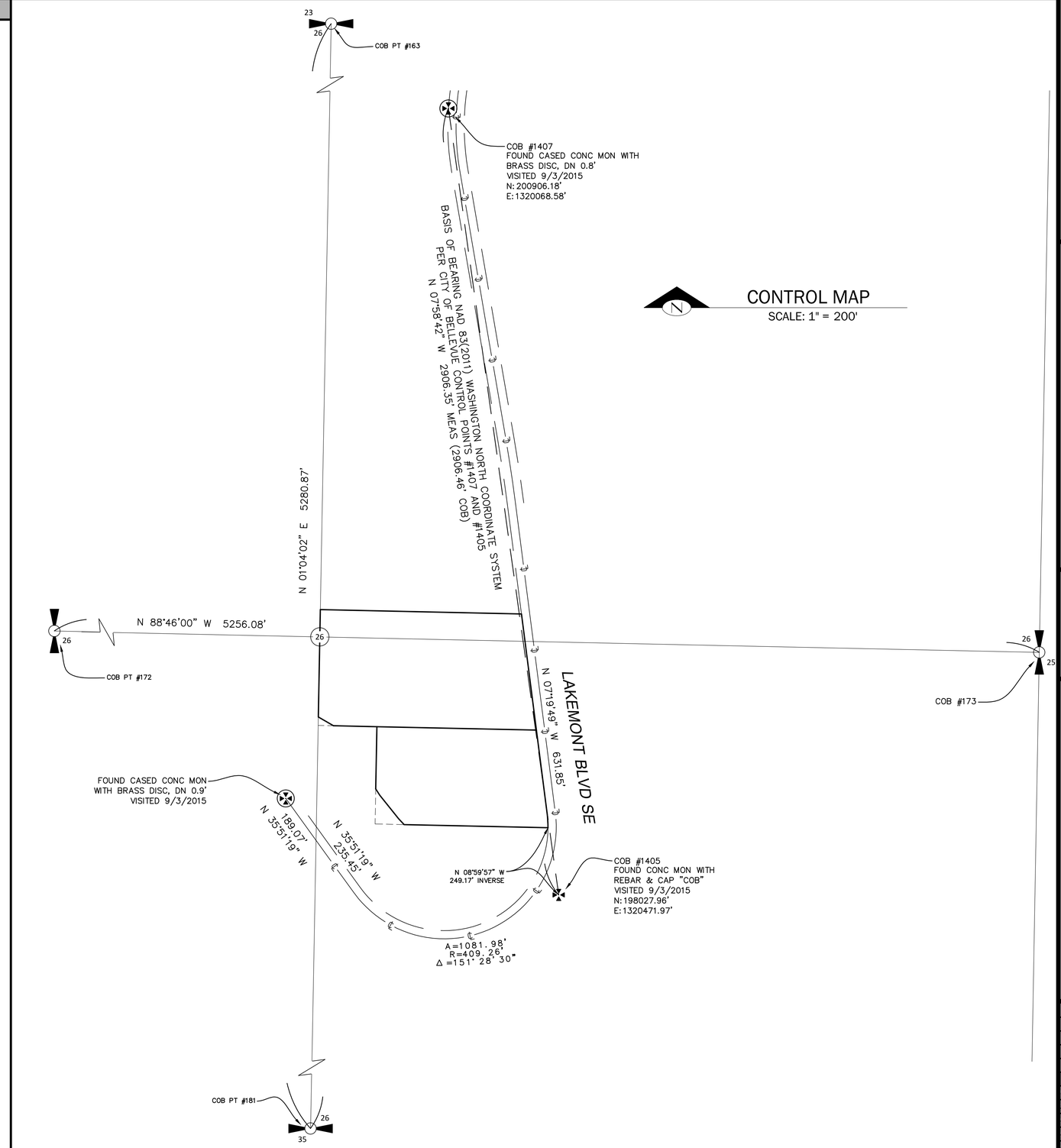
THE ABOVE MATTER IS ALSO RECORDED MAY 19, 2005 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 20050519001620.
"NOT PLOTTED – BLANKET IN NATURE"

ITEM #10
AN EASEMENT AFFECTING THAT PORTION OF SAID LAND AND FOR THE PURPOSES STATED HEREIN AND INCIDENTAL PURPOSES AS PROVIDED IN THE FOLLOWING
GRANTED TO : KING COUNTY
FOR : SLOPES FOR CUTS OR FILLS
RECORDED : SEPTEMBER 19, 1962 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 5481732
"NOT PLOTTED – BLANKET IN NATURE"

ITEM #11
COVENANTS, CONDITIONS AND RESTRICTIONS, BUT OMITTING ANY COVENANTS OR RESTRICTIONS IF ANY, BASED UPON RACE, COLOR, RELIGION, SEX, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN UNLESS AND ONLY TO THE EXTENT THAT SAID COVENANT (A) IS EXEMPT UNDER TITLE 42, SECTION 3607 OF THE UNITED STATES CODE OR (B) RELATES TO HANDICAP BUT DOES NOT DISCRIMINATE AGAINST HANDICAPPED PERSONS, AS PROVIDED IN AN INSTRUMENT.
RECORDED : FEBRUARY 27, 1986 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 8602270568
"PLOTTED"

12. TERMS AND PROVISIONS AS CONTAINED IN AN INSTRUMENT, ENTITLED : NOTICE OF ON-SITE SEWAGE SYSTEM OPERATION AND MAINTENANCE REQUIREMENTS
RECORDED : DECEMBER 12, 2005 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 20051212000275
"NOT SURVEY RELATED"

13. TERMS AND PROVISIONS AS CONTAINED IN AN INSTRUMENT, ENTITLED : CRITICAL AREA NOTICE
RECORDED : AUGUST 31, 2006 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 20060831002323
"NOT SURVEY RELATED"



3/15/17 ADD'L TOPO

measure success

TOPOGRAPHIC SURVEY
SW 1/4 OF NE 1/4 & NW 1/4 OF SE 1/4, SEC 26, TWP 24N, R 5E, W.M.
TAX PARCEL NO. 262405-9022 & 262405-9019

ISOLA HOMES
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE, WA

Terrane
10801 Main Street, Suite 102, Bellevue, WA 98004
phone 425.458.4488 support@terrane.net
www.terrane.net

JOB NUMBER:	151150
DATE:	9/15/15
DRAFTED BY:	TLR
CHECKED BY:	SRM
SCALE:	1"= 200'

REVISION HISTORY	
9/28/15	TITLE REPORTS
2/9/16	ADD STREAM 3
5/5/16	ADD OFFSITE ROAD
5/19/16	CORRECT AREAS
6/13/16	ADDL TOPO PTS

SHEET NUMBER
1 OF 3

DSD - 000154

TOPOGRAPHIC SURVEY

(IN FEET)
1 inch = 40 ft.

LEGEND

- AREA DRAIN
- #XX TREE ID NUMBER (SEE ARBORIST REPORT)
- ASPHALT SURFACE
- BENCHMARK
- BUILDING
- CENTERLINE ROW
- CONCRETE PIPE END
- CONCRETE SURFACE
- DECK
- DITCH (FLOWLINE)
- FENCE LINE (CHAIN LINK/WIRE)
- FENCE LINE (WOOD)
- FIRE HYDRANT
- GUARD RAIL
- G GAS LINE
- G GAS METER
- GAS VALVE
- MB MAILBOX
- MONUMENT IN CASE (FOUND)
- MONUMENT (SURFACE, FOUND)
- P POWER METER
- P POWER (OVERHEAD)
- UP POWER (UNDERGROUND)
- PP POWER POLE
- PP POWER POLE W/ LIGHT
- REBAR AS NOTED (FOUND)
- SIGN
- SEWER MANHOLE
- STORM LINE
- STORM CATCHBASIN
- UT TELEPHONE LINE (UNDERGROUND)
- TEL TELEPHONE SENTRY
- SIZE TYPE TREE (AS NOTED)
- W WATER LINE
- WV WATER VALVE
- WETLAND AREA
- WETLAND FLAG
- YARD LIGHT
- CP CONCRETE PIPE
- PV POWER VAULT

FOUND REBAR & CAP "CEI 28101" 0.18' S, 0.05' E

FOUND IRON PIPE UP 2.5' 4.22' W OF LINE

N 88°46'00" W 736.17'

MATCH LINE "A"

24" CONC IE=635.24

WETLAND AREA "AA"

24" CONC IE=648.72

FD REBAR & CAP "CI 28101" @ OLD R/W

FD REBAR & CAP "CI 28101"

OLD R/W LINE

ORDINARY HIGH WATER MARK DELINEATED BY TALASAEA CONSULTANTS, INC. IN AUGUST OF 2015

NE 1/4 SEC 26-24-5

SE 1/4 SEC 26-24-5

WETLAND AREA "A"

TOP OF SLOPE

TOE OF SLOPE

LAKEMONT BLVD SE

N 01°04'02" E 393' +/- TO THREAD OF STREAM

N 18°58'34" W 445.07'

AREA RESTRICTED PER RECORDING NO 8602270568

TAX PARCEL 262405-9022 324,544 SF (7.45 AC)

WOOD STAIRS

FF=656.05

HOUSE #7219

FF=649.3'

UPPER DECK

CONCRETE

N 07°19'49" W 631.85'

12" CONC IE=658.17

12" CONC IE=657.74

PROPERTY LINE IS THREAD OF UNNAMED CREEK

N 88°46'00" W 159' +/- TO THREAD OF STREAM

N 88°46'00" W 583.79'

N 88°46'00" W 743' +/-

WOOD FENCE

WELL HOUSE IN CHAINLINK FENCE

C/L CREEK

FOUND REBAR & CAP "CEI 28101" 0.02' S, 1.20' W OF CORNER OF RESTRICTED AREA

WIRE FENCE

WETLAND FLAGS FLAGGED 4/29/16

N 01°04'02" E 268.36'

N 01°04'02" E 356.00'

S 37°03'23" W 425.89'

GRAVEL PATH

AREA RESTRICTED PER RECORDING NO 8602270566 8705290143

SHED

CONC WALLS

PROPERTY LINE IS THREAD OF UNNAMED CREEK

232.72'

MINE ENTRANCE

GRAVEL PATH

STREAM 3 OHWM DELINEATED BY TALASAEA CONSULTANTS IN DEC OF 2015 FLAGS LOCATED BY GEODIMENSIONS 2-4-16

WF14 WF13 WF12 WF11 WF10 WF9 WF8 WF7 WF6 WF5 WF4 WF3 WF2 WF1

N 88°46'00" W 526' +/-

TAX PARCEL 262405-9019 210,678± SF (4.84 AC)

SHED ON CONC PAD

BARN

ROW OF TRANSFORMERS BETWEEN POLES

12"CP IE=653.16

12"CP IE=651.58

12"CP IE=649.78

12"CP IE=649.09

APPROX. LOCATION PER PSE MAPPING

WD FENC ON CONC WALL

GRAVEL

GARAGE

CONC WALK

HOUSE #7331

FF=632.2'

DECK

CROSSING AHEAD

12" CONC IE=648.22

DITCH C/L

24" CONC IE=646.52

NO PARKING ANY TIME

24" CONC IE=641.89

Δ=7°41'54"
R=379.26'
L=50.96'

30' R/W

3/15/17 ADD'L TOPO

measure success

TOPOGRAPHIC SURVEY
SW 1/4 OF NE 1/4 & NW 1/4 OF SE 1/4, SEC 26, TWP 24N, R 5E, W.M.
TAX PARCEL NO. 262405-9022 & 262405-9019

ISOLA HOMES
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE, WA

LAFAYETTE-MILLER SEAN A. MILLER STATE OF WASHINGTON 21578 REGISTERED PROFESSIONAL LAND SURVEYOR

Terrane
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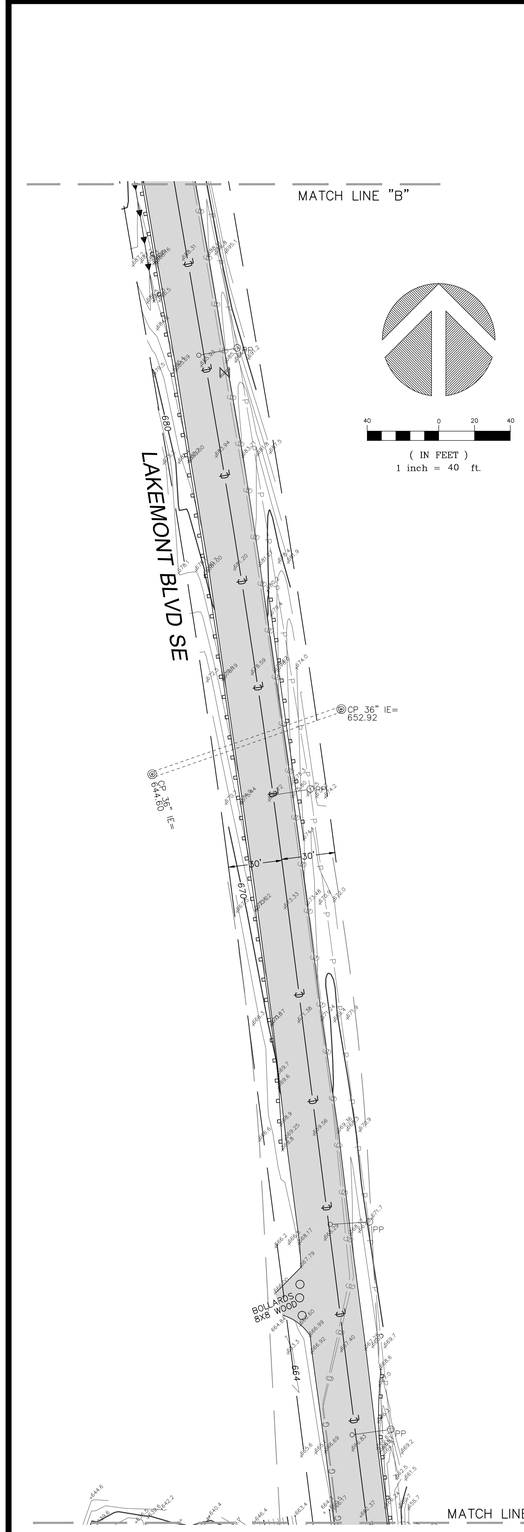
www.terrane.net

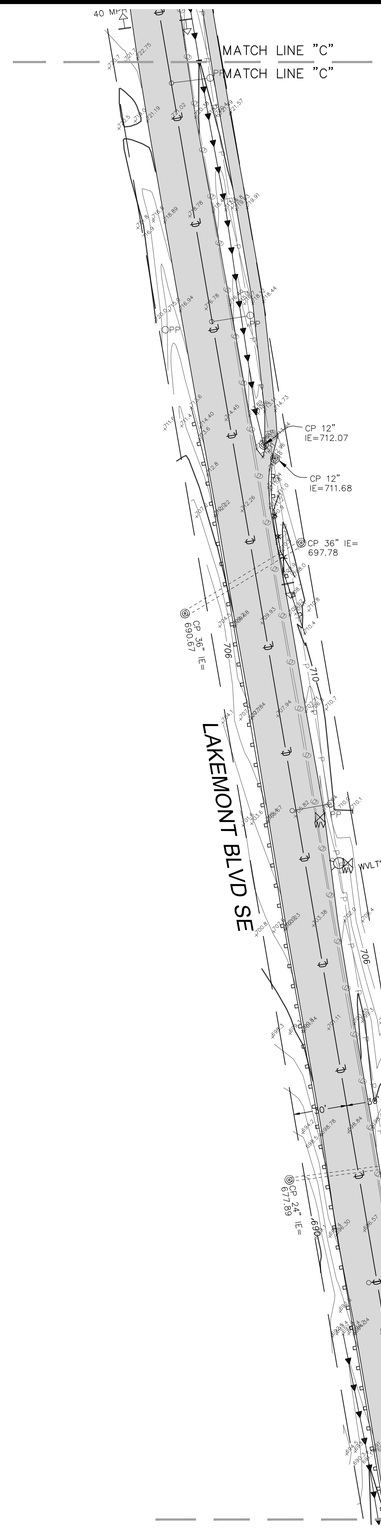
JOB NUMBER:	151150
DATE:	9/15/15
DRAFTED BY:	TLR
CHECKED BY:	SRM
SCALE:	1"= 40'

REVISION HISTORY	
9/28/15	RESTRICTED AREAS
2/9/16	ADD STREAM 3
5/5/16	ADD OFFSITE ROAD
5/19/16	CORRECT AREAS
6/13/16	ADDL TOPO PTS

SHEET NUMBER
2 OF 3

TOPOGRAPHIC SURVEY





LEGEND

- AREA DRAIN
- #XX TREE ID NUMBER (SEE ARBORIST REPORT)
- ASPHALT SURFACE
- BENCHMARK
- BUILDING
- CENTERLINE ROW
- CONCRETE PIPE END
- CONCRETE SURFACE
- DECK
- DITCH (FLOWLINE)
- FENCE LINE (CHAIN LINK/WIRE)
- FENCE LINE (WOOD)
- FIRE HYDRANT
- GUARD RAIL
- G GAS LINE
- G GAS METER
- GAS VALVE
- MB MAILBOX
- MONUMENT IN CASE (FOUND)
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- REBAR AS NOTED (FOUND)
- SIGN
- SEWER MANHOLE
- SD STORM LINE
- STORM CATCHBASIN
- UT TELEPHONE LINE (UNDERGROUND)
- TEL TELEPHONE SENTRY
- SIZE TYPE TREE (AS NOTED)
- W WATER LINE
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- WETLAND AREA
- WETLAND FLAG
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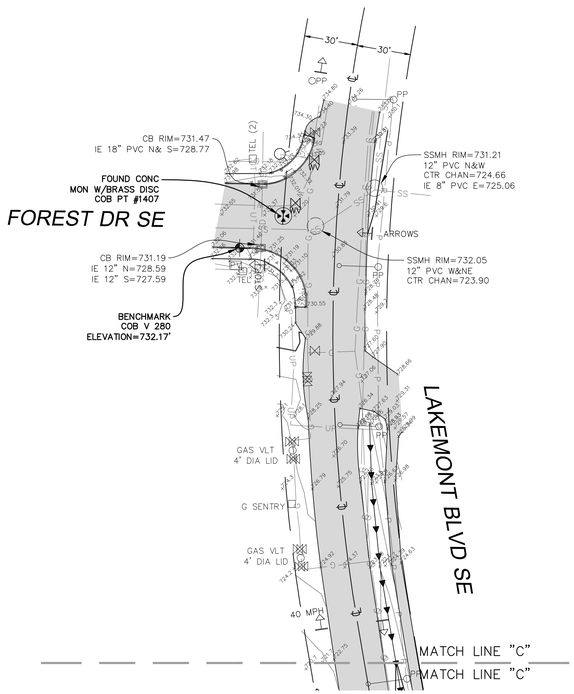


3/15/17 ADD'L TOPO

measure success

TOPOGRAPHIC SURVEY
SW 1/4 OF NE 1/4 & NW 1/4 OF SE 1/4, SEC 26, TWP 24N, R 5E, W.M.
TAX PARCEL NO. 262405-9022 & 262405-9019

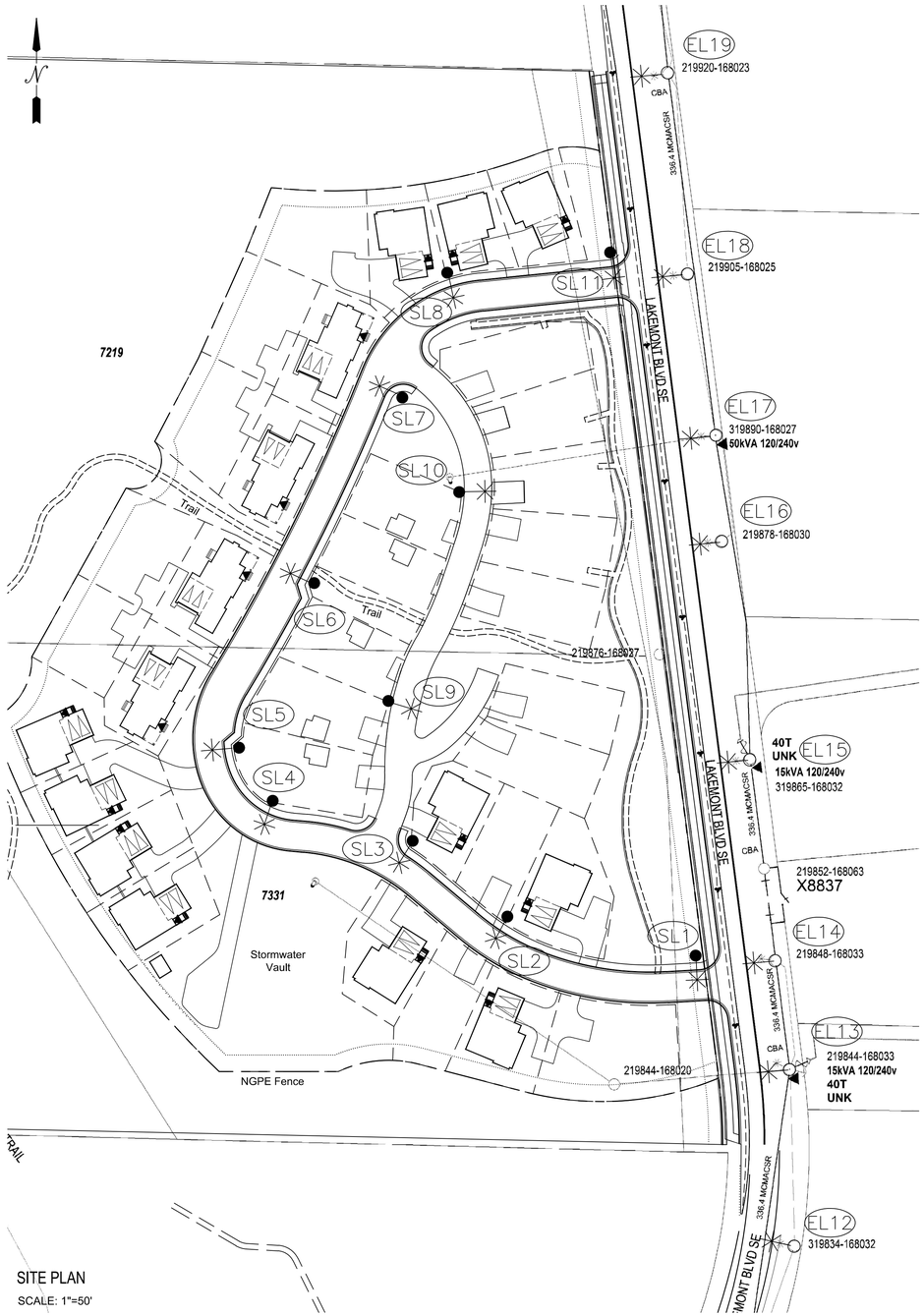
ISOLA HOMES
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE, WA

SEAN A. ROBERTS-MILLER — STATE OF WASHINGTON — 21813 — REGISTERED PROFESSIONAL LAND SURVEYOR
3/17/2017

Terrane
10801 Main Street, Suite 102, Bellevue, WA 98004
phone 425.458.4488 support@terrane.net
www.terrane.net

JOB NUMBER:	151150
DATE:	9/15/15
DRAFTED BY:	TLR
CHECKED BY:	SRM
SCALE:	1"= 40'
REVISION HISTORY	
9/28/15	RESTRICTED AREAS
2/9/16	ADD STREAM 3
5/5/16	ADD OFFSITE ROAD
5/19/16	CORRECT AREAS
6/13/16	ADDL TOPO PTS
SHEET NUMBER	
3 OF 3	

DSD - 000156



SITE PLAN

SCALE: 1"=50'

SCOPE OF PROJECT:

IN PLAT SL1-SL11
INSTALL 11 - 20' RND BLK CONC POLES WITH 60W LED K729 ON BISHOP CROOK ARMS.

DEVELOPER RESPONSIBLE TO INSTALL 4'X18" BLACK CORRUGATED STREET LIGHT TUBES AT ALL STREET LIGHT LOCATIONS.

FRONTAGE EL12-EL19
REMOVE (8) EXISTING HPS CHFL LUMINAIRES AND REPLACED WITH NEW 102W LED CHFL

STREET LIGHT TABLE - IN PLAT

SITE #	POLE					LUMINAIRE		TUBE		WO # (INTOLIGHT)	BILLING SCH.	TOTAL CONN LOAD	NOTES
	GRID #	INTOLIGHT TAG #	TYPE	MTG HT.	ARM	WATTS	STYLE	TUBE LENGTH	TUBE DIAMETER				
SL1	XXXXXX XXXXXX		RND BLK CONC	20'	B.C.	60W	LED K729	4'	18"	105082785	51	120/240	
SL2	XXXXXX XXXXXX		RND BLK CONC	20'	B.C.	60W	LED K729	4'	18"	105082785	51	120/240	
SL3	XXXXXX XXXXXX		RND BLK CONC	20'	B.C.	60W	LED K729	4'	18"	105082785	51	120/240	
SL4	XXXXXX XXXXXX		RND BLK CONC	20'	B.C.	60W	LED K729	4'	18"	105082785	51	120/240	
SL5	XXXXXX XXXXXX		RND BLK CONC	20'	B.C.	60W	LED K729	4'	18"	105082785	51	120/240	
SL6	XXXXXX XXXXXX		RND BLK CONC	20'	B.C.	60W	LED K729	4'	18"	105082785	51	120/240	
SL7	XXXXXX XXXXXX		RND BLK CONC	20'	B.C.	60W	LED K729	4'	18"	105082785	51	120/240	
SL8	XXXXXX XXXXXX		RND BLK CONC	20'	B.C.	60W	LED K729	4'	18"	105082785	51	120/240	
SL9	XXXXXX XXXXXX		RND BLK CONC	20'	B.C.	60W	LED K729	4'	18"	105082785	51	120/240	
SL10	XXXXXX XXXXXX		RND BLK CONC	20'	B.C.	60W	LED K729	4'	18"	105082785	51	120/240	
SL11	XXXXXX XXXXXX		RND BLK CONC	20'	B.C.	60W	LED K729	4'	18"	105082785	51	120/240	

STREET LIGHT TABLE - FRONTAGE CHANGEOUTS

SITE #	POLE			LUMINAIRE			SCHED	W/O #'S	TOTAL CONN LOAD	NOTES
	GRID #	INTOLIGHT TAG #	TYPE	PREVIOUS LUMINAIRE	NEW LUMINAIRE	ARM LENGTH				
EL12	319834 168032	SLAS2919	EXIST WOOD	100W CHFL	60W TIII LED	8'	53		120/240	
EL13	319844 168033	SLAR6307	EXIST WOOD	150W CHFL	60W TIII LED	8'	53		120/240	
EL14	219848 168033	SLAR6306	EXIST WOOD	100W CHFL	60W TIII LED	8'	53		120/240	
EL15	319865 168032	SLAR6305	EXIST WOOD	150W CHFL	60W TIII LED	8'	53		120/240	
EL16	219878 168030	SLAR6304	EXIST WOOD	100W CHFL	60W TIII LED	8'	53		120/240	
EL17	319890 168027	SLAR6303	EXIST WOOD	150W CHFL	60W TIII LED	8'	53		120/240	
EL18	219905 168025	SLAR6302	EXIST WOOD	100W CHFL	60W TIII LED	8'	53		120/240	
EL19	319920 168023	SLAR6301	EXIST WOOD	150W CHFL	60W TIII LED	8'	53		120/240	

EROSION & SEDIMENT CONTROL REQUIREMENTS

EROSION & SEDIMENT CONTROL SHALL BE PER PSE STANDARD PRACTICE 0150.3200 TECHNIQUES FOR TEMPORARY EROSION & SEDIMENT CONTROL & ANY ADDITIONAL LOCAL JURISDICITON REQUIREMENTS. (LOCAL JURISDICTIONS MAY HAVE ADDITIONAL REQUIREMENTS INCLUDING NOTES DETAILING WHERE EROSION OR SEDIMENT CONTROL STRUCTURES ARE TO BE INSTALLED, CROSS SECTION DETAILS OF THE TYPICAL EROSION STRUCTURES, & SPECIAL REQUIREMENTS FOR WORK IN SENSITIVE AREAS.)

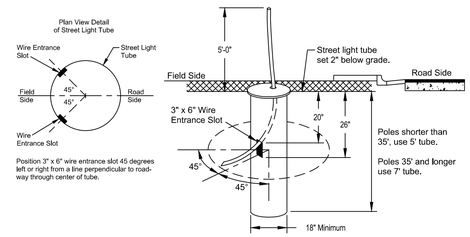
PSE STREET LIGHT NOTES

POTELCO:

1. ALL STREET LIGHTING POLES ARE TO BE INSTALLED PER STANDARD 6375.4800 (page #2) IN THE "LINE WORK PRACTICES MANUAL".
2. ALL POLES (WOOD, CONCRETE OR FIBERGLASS) ARE TO BE SET PLUMB AND EMBEDDED TO THE GROUND LINE MARKED ON THE POLE.
3. BACKFILL AROUND POLE WITH 5/8" MINUS GRAVEL AND COMPACT IN 6" LIFTS. (PEA GRAVEL AND NATIVE SOILS ARE NOT ACCEPTABLE.) APPROXIMATELY 1 CU, YD, OF 5/8" MINUS CRUSHED ROCK WILL BE REQUIRED.
4. IN ALL SHOEBOX AND COBRAHEAD INSTALLATIONS, THE LUMINAIRE MUST BE LEVELED.

DEVELOPER/CUSTOMER:

1. THE DEVELOPER IS REQUIRED TO SUPPLY AND INSTALL PLASTIC (NON PAPER) STREET LIGHT TUBES (MINIMUM 18" DIAMETER) TO AID IN THE INSTALLATION OF THE STREET LIGHTING POLES.
2. DEVELOPER MUST SUPPLY DURABLE LID/COVER AT EACH STREET LIGHT TUBE.
3. DEVELOPER TO PROVIDE ALL TRENCHING AND CONDUIT WITH PULL-STRINGS FOR STREET LIGHTING CIRCUITRY.
4. CONDUIT SHALL BE SCH 40 PVC, CONDUIT CROSSING ROADWAYS OR DRIVEWAYS SHALL BE SCH 80 PVC.



STREET LIGHT TUBE DETAIL

SCALE: NONE

FOREMAN (CHECK BOX WHEN COMPLETED):

- ☐ PSE Equipment LOCKED/SECURED & Work Area left in CLEAN/SAFE Condition.
- ☐ Grid, Cable, and Switch numbers INSTALLED & VERIFIED.
- ☐ Field Changes RED-LINED on As-built.
- ☐ Material VERIFIED and CHANGES noted on Paperwork.
- ☐ Total PRIMARY Cable noted on As-built.
- ☐ Company ID#'s RECORDED in correct location on As-built.
- ☐ Indicate correct FUSE SIZE on As-built & VERIFY proper PHASE.
- ☐ Correct QA Check#4(b) reviewed.
- ☐ Deviations noted on the As-built and their reason.

☐ I certify that the work performed meets PSE's standards and procedures and that all quality requirements are met.

Foreman's Signature _____

Print Name _____ Date _____

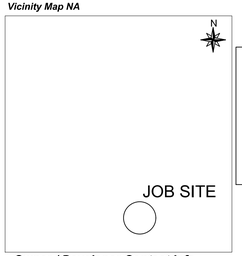
PROJECT PHASE		NOTIF#	ORDER#
PWR	Superior		
	New Install	NA	T/E105082785
	St. Light		
	Removal		
	Temporary		
	Job Order		
GAS	Distribution		
	HP Main		
	HP Svc/MS		
CABLE TV			
PHONE			

Project Manager Contact Information:

Lane Mahler
425-429-1356 *Cell Phone*

	Developer	PSE
"Locates Required"	Yes (No)	Yes (No)
"Outages Required"	Yes	(No)
"Flagging Required"	(Yes)	No

Vicinity Map NA



T/E105082785

Owner / Developer Contact Info

ATTN: Brian Way 425-827-2014 cell

For contacts below dial 1-888-CALL PSE (225-5773)

CALL (800) 424-5555
2 BUSINESS DAYS BEFORE YOU DIG

THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF EXISTING FACILITIES

X	NEW BUSINESS		CORRECTIVE / 10 DAY WAIVED	REAL ESTATE/EASEMENT N/A		PERMIT N/A	
3				FUNCTION	CONTACT	PHONE NO	DATE
2				ACCOUNT MGR	Lars Larson	425-456-2701	
1				ENGR - POWER	Andrew Allwardt	425-603-5904	05/29/18
REV#	BY	DESCRIPTION		ENGR - GAS			
COUNTY KING	Emer Sect	Gas Wk Ctr	POWER WK CTR 3515	DRAWN BY	Andrew Allwardt	425-603-5904	05/29/18
1/4 SEC	OP MAP	PLAT MAP		CHECKED BY			
				APPROVED BY			
				FOREMAN #1			
U-MAP NO (POWER)	OH CKT MAP	UG CKT MAP	CIRCUIT NO	FOREMAN #2			
2405E104	2405E124	2405E104	HAZ-12	MAPPING			

JOINT FACILITIES ARRANGEMENTS

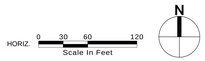
UTILITIES	N/A	N/A	N/A	N/A
CONTACT	N/A	N/A	N/A	N/A
PHONE#	N/A	N/A	N/A	N/A

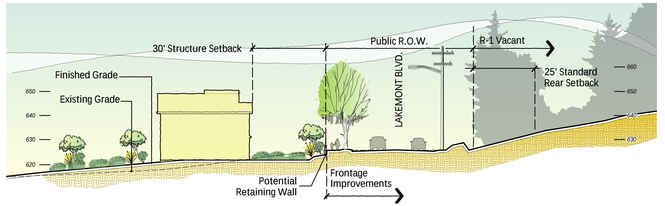
PSE PUGET SOUND ENERGY

PARK POINTE PUD

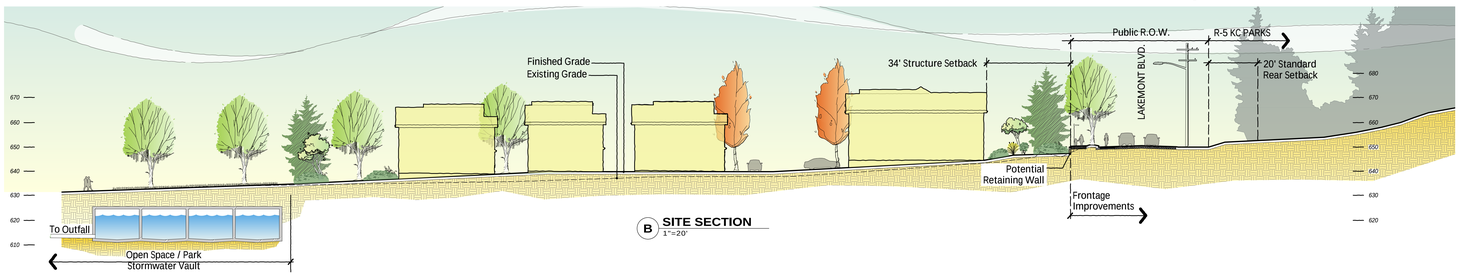
INSTALL NEW AND UPGRADE EXISTING STREET LIGHTS
7331 LAKEMONT BLVD SE, BELLEVUE, WA 98006

INCIDENT	MAOP
Gas Order	Elect Order T/E105082785
SCALE 1"=50'	PAGE 1 of 1

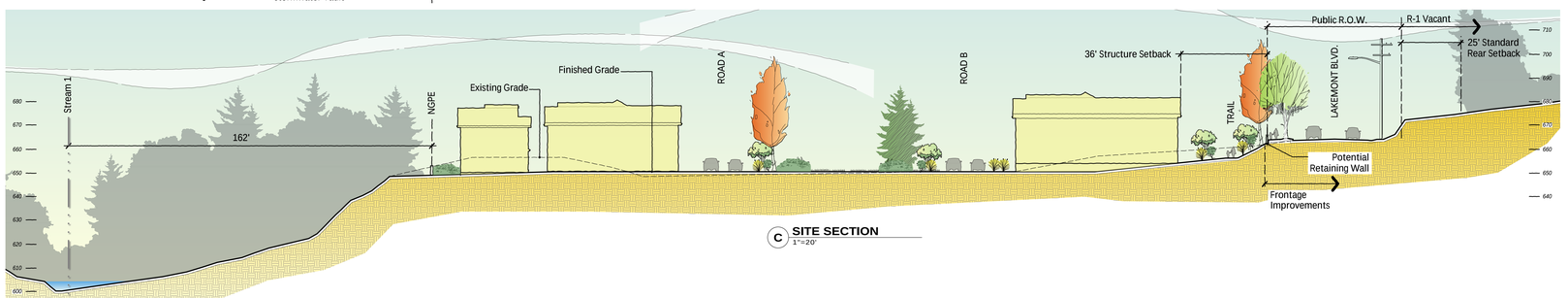




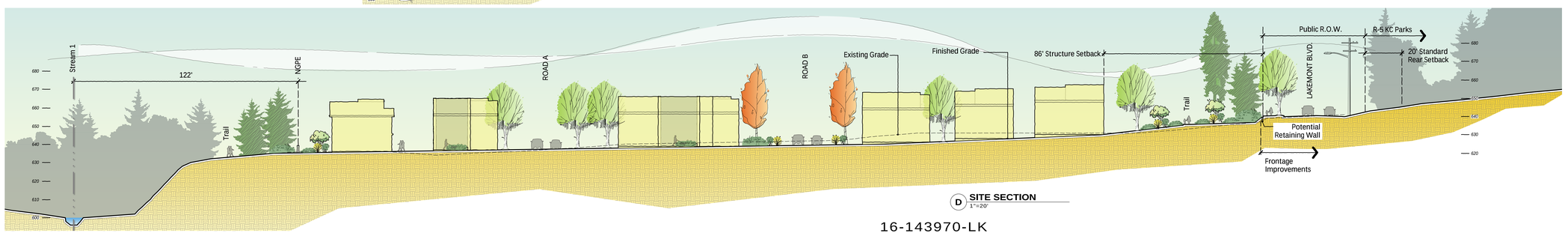
A SITE SECTION
1"=20'



B SITE SECTION
1"=20'



C SITE SECTION
1"=20'



D SITE SECTION
1"=20'

16-143970-LK

REVISION	DATE
RESPOND TO CITY REVIEW COMMENTS	5/17/17
SYM	

PACE
Engineers, Inc.
11255 Kirkland Way, Suite 300
Kirkland, WA 98033
p: 425.827.2014 | f: 425.827.5043
Civil| Structural | Planning | Survey
pace@pace.com

ISOLA HOMES
1518 1ST AVE S., SUITE 301
SEATTLE, WA 98134
206.737.9700

PARK POINTE PUD
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE WASHINGTON

REVISED SITE SECTIONS
PUD REVISION INTERIM SUBMITTAL

SCALE: AS NOTED	DATE: 2/8/2018
DESIGNED BY: TC	CHECKED BY: JA
JOB NUMBER 15436	
SHEET: P5	
SHEET P5 OF 5	

FILE NAME: P:\P15436\PLAT\LAKEMONT PROPERTY FEASIBILITY\CAD\ENGINEERING\SHEETS\PARK POINTE PUD INTERIM\P15436_SITE SECTIONS.DWG
XREF FILES: X15436_SITE.dwg X15436_PLAT.dwg X15436_SD.dwg X15436_ID.dwg X15436_XS.dwg X15436_SITE-new.dwg X15436_LP.dwg 1543_PlatOverallBoiler-8586_20180105.dwg 8511597.dwg

1 Option Alley Elevations - South

1/4" = 1'-0"

MATERIAL LEGEND

1. Cast-In-Place Concrete per Struct w/ WP Sealer Per Spec

2. White Metal Panel Rainscreen, or Painted (or Integral Color Alt) Integral Fibercement Panel Rainscreen Alt w/ Prefin Mtl Flashing, Thru-Wall Flashing, & Mln 1" Drip Edge

3. Dark Gray Metal Panel Rainscreen, or Painted (or Integral Color Alt) Integral Fibercement Panel Rainscreen Alt w/ Prefin Mtl Flashing, Thru-Wall Flashing, & Mln 1" Drip Edge

4. Clear-Sealed Cedar Rainscreen w/ Prefin Mtl Flashing, Thru-Wall Flashing, & Min 1" Drip Edge, Stain & Seal All 6 Sides Prior to Install

5. Clear-Sealed Cedar Soffit w/ Prefin Mtl Flashing, Thru-wall Flashing, & Min 1" Drip Edge, Stain & Seal All 6-Sides Prior to Install

6. Black Powder Coated Alum Guardrail. 3' AFF and 4" Sphere Shall Not Pass Through, Typ

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206.306.5952
LemonsArchitecture.com

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JONATHAN LEMONS
STATE OF WASHINGTON

DATE 2016.09.30

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Option Alley Elevations - South
Lakemont Eco Community
7219 & 7331 Lakemont Blvd SE
Bellevue, WA, 98006

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A3.0

MATERIAL LEGEND

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1 **Option Alley Elevations - West**
1/4" = 1'-0"

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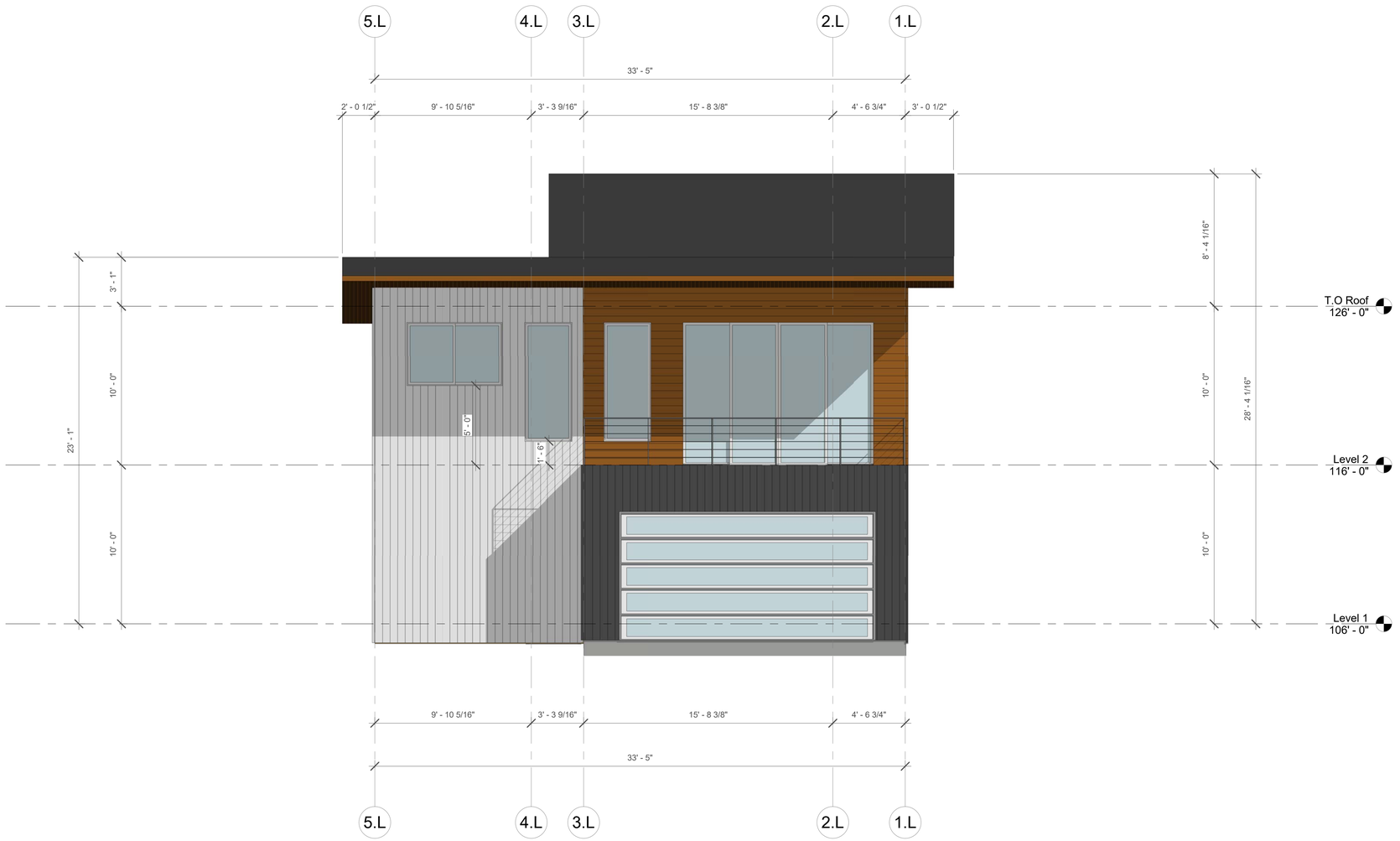

1 Option Alley Elevations - North

1/4" = 1'-0"

MATERIAL LEGEND

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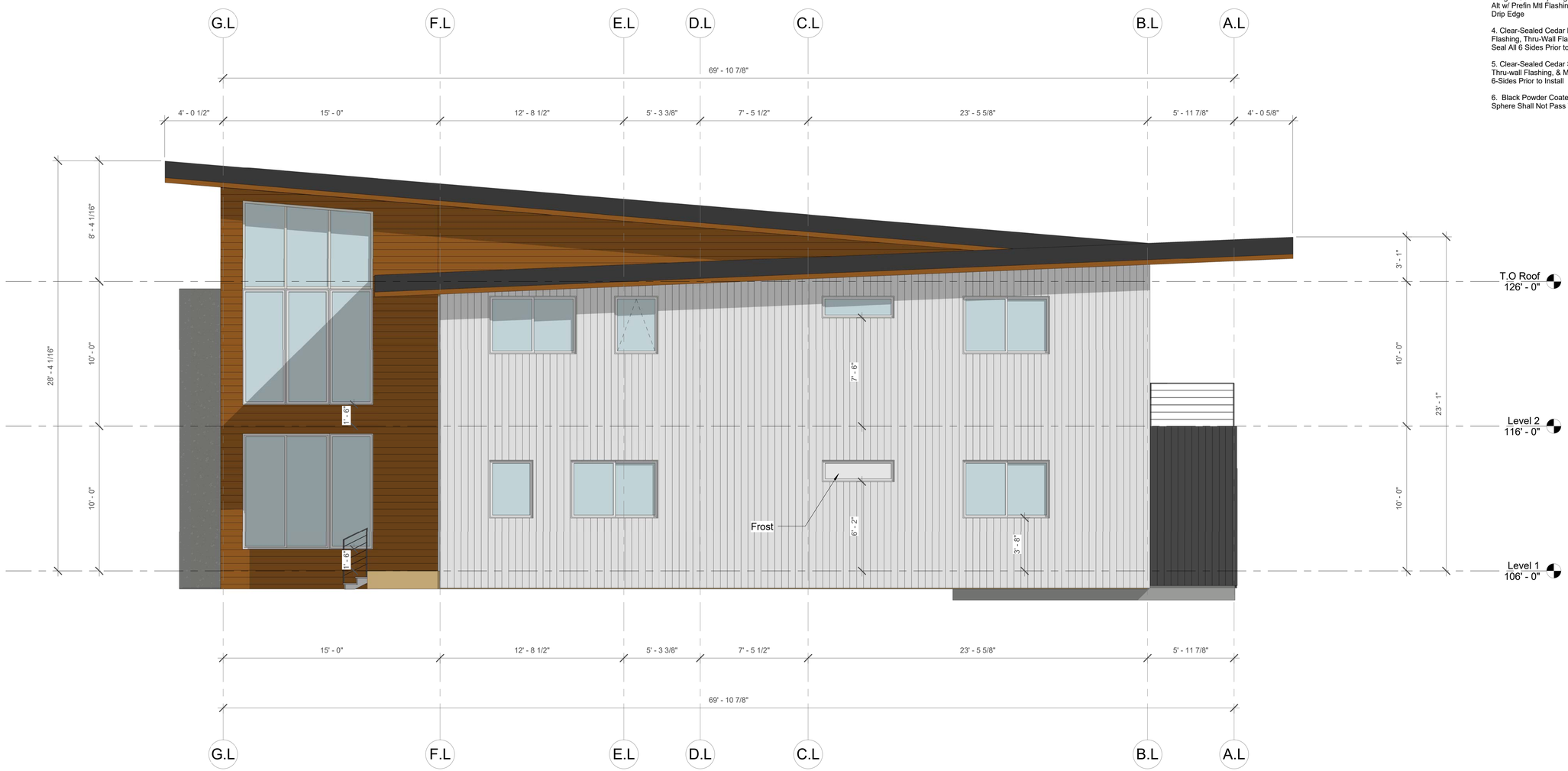
DSD - 000161



1 Option Alley Elevations - East

1/4" = 1'-0"

MATERIAL LEGEND

1. Cast-In-Place Concrete per Struct w/ WP Sealer Per Spec

2. White Metal Panel Rainscreen, or Painted (or Integral Color Alt) Integral Fibercement Panel Rainscreen Alt w/ Prefin Mtl Flashing, Thru-Wall Flashing, & MIn 1" Drip Edge

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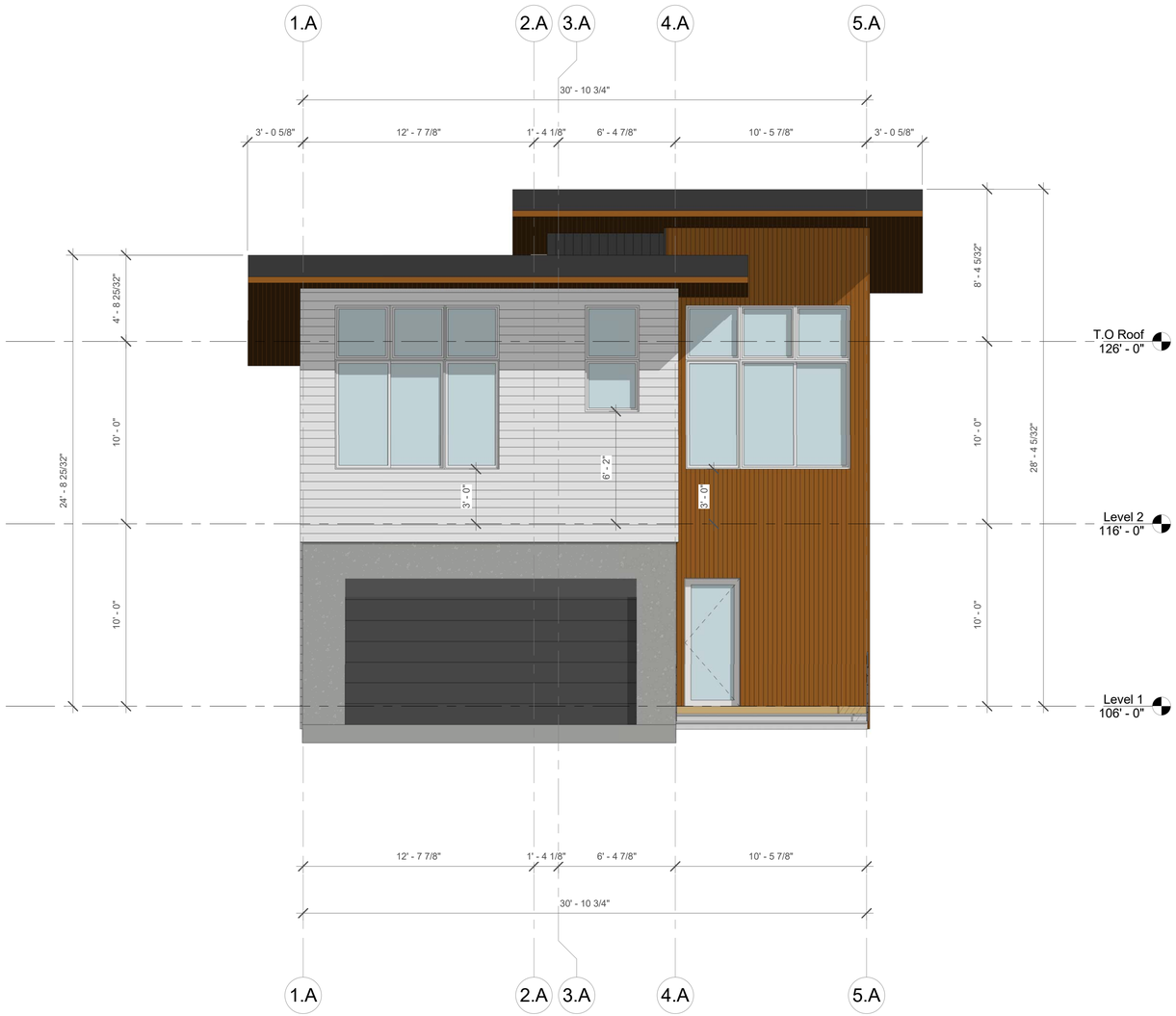

1 Option A Elevations - South

1/4" = 1'-0"

MATERIAL LEGEND

1. Cast-In-Place Concrete per Struct w/ WP Sealer Per Spec

2. White Metal Panel Rainscreen, or Painted (or Integral Color Alt) Integral Fibercement Panel Rainscreen Alt w/ Prefin Mtl Flashing, Thru-Wall Flashing, & Mln 1" Drip Edge

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MATERIAL LEGEND

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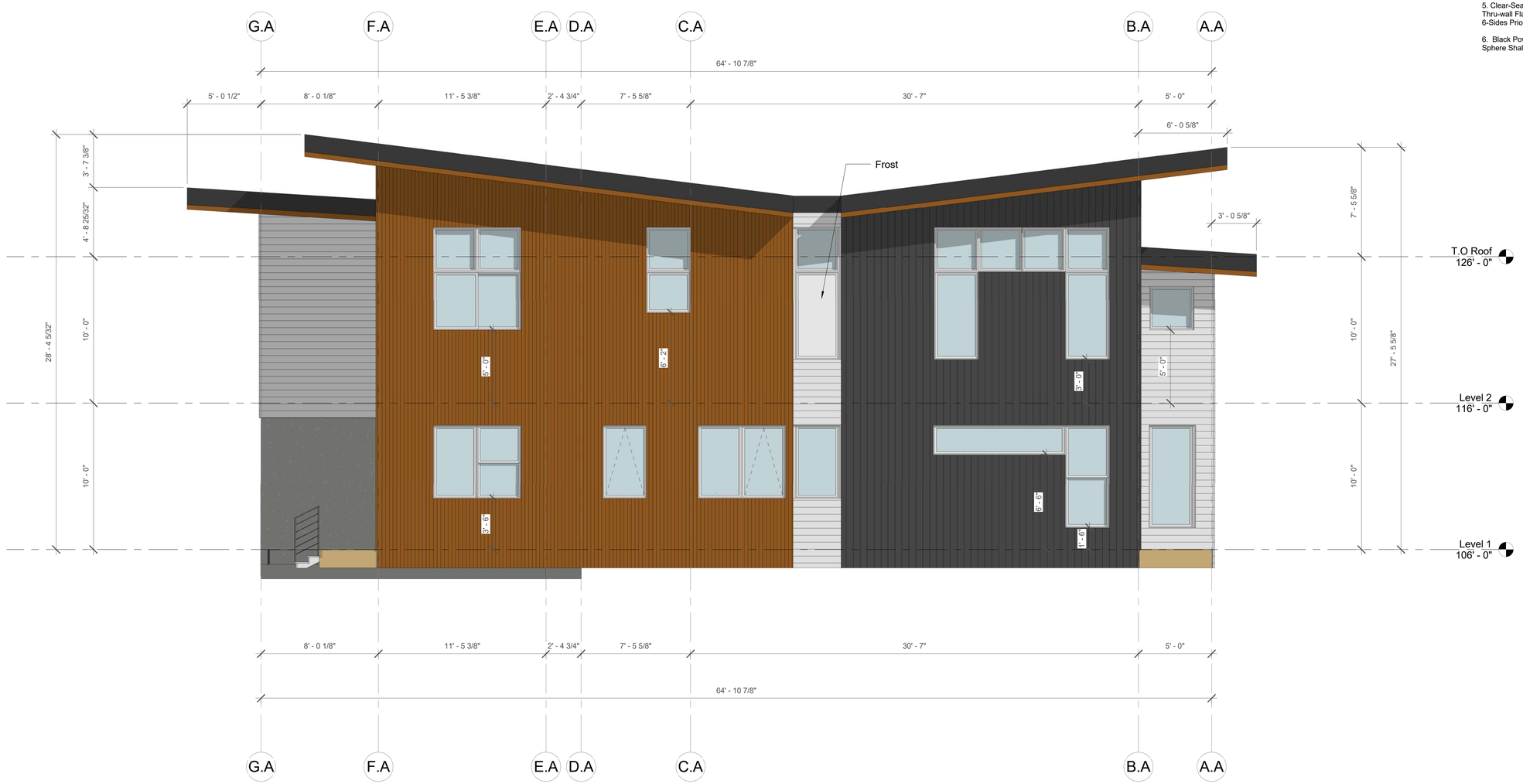

1 Option A Elevations - East

1/4" = 1'-0"

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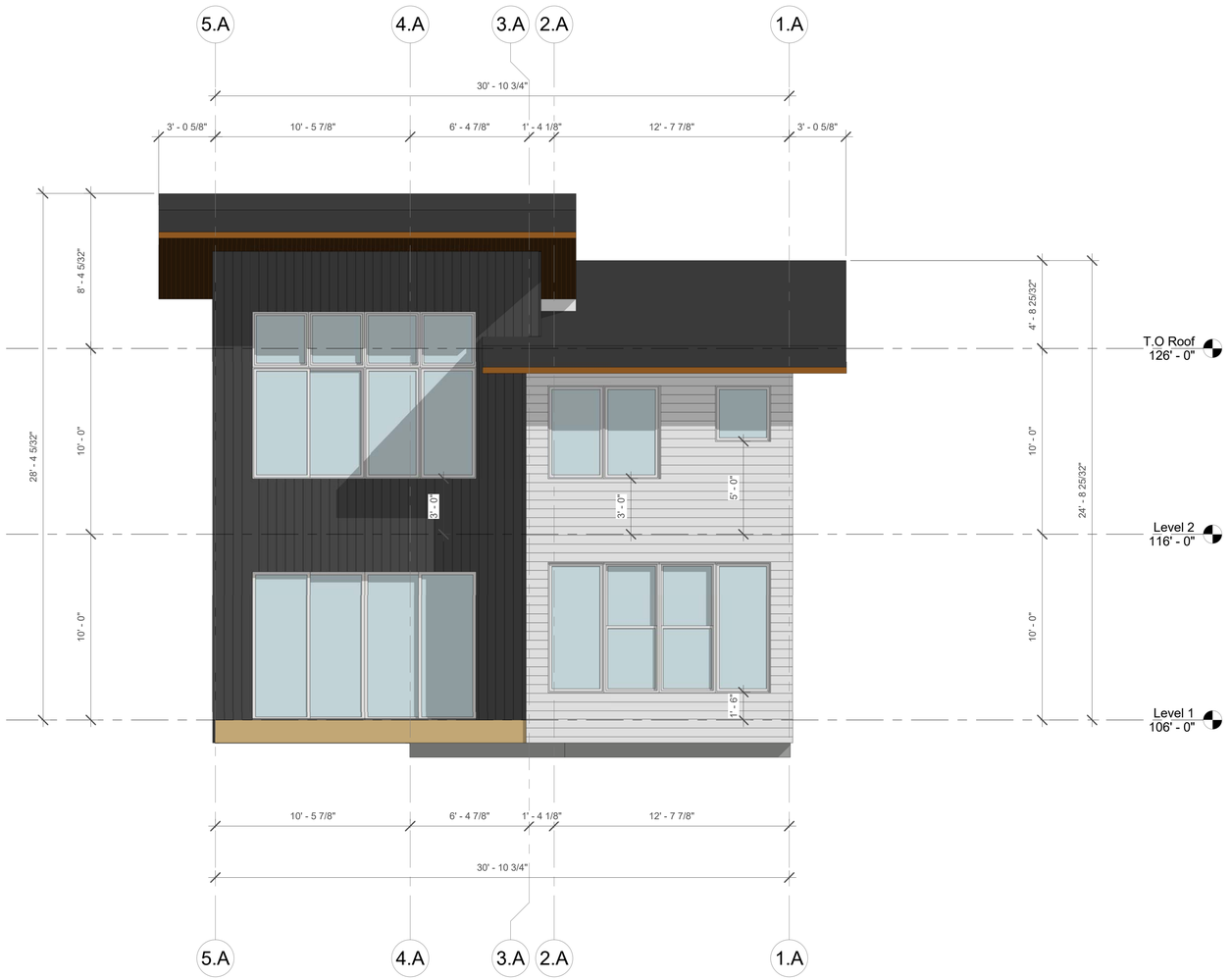

1 **Option A Elevations - North**
1/4" = 1'-0"

MATERIAL LEGEND

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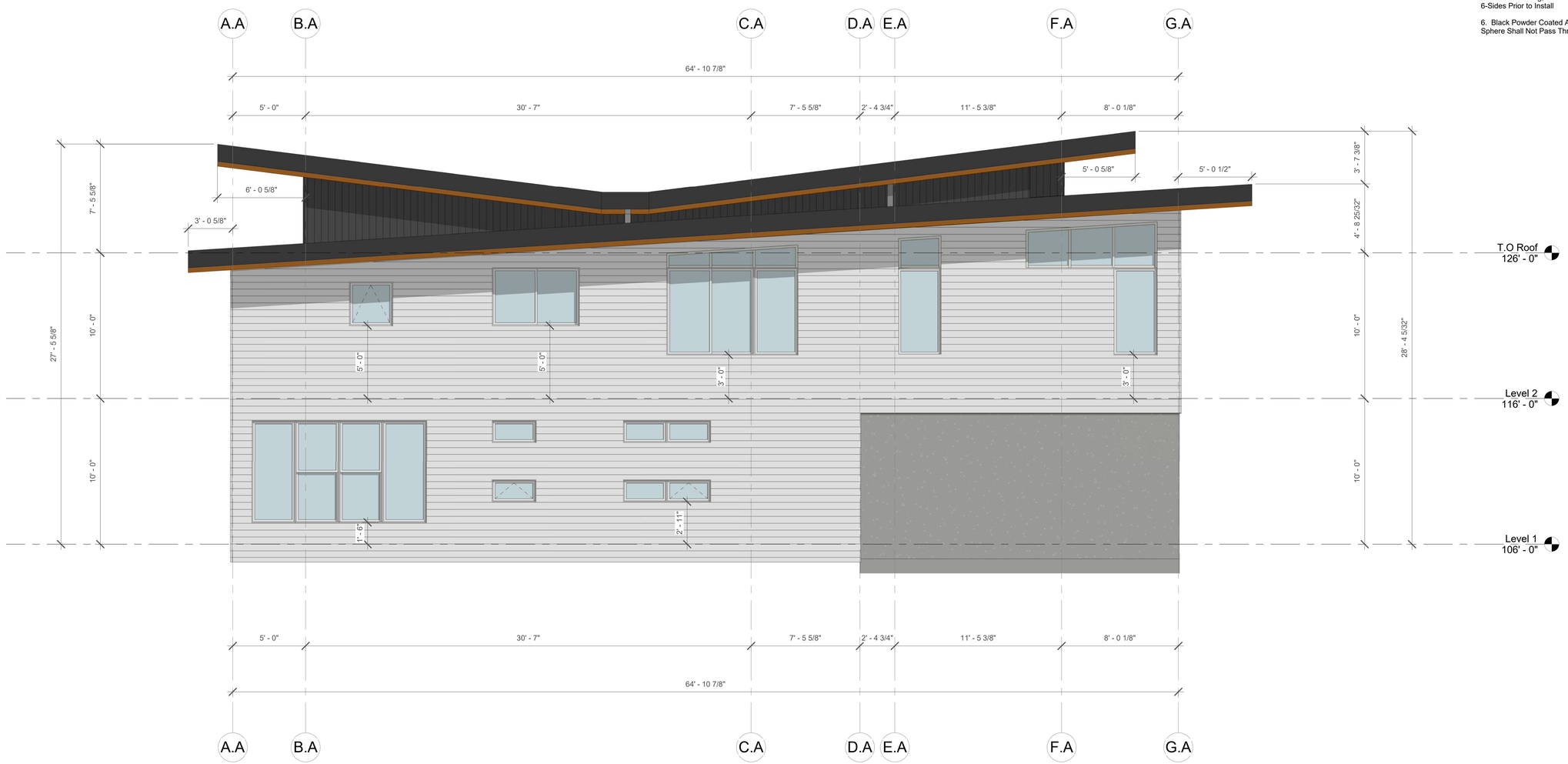

1 Option A Elevations - West

1/4" = 1'-0"

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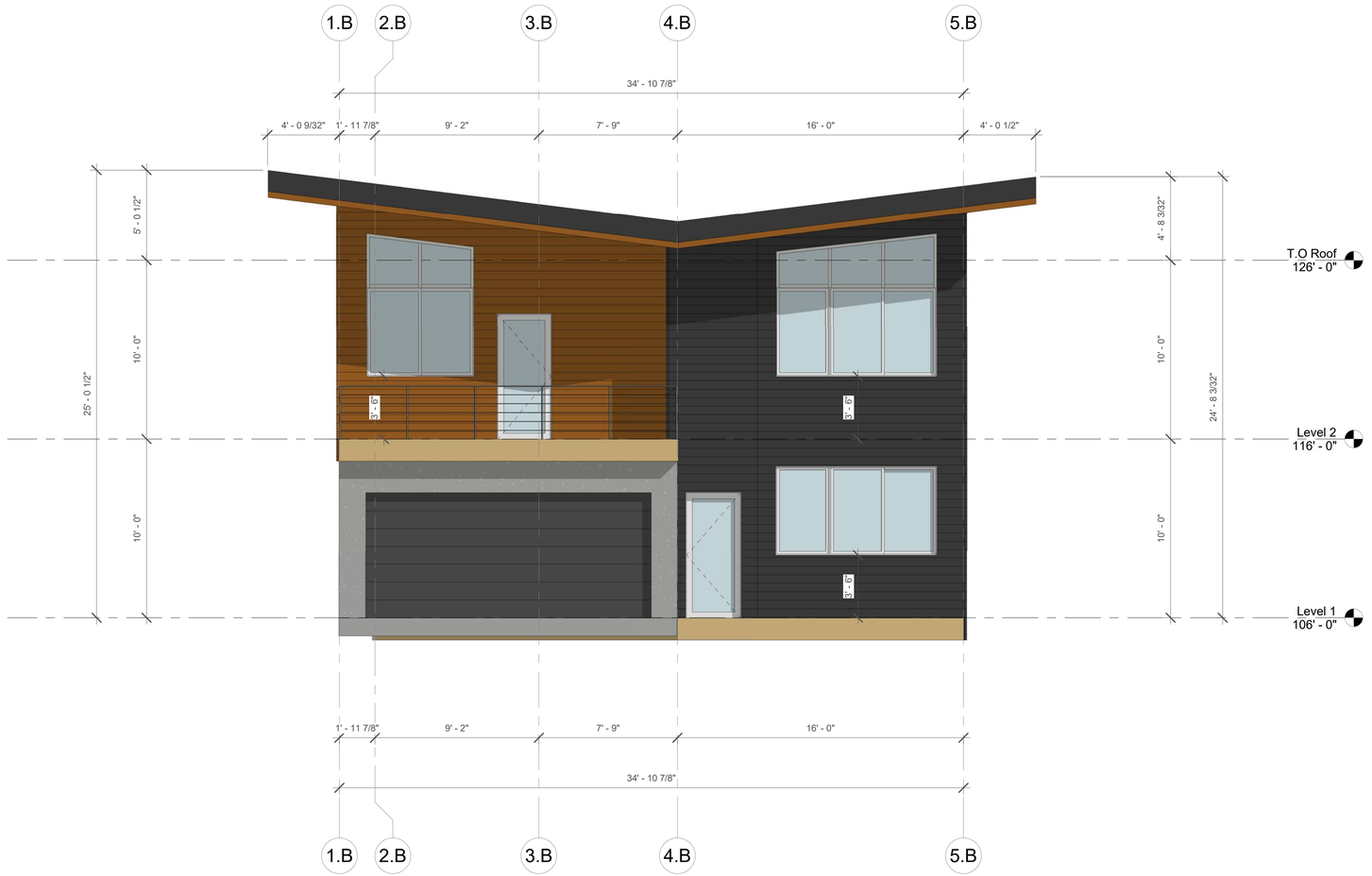

1 Option B Elevations - South

1/4" = 1'-0"

MATERIAL LEGEND

1. Cast-In-Place Concrete per Struct w/ WP Sealer Per Spec

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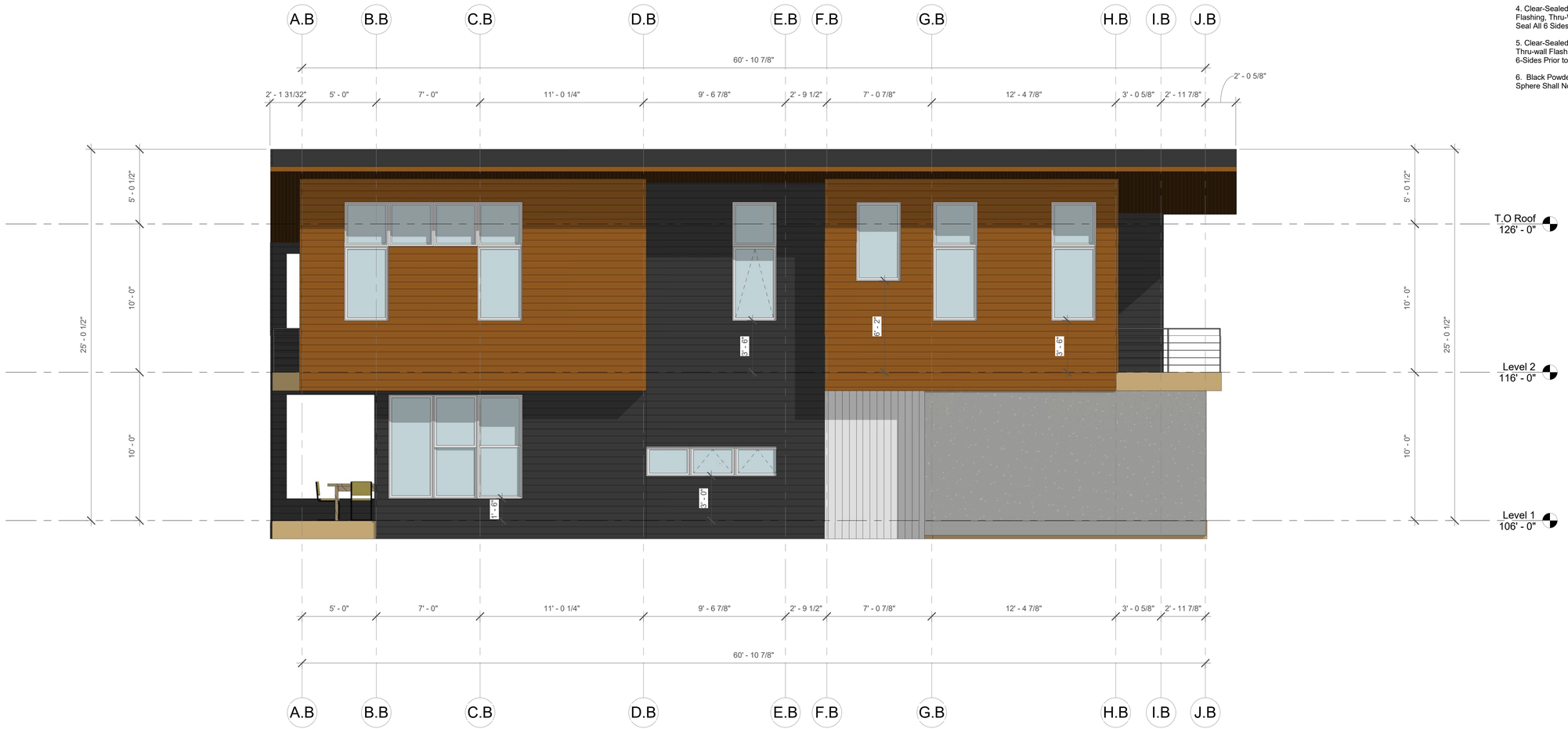

1 Option B Elevations - West

1/4" = 1'-0"

MATERIAL LEGEND

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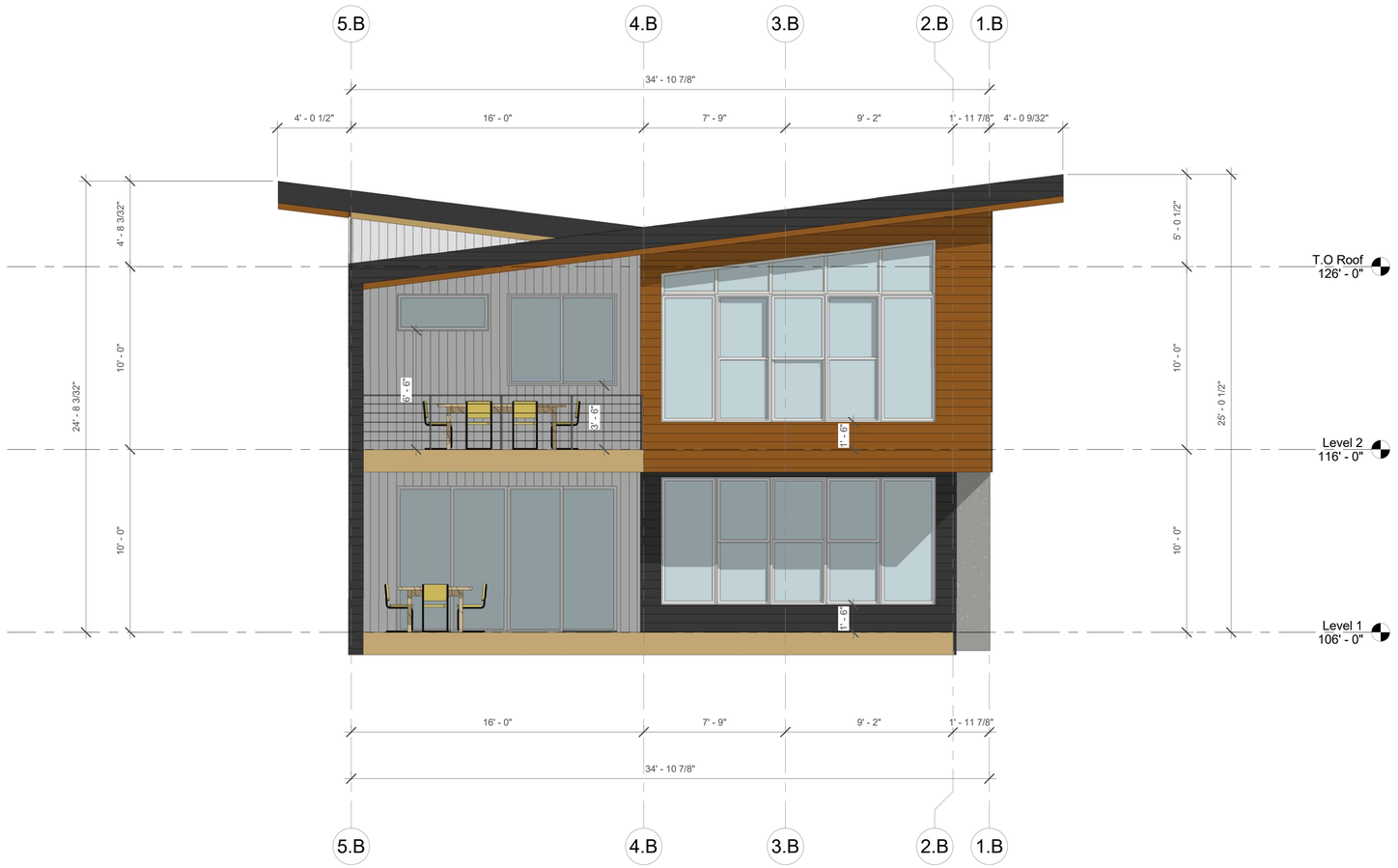

1 Option B Elevations - North

1/4" = 1'-0"

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6. Black Powder Coated Alum Guardrail. 3' AFF and 4" Sphere Shall Not Pass Through, Typ

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Coordination

Option B Elevations - North
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A3.10

1 Option B Elevations - East

1/4" = 1'-0"

MATERIAL LEGEND

1. Cast-In-Place Concrete per Struct w/ WP Sealer Per Spec

2. White Metal Panel Rainscreen, or Painted (or Integral Color Alt) Integral Fibercement Panel Rainscreen Alt w/ Prefin Mtl Flashing, Thru-Wall Flashing, & MIn 1" Drip Edge

3. Dark Gray Metal Panel Rainscreen, or Painted (or Integral Color Alt) Integral Fibercement Panel Rainscreen Alt w/ Prefin Mtl Flashing, Thru-Wall Flashing, & MIn 1" Drip Edge

4. Clear-Sealed Cedar Rainscreen w/ Prefin Mtl Flashing, Thru-Wall Flashing, & Min 1" Drip Edge, Stain & Seal All 6 Sides Prior to Install

5. Clear-Sealed Cedar Soffit w/ Prefin Mtl Flashing, Thru-wall Flashing, & Min 1" Drip Edge, Stain & Seal All 6-Sides Prior to Install

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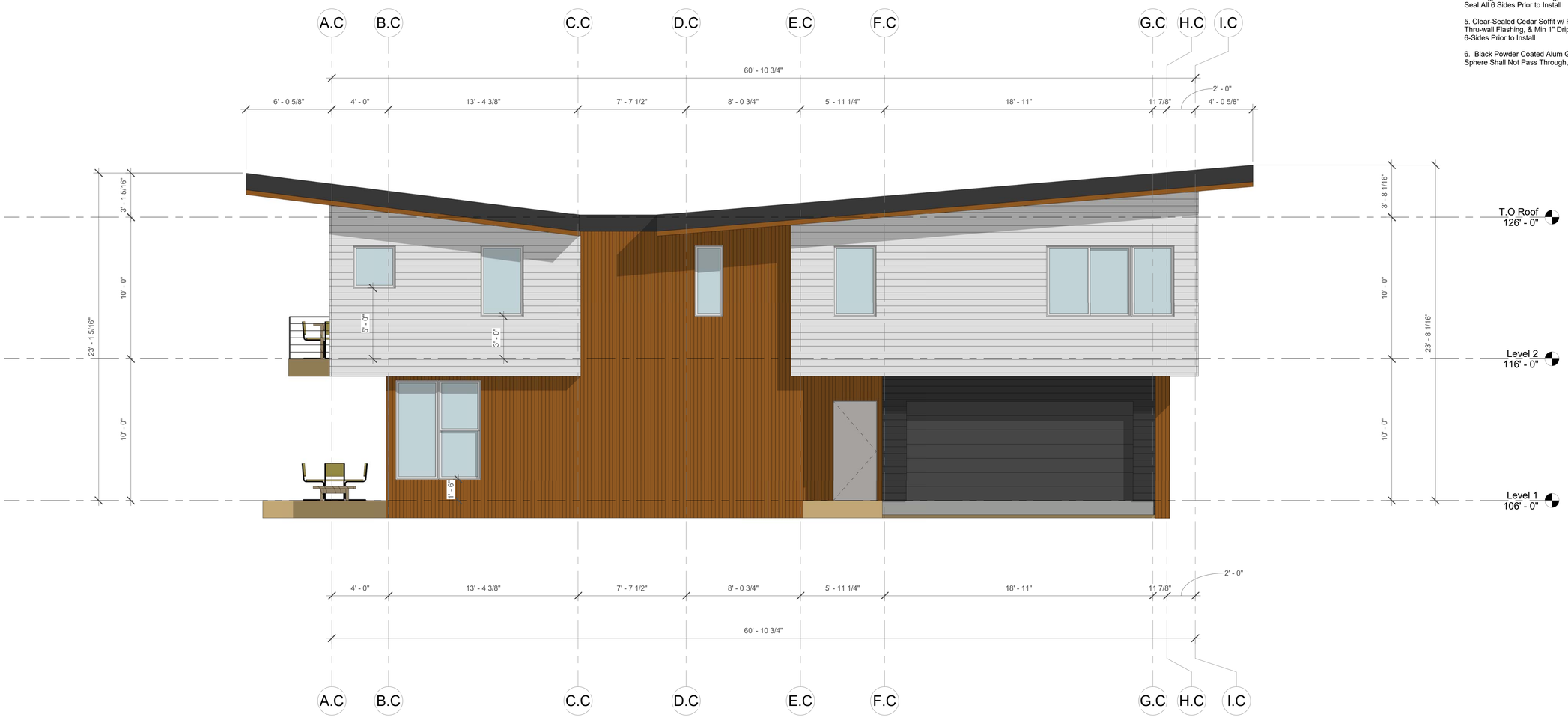

MATERIAL LEGEND

1. Cast-In-Place Concrete per Struct w/ WP Sealer Per Spec

2. White Metal Panel Rainscreen, or Painted (or Integral Color Alt) Integral Fibercement Panel Rainscreen Alt w/ Prefin Mtl Flashing, Thru-Wall Flashing, & Mln 1" Drip Edge

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1 Option C Elevations - West

1/4" = 1'-0"

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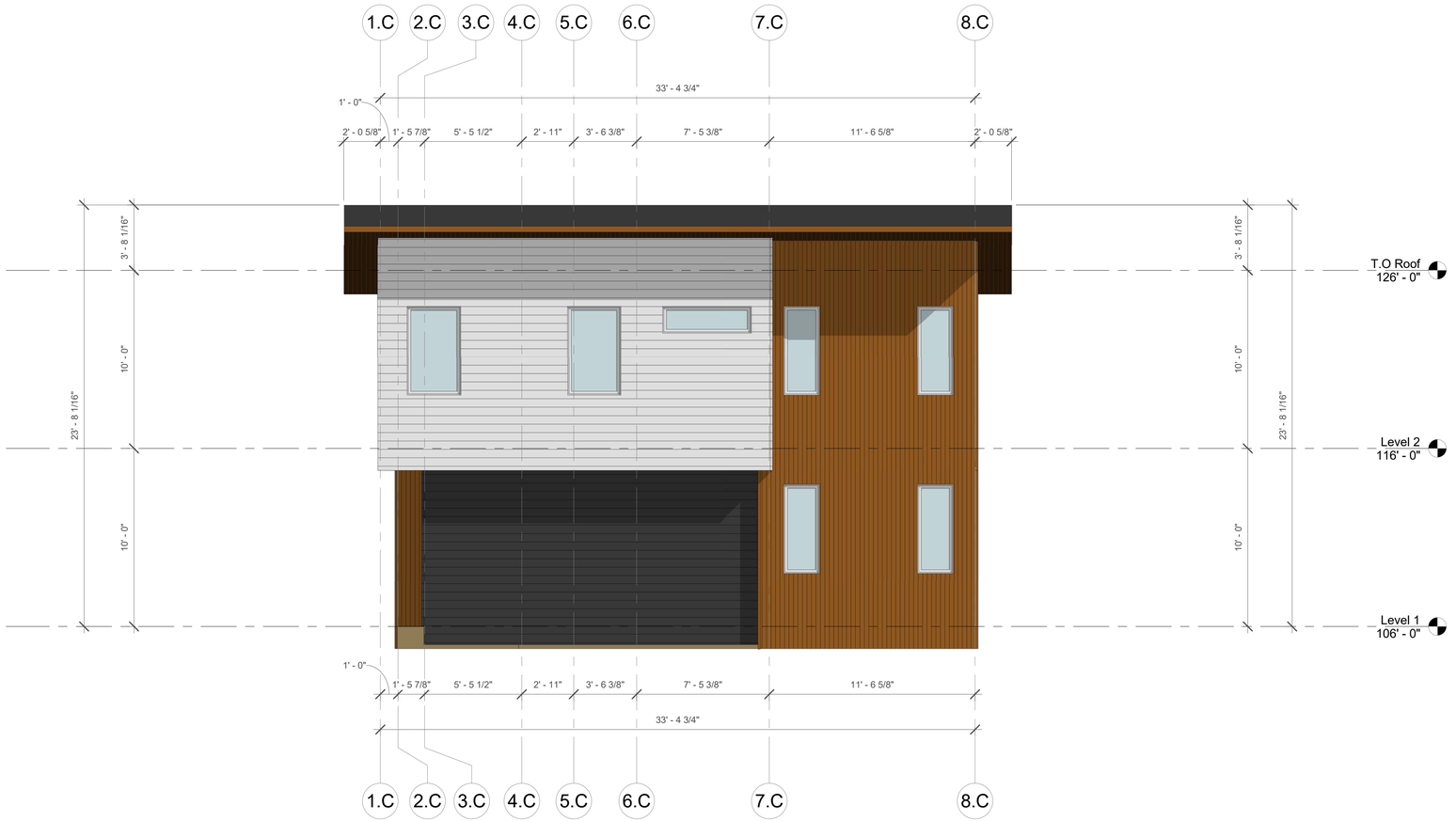

1 Option C Elevations - South

1/4" = 1'-0"

MATERIAL LEGEND

1. Cast-In-Place Concrete per Struct w/ WP Sealer Per Spec

2. White Metal Panel Rainscreen, or Painted (or Integral Color Alt) Integral Fibercement Panel Rainscreen Alt w/ Prefin Mtl Flashing, Thru-Wall Flashing, & MIn 1" Drip Edge

3. Dark Gray Metal Panel Rainscreen, or Painted (or Integral Color Alt) Integral Fibercement Panel Rainscreen Alt w/ Prefin Mtl Flashing, Thru-Wall Flashing, & MIn 1" Drip Edge

4. Clear-Sealed Cedar Rainscreen w/ Prefin Mtl Flashing, Thru-Wall Flashing, & Min 1" Drip Edge, Stain & Seal All 6 Sides Prior to Install

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6. Black Powder Coated Alum Guardrail. 3' AFF and 4" Sphere Shall Not Pass Through, Typ

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MATERIAL LEGEND

1. Cast-In-Place Concrete per Struct w/ WP Sealer Per Spec

2. White Metal Panel Rainscreen, or Painted (or Integral Color Alt) Integral Fibercement Panel Rainscreen Alt w/ Prefin Mtl Flashing, Thru-Wall Flashing, & Mln 1" Drip Edge

3. Dark Gray Metal Panel Rainscreen, or Painted (or Integral Color Alt) Integral Fibercement Panel Rainscreen Alt w/ Prefin Mtl Flashing, Thru-Wall Flashing, & Mln 1" Drip Edge

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5. Clear-Sealed Cedar Soffit w/ Prefin Mtl Flashing, Thru-wall Flashing, & Mln 1" Drip Edge, Stain & Seal All 6-Sides Prior to Install

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1 Option C Elevations - East

1/4" = 1'-0"

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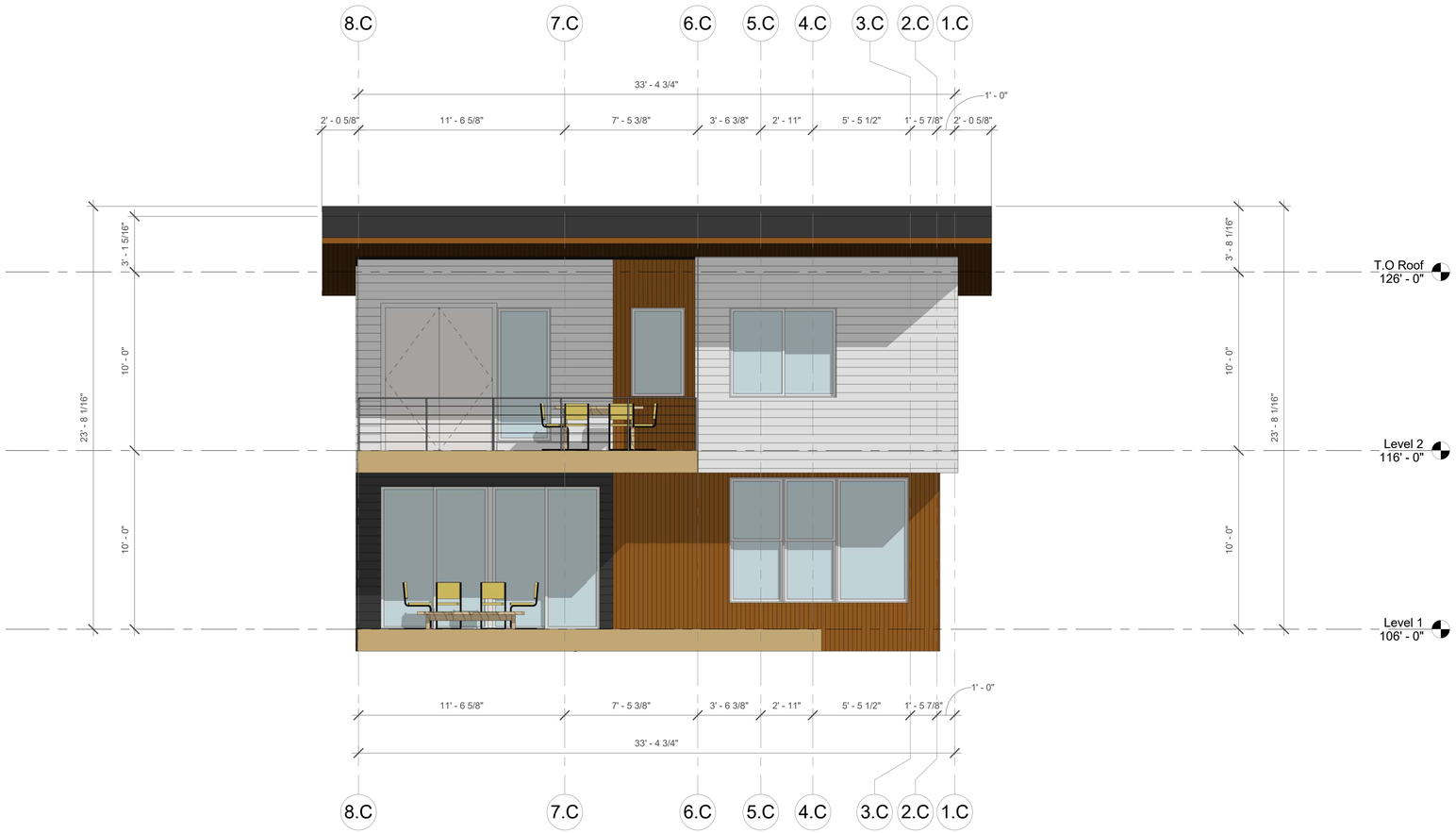

1 Option C Elevations - North

1/4" = 1'-0"

MATERIAL LEGEND

1. Cast-In-Place Concrete per Struct w/ WP Sealer Per Spec

2. White Metal Panel Rainscreen, or Painted (or Integral Color Alt) Integral Fibercement Panel Rainscreen Alt w/ Prefin Mtl Flashing, Thru-Wall Flashing, & Mln 1" Drip Edge

3. Dark Gray Metal Panel Rainscreen, or Painted (or Integral Color Alt) Integral Fibercement Panel Rainscreen Alt w/ Prefin Mtl Flashing, Thru-Wall Flashing, & Mln 1" Drip Edge

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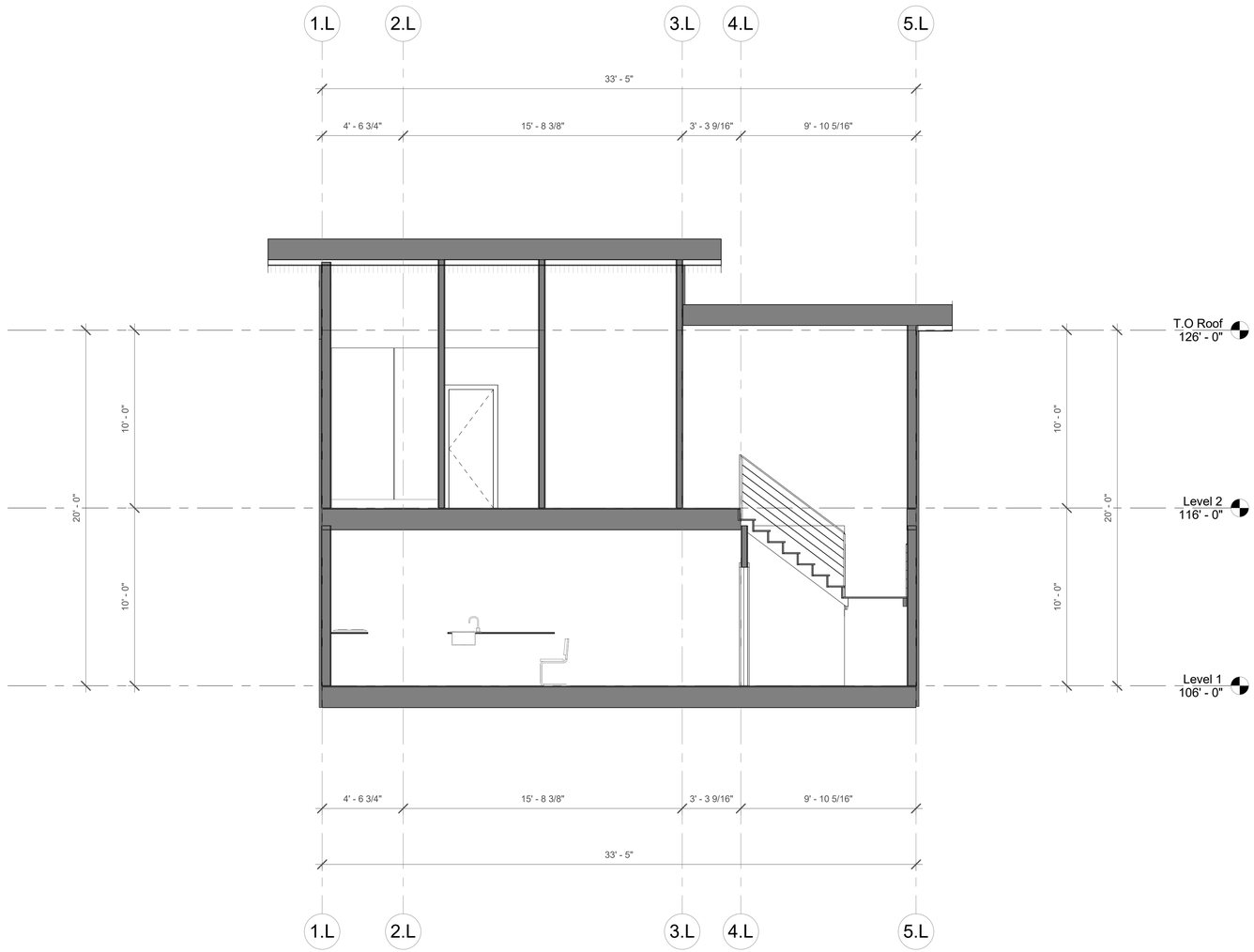

1 Option Alley Sections - E-W

1/4" = 1'-0"

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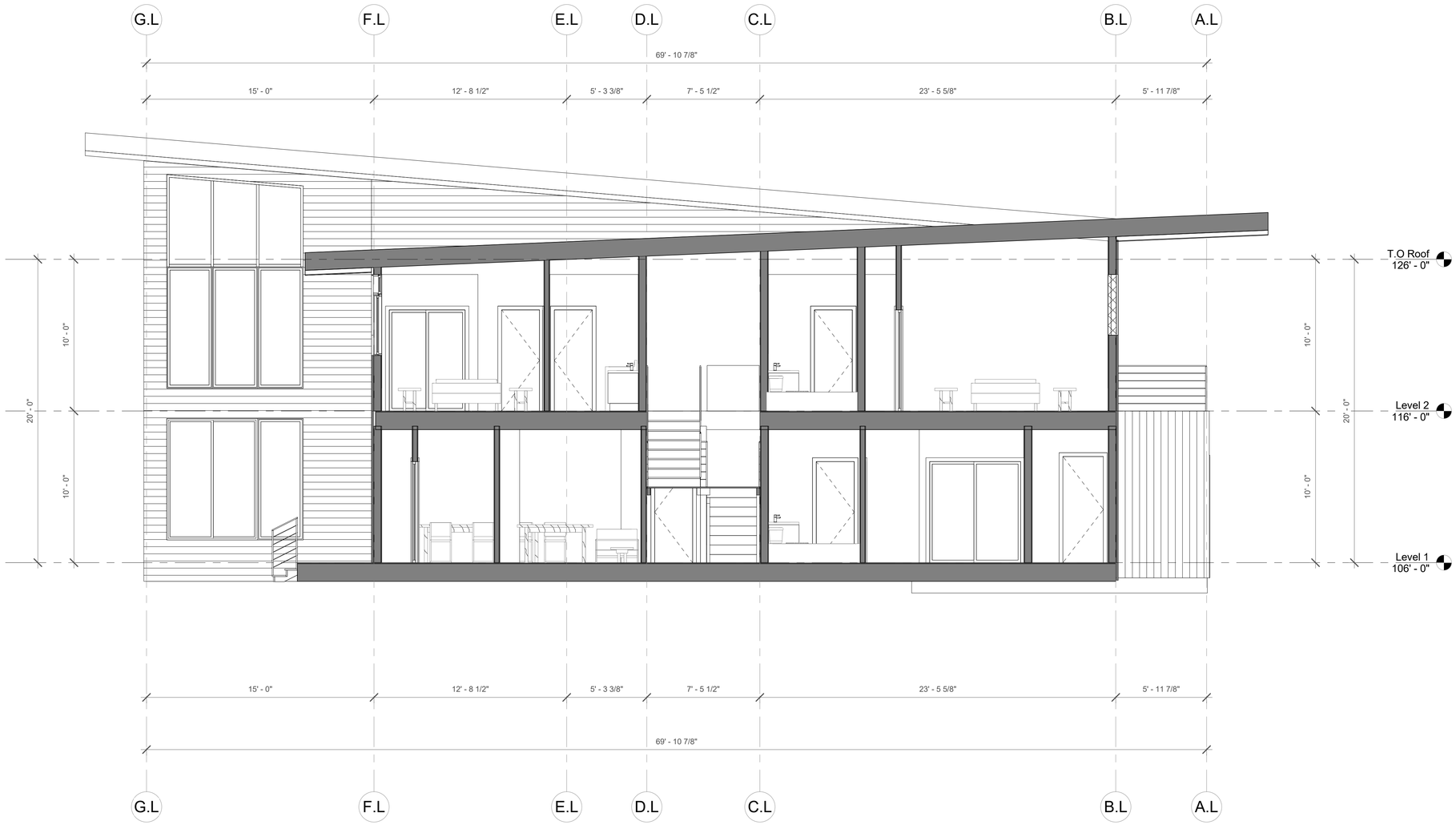

1 Option Alley Sections - N-S

1/4" = 1'-0"

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A4.1

1 Option A Sections - E-W

1/4" = 1'-0"

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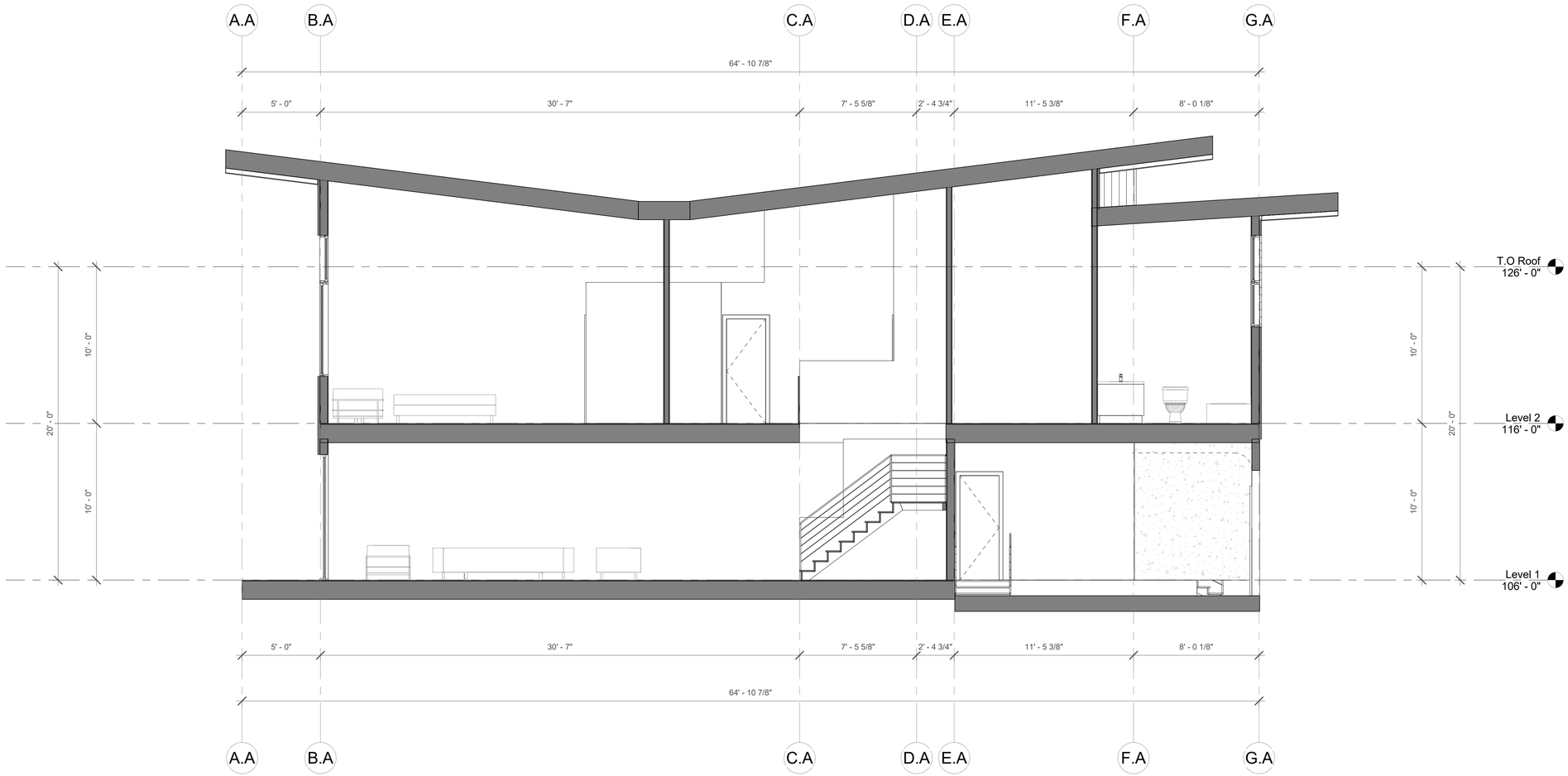

1 Option A Sections - N-S

1/4" = 1'-0"

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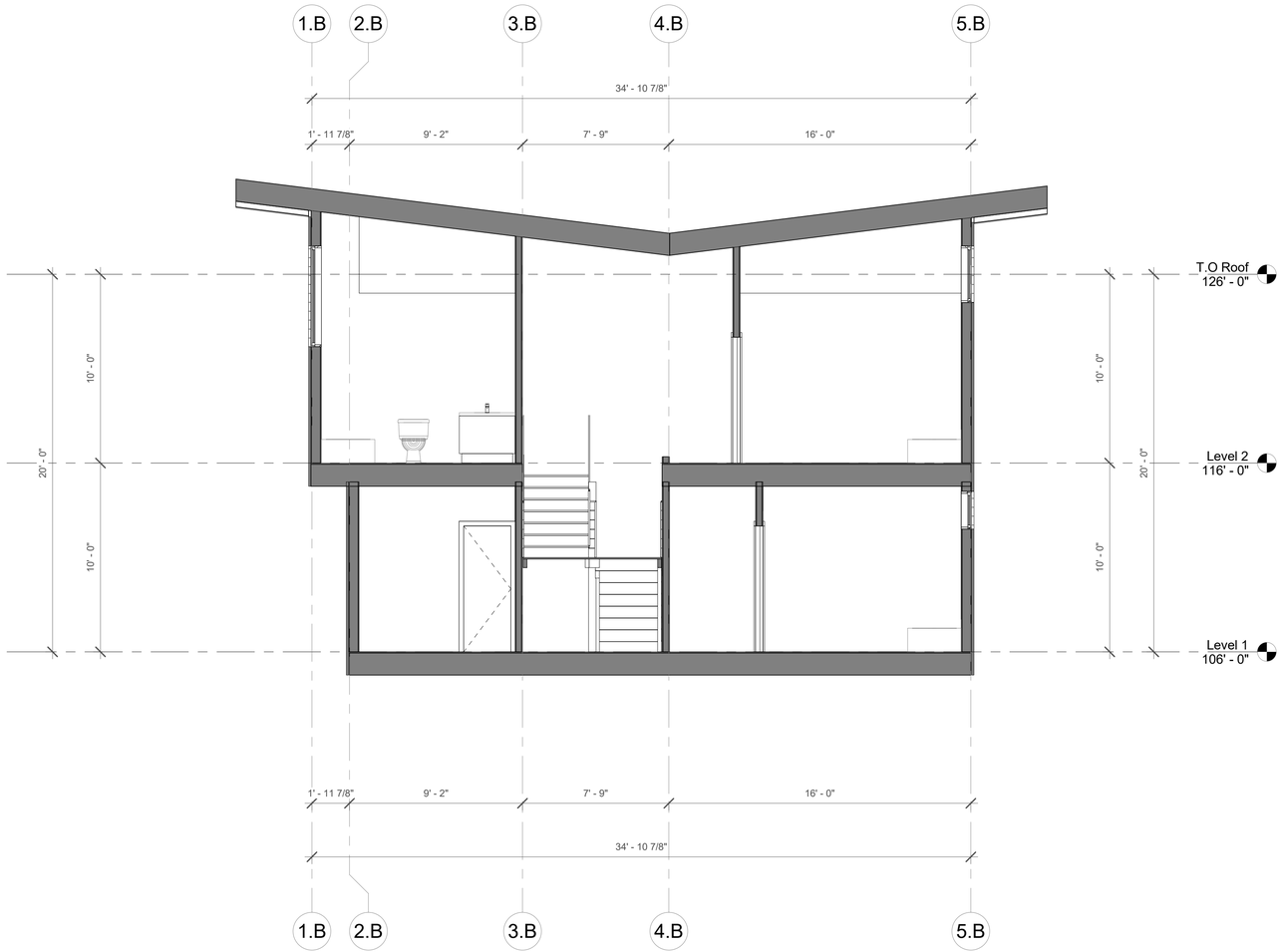

1 Option B Sections - E-W

1/4" = 1'-0"

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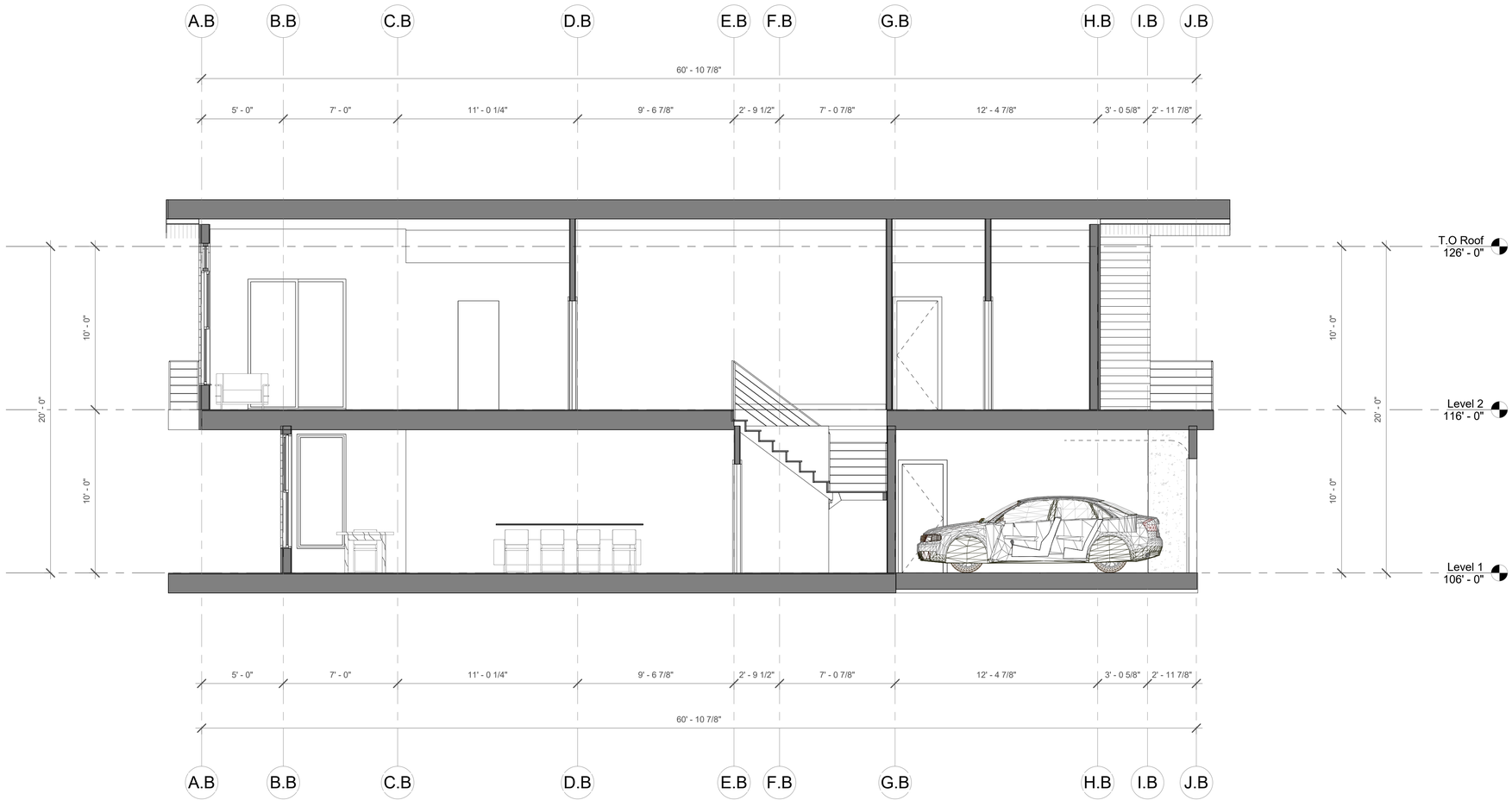

1 Option B Sections - N-S

1/4" = 1'-0"

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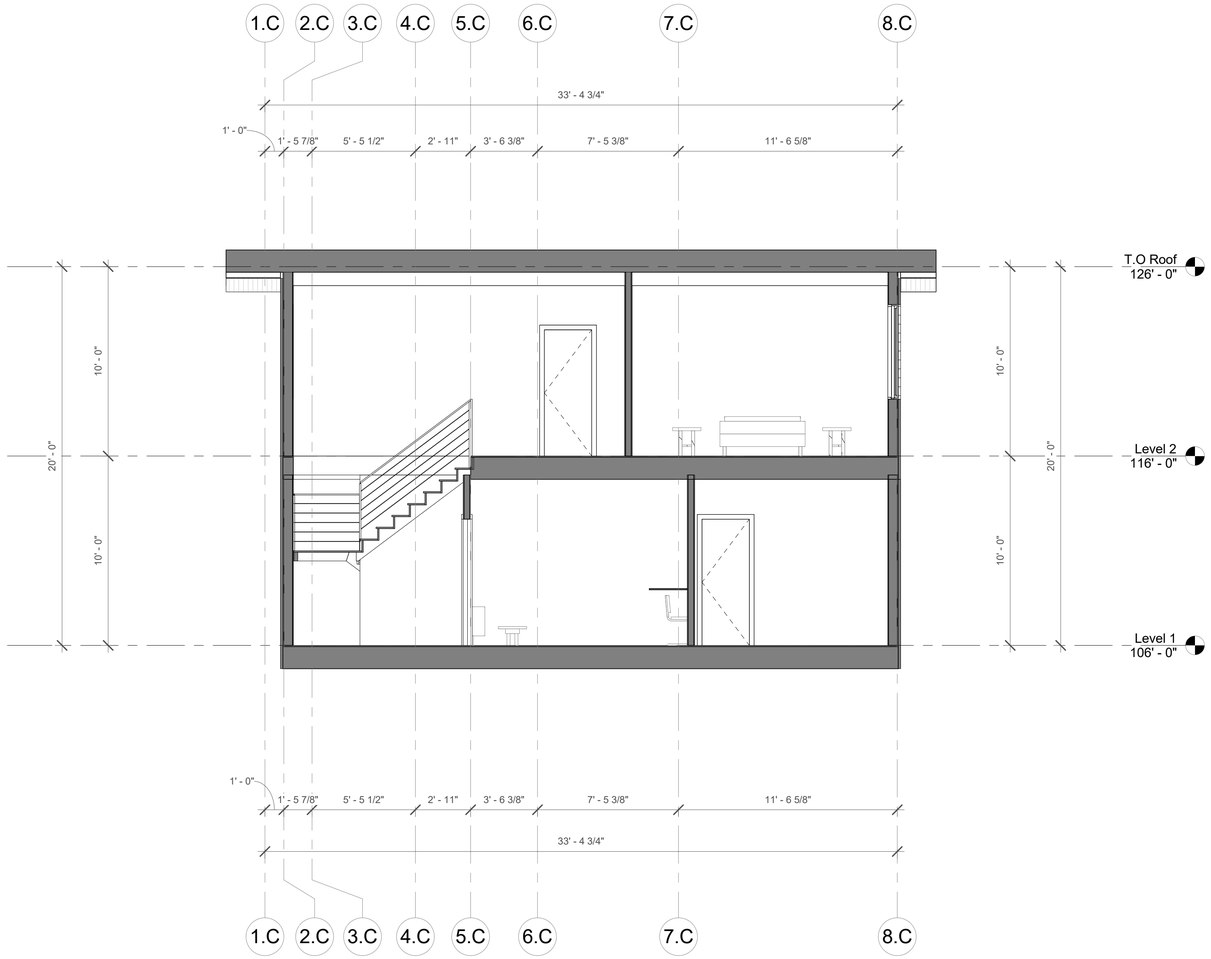
A4.5



1 Option C Sections - E-W

1/4" = 1'-0"

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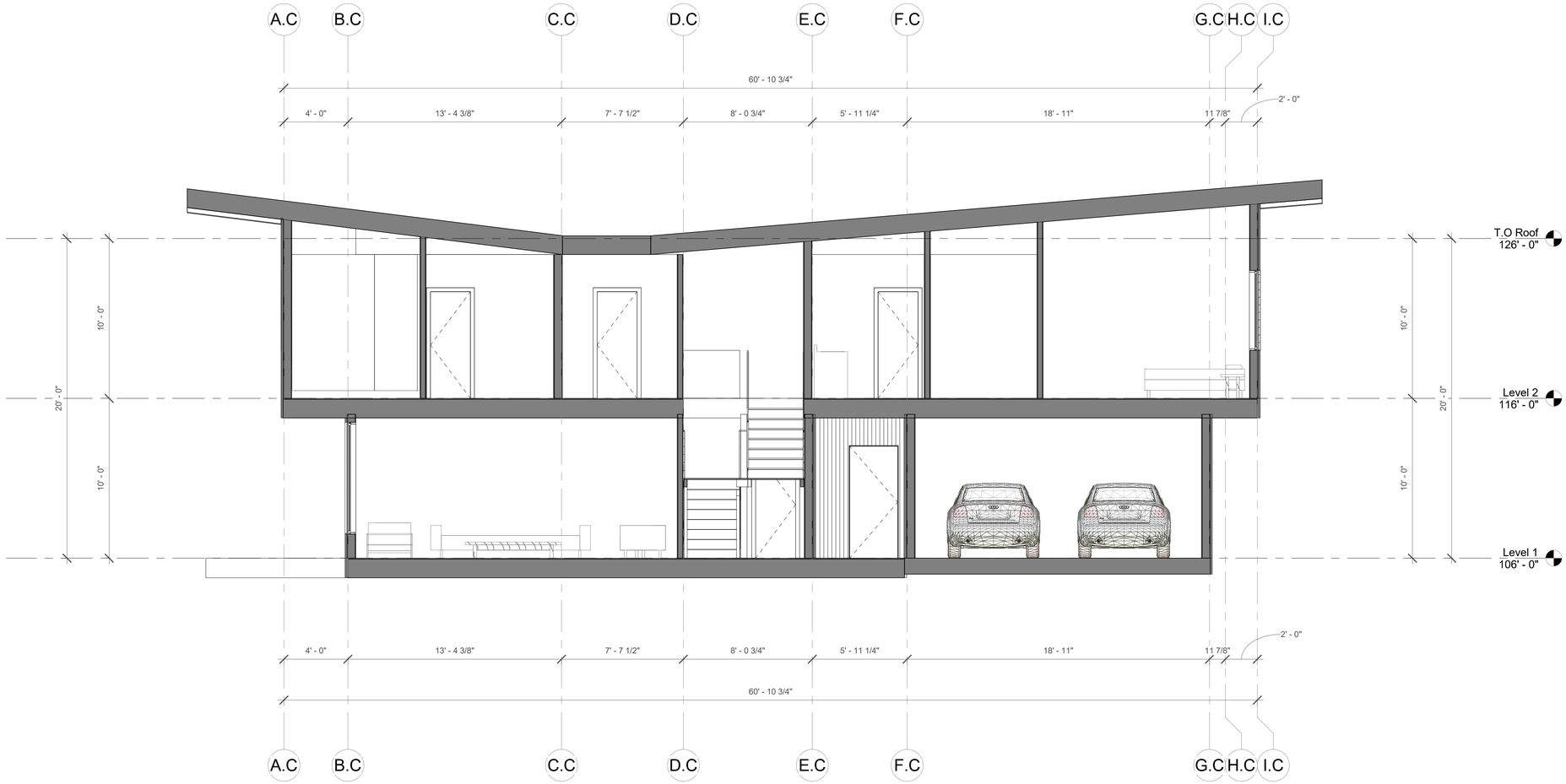

1 Option C Sections - N-S

1/4" = 1'-0"

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Gross Area Summary (Heated)			
Level	Name	Area	Number
Option A			
Level 1	Level 1	1424 SF	Option A
Level 2	Level 2	1843 SF	Option A
Option A: 2		3267 SF	
Option Alley			
Level 1	Level 1	1548 SF	Option Alley
Level 2	Level 2	1682 SF	Option Alley
Option Alley: 2		3230 SF	
Option B			
Level 1	Level 1	1361 SF	Option B
Level 2	Level 2	1749 SF	Option B
Option B: 2		3110 SF	
Option C			
Level 1	Level 1	1345 SF	Option C
Level 2	Level 2	1929 SF	Option C
Option C: 2		3275 SF	
Grand total: 8		12882 SF	

Gross Building (Unheated)			
Level	Name	Area	Number
Option A			
Level 1	Garage (Unheated)	421 SF	Option A
Option A: 1		421 SF	
Option Alley			
Level 1	Garage (Unheated)	466 SF	Option Alley
Level 2	Level 2 Rear Deck (Unheated)	141 SF	Option Alley
Option Alley: 2		607 SF	
Option B			
Level 1	Garage (Unheated)	361 SF	Option B
Level 2	Level 2 Rear Deck (Unheated)	198 SF	Option B
Level 2	Level 2 Front Deck (Unheated)	132 SF	Option B
Option B: 3		690 SF	
Option C			
Level 1	Garage (Unheated)	353 SF	Option C
Level 2	Level 2 Deck (Unheated)	133 SF	Option C
Option C: 2		486 SF	
Grand total: 8		2204 SF	

Option A

Total Heated GSF: 3267gsf

Level 1: 1424gsf
Level 2: 1843gsf

Unheated Garage GSF: 421gsf

Option B

Total Heated GSF: 3110gsf

Level 1: 1361gsf
Level 2: 1749gsf

Unheated Garage GSF: 361gsf

Option C

Total Heated GSF: 3275gsf

Level 1: 1345gsf
Level 2: 1929gsf

Unheated Garage GSF: 353gsf

Option Alley

Total Heated GSF: 3230gsf

Level 1: 1548gsf
Level 2: 1682gsf

Unheated Garage GSF: 466gsf

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Area Schedules
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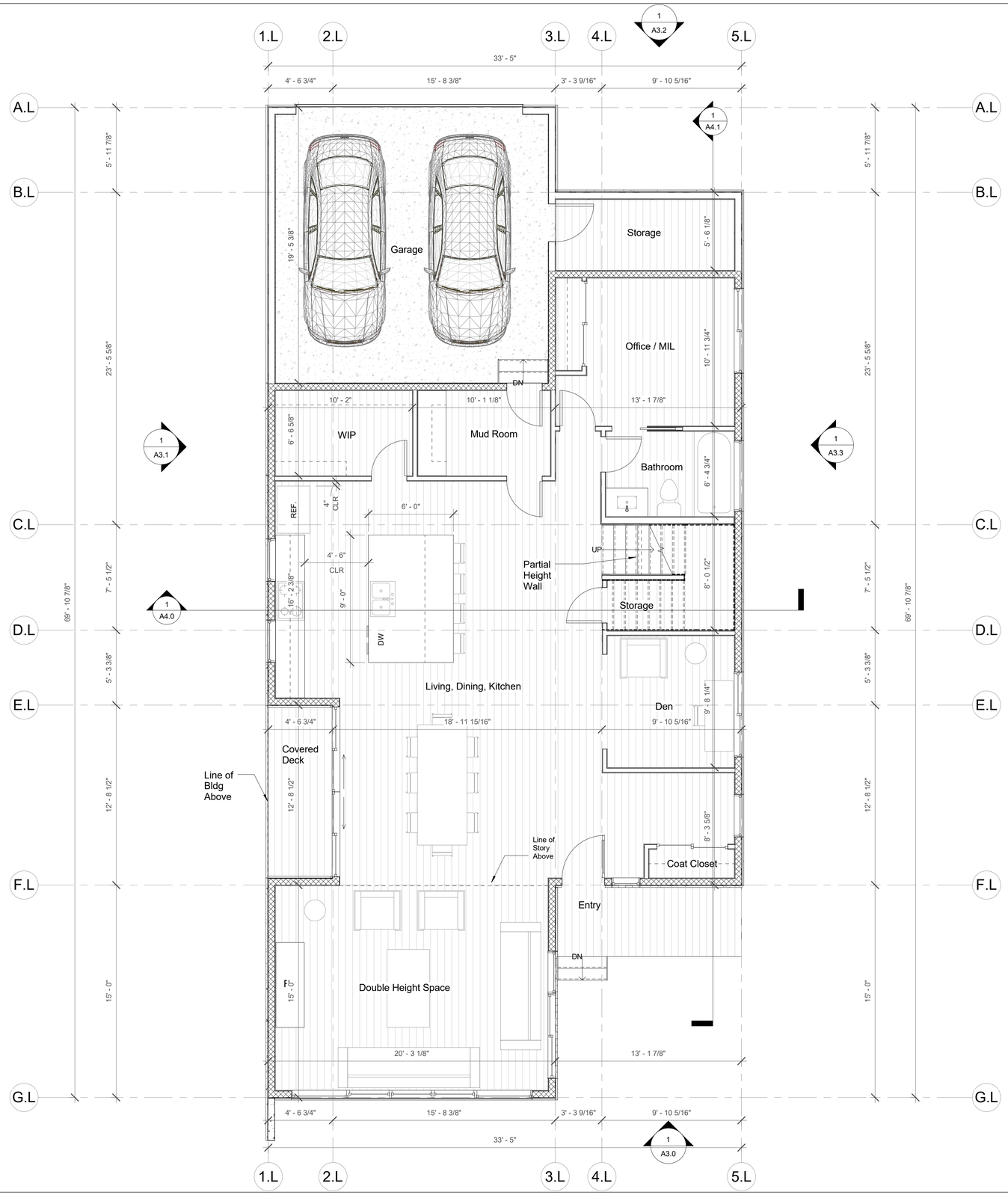
G0.5

DSD - 000183



1 **Option Alley Plans - Level 1**
1/4" = 1'-0"

Option Alley

Total Heated GSF: 3230gsf

Level 1: 1548gsf
Level 2: 1682gsf

Unheated Garage GSF: 466gsf

FLOOR PLAN NOTES

1. Do not scale drawings. Exterior dimensions are to grid lines, and face of sheathing. Interior dimensions are to gridlines and face of stud. Openings are dimensioned to the centerline of the opening, uno.
2. Electrical, mechanical, plumbing and fire protection work is design build. The work shown herein is diagrammatic and intended to illustrate the design intent, not specific requirements. Work req'd by applicable codes or to make the work complete is to be provided.
3. Contractor shall verify locations and sizing of all openings, including but not limited to HVAC, doors and windows with applicable subcontractors.
4. Contractor shall verify installation requirements, hook-ups, venting & penetrations for all fixtures & appliances prior to installation.
5. Provide artificial lighting adjacent to all entry doors and stairs, shield light from all adjacent properties.
6. Window locations vary by room and floor level. See plans, elevations, and schedule for window sizes.
7. Window sizes are nominal rough opening, width and height.
8. See G0.1 & G0.2 for add'l general notes, abbreviations, & symbols.
9. Windows & doors marked w/ an asterisk after their name are tempered openings. Refer to elevations for window configurations and door transom windows.

CARBON MONOXIDE / SD

CO/SD

1. Carbon monoxide alarm should be provided outside of each sleeping area in the immediate vicinity of the bedroom.
2. Carbon monoxide alarm should be provided on each level of the dwelling.
3. CO/SD symbol used for combination smoke detector/carbon monoxide detector.
4. CO/SD detectors to be 110v, interconnected, with battery backup.

SMOKE DETECTORS

SD

1. A smoke detector shall be installed in each sleeping room.
2. A smoke detector shall be centrally located on each floor. In all instances this shall be a combination smoke detector / carbon monoxide detector.
3. An additional smoke detector shall be installed in each location where there is a ceiling height change greater than 24".
4. Smoke detectors to be 110v, interconnected, with battery backup.

VENTILATION REQUIREMENTS

F

Source specific:
Baths, toilet, and laundry rooms: 50 cfm (intermittent)
Kitchens: 100 cfm
(intermittent)

-Exhaust systems shall comply with SRC M1507.4
-Fans & ducts shall be sized and constructed per SRC M1507.4
-Exhaust outlets to be 3 ft. From property lines, 3 ft from operable windows, and 10 ft from mechanical air intakes

Fresh air exchange:
Exhaust through combination bath fans that act as whole house ventilation per table below.
Fresh air inlet through trickle vents in windows

- - - - - Shows 4" vent ducts through ceiling or soffit

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Option Alley Plans - Level 1
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A1.1

1 Option Alley Plans - Level 2

1/4" = 1'-0"

Option Alley

Total Heated GSF: 3230gsf

Level 1: 1548gsf
Level 2: 1682gsf

Unheated Garage GSF: 466gsf

FLOOR PLAN NOTES

1. Do not scale drawings. Exterior dimensions are to grid lines, and face of sheathing. Interior dimensions are to gridlines and face of stud. Openings are dimensioned to the centerline of the opening, uno.
2. Electrical, mechanical, plumbing and fire protection work is design build. The work shown herein is diagrammatic and intended to illustrate the design intent, not specific requirements. Work req'd by applicable codes or to make the work complete is to be provided.
3. Contractor shall verify locations and sizing of all openings, including but not limited to HVAC, doors and windows with applicable subcontractors.
4. Contractor shall verify installation requirements, hook-ups, venting & penetrations for all fixtures & appliances prior to installation.
5. Provide artificial lighting adjacent to all entry doors and stairs, shield light from all adjacent properties.
6. Window locations vary by room and floor level. See plans, elevations, and schedule for window sizes.
7. Window sizes are nominal rough opening, width and height.
8. See G0.1 & G0.2 for add'l general notes, abbreviations, & symbols.
9. Windows & doors marked w/ an asterisk after their name are tempered openings. Refer to elevations for window configurations and door transom windows.

CARBON MONOXIDE / SD

CO/SD

1. Carbon monoxide alarm should be provided outside of each sleeping area in the immediate vicinity of the bedroom.
2. Carbon monoxide alarm should be provided on each level of the dwelling.
3. CO/SD symbol used for combination smoke detector/carbon monoxide detector.
4. CO/SD detectors to be 110v, interconnected, with battery backup.

SMOKE DETECTORS

SD

1. A smoke detector shall be installed in each sleeping room.
2. A smoke detector shall be centrally located on each floor. In all instances this shall be a combination smoke detector / carbon monoxide detector.
3. An additional smoke detector shall be installed in each location where there is a ceiling height change greater than 24".
4. Smoke detectors to be 110v, interconnected, with battery backup.

VENTILATION REQUIREMENTS

F

Source specific:
Baths, toilet, and laundry rooms: 50 cfm (intermittent)
Kitchens: 100 cfm
(intermittent)

-Exhaust systems shall comply with SRC M1507.4
-Fans & ducts shall be sized and constructed per SRC M1507.4
-Exhaust outlets to be 3 ft. From property lines, 3 ft from operable windows, and 10 ft from mechanical air intakes

Fresh air exchange:
Exhaust through combination bath fans that act as whole house ventilation per table below.
Fresh air inlet through trickle vents in windows

– – – – – Shows 4" vent ducts through ceiling or soffit

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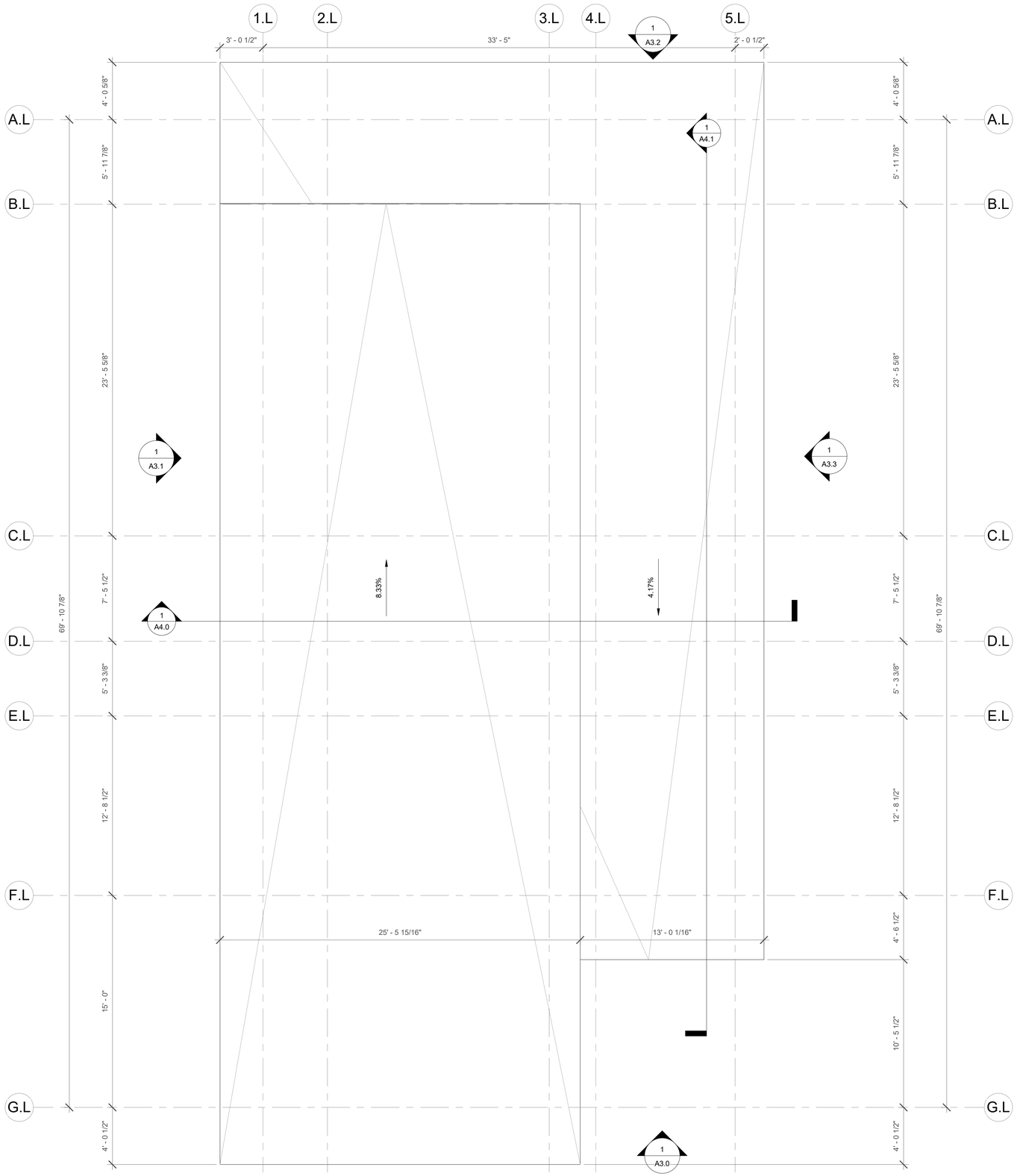
A1.2



Option Alley

Total Heated GSF: 3230gsf

Level 1: 1548gsf
Level 2: 1682gsf

Unheated Garage GSF: 466gsf

FLOOR PLAN NOTES

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3. Contractor shall verify locations and sizing of all openings, including but not limited to HVAC, doors and windows with applicable subcontractors.
4. Contractor shall verify installation requirements, hook-ups, venting & penetrations for all fixtures & appliances prior to installation.
5. Provide artificial lighting adjacent to all entry doors and stairs, shield light from all adjacent properties.
6. Window locations vary by room and floor level. See plans, elevations, and schedule for window sizes.
7. Window sizes are nominal rough opening, width and height.
8. See G0.1 & G0.2 for add'l general notes, abbreviations, & symbols.
9. Windows & doors marked w/ an asterisk after their name are tempered openings. Refer to elevations for window configurations and door transom windows.

CARBON MONOXIDE / SD

CO/SD

1. Carbon monoxide alarm should be provided outside of each sleeping area in the immediate vicinity of the bedroom.
2. Carbon monoxide alarm should be provided on each level of the dwelling.
3. CO/SD symbol used for combination smoke detector/carbon monoxide detector.
4. CO/SD detectors to be 110v, interconnected, with battery backup.

SMOKE DETECTORS

SD

1. A smoke detector shall be installed in each sleeping room.
2. A smoke detector shall be centrally located on each floor. In all instances this shall be a combination smoke detector / carbon monoxide detector.
3. An additional smoke detector shall be installed in each location where there is a ceiling height change greater than 24".
4. Smoke detectors to be 110v, interconnected, with battery backup.

VENTILATION REQUIREMENTS

F

Source specific:
Baths, toilet, and laundry rooms: 50 cfm (intermittent)
Kitchens: 100 cfm
(intermittent)

-Exhaust systems shall comply with SRC M1507.4
-Fans & ducts shall be sized and constructed per SRC M1507.4
-Exhaust outlets to be 3 ft. From property lines, 3 ft from operable windows, and 10 ft from mechanical air intakes

Fresh air exchange:
Exhaust through combination bath fans that act as whole house ventilation per table below.
Fresh air inlet through trickle vents in windows

– – – – – Shows 4" vent ducts through ceiling or soffit

1 Option Alley Plans - Roof
1/4" = 1'-0"

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Option Alley Plans - Roof
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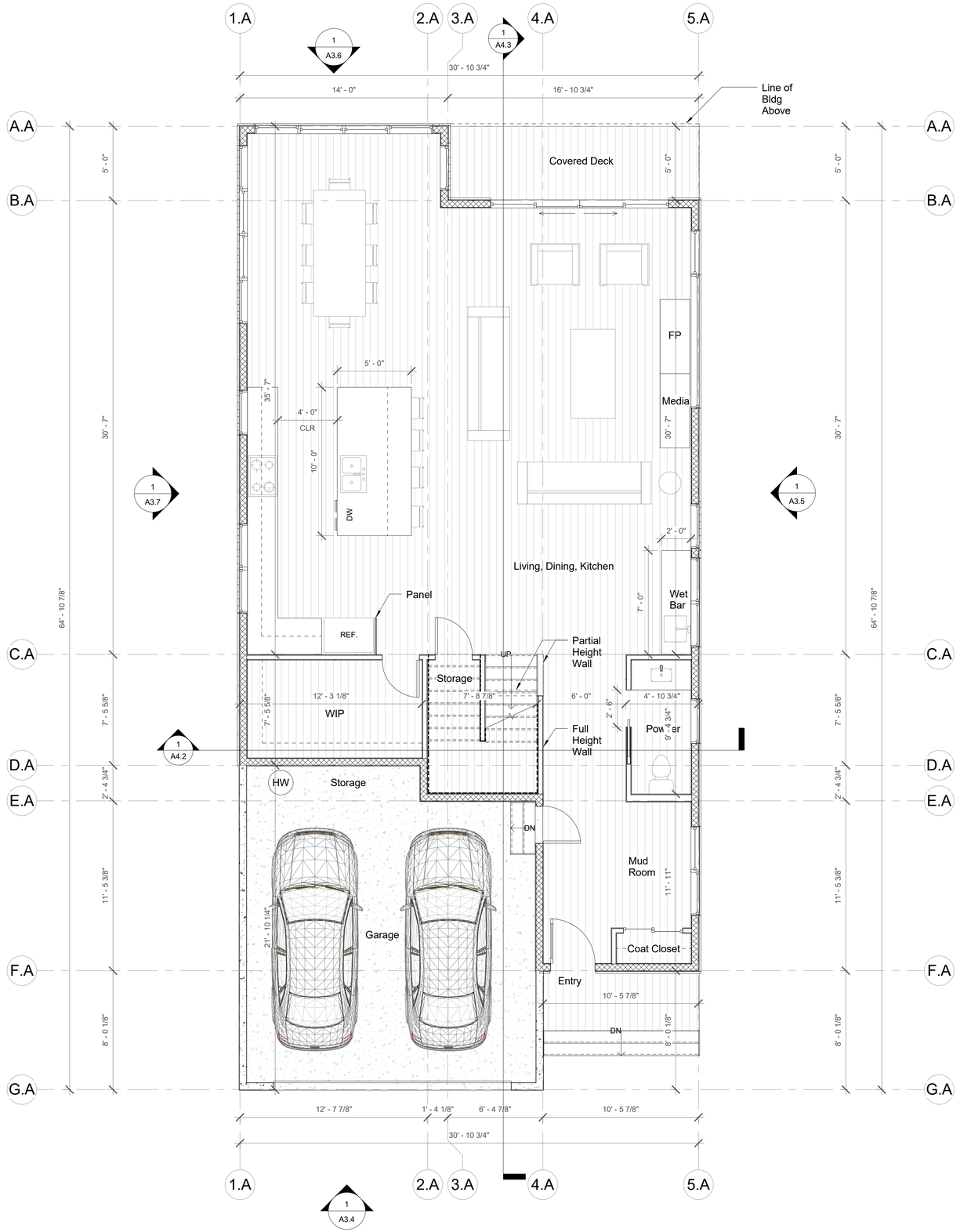
A1.3



1 Option A Plans - Level 1

1/4" = 1'-0"

Option A

Total Heated GSF: 3267gsf

Level 1: 1424gsf
Level 2: 1843gsf

Unheated Garage GSF: 421gsf

FLOOR PLAN NOTES

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7. Window sizes are nominal rough opening, width and height.
8. See G0.1 & G0.2 for add'l general notes, abbreviations, & symbols.
9. Windows & doors marked w/ an asterisk after their name are tempered openings. Refer to elevations for window configurations and door transom windows.

CARBON MONOXIDE / SD

CO/SD

1. Carbon monoxide alarm should be provided outside of each sleeping area in the immediate vicinity of the bedroom.
2. Carbon monoxide alarm should be provided on each level of the dwelling.
3. CO/SD symbol used for combination smoke detector/carbon monoxide detector.
4. CO/SD detectors to be 110v, interconnected, with battery backup.

SMOKE DETECTORS

SD

1. A smoke detector shall be installed in each sleeping room.
2. A smoke detector shall be centrally located on each floor. In all instances this shall be a combination smoke detector / carbon monoxide detector.
3. An additional smoke detector shall be installed in each location where there is a ceiling height change greater than 24".
4. Smoke detectors to be 110v, interconnected, with battery backup.

VENTILATION REQUIREMENTS

F

Source specific:
Baths, toilet, and laundry rooms: 50 cfm (intermittent)
Kitchens: 100 cfm
(intermittent)

-Exhaust systems shall comply with SRC M1507.4
-Fans & ducts shall be sized and constructed per SRC M1507.4
-Exhaust outlets to be 3 ft. From property lines, 3 ft from operable windows, and 10 ft from mechanical air intakes

Fresh air exchange:
Exhaust through combination bath fans that act as whole house ventilation per table below.
Fresh air inlet through trickle vents in windows

- - - - - Shows 4" vent ducts through ceiling or soffit

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Option A Plans - Level 1
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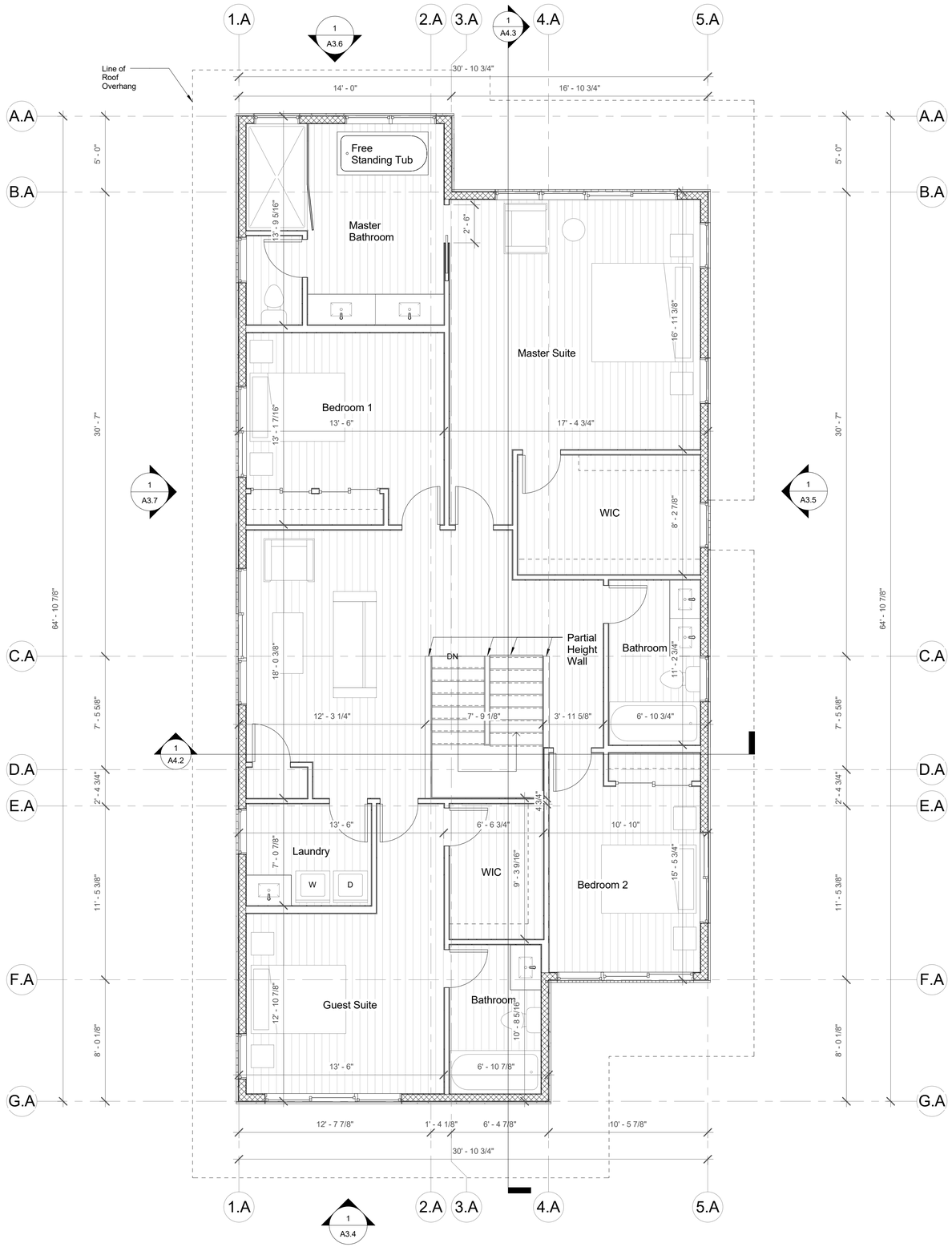
A1.4



1 Option A Plans - Level 2

1/4" = 1'-0"

Option A

Total Heated GSF: 3267gsf

Level 1: 1424gsf
Level 2: 1843gsf

Unheated Garage GSF: 421gsf

FLOOR PLAN NOTES

1. Do not scale drawings. Exterior dimensions are to grid lines, and face of sheathing. Interior dimensions are to gridlines and face of stud. Openings are dimensioned to the centerline of the opening, uno.
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7. Window sizes are nominal rough opening, width and height.
8. See G0.1 & G0.2 for add'l general notes, abbreviations, & symbols.
9. Windows & doors marked w/ an asterisk after their name are tempered openings. Refer to elevations for window configurations and door transom windows.

CARBON MONOXIDE / SD

CO/SD

1. Carbon monoxide alarm should be provided outside of each sleeping area in the immediate vicinity of the bedroom.
2. Carbon monoxide alarm should be provided on each level of the dwelling.
3. CO/SD symbol used for combination smoke detector/carbon monoxide detector.
4. CO/SD detectors to be 110v, interconnected, with battery backup.

SMOKE DETECTORS

SD

1. A smoke detector shall be installed in each sleeping room.
2. A smoke detector shall be centrally located on each floor. In all instances this shall be a combination smoke detector / carbon monoxide detector.
3. An additional smoke detector shall be installed in each location where there is a ceiling height change greater than 24".
4. Smoke detectors to be 110v, interconnected, with battery backup.

VENTILATION REQUIREMENTS

F

Source specific:
Baths, toilet, and laundry rooms: 50 cfm (intermittent)
Kitchens: 100 cfm
(intermittent)

-Exhaust systems shall comply with SRC M1507.4
-Fans & ducts shall be sized and constructed per SRC M1507.4
-Exhaust outlets to be 3 ft. From property lines, 3 ft from operable windows, and 10 ft from mechanical air intakes

Fresh air exchange:
Exhaust through combination bath fans that act as whole house ventilation per table below.
Fresh air inlet through trickle vents in windows

– – – – – Shows 4" vent ducts through ceiling or soffit

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Option A Plans - Level 2
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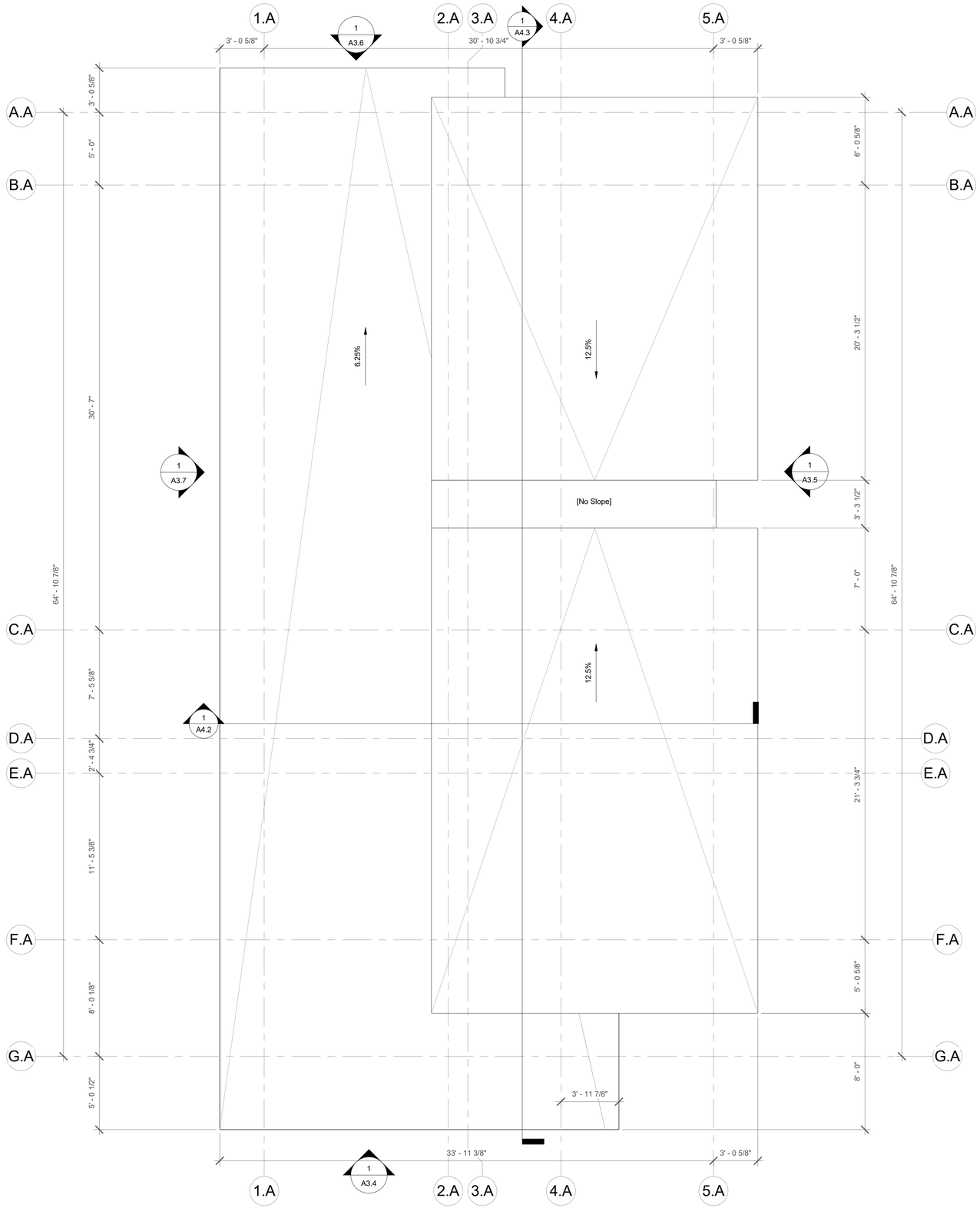
A1.5



Option A

Total Heated GSF: 3267gsf

Level 1: 1424gsf
Level 2: 1843gsf

Unheated Garage GSF: 421gsf

FLOOR PLAN NOTES

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7. Window sizes are nominal rough opening, width and height.
8. See G0.1 & G0.2 for add'l general notes, abbreviations, & symbols.
9. Windows & doors marked w/ an asterisk after their name are tempered openings. Refer to elevations for window configurations and door transom windows.

CARBON MONOXIDE / SD

CO/SD

1. Carbon monoxide alarm should be provided outside of each sleeping area in the immediate vicinity of the bedroom.
2. Carbon monoxide alarm should be provided on each level of the dwelling.
3. CO/SD symbol used for combination smoke detector/carbon monoxide detector.
4. CO/SD detectors to be 110v, interconnected, with battery backup.

SMOKE DETECTORS

SD

1. A smoke detector shall be installed in each sleeping room.
2. A smoke detector shall be centrally located on each floor. In all instances this shall be a combination smoke detector / carbon monoxide detector.
3. An additional smoke detector shall be installed in each location where there is a ceiling height change greater than 24".
4. Smoke detectors to be 110v, interconnected, with battery backup.

VENTILATION REQUIREMENTS

F

Source specific:
Baths, toilet, and laundry rooms: 50 cfm (intermittent)
Kitchens: 100 cfm
(intermittent)

-Exhaust systems shall comply with SRC M1507.4
-Fans & ducts shall be sized and constructed per SRC M1507.4
-Exhaust outlets to be 3 ft. From property lines, 3 ft from operable windows, and 10 ft from mechanical air intakes

Fresh air exchange:
Exhaust through combination bath fans that act as whole house ventilation per table below.
Fresh air inlet through trickle vents in windows

- - - - - Shows 4" vent ducts through ceiling or soffit

1 Option A Plans - Roof
1/4" = 1'-0"

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Option A Plans - Roof
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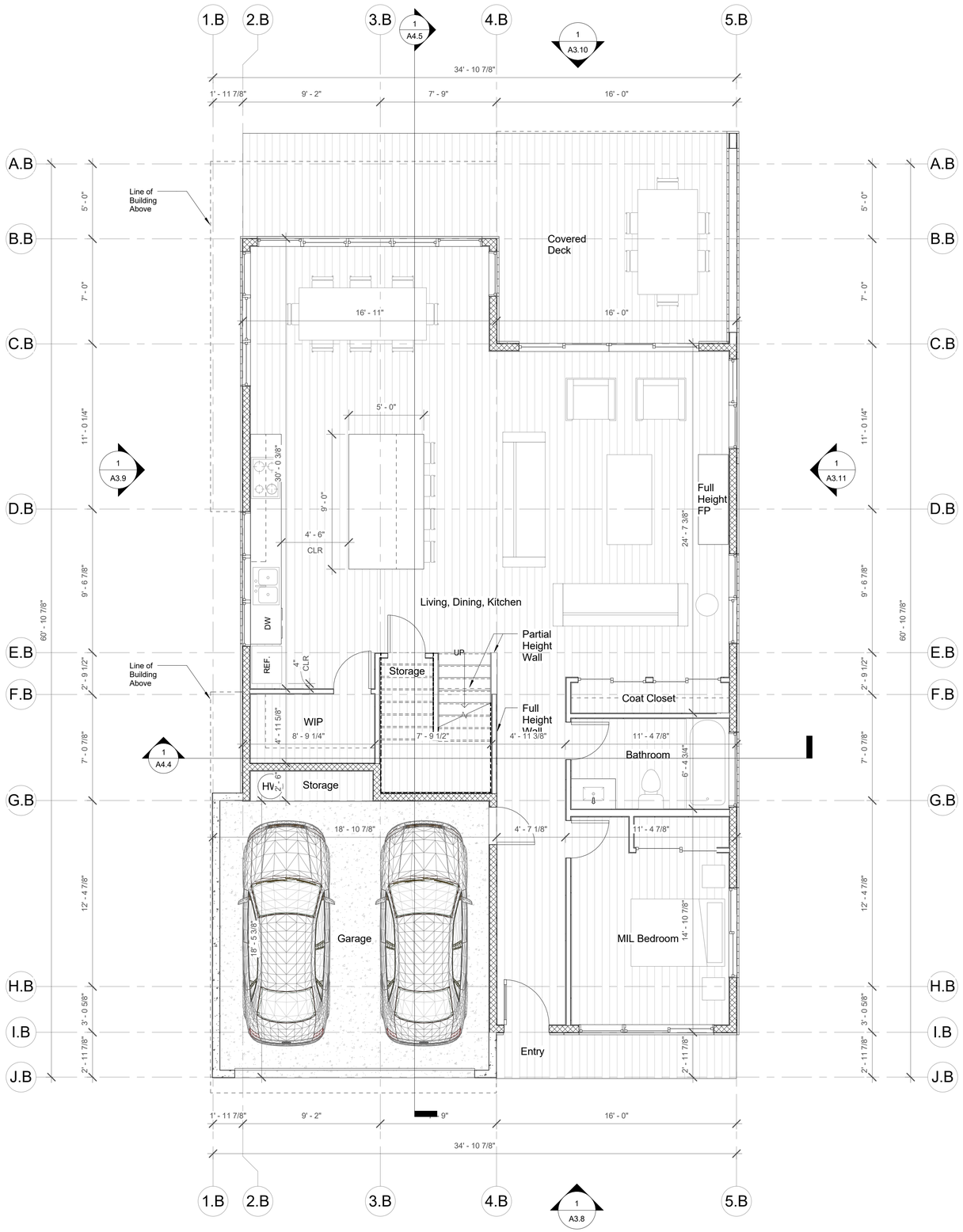

1 Option B Plans - Level 1

1/4" = 1'-0"

Option B

Total Heated GSF: 3110gsf

Level 1: 1361gsf
Level 2: 1749gsf

Unheated Garage GSF: 361gsf

FLOOR PLAN NOTES

1. Do not scale drawings. Exterior dimensions are to grid lines, and face of sheathing. Interior dimensions are to gridlines and face of stud. Openings are dimensioned to the centerline of the opening, uno.
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9. Windows & doors marked w/ an asterisk after their name are tempered openings. Refer to elevations for window configurations and door transom windows.

CARBON MONOXIDE / SD

CO/SD

1. Carbon monoxide alarm should be provided outside of each sleeping area in the immediate vicinity of the bedroom.
2. Carbon monoxide alarm should be provided on each level of the dwelling.
3. CO/SD symbol used for combination smoke detector/carbon monoxide detector.
4. CO/SD detectors to be 110v, interconnected, with battery backup.

SMOKE DETECTORS

SD

1. A smoke detector shall be installed in each sleeping room.
2. A smoke detector shall be centrally located on each floor. In all instances this shall be a combination smoke detector / carbon monoxide detector.
3. An additional smoke detector shall be installed in each location where there is a ceiling height change greater than 24".
4. Smoke detectors to be 110v, interconnected, with battery backup.

VENTILATION REQUIREMENTS

F

Source specific:
Baths, toilet, and laundry rooms: 50 cfm (intermittent)
Kitchens: 100 cfm
(intermittent)

-Exhaust systems shall comply with SRC M1507.4
-Fans & ducts shall be sized and constructed per SRC M1507.4
-Exhaust outlets to be 3 ft. From property lines, 3 ft from operable windows, and 10 ft from mechanical air intakes

Fresh air exchange:
Exhaust through combination bath fans that act as whole house ventilation per table below.
Fresh air inlet through trickle vents in windows

- - - - - Shows 4" vent ducts through ceiling or soffit

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Option B Plans - Level 1
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A1.7

1 **Option B Plans - Level 2**
1/4" = 1'-0"

Option B

Total Heated GSF: 3110gsf

Level 1: 1361gsf
Level 2: 1749gsf

Unheated Garage GSF: 361gsf

FLOOR PLAN NOTES

1. Do not scale drawings. Exterior dimensions are to grid lines, and face of sheathing. Interior dimensions are to gridlines and face of stud. Openings are dimensioned to the centerline of the opening, uno.
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9. Windows & doors marked w/ an asterisk after their name are tempered openings. Refer to elevations for window configurations and door transom windows.

CARBON MONOXIDE / SD

CO/SD

1. Carbon monoxide alarm should be provided outside of each sleeping area in the immediate vicinity of the bedroom.
2. Carbon monoxide alarm should be provided on each level of the dwelling.
3. CO/SD symbol used for combination smoke detector/carbon monoxide detector.
4. CO/SD detectors to be 110v, interconnected, with battery backup.

SMOKE DETECTORS

SD

1. A smoke detector shall be installed in each sleeping room.
2. A smoke detector shall be centrally located on each floor. In all instances this shall be a combination smoke detector / carbon monoxide detector.
3. An additional smoke detector shall be installed in each location where there is a ceiling height change greater than 24".
4. Smoke detectors to be 110v, interconnected, with battery backup.

VENTILATION REQUIREMENTS

F

Source specific:
Baths, toilet, and laundry rooms: 50 cfm (intermittent)
Kitchens: 100 cfm
(intermittent)

-Exhaust systems shall comply with SRC M1507.4
-Fans & ducts shall be sized and constructed per SRC M1507.4
-Exhaust outlets to be 3 ft. From property lines, 3 ft from operable windows, and 10 ft from mechanical air intakes

Fresh air exchange:
Exhaust through combination bath fans that act as whole house ventilation per table below.
Fresh air inlet through trickle vents in windows

- - - - - Shows 4" vent ducts through ceiling or soffit

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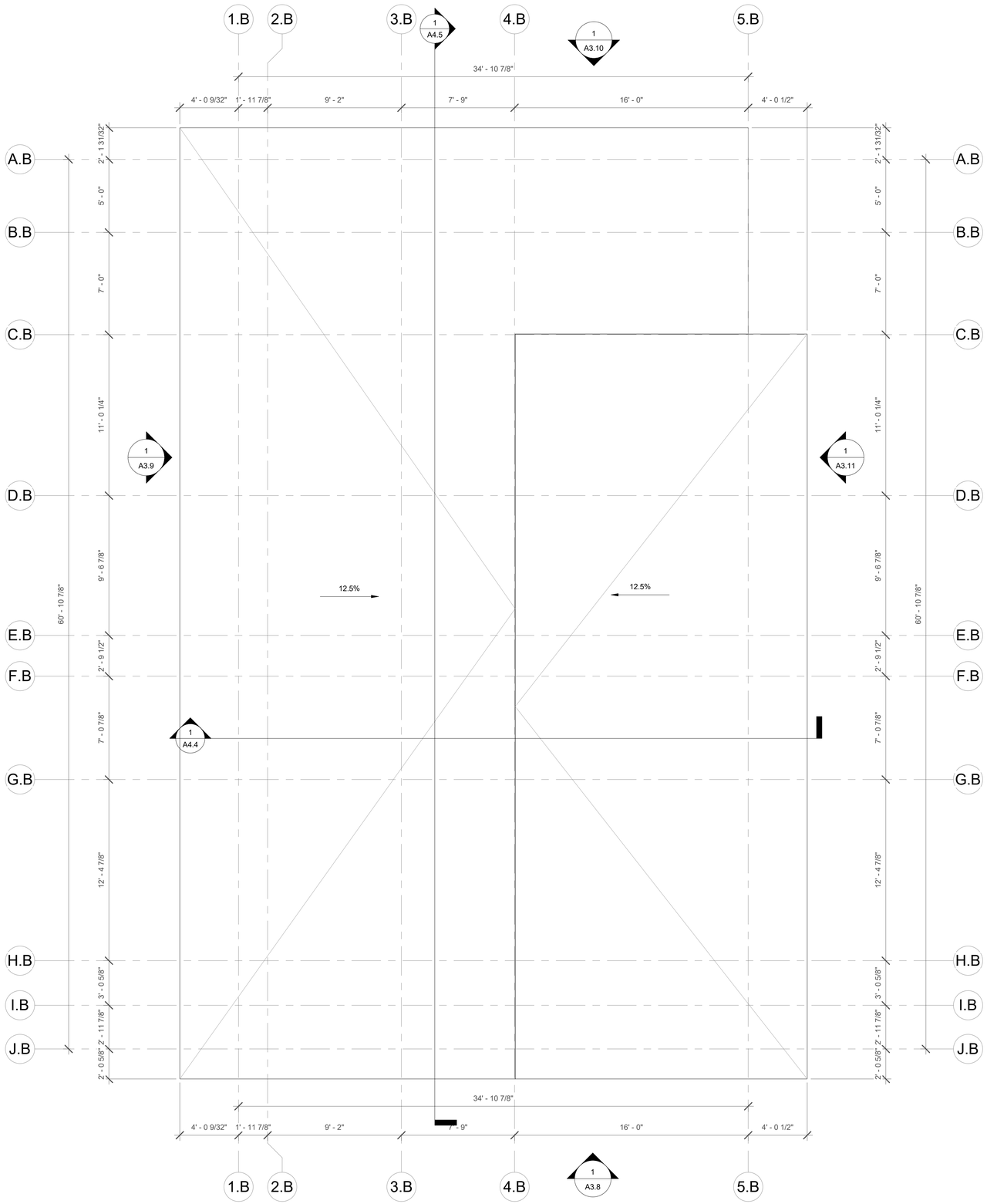

1 Option B Plans - Roof

1/4" = 1'-0"

Option B

Total Heated GSF: 3110gsf

Level 1: 1361gsf
Level 2: 1749gsf

Unheated Garage GSF: 361gsf

FLOOR PLAN NOTES

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CARBON MONOXIDE / SD

CO/SD

1. Carbon monoxide alarm should be provided outside of each sleeping area in the immediate vicinity of the bedroom.
2. Carbon monoxide alarm should be provided on each level of the dwelling.
3. CO/SD symbol used for combination smoke detector/carbon monoxide detector.
4. CO/SD detectors to be 110v, interconnected, with battery backup.

SMOKE DETECTORS

SD

1. A smoke detector shall be installed in each sleeping room.
2. A smoke detector shall be centrally located on each floor. In all instances this shall be a combination smoke detector / carbon monoxide detector.
3. An additional smoke detector shall be installed in each location where there is a ceiling height change greater than 24".
4. Smoke detectors to be 110v, interconnected, with battery backup.

VENTILATION REQUIREMENTS

F

Source specific:
Baths, toilet, and laundry rooms: 50 cfm (intermittent)
Kitchens: 100 cfm
(intermittent)

-Exhaust systems shall comply with SRC M1507.4
-Fans & ducts shall be sized and constructed per SRC M1507.4
-Exhaust outlets to be 3 ft. From property lines, 3 ft from operable windows, and 10 ft from mechanical air intakes

Fresh air exchange:
Exhaust through combination bath fans that act as whole house ventilation per table below.
Fresh air inlet through trickle vents in windows

- - - - - Shows 4" vent ducts through ceiling or soffit

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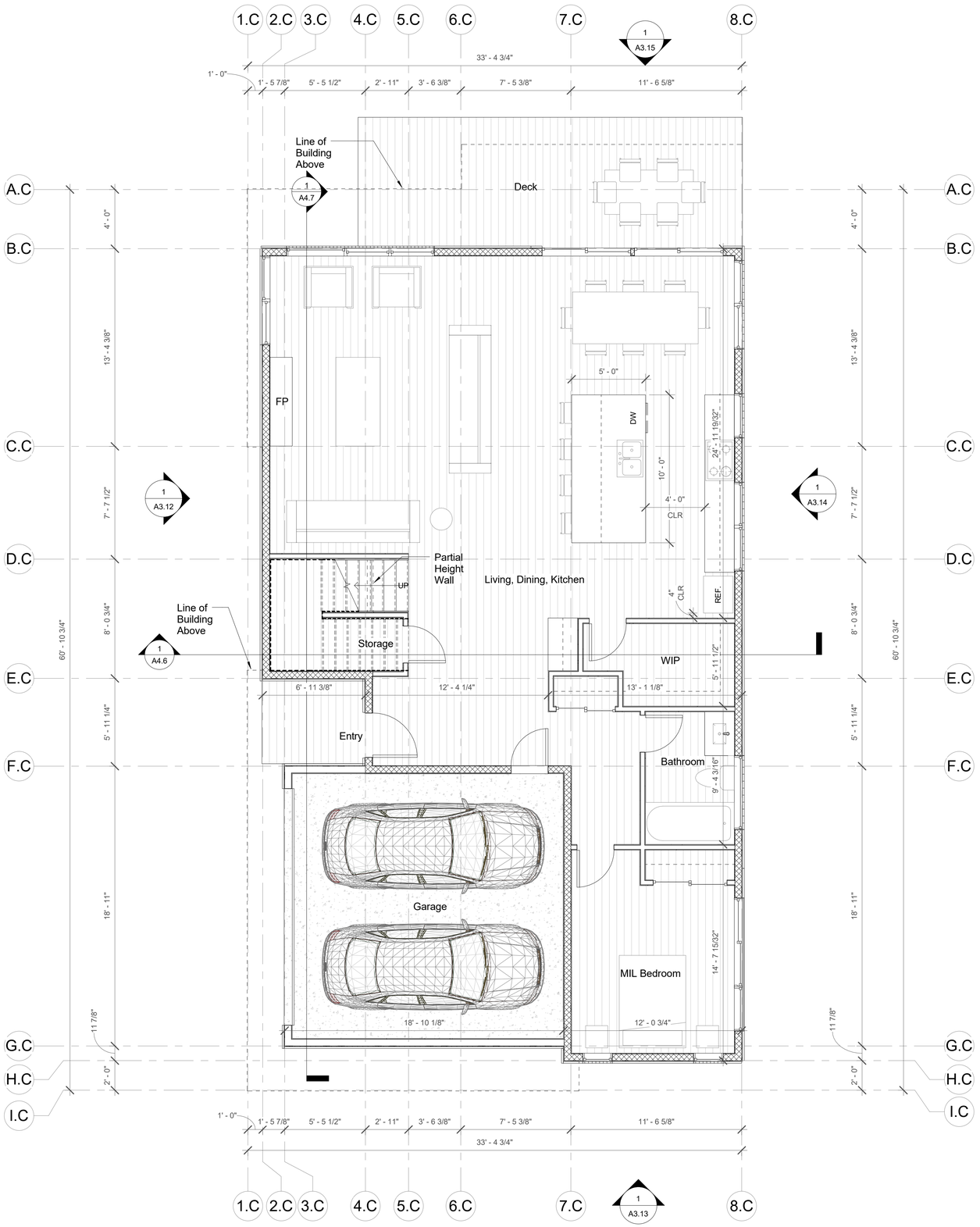

1 **Option C Plans - Level 1**
1/4" = 1'-0"

Option C

Total Heated GSF: 3275gsf

Level 1: 1345gsf
Level 2: 1929gsf

Unheated Garage GSF: 353gsf

FLOOR PLAN NOTES

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CARBON MONOXIDE / SD

CO/SD

1. Carbon monoxide alarm should be provided outside of each sleeping area in the immediate vicinity of the bedroom.
2. Carbon monoxide alarm should be provided on each level of the dwelling.
3. CO/SD symbol used for combination smoke detector/carbon monoxide detector.
4. CO/SD detectors to be 110v, interconnected, with battery backup.

SMOKE DETECTORS

SD

1. A smoke detector shall be installed in each sleeping room.
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3. An additional smoke detector shall be installed in each location where there is a ceiling height change greater than 24".
4. Smoke detectors to be 110v, interconnected, with battery backup.

VENTILATION REQUIREMENTS

F

Source specific:
Baths, toilet, and laundry rooms: 50 cfm (intermittent)
Kitchens: 100 cfm
(intermittent)

-Exhaust systems shall comply with SRC M1507.4
-Fans & ducts shall be sized and constructed per SRC M1507.4
-Exhaust outlets to be 3 ft. From property lines, 3 ft from operable windows, and 10 ft from mechanical air intakes

Fresh air exchange:
Exhaust through combination bath fans that act as whole house ventilation per table below.
Fresh air inlet through trickle vents in windows

- - - - - Shows 4" vent ducts through ceiling or soffit

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Option C Plans - Level 1
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A1.10

1 Option C Plans - Level 2
1/4" = 1'-0"

Option C

Total Heated GSF: 3275gsf

Level 1: 1345gsf
Level 2: 1929gsf

Unheated Garage GSF: 353gsf

FLOOR PLAN NOTES

1. Do not scale drawings. Exterior dimensions are to grid lines, and face of sheathing. Interior dimensions are to gridlines and face of stud. Openings are dimensioned to the centerline of the opening, uno.
2. Electrical, mechanical, plumbing and fire protection work is design build. The work shown herein is diagrammatic and intended to illustrate the design intent, not specific requirements. Work req'd by applicable codes or to make the work complete is to be provided.
3. Contractor shall verify locations and sizing of all openings, including but not limited to HVAC, doors and windows with applicable subcontractors.
4. Contractor shall verify installation requirements, hook-ups, venting & penetrations for all fixtures & appliances prior to installation.
5. Provide artificial lighting adjacent to all entry doors and stairs, shield light from all adjacent properties.
6. Window locations vary by room and floor level. See plans, elevations, and schedule for window sizes.
7. Window sizes are nominal rough opening, width and height.
8. See G0.1 & G0.2 for add'l general notes, abbreviations, & symbols.
9. Windows & doors marked w/ an asterisk after their name are tempered openings. Refer to elevations for window configurations and door transom windows.

CARBON MONOXIDE / SD

CO/SD

1. Carbon monoxide alarm should be provided outside of each sleeping area in the immediate vicinity of the bedroom.
2. Carbon monoxide alarm should be provided on each level of the dwelling.
3. CO/SD symbol used for combination smoke detector/carbon monoxide detector.
4. CO/SD detectors to be 110v, interconnected, with battery backup.

SMOKE DETECTORS

SD

1. A smoke detector shall be installed in each sleeping room.
2. A smoke detector shall be centrally located on each floor. In all instances this shall be a combination smoke detector / carbon monoxide detector.
3. An additional smoke detector shall be installed in each location where there is a ceiling height change greater than 24".
4. Smoke detectors to be 110v, interconnected, with battery backup.

VENTILATION REQUIREMENTS

F

Source specific:
Baths, toilet, and laundry rooms: 50 cfm (intermittent)
Kitchens: 100 cfm
(intermittent)

-Exhaust systems shall comply with SRC M1507.4
-Fans & ducts shall be sized and constructed per SRC M1507.4
-Exhaust outlets to be 3 ft. From property lines, 3 ft from operable windows, and 10 ft from mechanical air intakes

Fresh air exchange:
Exhaust through combination bath fans that act as whole house ventilation per table below.
Fresh air inlet through trickle vents in windows

- - - - - Shows 4" vent ducts through ceiling or soffit

Lemons Architecture PLLC
98 Yesler Way
Seattle, WA 98104
206.306.5952
LemonsArchitecture.com

10848 REGISTERED ARCHITECT
JONATHAN LEMONS
STATE OF WASHINGTON

ISSUE	DATE
Coordination	2016.09.30

Option C Plans - Level 2
Lakemont Eco Community
7219 & 7331 Lakemont Blvd SE
Bellevue, WA, 98006

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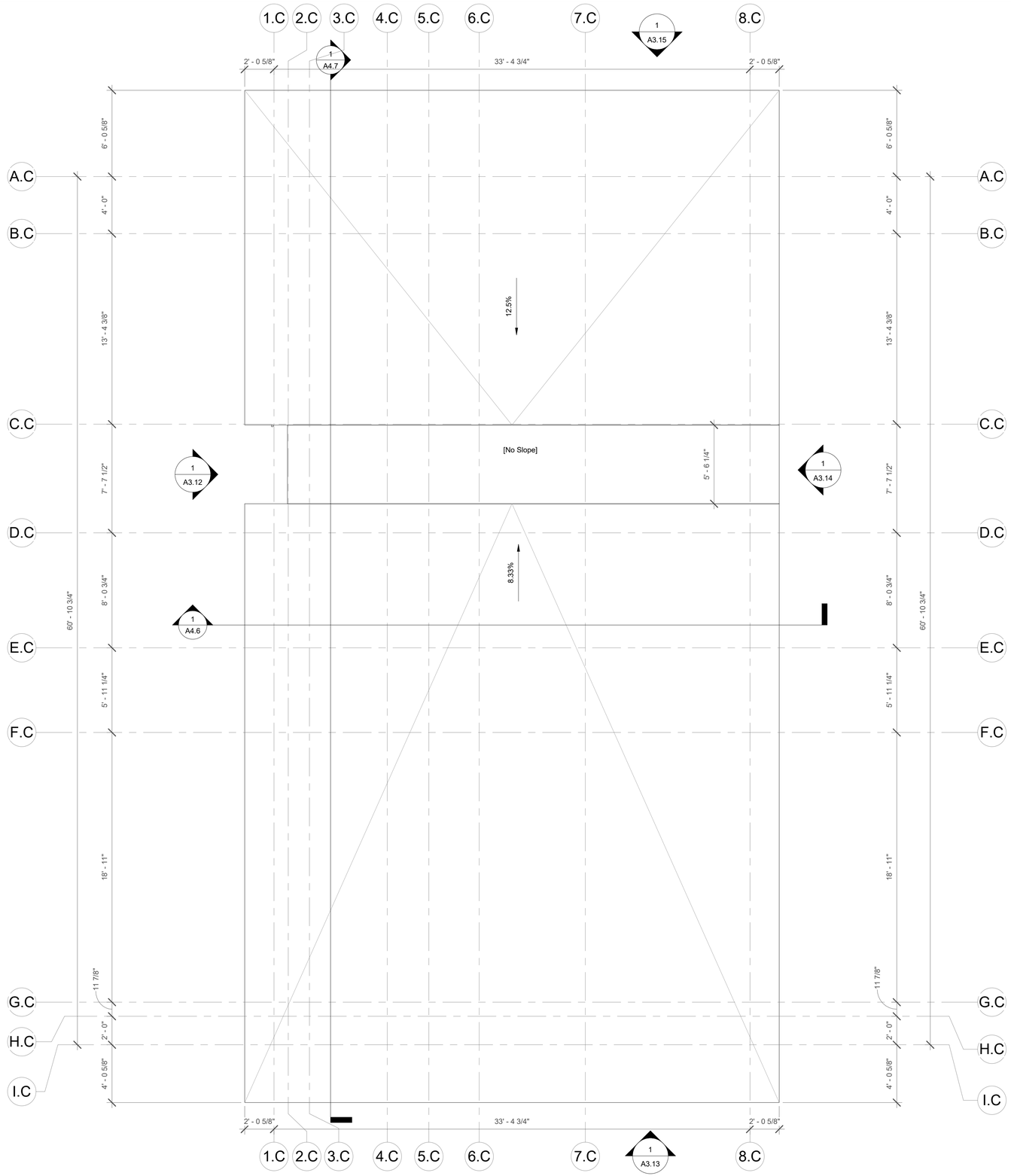
JOB NUMBER:
L15-09

A1.11



1 **Option C Plans - Roof**
1/4" = 1'-0"

Option C

Total Heated GSF: 3275gsf

Level 1: 1345gsf
Level 2: 1929gsf

Unheated Garage GSF: 353gsf

FLOOR PLAN NOTES

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4. Contractor shall verify installation requirements, hook-ups, venting & penetrations for all fixtures & appliances prior to installation.
5. Provide artificial lighting adjacent to all entry doors and stairs, shield light from all adjacent properties.
6. Window locations vary by room and floor level. See plans, elevations, and schedule for window sizes.
7. Window sizes are nominal rough opening, width and height.
8. See G0.1 & G0.2 for add'l general notes, abbreviations, & symbols.
9. Windows & doors marked w/ an asterisk after their name are tempered openings. Refer to elevations for window configurations and door transom windows.

CARBON MONOXIDE / SD

CO/SD

1. Carbon monoxide alarm should be provided outside of each sleeping area in the immediate vicinity of the bedroom.
2. Carbon monoxide alarm should be provided on each level of the dwelling.
3. CO/SD symbol used for combination smoke detector/carbon monoxide detector.
4. CO/SD detectors to be 110v, interconnected, with battery backup.

SMOKE DETECTORS

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1. A smoke detector shall be installed in each sleeping room.
2. A smoke detector shall be centrally located on each floor. In all instances this shall be a combination smoke detector / carbon monoxide detector.
3. An additional smoke detector shall be installed in each location where there is a ceiling height change greater than 24".
4. Smoke detectors to be 110v, interconnected, with battery backup.

VENTILATION REQUIREMENTS

F

Source specific:
Baths, toilet, and laundry rooms: 50 cfm (intermittent)
Kitchens: 100 cfm
(intermittent)

-Exhaust systems shall comply with SRC M1507.4
-Fans & ducts shall be sized and constructed per SRC M1507.4
-Exhaust outlets to be 3 ft. From property lines, 3 ft from operable windows, and 10 ft from mechanical air intakes

Fresh air exchange:
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Fresh air inlet through trickle vents in windows

- - - - - Shows 4" vent ducts through ceiling or soffit

Lemons Architecture PLLC
98 Yesler Way
Seattle, WA 98104
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LemonsArchitecture.com

10848 REGISTERED ARCHITECT
JONATHAN LEMONS
STATE OF WASHINGTON

DATE 2016.09.30

ISSUE
Coordination

Option C Plans - Roof
Lakemont Eco Community
7219 & 7331 Lakemont Blvd SE
Bellevue, WA, 98006

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JOB NUMBER:
L15-09

A1.12

DSD - 000195

TOPOGRAPHIC SURVEY

LEGAL DESCRIPTION

PARCEL #262405-9019
PER OLD REPUBLIC NATIONAL TITLE INSURANCE CO. ORDER NO. 5207131706, DATED AUGUST 31, 2015.

THE SOUTHERLY 356 FEET OF THE NORTHERLY 680 FEET OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 26, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M. LYING WEST OF EDWARD LEIFHELM ROAD;
EXCEPT THE WESTERLY 215 FEET THEREOF;
EXCEPT ANY PORTION THEREOF LYING WESTERLY OF THE THREAD OF AN UNNAMED CREEK, AS CONVEYED TO KING COUNTY BY INSTRUMENT RECORDED MAY 29, 1987 UNDER RECORDING NO. 8602270567.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

SPECIAL EXCEPTIONS:
ITEM #8 & #9
TERMS AND PROVISIONS AS CONTAINED IN AN INSTRUMENT,
ENTITLED : DEED
EXECUTED BY : PACIFIC COAST COAL COMPANY
RECORDED : JULY 24, 1942 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 3254208
"NOT PLOTTED – BLANKET IN NATURE"

ITEM #10
AN EASEMENT AFFECTING THAT PORTION OF SAID LAND AND FOR THE PURPOSES STATED HEREIN AND INCIDENTAL PURPOSES AS PROVIDED IN THE FOLLOWING
GRANTED TO : KING COUNTY
FOR : SLOPES FOR CUTS AND FILLS
RECORDED : OCTOBER 18, 1962 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 5494713
AFFECTS : PORTION ADJOINING THE ROAD
"NOT PLOTTED – BLANKET IN NATURE"

ITEM #11
TERMS AND PROVISIONS AS CONTAINED IN AN INSTRUMENT,
ENTITLED : STATEMENT OF CLAIM OF MINERAL INTEREST (CONTINUING)
EXECUTED BY : PALMER COKING COAL COMPANY, A WASHINGTON PARTNERSHIP
DATED : MAY 11, 2005
RECORDED : MAY 19, 2005 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 20050519001622
"NOT PLOTTED – BLANKET IN NATURE"

BASIS OF BEARINGS

NAD 83(2011) WASHINGTON NORTH COORDINATE SYSTEM
PER CITY OF BELLEVUE CONTROL LINE BETWEEN POINTS #1407 AND #1405 BEARS N 07°58'42" W

REFERENCES

1. RECORD OF SURVEY BOOK 107, PG 39, 39A, RECORDS OF KING COUNTY, WASHINGTON.
2. CITY OF BELLEVUE SURVEY CONTROL NETWORK.

VERTICAL DATUM

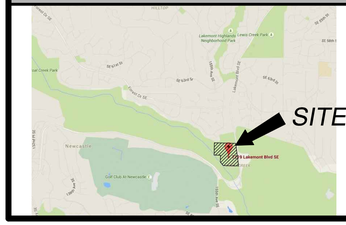
NAVD 88 PER CITY OF BELLEVUE CONTROL PT V280, ELEV=732.168'

SURVEYOR'S NOTES

1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN SEPTEMBER OF 2015, APRIL OF 2016 & MARCH OF 2017. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEVATIONS.
2. BURIED UTILITIES SHOWN BASED ON RECORDS FURNISHED BY OTHERS AND VERIFIED WHERE POSSIBLE IN THE FIELD. GEODIMENSIONS ASSUMES NO LIABILITY FOR THE ACCURACY OF THOSE RECORDS OR ACCEPT RESPONSIBILITY FOR UNDERGROUND LINES WHICH ARE NOT MADE PUBLIC RECORD. FOR THE FINAL LOCATION OF EXISTING UTILITIES IN AREAS CRITICAL TO DESIGN CONTACT THE UTILITY OWNER/AGENCY. AS ALWAYS, CALL 1-800-424-5555 BEFORE CONSTRUCTION.
3. SUBJECT PROPERTY TAX PARCEL NO. 26245-9019 & 262405-9022.
4. SUBJECT PROPERTY AREA PER THIS SURVEY IS 535,222± S.F. (12.3± ACRES)
5. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST THAT ARE NOT SHOWN HEREON.
6. INSTRUMENTATION FOR THIS SURVEY WAS A TRIMBLE ELECTRONIC DISTANCE MEASURING UNIT. PROCEDURES USED IN THIS SURVEY WERE DIRECT AND REVERSE ANGLES, NO CORRECTION NECESSARY. MEETS STATE STANDARDS SET BY WAC 332-130-090.

VICINITY MAP

N.T.S.



LEGAL DESCRIPTION

PARCEL #262405-9022
PER OLD REPUBLIC NATIONAL TITLE INSURANCE CO. ORDER NO. 5216013607, DATED APRIL 8, 2015.

THAT PORTION OF SECTION 26, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

THE NORTH 324 FEET OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER LYING WEST OF THE EDWARD LEIFHELM ROAD SURVEY #1344 BEING BOUND ON THE SOUTH BY NORTH LINE OF TRACT OF LAND CONVEYED BY PACIFIC COAST COAL CO. TO ERNEST SWANSON BY DEED DATED JULY 15, 1942 AND RECORDED IN VOLUME 2066 OF DEEDS, PAGES 475 AND 476, AND THE EXTENSION OF SAID NORTH LINE OF THE ERNEST SWANSON PROPERTY EXTENDED WEST; ALSO THE SOUTH 100 FEET OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER LYING WEST OF THE EDWARD LEIFHELM CO. ROAD SURVEY #1344;

EXCEPT ANY PORTION LYING WESTERLY OF THE THREAD OF AN UNNAMED STREAM, TO-WIT

BEGINNING AT THE CENTER OF SECTION 26, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON; THENCE NORTH 01°04'35"EAST ALONG THE NORTH-SOUTH CENTERLINE OF SAID SECTION 26, A DISTANCE OF 100 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 16°27'31" EAST 445.05 FEET; THENCE NORTH 88°46'03" WEST, PARALLEL TO THE EAST-WEST CENTERLINE OF SAID SECTION, 134.09 FEET TO SAID NORTH-SOUTH CENTERLINE; THENCE NORTH 01°04'35" EAST 424.00 FEET, ALONG SAID NORTH-SOUTH CENTERLINE, TO THE TRUE POINT OF BEGINNING, AS CONVEYED TO KING COUNTY BY DEED RECORDED UNDER KING COUNTY RECORDING NO. 8602270565.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

SPECIAL EXCEPTIONS:
ITEM #8
AN EASEMENT AFFECTING THAT PORTION OF SAID LAND AND FOR THE PURPOSES STATED HEREIN AND INCIDENTAL PURPOSES AS PROVIDED IN THE FOLLOWING
GRANTED TO : PUGET SOUND POWER AND LIGHT COMPANY
FOR : POWER TRANSMISSION POLE LINES
RECORDED : OCTOBER 27, 1939 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 3070389
AFFECTS : THE DESCRIPTION CONTAINED THEREIN IS NOT SUFFICIENT TO DETERMINE ITS EXACT LOCATION WITHIN THE PROPERTY HEREIN DESCRIBED
"NOT PLOTTED – AS CONSTRUCTED"

ITEM #9
TERMS AND PROVISIONS AS CONTAINED IN AN INSTRUMENT,
ENTITLED : EXCEPTIONS AND RESERVATIONS CONTAINED IN DEED
EXECUTED BY : PACIFIC COAST COAL COMPANY
RECORDED : JUNE 24, 1949 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 3913538

STATEMENT OF CLAIM OF MINERAL INTEREST AS A CONTINUING CLAIM UPON SAID REAL ESTATE DATED APRIL 12, 2005, RECORDED APRIL 19, 2005 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 20050419000925.

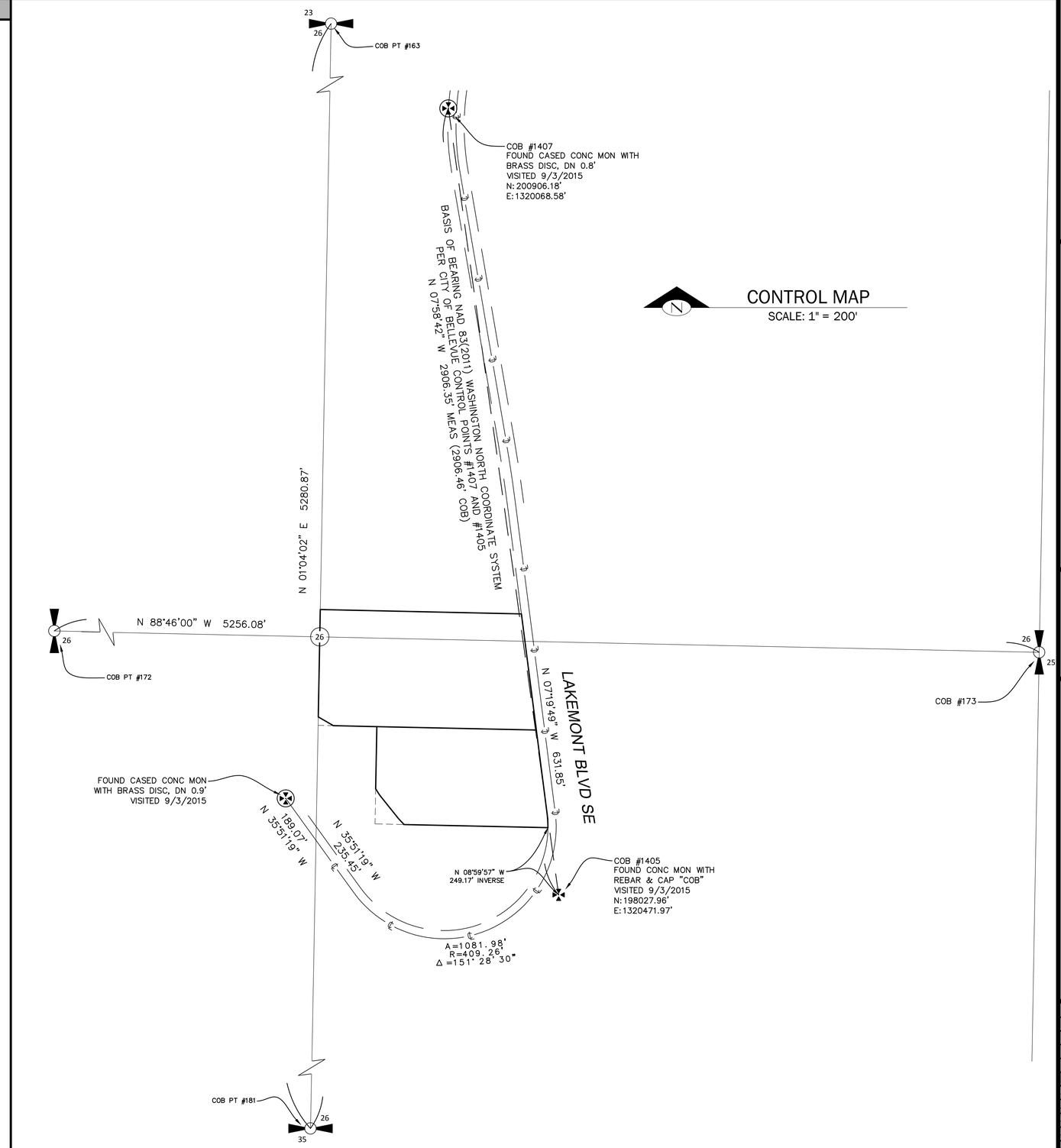
THE ABOVE MATTER IS ALSO RECORDED MAY 19, 2005 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 20050519001620.
"NOT PLOTTED – BLANKET IN NATURE"

ITEM #10
AN EASEMENT AFFECTING THAT PORTION OF SAID LAND AND FOR THE PURPOSES STATED HEREIN AND INCIDENTAL PURPOSES AS PROVIDED IN THE FOLLOWING
GRANTED TO : KING COUNTY
FOR : SLOPES FOR CUTS OR FILLS
RECORDED : SEPTEMBER 19, 1962 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 5481732
"NOT PLOTTED – BLANKET IN NATURE"

ITEM #11
COVENANTS, CONDITIONS AND RESTRICTIONS, BUT OMITTING ANY COVENANTS OR RESTRICTIONS IF ANY, BASED UPON RACE, COLOR, RELIGION, SEX, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN UNLESS AND ONLY TO THE EXTENT THAT SAID COVENANT (A) IS EXEMPT UNDER TITLE 42, SECTION 3607 OF THE UNITED STATES CODE OR (B) RELATES TO HANDICAP BUT DOES NOT DISCRIMINATE AGAINST HANDICAPPED PERSONS, AS PROVIDED IN AN INSTRUMENT.
RECORDED : FEBRUARY 27, 1986 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 8602270568
"PLOTTED"

12. TERMS AND PROVISIONS AS CONTAINED IN AN INSTRUMENT, ENTITLED : NOTICE OF ON-SITE SEWAGE SYSTEM OPERATION AND MAINTENANCE REQUIREMENTS
RECORDED : DECEMBER 12, 2005 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 20051212000275
"NOT SURVEY RELATED"

13. TERMS AND PROVISIONS AS CONTAINED IN AN INSTRUMENT, ENTITLED : CRITICAL AREA NOTICE
RECORDED : AUGUST 31, 2006 IN OFFICIAL RECORDS UNDER RECORDING NUMBER 20060831002323
"NOT SURVEY RELATED"



3/15/17 ADD'L TOPO

measure success

TOPOGRAPHIC SURVEY
SW 1/4 OF NE 1/4 & NW 1/4 OF SE 1/4, SEC 26, TWP 24N, R 5E, W.M.
TAX PARCEL NO. 262405-9022 & 262405-9019

ISOLA HOMES
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE, WA

Terrane
10801 Main Street, Suite 102, Bellevue, WA 98004
phone 425.458.4488 support@terrane.net
www.terrane.net

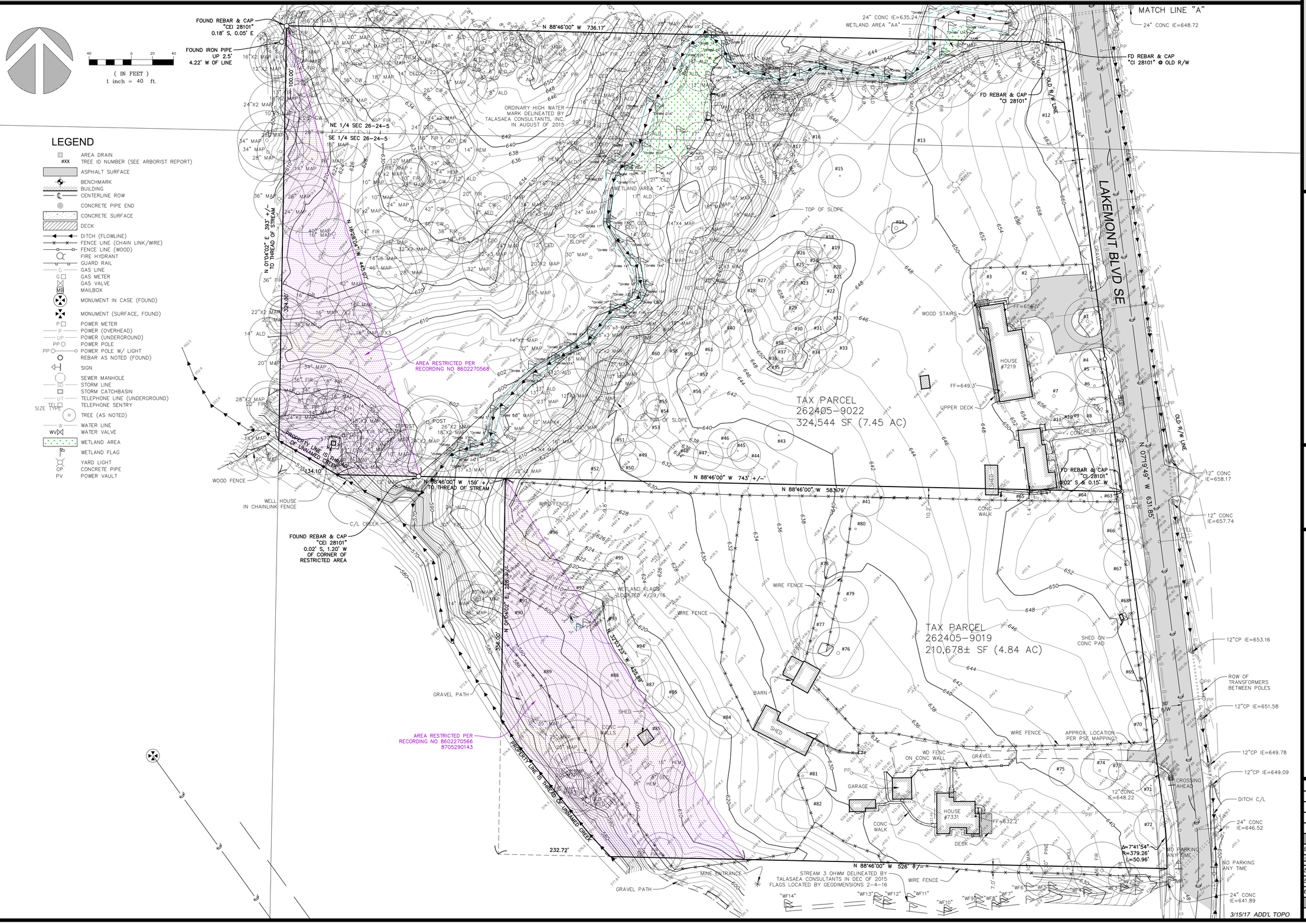
JOB NUMBER:	151150
DATE:	9/15/15
DRAFTED BY:	TLR
CHECKED BY:	SRM
SCALE:	1"= 200'

REVISION HISTORY	
9/28/15	TITLE REPORTS
2/9/16	ADD STREAM 3
5/5/16	ADD OFFSITE ROAD
5/19/16	CORRECT AREAS
6/13/16	ADDL TOPO PTS

SHEET NUMBER
1 OF 3

DSD - 000196

TOPOGRAPHIC SURVEY



LEGEND

- AREA DRAIN
- #XX TREE ID NUMBER (SEE ARBORIST REPORT)
- ASPHALT SURFACE
- BENCHMARK
- BUILDING
- CENTERLINE ROW
- CONCRETE PIPE END
- CONCRETE SURFACE
- DECK
- DITCH (FLOWLINE)
- FENCE LINE (CHAIN LINK/WIRE)
- FENCE LINE (WOOD)
- FIRE HYDRANT
- GUARD RAIL
- G GAS LINE
- G GAS METER
- GAS VALVE
- MB MAILBOX
- MONUMENT IN CASE (FOUND)
- MONUMENT (SURFACE, FOUND)
- P POWER METER
- P POWER (OVERHEAD)
- UP POWER (UNDERGROUND)
- PP POWER POLE
- PP POWER POLE W/ LIGHT
- REBAR AS NOTED (FOUND)
- SIGN
- SEWER MANHOLE
- ST STORM LINE
- STORM CATCHBASIN
- UT TELEPHONE LINE (UNDERGROUND)
- TEL TELEPHONE SENTRY
- SIZE TYPE TREE (AS NOTED)
- W WATER LINE
- WV WATER VALVE
- WETLAND AREA
- WETLAND FLAG
- CP YARD LIGHT CONCRETE PIPE
- PV POWER VAULT

measure success

TOPOGRAPHIC SURVEY
SW 1/4 OF NE 1/4 & NW 1/4 OF SE 1/4, SEC 26, TWP 24N, R 5E, W.M.
TAX PARCEL NO. 262405-9022 & 262405-9019

ISOLA HOMES
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE, WA

LAFAYETTE-MILLER SEAN A. SOUTHERN 21719 REGISTERED PROFESSIONAL LAND SURVEYOR STATE OF WASHINGTON

Terrane
10801 Main Street, Suite 102, Bellevue, WA 98004
phone 425.458.4488 support@terrane.net
www.terrane.net

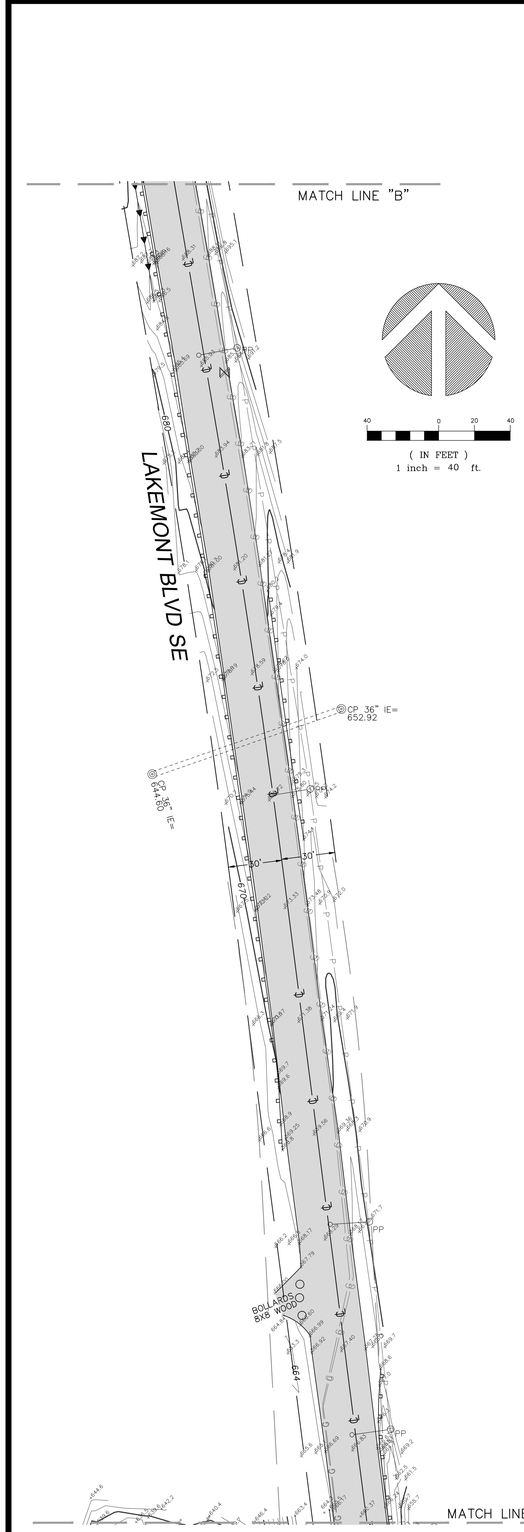
JOB NUMBER:	151150
DATE:	9/15/15
DRAFTED BY:	TLR
CHECKED BY:	SRM
SCALE:	1"= 40'

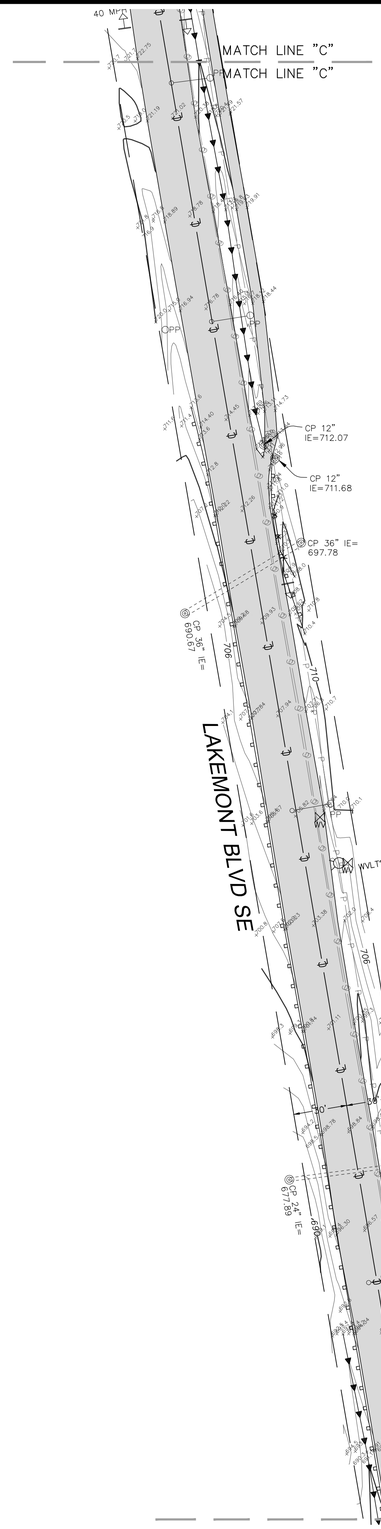
REVISION HISTORY	
9/28/15	RESTRICTED AREAS
2/9/16	ADD STREAM 3
5/5/16	ADD OFFSITE ROAD
5/19/16	CORRECT AREAS
6/13/16	ADDL TOPO PTS

SHEET NUMBER
2 OF 3

DSD - 000197

TOPOGRAPHIC SURVEY





LEGEND

- AREA DRAIN
- #XX TREE ID NUMBER (SEE ARBORIST REPORT)
- ASPHALT SURFACE
- BENCHMARK
- BUILDING
- CENTERLINE ROW
- CONCRETE PIPE END
- CONCRETE SURFACE
- DECK
- DITCH (FLOWLINE)
- FENCE LINE (CHAIN LINK/WIRE)
- FENCE LINE (WOOD)
- FIRE HYDRANT
- GUARD RAIL
- G GAS LINE
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- GAS VALVE
- MB MAILBOX
- MONUMENT IN CASE (FOUND)
- MONUMENT (SURFACE, FOUND)
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- REBAR AS NOTED (FOUND)
- SIGN
- SEWER MANHOLE
- SD STORM LINE
- STORM CATCHBASIN
- UT TELEPHONE LINE (UNDERGROUND)
- TEL TELEPHONE SENTRY
- SIZE TYPE TREE (AS NOTED)
- W WATER LINE
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- WETLAND AREA
- WETLAND FLAG
- YARD LIGHT
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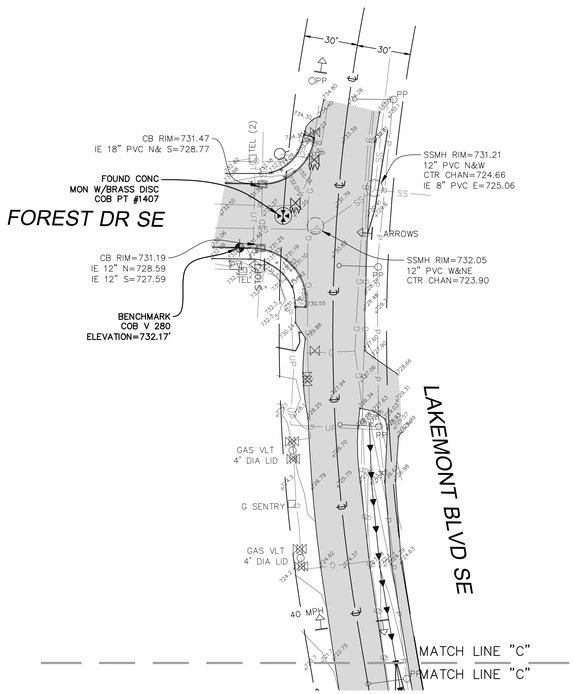

40 0 20 40
(IN FEET)
1 inch = 40 ft.

3/15/17 ADD'L TOPO

measure success

TOPOGRAPHIC SURVEY
SW 1/4 OF NE 1/4 & NW 1/4 OF SE 1/4, SEC 26, TWP 24N, R 5E, W.M.
TAX PARCEL NO. 262405-9022 & 262405-9019

ISOLA HOMES
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE, WA

JEFFREY T. MILLER — STATE OF WASHINGTON — 22405 — REGISTERED PROFESSIONAL LAND SURVEYOR
3/17/2017

Terrane
10801 Main Street, Suite 102, Bellevue, WA 98004
phone 425.458.4488 support@terrane.net
www.terrane.net

JOB NUMBER:	151150
DATE:	9/15/15
DRAFTED BY:	TLR
CHECKED BY:	SRM
SCALE:	1"= 40'
REVISION HISTORY	
9/28/15	RESTRICTED AREAS
2/9/16	ADD STREAM 3
5/5/16	ADD OFFSITE ROAD
5/19/16	CORRECT AREAS
6/13/16	ADDL TOPO PTS
SHEET NUMBER	
3 OF 3	

DSD - 000198

ORDER NO. : 5207131706

EXHIBIT A

The land referred to is situated in the County of King, City of Bellevue, State of Washington, and is described as follows:

The Southerly 356 feet of the Northerly 680 feet of the Northwest quarter of the Southeast quarter of Section 26, Township 24 North, Range 5 East, W.M., lying West of Edward Leifhelm Road;

EXCEPT the Westerly 215 feet thereof; and
EXCEPT any portion thereof lying Westerly of the thread of an unnamed creek, as conveyed to King County by instrument recorded May 29, 1987 under Recording No. 8705290142, being a re-record of that certain document recorded under Recording No. 8602270567.

SITUATE in the County of King, State of Washington

ABBREVIATED LEGAL

Portion of the Northwest quarter of the Southeast quarter of Section 26, Township 24 North, Range 5 East, W.M.

Tax Account No. 262405-9019-07

DSD - 000199

ORDER NO. : 5216013607

EXHIBIT A

The land referred to is situated in the County of King, City of Bellevue, State of Washington, and is described as follows:

That portion of Section 26, Township 24 North, Range 5 East, W.M., in King County, Washington, described as follows:

The North 324 feet of the Northwest quarter of the Southeast quarter lying West of the Edward Leifhelm Road Survey #1344 being bounded on the South by North line of tract of land conveyed by Pacific Coast Coal Co. to Ernest Swanson by deed dated July 15, 1942 and recorded in Volume 2066 of deeds, pages 475 and 476, and the extension of said North line of the Ernest Swanson property extended West;
ALSO the South 100 feet of the Southwest quarter of the Northeast quarter lying West of the Edward Leifhelm Co. Road Survey #1344;

EXCEPT any portion lying Westerly of the thread of an unnamed stream, to-wit;

Beginning at the center of Section 26, Township 24 North, Range 5 East, W.M., in King County, Washington;
THENCE North 01°04'35" East along the North-South centerline of said Section 26, a distance of 100 feet to the True Point of Beginning;
THENCE South 16°27'31" East 445.05 feet;
THENCE North 88°46'03" West, parallel to the East-West centerline of said Section, 134.09 feet to said North-South centerline;
THENCE North 01°04'35" East 424.00 feet, along said North-South centerline to the True Point of Beginning, as conveyed to King County by deed recorded under King County Recording No. 8602270565.

SITUATE in the County of King, State of Washington

ABBREVIATED LEGAL

Portion of Section 26, Township 24 North, Range 5 East, W.M., King County, Washington

Tax Account No. 262405-9022-02

DSD - 000200

CHICAGO TITLE OF WASHINGTON

Existing PUD Application: 16-143970-LK
Existing Critical Areas Land Use: 16-145946-LO
Application for Preliminary Plat Dated: 8/16/2019

Commitment for Title Insurance

Title Officer: Eastside Title Unit
Email: CTIBellevueETU@ctt.com
Title No.: 0152217-ETU

Property Address:

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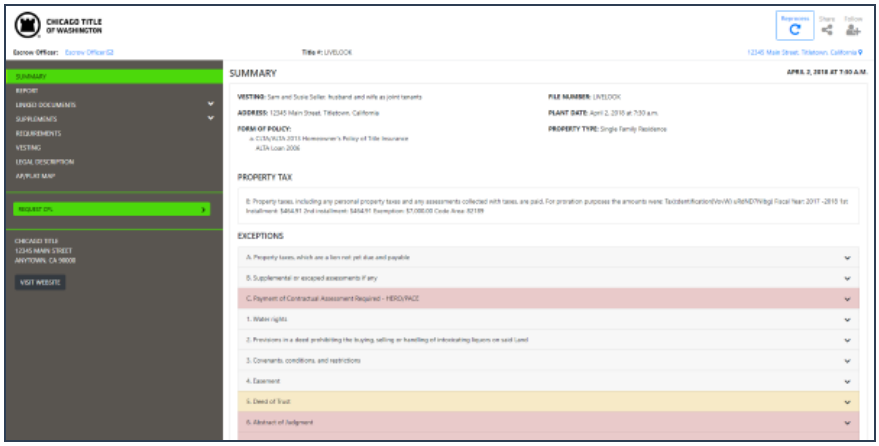

Effortless, Efficient, Compliant, and Accessible

DSD - 000201

SUBDIVISION

Issued By:

CHICAGO TITLE INSURANCE COMPANY

Guarantee/Certificate Number:

0152217-ETU - SECOND

CHICAGO TITLE INSURANCE COMPANY
a corporation, herein called the Company

GUARANTEES

Terrane

herein called the Assured, against actual loss not exceeding the liability amount stated in Schedule A which the Assured shall sustain by reason of any incorrectness in the assurances set forth in Schedule A.

LIABILITY EXCLUSIONS AND LIMITATIONS

1. No guarantee is given nor liability assumed with respect to the identity of any party named or referred to in Schedule A or with respect to the validity, legal effect or priority of any matter shown therein.
2. The Company's liability hereunder shall be limited to the amount of actual loss sustained by the Assured because of reliance upon the assurance herein set forth, but in no event shall the Company's liability exceed the liability amount set forth in Schedule A.

Please note carefully the liability exclusions and limitations and the specific assurances afforded by this guarantee. If you wish additional liability, or assurances other than as contained herein, please contact the Company for further information as to the availability and cost.

Chicago Title Insurance Company

By:

President

Chicago Title Company of Washington
10500 NE 8th St., Suite 600
Bellevue, WA 98004

Countersigned By:

Authorized Officer or Agent

Attest:

Secretary

DSD - 000202

ISSUING OFFICE:
Title Officer: Eastside Title Unit Chicago Title Company of Washington 10500 NE 8th St., Suite 600 Bellevue, WA 98004 Main Phone: (425)646-9883 Email: CTIBellevueETU@ctt.com

SCHEDULE A

Liability	Premium	Tax
$1,000.00	$350.00	$35.00

Effective Date: August 5, 2019 at 12:00 AM

The assurances referred to on the face page are:

That, according to those public records which, under the recording laws, impart constructive notice of matter relative to the following described property:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

Title to said real property is vested in:

Coal Creek Holdings, LLC, a Washington limited liability company

subject to the matters shown below under Exceptions, which Exceptions are not necessarily shown in the order of their priority.

END OF SCHEDULE A

EXHIBIT "A"

Legal Description

PARCEL A (APN - 262405-9019-07):

THE SOUTHERLY 356 FEET OF THE NORTHERLY 680 FEET OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 26, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., LYING WEST OF EDWARD LEIFHELM ROAD;

EXCEPT THE WESTERLY 215 FEET THEREOF;

AND EXCEPT ANY PORTION THEREOF LYING WESTERLY OF THE THREAD OF AN UNNAMED CREEK, AS CONVEYED TO KING COUNTY BY INSTRUMENT RECORDED MAY 26, 1987 UNDER RECORDING NO. 8705290142, BEING A RE-RECORD OF THAT CERTAIN DOCUMENT RECORDED UNDER RECORDING NO. 8602270567.

PARCEL B (APN - 262405-9022-02):

THAT PORTION OF SECTION 26, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

THE NORTH 324 FEET OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER LYING WEST OF THE EDWARD LEIFHELM ROAD SURVEY #1344 BEING BOUNDED ON THE SOUTH BY THE NORTH LINE OF TRACT OF LAND CONVEYED BY PACIFIC COAST COAL CO. TO ERNEST SWANSON BY DEED DATED JULY 15, 1942 AND RECORDED IN VOLUME 2066 OF DEEDS, PAGES 475 AND 476, AND THE EXTENSION OF SAID NORTH LINE OF THE ERNEST SWANSON PROPERTY EXTENDED WEST;

ALSO THE SOUTH 100 FEET OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER LYING WEST OF THE EDWARD LEIFHELM CO. ROAD SURVEY #1344;

EXCEPT THAT PORTION LYING WESTERLY OF THE THREAD OF AN UNNAMED STREAM, TO-WIT:

BEGINNING AT THE CENTER OF SECTION 26, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON;
THENCE NORTH 01°04'35" EAST ALONG THE NORTH - SOUTH CENTERLINE OF SAID SECTION 26, A DISTANCE OF 100 FEET TO THE TRUE POINT OF BEGINNING;
THENCE SOUTH 16°27'31" EAST 445.05 FEET;
THENCE NORTH 88°46'03" WEST, PARALLEL TO THE EAST - WEST CENTERLINE OF SAID SECTION, 134.09 FEET TO SAID NORTH - SOUTH CENTERLINE;
THENCE NORTH 01°04'35" EAST 424.00 FEET, ALONG SAID NORTH - SOUTH CENTERLINE, TO THE TRUE POINT OF BEGINNING, AS CONVEYED TO KING COUNTY BY DEED RECORDED UNDER KING COUNTY RECORDING NUMBER 8602270565.

BOTH SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

SCHEDULE B

GENERAL EXCEPTIONS:

H. Reservations and exceptions in United States Patents or in Acts authorizing the issuance thereof.

SPECIAL EXCEPTIONS:

1. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

   Granted to: Puget Sound Power and Light Company
   Purpose: Power transmission pole lines
   Recording Date: October 27, 1939
   Recording No.: 3070389
   Affects: The description contained therein is not sufficient to determine its exact location within the property herein described

   Affects: Parcel A

2. Reservations and exceptions contained in the deed

   Grantor: Pacific Coast Coal Company
   Recording No.: 3254208

   Reserving and excepting from said Lands so much or such portions thereof as are or may be mineral lands or contain coal or iron, and also the use and the right and title to the use of such surface ground as may be necessary for ground operations and the right of access to such reserved and excepted mineral lands, including lands containing coal or iron, for the purpose of exploring, developing and working the land.

   The Company makes no representations about the present ownership of these reserved and excepted interests.

   Affects: Parcel A

3. Reservations of oil, coal, gas and minerals and/or mineral rights of any nature, and right of entry to explore same, contained in the deed

   Grantor: Pacific Coast Coal Company
   Recording Date: June 24, 1949
   Recording No.: 3913538

   NOTE: This exception does not include present ownership of the above mineral rights.

   Affects: Parcel B

DSD - 000205

SCHEDULE B
(continued)

4. Reservations and recitals contained in the Deed as set forth below:

   Recording Date: July 24, 1942
   Recording No.: 3254208

   Affects: Parcel A

5. Right to make necessary slopes for cuts or fills upon property herein described as granted or reserved in deed

   In favor of: King County
   Recording Date: September 19, 1962
   Recording No.: 5481732

   Affects: Parcel B

6. Right to make necessary slopes for cuts or fills upon property herein described as granted or reserved in deed

   In favor of: King County
   Recording Date: October 18, 1962
   Recording No.: 5494713

   Affects: Portion of Parcel A, adjoining the road

7. Notice of water and/or sewer connection charges and the terms and conditions thereof:

   Recording Date: January 25, 1978
   Recording No.: 7801250820

8. Affects: Parcel A

9. Covenants, conditions and restrictions but omitting any covenants or restrictions, if any, including but not limited to those based upon race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, source of income, gender, gender identity, gender expression, medical condition or genetic information, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law, as set forth in the document

   Recording Date: February 27, 1986
   Recording No.: 8602270568

   Affects: Parcel B

10. Covenants, conditions and restrictions but omitting any covenants or restrictions, if any, including but not limited to those based upon race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, source of income, gender, gender identity, gender expression, medical condition or genetic information, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law, as set forth in the document

    Recording Date: May 29, 1987
    Recording No.: 8705290143

SCHEDULE B
(continued)

Affects: Parcel B

11. Notice of charges by water, sewer and/or storm and surface water utilities and the terms and conditions thereof:

Recording Date: December 20, 1996
Recording No.: 9612200938

12. Notice of On-Site Sewage System Operation and Maintenance Requirements and the terms and conditions thereof:

Recording Date: December 12, 2005
Recording No.: 20051212000275

13. Critical Area Notice and the terms and conditions thereof:

Recording Date: August 31, 2006
Recording No.: 20060831002323

Affects: Parcel B

14. Any question that may arise due to shifting or change in the course, boundaries or high water line of unnamed creek or due to prior shifting or changing of the course, boundaries or high water line; and rights of the State of Washington in and to that portion of said Land, if any, lying in the bed or former bed of unnamed creek.

15. Any prohibition or limitation of use, occupancy or improvement of the Land resulting from the rights of the public or riparian owners to use any portion which is now or was formerly covered by water.

16. Paramount rights and easements in favor of the United States for commerce, navigation, fisheries and the production of power.

17. General and special taxes and charges, payable February 15, delinquent if first half unpaid on May 1, second half delinquent if unpaid on November 1 of the tax year (amounts do not include interest and penalties):

Year:	2019
Tax Account No.:	262405-9019-07
Levy Code:	0391
Assessed Value-Land:	$683,000.00
Assessed Value-Improvements:	$215,000.00

General and Special Taxes:

Billed:	$8,139.14
Paid:	$4,069.57
Unpaid:	$4,069.57

Affects: Parcel A

DSD - 000207

SCHEDULE B
(continued)

18. General and special taxes and charges, payable February 15, delinquent if first half unpaid on May 1, second half delinquent if unpaid on November 1 of the tax year (amounts do not include interest and penalties):

Year:	2019
Tax Account No.:	262405-9022-02
Levy Code:	0391
Assessed Value-Land:	$803,000.00
Assessed Value-Improvements:	$489,000.00

General and Special Taxes:

Billed:	$11,701.86
Paid:	$5,850.93
Unpaid:	$5,850.93

Affects: Parcel B

19. A deed of trust to secure an indebtedness in the amount shown below,

Amount:	$10,000,000.00
Dated:	October 14, 2016
Trustor/Grantor:	Coal Creek Holdings, LLC, a Washington limited liability company
Trustee:	First American Title Company, a California corporation
Beneficiary:	Long Beach Funding, LLC, a Washington limited liability company
Recording Date:	November 9, 2016
Recording No.:	20161109002125

Affects: Parcel A

20. The search did not disclose any open mortgages or deeds of trust of record, therefore the Company reserves the right to require further evidence to confirm that the property is unencumbered, and further reserves the right to make additional requirements or add additional items or exceptions upon receipt of the requested evidence.

Affects: Parcel B

21. Any unrecorded leaseholds, right of vendors and holders of security interests on personal property installed upon the Land and rights of tenants to remove trade fixtures at the expiration of the terms.

END OF EXCEPTIONS

NOTES

The following matters will not be listed as Special Exceptions in Schedule B of the policy. There will be no coverage for loss arising by reason of the matters listed below because these matters are either excepted or excluded from coverage or are not matters covered under the insuring provisions of the policy.

SCHEDULE B
(continued)

Note A: Note: FOR INFORMATIONAL PURPOSES ONLY:

The following may be used as an abbreviated legal description on the documents to be recorded, per Amended RCW 65.04.045. Said abbreviated legal description is not a substitute for a complete legal description within the body of the document:

PARCEL A: PTN. SE1/4 SEC 26-24-5E, W.M.
Tax Account No.: 262405-9019-07

PARCEL B: PTN SEC 26-24-5E, W.M.
Tax Account No.: 262405-9022-02

Note B: Note: The Public Records indicate that the address of the improvement located on said **Parcel A** is as follows:

7331 Lakemont Blvd SE
Bellevue, WA 98006

Note C: Note: The Public Records indicate that the address of the improvement located on said **Parcel B** is as follows:

7219 Lakemont Blvd SE
Bellevue, WA 98006

END OF NOTES

END OF SCHEDULE B

DSD - 000209

81-5-65 (F)

Transamerica Title Services

Transamerica Title Insurance Company

RECEIVED ... DAY

THIS SPACE PROVIDED FOR RECORDER'S USE

FILED FOR RECORD AT REQUEST OF

Filed For Record At The Request Of

King County Real Property Division

FEB 27 11 52 AM '86

BY THE ... OF RECORDS ... KING ... WASH

KING COUNTY
NO EXCISE TAX
FEB 27 1986
F0865218

WHEN RECORDED RETURN TO

Name KING COUNTY
Real Property Division

Address 500A King County Adm. Bldg.

City, State, Zip Seattle, Washington

8602270565

Quit Claim Deed

THE GRANTORS JOHN E. SWANSON and MARY SWANSON, his wife on April 30, 1946 and at all times since

for and in consideration of FIVE THOUSAND AND NO/100 DOLLARS ($5,000.00)

conveys and quit claims to KING COUNTY, a municipal corporation

the following described real estate, situated in the County of King State of Washington, together with all after acquired title of the grantor(s) therein:

That portion of the following described tract of land lying Westerly of the thread of an unnamed stream, to-wit:

Beginning at the center of Section 26, Township 24 North, Range 5 East, W.M., in King County Washington;
thence North 1°04'35" East along the North-South centerline of said section 26, a distance of 100 feet to the true point of beginning;
thence South 16°27'31" East 445.05 feet;
thence North 88°46'03" West, parallel to the East-West centerline of said Section, 134.09 feet to the said North-South centerline;
thence North 1°04'35" East 424.00 feet, along said North-South centerline, to the true point of beginning.

SUBJECT TO: Easement under Recording No. 3070389; Slope rights under Recording No. 5481732; Reservations under Recording No. 3913538; Notice under Recording No. 7801250820.

Dated January 28, 19 86

86/02/27 #0555 B
RECD F 5.00
CASHSL ****5.00
55

John E. Swanson (Individual)

Mary Swanson (Individual)

By ... (President)

By ... (Secretary)

STATE OF WASHINGTON
COUNTY OF King } ss.

On this day personally appeared before me John E. Swanson and Mary Swanson to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that they signed the same as their free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN under my hand and official seal this 6th day of January, 19 86

Notary Public in and for the State of Washington, residing at Bellevue

My Appointment Expires 9-19-87

LPB-12

STATE OF WASHINGTON
COUNTY OF ... } ss.

On this ... day of ..., 19 ..., before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared ... and ..., to me known to be the ... and ..., respectively, of the corporation that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that ... is authorized to execute the said instrument and that the seal affixed is the corporate seal of said corporation.

WITNESS my hand and official seal hereto affixed the day and year first above written.

... for the State of Washington, residing at ...

My commission expires ...

Conveyance Tax 10.00
STATE OF WASHINGTON
DEPT. OF REVENUE

Form No. W-748

DSD - 000210

81-5-65 (F)

RESTRICTIVE COVENANT

This agreement made this 6th day of February, 19 86, by and between JOHN E. SWANSON and MARY SWANSON, his wife, and KING COUNTY, a political subdivision of the State of Washington:

8602270568

WITNESSETH: That whereas JOHN E. SWANSON and MARY SWANSON, his wife, are the owners of that certain parcel of land described as follows:

That portion of the following described lands lying Easterly of the thread of an unnamed stream:

Beginning at the center of Section 26, Township 24 North, Range 5 East, W.M., King County, Washington;
thence North 1°04'35" East along the North-South centerline of said Section 26, a distance of 100.00 feet to the True Point of Beginning;
thence South 16°27'31" East 445.05 feet;
thence North 88°46'03" West, parallel to the East-West centerline of said Section, 134.09 feet to said North-South centerline
thence North 1°04'35" East 424.00 feet, along said North-South centerline, to the True Point of Beginning.

AND WHEREAS, it is necessary to the acquisition and development of the Cougar Mountain Regional Park on adjoining lands, to restrict the use of the lands described herein, and make a dedication of subject lands to the public for Green Belt, and/or Open Space area.

NOW THEREFORE, in consideration of the premises, and the benefits to accure to them, the said JOHN E. SWANSON and MARY SWANSON, his wife, do hereby restrict the lands described herein for Green Belt, Conservation, Scenic and Open Space purposes. The said owners will not make, or permit to be made, any use of the subject lands which is inconsistent with this Restrictive Covenant, including but not limited to removal of vegetation or trees. There shall be no construction of buildings or other improvements; or the grading or alteration to the surface of the ground inconsistent with this Restrictive Covenant.

This Restrictive Covenant shall run with the land, and shall be binding on all heirs, successors and assigns.

IN WITNESS WHEREOF, the owners herein have hereunto set their hands, the 6th day of February, 19 86.

John E. Swanson

Mary Swanson

Filed For Record At The Request Of

King County Real Property Division

86/02/27 #0568 B
RECD F .00
CASHSL *****.00 -
55

STATE OF WASHINGTON)
) ss
COUNTY OF KING)

On this day personally appeared before me John E. Swanson and Mary Swanson to me known to be the individuals described in and who executed the foregoing instrument, and acknowledged to me that they signed the same as their free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal 6th day of February, 19 86.

NOTARY PUBLIC in and for the State of Washington, residing at Bellevue
My Appointment Expires: 9-19-87

DSD - 000211

Transamerica Title Services

RECEIVED Transamerica Title Insurance Company

81-5-65 (G) 16.00

THIS SPACE PROVIDED FOR RECORDER'S USE:

FILED FOR RECORD AT REQUEST OF
Filed For Record At The Request Of
King County Real Property Division
WHEN RECORDED RETURN TO

FEB 27 11 52 AM '86
BY THE DIVISION OF RECORDS & ELECTIONS
KING COUNTY

NO SALES TAX
AFF 20943847
MAY 28
OFFICE OF THE COMPTROLLER
King County, Washington
By _____ Deputy

KING COUNTY
NO EXCISE TAX
FEB 27 1986
20865217

86/02/27 #0567 B
RECD F .00
CASHR .00 -
55

8705290142
8602270567

Name KING COUNTY
Real Property Division
Address 500A King County Adm. Bldg.
City, State, Zip Seattle, Wa. 98104

Quit Claim Deed

THE GRANTOR ERNEST MILTON SWANSON, as his separate estate

for and in consideration of EIGHT THOUSAND AND NO/100 DOLLARS ($8,000.00)

conveys and quit claims to KING COUNTY, a municipal corporation

the following described real estate, situated in the County of King State of Washington, together with all after acquired title of the grantor(s) therein:

~~That portion of the following described tract of land lying Westerly of the~~ thread of an unnamed stream, to-wit:

Beginning at the center of Section 26, Township 24 North, Range 5 East W.M., in King County, Washington;
thence South 1°04'35" West along the North-South venterline of said Section 26, a distance of 324.00 feet;
thence South 88°46'03" East, parallel with the East-West centerline of said Section 26, a distance of 215 feet to the true point of beginning;
thence South 32°02'50" East 425.85 feet;
thence North 88°46'03" West, parallel to the said East-West centerline, 232.72 feet to the said North-South centerline;
thence North 1°04'35" East, along said North-South centerline, 356.00 ~~feet to the true point of beginning.~~

SUBJECT TO: Easements under Recording Nos. 3070389, 3254208; Reservations under Recording No. 3254208; Slope Rights under Recording No. 5494713; Notice under Recording No. 7801250820.

Dated January 28, 1986

Ernest Milton Swanson
Ernest Milton Swanson

THIS DOCUMENT IS BEING RE-RECORDED TO REFLECT THE CORRECT LEGAL DESCRIPTION ATTACHED HERETO AS EXHIBIT "A".

FILED FOR RECORD AT REQUEST OF
TRANSAMERICA TITLE INSURANCE COMPANY
320 108th Ave. N.E.
P.O. BOX 1493
Bellevue, WA 98009

By _____ (President)

By _____ (Secretary)

STATE OF WASHINGTON
COUNTY OF King } ss.

On this day personally appeared before me Ernest Milton Swanson to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN under my hand and official seal this 13th day of February, 1986

Notary Public in and for the State of Washington, residing at Bellevue

My Appointment Expires 7-19-87

LPB-12

STATE OF WASHINGTON
COUNTY OF _____ } ss.

On this _____ day of _____ 19__, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared _____ and _____ to me known to be the _____ and _____, respectively, of the corporation that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that affixed is the corporate seal of said corporation and that the seal

Witness my hand and official seal hereto affixed the day and year first above written.

Notary Public in and for the State of Washington, residing at _____

Conveyance Tax 16.00
STATE OF WASHINGTON
DEPT. OF REVENUE

DSD - 000212

81-5-65 (G) 16.00

8705290142

EXHIBIT "A"

That portion of the following described tract of land lying Westerly of the thread of an unnamed stream, to-wit:

Beginning at the center of Section 26, Township 24 North, Range 5 East W.M., in King County, Washington;
thence South 1°04'35" West along the North-South centerline of said Section 26, a distance of 324.00 feet;
thence South 88°46'03" East, parallel with the East-West centerline of said Section 26, a distance of 215 feet to the true point of beginning;
thence South 32°02'50" East 425.85 feet;
thence North 88°46'03" West, parallel to the said East-West centerline, 232.72 feet to a point which bears South 1°04'35" West from the point of beginning; thence North 1°04'35" East, 356.00 feet to the true point of beginning.

RECEIVED THIS DAY
MAY 29 8 30 AM '87
BY THE DIVISION OF RECORDS & ELECTIONS KING COUNTY

DSD - 000213

81-5-65 (G) (1)

RESTRICTIVE COVENANT

This agreement made this 13th day of February, 19 86, by and between ERNEST M. SWANSON as his separate estate and KING COUNTY, a political subdivision of the State of Washington:

WITNESSETH: That whereas ERNEST M. SWANSON is the owner of that certain parcel of land described as follows:

~~That portion of the following described lands lying Easterly of the thread of an unnamed stream:~~

Beginning at the center of Section 26, Township 24 North, Range 5 East, W.M., King County, Washington;
thence South 1°04'35" West along the North-South centerline of said Section 26, a distance of 324.00 feet;
thence South 88°46'03" East, parallel with the East-West centerline of said Section 26, a distance of 215 feet to the True Point of Beginning;
thence South 32°02'50" East 425.85 feet;
thence North 88°46'03" West, parallel to the said East-West centerline, 232.72 feet to the said North-South centerline;
thence North 1°04'35" East, along the said North-South ~~centerline, 356.00 feet to the True Point of Beginning.~~

8705290143

FILED FOR RECORD AT REQUEST OF
TRANSAMERICA TITLE
INSURANCE COMPANY
320 108th Ave. N.E.
P.O. BOX 1493
Bellevue, WA. 98009

AND WHEREAS, it is necessary to the acquisition and development of the Cougar Mountain Regional Park on adjoining lands, to restrict the use of the lands described herein, and make a dedication of subject lands to the public for Green Belt, and/or Open Space area.

NOW THEREFORE, in consideration of the premises, and the benefits to accure to him, the said ERNEST M. SWANSON does hereby restrict the lands described herein for Green Belt, Conservation, Scenic and Open Space purposes. The said ERNEST M. SWANSON will not make, or permit to be made, any use of the subject lands which is inconsistent with this Restrictive Covenant, including but not limited to removal of vegetation or trees. There shall be no construction of buildings or other improvements; or the grading or alteration to the surface of the ground inconsistent with this Restrictive Covenant.

This Restrictive Covenant shall run with the land, and shall be binding on all heirs, successors and assigns.

IN WITNESS WHEREOF, the owner herein has hereunto set his hand, the 13th day of February, 1986.

THIS DOCUMENT IS BEING RE-RECORDED TO REFLECT THE CORRECT LEGAL DESCRIPTION AS ATTACHED HERETO AS EXHIBIT "A".

Ernest M. Swanson

Ernest M. Swanson

Filed For Record At The Request Of

Chris J. Reutzel
King County Real Property Division

86/02/27 #0566 B
RECD F .00
CASHSL ******.00
55

STATE OF WASHINGTON)
) SS
COUNTY OF KING)

On this day personally appeared before me Ernest M. Swanson to me known to be the individual described in and who executed the foregoing instrument, and acknowledged to me that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal 13th day of February, 19 86.

NOTARY PUBLIC in and for the State of Washington, residing at Issaquah

My Appointment Expires 9-17-87

DSD - 000214

8705290143

EXHIBIT "A"

That portion of the following described tract of land lying Westerly of the thread of an unnamed stream, to-wit:

Beginning at the center of Section 26, Township 24 North, Range 5 East W.M., in King County, Washington;
thence South 1°04'35" West along the North-South centerline of said Section 26, a distance of 324.00 feet;
thence South 88°46'03" East, parallel with the East-West centerline of said Section 26, a distance of 215 feet to the true point of beginning;
thence South 32°02'50" East 425.85 feet;
thence North 88°46'03" West, parallel to the said East-West centerline, 232.72 feet to a point which bears South 1°04'35" West from the point of beginning; thence North 1°04'35" East, 356.00 feet to the true point of beginning.

RECEIVED THIS DAY
MAY 29 8 30 AM '87
BY THE DIVISION OF
RECORDS & ELECTIONS
KING COUNTY

DSD - 000215

Return Address:
500 4th Avenue
Room 500
Seattle, WA 98104
Att. Real Estate Services

20050414003756
PROPERTY SERVI AG 149.00
PAGE001 OF 131
04/14/2005 15:56
KING COUNTY, WA

Please print or type information **WASHINGTON STATE RECORDER'S Cover Sheet** (RCW 65.04)

Document Title(s) (or transactions contained therein): (all areas applicable to your document **must** be filled in)

1. ~~Warranty Deed~~ 2. Intergovernmental Land Transfer
3. _____ 4. _____

Reference Number(s) of Documents assigned or released:

Additional reference #'s on page _____ of document

Grantor(s) (Last name, first name, initials)

1. King County _____, _____
2. _____, _____

Additional names on page _____ of document.

Grantee(s) (Last name first, then first name and initials)

1. City of Bellevue _____, _____
2. _____, _____

Additional names on page _____ of document.

Legal description (abbreviated: i.e. lot, block, plat or section, township, range)

PTN of SW 1/4 of SE 1/4 of 3225.05 and
portions of 26, 24, 25

Additional legal is on page _____ of document.

Assessor's Property Tax Parcel/Account Number ☐ Assessor Tax # not yet assigned

_____

The Auditor/Recorder will rely on the information provided on the form. The staff will not read the document to verify the accuracy or completeness of the indexing information provided herein.

I am requesting an emergency nonstandard recording for an additional fee as provided in RCW 36.18.010. I understand that the recording processing requirements may cover up or otherwise obscure some part of the text of the original document.

_____ Signature of Requesting Party

20050414003756.002

DSD - 000216
CR#373916 DATE 04.13.05 Loc 05.329

#510540

Intergovernmental Land Transfer Agreement Between King County and the City of Bellevue

Relating to the Ownership, Operation and Maintenance of Parks, Open Space, Recreation and Community Facilities

This Agreement is made and entered into this day by and between the City of Bellevue, Washington hereinafter called "City", and King County, Washington hereinafter called "County".

WHEREAS the City desires to own, operate, and maintain parks, open space, recreation and community facilities and programs and other municipal programs, facilities and property inside its boundaries; and

WHEREAS much of Coal Creek Park and all of Surrey Downs is located within the boundaries of the City ; which properties are legally described in Exhibits A and B attached hereto and made a part of this Agreement; and

WHEREAS the County does not have a sufficient, stable source of revenue to continue to manage and maintain its parks, open space, recreational and community facilities and programs at current levels; and

WHEREAS the City, the County and others have executed a Settlement Agreement in the Federal District Court matter of *Newport Yacht Club v. City of Bellevue*, No. 03 2534 Z, a copy attached hereto as Exhibit C, which Settlement Agreement requires the County to convey Coal Creek Park and Surrey Downs to the City; and

WHEREAS the City has had a long-standing commitment to acquire the Surrey Downs property for park purposes; and

WHEREAS in 1988 the citizens of Bellevue passed a bond that identified the use of the Surrey Downs site for park purposes; and

WHEREAS as part of the acquisition of the Surrey Downs property herein contemplated, the City intends to use the proceeds from the bond, identified in the City's 2003-2009 Capital Investment Program, to demolish portions of the structures and renovate areas for park purposes; and

WHEREAS the City has a policy of making park and recreational opportunities available to all interested persons regardless of income through scholarships and other programs, and has expressed a willingness to continue that policy in order to assist citizens who might not otherwise be able to participate in those programs, and

WHEREAS it is in the best interest of the public that the City and the County take those actions necessary to meet those desires and to cooperate in any transition to insure a smooth transition and avoid service disruption;

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NOW, THEREFORE, in consideration of the mutual promises contained herein and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the City and the County agree as follows:

A. COAL CREEK PARK

1. Conveyance of Title

1.1 On or before April 12, 2005, King County shall execute and record a bargain and sale deed, in substantially the form of Exhibit D, attached hereto and made a part of this Agreement, conveying all ownership interest in the following listed site, which is legally described in Exhibit A ("Coal Creek Park"), attached hereto and made a part of this Agreement:

Coal Creek Park

1.2 All deeds shall also contain the specific covenants set forth herein in paragraph A.1.2 pertaining to use, which covenants shall run with the land and for the benefit of the County and the County land that makes up its public park, recreation and open space system. The County shall have standing to enforce these covenants. Such covenants are as follows:

"The City, as required by RCW 36.89.050, covenants that Coal Creek Park shall be continued to be used for either public open space, park, or recreation facility purposes or that other equivalent facilities within the City or the County shall be conveyed to the County in exchange therefore. The City and County agree that the proposed storm water/stabilization facilities outlined in the Settlement Agreement do not constitute a change in use with regard to RCW 36.89.050."

"The City covenants that it shall abide by and enforce all terms, conditions and restrictions in King County Resolution 34571, attached as Exhibit E, including that the City covenants that Coal Creek Park will continue to be used for the purposes contemplated by Resolution 34571, that Coal Creek Park shall not be transferred or conveyed except by agreement providing that such lands shall continue to be used for the purposes contemplated by Resolution 34571, and that Coal Creek Park shall not be converted to a different use unless other equivalent lands and facilities within the County or City shall be received in exchange therefore. The City and County agree that the proposed storm water/stabilization facilities outlined in the Settlement Agreement do not constitute a change in use with regard to Resolution 34571."

"The City covenants that it will not limit or restrict access to and use of Coal Creek Park by non-City residents in any way that does not also apply to City residents. The City covenants that if differential fees for non-city residents are imposed, they will be reasonably related to the cost borne by City taxpayers to maintain, improve or operate Coal Creek Park for parks and recreation purposes."

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"The City covenants that it shall not use Coal Creek Park in a manner that would cause the interest on County bonds related to Coal Creek Park to no longer be exempt from federal income taxation."

"The City covenants that it shall place the preceding covenants in any deed transferring Coal Creek Park or a portion of Coal Creek Park for public open space, park, or recreation facility purposes."

1.3 The County Executive shall pursue incorporating Coal Creek Park in the Urban Growth Area through an amendment to the King County Comprehensive Plan, and shall act upon such a proposal at the earliest possible opportunity but no later than during its next four-year cycle Comprehensive Plan review in 2008. The parties will outline a plan for pursuing this incorporation in a separate agreement.

1.4 In conveying Coal Creek Park by deed as referenced in paragraph A.1.1, the County shall reserve utility easements, in substantially the form of Exhibit F attached hereto and made a part of this Agreement, and shall further reserve the identified rights as set forth in substantially the form of Exhibit G, attached hereto and made a part of this Agreement.

1.5 The City shall acknowledge and recognize the probable archaeological significance of the eastern portions of parcel 262405-9048 in its permitting and SEPA review processes.

2. Existing Restrictions, Agreements, Contracts or Permits

2.1 The City shall abide by and enforce all terms, conditions, reservations, restrictions and covenants of title in the deed of conveyance, which encumbrances are set forth in Exhibit H, attached hereto and made a part of this Agreement.

2.2 The City and the County acknowledge and agree that Coal Creek Park is currently subject to the special use permits identified in Exhibit I, attached hereto and made a part of this Agreement. Prior to the effective date of the conveyance, the County shall notify its permittees of the termination of these special use permits and inform the permittees that the City is not required to renew such permits. However, if the city desires to renew or enter into new permits with existing permitees, the County will, if requested to do so by the City, assist in securing renewals or new permits with existing permitees. The special use permits will terminate on the date of conveyance and the City will be entitled to enter into new agreements with the permittees, and will be entitled to any revenue derived therefrom. Upon termination of the permits, the County shall have no further rights, privileges or obligations of any kind concerning the special use permits or any improvements related to the special use permits.

2.3 The City and the County acknowledge and agree that there are two fish ladders in portions of Coal Creek that are in Coal Creek Park. Upon conveyance the City will assume the County's rights, privileges and obligations with regard to the log fish ladder just downstream of the Coal Creek Parkway crossing (KC Special Use Permit FS-13-

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86). The log fish ladder helps to facilitate fish passage through the City's culvert under Coal Creek Parkway S.E. The County shall retain the rights, privileges and obligations for the steel sheet pile fish ladder where the Eastside Intercepter sewer trunkline crosses Coal Creek. The steel sheet pile fish ladder helps to facilitate fish passage past and prevents undermining and scouring of the Eastside Interceptor sewer trunkline. The County's ability to discharge its rights, privileges and obligations for the steel sheet pile fish ladder will be ensured through the reserve utility easements in substantially the form of Exhibit F attached hereto and made a part of this Agreement.

3. Taxes, Utility and Other Charges

3.1 The County shall pay any property taxes or any contractual obligations including any fines, if any are due or owing up until the time of conveyance or transfer. The County shall also pay any utility charges if any are due or owing, until the time of conveyance or transfer.

4. Condition of Premises and Responsibility for Operations, Maintenance, Repairs, Improvements, Recreation Services and other Governmental services.

4.1 The City, pursuant to the Settlement Agreement in the Federal District Court matter of *Newport Yacht Club v. City of Bellevue*, No. 03 2534 Z, agrees to accept Coal Creek Park in AS IS condition, and to assume full and complete responsibility for all operations, maintenance, repairs, improvements of, and provision of recreational services at Coal Creek Park as of the date of transfer.

4.2 King County does not make and specifically disclaims any warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose, with respect to Coal Creek Park, and no official, employee, representative or agent of King County is authorized otherwise.

4.3 The City acknowledges and agrees that except as indicated in section A.5, as of the date of transfer, the County shall have no liability for, and that the City shall release and have no recourse against the County for, any defect or deficiency of any kind whatsoever in Coal Creek Park without regard to whether such defect or deficiency was known or discoverable by the City or the County. This release in this paragraph applies only to the potential liability of the County to the City.

5. Environmental Liability, Indemnification and Hold Harmless for Coal Creek Park

The City shall defend, indemnify and hold harmless the County from and against any and all third party claims, demand, actions, suits, judgments, losses, damages, costs or expenses, including without limitation reasonable attorney fees and costs which concern, refer, relate to or arise from Coal Creek Park and which first arise on or after the date title to Coal Creek Park is transferred to the City. The County shall defend, indemnify and hold harmless the City from and against any and all third party claims, demands, actions, suits, judgments, losses, damages, costs or expenses including without limitation reasonable attorney fees and

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costs which concern, refer, relate to or arise from Coal Creek Park and which first arise before the date title to Coal Creek Park is transferred to the City.

B. SURREY DOWNS

1. Conveyance of Title

1.1 On or before April 12, 2005, King County shall execute and record a statutory warranty deed, in substantially the form of Exhibit J, attached hereto and made a part of this Agreement, conveying all ownership interest in the following listed site, which is legally described in Exhibit B ("Surrey Downs"), which is attached hereto and made a part of this Agreement:

Surrey Downs

1.2 All deeds shall also contain the specific covenants set forth herein in paragraph B.1.2 pertaining to use, which covenants shall run with the land and the County shall have standing to enforce these covenants. Such covenants are as follows:

"The City, as required by RCW 36.89.050, covenants that Surrey Downs shall be continued to be used in the sole discretion of the City for either public open space, park, recreation facility, or community facility purposes, which means any park, recreational, green belt, arboretum, multi-purpose community center, museum, zoo, aquarium, auditorium, exhibition, athletic, historic, scenic, viewpoint, aesthetic, ornamental, natural resource preservation, administrative, legislative, judicial, public health, public safety, adult and juvenile detention, fire, police, public hall, auditoria, library, museum, teaching, practice or exhibition of arts and crafts, or educational purposes, or that other equivalent facilities within the City or the County shall be conveyed to the County in exchange therefore. The City in its sole discretion may change the use of Surrey Downs to any of the uses allowed herein without triggering the requirement for conveying equivalent facilities to the County. There is no limit on the number of times that the City may change the use of Surrey Downs among any of the uses allowed herein."

"The City covenants that with regard to any portion of Surrey Downs that is maintained for public open space, park or recreational facility purposes, it will not limit or restrict access to and use of the Property by non-City residents in any way that does not also apply to city residents. The City covenants that if differential fees for non-city residents are imposed, they will be reasonably related to the cost borne by city taxpayers to maintain, improve or operate the Property for parks and recreation purposes."

"The City covenants that it shall place the preceding covenants in any deed transferring Surrey Downs or a portion of Surrey Downs for either public open space, park, recreation or community facility purposes."

1.3 Upon the County conveyance of the Surrey Downs property to the City, the Parties shall contemporaneously execute a rent-free lease, including parking rights, for the

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continued operation of the District Court facility on the Surrey Downs property through December 31, 2006, after which date the lease shall terminate. Prior to January 1, 2007, there shall be no reduction of the space that is currently being occupied by the District Court, without prior written consent of the County and the District Court. The premises leased by the County shall be taken in an "AS IS" condition without representations or warranties for the condition, with the County being responsible for ongoing operation and maintenance of such premises including utilities.

1.4 Prior to transferring the Surrey Downs property to the City of Bellevue, King County will cause to have cleaned up any spill or release of polychlorinated biphenyls ("PCBs") that may have occurred in the former elementary school buildings on that property. The County's clean up of such PCBs will be consistent with the federal Environmental Protection Agency's ("EPA") requirements, set forth at 40 CFR Part 761. The County has provided the City with written documentation to demonstrate that the cleanup and removal of the PCBs is complete and that EPA has accepted or concurred that the cleanup and removal of the PCBs from the Surrey Downs building meets the applicable regulatory requirements.

1.5 When Surrey Downs is conveyed, the lease in favor of the City that is currently in place for a portion of Surrey Downs shall terminate and the parties shall have no further rights or obligations thereunder.

1.6 The City and County agree that they shall negotiate in good faith the execution of either a use agreement or utility easement for the installation, operation, repair and maintenance of a sewer interceptor line beneath the Surrey Downs property if it is determined through the public process that the Bellevue Force Main Alternative #4 is the preferred location.

2. Existing Restrictions, Agreements, Contracts or Permits

2.1 The City shall abide by and enforce all terms, conditions, reservations, restrictions identified in the statutory warranty deed, which encumbrances are set forth in Exhibit K, attached hereto and made a part of this Agreement.

3. Taxes, Utility and Other Charges

3.1 The County shall pay any property taxes or any contractual obligations including any fines if any are due or owing up until the time of conveyance or transfer. The County shall also pay any utility charges if any are due or owing, until the time of conveyance or transfer.

4. Condition of Premises and Responsibility for Operations, Maintenance, Repairs, Improvements, Recreation Services and other Governmental services.

4.1 As it relates to the physical condition and improvements on the Surrey Downs property, and subject to the provisions of Section 1.4 above and Section 6 below, the City agrees

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to accept Surrey Downs in AS IS condition, and to assume full and complete responsibility for all operations, maintenance, repairs, improvements of, and provision of recreational services or other governmental services at Surrey Downs.

4.2 As it relates to the physical condition and improvements on the Surrey Downs property only, King County does not make and specifically disclaims any warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose, with respect to Surrey Downs, and no official, employee, representative or agent of King County is authorized otherwise.

4.3 As it relates to the physical condition and improvements on the Surrey Downs property only, the City acknowledges and agrees that except as indicated in section B.5, the County shall have no liability for, and that the City shall release and have no recourse against the County for, any defect or deficiency of any kind whatsoever in Surrey Downs without regard to whether such defect or deficiency was known or discoverable by the City or the County. This release in this paragraph applies only to the potential liability of the County to the City.

5. Environmental Liability

5.1 "Hazardous Materials" as used herein shall mean any hazardous, dangerous or toxic wastes, materials, or substances as defined in state or federal statutes or regulations as currently adopted or hereafter amended.

5.2 Nothing in this agreement shall be deemed to waive any statutory claim for contribution that the City might have against the County under federal or state environmental statutes that arises from hazardous materials deposited or released on Surrey Downs by the County during the County's period of ownership; nor does anything in this agreement release the County from any liability, responsibility, or obligation with respect to any claim for contribution associated with the property. The City may not, however, assert such a claim to the excess cost of remediation to the extent that the City exacerbates the cost of remediation upon which a statutory claim for contribution is based as a result of the City performing construction activities on Surrey Downs, changing the configuration of Surrey Downs, or changing the use of Surrey Downs.

5.3 If the City discovers the presence of hazardous materials at levels that could give rise to a statutory claim for contribution against the County it shall immediately notify the County in writing. Such notice shall in no event be provided more than 60 days after discovery. The parties shall make their best efforts to reach agreement as to which party is responsible for remediation under the terms of this Agreement prior to undertaking any remediation. The parties acknowledge that if hazardous materials on Surrey Downs pose an imminent threat to human health or the environment, emergency response may be required before the parties can agree on the responsibility for remediation.

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5.4 In no event shall the County be responsible for any costs of remediation that exceed the minimum necessary to satisfy the state and/or federal agency with jurisdiction over the remediation.

6. Indemnification and Hold Harmless with Regard to Surrey Downs

6.1 King County shall protect, indemnify and hold harmless the City and its elected officials, officers, agents or employees, or any of them, from and against any and all claims, actions, suits, liabilities, losses, costs, expenses or damages of any nature whatsoever, arising from those occurrences related to Surrey Downs that occurred prior to the effective date of conveyance of Surrey Downs to the City, even though the date of discovery may be after the effective date of this Agreement, except to the extent that the occurrence is caused by or results from a negligent act or omission of the City, its officers, agents and employees occurring prior to the effective date of conveyance of Surrey Downs to the City, and except to the extent that indemnifying or holding the City harmless would be limited by Section B.5 of this Agreement. In the event that any suit based upon such claims, actions, suits, liabilities, losses, costs, expenses or damages is brought against the City or the City and King County, King County shall defend the same at its sole cost and expense and, if final judgment be rendered against the City and its elected officials, officers, agents and employees or jointly against the City and King County and their respective elected officials, officers, agents and employees, King County shall satisfy the same.

6.2 The City shall protect, indemnify and hold harmless King County and its elected officials, officers, agents and employees, or any of them, from and against any and all claims, actions, suits, liabilities, losses, costs, expenses or damages of any nature whatsoever, arising from those occurrences related to Surrey Downs that occurred on or after the effective date of conveyance of Surrey Downs to the City, except to the extent that the occurrence is caused by or results from a negligent act or omission of King County, its officers, agents and employees occurring on or after the effective date of conveyance of Surrey Downs to the City, and except to the extent that indemnifying or holding the County harmless would be limited by Section B.5 of this Agreement. In the event that any suit based upon such claims, actions, losses, costs, expenses or damages is brought against King County or King County and the City, the City shall defend the same at its sole cost and expense and, if final judgment be rendered against King County and its officers, agents and employees or jointly against King County and the City and their respective officers, agents and employees, the City shall satisfy the same. Further, if an occurrence is subject to the terms of the lease required by Section 1.4 of this Agreement, the indemnity and hold harmless terms of the lease shall control.

6.3 Each Party to this Agreement shall immediately notify the other of any and all claims, actions, losses or damages that arise or are brought against that Party relating to or pertaining to Surrey Downs.

6.4 Each party agrees that its obligations under this paragraph extend to any claim, demand,

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and/or cause of action brought by or on behalf of any employees, or agents. For this purpose, each party, by mutual negotiation, hereby waives, with respect to the other party only, any immunity that would otherwise be available against such claims under the Industrial Insurance provisions of Title 51 RCW, but only to the extent necessary to indemnify the other party.

6.5 The terms of these indemnity provisions, as well as the terms of the environmental liability section shall survive the closing of the property transfer and the termination of this agreement.

C. GENERAL MATTERS

1. Use

1.1 Once this Agreement is executed, the County shall not change the current uses of Surrey Downs complex.

2. Audits and Inspections

2.1 Until December 31, 2010, any of either party's records related to any matters covered by this Intergovernmental Agreement not otherwise privileged shall be subject to inspection, review, and/or audit by either party at the requesting party's sole expense. Such records shall be made available for inspection during regular business hours within a reasonable time of the request.

3. Waiver and Amendments

3.1 Waiver of any breach of any term or condition of this Agreement shall not be deemed a waiver of any prior or subsequent breach. No term or condition shall be waived, modified or deleted except by an instrument, in writing, signed by the parties hereto.

3.2 Any failure by any Party to enforce any of the provisions of this Agreement or to require at any time performance by the other Party of any of the provisions of this Agreement shall in no way affect the validity of this Agreement, nor any part hereof and shall not be deemed a waiver of the rights of any Party to enforce any and each such provision. Each Party shall promptly execute and deliver such further instruments or take such further action as the attorneys for the Parties may reasonably request to effectuate the intent of this Agreement.

4. Entire Agreement and Modifications

4.1 This Intergovernmental Agreement and its Exhibits sets forth the entire agreement between the parties with respect to the subject matter hereof. Any amendment or modification of the terms of this Agreement must be made in writing, signed by both parties, and attached hereto.

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4.2 This Agreement may be executed in any number of counterparts, and all counterparts shall be deemed to constitute a single Agreement. The execution and delivery of such a counterpart by any person shall have the same force and effect as if that person had executed all other counterparts. An electronic facsimile thereof, bearing any person's signature.

5. Duration and Authority

5.1 This agreement shall be effective upon signature by the authorized signatories who represent that they have authority to bind the entities on whose behalf they sign, and authorization by the legislative bodies of both parties. The terms, covenants, representations and warranties contained herein shall not merge in the deed of conveyance, but shall survive the conveyance and shall continue in force unless both parties mutually consent in writing to termination. This Agreement shall be binding upon and shall inure to the benefit of the Parties and their respective legal representatives, successors, and/or assigns.

6. Notice

6.1 Any notice provided for herein shall be sent to the respective parties at:

King County
Ron Sims
King County Executive
King County Courthouse
516 3rd Avenue, Room 400
Seattle, WA 98104

City of Bellevue
Steve Sarkozy
City Manager
P.O. Box 90012
Bellevue, WA 98009-6952

7. Governing Law

This Agreement shall be governed by and construed in accordance with the laws of the State of Washington. In any action, suit or other proceeding undertaken to enforce the provisions of the Agreement, the prevailing party shall be entitled to recover from the non-prevailing party all reasonable costs and expenses including attorneys' fees, and if such prevailing party recovers judgment in any action or proceeding, such costs and expenses shall be included as part of the judgment. The "prevailing party" will be determined by the court, arbitrator, or other tribunal based on the overall outcome of the suit or other proceeding and taking into consideration the number and importance of the issues presented and resolved.

8. Joint Effort

Preparation of this Agreement has been a joint effort of the Parties, and the resulting document shall not be construed more severely against one of the Parties or its insurers, than against the other.

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IN WITNESS WHEREOF, the parties have executed this Agreement.

King County

King County Executive

4-14-05
Date

City of Bellevue

ERCahoy
Deputy
City Manager

4/13/2005
Date

Approved as to Form:

King County
Deputy Prosecuting Attorney

4/14/05
Date

Approved as to Form:

Asst. City Attorney

4-13-2005
Date

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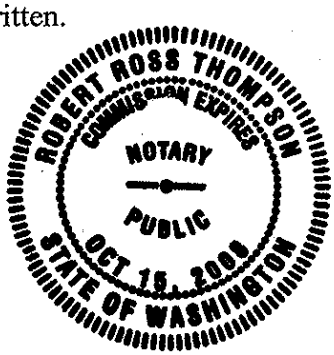
STATE OF WASHINGTON)
) SS
COUNTY OF KING)

On this 14th day of April, 2004, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn personally appeared, to me known to be the individual described in and who executed the forgoing instrument, and acknowledged to me that he signed and sealed the said instrument as his free and voluntary act and deed for the uses and purposed therein mentioned.

WITNESS my hand and official seal hereto affixed the day and year in this certificate above written.



Printed Name: Robert R. Thompson
Notary Public in and for the State
of Washington, residing at Seattle, WA

My appointment expires 10.15.2005

STATE OF WASHINGTON)
) SS
COUNTY OF KING)

On this 13th day of April, 2005, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn personally appeared, to me known to be the individual described in and who executed the forgoing instrument, and acknowledged to me that he E.R. Oberg signed and sealed the said instrument as his free and voluntary act and deed for the uses and purposed therein mentioned.

WITNESS my hand and official seal hereto affixed the day and year in this certificate above written.

Printed Name: Charlee Haugen
Notary Public in and for the State
of Washington, residing at 10247 14th Ave S
Seattle Wa

My appointment expires 01.29.05

20050414003756.014

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EXHIBIT A
Legal Description of Coal Creek Park

20050414003756.015

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EXHIBIT A
Legal Description of Coal Creek Park

20050414003756.016

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EXHIBIT A

COAL CREEK PARK LEGAL DESCRIPTION

PARCEL A:

Tract A, Newport Hills No. 14, according to the plat thereof recorded in Volume 90 of Plats, pages 10 through 12, records of King County, Washington.

PARCEL B:

Tract B, Newport Hills No. 14, according to the plat thereof recorded in Volume 90 of Plats, pages 10 through 12, records of King County, Washington.

PARCEL C:

Portion of the East half of the Northwest quarter of Section 21, Township 24 North, Range 5 East, W.M., in King County, Washington, beginning at a point on the Northerly Section line 1040.02 feet West of the Northeast corner of said quarter section;
Thence South 08°05'39" East 429.94 feet;
Thence South 20°00'00" East 310.00 feet;
Thence South 01°53'23" West 640.00 feet;
Thence Westerly and Southerly along the Westerly and Northerly line of the Plat of Newport Hills No. 3, according to the plat recorded in Volume 63 of Plats, page 7, to the Southwest corner of Lot 15 of Block 1 of said Plat;
Thence Westerly along the Westerly production of the South line of said Lot to the East line of Block 12 of the Plat of Newport Hills No. 2, according to the plat recorded in Volume 60 of Plats, page 88, records of King County, Washington; Thence Northerly along said line and along the East line of Block 6 of the Plat of Newport Hills, according to the plat recorded in Volume 59 of Plats, pages 92 and 93, records of King County, Washington, to said Northerly Section line;
Thence East along said line to the point of beginning.

PARCEL D:

That portion of the West half of the Northeast quarter of Section 21, Township 24 North, Range 5 East, W.M., in King County, Washington, lying Northerly and Easterly of Newport Hills No. 13, according to the plat recorded in Volume 73 of Plats, pages 53 and 54, records of King County, Washington;

EXCEPT that portion condemned in King County Superior Court Cause No. 486190 for the City of Seattle-Mercer Island pipeline;

ALSO that portion of the East half of the Northeast quarter of Section 21, Township 24 North, Range 5 East, W.M., in King County, Washington, lying Southerly of Coal Creek-Newport Road as conveyed to King County by Auditor's File No. 5554785, and Easterly

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of Coal Creek-Lake Boren Road Revision No. 2 as conveyed to King County by Auditor's file No. 5700899 and amended by Auditor's File No. 5934305;

EXCEPT that portion conveyed to Puget Sound Power & Light Company by Auditor's File No. 6191762, lying Easterly of said Coal Creek-Lake Boren Road and Westerly of the Westerly margin of that certain 100-foot easement granted to Puget Sound Power & Light Company, by Auditor's file No. 2520354; and except the Westerly 65 feet of the Northerly 495 feet of said 100 foot easement as measured along the Easterly boundary thereof and lying Southerly of Coal Creek-Newport Road;

ALSO that portion of the Southeast quarter of Section 21, Township 24 North, Range 5 East, W.M., in King County, Washington, lying Easterly of Newport Hills No. 9, as recorded in Volume 69 of Plats, page 17, records of King County, Washington, and Easterly of Newport Hills No. 12, as recorded in Volume 74 of Plats, pages 87 and 88, records of King County, Washington;

ALSO that portion of the East one-half of the Northeast one quarter of Section 21, Township 24 North, Range 5 East, W.M., in King County, Washington, lying Southwesterly of the Southwesterly margin of Coal Creek-Newport Road; and lying Westerly of the Westerly margin of Coal Creek-Lake Boren Road as the same exists on March 14, 1969, lying Easterly of Newport Hills No. 5, as recorded in Volume 66 of Plats, page 90, and lying Easterly of Newport Hills No. 9, as recorded in Volume 69 of plats, page 17, records of King County, Washington; EXCEPT that portion condemned in King County Superior Court Cause No. 486190 for City of Seattle-Mercer Island pipeline;

EXCEPT roads.

PARCEL E:

The Southwest quarter of the Southwest quarter of Section 22, Township 24 North, Range 5 East, W.M., in King County, Washington;

EXCEPT that portion described as follows:
Beginning at the Southwest corner of said Southwest quarter of the Southwest quarter;
Thence South 88°09'02" East along the Southerly line of said Southwest quarter of the Southwest quarter a distance of 1328.91 feet to the Southeast corner of said Southwest quarter of the Southwest quarter;
Thence North 01°16'40" East along the East line of said Southwest quarter of the Southwest quarter a distance of 70.00 feet to the TRUE POINT OF BEGINNING;
Thence North 08°57'38" West a distance of 835.47 feet;
Thence North 70°00'00" East a distance of 159.36 feet;
Thence South 01°16'40" West along the East line of said Southwest quarter of the Southwest quarter a distance of 880.00 feet to the TRUE POINT OF BEGINNING.

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ALSO that portion of the South half of the Northwest quarter of the Southwest quarter of said Section 22, described as follows:

Beginning at the Northwest corner of said South half of the Northwest quarter of the Southwest quarter;
Thence South along the West line to the Southwest corner thereof;
Thence East along the South line of the South half 800 feet;
Thence Northwesterly to a point on the North line of said South half, which point is 300 feet from the point of beginning;
Thence West on the North line of said South half 300 feet to the point of beginning.

PARCEL F:

The Northwest quarter of the Northeast quarter of Section 27, Township 24 North, Range 5 East, W.M., in King County, Washington;

AND the Northeast quarter of the Northwest quarter of Section 27, Township 24 north, Range 5 East, W.M., in King County, Washington;

EXCEPT the Southwest quarter thereof;

EXCEPT that portion of said Northwest quarter of the Northeast quarter in said Section 27 conveyed to Columbia and Puget Sound Railway Company for railroad purposes by deed recorded in Volume 22 of Deeds, page 71, under Auditor's File No. 651.

PARCEL G:

That portion of the following described tract of land lying Westerly of the thread of an unnamed stream, to-wit:

Beginning at the center of Section 26, Township 24 North, Range 5 East, W.M., in King County, Washington;
Thence South 1°04'35" West along the North-South centerline of said Section 26, a distance of 324.00 feet;
Thence South 88°46'03" East, parallel with the East-West centerline of said Section 26, a distance of 215 feet to the TRUE POINT OF BEGINNING;

Thence South 32°02'50" East 425.85 feet;
Thence North 88°46'03" West parallel to the said East-West centerline, 232.72 feet to a point which bears South 1°04'35" West from the point of beginning;
Thence North 1°04'35" East 356 feet to the TRUE POINT OF BEGINNING.

PARCEL H:

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That portion of the following described tract of land lying Westerly of the thread of an unnamed stream, to-wit:

Beginning at the center of Section 26, Township 24 North, Range 5 East, W.M., in King County, Washington;
Thence North 1°04'35" East along the North-South centerline of said section 26, a distance of 100 feet to the TRUE POINT OF BEGINNING;

Thence South 16°27'31" East 445.05 feet;
Thence North 88°46'03" West, parallel to the East-West centerline of said Section 134.09 feet to the said North-South centerline;
Thence North 1°04'35" East 424.00 feet, along said North-South centerline, to the TRUE POINT OF BEGINNING.

PARCEL I:

All that certain real property situate in the County of King, State of Washington, being a portion of the North half of Section 26, Township 24 North, Range 5 East, W.M., and being more particularly described as follows:

Beginning at a point on the Easterly line of the Northwest quarter of said Section 26, distant thereon North 01°04'35" East 100.00 feet from the Southeast corner of said Northwest quarter of Section 26;
Thence from said point of beginning North 41°12'16" West 216.54 feet;
Thence North 58°19'51" West 285.00 feet;
Thence North 30°38'48" West 301.05 feet;
Thence South 74°53'26" East 467.25 feet;
Thence North 12°59'41" East 266.83 feet;
Thence North 72°07'17" East 658.48 feet to a point on the Westerly right of way line of Lakemont Boulevard Southeast (60 feet wide), shown as Newcastle Road on the King County Engineers' plans of survey 27-24-05-5;
Thence along said Westerly right of way line South 09°44'07" East 296.44 feet;
Thence tangent to the preceding course along the arc of a curve to the right having a radius of 5,699.58 feet and a central angle of 02°24'30", an arc length of 239.57 feet;
Thence tangent to the preceding curve South 07°19'37" East 401.99 feet;
Thence leaving said Westerly right of way line North 88°46'03" West 736.30 feet to the point of beginning.

PARCEL J:

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That parcel of land situate in the South half of the Northwest quarter of Section 26, Township 24 North, Range 5 East, W.M., in King County, Washington, being more particularly described as follows:

Beginning at a point on the North boundary line of the D.T. Thomas County Road no. 99 (Newcastle-Coal Creek Road) at a point which is 166.7 feet North and 1387.4 feet East of the West quarter corner of the above-named Section 26;
Thence North 76°20'00" West 194.00 feet;
Thence North 45°11'00" East 350.00 feet;
Thence South 51°15'00" East 350.00 feet;
Thence South 13°14'00" West 150.00 feet;
Thence North 76°20'00" West 306.00 feet to the place of beginning.

PARCEL K:

That portion of Section 26 and 27, Township 24 North, Range 5 East, W.M., in King County, Washington, being more particularly described as follows:

Commencing at the Northeast corner of said Section 27;
Thence North 88°09'07" West along the North line thereof, 1,328.91 feet;
Thence South 01°13'52" West 617.35 feet to the centerline of Coal Creek as located in August, 1982, and the POINT OF BEGINNING;
Thence along said centerline the following courses:
South 64°25'08" East 148.59 feet;
South 67°56'17" East 109.48 feet;
South 85°52'35" East 167.23 feet;
South 57°31'00" East 132.05 feet;
South 06°20'53" East 97.54 feet;
South 87°55'38" East 157.36 feet;
North 88°01'47" East 111.95 feet;
South 66°02'56" East 214.25 feet;
South 64°01'33" East 169.29 feet;
South 52°38'03" East 318.88 feet;
South 63°28'53" East 351.02 feet;
South 69°46'49" East 285.36 feet;
South 74°26'53" East 98.75 feet;
South 75°26'57" East 108.65 feet;
North 81°18'49" East 212.73 feet;
South 72°52'36" East 70.18 feet;
South 76°57'44" East 162.48 feet;
South 43°31'22" East 293.70 feet;
South 44°20'37" East 205.05 feet;
South 54°47'28" East 121.63 feet;
South 53°08'58" East 215.82 feet;

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South 61°40'01" East 121.39 feet;
South 11°04'07" East 125.48 feet;
South 28°48'37" East 121.35 feet;
South 74°59'37" East 57.71 feet;
South 71°41'45" East 20.26 feet;
South 16°01'20" East 74.87 feet;
South 42°21'04" East 96.07 feet;
South 39°05'37" East 138.55 feet to the South line of the Northwest quarter of said Section 26;
Thence along said South line South 88°46'03" East 244.94 feet to the South east corner of said Northwest quarter;
Thence along the East line of the Southwest quarter of said Section 26 South 01°04'35" West 324.00 feet;
Thence South 88°46'03" East 215.00 feet;
Thence South 01°04'35" West 356.00 feet;
Thence South 88°46'03" East 633.15 feet to the Westerly margin of Newcastle-Coal Creek Road and a point of non-radial intersection with a curve, concave to the North, having a radius of 379.26 feet, a radial line through said point bears South 89°39'40" East;
Thence in a Southwesterly and Northwesterly direction, along the arc of said curve and margin, passing through a central angle of 143°48'33" a distance of 951.92 feet;
Thence continuing along the Northerly margin of said road North 35°51'07" West 424.52 feet to the beginning of a curve, concave to the Southwest, having a radius of 984.93 feet;
Thence continuing along the arc of said curve and margin, passing through a central angle of 20°12'01" a distance of 347.25 feet;
Thence continuing along said margin North 56°03'07" West 686.75 feet to the beginning of a curve, concave to the Southwest, having a radius of 1175.92 feet;
Thence continuing along the arc of said curve and margin, passing through a central angle of 16°54'06" a distance of 346.88 feet;
Thence South 76°24'08" East 306.25 feet;
Thence North 13°12'47" East 150.00 feet;
Thence North 51°17'59" West 349.74 feet;
Thence South 45°04'28" West 349.85 feet;
Thence South 76°24'08" East 46.87 feet to the aforementioned Northerly margin of Newcastle-Coal Creek Road;
Thence along said margin North 78°42'07" West 822.90 feet to the beginning of a curve, concave to the Northeast, having a radius of 1402.40 feet;
Thence continuing along the arc of said curve and margin, passing through a central angle of 14°11'00" a distance of 347.16 feet;
Thence continuing along said margin North 64°31'07" West 218.18 feet to the beginning of a curve, concave to the Southwest, having a radius of 1462.40 feet;
Thence continuing along the arc of said curve and margin, passing through a central angle of 10°44'00" a distance of 273.95 feet;
Thence continuing along said margin North 75°15'07" West 1275.06 feet to the beginning of a curve, concave to the South, having a radius of 746.20 feet;

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Thence continuing along the arc of said curve and margin, passing through a central angle of 16°30'00" a distance of 214.89 feet;
Thence continuing along said margin South 88°14'53" West 858.25 feet to the West line of the Northeast quarter of said Section 27;
Thence along said West line North 01°02'47" East 427.99 feet;
Thence South 88°20'31" East 1313.52 feet;
Thence North 01°13'52" East 695.89 feet to the POINT OF BEGINNING.

ALSO, That portion of the Northeast quarter of the Northeast quarter of Section 27 and a portion of the Northwest quarter of Section 26, all in Township 24 North, Range 5 East, W.M., in King County, Washington, being more particularly described as follows:

Commencing at the Northeast corner of said Section 27;
Thence North 88°09'07" West along the North line thereof, 1,328.91 feet;
Thence South 01°13'52" West 617.35 feet to the centerline of Coal Creek as located in August, 1982, and the POINT OF BEGINNING;
Thence along said centerline the following courses:
South 64°25'08" East 148.59 feet;
South 67°56'17" East 109.48 feet;
South 85°52'35" East 167.23 feet;
South 57°31'00" East 132.05 feet;
South 06°20'53" East 97.54 feet;
South 87°55'38" East 157.36 feet;
North 88°01'47" East 111.95 feet;
South 66°02'56" East 214.25 feet;
South 64°01'33" East 169.29 feet;
South 52°38'03" East 318.88 feet;
South 63°28'53" East 351.02 feet;
South 69°46'49" East 285.36 feet;
South 74°26'53" East 98.75 feet;
South 75°26'57" East 108.65 feet;
North 81°18'49" East 212.73 feet;
South 72°52'36" East 70.18 feet;
South 76°57'44" East 162.48 feet;
South 43°31'22" East 293.70 feet;
South 44°20'37" East 205.05 feet;
South 54°47'28" East 121.63 feet;
South 53°08'58" East 215.82 feet;
South 61°40'01" East 121.39 feet;
South 11°04'07" East 125.48 feet;
South 28°48'37" East 121.35 feet;
South 74°59'37" East 57.71 feet;
South 71°41'45" East 20.26 feet;
South 16°01'20" East 74.87 feet;

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South 42°21'04" East 96.07 feet;
South 39°05'37" East 138.55 feet to the South line of the Northwest quarter of said Section 26;
Thence along said South line South 88°46'03" East 244.94 feet to the South east corner of said Northwest quarter;
Thence along said East line of the Northwest quarter of said Section 26 North 01°04'35" East 100 feet;
Thence North 41°12'16" West 216.54 feet;
Thence North 58°19'51" West 285.00 feet;
Thence North 30°37'48" West 301.05 feet;
Thence North 51°37'57" West 195.14 feet;
Thence North 26°33'54" West 270.12 feet;
Thence North 61°11'21" West 129.11 feet;
Thence South 71°33'54" West 90.11 feet;
Thence North 40°21'52" West 114.24 feet;
Thence North 20°33'22" West 48.63 feet;
Thence North 70°54'23" West 143.91 feet;
Thence North 53°31'51" West 142.10 feet;
Thence North 65°51'16" West 331.56 feet;
Thence South 53°58'21" West 144.98 feet;
Thence South 68°57'45" West 130.09 feet;
Thence North 74°44'42" West 104.22 feet;
Thence North 56°18'36" West 98.98 feet;
Thence North 23°11'55" West 76.03 feet;
Thence North 55°37'11" West 122.29 feet;
Thence North 63°26'06" West 178.82 feet;
Thence North 55°13'20" West 213.10 feet;
Thence North 29°14'56" West 150.37 feet;
Thence North 90°00'00" West 55.67 feet;
Thence North 56°18'36" West 125.12 feet;
Thence North 84°17'22" West 100.50 feet;
Thence North 56°18'36" West 151.89 feet;
Thence South 59°02'10" West 120.24 feet;
Thence North 72°21'00" West 101.53 feet;
Thence North 45°00'00" West 198.06 feet;
Thence North 72°43'07" West 244.10 feet;
Thence South 87°16'25" West 111.68 feet;
Thence South 70°01'01" West 58.03 feet;
Thence North 90°00'00" West 52.62 feet;
Thence North 68°11'55" West 64.09 feet;
Thence North 87°02'37" West 58.39 feet to a point on the Westerly line of the Northeast quarter of the Northeast quarter of said Section 27, distant South 01°13'52" West 480.00 feet from the Northwesterly corner of last said subdivision;
Thence South 01°13'52" West 137.35 feet to the POINT OF BEGINNING.

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EXCEPT Therefrom any portion lying Southerly and Easterly of Newcastle-Coal Creek Road.

PARCEL L:

That portion of the Southeast quarter of the Southwest quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, described as follows:

Beginning at the Northeast corner of said subdivision;
Thence Southerly along the East line of said subdivision 600 feet;
Thence Northwesterly to a point on the North line of said subdivision 225 feet West of the point of beginning;
Thence East 225 feet to the point of beginning;

EXCEPT the East 75 feet thereof.

PARCEL M:

Tract "C" in the plat of Newport Park Division No. 2 as recorded in Volume 95 of Plats, pages 88 and 89, records of King County, Washington;

ALSO that portion of the South half of the Southwest quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, lying between the Easterly line of the plat of Lake Heights No. 2, as recorded in Volume 49 of Plats, page 91, records of King County, Washington, and the following described line:

Beginning at a point on the North line of the South half of the Southwest quarter of said Section 16, which is 439.60 feet Easterly, measured along said North line, from the Northeast corner of Lot 1, Block 1, Lake Heights No. 2, as recorded in Volume 49 of Plats, page 91, records of King County, Washington;
Running thence South 7°00'29" West 717.84 feet;
Thence Southerly, in a straight line, to a point on the South line of said Section 16 which is 360 feet Easterly, measured along said South line, from the southeast corner of Lot 10, Block 2, said plat of Lake Heights No. 2.

PARCEL N:
A tract designated as "Reserve" in Lake Heights, as recorded in Volume 46 of Plats, page 14, records of King County, Washington

EXCEPT those portions thereof conveyed to the State of Washington by deeds recorded under Auditor's File No. 4362704 and 5032216 for Secondary State Highway No. 2-A, Kennydale to Bellevue, and Primary State Highway No. 1, Bagley Lane to Wilburton;

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AND EXCEPT those portions conveyed to the State of Washington by deeds recorded under Recording Nos. 5705153 and 5705154.

PARCEL O:

Lot 4, Block 1, Lake Heights, according to plat thereof recorded in Volume 46 of Plats, Page 14, Records of King County, Washington;

EXCEPT the westerly 140 feet of said Lot 4, said 140 feet being measured along the north line of said Lot 4.

PARCEL P:

That portion of the Northeast quarter of the Southwest quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, lying southerly of Newport-Issaquah County Road (Newport Way), and Northwesterly of the following described line:

Beginning at the Northeast corner of lot 4, block 1, Lake Heights, according to the plat recorded in Volume 46 of plats, page 14, Records of King County, Washington; thence Southerly along the East line of said Lot 4, a distance of 27.627 feet to the true point of beginning;

Thence North 66° 23' 48.5" East a distance of 321.39 feet; thence North 06° 26' 56" East a distance of 44 feet, more or less, to terminus of said line on Southerly margin of P.S. Highway No. 1 Newport Interchange right of way;

EXCEPT portion lying within Secondary State Highway No. 2-A;

EXCEPT any portion thereof conveyed to the State of Washington for highway purposes.

PARCEL Q:

That portion of the Northeast quarter of the Southwest quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, lying Southerly of Newport-Issaquah Road (Newport Way), described as follows:

Northeast 2-1/2 acres, whose South boundary is center of Coal Creek, whose North boundary is Newport-Issaquah County Road (Newport Way), whose East boundary is East boundary of above described property, and whose West boundary is a line parallel to the East boundary at such a distance to the West line of East boundary line as will make the property described in this description embrace 2-1/2 acres;

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EXCEPT portion condemned by King County Superior Court Cause No. 614516 for Coal Creek-Newport Road;

ALSO all that portion of the Northeast quarter of the Southwest quarter lying Southerly of the Newport-Issaquah County Road (Newport Way) in Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington;

EXCEPTING therefrom the East 2-1/2 acres bounded and described as follows:
A parcel of land bounded on the North by the Newport-Issaquah County Road, on the East by the East line of the Northeast quarter of the Southwest quarter of said Section 16, Township 24 North, Range 5 East, W.M., on the South by the centerline of Coal Creek and on the West by a line drawn parallel to the said East line of the Northeast quarter of the Southwest quarter and at such distance therefrom so as to comprise an area of 2-1/2 acres, all as the same existed prior to August 6, 1959.

ALSO EXCEPTING therefrom all that parcel of land conveyed to the Municipality of Metropolitan Seattle, as conveyed by deed recorded February 11, 1963, as Auditor's file No. 5542681, described as follows:

That portion of the Northeast quarter of the Southwest quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, lying southerly of Newport-Issaquah County Road (Newport Way), and northwesterly of the following described line:

Beginning at the Northeast corner of Lot 4, Block 1, Lake Heights, according to the plat recorded in Volume 46 of Plats, page 14, records of King County, Washington;
Thence Southerly along the East line of said Lot 4, a distance of 27.627 feet to the TRUE POINT OF BEGINNING;

Thence North 66°23'48.5" East a distance of 321.39 feet;
Thence North 06°26'56" East a distance of 44 feet, more or less, to terminus of said line on Southerly margin of P.S. Highway No. 1 Newport Interchange right of way;

ALSO EXCEPT that portion taken by Decree of King County Superior Court Cause no. 556108;

ALSO EXCEPT portion acquired by State of Washington by Decree in King County Superior Court Cause No. 330632 and by Deed under King County Auditor's File No. 4525661;

AND EXCEPT portion conveyed to King County by Auditor's File No. 5554784.

PARCEL R:

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That portion of the West half of the Southeast quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, described as follows:

Beginning at the Northwest corner of the Southwest quarter of the Southeast quarter of said Section;
Thence South 0°19'49" West, along the West line of said subdivision, 414.38 feet;
Thence South 51°52'10" East 94.92 feet to the TRUE POINT OF BEGINNING;

Thence South 51°52'10" East 453.77 feet;
Thence North 63°07'00" East 255.87 feet;
Thence North 44°53'00" West 287.02 feet;
Thence North 0°06'57" East 115.00 feet;
Thence South 34°30'00" West 82.57 feet;
Thence North 64°17'21" West 371.43 feet;
Thence South 0°19'49" West 246.97 feet to the TRUE POINT OF BEGINNING;

ALSO that portion of the Southwest quarter of the Southeast quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, described as follows:

Beginning at the Southeast corner of said subdivision;
Thence North 0°22' West 513.01 feet;
Thence North 85°18'36" West 390.63 feet;
Thence North 26°03' East 260 feet;
Thence North 31°36'30" West 138.15 feet;
Thence South 59°46' West 323.13 feet;
Thence South 63°07' West 255.87 feet;
Thence South 50°16'03" East 346.23 feet;
Thence South 19°31'43" East 402.24 feet to the South line of said subdivision;
Thence South 85°20'38" East along said South line 445.23 feet to the Southeast corner of said subdivision and the point of beginning;

ALSO that portion of the Southwest quarter of the Southeast quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, described as follows:

Beginning at a point which is North 0°22' West 513.01 feet from the Southeast corner of the Southwest quarter of the Southeast quarter of said Section 16;
Thence North 85°18'36" West 390.63 feet;
Thence North 26°03'53" East 260 feet;
Thence North 31°36'30" West 138.15 feet;
Thence North 49°56' West 207.43 feet;
Thence North 33°59'32" East 362.03 feet to the North line of the Southwest quarter of the Southeast quarter of said Section 16;
Thence South 87°36'05" East 297.25 feet to the Northeast corner of said subdivision;

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Thence South 0°22' East along the Easterly line of said subdivision 805.02 feet to the point of beginning;

EXCEPT that portion of the above described tracts lying Northeasterly of the Southwesterly margin of the Coal Creek-Newport Road as deeded to King County under Auditor's File No. 5642595, records of King County;

AND EXCEPT therefrom any portion lying within the Mercer Island-Bellevue pipeline right of way.

DSD - 000243

EXHIBIT B
Legal Description of Surrey Downs

DSD - 000244

Exhibit B

Surrey Downs Legal Description

That portion of the SW ¼ of the SE ¼ of Section 32,T25N, R5E, W.M. in King County Washington, lying easterly of the replat portion of Surrey Downs Addition No. 1, according to the plat thereof recorded in Volume 65 of Plats, page 17, in King County, Washington, and easterly of the plat of Surrey Downs Addition No. 1, according to the plat thereof recorded in Volume 50 of Plats, pages 32-34, in King County, Washington, and southerly of the plat of Surrey Down Addition No. 2, according to the plat thereof recorded in Volume 60 of Plats, page 10, in King County, Washington;
EXCEPT the east 30 feet dedicated to the City of Bellevue for street and highway purposes by instrument recorded under Recording Number 4860655; and
EXCEPT roads; and
EXCEPT that portion described as follows:
Beginning at the SW corner of Lot 3, Block 12, Surrey Downs Addition No. 2;
Thence east along the south line of said lot to the SE corner of said lot;
Thence southwesterly along a line bearing S33°10'18"W to a point 28.7 feet from said southeast corner;
Thence in westerly direction a distance of 103.62 feet to the point of beginning: and
EXCEPT that portion described as follows:
Beginning at the southwest corner of Lot 2, Block 12, Surrey Downs Addition No.2;
thence southwesterly along a line bearing S33°10'18"W to a point which is 28.7 feet from said southwest corner;
thence in a southeasterly direction to the south point of said lot;
thence in a northwesterly direction to the point of beginning; and
EXCEPT that portion thereof lying westerly of a line beginning at a point on the south line of the southwest quarter of the southeast quarter of said Section, distant 30 feet east of the southeast corner of Lot 1, Block 6, said plat of Surrey Downs Addition No. 1;
thence northwesterly 315 feet, more or less, to the southwest corner of Lot 2, Block 5, said addition, and the terminus of said line.

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EXHIBIT C

Settlement Agreement

DSD - 000246

08/04/04

SETTLEMENT AGREEMENT

This Settlement Agreement and Release ("Agreement") is entered into this 6th day of August, 2004 by and between The Newport Yacht Club, Inc., a Washington corporation ("NYC"), William S. Weinstein and Leanne C. Weinstein and their marital community (Weinstein), the City of Bellevue, Washington ("City") and King County, Washington ("County").

RECITALS

WHEREAS, on August 11, 2003 NYC and Weinstein filed suit in King County Superior Court against the City and County in the action styled *Newport Yacht Club and William S. and Leanne C. Weinstein v. The City of Bellevue and King County*, Cause No. CO3-2534 seeking damages, declaratory and injunctive relief concerning impacts arising from Coal Creek. A copy of the complaint is attached as Exhibit A (the "Operative Complaint").

WHEREAS, the City and County have answered and denied all liability alleged in the Operative Complaint; and

WHEREAS, the parties wish to resolve the dispute without further litigation cost or expense.

NOW THEREFORE, in consideration of the forgoing and the mutual promises, covenants and conditions set forth below and for other good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows.

AGREEMENT

1. REVIEW AND APPROVAL OF AGREEMENT

1.1. City and County Council Approvals: A condition precedent to the City and County's obligations herein is the review and approval of this Agreement by the City Council and the County Council. Upon execution of this Agreement the City and County will promptly take such necessary actions to secure approval from the City Council and County Council to effectuate the terms and conditions of this Agreement.

1.2. NYC Approval: Upon execution of this Agreement, NYC shall promptly transmit a copy of this Agreement to its membership with a notice of the Settlement Hearing contemplated in Section 13.2 below.

2. CITY AND COUNTY PROPERTY TRANSFERS AND SETTLEMENT PAYMENTS

2.1. Legislative Action: Upon or in conjunction with the City Council and County Council approvals set forth in Section 1.1 above, the City and County shall take all necessary administrative or legislative actions necessary to effectuate the terms and conditions of

EXHIBIT C

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this Agreement including, without limitation, the real estate transfers and settlement payments required herein.

2.2. County Transfer of Coal Creek Park and Surrey Downs Building to City:

2.2.1. Title Transfer: On or before November 15, 2004, the County shall transfer to the City title to the real estate commonly referred to or known as "Coal Creek Park" and the "Surrey Downs" property and more particularly described in Exhibit B hereto.

2.2.2. Operation & Maintenance: Upon transfer of title, the City shall be solely responsible for all operation and maintenance of Coal Creek Park and Surrey Downs, except for the district court building and facilities. The County shall retain the operation and maintenance obligations of the district court building and facilities.

2.2.3. District Court Building & Facilities: The County shall retain use of the Surrey Downs district court building and facilities rent-free through December 31, 2006. The City and County shall enter into such agreements as necessary to effectuate the County's use, occupancy maintenance and operations of the district court buildings and facilities.

2.2.4. Revenue Streams: Upon transfer of title, the City shall collect and retain all income streams derived from or associated with Coal Creek Park and Surrey Downs except for any revenue derived from the district court building and facilities. The County shall execute such documents as necessary to effectuate the assignment or redirection of such revenue to the City.

2.2.5. Indemnification: The City shall defend, indemnify and hold harmless the County from and against any and all third party claims, demands, actions, suits, judgments, losses, damages, costs or expenses including without limitation reasonable attorney fees and costs which concern, refer, relate to or arise from Coal Creek Park and which first arise on or after the date title to Coal Creek Park is transferred to the City. The County shall defend, indemnify and hold harmless the City from and against any and all third party claims, demands, actions, suits, judgments, losses, damages, costs or expenses including without limitation reasonable attorney fees and costs which concern, refer, relate to or arise from Coal Creek Park and which first arise before the date title to Coal Creek Park is transferred to the City.

3. COUNTY – CITY ALLOCATION OF SETTLEMENT PAYMENTS

3.1. Coal Creek Stabilization Payment: Within ten days of the date of Court approval of this Agreement as provided for in paragraph 13.2 below, the County shall pay to the City Two Million One Hundred and Fifty Thousand Dollars ($2,150,000) less a credit for County funds spent on approved work on overbank erosion in Cinder Mine area. This payment represents the County's portion of costs for Coal Creek Stabilization Project (the "CCSP") attached hereto as Exhibit C.

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3.2. EIS Payment: Within ten days of the date of Court approval of this Agreement as provided for in paragraph 13.2 below, the County shall pay to the City Two Hundred and Fifty Thousand Dollars ($250,000) as the County's contribution toward the Environmental Impact Statement ("EIS") for the CCSP attached hereto as Exhibit C.

3.3. Attorney Fee Payment: The County shall contribute Seventy-Five Thousand Dollars ($75,000) and the City shall contribute Twenty Five Thousand Dollars ($25,000) to the attorney fees payment required by Section 10 below.

4. COAL CREEK STABILIZATION PROJECT.

4.1. Implementation: The City will implement the CCSP attached as Exhibit C. The City shall be solely responsible for all implementation and permitting activities for the CCSP. The County shall, however, cooperate with the City and support as necessary the CCSP which cooperation and support shall include without limitation consenting to the release to third parties of information necessary for the EIS and permit application processes which may be currently subject to a "Joint Defense Privilege" between the City and County.

4.2. Increased Sediment Capture Volume: The sediment removal capacity outlined in the CCSP shall be increased by four hundred (400) cubic yards to a total capacity of one thousand five hundred (1,500) cubic yards at or near the existing I-405 pond or other locations that are acceptable to the City.

4.3. Permitting:

4.3.1. Contingency: The City's obligation to implement any portion of the CCSP is contingent upon receipt of all required permits and third-party approvals for that portion. The City's work shall be prosecuted as a single project under a single programmatic EIS process, and to the extent possible, under a single permit application.

4.3.2. Timely Response to Permitting Agencies: The City shall respond to regulatory agency requests for additional information within thirty (30) days unless the request requires the City to develop information which is not in its care, custody or control at the time of the request.

4.4. Cooperation, Co-Applicants and Non-Opposition:

4.4.1. Cooperation & Non-Opposition: NYC, Weinstein and the County shall support and shall not oppose the City's permit application and programmatic EIS for the CCSP.

4.4.2. Co-Applicants: NYC and/or Weinstein may be co-applicants on the City's permit applications for all or any portion of the CCSP. NYC and Weinstein shall not use

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the status of co-applicant to oppose or otherwise impede the City's permitting for the CCSP. NYC and Weinstein shall each bear their own costs of participating as co-applicants and the co-applicant status of Weinstein and NYC shall be at no cost to the City.

4.4.3. Technical Review & Comment: The City will provide NYC and / or Weinstein's experts with a reasonable opportunity to review with the City and comment concerning modifications, changes and enhancements to the CCSP work to the extent such changes or enhancements do not increase the overall cost of the specific proposed tasks.

4.5. Source Control Budget Cap: For the "source control" items listed on Exhibit C, the corresponding line item dollar amount represents the maximum dollar amount the City is obligated to expend for that project inclusive of design, permitting and construction costs but excluding the cost of a the programmatic EIS in Section 4.3 above. The City's charges against the line item budget amounts set forth in Exhibit C shall be limited to reasonable and customary costs for capital improvement projects.

4.6. WSDOT Cooperation: The parties shall work cooperatively and in good faith to have the Washington Department of Transportation ("WSDOT") allocate monies to improve storm water detention and/or sediment capture capacity at the I-405/Coal Creek Parkway exchange in conjunction with WSDOT projects which may impact Coal Creek.

4.7. Milestones and Schedule:

4.7.1. Milestones: Within thirty (30) days of the date of this Agreement, the City, NYC and Weinstein shall develop and agree upon a list of key milestones and submittals for the overall CCSP project.

4.7.2. Schedule: Within thirty (30) days of the date of this Agreement, the City, NYC and Weinstein shall agree upon a schedule for implementation of the agreed milestones and/or submittals up to and including the preparation of the programmatic EIS and Joint Aquatic Resource Permits Application ("JARPA") submittals.

4.7.3. Disputes: If the City, NYC and Weinstein cannot agree upon the milestones and submittals and the implementation schedule, then the City, NYC and Weinstein shall mediate the dispute before William F. Joyce of WAMS. The mediation shall be convened on an expedited basis with each participant bearing a per capita share of the mediator's fees.

5. CITY'S FLOOD CONTROL AND SEDIMENT MANAGEMENT OPERATION AND MAINTENANCE DUTIES

The City shall operate and maintain the existing flood control and sediment management facilities and the proposed CCSP and/or any Replacement Work (as defined in Section 12

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below) that the City is obligated to construct in the Coal Creek basin from and including Coal Creek Park to the waters of Lake Washington.

6. FLOOD CONTROL BERM & SALMON CHANNEL

6.1. Flood Control Berm: Weinstein shall design, obtain permits for, construct, and maintain a flood control berm on the Weinstein Property along the south bank of Coal Creek (the "Berm"). The "Weinstein Property" is more particularly described in Exhibit D attached hereto. The design of the Berm and the permit application for the Berm may include raising the level of the yard on the Weinstein Property to match the Berm height. Any raising of such yard level shall not be paid for from the funds referred to in subsection 6.4 below. NYC may be a co-applicant on the Berm permit application.

6.2. Salmon Channel: Weinstein shall design, obtain permits for, construct, and maintain an environmentally beneficial salmon enhancement channel at the mouth of Coal Creek to assist in salmon passage across the Coal Creek delta (the "Salmon Channel"). NYC may be a co-applicant on any such permit application.

6.3. Permitting: Weinstein's obligations under Section 6.1 and 6.2 are contingent upon receipt of all third party permits and approvals for the Berm and Salmon Channel. Weinstein may combine the permitting and design for the Berm and Salmon Channel (or Replacement Work as defined in Section 12 below) with the permitting and design for the Salmon Habitat Enhancement set forth in Section 7 below.

6.4. County Payment: Within ten (10) days of the Order dismissing the Operative Complaint as set forth in Section 13 below or on November 5, 2004, whichever is later, the County shall pay to Weinstein Two Hundred and Fifty Thousand Dollars ($250,000) towards the cost to design, obtain permits for, construct, and maintain the Berm, Salmon Channel, or any Replacement Work (as defined in Section 12 below). The County's payment will be direct deposited into the interest bearing escrow account provided for in Section 11 below (the "Berm/Salmon Channel Escrow"). Weinstein may draw down on the Berm/Salmon Channel Escrow to pay for the costs to design, permit, construct, operate and maintain the Berm and Salmon Channel or Replacement Work (as defined in Section 12 below).

6.5. City and County Cooperation and City Permits:

6.5.1. Cooperation: Subject to the Berm and Salmon Channel permits complying with applicable provisions of the Bellevue City Code, the City shall cooperate with Weinstein in securing such permits. The City and the County shall not oppose Weinstein's permit applications to any permitting agencies.

6.5.2. City Permits: The City may charge Weinstein only reasonable and ordinary permitting costs. In the event Weinstein's permit application(s) result in a final DNS determination under SEPA (or if an administrative appeal is filed, upon the DNS being affirmed) or upon publication of an FEIS and upon receipt of a complete

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permit application, then the City will undertake to issue its permits for such work in a time frame which is no longer than the average time frame for an average shoreline permit pending in the City of Bellevue (currently estimated at 20 weeks). Subject to applicable provisions of the Bellevue City Code, the City shall defer to the review, recommendations and determinations of other permitting agencies in evaluating Weinstein's permit applications.

7. SALMON HABITAT ENHANCEMENT PROJECT

7.1. The Project: Weinstein may design, obtain permits for, construct, and maintain a salmon habitat enhancement project (s) ("SHEPs") in, on and around the Weinstein Property and the Weinstein North Property (which is more particularly described in Exhibit E attached hereto). The cost of constructing, operating and maintaining such SHEPs will be at Weinstein's sole cost and expense.

7.2. Non-Opposition: Subject to any such SHEPs complying with applicable Bellevue City Code provisions, the City and County shall not oppose Weinstein's development of any SHEPs in and around the Weinstein Properties at the mouth of Coal Creek.

7.3. Technical Data Usage: The City and County shall make available and allow Weinstein to use any technical data, reports, or other documents as have been or may be prepared for the City or County in connection with the CCSP. The City and County shall not charge Weinstein for the value or use of such materials, or the cost to develop them.

7.4. City Permitting: The City may charge Weinstein only reasonable and ordinary permitting costs. Subject to the SHEP permit(s) complying with applicable provisions of the Bellevue City Code, the City shall cooperate with Weinstein in securing such permits. In the event any permit application(s) results in a final DNS determination under SEPA (or if an administrative appeal is filed, upon the DNS being affirmed) or upon publication of an FEIS and upon receipt of a complete permit application, then the City will undertake to issue its permits for such work in a time frame which is no longer than the average time frame for an average shoreline permit pending in the City of Bellevue (currently estimated at 20 weeks). Subject to applicable provisions of the Bellevue City Code, the City shall defer to the review, recommendations and determinations of other permitting agencies in evaluating Weinstein's permit applications.

8. CITY ORDINANCE ENFORCEMENT ACTION AND VEGETATION ORDER

8.1. Rockery Removal: Within sixty (60) days of the earlier of issuance of the permits for the Berm and Salmon Channel or issuance of permits for the CCSP, Weinstein will remove the rocks in the area shoreward of the X shown on Exhibit G unless the rocks are re-used or removed pursuant to the permits issued for the Berm or Salmon Channel.

8.2. Dismissal of City Code Action: Within thirty (30) days of entry of the Order dismissing the Operative Complaint as set forth in Section 13 below, the City shall dismiss with

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prejudice its pending code compliance enforcement action against Weinstein concerning the alleged placement of berming materials on the Weinstein Property from the east edge of the Weinstein Property to the X shown on Exhibit G, and will dismiss without prejudice the enforcement action as to alleged fill with rocks shoreward/downstream of that point. If the alleged fill shoreward/downstream of the X noted on Exhibit G is either permitted by the permit for the Berm or Salmon Channel, or if Weinstein removes such rockery within sixty (60) days of the earlier of issuance of the Berm and Salmon Channel permits or issuance of permits for the CCSP, then the City will not pursue an enforcement action against Weinstein related to that alleged fill. If the City is authorized by this section to pursue later the portion of the enforcement action dismissed without prejudice, the subsequent enforcement action will relate back to the date of the filing of the enforcement action being dismissed.

8.3. Vegetation Order: Within thirty (30) days of the Order dismissing the Operative Complaint as set forth in Section 13 below, the City shall inspect the vegetation on the Weinstein North Property and, if warranted, shall provide a certification that as of the inspection date, Weinstein is in compliance with that certain City Order 99-005968 EA concerning maintenance of vegetation on the Weinstein North Property and if Weinstein is in compliance the City will promptly terminate the Order and dismiss any enforcement action concerning such Order.

8.4. Red Tag Removal: Within fourteen (14) days of the date of the Order dismissing the Operative Complaint as set forth in Section 13 below, the City will lift, remove or otherwise terminate the current "red tag" on the Weinstein Properties.

9. DREDGE PAYMENTS AND PERMITS

9.1. $60,000 Marina Re-Dredge Payment: Within ten (10) days of the Order dismissing the Operative Complaint set forth in Section 13 below or on November 5, 2004, whichever is later, the City and County shall each pay directly to NYC Thirty Thousand Dollars ($30,000) (for a total payment of Sixty Thousand Dollars ($60,000)) to be used for dredging in the marina. NYC shall segregate the $60,000 from its general funds and apply the funds only to re-dredging costs incurred in the NYC marina.

9.2. $700,000 Dredge Payment:

9.2.1. Payment: Within ten (10) days of the Order dismissing the Operative Complaint set forth in Section 13 below or on November 5, 2004, whichever is later, the City shall pay Seven Hundred Thousand Dollars ($700,000) to NYC for future navigation maintenance dredging costs. The $700,000 payment will be direct deposited into an interest bearing escrow account at Stewart Title Insurance Company (the "Dredge Escrow") and shall be subject to the provisions of Section 11 below.

9.2.2. Use of $700,000: The decision of whether, where and when to dredge the areas specified in this sub-section shall be in NYC's sole and absolute discretion. NYC

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shall draw down on the Dredge Escrow to pay for the costs to design, permit, construct, and otherwise conduct navigation maintenance dredging in the following specified areas:

(a) NYC marina;
(b) entrance to Grand Canal;
(c) south side of D dock at the NYC Marina; and
(d) the edges of the Coal Creek Delta for navigational maintenance dredging.

NYC shall not construct boat slips on the south side of D dock as a consequence of the dredging. The authorized dredging costs may include, without limitation, design, permitting, engineering, legal, construction, consulting, mitigation and monitoring costs.

9.3. City Permitting: The City may charge NYC only reasonable and ordinary permitting costs. Subject to any future dredge permits complying with applicable provisions of the Bellevue City Code, the City shall cooperate with NYC in securing such permits as required to perform future dredges. In the event any such future dredge permit applications result in a final DNS determination under SEPA (or if an administrative appeal is filed, upon the DNS being affirmed) or upon publication of an FEIS and upon receipt of a complete permit application, then the City will undertake to issue its permits for such dredges in a time frame which is no longer than the average time frame for an average shoreline permit pending in the City of Bellevue (currently estimated at 20 weeks). Furthermore, subject to applicable provisions of the Bellevue City Code, the City shall defer to the review, recommendations and determinations of other permitting agencies in evaluating NYC's permit applications.

9.4. Non-Opposition: The City and the County shall not oppose NYC's dredge permit applications to any permitting agencies.

10. ATTORNEY FEES REIMBURSEMENT

Within ten (10) days of the date of the Order dismissing the Operative Complaint set forth in Section 13 below or on November 5, 2004, whichever is later, the City and County collectively shall pay to NYC Twenty Five Thousand Dollars ($25,000) and shall pay to Weinstein Seventy Five Thousand Dollars ($75,000) in reimbursement of attorney fees and costs incurred in this action, with the total payment of One Hundred Thousand Dollars to be allocated between the City and County as described in paragraph 3.3 above.

11. BERM/SALMON CHANNEL & DREDGE ESCROW ACCOUNTS

11.1. Establishment of Escrow Accounts: Within ten (10) days of the date of the Order dismissing the Operative Complaint as set forth in Section 13 below, Weinstein and NYC shall establish the Berm/Salmon Channel and Dredge Escrow accounts required in Section 6.4 and 9.2 above with Stewart Title Company. The escrow accounts shall bear interest and any such interest payments shall be retained in the respective escrow

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account. Any fees or costs associated with the establishment or maintenance of the escrow accounts shall be paid from the funds maintained in the escrow accounts.

11.2. Escrow Instructions: The Berm/Salmon Channel and Dredge Escrow Accounts shall be maintained and managed in accordance with their respective Escrow Instructions attached hereto and incorporated herein as Exhibit F.

11.2.1. Berm/Salmon Channel Mandatory Escrow Instructions: The instructions concerning draws on the Berm/Salmon Channel escrow account shall require that:

(a) payment or reimbursement of appropriate invoices shall be made within sixty (60) days of submission;

(b) the form of draw request shall be in letter format with backup documentation (invoices etc.) and conform to Stewart Title Co.'s general escrow draw requirements and standard forms; and

(c) escrow funds shall be dedicated to payment of Berm, Salmon Channel and any Replacement Work (as defined in Section 12 below).

11.2.2. Dredge Mandatory Escrow Instructions: The instructions concerning draws on the Dredge Escrow account shall require that:

(a) payment or reimbursement of appropriate invoices shall be made within sixty (60) days of submission;

(b) the form of draw request shall be in letter format with backup documentation (invoices etc.) and conform to Stewart Title Co.'s general escrow draw requirements and standard forms; and

(c) escrow funds shall be dedicated to payment of dredging costs in the areas designated in Section 9.2.2 above.

12. REPLACEMENT WORK

12.1. Permits Condition Precedent to Work: The City's obligations under Section 2 above and Weinstein's obligations under Section 6 above are contingent upon receiving all necessary third-party permits and approvals.

12.2. Failure to Obtain Permits and Approvals / Replacement Work: If the City fails to obtain a third-party permit or approval for all or any portion of the CCSP or if Weinstein fails to obtain a third-party permit or approval for all or any portion the Berm or Salmon Channel, then the releases, covenant-not-to-sue and indemnity provided for in Section 14 below shall remain in full force and effect, but the City, NYC and Weinstein shall negotiate in good faith to decide upon acceptable replacement work. Replacement work shall be of like kind to the original work for which permits or approvals were not obtained, and shall be reasonably and technically feasible ("Replacement Work"). The cost of Replacement Work for the CCSP or any component thereof shall be capped by the associated line item budget amount set forth in Exhibit C and shall not increase the projected maintenance costs of such line item.

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12.3. Failure to Select Replacement Work / Binding Arbitration: If the City, NYC and Weinstein cannot agree on Replacement Work, then they shall submit the issue for resolution by binding arbitration in accordance with the King County Mandatory Arbitration Rules. The City, NYC and Weinstein shall select a mutually acceptable arbitrator and if the parties cannot agree upon an arbitrator then the arbitrator shall be selected by William F. Joyce of WAMS in his sole discretion. Any fees and costs charged by Mr. Joyce to make such selection shall be allocated among the disputing parties on a per capita basis.

13. DISMISSAL OF OPERATIVE COMPLAINT

13.1. Order of Dismissal: This Agreement shall be incorporated into a stipulated order to be executed by Judge Zilly (the "Order"). The Order shall dismiss the Operative Complaint with prejudice and with each party to bear their own fees and costs. The Order will provide that the Federal Court shall retain jurisdiction to enforce the terms and conditions of the Order and this Agreement and shall further provide that the dispute resolution provisions of Section 15 below shall be initiated prior to seeking Court enforcement of the Order.

13.2. Settlement Hearing: The parties shall stipulate to the submission of this Agreement and the proposed Order to the Court and shall request a hearing for the Court's final review and approval of this Agreement and entry of the Order (the "Settlement Hearing"). The Settlement Hearing shall be set on a date at least sixty (60) days after submission of the Agreement by stipulation. The date for the Settlement Hearing may be extended at the request of the County an additional thirty (30) days to allow the County Council sufficient time to review and act upon the provisions of the Settlement Agreement.

14. RELEASE, COVENANT NOT TO SUE AND INDEMNITY

14.1. Release of NYC and Weinstein Past/Existing Claims: NYC and Weinstein hereby release, waive and forever discharge the City and County from any and all claims, suits, liabilities (including but not limited to strict liabilities), administrative or judicial actions or proceedings, obligations, debts, damages, losses, costs, expenses, fines, penalties, charges, fees, expenses, litigation costs, attorneys' fees, engineers' fees, environmental consultants' fees, and investigation costs, of whatever kind or nature, and whether or not incurred in connection with any judicial or administrative proceedings which concern, refer or relate to the claims NYC and Weinstein brought or could have brought in the Operative Complaint based upon the facts alleged in the Operative Complaint. Except for claims seeking or related to navigational access and/or dredging, NYC's release herein does not extend to claims, whether founded in tort, common law, statute, or otherwise, that an individual homeowner may have concerning damage to their individual real property (e.g. their homes, lots, pools etc.) arising from Coal Creek (e.g. flooding).

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14.2. NYC Covenant Not To Sue for Future Claims: For the period forty (40) years after entry of the Order dismissing the action, NYC hereby covenants not to sue the City or the County for: (a) any future claims that NYC could bring for damage to its property or property for which it has management responsibility, Clean Water Act violations, RCRA violations or ESA violations arising from facts like those alleged in the Operative Complaint, including without limitation re-sedimentation; and (b) any future claims for maintenance dredging to protect NYC's property or property it manages concerning or arising from facts like those alleged in the Operative Complaint. Except for claims seeking or related to navigational access and/or dredging, the parties specifically acknowledge that the covenant not to sue is provided by NYC and is not intended to encompass the individual claims of NYC members, whether founded in tort, common law, statute or otherwise, concerning damage to their individual real property (e.g. their homes, lots, pools etc.) arising from Coal Creek (e.g. flooding).

14.3. Covenant Not to Sue for Weinstein Future Claims: As to the Weinstein's claims as individuals and property owners, Weinstein, the Spendthrift Trust(s) holding title to the Weinstein Properties, and the successors in interest and assigns of each, covenant not to sue the City and County for any future claims, including damage claims resulting from re-sedimentation of Coal Creek, arising from actions, inactions or events like those alleged in the Operative Complaint. Upon closing a fully executed version of the Covenant Not To Sue attached hereto as Exhibit H shall be recorded with the King County Auditor.

14.4. NYC Defense and Indemnification of the City and the County:

14.4.1. Defense and Indemnity: During the time period of the covenant not to sue in Section 14.2 above, NYC shall defend and indemnify the City and the County from and against claims by members of NYC for their personal claims which seek or relate to navigational access and/or dredging that concern or are derived from damage to the Club's property or damage to the individual's interest in the Club's property or property the Club manages, arising out of facts like those alleged in the Operative Complaint.

14.4.2. Indemnity Claim Procedure:

14.4.2.1. Notice Of Claim: Promptly after receipt by the City and/or County of notice of any demand or claim or the commencement (or threatened commencement) of any action, proceeding or investigation by a resident of Newport Shores which may fall within the indemnity afforded by Section 14.2 above the City and/or County shall give written notice to NYC (a "Claim Notice"). The Claim Notice shall describe, to the extent known, the claim and amount in controversy (or an estimate) in reasonable detail, provide the name and contact information for the claimant, and any relevant time deadlines such as dates of service of process and dates to answer or otherwise plead to a complaint.

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14.4.2.2. Claim Response: Within fifteen (15) days of receipt of a Claim Notice, NYC shall notify the City and/or the County in writing if NYC accepts, accepts with a reservation of rights or rejects the tendered claim (the "Claim Response"). If NYC accepts the tendered claim or agrees to defend under a reservation of rights, (an "Accepted Claim"), then NYC shall have the right to control the defense thereof and may elect to compromise or defend the Accepted Claim at its expense with counsel of its choice provided that such counsel is reasonably acceptable to the City and/or the County .

14.4.2.3. City and County Cooperation and Participation: The City and/or the County shall cooperate in the defense against and compromise of an Accepted Claim. The City and/or the County may participate in the defense or compromise of an Accepted Claim at its own expense. The City and/or the County shall make available to NYC any books, records, or other documents in its care, custody or control and the reasonable assistance of its personnel in the defense and compromise of an Accepted Claim.

14.4.2.4. Compromise of Accepted Claims: NYC shall not compromise any Accepted Claim without the City's and/or the County's prior written consent, which shall not be unreasonably withheld, conditioned or delayed. Any compromise of an Accepted Claim shall, to the extent practicable, include a full and complete release of such claim and shall not serve as an admission of fact, law or liability.

15. DISPUTE RESOLUTION

15.1. Informal Good Faith Negotiation: The parties agree to make all reasonable efforts to resolve through informal, good faith negotiations any disputes concerning the terms and conditions or performance of this Agreement. The informal negotiation period shall begin upon receipt by the party with which there is a claimed dispute of written Request for Negotiation and shall last a minimum of twenty (20) days and may be extended by written agreement of the parties to the negotiation. A Request for Negotiation shall set forth with reasonable specificity the factual basis for the claimed dispute. If a party serves a Request for Negotiation, that party shall promptly respond in good faith and in detail to any request for additional information or clarification from the party on whom the Request for Negotiation is served. The twenty-day minimum period for negotiations shall be tolled during any period when a request for additional information or clarification is pending, or when the parties are unable to meet to negotiate because of bona fide schedule conflicts. If the parties to the negotiation reach impasse, they may waive in writing the remainder of the informal negotiation period.

15.2. Condition Precedent to Court Action: The informal negotiation period is a condition precedent to the filing of any action for Court enforcement of this Agreement or the Order set forth in Section 13 above. Any action to enforce the terms and conditions of this Agreement or the Order set forth in Section 13 above shall include a certification by the party seeking relief that the provisions of Section 15.1 were satisfied.

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16. ENFORCEMENT

In any action to enforce the terms and conditions of this Agreement or the Order set forth in Section 13 above, the prevailing party shall be awarded its reasonable attorney fees and costs. The Court shall determine in its discretion the prevailing party for purposes of an attorney's fees award.

17. MISCELLANEOUS

17.1. Advice of Counsel: Each party signing this Agreement expressly represents and warrants that it has had the opportunity to seek the advice of counsel concerning the settlement and the terms and conditions of the settlement agreement prior to its execution. This settlement agreement shall be deemed to have been prepared jointly by the parties and to the extent any uncertainty or ambiguity exists concerning its terms, such uncertainty or ambiguity shall not be construed against any party as the author or the drafter of the settlement agreement.

17.2. Authority: Subject to the Condition Precedent set forth in paragraph 1.1 above, the undersigned persons executing this Agreement represent and warrant they are authorized to enter into and execute the Agreement.

17.3. Integration: This Agreement, including the schedule referenced in paragraph 4.7.2, contains the entire understanding of the parties with respect to the subject matter hereof, shall not be modified or amended in any way except by a writing signed by all the parties hereto. It supersedes and replaces all prior negotiations, agreements or representations, whether oral or written.

17.4. Applicable Law: This Agreement and interpreted under the laws of the state of Washington. Venue for any cause of action arising out of or relating to this Agreement shall be in United States District Court for the Western District of Washington.

17.5. Severability: If any provision of this Agreement is deemed unlawful or unenforceable, such provision(s) shall be fully severable, the remainder of this Agreement shall be in full force or effect with the automatic addition of a provision as similar in its terms to such a legal or unenforceable position as may be possible to make such provision legal and enforceable.

17.6. Original Counterparts: This Agreement may be executed in one or more counterparts, and by facsimile, each of which shall be deemed an original.

17.7. Notice:

All notices to be given pursuant to this Agreement shall be in writing and furnished to the other party at its address listed below (or at such other address as may be specified from time to time by notice from the addressee to the other party) and shall be deemed to have been duly given the day delivered to the addressee at the address below or transmitted by

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confirmed facsimile transmission to the addressee at the facsimile number below, or three (3) days after having been sent by regular and certified or registered U.S. mail, postage prepaid to addressee at the address below:

If to NYC:

Newport Yacht Club
Attn: Commodore
81 Skagit Key
Bellevue, WA 98006
Fax: (425) 747-4023

with a copy to:

Paul Cressman, Jr.
John J. Houlihan, Jr.
Short Cressman & Burgess PLLC
999 Third Avenue, Suite 3000
Seattle, WA 98104-4088
Fax: (206) 340-8856

If to Weinstein:

William S. Weinstein
73 Skagit Key
Bellevue, WA 98006
Fax: (206) 269-3489

with a copy to:

David A. Bricklin, Esq.
Bricklin Newman Dold
1424 Fourth Avenue, Suite 1015
Seattle, WA 98101
Fax: (206) 621-0512

If to City:

Myrna Basich
City Clerk
City of Bellevue
11511 Main Street
Bellevue, WA 98009-9012
Fax: (425) 452-7919

with a copy to:

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Elaine Spencer
Graham & Dunn
Pier 70
2801 Alaskan Way, Suite 300
Seattle, WA 98121
Fax: 206-340-9599

If to County:

Mark Isaacson
Department of Natural Resources and Parks
King Street Center
201 South Jackson Street, Suite 600
Seattle, Washington 98104-3855
Fax: 206-296-0192

with a copy to:

Joseph Rochelle, Esq.
Office of King County Prosecuting Attorney
900 King County Administration Building
500 Fourth Avenue
Seattle, Washington 98104
fax: 206-296-0421

Such communications shall be deemed received on the earlier of the date of actual receipt or upon automatic or telephone confirmation of receipt by facsimile. Each party to this Agreement may change its notice address set forth in this Section by giving notice of a new address to the other party in accordance with this Section.

17.8. Cooperation: The parties shall reasonably cooperate with each other to effectuate the terms, conditions and intent of the Agreement, including, without limitation, obligations to execute such documents as necessary to effectuate the terms and conditions and intent of this Agreement.

Accepted and Agreed this __ day of August, 2004:

William Weinstein

Leanne Weinstein

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08/04/04

The Newport Yacht Club, Inc.

By: _____
~~Steve Cole, Commodore~~
Lawrence M. Kahn, Past Commodore and Authorized Agent on Behalf of and for Newport Yacht Club Board of Governors

City of Bellevue

By: _____
Steven Sarkozy, City Manager

King County

By: _____ Approved as to form: _____

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08/04/04

The Newport Yacht Club, Inc.

By: _____
Steve Cole, Commodore

City of Bellevue

By: _____
Steven Sarkozy, City Manager

Approved as to form:
_____
Assistant City Attorney

King County

By: _____

Approved as to form: _____

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The Newport Yacht Club, Inc.

By: _____
Steve Cole, Commodore

City of Bellevue

By: _____
Steven Sarkozy, City Manager

King County

By: _____

Approved as to form: Joseph B. Borbelle
for form Malong
Key terms subject to County
Council approval. JBB

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EXHIBIT D

Coal Creek Park Deed

DSD - 000265

K. C. Real Estate Services
500A King County Admin. Bldg.
500 Fourth Avenue
Seattle, WA 98104

BARGAIN AND SALE DEED

Grantor - - King County, Washington
Grantee - - City of Bellevue
Legal - - - -
Tax Acct. –607240-0840, 607240-0850, 212405-9060, 212405-9001, 222405-9026, 272405-9002, 272405-9005, 272405-9078, 262405--9056, 262405-9057, 262405-9055, 262405-9018, 262405-9048, 162405-9130, 162405-9015, 403490-0130, 162405-9152, 162405-9025, 162405-9212, 403490-0020 - Coal Creek Park

The Grantor, KING COUNTY, a political subdivision of the State of Washington, for and in consideration of mutual benefits, pursuant to King County Ordinance No. 15034, does hereby bargain, sell and convey unto the CITY OF BELLEVUE, a municipal corporation of the State of Washington, the following described lands, situate in King County, Washington and fully described on Exhibit A attached hereto referred to herein as the "Property" or "Coal Creek Park," subject to the Coal Creek Park Exceptions to title shown on Exhibit A, subject to the Coal Creek Park Reserved Interests shown in Exhibit A, which are reserved unto King County, subject to the Coal Creek Reserved Utility Easement attached as Exhibit B, which is reserved unto King County and also:

SUBJECT TO THE FOLLOWING COVENANTS, WHICH ARE INTENDED TO BE RUNNING COVENANTS BURDENING AND BENEFITTING THE PARTIES SUCCESSORS AND ASSIGNS:

The City, as required by RCW 36.89.050, covenants that Coal Creek Park shall be continued to be used for either public open space, park, or recreation facility purposes or that other equivalent facilities within the City or the County shall be conveyed to the County in exchange therefore. The City and County agree that the proposed storm water/stabilization facilities outlined in the Settlement Agreement, which is attached to the Intergovernmental Land Transfer Agreement between King County and the City of Bellevue filed under recording number _____, do not constitute a change in use with regard to RCW 36.89.050.

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The City covenants that it shall abide by and enforce all terms, conditions and restrictions in King County Resolution 34571, including that the City covenants that Coal Creek Park will continue to be used for the purposes contemplated by Resolution 34571, that Coal Creek Park shall not be transferred or conveyed except by agreement providing that such lands shall continue to be used for the purposes contemplated by Resolution 34571, and that Coal Creek Park shall not be converted to a different use unless other equivalent lands and facilities within the County or City shall be received in exchange therefore. The City and County agree that the proposed storm water/stabilization facilities outlined in the Settlement Agreement, which is attached to the Intergovernmental Land Transfer Agreement between King County and the City of Bellevue filed under recording number _____, do not constitute a change in use with regard to Resolution 34571.

The City covenants that it will not limit or restrict access to and use of Coal Creek Park by non-City residents in any way that does not also apply to City residents. The City covenants that if differential fees for non-city residents are imposed, they will be reasonably related to the cost borne by City taxpayers to maintain, improve or operate Coal Creek Park for parks and recreation purposes.

The City covenants that it shall not use Coal Creek Park in a manner that would cause the interest on County bonds related to Coal Creek Park to no longer be exempt from federal income taxation.

The City covenants that it shall place the preceding covenants in any deed transferring Coal Creek Park or a portion of Coal Creek Park for public open space, park, or recreation facility purposes.

Dated this_____day of_____, 2005

KING COUNTY, WASHINGTON

BY_____

TITLE_____

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STATE OF WASHINGTON)
) SS
COUNTY OF KING)

I certify that_____signed this instrument, on oath stated that he was authorized by the King County Executive to execute the instrument, and acknowledged it as the_____ of King County, Washington to be the free and voluntary act of said County for the uses and purposes mentioned in the instrument.

Dated_____

_____
NOTARY PUBLIC in and for the State of Washington, residing at_____
My appointment expires_____

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CITY OF BELLEVUE

BY_____

TITLE_____

DATE_____

STATE OF WASHINGTON)
) SS
COUNTY OF KING)

On this day personally appeared before me_____ to me known to be the_____of the City of Bellevue, the municipal corporation of the State of Washington that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said City for the uses and purposes therein mentioned, and that he/she was authorized to execute the said instrument.

Dated_____

_____
NOTARY PUBLIC in and for the State
of Washington,residing at_____
My appointment expires_____

DSD - 000269

EXHIBIT A
LEGAL DESCRIPTION FOR COAL CREEK PARK
COAL CREEK PARK RESERVED INTERESTS
COAL CREEK PARK EXCEPTIONS TO TITLE

PARCEL A:

Tract A, Newport Hills No. 14, according to the plat thereof recorded in Volume 90 of Plats, pages 10 through 12, records of King County, Washington.

PARCEL B:

Tract B, Newport Hills No. 14, according to the plat thereof recorded in Volume 90 of Plats, pages 10 through 12, records of King County, Washington.

PARCEL C:

Portion of the East half of the Northwest quarter of Section 21, Township 24 North, Range 5 East, W.M., in King County, Washington, beginning at a point on the Northerly Section line 1040.02 feet West of the Northeast corner of said quarter section;
Thence South 08°05'39" East 429.94 feet;
Thence South 20°00'00" East 310.00 feet;
Thence South 01°53'23" West 640.00 feet;
Thence Westerly and Southerly along the Westerly and Northerly line of the Plat of Newport Hills No. 3, according to the plat recorded in Volume 63 of Plats, page 7, to the Southwest corner of Lot 15 of Block 1 of said Plat;
Thence Westerly along the Westerly production of the South line of said Lot to the East line of Block 12 of the Plat of Newport Hills No. 2, according to the plat recorded in Volume 60 of Plats, page 88, records of King County, Washington; Thence Northerly along said line and along the East line of Block 6 of the Plat of Newport Hills, according to the plat recorded in Volume 59 of Plats, pages 92 and 93, records of King County, Washington, to said Northerly Section line;
Thence East along said line to the point of beginning.

PARCEL D:

That portion of the West half of the Northeast quarter of Section 21, Township 24 North, Range 5 East, W.M., in King County, Washington, lying Northerly and Easterly of Newport Hills No. 13, according to the plat recorded in Volume 73 of Plats, pages 53 and 54, records of King County, Washington;

EXCEPT that portion condemned in King County Superior Court Cause No. 486190 for the City of Seattle-Mercer Island pipeline;

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ALSO that portion of the East half of the Northeast quarter of Section 21, Township 24 North, Range 5 East, W.M., in King County, Washington, lying Southerly of Coal Creek-Newport Road as conveyed to King County by Auditor's File No. 5554785, and Easterly of Coal Creek-Lake Boren Road Revision No. 2 as conveyed to King County by Auditor's file No. 5700899 and amended by Auditor's File No. 5934305;

EXCEPT that portion conveyed to Puget Sound Power & Light Company by Auditor's File No. 6191762, lying Easterly of said Coal Creek-Lake Boren Road and Westerly of the Westerly margin of that certain 100-foot easement granted to Puget Sound Power & Light Company, by Auditor's file No. 2520354; and except the Westerly 65 feet of the Northerly 495 feet of said 100 foot easement as measured along the Easterly boundary thereof and lying Southerly of Coal Creek-Newport Road;

ALSO that portion of the Southeast quarter of Section 21, Township 24 North, Range 5 East, W.M., in King County, Washington, lying Easterly of Newport Hills No. 9, as recorded in Volume 69 of Plat, page 17, records of King County, Washington, and Easterly of Newport Hills No. 12, as recorded in Volume 74 of Plats, pages 87 and 88, records of King County, Washington;

ALSO that portion of the East one-half of the Northeast one quarter of Section 21, Township 24 North, Range 5 East, W.M., in King County, Washington, lying Southwesterly of the Southwesterly margin of Coal Creek-Newport Road; and lying Westerly of the Westerly margin of Coal Creek-Lake Boren Road as the same exists on March 14, 1969, lying Easterly of Newport Hills No. 5, as recorded in Volume 66of Plats, page 90, and lying Easterly of Newport Hills No. 9, as recorded in Volume 69 of plats, page 17, records of King County, Washington; EXCEPT that portion condemned in King County Superior Court Cause No. 486190 for City of Seattle-Mercer Island pipeline;

EXCEPT roads.

PARCEL E:

The Southwest quarter of the Southwest quarter of Section 22, Township 24 North, Range 5 East, W.M., in King County, Washington;

EXCEPT that portion described as follows:
Beginning at the Southwest corner of said Southwest quarter of the Southwest quarter;
Thence South 88°09'02" East along the Southerly line of said Southwest quarter of the Southwest quarter a distance of 1328.91 feet to the Southeast corner of said Southwest quarter of the Southwest quarter;

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Thence North 01°16'40" East along the East line of said Southwest quarter of the Southwest quarter a distance of 70.00 feet to the TRUE POINT OF BEGINNING;
Thence North 08°57'38" West a distance of 835.47 feet;
Thence North 70°00'00" East a distance of 159.36 feet;
Thence South 01°16'40" West along the East line of said Southwest quarter of the Southwest quarter a distance of 880.00 feet to the TRUE POINT OF BEGINNING.

ALSO that portion of the South half of the Northwest quarter of the Southwest quarter of said Section 22, described as follows:

Beginning at the Northwest corner of said South half of the Northwest quarter of the Southwest quarter;
Thence South along the West line to the Southwest corner thereof;
Thence East along the South line of the South half 800 feet;
Thence Northwesterly to a point on the North line of said South half, which point is 300 feet from the point of beginning;
Thence West on the North line of said South half 300 feet to the point of beginning.

PARCEL F:

The Northwest quarter of the Northeast quarter of Section 27, Township 24 North, Range 5 East, W.M., in King County, Washington;

AND the Northeast quarter of the Northwest quarter of Section 27, Township 24 north, Range 5 East, W.M., in King County, Washington;

EXCEPT the Southwest quarter thereof;

EXCEPT that portion of said Northwest quarter of the Northeast quarter in said Section 27 conveyed to Columbia and Puget Sound Railway Company for railroad purposes by deed recorded in Volume 22 of Deeds, page 71, under Auditor's File No. 651.

PARCEL G:

That portion of the following described tract of land lying Westerly of the thread of an unnamed stream, to-wit:

Beginning at the center of Section 26, Township 24 North, Range 5 East, W.M., in King County, Washington;
Thence South 1°04'35" West along the North-South centerline of said Section 26, a distance of 324.00 feet;

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Thence South 88°46'03" East, parallel with the East-West centerline of said Section 26, a distance of 215 feet to the TRUE POINT OF BEGINNING;

Thence South 32°02'50" East 425.85 feet;
Thence North 88°46'03" West parallel to the said East-West centerline, 232.72 feet to a point which bears South 1°04'35" West from the point of beginning;
Thence North 1°04'35" East 356 feet to the TRUE POINT OF BEGINNING.

PARCEL H:

That portion of the following described tract of land lying Westerly of the thread of an unnamed stream, to-wit:

Beginning at the center of Section 26, Township 24 North, Range 5 East, W.M., in King County, Washington;
Thence North 1°04'35" East along the North-South centerline of said section 26, a distance of 100 feet to the TRUE POINT OF BEGINNING;

Thence South 16°27'31" East 445.05 feet;
Thence North 88°46'03" West, parallel to the East-West centerline of said Section 134.09 feet to the said North-South centerline;
Thence North 1°04'35" East 424.00 feet, along said North-South centerline, to the TRUE POINT OF BEGINNING.

PARCEL I:

All that certain real property situate in the County of King, State of Washington, being a portion of the North half of Section 26, Township 24 North, Range 5 East, W.M., and being more particularly described as follows:

Beginning at a point on the Easterly line of the Northwest quarter of said Section 26, distant thereon North 01°04'35" East 100.00 feet from the Southeast corner of said Northwest quarter of Section 26;
Thence from said point of beginning North 41°12'16" West 216.54 feet;
Thence North 58°19'51" West 285.00 feet;
Thence North 30°38'48" West 301.05 feet;
Thence South 74°53'26" East 467.25 feet;
Thence North 12°59'41" East 266.83 feet;
Thence North 72°07'17" East 658.48 feet to a point on the Westerly right of way line of Lakemont Boulevard Southeast (60 feet wide), shown as Newcastle Road on the King County Engineers' plans of survey 27-24-05-5;
Thence along said Westerly right of way line South 09°44'07" East 296.44 feet;

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Thence tangent to the preceding course along the arc of a curve to the right having a radius of 5,699.58 feet and a central angle of 02°24'30", an arc length of 239.57 feet;
Thence tangent to the preceding curve South 07°19'37" East 401.99 feet;
Thence leaving said Westerly right of way line North 88°46'03" West 736.30 feet to the point of beginning.

PARCEL J:

That parcel of land situate in the South half of the Northwest quarter of Section 26, Township 24 North, Range 5 East, W.M., in King County, Washington, being more particularly described as follows:

Beginning at a point on the North boundary line of the D.T. Thomas County Road no. 99 (Newcastle-Coal Creek Road) at a point which is 166.7 feet North and 1387.4 feet East of the West quarter corner of the above-named Section 26;
Thence North 76°20'00" West 194.00 feet;
Thence North 45°11'00" East 350.00 feet;
Thence South 51°15'00" East 350.00 feet;
Thence South 13°14'00" West 150.00 feet;
Thence North 76°20'00" West 306.00 feet to the place of beginning.

PARCEL K:

That portion of Section 26 and 27, Township 24 North, Range 5 East, W.M., in King County, Washington, being more particularly described as follows:

Commencing at the Northeast corner of said Section 27;
Thence North 88°09'07" West along the North line thereof, 1,328.91 feet;
Thence South 01°13'52" West 617.35 feet to the centerline of Coal Creek as located in August, 1982, and the POINT OF BEGINNING;
Thence along said centerline the following courses:
South 64°25'08" East 148.59 feet;
South 67°56'17" East 109.48 feet;
South 85°52'35" East 167.23 feet;
South 57°31'00" East 132.05 feet;
South 06°20'53" East 97.54 feet;
South 87°55'38" East 157.36 feet;
North 88°01'47" East 111.95 feet;
South 66°02'56" East 214.25 feet;
South 64°01'33" East 169.29 feet;
South 52°38'03" East 318.88 feet;
South 63°28'53" East 351.02 feet;

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South 69°46'49" East 285.36 feet;
South 74°26'53" East 98.75 feet;
South 75°26'57" East 108.65 feet;
North 81°18'49" East 212.73 feet;
South 72°52'36" East 70.18 feet;
South 76°57'44" East 162.48 feet;
South 43°31'22" East 293.70 feet;
South 44°20'37" East 205.05 feet;
South 54°47'28" East 121.63 feet;
South 53°08'58" East 215.82 feet;
South 61°40'01" East 121.39 feet;
South 11°04'07" East 125.48 feet;
South 28°48'37" East 121.35 feet;
South 74°59'37" East 57.71 feet;
South 71°41'45" East 20.26 feet;
South 16°01'20" East 74.87 feet;
South 42°21'04" East 96.07 feet;
South 39°05'37" East 138.55 feet to the South line of the Northwest quarter of said Section 26;
Thence along said South line South 88°46'03" East 244.94 feet to the South east corner of said Northwest quarter;
Thence along the East line of the Southwest quarter of said Section 26 South 01°04'35" West 324.00 feet;
Thence South 88°46'03" East 215.00 feet;
Thence South 01°04'35" West 356.00 feet;
Thence South 88°46'03" East 633.15 feet to the Westerly margin of Newcastle-Coal Creek Road and a point of non-radial intersection with a curve, concave to the North, having a radius of 379.26 feet, a radial line through said point bears South 89°39'40" East;
Thence in a Southwesterly and Northwesterly direction, along the arc of said curve and margin, passing through a central angle of 143°48'33" a distance of 951.92 feet;
Thence continuing along the Northerly margin of said road North 35°51'07" West 424.52 feet to the beginning of a curve, concave to the Southwest, having a radius of 984.93 feet;
Thence continuing along the arc of said curve and margin, passing through a central angle of 20°12'01" a distance of 347.25 feet;
Thence continuing along said margin North 56°03'07" West 686.75 feet to the beginning of a curve, concave to the Southwest, having a radius of 1175.92 feet;
Thence continuing along the arc of said curve and margin, passing through a central angle of 16°54'06" a distance of 346.88 feet;
Thence South 76°24'08" East 306.25 feet;
Thence North 13°12'47" East 150.00 feet;
Thence North 51°17'59" West 349.74 feet;

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Thence South 45°04'28" West 349.85 feet;
Thence South 76°24'08" East 46.87 feet to the aforementioned Northerly margin of Newcastle-Coal Creek Road;
Thence along said margin North 78°42'07" West 822.90 feet to the beginning of a curve, concave to the Northeast, having a radius of 1402.40 feet;
Thence continuing along the arc of said curve and margin, passing through a central angle of 14°11'00" a distance of 347.16 feet;
Thence continuing along said margin North 64°31'07" West 218.18 feet to the beginning of a curve, concave to the Southwest, having a radius of 1462.40 feet;
Thence continuing along the arc of said curve and margin, passing through a central angle of 10°44'00" a distance of 273.95 feet;
Thence continuing along said margin North 75°15'07" West 1275.06 feet to the beginning of a curve, concave to the South, having a radius of 746.20 feet;
Thence continuing along the arc of said curve and margin, passing through a central angle of 16°30'00" a distance of 214.89 feet;
Thence continuing along said margin South 88°14'53" West 858.25 feet to the West line of the Northeast quarter of said Section 27;
Thence along said West line North 01°02'47" East 427.99 feet;
Thence South 88°20'31" East 1313.52 feet;
Thence North 01°13'52" East 695.89 feet to the POINT OF BEGINNING.

ALSO, That portion of the Northeast quarter of the Northeast quarter of Section 27 and a portion of the Northwest quarter of Section 26, all in Township 24 North, Range 5 East, W.M., in King County, Washington, being more particularly described as follows:

Commencing at the Northeast corner of said Section 27;
Thence North 88°09'07" West along the North line thereof, 1,328.91 feet;
Thence South 01°13'52" West 617.35 feet to the centerline of Coal Creek as located in August, 1982, and the POINT OF BEGINNING;
Thence along said centerline the following courses:
South 64°25'08" East 148.59 feet;
South 67°56'17" East 109.48 feet;
South 85°52'35" East 167.23 feet;
South 57°31'00" East 132.05 feet;
South 06°20'53" East 97.54 feet;
South 87°55'38" East 157.36 feet;
North 88°01'47" East 111.95 feet;
South 66°02'56" East 214.25 feet;
South 64°01'33" East 169.29 feet;
South 52°38'03" East 318.88 feet;
South 63°28'53" East 351.02 feet;
South 69°46'49" East 285.36 feet;

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South 74°26'53" East 98.75 feet;
South 75°26'57" East 108.65 feet;
North 81°18'49" East 212.73 feet;
South 72°52'36" East 70.18 feet;
South 76°57'44" East 162.48 feet;
South 43°31'22" East 293.70 feet;
South 44°20'37" East 205.05 feet;
South 54°47'28" East 121.63 feet;
South 53°08'58" East 215.82 feet;
South 61°40'01" East 121.39 feet;
South 11°04'07" East 125.48 feet;
South 28°48'37" East 121.35 feet;
South 74°59'37" East 57.71 feet;
South 71°41'45" East 20.26 feet;
South 16°01'20" East 74.87 feet;
South 42°21'04" East 96.07 feet;
South 39°05'37" East 138.55 feet to the South line of the Northwest quarter of said Section 26;
Thence along said South line South 88°46'03" East 244.94 feet to the South east corner of said Northwest quarter;
Thence along said East line of the Northwest quarter of said Section 26 North 01°04'35" East 100 feet;
Thence North 41°12'16" West 216.54 feet;
Thence North 58°19'51" West 285.00 feet;
Thence North 30°37'48" West 301.05 feet;
Thence North 51°37'57" West 195.14 feet;
Thence North 26°33'54" West 270.12 feet;
Thence North 61°11'21" West 129.11 feet;
Thence South 71°33'54" West 90.11 feet;
Thence North 40°21'52" West 114.24 feet;
Thence North 20°33'22" West 48.63 feet;
Thence North 70°54'23" West 143.91 feet;
Thence North 53°31'51" West 142.10 feet;
Thence North 65°51'16" West 331.56 feet;
Thence South 53°58'21" West 144.98 feet;
Thence South 68°57'45" West 130.09 feet;
Thence North 74°44'42" West 104.22 feet;
Thence North 56°18'36" West 98.98 feet;
Thence North 23°11'55" West 76.03 feet;
Thence North 55°37'11" West 122.29 feet;
Thence North 63°26'06" West 178.82 feet;
Thence North 55°13'20" West 213.10 feet;
Thence North 29°14'56" West 150.37 feet;

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Thence North 90°00'00" West 55.67 feet;
Thence North 56°18'36" West 125.12 feet;
Thence North 84°17'22" West 100.50 feet;
Thence North 56°18'36" West 151.89 feet;
Thence South 59°02'10" West 120.24 feet;
Thence North 72°21'00" West 101.53 feet;
Thence North 45°00'00" West 198.06 feet;
Thence North 72°43'07" West 244.10 feet;
Thence South 87°16'25" West 111.68 feet;
Thence South 70°01'01" West 58.03 feet;
Thence North 90°00'00" West 52.62 feet;
Thence North 68°11'55" West 64.09 feet;
Thence North 87°02'37" West 58.39 feet to a point on the Westerly line of the Northeast quarter of the Northeast quarter of said Section 27, distant South 01°13'52" West 480.00 feet from the Northwesterly corner of last said subdivision;
Thence South 01°13'52" West 137.35 feet to the POINT OF BEGINNING.
EXCEPT Therefrom any portion lying Southerly and Easterly of Newcastle-Coal Creek Road.

PARCEL L:

That portion of the Southeast quarter of the Southwest quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, described as follows:

Beginning at the Northeast corner of said subdivision;
Thence Southerly along the East line of said subdivision 600 feet;
Thence Northwesterly to a point on the North line of said subdivision 225 feet West of the point of beginning;
Thence East 225 feet to the point of beginning;

EXCEPT the East 75 feet thereof.

PARCEL M:

Tract "C" in the plat of Newport Park Division No. 2 as recorded in Volume 95 of Plats, pages 88 and 89, records of King County, Washington;

ALSO that portion of the South half of the Southwest quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, lying between the Easterly line of the plat of Lake Heights No. 2, as recorded in Volume 49 of Plats, page 91, records of King County, Washington, and the following described line:

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Beginning at a point on the North line of the South half of the Southwest quarter of said Section 16, which is 439.60 feet Easterly, measured along said North line, from the Northeast corner of Lot 1, Block 1, Lake Heights No. 2, as recorded in Volume 49 of Plats, page 91, records of King County, Washington;
Running thence South 7°00'29" West 717.84 feet;
Thence Southerly, in a straight line, to a point on the South line of said Section 16 which is 360 feet Easterly, measured along said South line, from the southeast corner of Lot 10, Block 2, said plat of Lake Heights No. 2.

PARCEL N:
A tract designated as "Reserve" in Lake Heights, as recorded in Volume 46 of Plats, page 14, records of King County, Washington

EXCEPT those portions thereof conveyed to the State of Washington by deeds recorded under Auditor's File No. 4362704 and 5032216 for Secondary State Highway No. 2-A, Kennydale to Bellevue, and Primary State Highway No. 1, Bagley Lane to Wilburton;

AND EXCEPT those portions conveyed to the State of Washington by deeds recorded under Recording Nos. 5705153 and 5705154.

PARCEL O:

Lot 4, Block 1, Lake Heights, according to plat thereof recorded in Volume 46 of Plats, Page 14, Records of King County, Washington;

EXCEPT the westerly 140 feet of said Lot 4, said 140 feet being measured along the north line of said Lot 4.

PARCEL P:

That portion of the Northeast quarter of the Southwest quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, lying southerly of Newport-Issaquah County Road (Newport Way), and Northwesterly of the following described line:

Beginning at the Northeast corner of lot 4, block 1, Lake Heights, according to the plat recorded in Volume 46 of plats, page 14, Records of King County, Washington; thence Southerly along the East line of said Lot 4, a distance of 27.627 feet to the true point of beginning;

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Thence North 66° 23' 48.5" East a distance of 321.39 feet; thence North 06° 26' 56" East a distance of 44 feet, more or less, to terminus of said line on Southerly margin of P.S. Highway No. 1 Newport Interchange right of way;

EXCEPT portion lying within Secondary State Highway No. 2-A;

EXCEPT any portion thereof conveyed to the State of Washington for highway purposes.

PARCEL Q:

That portion of the Northeast quarter of the Southwest quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, lying Southerly of Newport-Issaquah Road (Newport Way), described as follows:

Northeast 2-1/2 acres, whose South boundary is center of Coal Creek, whose North boundary is Newport-Issaquah County Road (Newport Way), whose East boundary is East boundary of above described property, and whose West boundary is a line parallel to the East boundary at such a distance to the West line of East boundary line as will make the property described in this description embrace 2-1/2 acres;

EXCEPT portion condemned by King County Superior Court Cause No. 614516 for Coal Creek-Newport Road;

ALSO all that portion of the Northeast quarter of the Southwest quarter lying Southerly of the Newport-Issaquah County Road (Newport Way) in Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington;

EXCEPTING therefrom the East 2-1/2 acres bounded and described as follows: A parcel of land bounded on the North by the Newport-Issaquah County Road, on the East by the East line of the Northeast quarter of the Southwest quarter of said Section 16, Township 24 North, Range 5 East, W.M., on the South by the centerline of Coal Creek and on the West by a line drawn parallel to the said East line of the Northeast quarter of the Southwest quarter and at such distance therefrom so as to comprise an area of 2-1/2 acres, all as the same existed prior to August 6, 1959.

ALSO EXCEPTING therefrom all that parcel of land conveyed to the Municipality of Metropolitan Seattle, as conveyed by deed recorded February 11, 1963, as Auditor's file No. 5542681, described as follows:

That portion of the Northeast quarter of the Southwest quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, lying

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southerly of Newport-Issaquah County Road (Newport Way), and northwesterly of the following described line:

Beginning at the Northeast corner of Lot 4, Block 1, Lake Heights, according to the plat recorded in Volume 46 of Plats, page 14, records of King County, Washington;
Thence Southerly along the East line of said Lot 4, a distance of 27.627 feet to the TRUE POINT OF BEGINNING;

Thence North 66°23'48.5" East a distance of 321.39 feet;
Thence North 06°26'56" East a distance of 44 feet, more or less, to terminus of said line on Southerly margin of P.S. Highway No. 1 Newport Interchange right of way;

ALSO EXCEPT that portion taken by Decree of King County Superior Court Cause no. 556108;

ALSO EXCEPT portion acquired by State of Washington by Decree in King County Superior Court Cause No. 330632 and by Deed under King County Auditor's File No. 4525661;

AND EXCEPT portion conveyed to King County by Auditor's File No. 5554784.

PARCEL R:

That portion of the West half of the Southeast quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, described as follows:

Beginning at the Northwest corner of the Southwest quarter of the Southeast quarter of said Section;
Thence South 0°19'49" West, along the West line of said subdivision, 414.38 feet;
Thence South 51°52'10" East 94.92 feet to the TRUE POINT OF BEGINNING;

Thence South 51°52'10" East 453.77 feet;
Thence North 63°07'00" East 255.87 feet;
Thence North 44°53'00" West 287.02 feet;
Thence North 0°06'57" East 115.00 feet;
Thence South 34°30'00" West 82.57 feet;
Thence North 64°17'21" West 371.43 feet;
Thence South 0°19'49" West 246.97 feet to the TRUE POINT OF BEGINNING;

ALSO that portion of the Southwest quarter of the Southeast quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, described as follows:

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Beginning at the Southeast corner of said subdivision;
Thence North 0°22' West 513.01 feet;
Thence North 85°18'36" West 390.63 feet;
Thence North 26°03' East 260 feet;
Thence North 31°36'30" West 138.15 feet;
Thence South 59°46' West 323.13 feet;
Thence South 63°07' West 255.87 feet;
Thence South 50°16'03" East 346.23 feet;
Thence South 19°31'43" East 402.24 feet to the South line of said subdivision;
Thence South 85°20'38" East along said South line 445.23 feet to the Southeast corner of said subdivision and the point of beginning;

ALSO that portion of the Southwest quarter of the Southeast quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, described as follows:

Beginning at a point which is North 0°22' West 513.01 feet from the Southeast corner of the Southwest quarter of the Southeast quarter of said Section 16;
Thence North 85°18'36" West 390.63 feet;
Thence North 26°03'53" East 260 feet;
Thence North 31°36'30" West 138.15 feet;
Thence North 49°56' West 207.43 feet;
Thence North 33°59'32" East 362.03 feet to the North line of the Southwest quarter of the Southeast quarter of said Section 16;
Thence South 87°36'05" East 297.25 feet to the Northeast corner of said subdivision;
Thence South 0°22' East along the Easterly line of said subdivision 805.02 feet to the point of beginning;

EXCEPT that portion of the above described tracts lying Northeasterly of the Southwesterly margin of the Coal Creek-Newport Road as deeded to King County under Auditor's File No. 5642595, records of King County;

AND EXCEPT therefrom any portion lying within the Mercer Island-Bellevue pipeline right of way.

COAL CREEK PARK RESERVED INTERESTS

King County hereby reserves the rights established and/or acquired in the following instruments recorded in the records of King County, Washington:

1. The right to make slopes for cuts and fills on the lot and tracts as dedicated on the face of the plats of Newport Hills No. 14, according to the plat recorded in Volume 90 of Plats, pages 10 through 12; Newport Park Division No. 2, according to the plat recorded in Volume

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95 of Plats, pages 88 and 89; and Lake Heights, according to the plat recorded in Volume 46 of Plats, page 14, all in King County, Washington, in the original reasonable grading of the streets and avenues in said plats.

2. Agreement between Newport Hills Sewer District and the Municipality of Metropolitan Seattle relating to delivery of sewage, as recorded under Recording Number 6177846.

3. The right to make slopes for cuts and fills in the original reasonable grading of Coal Creek-Newport Road, Coal Creek-Lake Boren Road and Newcastle Road as conveyed by deeds recorded under Recording Numbers 5554785, 5700899, 5934305, 5937121, 6013513, 5670144, 5670148, 5670149, 4845952, 5554782, 5554784 and 5642595.

4. Restrictions contained in deeds recorded under Recording Numbers 6566854, 8705290143, being a re-recording of Recording Number 8602270566, 8602270568, 8509240305, 8411020756 and 7312270335.

5. Easement for public road, to the extent it is located within the property conveyed herein, as established in instrument recorded under Recording Number 3210902.

6. Easement for stream diversion in favor of the Municipality of Metropolitan Seattle, as established in instrument recorded under Recording Number 5720910.

COAL CREEK PARK EXCEPTIONS TO TITLE

1. Easement for sewer sprinkler field in favor of Newport Hills Sewer District and Newport Hills Association, Recording Number 4974490;

2. Agreement pertaining to alteration of natural drainage executed by Chaussee Corporation, Recording Number 6554790.

3. Restrictions contained in instrument recorded under Recording Number 6580971.

4. Restrictions and dedications on the face of the Plat of Newport Hills No. 14.

5. Agreement pertaining to alteration of natural drainage executed by Corinthian Corporation, Recording Number 5098738.

6. Easement for sewer in favor of Newport Hills Sewer District, Recording Number 4974492.

7. Easement for telephone and telegraph lines in favor of Pacific Telephone and Telegraph Company, Recording Number 5147068 and 5147069.

9. Easement for electric transmission lines in favor of Puget Sound Energy, Recording Number 2520354.

10. Easement for natural gas pipeline in favor of Washington Natural Gas company, Recording Number 5021285.

11. Restrictions contained in instrument recorded under Recording Number 5151141.

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12. Agreement pertaining to alteration of natural drainage executed by White & Bollard, Inc., Recording Number 5646333.

13. Easement for slope control in favor of the owners of several lots in Newport Hills Division No. 13, Recording Number 5733736.

14. Easement for gas pipeline in favor of Olympic Pipeline Corporation, Recording Number 5838611.

15. Easement for sanitary sewer in favor of Newport Hills sewer District, Recording Number 5994637.

16. Agreement pertaining to removal of material executed by Corinthian Corporation, Recording Number 6091159.

17. Easement for sewer mains in favor of Eastgate Sewer District, Recording Number 6091700.

18. Easement for sewer line in favor of Eastgate Sewer District, Recording Number 6353307.

19. Easement for sewer line in favor of Chaussee Corporation, Recording Number 6504538.

20. Easement for gas pipeline in favor of Olympic Pipeline Corporation, Recording Number 7405270446.

21. Easement for sanitary sewer line in favor of the City of Bellevue, Recording Number 7707261011.

22. Reservation of an easement for utilities by Tony Scalzo and Antonette Scalzo, husband and wife, Recording Number 6517080.

23. Reservation of coal and mineral rights, the right to use creeks and streams and the right to use an existing road, as delineated in deed from Pacific Coast Coal Company, Recording Number 3254208.

24. Reservation of coal and mineral rights, the right to use existing sewer and water pipes, the right to lay additional sewer and water pipes and the right to use creeks and streams, as delineated in deed from Pacific Coast Coal Company, Recording Number 3913538.

25. Reservation of coal and mineral rights as delineated in deed from Pacific Coast Coal Company, Recording Number 3110295.

26. Restrictions contained in instrument recorded under Recording Number 3110295.

27. Easement for electric transmission and distribution line in favor of Puget Sound Energy, Recording Number 7807250743.

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28. Easement for electric transmission and distribution system in favor of Puget Sound Energy, Recording Number 3070389.

29. Reservation of coal and minerals, as delineated in deed from Pacific Coast Coal & Oil Company, Recording number 4402750.

30. Easement for electric transmission and distribution system in favor of Puget Sound Energy, Recording Number 7806130685, 7806130686 and 7806130688.

31. Agreement with Water District No. 107 pertaining to a water and sewer extension plan, Recording Number 8011260910.

32. Reservation of a royalty of 12% of the gross market value of minerals, including coal, oil and gas, as delineated in deed from Palmer Coking Coal Company, Recording Number 8305130507 and Statement of Claim of Interest, Recording Number 20020130002054.

33. Reservation of a royalty of 12% if the gross market value of minerals, including coal, oil and gas, as delineated in deed from Palmer Coking Coal Company, Recording Number 8404260741 and State of Claim of Interest, Recording Number 20020130002065.

34. Reservation of easement for public and private streets, roads and ways, slopes for cuts and fills, and pipes and lines for sewer, water, electricity, gas, telephone and utility purposes by Jack R. Cluck and Sylvia Cluck, husband and wife, as delineated in deed, Recording Number 5515544.

35. Restrictions contained in instrument recorded under Recording Number 7312270335.

36. Easements, restrictions and dedications as shown on the face of the plat of Newport Park Division No. 2.

37. Limitation of access, light, view and air as set forth in deeds to the State of Washington, Recording Numbers 4362704, 5032216, 5705153 and 5705154, for the right of way of Interstate Highway No. 405.

38. Restrictions and dedications as shown on the face of the plat of Lake Heights.

39. Reservation of coal and minerals, as delineated in deeds from the State of Washington, Recording Number 4441750, 3797271, 1053589 and 1058420.

40. Restrictions contained in instrument recorded under Recording Number 4119988.

41. Easement for water main, Recording Number 4589086.

42. Easement for gas pipeline in favor of Washington Natural Gas Company, Recording Number 6516795.

43. Easement for sewer line in favor of Newport Hills Sewer District, Recording Number 6007673.

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44. Easement for roadway, Recording Number 3943224.

45. Easement for gas pipeline in favor of Washington Natural Gas Company, Recording Number 4995828.

46. Easement for gas pipeline in favor of Olympic Pipeline corporation, Recording Number 5704038.

47. Any question that may arise due to shifting and changing in the course of Coal Creek.

48. Any question that may arise due to the shifting and changing in the course of an unnamed creek that forms the boundary between the property conveyed herein and adjoining property.

49. Right of the public to the unrestricted use of all the waters of a navigable body of water not only for the primary purpose of navigation, but also for corollary purposes; including, but not limited to, fishing, boating, bathing, swimming, water skiing and other related recreational purposes, as those waters may affect the tidelands, shorelands or adjoining uplands and whether the level of the water has been raised naturally or artificially to a maintained or fluctuating level, all as further defined by the decisional law of the State of Washington.

50. Notice of additional tap charges due at the time of connection to facilities of Water District No. 107 of King County, as set forth in instrument recorded under Recording Numbers 7801250820, 8104010618 and 9304091250.

51. Restrictions for the benefit of the United States of America, by and through the Secretary of Housing and Urban Development, as set forth in instruments recorded under Recording Numbers 7507230662 and 20040928001925.

52. Limitation of access, light, view and air as set forth in Decree of Appropriation in favor of the State of Washington for the right of way of Interstate Highway 405, entered in King County Superior Court Cause No. 556108.

53. Easement for detention pond in favor of the City of Bellevue, Recording Number 9306241714.

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EXHIBIT B

COAL CREEK RESERVED UTILITY EASEMENT

KING COUNTY, a political subdivision of the State of Washington, its successors and assigns (the "COUNTY"), hereby reserves a permanent Fifty foot easement together with temporary construction easement (when needed), over, across, along, in, upon, and under the following described property ("EASEMENT AREA") currently within Coal Creek Park (the "PARK"), the fee to which is being conveyed simultaneously by the COUNTY to the City of Bellevue (the "CITY"), together with rights to use on a temporary basis such other property within the PARK that is reasonably proximate to the EASEMENT AREA ("OTHER PROPERTY") as may be deemed necessary by the COUNTY for storage and staging purposes associated with the activities authorized herein:

SEE EXHIBIT "B-1" ATTACHED HERETO AND INCORPORATED HEREIN BY REFERENCE

Said easement being for the purpose of installing, constructing, re-constructing, operating, maintaining, removing, repairing, replacing and using a sewer interceptor with all connections, manholes and appurtenances thereto, including a fish ladder, together with the right of ingress to and egress from said described property for the foregoing purposes.

The COUNTY and the CITY hereby, by accepting and recording this deed, mutually covenant and agree as follows:

1. The COUNTY shall, upon completion of any construction of any facilities described herein, remove all debris and restore the surface of the above described property or other PARK property temporarily used by the COUNTY as nearly as possible to the condition in which it existed at the time of construction.

2. The COUNTY shall, if the above described property or other PARK property temporarily used by the COUNTY is disturbed by the maintenance, removal, repair or replacement of the facilities specified herein, restore the surface of the above described property as nearly as possible to the condition in which it existed at the commencement of said maintenance, removal, repair or replacement.

3. The CITY shall not charge the COUNTY any use fees for any temporary use of PARK property, when needed by the COUNTY for the purposes authorized herein. The COUNTY will be responsible for all necessary permits and associated fees related to maintenance or construction work.

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4. The COUNTY may assume responsibility, after this agreement, for additional sewer pipelines currently owned by the Coal Creek Utility District and the CITY shall allow all of the activities and used authorized herein, including all necessary accesses and temporary uses, to apply to any such additional sewer pipelines.

5. The CITY shall allow the COUNTY to have keyed access at all times, at the appropriate access entrances for vehicle and pedestrians to obtain access to the sewer structures.

6. The COUNTY shall, except for negligence on the part of the CITY, its heirs, successors and assigns, protect and save harmless the CITY from any and all claims, demands, loss, damage, expense and liability of every kind and description including personal injury and for any damage to or loss or destruction of property whatsoever suffered by the CITY, its heirs, successors and assigns, or by any persons, firms or corporations, because of the negligent acts or omissions of the COUNTY, its officers, agents, contractors and employees in the activities and uses authorized herein.

7. All right, title, and interest that may be used and enjoyed without interfering with the easement rights herein reserved are conveyed to the CITY. Except as otherwise provided herein and after the date of this agreement the, construction, installation or maintenance of any structures, whether temporary or permanent, shall be absolutely prohibited within the above described permanent EASEMENT AREA and shall be deemed an unreasonable interference with the COUNTY'S easement rights, unless specifically approved, in advance, in writing, by the COUNTY, which approval shall not be unreasonably withheld. Moreover, the COUNTY shall have the right to remove any such unauthorized structures as a part of the activities and uses authorized herein and as to such unauthorized structures the provisions of Paragraph 1, 2, and 3 shall not apply. This Section 7 shall only apply to the OTHER PROPERTY when the County is using such OTHER PROPERTY pursuant to the rights granted by this Easement.

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EXHIBIT B-1

LEGAL DESCRIPTION OF EASEMENT AREA

A strip of land located in the South half of Section 16, in Township 24 North, Range 5 East, W.M., in King County, Washington, said strip of land being 50 feet in width, 25 feet on each side of the following described centerline:

Beginning at the Northeast corner of Lot 4, Block 1, Lake Heights, according to plat thereof recorded in Volume 46 of Plats, page 14, records of King County, Washington;
Thence Southerly along the East line of said lot 4 a distance of 27.627 feet to the South margin of that certain property conveyed by the Corinthian Corporation to the Municipality of Metropolitan Seattle by deed recorded under Recording Number 5542681, records of King County, Washington;
Thence North 66°23'48.5" East along said South line a distance of 179.39 feet to the TRUE POINT OF BEGINNING;

Thence South 23°36'12" East 44 feet;
Thence South 80°43'45" East 421.87 feet;
Thence South 63°17'36" East 780.10 feet;
Thence South 87°52'34" East 18 feet, more or less, to intersection with the North-South centerline of said Section 16 and the terminus of said line.

EXCEPT any portion thereof lying within the East 75 feet of the Southwest quarter of said Section 16;

ALSO a strip of land located in the Southwest quarter of the Southeast quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, said strip of land being 10 feet in width and lying 5 feet on each side of the following described centerline:

Beginning at a point which is North 0°22'00" West 513.01 feet from the Southeast corner of said subdivision;
Thence North 85°18'36" West 390.63 feet to a point hereinafter referred to as Point "A", which point is the beginning of a line hereinafter referred to as Line "A";
Thence North 26°03'53" East along said Line "A" 260 feet;
Thence North 31°26'30" West 138.15 feet, to a point hereinafter referred to as Point "B" which point is the beginning of a line hereinafter referred to as Line "B";
Thence North 49°56'00" West along said Line "B" 207.43 feet;
Thence North 33°59'32 East 15.03 feet to the TRUE POINT OF BEGINNING;

Thence South 48°28'05" East 137.53 feet;
Thence South 30°19'15" East to a point on Line "B" and the terminus of said line;

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ALSO, beginning at a point South 59°46'00" West 8 feet from Point "B";
Thence South 30°19'15" East 133.71 feet;
Thence South 17°42'27" West 55 feet, more or less, to a point on Line "A";
Thence continuing South 17°42'27" West 191.09 feet, more or less, to a point South 85°18'36" East 34 feet from Point "A";
Thence South 22°19'56" East 260.54 feet;
Thence South 12°48'43" East 302.17 feet, more or less, to an intersection with the South line of said Section 16 at a point 1,474.51 feet Westerly along said South line from the Southeast corner of said Section 16 and the terminus of said line;

ALSO, a strip of land in the Northwest quarter of the Northeast quarter of Section 21, Township 24 North, Range 5 East, W.M., in King County, Washington, said strip of land being 10 feet in width and lying 5 feet on each side of the following described centerline:

Beginning at a point on the North line of said Section 21 distant 1,474.51 feet Westerly along said North line from the Northeast corner of said Section 21;
Thence South 12°48'43" East 27.03 feet;
Thence South 24°11'44" East 324.51 feet;
Thence South 46°16'01" East 42 feet, more or less, to an intersection with the Westerly line of the City of Seattle's Mercer Island Pipeline right of way as condemned in King County Superior Court Cause No. 486190, as set forth in Judgment on Verdicts dated June 5, 1956, said point of intersection being distant 339.50 feet Southerly along said Westerly line from the intersection thereof with the North line of Section 21;

ALSO a strip of land in the Northeast quarter of Section 21 AND in the Southeast quarter of Section 21, ALL in Township 24 North, Range 5 East, W.M., in King County, Washington, said strip of land being 10 feet in width and lying 5 feet on each side of the following described centerline:

Beginning at a point on the Easterly line of the City of Seattle's Mercer Island Pipeline right of way as condemned in King County Superior Court Cause No. 486190, as set forth in Judgment on Verdicts dated June 5, 1956, said point of intersection being distant 389.50 feet Southerly along said Easterly line from the intersection thereof with the Northerly line of said Section 21;
Thence South 46°16'01" East 425.00 feet;
Thence South 8°06'07" East 535.00 feet;
Thence South 25°12'04" East 319.40 feet;
Thence South 14°30'01" West 119.82 feet;
Thence South 4°50'26" East 278.50 feet;
Thence South 0°59'50" East 298.53 feet;
Thence South 57°10'05" East 257.61 feet;
Thence South 31°51'01" East 295.28 feet;

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Thence South 7°20'52" East 180.00 feet;
Thence South 38°41'02" East 259.05 feet to a point designated as North 204,289.78 and East 1,671,493.92 Lambert Grid Coordinates, based on the U.S. Department of Commerce, Coast and Geodetic Survey, Lambert Grid, North Zone;
Thence continuing South 38°41'02" East 10 feet to the terminus of said line;
EXCEPT any portion thereof within the right of way of the Coal Creek-Lake Boren Road

ALSO

Two strips of land 50 feet in width over, under, through and across the following described portions of Parcel O and P, on each side of the following described centerline, as indicated below:

Beginning at Station 0+00 of the South Control Point, Sunset Tunnel, as shown on the Plan and Profile for the Eastside Interceptor, Section 5-8, Coal Creek Site Plan, according to the survey thereof prepared for the Municipality of Metropolitan Seattle by Metropolitan Engineers, Drawing No. P203, page 11 of 16, dated December, 1962, on file in the King County Department of Natural Resources and Parks, Wastewater Treatment Division and attached hereto as Exhibit B-2;
Thence South 6°26'56" West 182.27 feet;
Thence South 66°23'49" West 665.38 feet to the terminus of said line

PARCEL O:

A strip of land 50 feet in width, 10 feet in width on the Southeasterly side and 40 feet in width on the Northwesterly side of that portion of the above described centerline, in Lot 4, Block 1, Lake Heights, according to plat thereof recorded in Volume 46 of Plats, Page 14, Records of King County, Washington;

EXCEPT the westerly 140 feet of said Lot 4, said 140 feet being measured along the north line of said Lot 4.

PARCEL P:

A strip of land 50 feet in width, 15 feet in width on the Easterly side and 35 feet in width on the Westerly side of that portion of the above described centerline, in that portion of the Northeast quarter of the Southwest quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, line southerly of Newport-Issaquah County Road (Newport Way), and Northwesterly of the following described line:

Beginning at the Northeast corner of lot 4, block 1, Lake Heights, according to the plat recorded in Volume 46 of plats, page 14, Records of King County, Washington;

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thence Southerly along the East line of said Lot 4, a distance of 27.627 feet to the true point of beginning;

Thence North 66° 23' 48.5" East a distance of 321.39 feet; thence North 06° 26' 56" East a distance of 44 feet, more or less, to terminus of said line on Southerly margin of P.S. Highway No. 1 Newport Interchange right of way;

EXCEPT portion line within Secondary State Highway No. 2-A;

EXCEPT any portion thereof conveyed to the State of Washington for highway purposes.

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Exhibit B-2

Plan and Profile for Eastside Interceptor

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EXHIBIT E
Forward Thrust Ordinance

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EXHIBIT F

Coal Creek Reserved Utility Easement

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Auditor
Election
Treasurer
James L. Elia, Attorney

KING COUNTY, WASHINGTON

RESOLUTION NO. 34571

A RESOLUTION of the Board of County Commissioners of King County, Washington, providing for the submission to the qualified electors of the county at a special election to be held therein on February 13, 1968, of a proposition authorizing the county to issue its general obligation bonds in the principal amount of not to exceed $118,000,000 for the purpose of providing funds to pay the cost of acquisition and development of public park and recreation facilities in the county.

WHEREAS, existing public park and recreation facilities within King County are not adequate for the present needs of its residents, and anticipated population growth, increased population density and increased urban development within the County will create substantial additional needs for park and recreation facilities in the immediate future; and

WHEREAS, modern roads, highways and transportation systems make public park and recreation facilities within King County accessible to all residents of the County, whether such facilities are located partly or wholly within or without the cities and towns of the County, and such facilities provide opportunities for public recreation, aesthetic enjoyment, education and resource preservation for all of the residents of the County; and

WHEREAS, the Board of County Commissioners has prepared a plan for the financing, acquisition,

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development and improvement in conjunction with other governmental agencies, over a period of approximately twelve years, of public park and recreation facilities within King County which, together with existing facilities, will provide a public park and recreation system available to and for the general benefit of all the residents of the County; and

WHEREAS, to provide funds for such purpose it is necessary and advisable that the County issue its general obligation bonds in the principal amount of not to exceed $118,000,000; and

WHEREAS, the constitution and laws of the State of Washington require that the question of whether or not the County may issue such bonds for such purpose be submitted to the qualified electors of the County for their ratification or rejection;

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of King County, Washington, as follows:

Section 1. This Board hereby finds and declares that it is necessary for the public welfare and benefit of the residents of the County that it carry out the plan hereinafter provided.

Section 2. As used in this resolution the words hereinafter defined shall have the meanings set forth in this section

(a) The word "County" shall mean King County Washington.

(b) The words "City" and "Cities" shall mean any and all cities and towns within the County.

(c) The words "Governmental Agency" or "Agency" shall mean the State of Washington or any agency, subdivision, taxing district, or municipal corporation thereof, including any county, city or town.

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(d) The word "Board" shall mean the Board of County Commissioners of King County.

(e) The words "Public Park and Recreation Facilities" shall mean any land, interest in land and facilities thereon within the County set aside for public park, recreational, green belt, arboretum, historic, scenic, viewpoint, aesthetic, ornamental or natural resource preservation purposes

(f) The words "Legislative Authority" shall mean the mayor and city council of any city or the equivalent governing body of a city or other Governmental Agency.

(g) The word "Plan" shall mean the plan for acquisition, development and improvement of Public Park and Recreation Facilities set forth in this resolution.

(h) The word "Project" shall mean a specific Public Park and Recreation Facility separately itemized and numbered as a part of the Plan.

(i) The words "Bond" or "Bonds" shall mean any / or all of the general obligation bonds of the County issued pursuant to this resolution or any series of such bonds.

Section 3. Subject to the provisions of this resolution, the following described plan for the acquisition, construction, development and improvement of Public Park and Recreation Facilities generally described in this Section is hereby adopted and shall be carried out by the designated Governmental Agency respectively set forth for each Project. The heading of each Project shall be regarded as part of the general description of such Project. No Project shall be limited solely to the Public Park and Recreation Facilities listed in such general description and if funds are available

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additional fa lities may be acquired or leveloped.

e cos estimates set forth are approximate nly

A. Regional Parks $ 9,025,000

(1 Fort Lawton $ 3,000;000

Acquisition of as many acres of tidelands, bluff sides and uplands of the Fort Lawton Military Reservation as may be released by the United States for acquisition by the City of Seattle within the limits of this amount and other funds which may become available therefor. (City of Seattle)

(2) Coal Creek $1,100,000

Acquisition of approximately 300 acres in Coal Creek Valley, east of Highway 405, south of Somerset and southeast of Cougar Mountain. (King County

North Soos Creek $1,100,000

Acquisition of approximately 350 acres north of Soos Creek Gorge and east of Kent and Auburn. (King County)

Sammamish Valley $3,000,000

Acquisition of approximately 450 acres, including river bank easements, in the Sammamish River Valley between Marymoor Park and Bothell. (King County)

Cedar River $ 825,000

Acquisition of approximately 250 acres in the Cedar River Valley as several separate park sites between Renton and Maple Valley with river bank access and river bank easements. (King County)

B. Maj $ 8,978,000

1 Weona Beach $ 385,000

Acquisition of approximately 80 acres immediately east of Lake Hills community overlooking Lake Sammamish. (King County

(2) Steel Lake $ 196,000

Acquisition of approximately 48 acres in the vicinity of the existing county park at Steel Lake. (King County)

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(3) Five-Mile Lake $ 543,000

Acquisition of approximately 105 acres to add additional acreage to the existing county park at Five-Mile Lake. (King County

(4 Big Finn Hill $ 249,000

Acquisition of approximately 60 acres on the east side of Lake Washington near Denny Park. (King County)

(5) Earlington $ 374,000

Acquisition of approximately 90 acres of either sloping lands south of Empire Way overlooking the Green River Valley, and/or riverfront in the vicinity of the Foster Golf Course. (King County)

May Creek $ 615,000

Acquisition of approximately 145 acres along May Creek Valley. (King County)

Cougar Mountain $ 405,000

Acquisition and preliminary development of approximately 25 acres of park and view site on the north summit of Cougar Mountain together with necessary access road facilities. (King County)

East Green River $ 711,000

Acquisition and preliminary development of approximately 75 acres in approximately four park sites along the Green River in the valley east of Auburn with river bank access and river bank easements. (King County)

North Green River $ 553,000

Acquisition of approximately 100 acres along Green River north of Isaac Evans County Park. (King County)

Des Moines $ 550,000

Acquisition of approximately 135 acres in the valley from the south end of Seattle-Tacoma Airport, in a southwesterly direction to the vicinity of Des Moines. (King County)

Lincoln Park $ 345,000

Improvements to Colman pool, picnic areas, paths and construction of new restroom and small service building, and other improvements. (City of Seattle

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Seward Park $ 300,000

Construction of new north end loop road, new picnic area, bicycle perimeter path, and rehabilitation of south auto parking area and sewer system and other improvements. (City of Seattle)

Carkeek Park $ 230,000

Development of new picnic area, path and roadway extensions, restroom and irrigation system, plus acquisition to provide access from southeast, and other improvements. (City of Seattle)

(14) Volunteer Park $ 419,000

Development of new wading pool, service building, restroom, water system; completion of pathway surfacing and replacement of boulevard lighting; and other improvements. (City of Seattle)

(15) Woodland Park $ 270,000

Allocation includes improvements to picnic area, parking, paths and restrooms; replacement of irrigation systems and other improvements. (City of Seattle)

(16) Golden Garden Park $ 250,000

Development of new picnic area and parking north of boathouse, fencing, additional boat ramp parking, and other improvements, plus acquisition of approximately 10 acres of adjacent tidelands. (City of Seattle)

(17) Green Lake Park $ 558,000

Completion of perimeter walkway, shorewall erosion protection, and construction of new concession building and new complete boathouse and sailing facility and other improvements. (City of Seattle)

(18) West Seattle Reservoir Park $ 275,000

Development of picnic areas, restrooms and irrigation system, and similar improvements. (City of Seattle)

(19) Lake Union Park $1,750,000

Completion of acquisition by contract and development of approximately 20.5 acres at site of Gas Company on north head of Lake. (City of Seattle)

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New Community Parks $ 3,171,000

(1) Federal Way Park $ 443,000

Acquisition and development of 31 acres near South 353rd Street immediately east of Interstate Highway 5. (King County)

(2) Redondo Community Park $ 165,000

Acquisition and preliminary development of approximately 18 acres now owned by the County Engineering Department near property now held by Federal Way School District for a junior high school site. (King County)

(3) Shoreline-South Central Site $ 469,000

Acquisition and development of approximately 22 acres near freeway in the vicinity of North 155th Street. (King County)

East Norway Hill $ 88,000

Acquisition of approximately 24 acres of state-owned land. (King County)

Kenmore $ 248,000

Acquisition and development of approximately 15 acres north of Bothell Highway. (King County)

Airport $ 97,000

Acquisition of approximately 25 acres west of airport near Des Moines Way. (King County)

McAleer Creek $ 346,000

Acquisition and development of approximately 43 acres along McAleer Creek Valley in Shoreline District. (King County)

Lake Boren $ 77,000

Acquisition of approximately 20 acres near the Lake. (King County)

Lake Sammamish Bulge Park $ 77,000

Acquisition of approximately 20 acres in ravine near Redmond. (King County)

Shoreline-North Central Site $ 645,000

Acquisition and development of approximately 25 acres between Highway 99 and Interstate Highway 5. (King County

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(11) Maplewood Heights $ 113,000

Acquisition of approximately 20 acres on plateau east of Renton and south of 128th Avenue S. E. (King County)

North Meridian $ 193,000

Acquisition of approximately 30 acres of state land, north of Lake Meridian and west of Soos Creek, on southwest corner of S.E. 224th and 132nd Avenue S.E. (King County)

(13) Lea Hill $ 165,000

Acquisition of approximately 20 acres on plateau east of Auburn and north of Green River Community College. (King County)

Lake Forest Community Park $ 45,000

Partial acquisition and development of 8 acre park site (former Nike site). (City of Lake Forest Park)

D. Improvements to Existing County Parks $2,906,000 (All King County)

(1)	Agren Park	$ 62,500
(2)	Angle Lake Park	45,600
(3)	Bellevue Highlands Park	61,000
(4)	Boulevard Lane Park	78,500
(5)	Chelsea Park	21,750
(6)	Des Moines Park	98,500
(7)	Dockton Park	92,000
(8)	Eastgate Park	57,000
(9)	Enumclaw Park	157,500
(10)	Five-Mile Lake Park	171,000
(11)	Hamlin Park	107,000
(12)	Juanita Park	296,500
(13)	Kenmore Park	71,000
(14)	Lake Hills Park	98,500
(15)	Lakewood Park	133,500
(16)	Lake Wilderness Park	232,150
(17)	Marymoor Park	322,500
(18)	Moshier Park	39,400
(19)	Pine Lake Park	38,000
(20)	Richmond Beach Park	95,200
(21)	Seahurst Park	272,700
(22)	Si View Park	62,400
(23)	Skyway Park	119,300
(24)	Sunset Park	43,500
(25)	Valley Ridge Park	64,000
(26)	White Center Park	65,000

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DSD - 000303

E Local and Neighborhood Parks $20,371,000

(1) Local Parks in Seattle $2,979,000

Acquisition and development of at least five new sites or site expansions totaling approximately 30 acres, and improvement to nine or more existing parks. Parks designated for acquisition, expansion or development include: Central Area, Yesler-Atlantic, Genesee Area, Northacres, Licton Springs, Dearborn, Hamlin, Cowen, Mt. Baker, Rocks Hill, Sacajawea, Matthews Beach. (City of Seattle)

(2) Small Parks and Recreation Areas in Seattle $9,437,000

Acquisition and development of approximately 50 sites varying from city lot to several acres and averaging 1/3 acre located throughout the city in commercial areas and densely populated residential areas such as the First Hill and the Yesler neighborhoods. (City of Seattle)

(3) Local and Neighborhood Parks and Recreation Facilities in Other Cities $2,300,000

The following dollar allocations to be used by the legislative body of each city pursuant to this resolution for the acquisition or development, or both, of new or existing Park and Recreational Facilities; each allocation shall be deemed to be a Project: (Respective Cities Listed

Algona	$ 19,737
Auburn	262,328
Beaux Arts	5,755
Bellevue	337,656
Black Diamond	15,870
Bothell	62,957
Carnation	6,165
Clyde Hill	43,573
Des Moines	56,250
Duvall	4,907
Enumclaw	60,241
Houghton	55,713
Hunts Point	8,303
Issaquah	54,117
Kent	215,010
Kirkland	115,110
Lake Forest Park	29,913
Medina	50,201
Mercer Island City	265,904

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DSD - 000304

Normandy Park	$ 59,397
North Bend	17,516
Pacific	27,903
Redmond	98,822
Renton	354,000
Skykomish	3,602
Snoqualmie	16,959
Tukwila	35,669
Yarrow Point	16,422

(4) Local and Neighborhood Parks in Presently Unincorporated Areas $5,655,000

Acquisition and development of approximately 80 neighborhood park sites averaging 7 acres each distributed within school district boundary areas approximately as follows: (King County)

Area	Approx. No. of Sites
Highline	20
Shoreline	12
Bellevue	8
Renton	7
Kent	6
Federal Way	8
Issaquah	2
Northshore	3
Auburn	2
South Central	2
Lake Washington	4
Tahoma	2
Enumclaw	1
Snoqualmie Valley	1
Vashon Island	1

F. Puget Sound Waterfront Parks and Beaches $13,780,000

(1) Elliott Bay Park and Magnolia Tidelands $1,454,000

Acquisition and preliminary development of approximately 170 acres along Elliott Bay waterfront in Bay Street area and north of Pier 91 around Magnolia Bluff. (City of Seattle)

(2) Duwamish Head Park $1,108,000

Acquisition and development of approximately 8 acres of waterfront north and south of existing Don Armeni Ramp. (City of Seattle)

(3) Seacrest Marina $ 609,000

Acquisition only of waterfront southward from the Don Armeni area. (City of Seattle)

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DSD - 000305

(4) Schmitz Waterfront Expansion $ 518,000

Acquisition and development of approximately 8 acres of waterfront area between Alki Point and Lincoln Park. (City of Seattle)

(5) Central Waterfront Park $5,000,000

Acquisition and development of approximately 15 acres of public Park and Recreation Facilities in the area of Piers 50 through 63, including necessary expenditures for harbor breakwater, all in conjunction with adjacent public or private commercial uses. (City of Seattle)

(6) Seahurst Park Addition $1,250,000

Acquisition of approximately 1,600 feet of waterfront and development of necessary access road facilities. (King County)

(7) Richmond Beach Addition $ 110,000

Acquisition of approximately ,200 feet of beach. (King County

(8) Dumas Bay $ 328,000

Acquisition and development of approximately 16 acres including approximately 300 feet of tidelands. (King County)

Redondo Beach $ 566,000

Acquisition and development of approximately 20 acres of tidelands and backup land. (King County)

North Des Moines Beach $ 825,000

Acquisition of approximately 22 acres including approximately 400 feet of beach. (King County)

(11) Normandy Beach $ 497,000

Acquisition and development of approximately 28 acres including approximately 1100 feet of beach. (King County)

Lakota Beach $ 506,000

Acquisition of approximately 50 acres. (King County)

Burton Park Addition $ 382,000

Acquisition of approximately 5 acres including approximately 850 feet of beach. (King County)

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DSD - 000306

(14) East Central Vashon Island $ 429,000

Acquisition of approximately 67 acres including approximately 1400 feet of beach. (King County)

(15) Northeast Vashon Island $ 198,000

Acquisition of approximately 41 acres including approximately 2000 feet of beach. (King County)

G. Lake Waterfront Parks and Beaches $5,541,000

Luther Burbank $1,503,000

Acquisition and development of approximately 55 acres including approximately 3000 feet of waterfront. (King County)

East Central Lake Washington $ 618,000

Acquisition and development of approximately 15 acres including approximately 800 feet of beach. (City of Bellevue)

Southeast Lake Washington $ 412,000

Acquisition and development of approximately 9 acres including approximately 700 feet of beach. (City of Renton)

(4) Shoreline Community Beach $ 260,000

Acquisition and development of approximately 3 acres including approximately 300 feet of beach. (King County)

(5) Northeast Lake Washington $ 278,000

Acquisition of approximately 3 acres including approximately 400 feet of beach. (King County)

(6) South Central West Lake Sammamish $ 470,000

Acquisition and development of approximately 18.5 acres including approximately 500 feet of beach. (King County)

(7) East Central Lake Sammamish $ 430,000

Acquisition and development of approximately 10 acres including approximately 1200 feet of beach. (King County)

(8) North Central West Lake Sammamish $ 532,000

Acquisition and development of approximately 10 acres including approximately 500 feet of beach. (King County)

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(9) Lake Meridian $. 917,000

Acquisition and development of approximately 130 acres including approximately 1400 feet of beach. (King County)

(10) Lake Fenwick $ 121,000

Acquisition of approximately 26 acres. (City of Kent

H. Playgrounds, Playfields and Fieldhouses $16,700,000

(1 Playgrounds $6,193,000

Acquisition and development of approximately 40 acres on 10 new sites, plus expansion and development of several existing playgrounds. Designated for new acquisition and development are playgrounds in the Leschi Park, North Greenwood, Dunlop Heights, T.T. Minor, Victory Heights, West Queen Anne, Meridian, Bryant, Brighton, and Gatewood areas. Development and improvements include fencing, structures, irrigation and play equipment. (City of Seattle)

(2) Playfields $7,781,000

Acquisition and development of approximately 60 acres on approximately 8 new sites plus improvements to existing sites. New playfields shall be provided in the Wallingford, West Queen Anne, University, Central West Seattle, Rainier Beach, Beacon Hill, Central Area and Miller neighborhood areas. The Project also includes improvements to Lower Woodland, Montlake, Meadowbrook, Queen Anne Bowl, and other playfields. (City of Seattle

(3) Fieldhouses $2,726,000

Construction of four new indoor recreation centers and improvements to several existing centers. New centers designated for construction are Southeast, Southwest, Central West Seattle and Eckstein. Magnolia, Jefferson, Green Lake, Delridge, Van Asalt, and Montlake will be enlarged and modernized. Improvements to several other existing indoor recreation centers will be made. (City of Seattle)

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DSD - 000308

I. Recreation Facilities $18,735,000

O. O. Denny Youth Camp Improvements $ 255,000

Enlargement of existing buildings and construction of additional cabins, restrooms and activity hall, and other camp improvements. (City of Seattle)

Camp Long Improvements $ 150,000

Enlargement of headhouse and construction of cabins and surface parking areas, and other camp improvements. (City of Seattle)

New Youth Camp in County $ 465,000

Development of new overnight facilities on publicly owned site in King County. (City of Seattle)

South Area Park and Athletic Field $3,599,000

Acquisition and development of approximately 70 acres for park and recreational activities including major athletic fields along the Green River north of the Tukwila interchange of the Interstate 5 freeway. (King County)

West Seattle Stadium $ 440,000

Replacement of north grandstand and rehabilitation of stadium and field facilities. (City of Seattle)

Tennis Courts $ 890,000

Development of approximately 30 courts in Seattle including one city-wide tennis center. (City of Seattle)

(7) Swimming Pools (Seattle) $4,425,000

Construction of approximately seven public swimming pools in Seattle to be located at or near Garfield, Ballard, Ingraham, Rainier Beach, Sealth, Nathan Hale and Queen Anne High Schools. (City of Seattle)

(8) Swimming Pools (Outside Seattle) $5,672,000

Construction of approximately eight public swimming pools to be located at or near senior high schools or in multi-purpose community centers. (King County)

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DSD - 000309

Floodlighting for Fields and Courts $ 752,000

New light systems for approximately 22 playfields and playgrounds throughout Seattle. (City of Seattle)

Lawn Bowling Facilities $ 35,000

Development of a lawn bowling center and service building at Jefferson Park. (City of Seattle)

Sportsmen's Facilities $ 311,000

Development of casting and fishing piers, shooting, trap-shooting, skeet shooting and archery ranges, junior boating and other related outdoor activity facilities. (City of Seattle)

(12) Mount Baker Sailing and Rowing Center $ 350,000

Development of a center on Lake Washington shore for rowing and sailing instruction and competition. (City of Seattle)

Enumclaw Golf Course $ 221,000

Acquisition of approximately 60 acres to expand existing Golf Course. (King County)

West Seattle Golf Course $ 670,000

Acquisition and preliminary development of 9 holes as addition to existing 18-hole course. (City of Seattle)

(15) Golf Course Improvements $ 500,000

Improvements to existing public courses including Jackson Park, Jefferson and West Seattle. (City of Seattle)

J Walking Paths and Trails $1,271,000

Acquisition and development of walking paths and trails in Seattle. $ 371,000 (City of Seattle)

Acquisition and development of walking paths and trails outside Seattle and within and without the other Cities of the County as the Board may determine with approval of each directly affected City. $ 900,000 (King County)

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DSD - 000310

K. Greenbelts and Scenic Drives . . $ 7,653,000

Scenic Highway Development $4,000,000

Acquisition of land and easements adjacent to highway right of way, along scenic highways to be designated by a King County scenic highway system plan, to preserve natural and scenic values; acquisition and development of approximately 12 scenic sites for vistas, rest stops, picnicking, etc. (King County)

Greenbelts . . . . $ 998,000

Acquisition of approximately 200 acres of greenbelt and buffer strips on hillsides and other undeveloped areas in Seattle according to city comprehensive plan. (City of Seattle)

(3) Seattle Boulevard and Shoreline Improvements $ 855,000

Rehabilitation, landscaping, reclamation and development of Seattle Park Department owned shoreline and boulevards. (City of Seattle)

(4) Puget Sound Boulevard, Shoreline and Marine View Improvements $1,800,000

Landscaping improvements and construction of approximately 10 view points along the Marine View Scenic Drive between Alki Beach Park and Dash Point State Park. (King County)

L. Special Facilities . . . $ 9,869,000

Woodland Park Zoo Development $4,499,000

Development of Children's Zoo, Nocturnal Mammal House, Pachyderm House and Antelope Complex, Penguin and Sea Otter Exhibit, Commissary, Primate House, Free-Flight Bird Cage, and Wading Bird Exhibit and other improvements in accordance with comprehensive plan for zoo. (City of Seattle)

Public Viewing Aquarium $3,000,000

Construction and development of public viewing and recreational marine life aquarium on existing or future park site on Puget Sound. (City of Seattle)

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DSD - 000311

Seola Beach
Boat Launching Ramps $ 657,000

Acquisition and development of approximately 4 acres including approximately 200 feet of beach. (King County

Seahurst Park Boat
Launching Ramps $ 166,000

Development of two ramps at the extreme south end of park, to include dredging for boat access, placement of extensive riprap and construction of parking facilities. (King County)

(5) 20th Avenue Southwest
Boat Launching Ramps. $ 394,000

Acquisition and development of approximately 4 acres including approximately 250 feet of beach. (King County)

(6) Seattle Moorages
and Ramps $ 653,000

Development of new ramps at former Sand Point Yacht Club site, extension of North Leschi sailboat moorage, replacement of South Leschi sailboat moorage and rehabilitation of existing moorages and ramps within Seattle, including paving at parking area at Atlantic City ramp and modernization of Lakewood Moorage. (City of Seattle)

Service Shops
and Yards $ 500,000

Development of service and maintenance facilities for Seattle Park Department. (City of Seattle)

Section 4. The Public Park and Recreation Facilities described in Section 3 above shall be acquired constructed, developed or improved in stages over a period of approximately twelve years The acquisition, construction, development and improvement of each Project shall, to the extent permitted by law and this resolution, be accomplished by the Governmental Agency designated in brackets after each such Project in said Section 3 As hereinafter provided, it is contemplated that general obligation bonds

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of the County shall be issued in series over the development period to carry out the Plan and the proceeds of each series of bonds shall be allocated in accordance with the schedule set forth in Section 11 of this resolution. The Legislative Authority of the Governmental Agency to which any portion of the proceeds of such bonds shall have been duly and lawfully allocated shall determine the time and order of acquisition or development of the Projects which such Agency shall be authorized to accomplish pursuant to this resolution. No City shall be authorized to accomplish any Project or Projects with the proceeds of bonds issued pursuant to this resolution unless the Legislative Authority of such City shall have first entered into an agreement with the Board substantially in the form of Exhibit A attached hereto and by this reference made a part hereof providing that such proceeds shall be held in trust and faithfully applied to the purposes authorized by this resolution and that such Project or Projects shall be operated and maintained by such City and made available for use by any resident of the County. In the event that any City shall fail to enter into such an agreement within such reasonable time as the Board may determine after reasonable notice that Bond proceeds have become available for such City, the Board, with the approval of such City, may carry out such Project, or the Board may apply such funds as provided in Section 6.

The County shall accomplish the acquisition, construction, development or improvement of Projects for which such responsibility has been specifically assigned to the County in Section 3 of this resolution whether the lands to be acquired or developed are now or shall hereafter be incorporated in whole or in part within any City, unless

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an appropriate agreement shall have been entered into between the Board and the Legislative Authority of such City providing that the City shall carry out such responsibility.

The Board shall not expend the portion of Bond proceeds allocated to the County for the acquisition or development of the particular Public Park and Recreation Facilities to be acquired or developed in connection with scenic drives until the Board shall have prepared and adopted a long range plan for a system of scenic drives for the County and any such facilities located within any City shall be approved by the Legislative Authority of such City prior to acquisition or development by the County.

Section 5. It is a part of this Plan that the Legislative Authority of the Agency duly and lawfully authorized to acquire or develop Public Park and Recreation Facilities with the proceeds of Bonds shall, consistent with the purposes and provisions of this resolution, determine the exact location and extent of lands and interests in land to be acquired and approve the plans and specifications for construction of structures or other developmental work or improvements to be performed.

Costs of engineering, architectural, planning financial, legal and other services lawfully incurred incident to the acquisition and development of any Public Park and Recreation Facilities by any Governmental Agency duly and lawfully authorized to acquire or develop such facilities shall be appropriate costs to be paid from the proceeds of the Bonds.

The costs set forth for each Project in Section 3 are estimates only. It is contemplated that actual costs

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may be more or less than the amount estimated for any Project and the Legislative Authority of the Governmental Agency to which any portion of the proceeds of Bonds shall be duly delivered pursuant to the allocation made in this resolution shall determine the application of such moneys as between Projects so as to accomplish, as nearly as may be, all Projects which such Agency shall be authorized to accomplish pursuant to this resolution.

If the Legislative Authority of any Agency shall determine that it has become impractical to substantially accomplish any Project by reason of prior incompatible development, cost substantially in excess of the amount of bond proceeds estimated to be applied thereto, prior acquisition by a superior governmental authority or other changed conditions such Agency shall not be required to accomplish such Project and may apply such funds as provided in Section 6.

Section 6. Supplemental or matching funds from federal, state or local public or private sources may become available to pay a portion of the cost of one or more Projects or to supplement or enlarge such Projects. It is a part of this Plan that whenever the Governmental Agency duly and lawfully authorized to accomplish a Project shall obtain matching or supplemental funds for such Project, the amount of Bond proceeds estimated to be applied to the cost of such Project may, to the extent of such matching or supplemental funds, be applied by the Legislative Authority of such Agency to the enlargement or additional development of such Project or to the accomplishment of other Projects which such Agency

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may then be authorized to accomplish. If all Projects which such Agency shall have been authorized to accomplish have either been completed, or their completion duly provided for, or their completion found to be impractical such Bond proceeds or any portion thereof may be applied by such Agency to carry out such other Public Park and Recreation Facility capital purposes within the territorial limits of the Agency as may be determined by the Legislative Authority thereof and found by the Board by resolution to be consistent with the purposes of this resolution and to be a County purpose.

Section 7. Public Park and Recreation Facilities acquired, developed, constructed or improved by the County or any City in whole or in part from the proceeds of the bonds authorized pursuant to this resolution shall not be transferred or conveyed except by agreement providing that such lands shall continue to be used for the purposes contemplated by this resolution, or be converted to a different use unless other equivalent lands and facilities within the County or City shall be received in exchange therefore. The proceeds of any award in condemnation applicable to such Public Park and Recreation Facilities shall be used for the acquisition or provision of other equivalent lands and facilities. However, nothing in this resolution shall prevent the grant of easements or franchises or the making of joint use agreements not incompatible with the use of Public Park and Recreation Facilities for the purposes of this resolution.

Section 8. Prior to the expenditure for any purpose other than land acquisition, of any portion of the proceeds of the Bonds allocated to the County it is contemplated that the Board shall have first established and appointed a County Design Commission of at least seven persons including members

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of the architectural, engineering, urban planning, and landscape architectural professions, and such other persons as the Board may select. As a part of its duties the County Design Commission shall, subject to outstanding contractual committments and within such limits as may be required by law and may be deemed appropriate by the Board, recommend the selection of the members of any design team to be employed for the planning and design of any structures or surface development work for Projects to be accomplished by the County and shall review the plans and specifications for such structures or work. Any Agency other than the County duly authorized to accomplish any Project shall, prior to the expenditure of Bond proceeds allocated therefor, establish and appoint a similar design commission to perform such functions or enter into an agreement with the Board to utilize the services of the County Design Commission for such purpose

In the development of each Public Park and Recreation Facility to be financed in whole or in part from the proceeds of bonds issued pursuant to this resolution the appropriate Governmental Agency shall provide and maintain, by adequate landscaping wherever possible, a reasonable buffer, between any athletic or other active use area or parking area and abutting private residential properties.

Section 9. The Board hereby finds and declares that the Public Park and Recreation Facilities acquired or developed pursuant to this resolution whether located partly or wholly within or without the Cities of the County will be available to and be of general benefit to all of the residents of the County and, together with existing lands and facilities

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set aside for such purposes, will constitute a necessary system of Public Park and Recreation Facilities for the County and its residents. The Board further finds and declares that the proposition hereinafter set forth and the Plan have for their object the furtherance, accomplishment or preservation of such system and constitute a single purpose. The Board further finds and declares that the use of County funds for the purpose of paying in whole or in part the cost of acquisition, construction, development or improvement of the Public Park and Recreation Facilities set forth in the Plan including any costs necessarily incidental thereto, or to participate with the United States or any agency thereof or any Governmental Agency for such purposes pursuant to this resolution will promote the health, welfare, benefit and safety of the people of King County and is a strictly County purpose.

Section 10. For the purpose of providing funds necessary to pay the cost of carrying out the Plan pursuant to this resolution general obligation bonds of King County in the principal amount of not to exceed $118,000,000 shall be issued. The Bonds shall bear interest at a rate not to exceed the maximum rate permitted by law, shall be issued in series from time to time out of such authorization over the contemplated acquisition and development period of approximately twelve years, shall mature serially in from two to forty years from date of issue of each series as authorized by the Board and as provided by law. Both principal of and interest on the Bonds shall be payable out of annual tax levies to be made upon all of the taxable property within the county without limitation as to rate or amount. The exact date, form, terms, options of redemption and maturities of each series of the Bonds shall be as hereafter fixed by resolution of the Board

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Section 11. It is contemplated that the Bonds shall be issued in one or more series each year during the development period and that the principal amount contemplated to be issued each year pursuant to this resolution may from time to time be combined with other authorized general obligation bonds of the County and issued and sold as single issues of County bonds. Prior to December 31 of each year Bonds shall be issued in the principal amounts set forth in the following schedule, provided, however, that at no time shall Bonds be issued in excess of any statutory or constitutional limitations and the total principal amount of Bonds issued shall not exceed $118,000,000:

Year	Principal Amount	Proceeds Allocated to County	Proceeds Allocated to City of Seattle	Proceeds Allocated to Other Cities as Provided in Exhibit B
1968	$26,000,000	$12,136,000	$10,920,000	$2,944,000
1969	14,000,000	8,343,000	5,612,000	45,000
1970	6,900,000	2,990,000	3,789,000	121,000
1971	3,900,000	900,000	3,000,000	0
1972	6,100,000	1,883,000	4,000,000	217,000
1973	5,000,000	1,900,000	3,000,000	100,000
1974	6,000,000	2,000,000	4,000,000	
1975	8,500,000	3,500,000	5,000,000	
1976	6,500,000	2,500,000	4,000,000	
1977	13,100,000	4,100,000	9,000,000	
1978	11,000,000	4,931,000	6,000,000	69,000
1979	11,000,000	4,000,000	7,000,000	

The foregoing schedule contemplates the authorization of all general obligation bonds of the County submitted to the electorate at the special election hereinafter called for February 13, 1968, and their issuance in accordance with similar schedules set forth in the respective authorizing resolutions. Within applicable constitutional and statutory limits, the Board may issue the Bonds at a time or times earlier than those provided in the above schedule if the Board shall first find that such issuance will not impair

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the legal capacity of the County to issue any then unissued general obligation bonds of the County authorized at the February 13, 1968, election, in accordance with their respective schedules of issuance.

If for any reason the County shall be unable to issue part or all of any series of Bonds within the calendar year when such issuance is scheduled the County shall issue the remaining Bonds of such series as soon thereafter as may be possible. If less than all of any series shall be issued the proceeds of the Bonds issued shall be allocated in the same proportion as provided for the allocation of the entire series

The portion of the proceeds of each series of Bonds allocated to any City which shall have been duly authorized to accomplish any Project shall be delivered to such City in the ordinary course of business following the receipt of such proceeds.

Section 12. The proceeds of sale of the Bonds shall be deposited in a Park Acquisition and Development Fund to be hereafter created in the office of the Treasurer of King County except that any accrued interest on the Bonds received at the time of their delivery shall be paid into a fund to be hereafter created for the redemption of the Bonds. Moneys in such Park Acquisition and Development Fund may be temporarily deposited in such institutions or invested in such obligations as may be lawful for the investment of County moneys and may be temporarily advanced to such fund as may be created for the redemption of the Bonds to pay Bond interest pending receipt of taxes levied therefor

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The proceeds of sale of the Bonds and any interest received from the deposit or investment of such proceeds shall be applied and used solely for the acquisition and development of Public Park and Recreation Facilities and all costs incident thereto, and none of such proceeds shall be used for other than a capital purpose.

Section 13. The life of the improvements to be acquired or constructed by the use of the Bonds to be issued therefor is hereby estimated and declared to be, as nearly as practicable, not less than forty years

Section 14. It is hereby found and declared that an emergency exists requiring the submission to the qualified electors of the County at a special election to be held therein on the 13th day of February, 1968, of a proposition authorizing the issuance of general obligation bonds of the County for the purposes provided in this resolution

The King County Auditor as ex officio supervisor of all elections held within King County is hereby requested to also find the existence of such emergency and to assume jurisdiction of and to call and conduct such special election to be held within the County on said date and to submit to the qualified electors of the County at such special election the proposition hereinafter set forth.

The Clerk of the Board is hereby authorized and directed to certify said proposition to the King County Auditor in the following form:

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KING COUNTY, WASHINGTON

PROPOSITION NO. __

PARK AND RECREATION BONDS

Shall King County for the purpose of acquiring, constructing, developing and improving public park and recreation facilities within the county issue its general obligation bonds in a total principal amount of not to exceed $118,000,000, to be issued in series over a period of approximately twelve years and only when and as the incurring of such indebtedness shall not exceed any applicable constitutional or statutory limitation, to bear interest at a rate not to exceed the maximum rate permitted by law, to mature serially in from two to forty years from date of issue of each series, both principal and interest to be paid out of annual tax levies to be made upon all the taxable property within the county without limitation as to rate or amount, all as more specifically provided in King County Resolution No. __ ?

BONDS, YES . . . . . ☐

BONDS, NO. . . . . ☐

PASSED by the Board of County Commissioners of King County, Washington at a regular meeting of said Board held this 18th day of December, 1967.

BOARD OF COUNTY COMMISSIONERS
KING COUNTY, WASHINGTON

John T. O'Brien, Chairman

John J. Spellman, Commissioner

Ed Munro, Commissioner

ATTEST:

ROBERT A. MORRIS
Clerk of the Board

By Ralph Atterbury
Deputy

APPROVED AS TO FORM AND LEGALITY:

CHARLES O. CARROLL
Prosecuting Attorney

By James E. Kennedy
James E. Kennedy
Chief Civil Deputy Prosecuting Attorney

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EXHIBIT A

AGREEMENT

In consideration of the mutual covenants herein, King County (hereinafter called the "County") and the City of _____ (hereinafter called the "City") agree as follows

1. The County shall deliver to the City in the ordinary course of business after receipt of the proceeds of each series of general obligation bonds of the County contemplated to be issued pursuant to Resolution No. ____ of the County, the full amount of cash allocated to the City out of such proceeds by said resolution.

2. The City shall hold said money in trust and shall faithfully apply same to the purposes authorized in said Resolution No. in the manner and subject to the conditions provided in said resolution; shall operate and maintain all facilities acquired, constructed, developed or improved with said money; shall defend and save the County harmless from any claim of damage resulting from the acquisition, construction, development, improvement, operation, maintenance, repair, replacement or public use of such facilities, and shall perform or comply with all conditions of said Resolution No. contemplated by said resolution to be performed or complied with by agencies to which the proceeds of bonds issued pursuant to such resolution have been allocated and delivered.

DATED this day of _____

KING COUNTY

By _____

ATTEST

_____

CITY OF

By _____

ATTEST

Exhibit B

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PARK AND RECREATION

BOND PROCEEDS ALLOCATED TO CITIES OTHER THAN SEATTLE

	1968	1969	1970	1972		1978
Algona	19,737					
Auburn	262,328					
Beaux Arts	5,755					
Bellevue	733,656			153,000		69,000
Black Diamond	15,870					
Bothell	62,957					
Carnation	6,165					
Clyde Hill	43,573					
Des Moines	56,250					
Duvall	4,907					
Enumclaw	60,241					
Houghton	55,713					
Hunts Point	8,303					
Issaquah	54,117					
Kent	215,010		121,000			
Kirkland	115,110					
Lake Forest Park	29,913	45,000				
Medina	50,201					
Mercer Island City	265,904					
Normandy Park	59,397					
North Bend	17,516					
Pacific	27,903					
Redmond	98,822					
Renton	602,000			64,000	100,000	
Skykomish	3,602					
Snoqualmie	16,959					
Tukwila	35,669					
Yarrow Point	16,422					

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DSD - 000324

EXHIBIT F

COAL CREEK RESERVED UTILITY EASEMENT

KING COUNTY, a political subdivision of the State of Washington, its successors and assigns (the "COUNTY"), hereby reserves a permanent Fifty foot easement together with temporary construction easement (when needed), over, across, along, in, upon, and under the following described property ("EASEMENT AREA") currently within Coal Creek Park (the "PARK"), the fee to which is being conveyed simultaneously by the COUNTY to the City of Bellevue (the "CITY"), together with rights to use on a temporary basis such other property within the PARK that is reasonably proximate to the EASEMENT AREA ("OTHER PROPERTY") as may be deemed necessary by the COUNTY for storage and staging purposes associated with the activities authorized herein:

SEE EXHIBIT "F-1" ATTACHED HERETO AND INCORPORATED HEREIN BY REFERENCE

Said easement being for the purpose of installing, constructing, re-constructing, operating, maintaining, removing, repairing, replacing and using a sewer interceptor with all connections, manholes and appurtenances thereto, including a fish ladder, together with the right of ingress to and egress from said described property for the foregoing purposes.

The COUNTY and the CITY hereby, by accepting and recording this deed, mutually covenant and agree as follows:

1. The COUNTY shall, upon completion of any construction of any facilities described herein, remove all debris and restore the surface of the above described property or other PARK property temporarily used by the COUNTY as nearly as possible to the condition in which it existed at the time of construction.

2. The COUNTY shall, if the above described property or other PARK property temporarily used by the COUNTY is disturbed by the maintenance, removal, repair or replacement of the facilities specified herein, restore the surface of the above described property as nearly as possible to the condition in which it existed at the commencement of said maintenance, removal, repair or replacement.

3. The CITY shall not charge the COUNTY any use fees for any temporary use of PARK property, when needed by the COUNTY for the purposes authorized herein. The COUNTY will be responsible for all necessary permits and associated fees related to maintenance or construction work.

DSD - 000325

4. The COUNTY may assume responsibility, after this agreement, for additional sewer pipelines currently owned by the Coal Creek Utility District and the CITY shall allow all of the activities and uses authorized herein, including all necessary accesses and temporary uses, to apply to any such additional sewer pipelines.

5. The CITY shall allow the COUNTY to have keyed access at all times, at the appropriate access entrances for vehicle and pedestrians to obtain access to the sewer structures.

6. The COUNTY shall, except for negligence on the part of the CITY, its heirs, successors and assigns, protect and save harmless the CITY from any and all claims, demands, loss, damage, expense and liability of every kind and description including personal injury and for any damage to or loss or destruction of property whatsoever suffered by the CITY, its heirs, successors and assigns, or by any persons, firms or corporations, because of the negligent acts or omissions of the COUNTY, its officers, agents, contractors and employees in the activities and uses authorized herein.

7. All right, title, and interest that may be used and enjoyed without interfering with the easement rights herein reserved are conveyed to the CITY. Except as otherwise provided herein and after the date of this agreement, the construction, installation or maintenance of any structures, whether temporary or permanent, shall be absolutely prohibited within the above described permanent EASEMENT AREA and shall be deemed an unreasonable interference with the COUNTY'S easement rights, unless specifically approved, in advance, in writing, by the COUNTY, which approval shall not be unreasonably withheld. Moreover, the COUNTY shall have the right to remove any such unauthorized structures as a part of the activities and uses authorized herein and as to such unauthorized structures the provisions of Paragraph 1, 2, and 3 shall not apply. This Section 7 shall only apply to the OTHER PROPERTY when the County is using such OTHER PROPERTY pursuant to the rights granted by this Easement.

DSD - 000326

EXHIBIT F-1

LEGAL DESCRIPTION OF EASEMENT AREA

A strip of land located in the South half of Section 16, in Township 24 North, Range 5 East, W.M., in King County, Washington, said strip of land being 50 feet in width, 25 feet on each side of the following described centerlines:

Beginning at the Northeast corner of Lot 4, Block 1, Lake Heights, according to plat thereof recorded in Volume 46 of Plats, page 14, records of King County, Washington;
Thence Southerly along the East line of said lot 4 a distance of 27.627 feet to the South margin of that certain property conveyed by the Corinthian Corporation to the Municipality of Metropolitan Seattle by deed recorded under Recording Number 5542681, records of King County, Washington;
Thence North 66°23'48.5" East along said South line a distance of 179.39 feet to the TRUE POINT OF BEGINNING;

Thence South 23°36'12" East 44 feet;
Thence South 80°43'45" East 421.87 feet;
Thence South 63°17'36" East 780.10 feet;
Thence South 87°52'34" East 18 feet, more or less, to intersection with the North-South centerline of said Section 16 and the terminus of said line.

EXCEPT any portion thereof lying within the East 75 feet of the Southwest quarter of said Section 16;

ALSO a strip of land located in the Southwest quarter of the Southeast quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, said strip of land being 10 feet in width and lying 5 feet on each side of the following described centerline:

Beginning at a point which is North 0°22'00" West 513.01 feet from the Southeast corner of said subdivision;
Thence North 85°18'36" West 390.63 feet to a point hereinafter referred to as Point "A", which point is the beginning of a line hereinafter referred to as Line "A";
Thence North 26°03'53" East along said Line "A" 260 feet;
Thence North 31°26'30" West 138.15 feet, to a point hereinafter referred to as Point "B" which point is the beginning of a line hereinafter referred to as Line "B";
Thence North 49°56'00" West along said Line "B" 207.43 feet;
Thence North 33°59'32 East 15.03 feet to the TRUE POINT OF BEGINNING;

Thence South 48°28'05" East 137.53 feet;
Thence South 30°19'15" East to a point on Line "B" and the terminus of said line;

ALSO, beginning at a point South 59°46'00" West 8 feet from Point "B";

DSD - 000327

Thence South 30°19'15" East 133.71 feet;
Thence South 17°42'27" West 55 feet, more or less, to a point on Line "A";
Thence continuing South 17°42'27" West 191.09 feet, more or less, to a point South 85°18'36" East 34 feet from Point "A";
Thence South 22°19'56" East 260.54 feet;
Thence South 12°48'43" East 302.17 feet, more or less, to an intersection with the South line of said Section 16 at a point 1,474.51 feet Westerly along said South line from the Southeast corner of said Section 16 and the terminus of said line;

ALSO, a strip of land in the Northwest quarter of the Northeast quarter of Section 21, Township 24 North, Range 5 East, W.M., in King County, Washington, said strip of land being 10 feet in width and lying 5 feet on each side of the following described centerline:

Beginning at a point on the North line of said Section 21 distant 1,474.51 feet Westerly along said North line from the Northeast corner of said Section 21;
Thence South 12°48'43" East 27.03 feet;
Thence South 24°11'44" East 324.51 feet;
Thence South 46°16'01" East 42 feet, more or less, to an intersection with the Westerly line of the City of Seattle's Mercer Island Pipeline right of way as condemned in King County Superior Court Cause No. 486190, as set forth in Judgment on Verdicts dated June 5, 1956, said point of intersection being distant 339.50 feet Southerly along said Westerly line from the intersection thereof with the North line of Section 21;

ALSO a strip of land in the Northeast quarter of Section 21 AND in the Southeast quarter of Section 21, ALL in Township 24 North, Range 5 East, W.M., in King County, Washington, said strip of land being 10 feet in width and lying 5 feet on each side of the following described centerline:

Beginning at a point on the Easterly line of the City of Seattle's Mercer Island Pipeline right of way as condemned in King County Superior Court Cause No. 486190, as set forth in Judgment on Verdicts dated June 5, 1956, said point of intersection being distant 389.50 feet Southerly along said Easterly line from the intersection thereof with the Northerly line of said Section 21;
Thence South 46°16'01" East 425.00 feet;
Thence South 8°06'07" East 535.00 feet;
Thence South 25°12'04" East 319.40 feet;
Thence South 14°30'01" West 119.82 feet;
Thence South 4°50'26" East 278.50 feet;
Thence South 0°59'50" East 298.53 feet;
Thence South 57°10'05" East 257.61 feet;
Thence South 31°51'01" East 295.28 feet;
Thence South 7°20'52" East 180.00 feet;

DSD - 000328

Thence South 38°41'02" East 259.05 feet to a point designated as North 204,289.78 and East 1,671,493.92 Lambert Grid Coordinates, based on the U.S. Department of Commerce, Coast and Geodetic Survey, Lambert Grid, North Zone;
Thence continuing South 38°41'02" East 10 feet to the terminus of said line;
EXCEPT any portion thereof within the right of way of the Coal Creek-Lake Boren Road

ALSO

Two strips of land 50 feet in width over, under, through and across the following described portions of Parcel O and P, on each side of the following described centerline, as indicated below:

Beginning at Station 0+00 of the South Control Point, Sunset Tunnel, as shown on the Plan and Profile for the Eastside Interceptor, Section 5-8, Coal Creek Site Plan, according to the survey thereof prepared for the Municipality of Metropolitan Seattle by Metropolitan Engineers, Drawing No. P203, page 11 of 16, dated December, 1962, on file in the King County Department of Natural Resources and Parks, Wastewater Treatment Division and attached hereto as Exhibit F-2;
Thence South 6°26'56" West 182.27 feet;
Thence South 66°23'49" West 665.38 feet to the terminus of said line

PARCEL O:

A strip of land 50 feet in width, 10 feet in width on the Southeasterly side and 40 feet in width on the Northwesterly side of that portion of the above described centerline, in Lot 4, Block 1, Lake Heights, according to plat thereof recorded in Volume 46 of Plats, Page 14, Records of King County, Washington;

EXCEPT the westerly 140 feet of said Lot 4, said 140 feet being measured along the north line of said Lot 4.

PARCEL P:

A strip of land 50 feet in width, 15 feet in width on the Easterly side and 35 feet in width on the Westerly side of that portion of the above described centerline, in that portion of the Northeast quarter of the Southwest quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, line southerly of Newport-Issaquah County Road (Newport Way), and Northwesterly of the following described line:

Beginning at the Northeast corner of lot 4, block 1, Lake Heights, according to the plat recorded in Volume 46 of plats, page 14, Records of King County, Washington; thence Southerly along the East line of said Lot 4, a distance of 27.627 feet to the true point of beginning;

DSD - 000329

Thence North 66° 23' 48.5" East a distance of 321.39 feet; thence North 06° 26' 56" East a distance of 44 feet, more or less, to terminus of said line on Southerly margin of P.S. Highway No. 1 Newport Interchange right of way;

EXCEPT portion line within Secondary State Highway No. 2-A;

EXCEPT any portion thereof conveyed to the State of Washington for highway purposes.

20050414003756.116

DSD - 000330

Exhibit F-2

Plan and Profile for Eastside Interceptor

20050414003756.117

DSD - 000331

EXHIBIT G

Coal Creek Reserved Rights

DSD - 000332

EXHIBIT G

COAL CREEK PARK RESERVED INTERESTS

King County hereby reserves rights as established and/or acquired in the following instruments recorded in the records of King County, Washington:

1. The right to make slopes for cuts and fills on the lot and tracts as dedicated on the face of the plats of Newport Hills No. 14, according to the plat recorded in Volume 90 of Plats, pages 10 through 12; Newport Park Division No. 2, according to the plat recorded in Volume 95 of Plats, pages 88 and 89; and Lake Heights, according to the plat recorded in Volume 46 of Plats, page 14, all in King County, Washington, in the original reasonable grading of the streets and avenues in said plats.

2. Agreement between Newport Hills Sewer District and the Municipality of Metropolitan Seattle relating to delivery of sewage, as recorded under Recording Number 6177846.

3. The right to make slopes for cuts and fills in the original reasonable grading of Coal Creek-Newport Road, Coal Creek-Lake Boren Road and Newcastle Road as conveyed by deeds recorded under Recording Numbers 5554785, 5700899, 5934305, 5937121, 6013513, 5670144, 5670148, 5670149, 4845952, 5554782, 5554784 and 5642595.

4. Restrictions contained in deeds recorded under Recording Numbers 6566854, 8705290143, being a re-recording of Recording Number 8602270566, 8602270568, 8509240305, 8411020756 and 7312270335.

5. Easement for public road, to the extent it is located within the property conveyed herein, as established in instrument recorded under Recording Number 3210902.

6. Easement for stream diversion in favor of the Municipality of Metropolitan Seattle, as established in instrument recorded under Recording Number 5720910.

DSD - 000333

EXHIBIT H

Coal Creek Title Encumbrances

DSD - 000334

EXHIBIT H

COAL CREEK PARK EXCEPTIONS TO TITLE

1. Easement for sewer sprinkler field in favor of Newport Hills Sewer District and Newport Hills Association, Recording Number 4974490;

2. Agreement pertaining to alteration of natural drainage executed by Chaussee Corporation, Recording Number 6554790.

3. Restrictions contained in instrument recorded under Recording Number 6580971.

4. Restrictions and dedications on the face of the Plat of Newport Hills No. 14.

5. Agreement pertaining to alteration of natural drainage executed by Corinthian Corporation, Recording Number 5098738.

6. Easement for sewer in favor of Newport Hills Sewer District, Recording Number 4974492.

7. Easement for telephone and telegraph lines in favor of Pacific Telephone and Telegraph Company, Recording Number 5147068 and 5147069.

9. Easement for electric transmission lines in favor of Puget Sound Energy, Recording Number 2520354.

10. Easement for natural gas pipeline in favor of Washington Natural Gas company, Recording Number 5021285.

11. Restrictions contained in instrument recorded under Recording Number 5151141.

12. Agreement pertaining to alteration of natural drainage executed by White & Bollard, Inc., Recording Number 5646333.

13. Easement for slope control in favor of the owners of several lots in Newport Hills Division No. 13, Recording Number 5733736.

14. Easement for gas pipeline in favor of Olympic Pipeline Corporation, Recording Number 5838611.

15. Easement for sanitary sewer in favor of Newport Hills sewer District, Recording Number 5994637.

16. Agreement pertaining to removal of material executed by Corinthian Corporation, Recording Number 6091159.

DSD - 000335

17. Easement for sewer mains in favor of Eastgate Sewer District, Recording Number 6091700.

18. Easement for sewer line in favor of Eastgate Sewer District, Recording Number 6353307.

19. Easement for sewer line in favor of Chaussee Corporation, Recording Number 6504538.

20. Easement for gas pipeline in favor of Olympic Pipeline Corporation, Recording Number 7405270446.

21. Easement for sanitary sewer line in favor of the City of Bellevue, Recording Number 7707261011.

22. Reservation of an easement for utilities by Tony Scalzo and Antonette Scalzo, husband and wife, Recording Number 6517080.

23. Reservation of coal and mineral rights, the right to use creeks and streams and the right to use an existing road, as delineated in deed from Pacific Coast Coal Company, Recording Number 3254208.

24. Reservation of coal and mineral rights, the right to use existing sewer and water pipes, the right to lay additional sewer and water pipes and the right to use creeks and streams, as delineated in deed from Pacific Coast Coal Company, Recording Number 3913538.

25. Reservation of coal and mineral rights as delineated in deed from Pacific Coast Coal Company, Recording Number 3110295.

26. Restrictions contained in instrument recorded under Recording Number 3110295.

27. Easement for electric transmission and distribution line in favor of Puget Sound Energy, Recording Number 7807250743.

28. Easement for electric transmission and distribution system in favor of Puget Sound Energy, Recording Number 3070389.

29. Reservation of coal and minerals, as delineated in deed from Pacific Coast Coal & Oil Company, Recording number 4402750.

30. Easement for electric transmission and distribution system in favor of Puget Sound Energy, Recording Number 7806130685, 7806130686 and 7806130688.

31. Agreement with Water District No. 107 pertaining to a water and sewer extension plan, Recording Number 8011260910.

DSD - 000336

32. Reservation of a royalty of 12% of the gross market value of minerals, including coal, oil and gas, as delineated in deed from Palmer Coking Coal Company, Recording Number 8305130507 and Statement of Claim of Interest, Recording Number 20020130002054.

33. Reservation of a royalty of 12% if the gross market value of minerals, including coal, oil and gas, as delineated in deed from Palmer Coking Coal Company, Recording Number 8404260741 and State of Claim of Interest, Recording Number 20020130002065.

34. Reservation of easement for public and private streets, roads and ways, slopes for cuts and fills, and pipes and lines for sewer, water, electricity, gas, telephone and utility purposes by Jack R. Cluck and Sylvia Cluck, husband and wife, as delineated in deed, Recording Number 5515544.

35. Restrictions contained in instrument recorded under Recording Number 7312270335.

36. Easements, restrictions and dedications as shown on the face of the plat of Newport Park Division No. 2.

37. Limitation of access, light, view and air as set forth in deeds to the State of Washington, Recording Numbers 4362704, 5032216, 5705153 and 5705154, for the right of way of Interstate Highway No. 405.

38. Restrictions and dedications as shown on the face of the plat of Lake Heights.

39. Reservation of coal and minerals, as delineated in deeds from the State of Washington, Recording Number 4441750, 3797271, 1053589 and 1058420.

40. Restrictions contained in instrument recorded under Recording Number 4119988.

41. Easement for water main, Recording Number 4589086.

42. Easement for gas pipeline in favor of Washington Natural Gas Company, Recording Number 6516795.

43. Easement for sewer line in favor of Newport Hills Sewer District, Recording Number 6007673.

44. Easement for roadway, Recording Number 3943224.

45. Easement for gas pipeline in favor of Washington Natural Gas Company, Recording Number 4995828.

DSD - 000337

46. Easement for gas pipeline in favor of Olympic Pipeline Corporation, Recording Number 5704038.

47. Any question that may arise due to shifting and changing in the course of Coal Creek.

48. Any question that may arise due to the shifting and changing in the course of an unnamed creek that forms the boundary between the property conveyed herein and adjoining property.

49. Right of the public to the unrestricted use of all the waters of a navigable body of water not only for the primary purpose of navigation, but also for corollary purposes; including, but not limited to, fishing, boating, bathing, swimming, water skiing and other related recreational purposes, as those waters may affect the tidelands, shorelands or adjoining uplands and whether the level of the water has been raised naturally or artificially to a maintained or fluctuating level, all as further defined by the decisional law of the State of Washington.

50. Notice of additional tap charges due at the time of connection to facilities of Water District No. 107 of King County, as set forth in instrument recorded under Recording Numbers 7801250820, 8104010618 and 9304091250.

51. Restrictions for the benefit of the United States of America, by and through the Secretary of Housing and Urban Development, as set forth in instruments recorded under Recording Numbers 7507230662 and 20040928001925.

52. Limitation of access, light, view and air as set forth in Decree of Appropriation in favor of the State of Washington for the right of way of Interstate Highway 405, entered in King County Superior Court Cause No. 556108.

53. Easement for detention pond in favor of the City of Bellevue, Recording Number 9306241714.

20050414003756.124

DSD - 000338

EXHIBIT I

Coal Creek Special Use Permits

DSD - 000339

EXHIBIT J

Surrey Downs Deed

DSD - 000340

K. C. Real Estate Services
500A King County Admin. Bldg.
500 Fourth Avenue
Seattle, WA 98104

WARRANTY DEED

Grantor - - King County, Washington
Grantee - - City of Bellevue
Legal - - - - Ptn SW ¼ of SE ¼ of 32-25-05
Tax Acct. –322505-9140- Surrey Downs

The Grantor, KING COUNTY, a political subdivision of the State of Washington, for and in consideration of mutual benefits, pursuant to King County Ordinance No. 15034, does hereby convey and warrant unto THE CITY OF BELLEVUE, a municipal corporation of the State of Washington, the following described real property, situated in the County of King, State of Washington, and referred to herein as the "Property" or "Surrey Downs":

That portion of the SW ¼ of the SE ¼ of Section 32,T25N, R5E, W.M. in King County Washington, lying easterly of the replat portion of Surrey Downs Addition No. 1, according to the plat thereof recorded in Volume 65 of Plats, page 17, in King County, Washington, and easterly of the plat of Surrey Downs Addition No. 1, according to the plat thereof recorded in Volume 50 of Plats, pages 32-34, in King County, Washington, and southerly of the plat of Surrey Down Addition No. 2, according to the plat thereof recorded in Volume 60 of Plats, page 10, in King County, Washington;
EXCEPT the east 30 feet dedicated to the City of Bellevue for street and highway purposes by instrument recorded under Recording Number 4860655; and
EXCEPT roads; and
EXCEPT that portion described as follows:
Beginning at the SW corner of Lot 3, Block 12, Surrey Downs Addition No. 2;
Thence east along the south line of said lot to the SE corner of said lot;
Thence southwesterly along a line bearing S33°10'18"W to a point 28.7 feet from said southeast corner;
Thence in westerly direction a distance of 103.62 feet to the point of beginning: and
EXCEPT that portion described as follows:
Beginning at the southwest corner of Lot 2, Block 12, Surrey Downs Addition No.2;
thence southwesterly along a line bearing S33°10'18"W to a point which is 28.7 feet from said southwest corner;
thence in a southeasterly direction to the south point of said lot;
thence in a northwesterly direction to the point of beginning; and

DSD - 000341

EXCEPT that portion thereof lying westerly of a line beginning at a point on the south line of the southwest quarter of the southeast quarter of said Section, distant 30 feet east of the southeast corner of Lot 1, Block 6, said plat of Surrey Downs Addition No. 1; thence northwesterly 315 feet, more or less, to the southwest corner of Lot 2, Block 5, said addition, and the terminus of said line.

SUBJECT TO THE FOLLOWING COVENANTS, WHICH ARE INTENDED TO BE RUNNING COVENANTS BURDENING AND BENEFITTING THE PARTIES SUCCESSORS AND ASSIGNS:

The City, as required by RCW 36.89.050, covenants that Surrey Downs shall be continued to be used in the sole discretion of the City for either public open space, park, recreation facility, or community facility purposes, which means any park, recreational, green belt, arboretum, multi-purpose community center, museum, zoo, aquarium, auditorium, exhibition, athletic, historic, scenic, viewpoint, aesthetic, ornamental, natural resource preservation, administrative, legislative, judicial, public health, public safety, adult and juvenile detention, fire, police, public hall, auditoria, library, museum, teaching, practice or exhibition of arts and crafts, or educational purposes, or that other equivalent facilities within the City or the County shall be conveyed to the County in exchange therefore. The City in its sole discretion may change the use of Surrey Downs to any of the uses allowed herein without triggering the requirement for conveying equivalent facilities to the County. There is no limit on the number of times that the City may change the use of Surrey Downs among any of the uses allowed herein.

The City covenants that with regard to any portion of Surrey Downs that is maintained for public open space, park or recreational facility purposes, it will not limit or restrict access to and use of the Property by non-City residents in any way that does not also apply to City residents. The City covenants that if differential fees for non-City residents are imposed, they will be reasonably related to the cost borne by City taxpayers to maintain, improve or operate the Property for parks and recreation purposes.

The City covenants that it shall place the preceding covenants in any deed transferring Surrey Downs or a portion of Surrey Downs for either public open space, park, recreation or community facility purposes.

ALSO SUBJECT TO THE PERMITTED EXCEPTIONS TO TITLE SHOWN ON ATTACHED EXHIBIT A.

Dated this_____day of_____, 2005

KING COUNTY, WASHINGTON

BY_____

TITLE_____

DSD - 000342

STATE OF WASHINGTON)
) SS
COUNTY OF KING)

I certify that_____signed this instrument, on oath stated that he was authorized by the King County Executive to execute the instrument, and acknowledged it as the_____ of King County, Washington to be the free and voluntary act of said County for the uses and purposes mentioned in the instrument.

Dated_____

_____
NOTARY PUBLIC in and for the State of
Washington, residing at_____
My appointment expires_____

DSD - 000343

EXHIBIT A

EXCEPTIONS TO TITLE

1. Easement for electric transmission and distribution lines in favor of Puget Sound Energy, Recording Number 3493830.

2. Agreement between the City of Bellevue and Bellevue School District No. 405 relating to use of the property for child care and governmental services purposes, Recording Number 8210220508.

3. Agreement between David Auld and Kathleen Auld, husband and wife, and King County pertaining to maintenance of an encroaching fence, Recording Number 8504180974 and 8504180975.

20050414003756.130

DSD - 000344

EXHIBIT K
Surrey Downs Title Encumbrances

20050414003756.131

DSD - 000345

EXHIBIT K

EXCEPTIONS TO TITLE

1. Easement for electric transmission and distribution lines in favor of Puget Sound Energy, Recording Number 3493830.

2. Agreement between the City of Bellevue and Bellevue School District No. 405 relating to use of the property for child care and governmental services purposes, Recording Number 8210220508.

3. Agreement between David Auld and Kathleen Auld, husband and wife, and King County pertaining to maintenance of an encroaching fence, Recording Number 8504180974 and 8504180975.

DSD - 000346

#510540

20050414003757
PROPERTY SERVI D 46.00
PAGE001 OF 028
04/14/2005 15:56
KING COUNTY, WA

K. C. Real Estate Services
500A King County Admin. Bldg.
500 Fourth Avenue
Seattle, WA 98104

E2115332
04/14/2005 15:56
KING COUNTY, WA
TAX $2.00
SALE $0.00

PAGE001 OF 001

BARGAIN AND SALE DEED

Grantor - - King County, Washington
Grantee - - City of Bellevue
Legal - - - -
Tax Acct. –607240-0840, 607240-0850, 212405-9060, 212405-9001, 222405-9026, 272405-9002, 272405-9005, 272405-9078, 262405--9056, 262405-9057, 262405-9055, 262405-9018, 262405-9048, 162405-9130, 162405-9015, 403490-0130, 162405-9152, 162405-9025, 162405-9212, 403490-0020 - Coal Creek Park

The Grantor, KING COUNTY, a political subdivision of the State of Washington, for and in consideration of mutual benefits, pursuant to King County Ordinance No. 15034, does hereby bargain, sell and convey unto the CITY OF BELLEVUE, a municipal corporation of the State of Washington, the following described lands, situate in King County, Washington and fully described on Exhibit A attached hereto referred to herein as the "Property" or "Coal Creek Park," subject to the Coal Creek Park Exceptions to title shown on Exhibit A, subject to the Coal Creek Park Reserved Interests shown in Exhibit A, which are reserved unto King County, subject to the Coal Creek Reserved Utility Easement attached as Exhibit B, which is reserved unto King County and also:

SUBJECT TO THE FOLLOWING COVENANTS, WHICH ARE INTENDED TO BE RUNNING COVENANTS BURDENING AND BENEFITTING THE PARTIES SUCCESSORS AND ASSIGNS:

The City, as required by RCW 36.89.050, covenants that Coal Creek Park shall be continued to be used for either public open space, park, or recreation facility purposes or that other equivalent facilities within the City or the County shall be conveyed to the County in exchange therefore. The City and County agree that the proposed storm water/stabilization facilities outlined in the Settlement Agreement, which is attached to the Intergovernmental Land Transfer Agreement between King County and the City of Bellevue filed under recording number ~~*~~ _____, do not constitute a change in use with regard to RCW 36.89.050. * 20050414003756

DSD - 000347

The City covenants that it shall abide by and enforce all terms, conditions and restrictions in King County Resolution 34571, including that the City covenants that Coal Creek Park will continue to be used for the purposes contemplated by Resolution 34571, that Coal Creek Park shall not be transferred or conveyed except by agreement providing that such lands shall continue to be used for the purposes contemplated by Resolution 34571, and that Coal Creek Park shall not be converted to a different use unless other equivalent lands and facilities within the County or City shall be received in exchange therefore. The City and County agree that the proposed storm water/stabilization facilities outlined in the Settlement Agreement, which is attached to the Intergovernmental Land Transfer Agreement between King County and the City of Bellevue filed under recording number _____, do not constitute a change in use with regard to Resolution 34571.

The City covenants that it will not limit or restrict access to and use of Coal Creek Park by non-City residents in any way that does not also apply to City residents. The City covenants that if differential fees for non-city residents are imposed, they will be reasonably related to the cost borne by City taxpayers to maintain, improve or operate Coal Creek Park for parks and recreation purposes.

The City covenants that it shall not use Coal Creek Park in a manner that would cause the interest on County bonds related to Coal Creek Park to no longer be exempt from federal income taxation.

The City covenants that it shall place the preceding covenants in any deed transferring Coal Creek Park or a portion of Coal Creek Park for public open space, park, or recreation facility purposes.

Dated this 14th day of April, 2005

KING COUNTY, WASHINGTON

BY Calvin Hoggard

TITLE Real Estate Services Manager

DSD - 000348

STATE OF WASHINGTON)
) SS
COUNTY OF KING)

I certify that Calvin Hoggard signed this instrument, on oath stated that he was authorized by the King County Executive to execute the instrument, and acknowledged it as the Manager, Real Estate Services of King County, Washington to be the free and voluntary act of said County for the uses and purposes mentioned in the instrument.

Dated 4-14-2008

ROBERT ROSS THOMPSON
NOTARY PUBLIC
STATE OF WASHINGTON
COMMISSION EXPIRES OCT 15, 2008

NOTARY PUBLIC in and for the State of Washington, residing at Seattle, WA
My appointment expires 10-15-2008

DSD - 000349

CITY OF BELLEVUE

BY E R Oberg

TITLE Deputy City Manager

DATE 4/13/2005

STATE OF WASHINGTON)
) SS
COUNTY OF KING)

On this day personally appeared before me E. R. Oberg to me known to be the Deputy City Manager of the City of Bellevue, the municipal corporation of the State of Washington that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said City for the uses and purposes therein mentioned, and that he/she was authorized to execute the said instrument.

Dated April 13, 2005

Charlee Haugen

NOTARY PUBLIC in and for the State of Washington, residing at 10247 16th Ave S; Seattle Wa

My appointment expires 01.29.09

CHARLEE HAUGEN NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES 1-29-09

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EXHIBIT A
LEGAL DESCRIPTION FOR COAL CREEK PARK
COAL CREEK PARK RESERVED INTERESTS
COAL CREEK PARK EXCEPTIONS TO TITLE

PARCEL A:

Tract A, Newport Hills No. 14, according to the plat thereof recorded in Volume 90 of Plats, pages 10 through 12, records of King County, Washington.

PARCEL B:

Tract B, Newport Hills No. 14, according to the plat thereof recorded in Volume 90 of Plats, pages 10 through 12, records of King County, Washington.

PARCEL C:

Portion of the East half of the Northwest quarter of Section 21, Township 24 North, Range 5 East, W.M., in King County, Washington, beginning at a point on the Northerly Section line 1040.02 feet West of the Northeast corner of said quarter section;
Thence South 08°05'39" East 429.94 feet;
Thence South 20°00'00" East 310.00 feet;
Thence South 01°53'23" West 640.00 feet;
Thence Westerly and Southerly along the Westerly and Northerly line of the Plat of Newport Hills No. 3, according to the plat recorded in Volume 63 of Plats, page 7, to the Southwest corner of Lot 15 of Block 1 of said Plat;
Thence Westerly along the Westerly production of the South line of said Lot to the East line of Block 12 of the Plat of Newport Hills No. 2, according to the plat recorded in Volume 60 of Plats, page 88, records of King County, Washington; Thence Northerly along said line and along the East line of Block 6 of the Plat of Newport Hills, according to the plat recorded in Volume 59 of Plats, pages 92 and 93, records of King County, Washington, to said Northerly Section line;
Thence East along said line to the point of beginning.

PARCEL D:

That portion of the West half of the Northeast quarter of Section 21, Township 24 North, Range 5 East, W.M., in King County, Washington, lying Northerly and Easterly of Newport Hills No. 13, according to the plat recorded in Volume 73 of Plats, pages 53 and 54, records of King County, Washington;

EXCEPT that portion condemned in King County Superior Court Cause No. 486190 for the City of Seattle-Mercer Island pipeline;

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ALSO that portion of the East half of the Northeast quarter of Section 21, Township 24 North, Range 5 East, W.M., in King County, Washington, lying Southerly of Coal Creek-Newport Road as conveyed to King County by Auditor's File No. 5554785, and Easterly of Coal Creek-Lake Boren Road Revision No. 2 as conveyed to King County by Auditor's file No. 5700899 and amended by Auditor's File No. 5934305;

EXCEPT that portion conveyed to Puget Sound Power & Light Company by Auditor's File No. 6191762, lying Easterly of said Coal Creek-Lake Boren Road and Westerly of the Westerly margin of that certain 100-foot easement granted to Puget Sound Power & Light Company, by Auditor's file No. 2520354; and except the Westerly 65 feet of the Northerly 495 feet of said 100 foot easement as measured along the Easterly boundary thereof and lying Southerly of Coal Creek-Newport Road;

ALSO that portion of the Southeast quarter of Section 21, Township 24 North, Range 5 East, W.M., in King County, Washington, lying Easterly of Newport Hills No. 9, as recorded in Volume 69 of Plat, page 17, records of King County, Washington, and Easterly of Newport Hills No. 12, as recorded in Volume 74 of Plats, pages 87 and 88, records of King County, Washington;

ALSO that portion of the East one-half of the Northeast one quarter of Section 21, Township 24 North, Range 5 East, W.M., in King County, Washington, lying Southwesterly of the Southwesterly margin of Coal Creek-Newport Road; and lying Westerly of the Westerly margin of Coal Creek-Lake Boren Road as the same exists on March 14, 1969, lying Easterly of Newport Hills No. 5, as recorded in Volume 66of Plats, page 90, and lying Easterly of Newport Hills No. 9, as recorded in Volume 69 of plats, page 17, records of King County, Washington; EXCEPT that portion condemned in King County Superior Court Cause No. 486190 for City of Seattle-Mercer Island pipeline;

EXCEPT roads.

PARCEL E:

The Southwest quarter of the Southwest quarter of Section 22, Township 24 North, Range 5 East, W.M., in King County, Washington;

EXCEPT that portion described as follows:
Beginning at the Southwest corner of said Southwest quarter of the Southwest quarter;
Thence South 88°09'02" East along the Southerly line of said Southwest quarter of the Southwest quarter a distance of 1328.91 feet to the Southeast corner of said Southwest quarter of the Southwest quarter;

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Thence North 01°16'40" East along the East line of said Southwest quarter of the Southwest quarter a distance of 70.00 feet to the TRUE POINT OF BEGINNING;
Thence North 08°57'38" West a distance of 835.47 feet;
Thence North 70°00'00" East a distance of 159.36 feet;
Thence South 01°16'40" West along the East line of said Southwest quarter of the Southwest quarter a distance of 880.00 feet to the TRUE POINT OF BEGINNING.

ALSO that portion of the South half of the Northwest quarter of the Southwest quarter of said Section 22, described as follows:

Beginning at the Northwest corner of said South half of the Northwest quarter of the Southwest quarter;
Thence South along the West line to the Southwest corner thereof;
Thence East along the South line of the South half 800 feet;
Thence Northwesterly to a point on the North line of said South half, which point is 300 feet from the point of beginning;
Thence West on the North line of said South half 300 feet to the point of beginning.

PARCEL F:

The Northwest quarter of the Northeast quarter of Section 27, Township 24 North, Range 5 East, W.M., in King County, Washington;

AND the Northeast quarter of the Northwest quarter of Section 27, Township 24 north, Range 5 East, W.M., in King County, Washington;

EXCEPT the Southwest quarter thereof;

EXCEPT that portion of said Northwest quarter of the Northeast quarter in said Section 27 conveyed to Columbia and Puget Sound Railway Company for railroad purposes by deed recorded in Volume 22 of Deeds, page 71, under Auditor's File No. 651.

PARCEL G:

That portion of the following described tract of land lying Westerly of the thread of an unnamed stream, to-wit:

Beginning at the center of Section 26, Township 24 North, Range 5 East, W.M., in King County, Washington;
Thence South 1°04'35" West along the North-South centerline of said Section 26, a distance of 324.00 feet;

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Thence South 88°46'03" East, parallel with the East-West centerline of said Section 26, a distance of 215 feet to the TRUE POINT OF BEGINNING;

Thence South 32°02'50" East 425.85 feet;
Thence North 88°46'03" West parallel to the said East-West centerline, 232.72 feet to a point which bears South 1°04'35" West from the point of beginning;
Thence North 1°04'35" East 356 feet to the TRUE POINT OF BEGINNING.

PARCEL H:

That portion of the following described tract of land lying Westerly of the thread of an unnamed stream, to-wit:

Beginning at the center of Section 26, Township 24 North, Range 5 East, W.M., in King County, Washington;
Thence North 1°04'35" East along the North-South centerline of said section 26, a distance of 100 feet to the TRUE POINT OF BEGINNING;

Thence South 16°27'31" East 445.05 feet;
Thence North 88°46'03" West, parallel to the East-West centerline of said Section 134.09 feet to the said North-South centerline;
Thence North 1°04'35" East 424.00 feet, along said North-South centerline, to the TRUE POINT OF BEGINNING.

PARCEL I:

All that certain real property situate in the County of King, State of Washington, being a portion of the North half of Section 26, Township 24 North, Range 5 East, W.M., and being more particularly described as follows:

Beginning at a point on the Easterly line of the Northwest quarter of said Section 26, distant thereon North 01°04'35" East 100.00 feet from the Southeast corner of said Northwest quarter of Section 26;
Thence from said point of beginning North 41°12'16" West 216.54 feet;
Thence North 58°19'51" West 285.00 feet;
Thence North 30°38'48" West 301.05 feet;
Thence South 74°53'26" East 467.25 feet;
Thence North 12°59'41" East 266.83 feet;
Thence North 72°07'17" East 658.48 feet to a point on the Westerly right of way line of Lakemont Boulevard Southeast (60 feet wide), shown as Newcastle Road on the King County Engineers' plans of survey 27-24-05-5;
Thence along said Westerly right of way line South 09°44'07" East 296.44 feet;

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Thence tangent to the preceding course along the arc of a curve to the right having a radius of 5,699.58 feet and a central angle of 02°24'30", an arc length of 239.57 feet;
Thence tangent to the preceding curve South 07°19'37" East 401.99 feet;
Thence leaving said Westerly right of way line North 88°46'03" West 736.30 feet to the point of beginning.

PARCEL J:

That parcel of land situate in the South half of the Northwest quarter of Section 26, Township 24 North, Range 5 East, W.M., in King County, Washington, being more particularly described as follows:

Beginning at a point on the North boundary line of the D.T. Thomas County Road no. 99 (Newcastle-Coal Creek Road) at a point which is 166.7 feet North and 1387.4 feet East of the West quarter corner of the above-named Section 26;
Thence North 76°20'00" West 194.00 feet;
Thence North 45°11'00" East 350.00 feet;
Thence South 51°15'00" East 350.00 feet;
Thence South 13°14'00" West 150.00 feet;
Thence North 76°20'00" West 306.00 feet to the place of beginning.

PARCEL K:

That portion of Section 26 and 27, Township 24 North, Range 5 East, W.M., in King County, Washington, being more particularly described as follows:

Commencing at the Northeast corner of said Section 27;
Thence North 88°09'07" West along the North line thereof, 1,328.91 feet;
Thence South 01°13'52" West 617.35 feet to the centerline of Coal Creek as located in August, 1982, and the POINT OF BEGINNING;
Thence along said centerline the following courses:
South 64°25'08" East 148.59 feet;
South 67°56'17" East 109.48 feet;
South 85°52'35" East 167.23 feet;
South 57°31'00" East 132.05 feet;
South 06°20'53" East 97.54 feet;
South 87°55'38" East 157.36 feet;
North 88°01'47" East 111.95 feet;
South 66°02'56" East 214.25 feet;
South 64°01'33" East 169.29 feet;
South 52°38'03" East 318.88 feet;
South 63°28'53" East 351.02 feet;

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South 69°46'49" East 285.36 feet;
South 74°26'53" East 98.75 feet;
South 75°26'57" East 108.65 feet;
North 81°18'49" East 212.73 feet;
South 72°52'36" East 70.18 feet;
South 76°57'44" East 162.48 feet;
South 43°31'22" East 293.70 feet;
South 44°20'37" East 205.05 feet;
South 54°47'28" East 121.63 feet;
South 53°08'58" East 215.82 feet;
South 61°40'01" East 121.39 feet;
South 11°04'07" East 125.48 feet;
South 28°48'37" East 121.35 feet;
South 74°59'37" East 57.71 feet;
South 71°41'45" East 20.26 feet;
South 16°01'20" East 74.87 feet;
South 42°21'04" East 96.07 feet;
South 39°05'37" East 138.55 feet to the South line of the Northwest quarter of said Section 26;
Thence along said South line South 88°46'03" East 244.94 feet to the South east corner of said Northwest quarter;
Thence along the East line of the Southwest quarter of said Section 26 South 01°04'35" West 324.00 feet;
Thence South 88°46'03" East 215.00 feet;
Thence South 01°04'35" West 356.00 feet;
Thence South 88°46'03" East 633.15 feet to the Westerly margin of Newcastle-Coal Creek Road and a point of non-radial intersection with a curve, concave to the North, having a radius of 379.26 feet, a radial line through said point bears South 89°39'40" East;
Thence in a Southwesterly and Northwesterly direction, along the arc of said curve and margin, passing through a central angle of 143°48'33" a distance of 951.92 feet;
Thence continuing along the Northerly margin of said road North 35°51'07" West 424.52 feet to the beginning of a curve, concave to the Southwest, having a radius of 984.93 feet;
Thence continuing along the arc of said curve and margin, passing through a central angle of 20°12'01" a distance of 347.25 feet;
Thence continuing along said margin North 56°03'07" West 686.75 feet to the beginning of a curve, concave to the Southwest, having a radius of 1175.92 feet;
Thence continuing along the arc of said curve and margin, passing through a central angle of 16°54'06" a distance of 346.88 feet;
Thence South 76°24'08" East 306.25 feet;
Thence North 13°12'47" East 150.00 feet;
Thence North 51°17'59" West 349.74 feet;

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Thence South 45°04'28" West 349.85 feet;
Thence South 76°24'08" East 46.87 feet to the aforementioned Northerly margin of Newcastle-Coal Creek Road;
Thence along said margin North 78°42'07" West 822.90 feet to the beginning of a curve, concave to the Northeast, having a radius of 1402.40 feet;
Thence continuing along the arc of said curve and margin, passing through a central angle of 14°11'00" a distance of 347.16 feet;
Thence continuing along said margin North 64°31'07" West 218.18 feet to the beginning of a curve, concave to the Southwest, having a radius of 1462.40 feet;
Thence continuing along the arc of said curve and margin, passing through a central angle of 10°44'00" a distance of 273.95 feet;
Thence continuing along said margin North 75°15'07" West 1275.06 feet to the beginning of a curve, concave to the South, having a radius of 746.20 feet;
Thence continuing along the arc of said curve and margin, passing through a central angle of 16°30'00" a distance of 214.89 feet;
Thence continuing along said margin South 88°14'53" West 858.25 feet to the West line of the Northeast quarter of said Section 27;
Thence along said West line North 01°02'47" East 427.99 feet;
Thence South 88°20'31" East 1313.52 feet;
Thence North 01°13'52" East 695.89 feet to the POINT OF BEGINNING.

ALSO, That portion of the Northeast quarter of the Northeast quarter of Section 27 and a portion of the Northwest quarter of Section 26, all in Township 24 North, Range 5 East, W.M., in King County, Washington, being more particularly described as follows:

Commencing at the Northeast corner of said Section 27;
Thence North 88°09'07" West along the North line thereof, 1,328.91 feet;
Thence South 01°13'52" West 617.35 feet to the centerline of Coal Creek as located in August, 1982, and the POINT OF BEGINNING;
Thence along said centerline the following courses:
South 64°25'08" East 148.59 feet;
South 67°56'17" East 109.48 feet;
South 85°52'35" East 167.23 feet;
South 57°31'00" East 132.05 feet;
South 06°20'53" East 97.54 feet;
South 87°55'38" East 157.36 feet;
North 88°01'47" East 111.95 feet;
South 66°02'56" East 214.25 feet;
South 64°01'33" East 169.29 feet;
South 52°38'03" East 318.88 feet;
South 63°28'53" East 351.02 feet;
South 69°46'49" East 285.36 feet;

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South 74°26'53" East 98.75 feet;
South 75°26'57" East 108.65 feet;
North 81°18'49" East 212.73 feet;
South 72°52'36" East 70.18 feet;
South 76°57'44" East 162.48 feet;
South 43°31'22" East 293.70 feet;
South 44°20'37" East 205.05 feet;
South 54°47'28" East 121.63 feet;
South 53°08'58" East 215.82 feet;
South 61°40'01" East 121.39 feet;
South 11°04'07" East 125.48 feet;
South 28°48'37" East 121.35 feet;
South 74°59'37" East 57.71 feet;
South 71°41'45" East 20.26 feet;
South 16°01'20" East 74.87 feet;
South 42°21'04" East 96.07 feet;
South 39°05'37" East 138.55 feet to the South line of the Northwest quarter of said Section 26;
Thence along said South line South 88°46'03" East 244.94 feet to the South east corner of said Northwest quarter;
Thence along said East line of the Northwest quarter of said Section 26 North 01°04'35" East 100 feet;
Thence North 41°12'16" West 216.54 feet;
Thence North 58°19'51" West 285.00 feet;
Thence North 30°37'48" West 301.05 feet;
Thence North 51°37'57" West 195.14 feet;
Thence North 26°33'54" West 270.12 feet;
Thence North 61°11'21" West 129.11 feet;
Thence South 71°33'54" West 90.11 feet;
Thence North 40°21'52" West 114.24 feet;
Thence North 20°33'22" West 48.63 feet;
Thence North 70°54'23" West 143.91 feet;
Thence North 53°31'51" West 142.10 feet;
Thence North 65°51'16" West 331.56 feet;
Thence South 53°58'21" West 144.98 feet;
Thence South 68°57'45" West 130.09 feet;
Thence North 74°44'42" West 104.22 feet;
Thence North 56°18'36" West 98.98 feet;
Thence North 23°11'55" West 76.03 feet;
Thence North 55°37'11" West 122.29 feet;
Thence North 63°26'06" West 178.82 feet;
Thence North 55°13'20" West 213.10 feet;
Thence North 29°14'56" West 150.37 feet;

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Thence North 90°00'00" West 55.67 feet;
Thence North 56°18'36" West 125.12 feet;
Thence North 84°17'22" West 100.50 feet;
Thence North 56°18'36" West 151.89 feet;
Thence South 59°02'10" West 120.24 feet;
Thence North 72°21'00" West 101.53 feet;
Thence North 45°00'00" West 198.06 feet;
Thence North 72°43'07" West 244.10 feet;
Thence South 87°16'25" West 111.68 feet;
Thence South 70°01'01" West 58.03 feet;
Thence North 90°00'00" West 52.62 feet;
Thence North 68°11'55" West 64.09 feet;
Thence North 87°02'37" West 58.39 feet to a point on the Westerly line of the Northeast quarter of the Northeast quarter of said Section 27, distant South 01°13'52" West 480.00 feet from the Northwesterly corner of last said subdivision;
Thence South 01°13'52" West 137.35 feet to the POINT OF BEGINNING.
EXCEPT Therefrom any portion lying Southerly and Easterly of Newcastle-Coal Creek Road.

PARCEL L:

That portion of the Southeast quarter of the Southwest quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, described as follows:

Beginning at the Northeast corner of said subdivision;
Thence Southerly along the East line of said subdivision 600 feet;
Thence Northwesterly to a point on the North line of said subdivision 225 feet West of the point of beginning;
Thence East 225 feet to the point of beginning;

EXCEPT the East 75 feet thereof.

PARCEL M:

Tract "C" in the plat of Newport Park Division No. 2 as recorded in Volume 95 of Plats, pages 88 and 89, records of King County, Washington;

ALSO that portion of the South half of the Southwest quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, lying between the Easterly line of the plat of Lake Heights No. 2, as recorded in Volume 49 of Plats, page 91, records of King County, Washington, and the following described line:

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Beginning at a point on the North line of the South half of the Southwest quarter of said Section 16, which is 439.60 feet Easterly, measured along said North line, from the Northeast corner of Lot 1, Block 1, Lake Heights No. 2, as recorded in Volume 49 of Plats, page 91, records of King County, Washington;
Running thence South 7°00'29" West 717.84 feet;
Thence Southerly, in a straight line, to a point on the South line of said Section 16 which is 360 feet Easterly, measured along said South line, from the southeast corner of Lot 10, Block 2, said plat of Lake Heights No. 2.

PARCEL N:
A tract designated as "Reserve" in Lake Heights, as recorded in Volume 46 of Plats, page 14, records of King County, Washington

EXCEPT those portions thereof conveyed to the State of Washington by deeds recorded under Auditor's File No. 4362704 and 5032216 for Secondary State Highway No. 2-A, Kennydale to Bellevue, and Primary State Highway No. 1, Bagley Lane to Wilburton;

AND EXCEPT those portions conveyed to the State of Washington by deeds recorded under Recording Nos. 5705153 and 5705154.

PARCEL O:

Lot 4, Block 1, Lake Heights, according to plat thereof recorded in Volume 46 of Plats, Page 14, Records of King County, Washington;

EXCEPT the westerly 140 feet of said Lot 4, said 140 feet being measured along the north line of said Lot 4.

PARCEL P:

That portion of the Northeast quarter of the Southwest quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, lying southerly of Newport-Issaquah County Road (Newport Way), and Northwesterly of the following described line:

Beginning at the Northeast corner of lot 4, block 1, Lake Heights, according to the plat recorded in Volume 46 of plats, page 14, Records of King County, Washington; thence Southerly along the East line of said Lot 4, a distance of 27.627 feet to the true point of beginning;

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Thence North 66° 23' 48.5" East a distance of 321.39 feet; thence North 06° 26' 56" East a distance of 44 feet, more or less, to terminus of said line on Southerly margin of P.S. Highway No. 1 Newport Interchange right of way;

EXCEPT portion lying within Secondary State Highway No. 2-A;

EXCEPT any portion thereof conveyed to the State of Washington for highway purposes.

PARCEL Q:

That portion of the Northeast quarter of the Southwest quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, lying Southerly of Newport-Issaquah Road (Newport Way), described as follows:

Northeast 2-1/2 acres, whose South boundary is center of Coal Creek, whose North boundary is Newport-Issaquah County Road (Newport Way), whose East boundary is East boundary of above described property, and whose West boundary is a line parallel to the East boundary at such a distance to the West line of East boundary line as will make the property described in this description embrace 2-1/2 acres;

EXCEPT portion condemned by King County Superior Court Cause No. 614516 for Coal Creek-Newport Road;

ALSO all that portion of the Northeast quarter of the Southwest quarter lying Southerly of the Newport-Issaquah County Road (Newport Way) in Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington;

EXCEPTING therefrom the East 2-1/2 acres bounded and described as follows:
A parcel of land bounded on the North by the Newport-Issaquah County Road, on the East by the East line of the Northeast quarter of the Southwest quarter of said Section 16, Township 24 North, Range 5 East, W.M., on the South by the centerline of Coal Creek and on the West by a line drawn parallel to the said East line of the Northeast quarter of the Southwest quarter and at such distance therefrom so as to comprise an area of 2-1/2 acres, all as the same existed prior to August 6, 1959.

ALSO EXCEPTING therefrom all that parcel of land conveyed to the Municipality of Metropolitan Seattle, as conveyed by deed recorded February 11, 1963, as Auditor's file No. 5542681, described as follows:

That portion of the Northeast quarter of the Southwest quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, lying

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southerly of Newport-Issaquah County Road (Newport Way), and northwesterly of the following described line:

Beginning at the Northeast corner of Lot 4, Block 1, Lake Heights, according to the plat recorded in Volume 46 of Plats, page 14, records of King County, Washington;
Thence Southerly along the East line of said Lot 4, a distance of 27.627 feet to the TRUE POINT OF BEGINNING;

Thence North 66°23'48.5" East a distance of 321.39 feet;
Thence North 06°26'56" East a distance of 44 feet, more or less, to terminus of said line on Southerly margin of P.S. Highway No. 1 Newport Interchange right of way;

ALSO EXCEPT that portion taken by Decree of King County Superior Court Cause no. 556108;

ALSO EXCEPT portion acquired by State of Washington by Decree in King County Superior Court Cause No. 330632 and by Deed under King County Auditor's File No. 4525661;

AND EXCEPT portion conveyed to King County by Auditor's File No. 5554784.

PARCEL R:

That portion of the West half of the Southeast quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, described as follows:

Beginning at the Northwest corner of the Southwest quarter of the Southeast quarter of said Section;
Thence South 0°19'49" West, along the West line of said subdivision, 414.38 feet;
Thence South 51°52'10" East 94.92 feet to the TRUE POINT OF BEGINNING;

Thence South 51°52'10" East 453.77 feet;
Thence North 63°07'00" East 255.87 feet;
Thence North 44°53'00" West 287.02 feet;
Thence North 0°06'57" East 115.00 feet;
Thence South 34°30'00" West 82.57 feet;
Thence North 64°17'21" West 371.43 feet;
Thence South 0°19'49" West 246.97 feet to the TRUE POINT OF BEGINNING;

ALSO that portion of the Southwest quarter of the Southeast quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, described as follows:

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Beginning at the Southeast corner of said subdivision;
Thence North 0°22' West 513.01 feet;
Thence North 85°18'36" West 390.63 feet;
Thence North 26°03' East 260 feet;
Thence North 31°36'30" West 138.15 feet;
Thence South 59°46' West 323.13 feet;
Thence South 63°07' West 255.87 feet;
Thence South 50°16'03" East 346.23 feet;
Thence South 19°31'43" East 402.24 feet to the South line of said subdivision;
Thence South 85°20'38" East along said South line 445.23 feet to the Southeast corner of said subdivision and the point of beginning;

ALSO that portion of the Southwest quarter of the Southeast quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, described as follows:

Beginning at a point which is North 0°22' West 513.01 feet from the Southeast corner of the Southwest quarter of the Southeast quarter of said Section 16;
Thence North 85°18'36" West 390.63 feet;
Thence North 26°03'53" East 260 feet;
Thence North 31°36'30" West 138.15 feet;
Thence North 49°56' West 207.43 feet;
Thence North 33°59'32" East 362.03 feet to the North line of the Southwest quarter of the Southeast quarter of said Section 16;
Thence South 87°36'05" East 297.25 feet to the Northeast corner of said subdivision;
Thence South 0°22' East along the Easterly line of said subdivision 805.02 feet to the point of beginning;

EXCEPT that portion of the above described tracts lying Northeasterly of the Southwesterly margin of the Coal Creek-Newport Road as deeded to King County under Auditor's File No. 5642595, records of King County;

AND EXCEPT therefrom any portion lying within the Mercer Island-Bellevue pipeline right of way.

COAL CREEK PARK RESERVED INTERESTS

King County hereby reserves the rights established and/or acquired in the following instruments recorded in the records of King County, Washington:

1. The right to make slopes for cuts and fills on the lot and tracts as dedicated on the face of the plats of Newport Hills No. 14, according to the plat recorded in Volume 90 of Plats, pages 10 through 12; Newport Park Division No. 2, according to the plat recorded in Volume

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95 of Plats, pages 88 and 89; and Lake Heights, according to the plat recorded in Volume 46 of Plats, page 14, all in King County, Washington, in the original reasonable grading of the streets and avenues in said plats.

2. Agreement between Newport Hills Sewer District and the Municipality of Metropolitan Seattle relating to delivery of sewage, as recorded under Recording Number 6177846.

3. The right to make slopes for cuts and fills in the original reasonable grading of Coal Creek-Newport Road, Coal Creek-Lake Boren Road and Newcastle Road as conveyed by deeds recorded under Recording Numbers 5554785, 5700899, 5934305, 5937121, 6013513, 5670144, 5670148, 5670149, 4845952, 5554782, 5554784 and 5642595.

4. Restrictions contained in deeds recorded under Recording Numbers 6566854, 8705290143, being a re-recording of Recording Number 8602270566, 8602270568, 8509240305, 8411020756 and 7312270335.

5. Easement for public road, to the extent it is located within the property conveyed herein, as established in instrument recorded under Recording Number 3210902.

6. Easement for stream diversion in favor of the Municipality of Metropolitan Seattle, as established in instrument recorded under Recording Number 5720910.

COAL CREEK PARK EXCEPTIONS TO TITLE

1. Easement for sewer sprinkler field in favor of Newport Hills Sewer District and Newport Hills Association, Recording Number 4974490;

2. Agreement pertaining to alteration of natural drainage executed by Chaussee Corporation, Recording Number 6554790.

3. Restrictions contained in instrument recorded under Recording Number 6580971.

4. Restrictions and dedications on the face of the Plat of Newport Hills No. 14.

5. Agreement pertaining to alteration of natural drainage executed by Corinthian Corporation, Recording Number 5098738.

6. Easement for sewer in favor of Newport Hills Sewer District, Recording Number 4974492.

7. Easement for telephone and telegraph lines in favor of Pacific Telephone and Telegraph Company, Recording Number 5147068 and 5147069.

9. Easement for electric transmission lines in favor of Puget Sound Energy, Recording Number 2520354.

10. Easement for natural gas pipeline in favor of Washington Natural Gas company, Recording Number 5021285.

11. Restrictions contained in instrument recorded under Recording Number 5151141.

DSD - 000364

12. Agreement pertaining to alteration of natural drainage executed by White & Bollard, Inc., Recording Number 5646333.

13. Easement for slope control in favor of the owners of several lots in Newport Hills Division No. 13, Recording Number 5733736.

14. Easement for gas pipeline in favor of Olympic Pipeline Corporation, Recording Number 5838611.

15. Easement for sanitary sewer in favor of Newport Hills sewer District, Recording Number 5994637.

16. Agreement pertaining to removal of material executed by Corinthian Corporation, Recording Number 6091159.

17. Easement for sewer mains in favor of Eastgate Sewer District, Recording Number 6091700.

18. Easement for sewer line in favor of Eastgate Sewer District, Recording Number 6353307.

19. Easement for sewer line in favor of Chaussee Corporation, Recording Number 6504538.

20. Easement for gas pipeline in favor of Olympic Pipeline Corporation, Recording Number 7405270446.

21. Easement for sanitary sewer line in favor of the City of Bellevue, Recording Number 7707261011.

22. Reservation of an easement for utilities by Tony Scalzo and Antonette Scalzo, husband and wife, Recording Number 6517080.

23. Reservation of coal and mineral rights, the right to use creeks and streams and the right to use an existing road, as delineated in deed from Pacific Coast Coal Company, Recording Number 3254208.

24. Reservation of coal and mineral rights, the right to use existing sewer and water pipes, the right to lay additional sewer and water pipes and the right to use creeks and streams, as delineated in deed from Pacific Coast Coal Company, Recording Number 3913538.

25. Reservation of coal and mineral rights as delineated in deed from Pacific Coast Coal Company, Recording Number 3110295.

26. Restrictions contained in instrument recorded under Recording Number 3110295.

27. Easement for electric transmission and distribution line in favor of Puget Sound Energy, Recording Number 7807250743.

DSD - 000365

28. Easement for electric transmission and distribution system in favor of Puget Sound Energy, Recording Number 3070389.

29. Reservation of coal and minerals, as delineated in deed from Pacific Coast Coal & Oil Company, Recording number 4402750.

30. Easement for electric transmission and distribution system in favor of Puget Sound Energy, Recording Number 7806130685, 7806130686 and 7806130688.

31. Agreement with Water District No. 107 pertaining to a water and sewer extension plan, Recording Number 8011260910.

32. Reservation of a royalty of 12% of the gross market value of minerals, including coal, oil and gas, as delineated in deed from Palmer Coking Coal Company, Recording Number 8305130507 and Statement of Claim of Interest, Recording Number 20020130002054.

33. Reservation of a royalty of 12% if the gross market value of minerals, including coal, oil and gas, as delineated in deed from Palmer Coking Coal Company, Recording Number 8404260741 and State of Claim of Interest, Recording Number 20020130002065.

34. Reservation of easement for public and private streets, roads and ways, slopes for cuts and fills, and pipes and lines for sewer, water, electricity, gas, telephone and utility purposes by Jack R. Cluck and Sylvia Cluck, husband and wife, as delineated in deed, Recording Number 5515544.

35. Restrictions contained in instrument recorded under Recording Number 7312270335.

36. Easements, restrictions and dedications as shown on the face of the plat of Newport Park Division No. 2.

37. Limitation of access, light, view and air as set forth in deeds to the State of Washington, Recording Numbers 4362704, 5032216, 5705153 and 5705154, for the right of way of Interstate Highway No. 405.

38. Restrictions and dedications as shown on the face of the plat of Lake Heights.

39. Reservation of coal and minerals, as delineated in deeds from the State of Washington, Recording Number 4441750, 3797271, 1053589 and 1058420.

40. Restrictions contained in instrument recorded under Recording Number 4119988.

41. Easement for water main, Recording Number 4589086.

42. Easement for gas pipeline in favor of Washington Natural Gas Company, Recording Number 6516795.

43. Easement for sewer line in favor of Newport Hills Sewer District, Recording Number 6007673.

DSD - 000366

44. Easement for roadway, Recording Number 3943224.

45. Easement for gas pipeline in favor of Washington Natural Gas Company, Recording Number 4995828.

46. Easement for gas pipeline in favor of Olympic Pipeline corporation, Recording Number 5704038.

47. Any question that may arise due to shifting and changing in the course of Coal Creek.

48. Any question that may arise due to the shifting and changing in the course of an unnamed creek that forms the boundary between the property conveyed herein and adjoining property.

49. Right of the public to the unrestricted use of all the waters of a navigable body of water not only for the primary purpose of navigation, but also for corollary purposes; including, but not limited to, fishing, boating, bathing, swimming, water skiing and other related recreational purposes, as those waters may affect the tidelands, shorelands or adjoining uplands and whether the level of the water has been raised naturally or artificially to a maintained or fluctuating level, all as further defined by the decisional law of the State of Washington.

50. Notice of additional tap charges due at the time of connection to facilities of Water District No. 107 of King County, as set forth in instrument recorded under Recording Numbers 7801250820, 8104010618 and 9304091250.

51. Restrictions for the benefit of the United States of America, by and through the Secretary of Housing and Urban Development, as set forth in instruments recorded under Recording Numbers 7507230662 and 20040928001925.

52. Limitation of access, light, view and air as set forth in Decree of Appropriation in favor of the State of Washington for the right of way of Interstate Highway 405, entered in King County Superior Court Cause No. 556108.

53. Easement for detention pond in favor of the City of Bellevue, Recording Number 9306241714.

DSD - 000367

EXHIBIT B

COAL CREEK RESERVED UTILITY EASEMENT

KING COUNTY, a political subdivision of the State of Washington, its successors and assigns (the "COUNTY"), hereby reserves a permanent Fifty foot easement together with temporary construction easement (when needed), over, across, along, in, upon, and under the following described property ("EASEMENT AREA") currently within Coal Creek Park (the "PARK"), the fee to which is being conveyed simultaneously by the COUNTY to the City of Bellevue (the "CITY"), together with rights to use on a temporary basis such other property within the PARK that is reasonably proximate to the EASEMENT AREA ("OTHER PROPERTY") as may be deemed necessary by the COUNTY for storage and staging purposes associated with the activities authorized herein:

SEE EXHIBIT "B-1" ATTACHED HERETO AND INCORPORATED HEREIN BY REFERENCE

Said easement being for the purpose of installing, constructing, re-constructing, operating, maintaining, removing, repairing, replacing and using a sewer interceptor with all connections, manholes and appurtenances thereto, including a fish ladder, together with the right of ingress to and egress from said described property for the foregoing purposes.

The COUNTY and the CITY hereby, by accepting and recording this deed, mutually covenant and agree as follows:

1. The COUNTY shall, upon completion of any construction of any facilities described herein, remove all debris and restore the surface of the above described property or other PARK property temporarily used by the COUNTY as nearly as possible to the condition in which it existed at the time of construction.

2. The COUNTY shall, if the above described property or other PARK property temporarily used by the COUNTY is disturbed by the maintenance, removal, repair or replacement of the facilities specified herein, restore the surface of the above described property as nearly as possible to the condition in which it existed at the commencement of said maintenance, removal, repair or replacement.

3. The CITY shall not charge the COUNTY any use fees for any temporary use of PARK property, when needed by the COUNTY for the purposes authorized herein. The COUNTY will be responsible for all necessary permits and associated fees related to maintenance or construction work.

DSD - 000368

4. The COUNTY may assume responsibility, after this agreement, for additional sewer pipelines currently owned by the Coal Creek Utility District and the CITY shall allow all of the activities and used authorized herein, including all necessary accesses and temporary uses, to apply to any such additional sewer pipelines.

5. The CITY shall allow the COUNTY to have keyed access at all times, at the appropriate access entrances for vehicle and pedestrians to obtain access to the sewer structures.

6. The COUNTY shall, except for negligence on the part of the CITY, its heirs, successors and assigns, protect and save harmless the CITY from any and all claims, demands, loss, damage, expense and liability of every kind and description including personal injury and for any damage to or loss or destruction of property whatsoever suffered by the CITY, its heirs, successors and assigns, or by any persons, firms or corporations, because of the negligent acts or omissions of the COUNTY, its officers, agents, contractors and employees in the activities and uses authorized herein.

7. All right, title, and interest that may be used and enjoyed without interfering with the easement rights herein reserved are conveyed to the CITY. Except as otherwise provided herein and after the date of this agreement the, construction, installation or maintenance of any structures, whether temporary or permanent, shall be absolutely prohibited within the above described permanent EASEMENT AREA and shall be deemed an unreasonable interference with the COUNTY'S easement rights, unless specifically approved, in advance, in writing, by the COUNTY, which approval shall not be unreasonably withheld. Moreover, the COUNTY shall have the right to remove any such unauthorized structures as a part of the activities and uses authorized herein and as to such unauthorized structures the provisions of Paragraph 1, 2, and 3 shall not apply. This Section 7 shall only apply to the OTHER PROPERTY when the County is using such OTHER PROPERTY pursuant to the rights granted by this Easement.

DSD - 000369

EXHIBIT B-1

LEGAL DESCRIPTION OF EASEMENT AREA

A strip of land located in the South half of Section 16, in Township 24 North, Range 5 East, W.M., in King County, Washington, said strip of land being 50 feet in width, 25 feet on each side of the following described centerline:

Beginning at the Northeast corner of Lot 4, Block 1, Lake Heights, according to plat thereof recorded in Volume 46 of Plats, page 14, records of King County, Washington;
Thence Southerly along the East line of said lot 4 a distance of 27.627 feet to the South margin of that certain property conveyed by the Corinthian Corporation to the Municipality of Metropolitan Seattle by deed recorded under Recording Number 5542681, records of King County, Washington;
Thence North 66°23'48.5" East along said South line a distance of 179.39 feet to the TRUE POINT OF BEGINNING;

Thence South 23°36'12" East 44 feet;
Thence South 80°43'45" East 421.87 feet;
Thence South 63°17'36" East 780.10 feet;
Thence South 87°52'34" East 18 feet, more or less, to intersection with the North-South centerline of said Section 16 and the terminus of said line.

EXCEPT any portion thereof lying within the East 75 feet of the Southwest quarter of said Section 16;

ALSO a strip of land located in the Southwest quarter of the Southeast quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, said strip of land being 10 feet in width and lying 5 feet on each side of the following described centerline:

Beginning at a point which is North 0°22'00" West 513.01 feet from the Southeast corner of said subdivision;
Thence North 85°18'36" West 390.63 feet to a point hereinafter referred to as Point "A", which point is the beginning of a line hereinafter referred to as Line "A";
Thence North 26°03'53" East along said Line "A" 260 feet;
Thence North 31°26'30" West 138.15 feet, to a point hereinafter referred to as Point "B" which point is the beginning of a line hereinafter referred to as Line "B";
Thence North 49°56'00" West along said Line "B" 207.43 feet;
Thence North 33°59'32 East 15.03 feet to the TRUE POINT OF BEGINNING;

Thence South 48°28'05" East 137.53 feet;
Thence South 30°19'15" East to a point on Line "B" and the terminus of said line;

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ALSO, beginning at a point South 59°46'00" West 8 feet from Point "B";
Thence South 30°19'15" East 133.71 feet;
Thence South 17°42'27" West 55 feet, more or less, to a point on Line "A";
Thence continuing South 17°42'27" West 191.09 feet, more or less, to a point South 85°18'36" East 34 feet from Point "A";
Thence South 22°19'56" East 260.54 feet;
Thence South 12°48'43" East 302.17 feet, more or less, to an intersection with the South line of said Section 16 at a point 1,474.51 feet Westerly along said South line from the Southeast corner of said Section 16 and the terminus of said line;

ALSO, a strip of land in the Northwest quarter of the Northeast quarter of Section 21, Township 24 North, Range 5 East, W.M., in King County, Washington, said strip of land being 10 feet in width and lying 5 feet on each side of the following described centerline:

Beginning at a point on the North line of said Section 21 distant 1,474.51 feet Westerly along said North line from the Northeast corner of said Section 21;
Thence South 12°48'43" East 27.03 feet;
Thence South 24°11'44" East 324.51 feet;
Thence South 46°16'01" East 42 feet, more or less, to an intersection with the Westerly line of the City of Seattle's Mercer Island Pipeline right of way as condemned in King County Superior Court Cause No. 486190, as set forth in Judgment on Verdicts dated June 5, 1956, said point of intersection being distant 339.50 feet Southerly along said Westerly line from the intersection thereof with the North line of Section 21;

ALSO a strip of land in the Northeast quarter of Section 21 AND in the Southeast quarter of Section 21, ALL in Township 24 North, Range 5 East, W.M., in King County, Washington, said strip of land being 10 feet in width and lying 5 feet on each side of the following described centerline:

Beginning at a point on the Easterly line of the City of Seattle's Mercer Island Pipeline right of way as condemned in King County Superior Court Cause No. 486190, as set forth in Judgment on Verdicts dated June 5, 1956, said point of intersection being distant 389.50 feet Southerly along said Easterly line from the intersection thereof with the Northerly line of said Section 21;
Thence South 46°16'01" East 425.00 feet;
Thence South 8°06'07" East 535.00 feet;
Thence South 25°12'04" East 319.40 feet;
Thence South 14°30'01" West 119.82 feet;
Thence South 4°50'26" East 278.50 feet;
Thence South 0°59'50" East 298.53 feet;
Thence South 57°10'05" East 257.61 feet;
Thence South 31°51'01" East 295.28 feet;

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Thence South 7°20'52" East 180.00 feet;
Thence South 38°41'02" East 259.05 feet to a point designated as North 204,289.78 and East 1,671,493.92 Lambert Grid Coordinates, based on the U.S. Department of Commerce, Coast and Geodetic Survey, Lambert Grid, North Zone;
Thence continuing South 38°41'02" East 10 feet to the terminus of said line;
EXCEPT any portion thereof within the right of way of the Coal Creek-Lake Boren Road

ALSO

Two strips of land 50 feet in width over, under, through and across the following described portions of Parcel O and P, on each side of the following described centerline, as indicated below:

Beginning at Station 0+00 of the South Control Point, Sunset Tunnel, as shown on the Plan and Profile for the Eastside Interceptor, Section 5-8, Coal Creek Site Plan, according to the survey thereof prepared for the Municipality of Metropolitan Seattle by Metropolitan Engineers, Drawing No. P203, page 11 of 16, dated December, 1962, on file in the King County Department of Natural Resources and Parks, Wastewater Treatment Division and attached hereto as Exhibit B-2;
Thence South 6°26'56" West 182.27 feet;
Thence South 66°23'49" West 665.38 feet to the terminus of said line

PARCEL O:

A strip of land 50 feet in width, 10 feet in width on the Southeasterly side and 40 feet in width on the Northwesterly side of that portion of the above described centerline, in Lot 4, Block 1, Lake Heights, according to plat thereof recorded in Volume 46 of Plats, Page 14, Records of King County, Washington;

EXCEPT the westerly 140 feet of said Lot 4, said 140 feet being measured along the north line of said Lot 4.

PARCEL P:

A strip of land 50 feet in width, 15 feet in width on the Easterly side and 35 feet in width on the Westerly side of that portion of the above described centerline, in that portion of the Northeast quarter of the Southwest quarter of Section 16, Township 24 North, Range 5 East, W.M., in King County, Washington, line southerly of Newport-Issaquah County Road (Newport Way), and Northwesterly of the following described line:

Beginning at the Northeast corner of lot 4, block 1, Lake Heights, according to the plat recorded in Volume 46 of plats, page 14, Records of King County, Washington;

DSD - 000372

thence Southerly along the East line of said Lot 4, a distance of 27.627 feet to the true point of beginning;

Thence North 66° 23' 48.5" East a distance of 321.39 feet; thence North 06° 26' 56" East a distance of 44 feet, more or less, to terminus of said line on Southerly margin of P.S. Highway No. 1 Newport Interchange right of way;

EXCEPT portion line within Secondary State Highway No. 2-A;

EXCEPT any portion thereof conveyed to the State of Washington for highway purposes.

DSD - 000373

Exhibit B-2

Plan and Profile for Eastside Interceptor

DSD - 000374

Appendix E:

Critical Areas Conceptual Mitigation Plans

(large plan sheets)

Sheet W1.0: Existing Conditions Plan
Sheet W1.1: Proposed Site Plan & Impacts Assessment
Sheet W1.2: Proposed Mitigation Concept
Sheet W2.0: Proposed Buffer Mitigation Overview
Sheet W3.0: Preliminary Plant List, Details, and Notes

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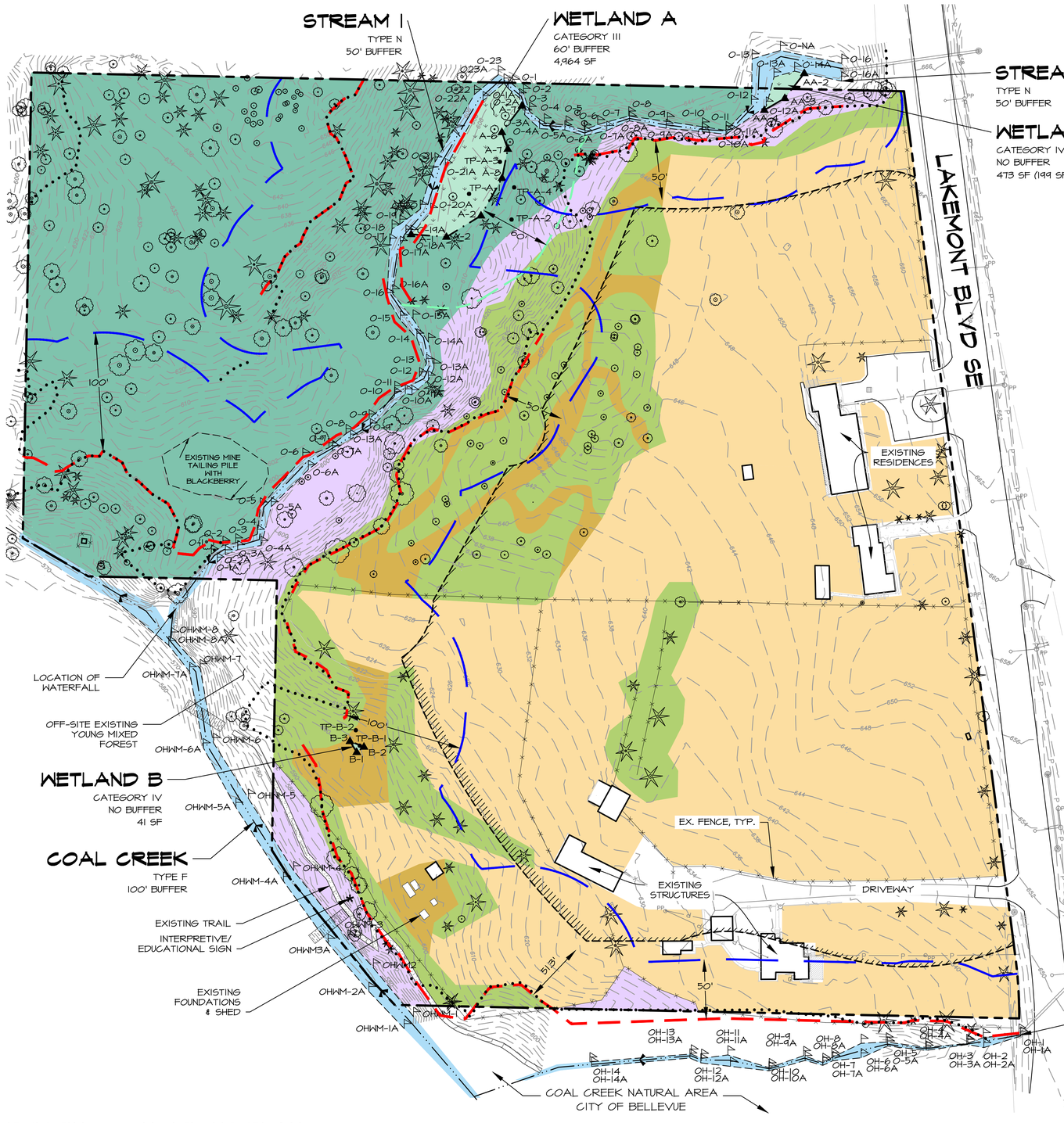
DSD - 000375

E ½ SECTION 26, TOWNSHIP 24N, RANGE 5E, W.M.



EXISTING CONDITIONS PLAN

GRAPHIC SCALE (IN FEET)
0 25 50 100
SCALE: 1"=50'
NORTH

EXISTING SITE CONDITIONS LEGEND

- MATURING FOREST WITH CLOSED CANOPY AND MIXED NATIVE SHRUBS
- EARLY SUCCESSIONAL FOREST WITH UNDERSTORY OF NATIVE SHRUBS
- DISTURBED EARLY SUCCESSIONAL FOREST WITH NON-NATIVE OR INVASIVE UNDERSTORY
- OPENINGS WITHIN EARLY SUCCESSIONAL FOREST DEGRADED BY FREQUENT HUMAN DISTURBANCE
- FREQUENTLY MAINTAINED NON-NATIVE LAWN OR PASTURE GRASSES

PLAN LEGEND

- PROPERTY LINE
- EXISTING WETLAND
- WETLAND BUFFER (STANDARD)
- STREAM CENTERLINE
- STREAM ORDINARY HIGH WATER MARK (OHWM)
- TOP OF BANK (3:1 SLOPE PER LUC 20.50.048.T
- STREAM BUFFER (STANDARD)
- STEEP SLOPE (SEE CIVIL PLANS)
- 100 EXISTING CONTOUR
- ▲A-# WETLAND DELINEATION FLAG
- OHWM-# ORDINARY HIGH WATER FLAG - COAL CREEK
- OH-# ORDINARY HIGH WATER FLAG - STREAM 3
- O-# ORDINARY HIGH WATER FLAG - STREAM 1 & 2
- •TP-# TEST PIT
- EXISTING TREES

811 Know what's below. Call before you dig.

NOTES

1. SITE PLAN PROVIDED BY PACE ENGINEERS, 11255 KIRKLAND WAY SUITE 300 KIRKLAND, WA 98033, (425) 827-2014.
2. SOURCE DRAWING WAS MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL ENHANCEMENT.
3. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT PREPARED BY TALASAEA CONSULTANTS IN DATED AUGUST 2019.

APPROVED FOR CONSTRUCTION

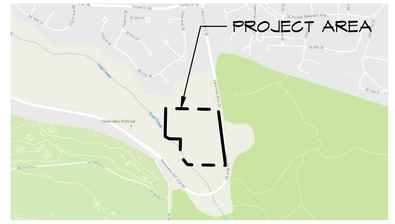
BY:
CITY OF BELLEVUE
DEPARTMENT OF PLANNING

DATE:

FILE #: 15-115585-DB, 16-143970-LK, 16-145946-LO

VICINITY MAP

NTS



SOURCE: GOOGLE MAPS; WWW.MAPS.GOOGLE.COM (ACCESSED 8/22/2016)

NORTH

CONTACTS

APPLICANT
NAME: ISOLA HOMES
ADDRESS: 1518 1ST AVE S, SUITE 301 SEATTLE, WA 98134
PHONE: (206) 582-7900
CONTACT: JOHN JACKELS

SURVEYOR
NAME: TERRANE
ADDRESS: 10801 MAIN STREET, SUITE 102 BELLEVUE, WA 98004
PHONE: 425-458-4488

ENGINEER
NAME: PACE ENGINEERS
ADDRESS: 11255 KIRKLAND WAY SUITE 300 KIRKLAND, WA 98033
PHONE: (425) 827-2014
CONTACT: TOBY COENEN, PE

ENVIRONMENTAL CONSULTANT
NAME: TALASAEA CONSULTANTS, INC.
ADDRESS: 15020 BEAR CREEK RD. NE WOODINVILLE, WA 98077
PHONE: (425) 861-7550
CONTACT: ANN OLSEN, RLA SENIOR PROJECT PLANNER
DAVID TEESDALE, PWS, SENIOR WETLAND ECOLOGIST

SHEET INDEX

SHEET NUMBER	SHEET TITLE
W1.0	EXISTING CONDITIONS PLAN
W1.1	PROPOSED SITE PLAN & IMPACTS ASSESSMENT
W1.2	PROPOSED MITIGATION PLAN
W2.0	PROPOSED BUFFER MITIGATION OVERVIEW
W3.0	PRELIMINARY PLANT LIST, DETAILS AND NOTES

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15020 Bear Creek Road Northeast – Woodinville, Washington 98077
Fax (425) 861-7549 Phn (425) 861-7550

CRITICAL AREA CONCEPTUAL MITIGATION PLANS
EXISTING CONDITIONS PLAN
PARK POINTE PUD
BELLEVUE, WASHINGTON

Revisions	Date	By
CITY COMMENTS	10-25-2018	ABS
STORM OUTFALL	3-13-2019	MK
CITY SUBMITTAL	8-14-2019	FH
CITY COMMENTS	11-10-2020	FH

Date 10-7-2016
Scale AS SHOWN
Designed AO
Drawn FH
Checked AO
Approved BS

Project #1543

Sheet # W1.0

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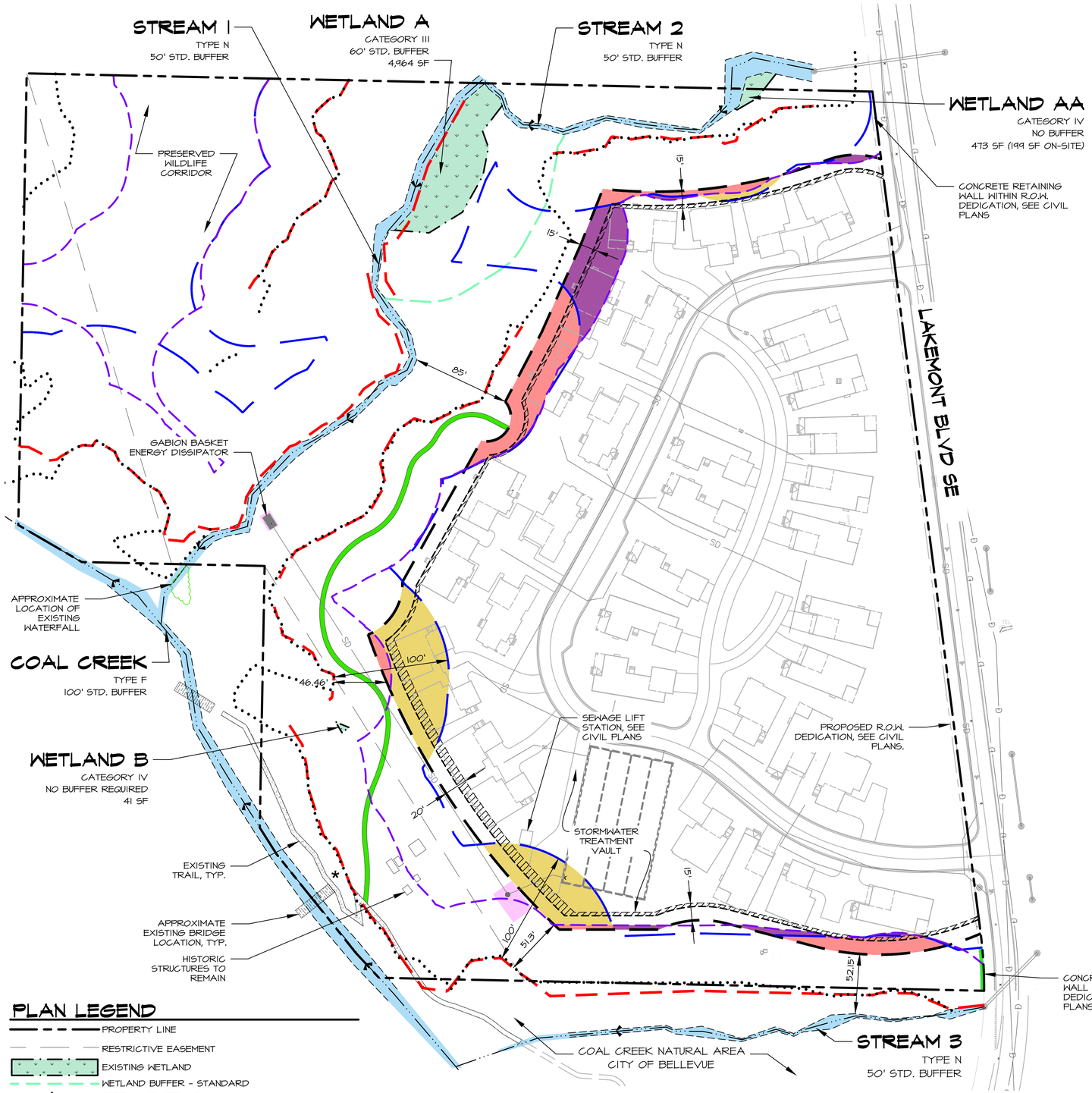
E ½ SECTION 26, TOWNSHIP 24N, RANGE 5E, W.M.



PLAN LEGEND

- PROPERTY LINE
- RESTRICTIVE EASEMENT
- EXISTING WETLAND
- WETLAND BUFFER - STANDARD
- STREAM CENTERLINE
- STREAM ORDINARY HIGH WATER MARK (OHWM)
- TOP OF BANK FOR STREAMS
- STREAM BUFFER - STANDARD
- TOP OF STEEP SLOPE (PER CIVIL)
- STEEP SLOPE BUFFER - STANDARD

PROPOSED SITE PLAN AND IMPACTS ASSESSMENT

GRAPHIC SCALE (IN FEET)
0 25 50 100
SCALE: 1"=50'

NORTH

BUFFER REDUCTION LEGEND

REDUCED STREAM BUFFER FOR RIGHT-OF-WAY IMPROVEMENTS	114 SF
REDUCED STREAM BUFFERS	10,256 SF
REDUCED STEEP SLOPE BUFFER	3,975 SF
COMBINED REDUCED STREAM & STEEP SLOPE BUFFER	7,230 SF
TOTAL BUFFER REDUCTION IMPACTS:	21,575 SF
TOTAL STRUCTURE SETBACK REDUCTION	5,426 SF

CONSTRUCTION IMPACTS LEGEND

SOFT SURFACE TRAIL	2,161 SF
GABION BASKET ENERGY DISSIPATOR & MANHOLES	104 SF
STAGING AREA IMPACTS FOR DIRECTIONAL BORE PITS	646 SF
TOTAL CONSTRUCTION RELATED IMPACTS:	2,911 SF

MITIGATION LEGEND

POST CONSTRUCTION BUFFER

SEE SHEET WI.2 FOR PROPOSED MITIGATION

PRE-DEVELOPMENT SITE CALCULATIONS TABLE

(SEE SHEET WI.2 FOR POST-DEVELOPMENT SITE CALCULATIONS TABLE)

CRITICAL AREAS (ON-SITE)

WETLAND AA:	473 SF
WETLAND A:	4,984 SF
WETLAND B:	41 SF
STREAM 1:	4,408 SF
STREAM 2:	1,432 SF
COAL CREEK:	1,366 SF
TOTAL:	12,704 SF
CRITICAL AREA BUFFERS	264,349 SF
DEVELOPABLE AREAS	258,464 SF
TOTAL SITE AREA:	535,517 SF

NOTES

1. SITE PLAN PROVIDED BY PAGE ENGINEERS, 11255 KIRKLAND WAY SUITE 300 KIRKLAND, WA 98033, (425) 827-2014.
2. SOURCE DRAWING WAS MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL ENHANCEMENT.
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APPROVED FOR CONSTRUCTION

BY:
CITY OF BELLEVUE
DEPARTMENT OF PLANNING

DATE:

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FILE #: 15-115585-DB, 16-143970-LK, 16-145946-LO

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15020 Bear Creek Road Northeast – Woodinville, Washington 98077
Bus (425) 861-7500 – Fax (425) 861-7549

CRITICAL AREA CONCEPTUAL MITIGATION PLANS
PROPOSED SITE PLAN & IMPACTS ASSESSMENT
PARK POINTE PUD
BELLEVUE, WASHINGTON

Revisions	Date	By
CITY COMMENTS	10-25-2018	ABS
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CITY SUBMITTAL	8-14-2019	FH
CITY COMMENTS	11-10-2020	FH

Date	10-7-2016
Scale	AS SHOWN
Designed	AO
Drawn	FH
Checked	AO
Approved	BS

Project # 1543

Sheet # WI.1

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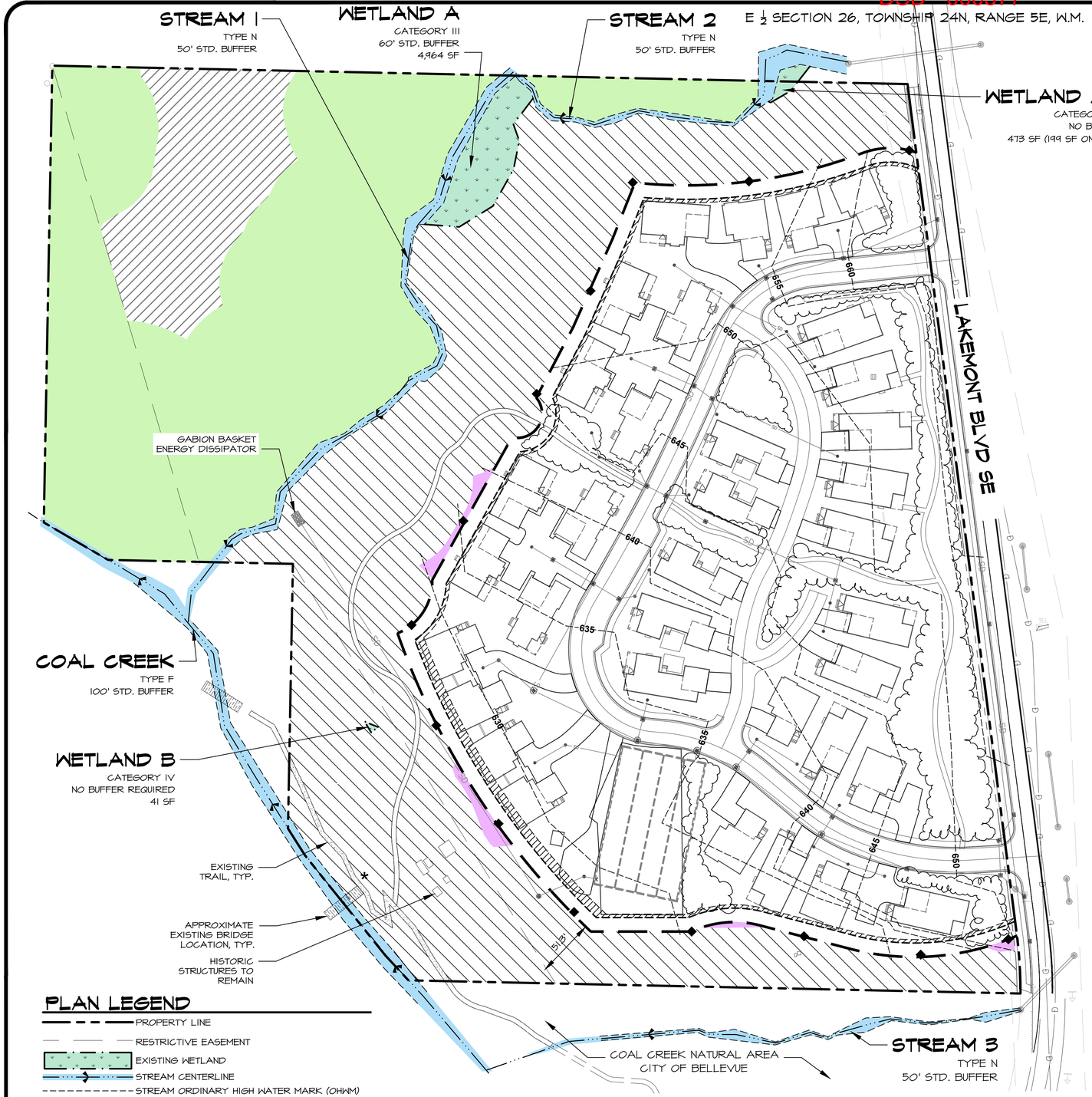

PLAN LEGEND

- PROPERTY LINE
- RESTRICTIVE EASEMENT
- EXISTING WETLAND
- STREAM CENTERLINE
- STREAM ORDINARY HIGH WATER MARK (OHWM)

PROPOSED MITIGATION PLAN

GRAPHIC SCALE (IN FEET)
0 25 50 100
SCALE: 1"=50'
NORTH

CRITICAL AREA MITIGATION LEGEND

MITIGATION FOR BUFFER REDUCTIONS/IMPACTS

BUFFER ENHANCEMENT, RESTORATION, & RE-ESTABLISHMENT	128,934 SF
ENHANCED BUFFER ADDITION (BEYOND STREAM AND STEEP SLOPE STANDARD BUFFERS)	1,889 SF
TOTAL MITIGATION AREA:	130,823 SF

MITIGATION TO IMPACT RATIO 5:1

MITIGATION LEGEND

- POST CONSTRUCTION BUFFER
- PROPOSED STRUCTURE SETBACK (FOR WETLANDS AND STREAMS)
- CRITICAL AREA SIGNS (SEE DETAIL ON W2.0)

ADDITIONAL ON-SITE HABITAT AREAS

CRITICAL AREAS (COAL CREEK, STREAM 1 &2, WETLANDS A, AA, & B)	12,684 SF
PRESERVED CRITICAL AREA BUFFER HABITAT AREAS	104,267 SF
PRESERVED WILDLIFE CORRIDOR (NON-COMPENSATORY HABITAT CONSERVATION)	23,675 SF
ADDITIONAL HABITAT AREA:	140,626 SF

POST-DEVELOPMENT SITE CALCULATIONS TABLE

SITE DEVELOPMENT PLAN AREA		260,581 SF
CRITICAL AREAS (ON-SITE)		
WETLAND AA:	473 SF	
WETLAND A:	4964 SF	
WETLAND B:	41 SF	
STREAM 1:	4,408 SF	
STREAM 2:	1,432 SF	
COAL CREEK:	1,366 SF	
TOTAL:		12,684 SF
BUFFER ENHANCEMENT AREAS		130,823 SF
OTHER		
EXISTING TRAIL (ON-SITE):	1,124 SF	
PROPOSED TRAIL:	2,161 SF	
GABION BASKET ENERGY DISSIPATOR & MANHOLDES	104 SF	
TOTAL:		3,389 SF
PRESERVED CRITICAL AREA BUFFER (WEST OF STREAM 1 AND NORTH OF STREAM 2)		104,267 SF
PRESERVED WILDLIFE CORRIDOR		23,675 SF
TOTAL SITE AREA:		535,419 SF

NOTES

1. SITE PLAN PROVIDED BY PACE ENGINEERS, 11255 KIRKLAND WAY SUITE 300 KIRKLAND, WA 98033, (425) 827-2014.
2. SOURCE DRAWING WAS MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL ENHANCEMENT.
3. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT PREPARED BY TALASAEA CONSULTANTS IN DATED AUGUST 2019.

Know what's below. Call before you dig.

APPROVED FOR CONSTRUCTION

BY:
CITY OF BELLEVUE
DEPARTMENT OF PLANNING

DATE:

FILE #: 15-115585-DB, 16-143970-LK, 16-145946-LO

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15020 Bear Creek Road Northeast – Woodinville, Washington 98077
Bus (425) 861-7500 – Fax (425) 861-7549

CRITICAL AREA CONCEPTUAL MITIGATION PLANS
PROPOSED MITIGATION CONCEPT
PARK POINTE PUD
BELLEVUE, WASHINGTON

Revisions	Date	By
CITY COMMENTS	10-25-2018	ABS
STORM OUTFALL	3-13-2019	MK
CITY SUBMITTAL	8-14-2019	FH
CITY COMMENTS	11-10-2020	FH

Date	10-7-2016
Scale	AS SHOWN
Designed	AO
Drawn	FH
Checked	AO
Approved	BS

Project #1543

Sheet # W1.2

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E ½ SECTION 26, TOWNSHIP 24N, RANGE 5E, W.M.

BUFFER MITIGATION LEGEND

AREA A - FORESTED SUB-CANOPY ENHANCEMENT — 12,369 SF

- GRUB OUT INVASIVE SPECIES, IF ANY, BY HAND
- ENHANCE ENTIRE AREA PRIMARILY WITH A MIX OF NATIVE MID-STORY SHRUBS
- ESTIMATED NUMBER OF TREES: 37
- ESTIMATED NUMBER OF SHRUBS: 87

AREA B - UNDISTURBED FORESTED BUFFER ENHANCEMENT — 30,334 SF

- GRUB OUT ALL INVASIVE SPECIES BY HAND
- STABILIZE ANY DISTURBED SOILS WITH A 3-INCH DEPTH OF BARK MULCH
- ENHANCE ENTIRE AREA, WHERE PLANTING OPPORTUNITIES EXIST, WITH AN APPROPRIATE MIX OF NATIVE EVERGREEN TREES AND MID-STORY SHRUBS THAT ARE LARGELY NOT PRESENT IN EXISTING CONDITION
- ESTIMATED NUMBER OF TREES: 90
- ESTIMATED NUMBER OF SHRUBS: 211

AREA C - DISTURBED FORESTED BUFFER ENHANCEMENT — 41,615 SF

- SELECTIVELY GRUB OUT ALL NON-NATIVE INVASIVE SPECIES BY HAND
- INSTALL HABITAT FEATURES SUCH AS DOWN LOGS, STUMPS, AND SNAGS WITH SNALLOW NEST BOXES IN SELECT LOCATIONS WHERE EXISTING NATIVE VEGETATION WILL NOT BE DISTURBED
- STABILIZE ANY DISTURBED SOILS WITH 3-INCH DEPTH OF BARK MULCH
- REVEGETATE ALL GRUBBED AND SELECTED OTHER AREAS WITH A MIX OF NATIVE EVERGREEN AND DECIDUOUS TREES, AS WELL AS MID- AND LOW-STORY SHRUBS.
- ESTIMATED NUMBER OF TREES: 125
- ESTIMATED NUMBER OF SHRUBS: 291

AREA D - RE-ESTABLISHMENT OF FORESTED BUFFER — 45,854 SF

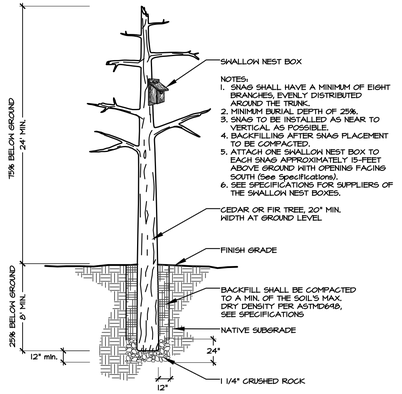
- REMOVE AND DISPOSE OF ANY TRASH, DEBRIS, OR NON-SIGNIFICANT STRUCTURES
- GRUB ENTIRE AREA BY MACHINE TO REMOVE ALL NON-NATIVE/INVASIVE SPECIES
- PRESERVE EXISTING NATIVE VEGETATION (WHERE APPLICABLE)
- DECOMPACT AND RESTORE DISTURBED SOILS WITH COMPOST OR IMPORTED TOPSOIL IF NECESSARY
- STABILIZE DISTURBED SOILS WITH 3-INCH DEPTH OF BARK MULCH
- REVEGETATE ENTIRE AREA WITH A MIX OF NATIVE EVERGREEN AND DECIDUOUS TREES, AS WELL AS MID- AND LOW-STORY SHRUBS.
- ESTIMATED NUMBER OF TREES: 549
- ESTIMATED NUMBER OF SHRUBS: 1,281

AREA E - RESTORATION OF CONSTRUCTION IMPACTS — 646 SF

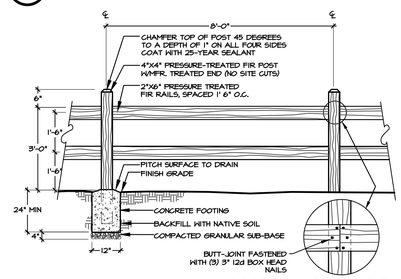
- INSTALL 9-INCH MINIMUM DEPTH OF NEW TOPSOIL IN ALL DISTURBED AREAS
- STABILIZE DISTURBED SOILS WITH 3-INCH DEPTH OF BARK MULCH
- REVEGETATE ENTIRE AREA WITH A MIX OF NATIVE EVERGREEN AND DECIDUOUS SHRUBS
- ESTIMATED NUMBER OF SHRUBS: 18

TOTAL AREA:	130,823
ESTIMATED TOTAL NUMBER OF TREES:	782
ESTIMATED TOTAL NUMBER OF SHRUBS:	3,575

NOTES:
1. FULL KING COUNTY PLANTING DENSITIES WERE USED FOR AREAS D & E WHERE RE-ESTABLISHMENT OR FULL RESTORATION OF FORESTED BUFFERS IS REQUIRED.
2. IN AREAS OF EXISTING NATIVE FOREST KING COUNTY PLANTING DENSITIES WERE USED AT A RATE OF 25%.



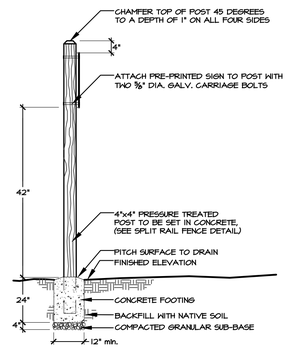
1 SNAG WITH NEST BOX DETAIL
N.T.S.



POST/RAIL CONNECTION

NOTES:
1. RAIL FENCE TO ALIGN WITH LAND GRADIENT.
2. TREAT WITH CLEAR PRESERVATIVE UPON COMPLETION OF INSTALLATION.
3. ALL FASTENERS TO BE GALVANIZED STEEL.

2 OPEN 2-BOARD FENCE DETAIL
N.T.S.



3 CRITICAL AREA SIGN DETAIL
N.T.S.

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APPROVED FOR CONSTRUCTION

BY:

CITY OF BELLEVUE
DEPARTMENT OF PLANNING

DATE:

PROPOSED BUFFER MITIGATION OVERVIEW

GRAPHIC SCALE (IN FEET)
0 25 50 100
SCALE: 1"=50'
NORTH

PLAN LEGEND

- PROPERTY LINE
- EXISTING WETLAND
- STREAM WITH DIRECTION OF FLOW
- STREAM ORDINARY HIGH WATER MARK (OHWM)
- 2-BOARD FENCE - SEE DETAIL 2/P2.0
- CRITICAL AREA SIGN - SEE DETAIL 3/P2.0

HABITAT FEATURE LEGEND

- SNAG W/ SWALLOW NEST BOX - SEE DETAIL 1/P2.0
- DOWN LOG
- STUMP 3/P2.0

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TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
10020 Bear Creek Road Northeast - Woodinville, Washington 98077
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CRITICAL AREA CONCEPTUAL MITIGATION PLANS
PROPOSED BUFFER MITIGATION OVERVIEW
PARK POINTE PUD
BELLEVUE, WASHINGTON

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Date	10-7-2016
Scale	AS SHOWN
Designed	AO
Drawn	FH
Checked	AO
Approved	BS

Project #1543

Sheet # W2.0

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E ½ SECTION 26, TOWNSHIP 24N, RANGE 5E, W.M.

PRELIMINARY PLANT LIST

LARGE TREES

SYMBOL	SCIENTIFIC NAME	COMMON NAME	WL STATUS	QTY.	SPACING	SIZE (MIN.)	NOTES
	ACER MACROPHYLLUM	BIG LEAF MAPLE	FACU	TBD	AS SHOWN	4-5' HT.	SINGLE TRUNK, WELL BRANCHED
	BETULA PAPYRIFERA	PAPER BIRCH	FAC	TBD	AS SHOWN	5-6' HT.	SINGLE TRUNK, WELL BRANCHED
	CORNUS NUTTALLII	PACIFIC DOGWOOD	FACU	TBD	AS SHOWN	3'-4' HT.	SINGLE TRUNK, WELL BRANCHED
	FRANGULA (RHAMNUS) PURSHIANA	CASCARA	FAC	TBD	AS SHOWN	4-5' HT.	SINGLE TRUNK, WELL BRANCHED
	FRAXINUS LATIFOLIA	OREGON ASH	FACW	TBD	AS SHOWN	4-5' HT.	SINGLE TRUNK, WELL BRANCHED
	PICEA SITCHENSIS	SITKA SPRUCE	FAC	TBD	AS SHOWN	4-5' HT.	B&B, FULL & BUSHY
	PINUS CONTORTA	SHORE PINE	FAC	TBD	AS SHOWN	4-5' HT.	B&B, FULL & BUSHY
	PRUNUS EMARGINATA	BITTERCHERRY	FACU	TBD	AS SHOWN	4-5' HT.	SINGLE TRUNK, WELL BRANCHED
	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	FACU	TBD	AS SHOWN	4-5' HT.	B&B, FULL & BUSHY
	SALIX LASIANDRA	PACIFIC WILLOW	FACW	TBD	AS SHOWN	4-5' HT.	SINGLE TRUNK, WELL BRANCHED
	THUJA PLICATA	WESTERN RED CEDAR	FAC	TBD	AS SHOWN	4-5' HT.	B&B, FULL & BUSHY
	TSUGA HETEROPHYLLA	WESTERN HEMLOCK	FACU	TBD	AS SHOWN	4-5' HT.	B&B, FULL & BUSHY

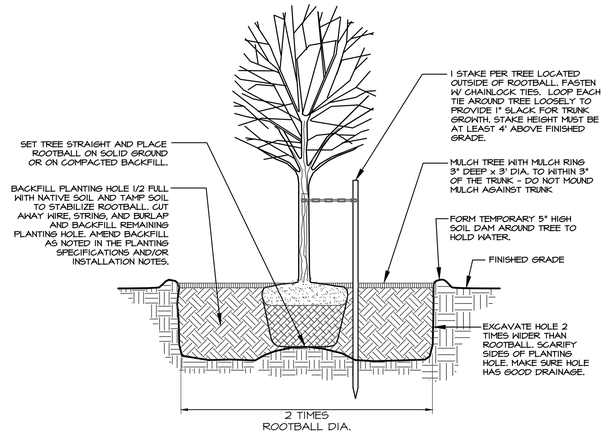
SMALL TREES/LARGE SHRUBS

SYMBOL	SCIENTIFIC NAME	COMMON NAME	WL STATUS	QTY.	SPACING	SIZE (MIN.)	NOTES
	ACER CIRCINATUM	VINE MAPLE	FAC	TBD	TBD	4' HT.	SINGLE TRUNK, WELL BRANCHED
	AMELANCHIER ALNIFOLIA	SERVICEBERRY	FACU	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)
	CORYLUS CORNUTA	WESTERN HAZELNUT	FACU	TBD	TBD	4' HT.	SINGLE TRUNK, WELL BRANCHED
	CRATAEGUS DOUGLASII	BLACK HAWTHORN	FAC	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)
	HOLODISCUS DISCOLOR	OCEAN SPRAY	FACU	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)
	OEMLERIA CERASIFORMIS	INDIAN PLUM	FACU	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)
	PHILADELPHUS LEWISII	MOCK ORANGE	UPL	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)
	PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK	FACW	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)
	PYRUS (MALUS) FUSCA	WESTERN CRABAPPLE	FACW	TBD	TBD	4' HT.	SINGLE TRUNK, WELL BRANCHED
	RIBES BRACTEOSUM	STINK CURRANT	FAC	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)
	RIBES SANGUINEUM	RED CURRANT	NL	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)
	SAMBUCUS RACEMOSA	RED ELDERBERRY	FACU	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)
	SORBUS SITCHENSIS	SITKA MOUNTAIN ASH	FAC	TBD	TBD	4' HT.	SINGLE TRUNK, WELL BRANCHED
	VIBURNUM EDULE	HIGH-BUSH CRANBERRY	FACW	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)

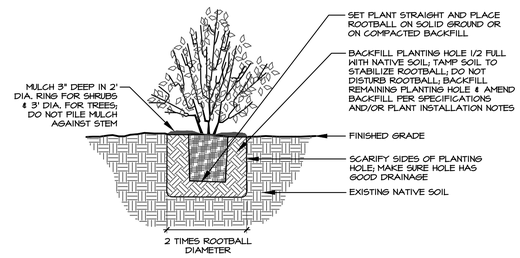
MASSING SHRUBS

SYMBOL	SCIENTIFIC NAME	COMMON NAME	WL STATUS	QTY.	SPACING	SIZE (MIN.)	NOTES
	CORNUS ALBA (SERICEA)	RED-OSIER DOGWOOD	FACW	TBD	TBD	18" HT.	MULTI-CANE (3 MIN.)
NO SYMBOL	GAULTHERIA SHALLON	SALAL	FACU	TBD	TBD	1 GAL.	FULL & BUSHY
	LONICERA INVOLUCRATA	BLACK TWIN-BERRY	FAC	TBD	TBD	18" HT.	MULTI-CANE (3 MIN.)
	MAHONIA AQUIFOLIUM	TALL OREGON GRAPE	FACU	TBD	TBD	18" HT.	FULL & BUSHY
NO SYMBOL	POLYSTICHUM MUNITUM	WESTERN SWORD FERN	FACU	TBD	TBD	1 GAL.	FULL & BUSHY
	ROSA GYMNOCARPA	BALDHIP ROSE	FACU	TBD	TBD	18" HT.	MULTI-CANE (3 MIN.)
	ROSA NUTKANA	NOOTKA ROSE	FAC	TBD	TBD	18" HT.	MULTI-CANE (3 MIN.)
	RUBUS PARVIFLORUS	THIMBLEBERRY	FACU	TBD	TBD	18" HT.	MULTI-CANE (3 MIN.)
	SYMPHORICARPOS ALBUS	COMMON SNOWBERRY	FACU	TBD	TBD	18" HT.	MULTI-CANE (3 MIN.)
	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	FACU	TBD	TBD	1 GAL.	FULL & BUSHY

NOTE: QUANTITIES AND LAYOUT SHALL BE DETERMINED ON FINAL MITIGATION PLANS.



1 B&B TREE PLANTING DETAIL.
NTS



2 CONTAINER STOCK PLANTING DETAIL
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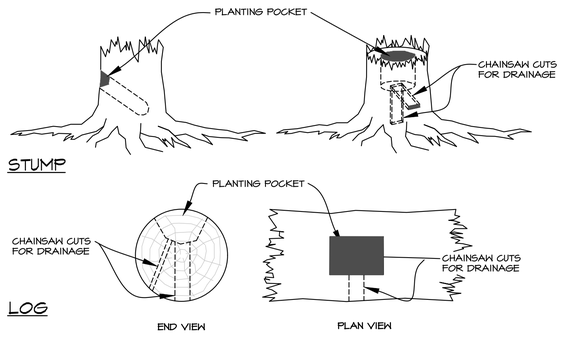
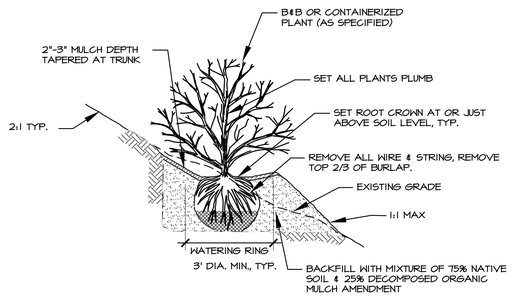


3 PLANTING POCKET DETAIL
1"=1'



4 SLOPE PLANTING DETAIL
1"=1'

GENERAL PLANT INSTALLATION NOTES

1. PLANT TREES AND/OR SHRUBS 1" HIGHER THAN DEPTH GROWN AT NURSERY.
2. FOR CONTAINER TREES AND/OR SHRUBS, SCORE FOUR SIDES OF ROOTBALL PRIOR TO PLANTING. BUTTERFLY ROOTBALL IF ROOT CIRCLING IS EVIDENT.
3. STAKE DECIDUOUS AND EVERGREEN TREES 4 FEET AND OVER IN HEIGHT WITH ONE (1) STAKE PER TREE. STAKE TREES IMMEDIATELY AFTER PLANTING. PLACE STAKE AT THE OUTER EDGE OF THE ROOTS OR ROOTBALL, IN LINE WITH THE PREVAILING WIND. STAKES SHALL BE LOOSELY ATTACHED USING CHAIN-LOCK TREE TIES TO ALLOW FOR SOME TRUNK MOVEMENT.
4. TREE STAKES TO BE VERTICAL, PARALLEL, EVEN-TOPPED, UNSCARRED AND DRIVEN INTO UNDISTURBED SUBGRADE. REMOVE AFTER ONE YEAR.
5. WATER PLANTS IMMEDIATELY UPON PLANTING, THEN PROVIDE MANUAL WATERING OR A TEMPORARY IRRIGATION SYSTEM (IF SPECIFIED IN THE PLANTING SPECIFICATIONS) TO PREVENT PLANT MORTALITY AND ENSURE PROPER PLANT ESTABLISHMENT. PLANTS SHALL RECEIVE A MINIMUM OF APPROXIMATELY ONE INCH OF WATER EVERY WEEK DURING THE DRY SEASON (GENERALLY JUNE 15TH - OCTOBER 15TH, OR EARLIER OR LATER IF CONDITIONS WARRANT) FOR THE FIRST SEASON AFTER PLANTING. IRRIGATION AMOUNTS MAY NEED TO BE INCREASED DURING PROLONGED PERIODS OF HOT, DRY WEATHER.
6. FERTILIZE ALL TREES AND SHRUBS WITH A SLOW-RELEASE GENERAL PURPOSE GRANULAR FERTILIZER OR SLOW-RELEASE TABLETS AT MANUFACTURER'S SPECIFIED RATE.

NOTES

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TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
13020 Bear Creek Road Northeast - Woodinville, Washington 98077
Fax (425) 861-7549

CRITICAL AREA CONCEPTUAL MITIGATION PLANS
PRELIMINARY PLANT LIST, DETAILS, AND NOTES
PARK POINTE PUD
BELLEVUE, WASHINGTON

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Date 10-7-2016
Scale AS SHOWN
Designed AO
Drawn FH
Checked AO
Approved BS

Project #1543

Sheet # W3.0

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PACE
An Engineering Services Company

Park Pointe Neighborhood

Applicant: Isola Homes

Bellevue No. 15-115585-DB

October 7, 2016

This narrative supports the Parke Pointe Planned Unit Development (PUD) proposed by Isola Homes on two parcels of land located at 7219 and 7331 Lakemont Boulevard SE in Bellevue (King County Tax Parcels 262405-9022 and 262405-9017). The City of Bellevue conducted a pre-application meeting with PACE and Isola Homes on June 18, 2015.

This narrative provides an overview of the proposal and presents project details intended to demonstrate compliance with Bellevue Municipal Code requirements governing zoning, critical areas and PUD development.

PROJECT SUMMARY

Development Vision

ISOLA Homes is pleased to propose an upscale community of 41 single-family detached homes integrated into the rich landscape of the Coal Creek corridor. The new neighborhood is situated near the Cougar Mountain Regional Wildland Park, Newcastle Golf Club and urban amenities of downtown Bellevue area. The close proximity to I-90 (via Exit #13) provides the community with easy access to the Seattle metro area and recreation opportunities of the Cascades.

This new neighborhood offers more immediate recreation opportunities at Lakemont Highlands Neighborhood Park, Lewis Creek Park, and the Coal Creek Nature area. The development will \expand these opportunities by providing a private park, community garden, picnic areas and connection to the regional trail system.

Isola Homes, a long established Seattle-area home builder, is overseeing development. The residential design draws upon the Pacific Northwest Regionalism style architecture. The homes and landscape are carefully positioned on the site to maximize retention of native woodlands and confine development to the existing pasture and yard areas.

The development team created a development concept that artfully layers the landscape and building architecture in laminated patterns of color and texture to establish a richly intriguing development. These layers occur vertically and horizontally with the buildings and with the vegetation, as well as landscape functional LID features, vistas and visual gateways, trailheads, arbors, fire pits and seating areas. The development proposal is seeking to create a series of outdoor landscape rooms to sit in, or view from the adjoining homes. The expectation is to establish a “nature-rich outdoor environment” in which to enjoy the northwest flora natives and fauna of songbirds, finches and grosbeaks and deer.

PACE Engineers, Inc.
11255 Kirkland Way | Suite 300
Kirkland, Washington 98033-6715
p 425.827.2014 | *f* 425.827.5043

www.paceengrs.com

DSD - 000381

Homebuyer Market Demographic

ISOLA Homes anticipates homebuyers looking for a Bellevue location with proximity to nature and hiking, recreation of the Cascades and proximity to Bellevue and Seattle. Floor plans are configured with much less demand for homeowner's outdoor maintenance. We believe there are two market demographic profiles looking for this type of opportunity; busy young families with preschoolers and active empty nesters.

The proposal includes Single Family Detached housing (sold as detached condominiums) as well as innovative Low Impact Development features. The vision for the neighborhood development is for 41 traditional single-family detached homes. These two- and three-story homes will be offered in a variety of floor plans and elevation configurations, responding to site topography. Homes will range in size from 2200 to 3200 square feet.

Development Program Strategies

- Understand the attributes and challenges of the property, embrace the PUD opportunities and LID features
- Integration of the buildings into the site, by implementing vertical steps and with horizontal offsets
- Design an open site, with understandable sequencing of spaces
- Generous landscape interest, with details of plant material and hardscape landscape features, such as short rock walls, flagstone pavement and seasonal perennials
- Community connections to surrounding recreational opportunities
- A timeless green Bellevue approach, with no glossy adornment
- Strategically locate guest parking spaces
- Common Community Open spaces with community Vegetable and Flower Garden
- Architectural design to utilize a variety of front door orientations
- Architectural design to utilize a variety of units with two-car garages
- CC&R's will require parking in garages

DESIGN SUMMARY

Overview

The development on the 12.2-acre site (gross area) will preserve 5.9 acres of land, leaving the area largely undisturbed except for limited incursions for utilities, trails and critical are mitigation. The 41 homes will occupy the remaining 6.3 acres (net area). Isola Homes envisions amenities for the site to include private roadways, stormwater improvements, and landscape areas planted consistent with the context of his location.

The project represents Isola's first innovative Low Impact Development combined with a Planned Unit Development (LID/PUD) proposal, by Isola Homes. The intent of the development is to successfully integrate the principles of LID with the elements of the PUD. The PUD

DSD - 000382

process provides flexible density and zoning provisions to encourage unique site and building design solutions that reflect site-specific constraints and conditions. This typically involves density bonus provisions in exchange for establishing generous common open space. Consistent with this overview, nearly half of the Lakemont site will be set aside as some sort of open space.

Central to the success of this proposal is the incorporation of the City's mandate:

> *LID principles are land-use management strategies that emphasize conservation, use of on-site natural features and site planning to minimize impervious surfaces, native vegetation loss and stormwater runoff. LID principles are different from LID best management practices such as rain gardens and permeable pavement.*[1]

Design Emphasis and Strategies

The challenge in the LID/PUD design is striking a balance between the different elements and priorities that are central to the overall sign design. These include:

Site Analysis / Site Layout

The project team conducted a detailed physical and environmental inventory and analysis before assessing the site development yield for the property. The result is a thoughtful design solution that incorporates the layers of site attributes into the residential development pattern.

Implementing the planning concept of clustering development on the property achieved a number of LID goals and allowed a much more efficient use of the land. Clustering homes sites and preserving native vegetation can be a challenge to achieve without flexibility in setback and buffer requirements. This site was no different: clustering was achieved in part through modified site development standards, air-space condos, and reduced buffers and setbacks.

Park Pointe was configured to confine development to the existing yard and pasture areas of the property in an effort to avoid the existing woodlands. This effectively retained the existing natural systems and minimized development impact to undeveloped lands and the site's critical areas. Within the development area, houses were grouped to concentrate the open space into larger areas to provide a greater benefit to the community.

Impervious Surface Coverage

One priority of LID development is limiting the amount of impervious surface. Within Park Pointe, impervious surfaces – particularly pollution generating areas – are reduced from levels typical of conventional residential development. This was achieved by (a) reducing roadway widths, and (b) utilizing pervious pavement.

[1] *Bellevue LID Principles Project; May 5, 2015.*

Utilizing the flexibility of the PUD process, the proposed road widths are reduced from the public streets typically required for a conventional subdivision. When coupled with sections of pervious pavers, the proposed roadways reduce stormwater management requirements for detention, and improve infiltration.

Tree Preservation and Canopy Enhancement

Tree canopy preservation is a standard priority of this development design. The proposal advocates the preservation of the high value trees on-site and the planting of new trees as street trees, perimeter buffer plantings and throughout the open space and natural areas. These trees provide essential, physical, individual and environmental benefits including;

- Improved property values,
- Reduced runoff via canopy interception and evapotranspiration back into the atmosphere,
- Reduced soil erosion,
- Improved air quality by reducing pollutants and creating oxygen, and
- Providing shade, food and habitat for a variety of wildlife.

Drainage Integration

The site design is clustered and compliments a long a 270-foot bio-retention system designed to address stormwater requirements while creating a natural and attractive focal point of the overall design. The bio-retention filter system uses native and amended soils along with appropriate plant materials to create a visually pleasing and functional environmental attribute.

Design Features

Architectural Site Planning

The site design is organized in a series of residential building clusters to create “sub-neighborhoods” with the large community. The homes are uniquely designed to provide a variety of mass, color and details through features of variable roof pitch, location of front doors and exterior wall fenestration and color.

Stormwater Management

The proposed stormwater design is dominated by the centralized bio-retention system. This system links a series of five individual cells that achieve the LID stormwater goals as well as fulfill City requirements for on-site stormwater controls. Secondary LID strategies include perforated roof downspout pipes and pervious pavement within the site.

Runoff collected from these drainage features will be routed to a detention vault that is incorporated into the site’s open space amenities. The storm conveyance layout is integrated into the site’s main multi-use recreation and open space area. Detained runoff is treated to fulfil water quality requirements before being discharged to Stream 3.

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Open Space / Landscape

A thoughtful approach to landscaping emphasizes the hardy local native plants of Puget Sound and drought tolerant ornamental plant species that thrive in this region.

The central LID bio-retention feature will be an important neighborhood amenity functioning as a natural landscape and pedestrian corridor integrating native species into the plant palette of suitable plants that tolerate periods of inundation during storm events.

Retaining significant trees along the Lakemont Boulevard frontage will be accomplished by meandering the proposed sidewalk and supplementing the existing trees with similar native conifer and deciduous tree species while recognizing that sight distance and utility requirements may influence the retention plan.

The project site contains several stands of mature trees, especially west of the north-south running Stream 1 bisecting the property. Trees in that area will be placed in a tract or other formally established open space to achieve the required tree retention. Nearly half of the 12 acre site will be retained in this fashion.

A trail connection to the Coal Creek Trail is planned through the stream buffer benched into the slope, descending to the portion of the existing trail currently within the project's property.

SITE FACTORS

Critical Areas and PUD Density Determination

Sheet P2 of the PUD plans identifies and locates the different critical areas impacting the site. These include steep slopes, streams, wetlands, and coal mine hazards. The sheet also presents the standard buffers associated with each critical area, and presents the base density calculations for the property based on the property's base zoning (R-3.5) and critical areas overlay elements per Bellevue Municipal Code 20.25H.045.

Sheet P3 of the PUD plans tabulates how the project utilizes conservation design features and bonus densities to establish the maximum number of units allowed for the proposed PUD. The results indicates the site will support 45 dwelling units, more than the 41 proposed units.

Property and Parcel Configuration

Several alternatives are available to modify the existing property to support the project. Because the project does not propose to create individual lots for the new homes, an underlying subdivision is not appropriate. The following discussion summarizes the recommended approach to achieve project goals. We anticipate the PUD review process will provide an opportunity to consider this approach and identify changes as may be appropriate.

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Existing Parcels

King County established two tax parcels on each of the two lots being developed (four tax parcels total). The King County Assessor's Office established two tax parcels on each lot in order to allow two different tax rates. One rate is reserved for the residential property, the second is for untaxed parkland. The untaxed parkland (Tax Parcel 262405-9056 and 9057) is defined by deed restriction that was granted to prevent development adjacent to the Coal Creek regional trail and park. The City of Bellevue Parks and Community Services Department is the listed tax payer.

These tax parcels are ***not*** distinct lots and cannot be segregated from this development proposal. Refer to the project title report and boundary and topographic survey submitted with the application for additional information.

Proposed Configuration

The PUD proposes to alter the two existing lots to create two tracts. Tract A will be reserved for development purposes owned by the homeowners association. The area will contain houses, utilities, drainage improvements, and community-oriented open space including garden, landscape buffers, picnic areas and the stormwater LID areas.

Each house will be resident-owned with the structure's ground rights established by an individual home site easement over a portion of Tract A. Additional easements will be granted across Tract A for utilities, public use of the private roadways (e.g. deliveries or trash collection), and City access to drainage and other private facilities. Tract A totals 6.349 acres (52% of the property.

Tract Z will contain critical areas and buffers, passive open space such as wildlife corridors, and remain undeveloped. Tract Z totals 5.938 acres (48% of the property). Isola Homes in interested in donating Tract Z to the City of Bellevue. The area represents a significant no-cost acquisition to the City park system.

The greatest benefit derived from this donation stems from the proximity to the Coal Creek Natural Area. Tract Z is adjacent to the existing parkland and would provide the City with control over a short section of the Coal Creek trail that crosses private property. The City would also gain ownership of Stream 1, stream buffers, and remnants of old mine works.

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Development Services Department
Environmental Coordinator
450 110th Avenue NE
Bellevue, WA 98009-9012

MITIGATED DETERMINATION OF NON-SIGNIFICANCE

PROPOSAL NAME:	Park Pointe PUD
LOCATION:	7219 and 7331 Lakemont Blvd. SE
FILE NUMBERS:	16-143970-LK and 16-145946-LO
PROPONENT:	Jeff LePage, Coal Creek Holdings LCC

DESCRIPTION OF PROPOSAL:
Planned Unit Development consisting of 35 single-family detached residences on a 12.2 acre site. The site includes steep slope critical areas, wetlands, streams and coal mine hazard areas. The residential development is concentrated on the eastern 5.9 acres of the site adjacent to Lakemont Blvd SE and the critical areas/critical area buffers on the site are proposed to be contained in a separate 6.3-acre critical areas tract.

The Environmental Coordinator of the City of Bellevue determined that this proposal as conditioned will not have a probable significant adverse impact upon the environment. Without limitation of the foregoing, the City's SEPA analysis specifically evaluated the proposal for any cumulative impacts and did not identify any such impacts that would change the threshold determination set forth herein.

The City uses the Optional DNS Process in WAC 197-11-355 and issued public notice of the application and expected SEPA DNS. The Environmental Coordinator determined that mitigation measures were needed to ensure impacts not addressed by the Land Use Code are mitigated as part of the proposal and requires mitigation measures using the City's SEPA substantive authority per BCC 22.02.140. Required mitigation measures are attached and found in the staff report associated with this determination. This decision was made after the Bellevue Environmental Coordinator reviewed the completed environmental checklist and all information filed with the Land Use Division of the Development Services Department, including without limitation public comments received regarding the proposal. Based upon this review, an Environmental Impact Statement (EIS) is not required under RCW 43.21C.030(2)(C). This information is available to the public on request.

This MDNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the MDNS. There is a 14-day appeal period.

DATE ISSUED: 1/26/2023

APPEAL DATE: 2/9/2023

A written appeal must be filed in the City Clerk's Office by 5 p.m. on the appeal date noted above.

This MDNS may be withdrawn at any time if the proposal is modified so as to have significant adverse environmental impacts; if there is significant new information indicating a proposal's probable significant adverse environmental impacts (unless a non-exempt license has been issued if the proposal is a private project) or if the MDNS was procured by misrepresentation or lack of material disclosure.

Issued By: Elizabeth Stead **for** **Date:** January 26, 2023
Elizabeth Stead, Environmental Coordinator
Development Services Department

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Development Services Department
Environmental Coordinator
450 110th Avenue NE
Bellevue, WA 98009-9012

REQUIRED MITIGATION MEASURES

Any proposal may be conditioned using the City's SEPA substantive authority granted per RCW 43.21C.060 and BCC 22.02.140. The City's Comprehensive Plan polices, including but not limited to the following, provide a basis for the exercise of authority under SEPA to apply the listed conditions of approval to this proposal.

Urban Design and Arts Element, Landmarks and Historic Resources
Policies UD-82, UD-83, and UD-84

Newcastle Subarea Plan, Historic Resources
Goal, Objectives, Intent, and Policies S-NC-27, S-NC-28, and S-NC-29

Environmental Element, Geo Hazards
Policies EN-41 and EN-42

Newcastle Subarea Plan, Natural Determinants
Objective 2 and Policy S-NC-38

Full discussion of these conditions can be found in the associated staff report included with this MDNS.

Archeological Site Protection Plan and Washington State Department of Archaeology & Historic Preservation (DAHP) Site Alteration & Excavation Permit: A site protection plan is required to demonstrate how project grading and construction will avoid impacts and protect the two (2) archeological sites identified as eligible for listing in the National Register of Historic Places. The site protection plan shall be reviewed and approved by DAHP. A DAHP Site Alteration & Excavation Permit may be required if DAHP determines site work may result in potential impacts to the archeological sites.

Authority: SEPA Authority, RCW 27.53 and 27.44
Reviewer: Reilly Pittman, Development Services Department

Monitoring & Inadvertent Discovery Plan (MIDP): The applicant shall develop a project-specific Monitoring & Inadvertent Discovery Plan (MIDP) for the entire site area, and specifically for areas outside of the two eligible archaeological sites. This plan shall be reviewed and approved by the Washington State Department of Archaeology & Historic Preservation (DAHP) prior to issuance of a Clearing & Grading Permit.

Authority: SEPA Authority, RCW 27.53 and 27.44
Reviewer: Reilly Pittman, Development Services Department

Development Services Department
Environmental Coordinator
450 110th Avenue NE
Bellevue, WA 98009-9012

Archeological Training and Reporting: The project archaeologist shall provide training for all on-site workers regarding archaeological laws, how to identify archaeological materials, and how to appropriately report incidental finds. In the event that archaeological materials are encountered during project grading or construction, the project archaeologist shall be immediately notified and work shall be halted in the vicinity of the find until the materials can be inspected and assessed. At that time, the appropriate persons are to be notified of the exact nature and extent of the resource so that measures can be taken to secure them.

Authority: SEPA Authority, RCW 27.53 and 27.44
Reviewer: Reilly Pittman, Development Services Department

Interpretive Signage for Coal Mining History: The applicant shall provide additional interpretive signage to recognize the historic role of Milt Swanson. The location and content of the signage shall be coordinated with the Bellevue Parks Department.

Authority: SEPA Authority
Reviewer: Reilly Pittman, Development Services Depart

Recording of the Planned Unit Development Plan and Disclosure of Coal Mine Hazards: The approved Planned Unit Development plan shall be recorded with King County and shall include information disclosing the potential for coal mine hazards existing on the site.

Authority: SEPA Authority, LUC 20.25H.130
Reviewer: Reilly Pittman, Development Services Department

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DEVELOPMENT SERVICES DEPARTMENT
450 110TH AVENUE NE
BELLEVUE, WA 98009-9012

SEPA Environmental Checklist

If you need assistance in completing the checklist or have any questions regarding the environmental review process, please visit the Land Use Desk in the Permit Center between 8 a.m. and 4 p.m., Monday through Friday (Wednesday, 10 to 4) or call or email the Land Use Division at 425-452-4188 or landusereview@bellevuewa.gov. Assistance for the hearing impaired: Dial 711 (Telecommunications Relay Service).

Purpose of checklist:
The City of Bellevue uses this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:
This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use “not applicable” or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies and reports. Please make complete and accurate answers to these questions to the best of your ability in order to avoid delays.

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

PLEASE REMEMBER TO SIGN THE CHECKLIST. Electronic signatures are also acceptable.

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A. Background [help]

1. Name of proposed project, if applicable: [help]
   Park Pointe PUD & Preliminary Plat
   City of Bellevue Numbers:
   16-145946-LO
   16-143970-LK

2. Name of applicant: [help]
   Mr. Jeff Wegener / ISOLA Homes

3. Address and phone number of applicant and contact person: [help]
   Owner/Applicant:
   Mr. Jeff Wegener
   Isola Homes
   13555 SE 36th Street, Suite 320
   Bellevue, WA 98006
   (206) 737-9700

   Consultant Team:
   Mr. Scott Sherrow
   PACE Engineers
   11255 Kirkland Way, Suite 300
   Kirkland, WA 98033-3417
   (425) 827-2014

4. Date checklist prepared: [help]
   November 30, 2020

5. Agency requesting checklist: [help]
   City of Bellevue

6. Proposed timing or schedule (including phasing, if applicable): [help]
   Phase I site improvements are expected to begin in 2021; homes will be sold in 2021-2022.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. [help]
   None identified at this time.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. [help]
   Critical Areas Report, Geotechnical Assessment Report, Arborist Report, Coal Mine Hazard Report, Supplemental Geotechnical Letter, Coal Creek Stream Typing Study, Cultural Resources Assessment for Park Pointe and Cultural Resources Assessment Addendum, Trip Generation Memorandum, Storm Drainage Report

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9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. [help]
   No

10. List any government approvals or permits that will be needed for your proposal, if known. [help]
    City Land Use Approvals, City Site Development (grading) Permit, City Utility Extension Permits, NPDES Constuction Stormwater General Permit, and State Dept. of Archeology and Historic Preservation review related to potential archologocial resource discovery.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.) [help]
    Residential development of 35 single-family homes on 12.29-acre site. Development will occupy the easterly 5.9 acres of the property, with the remaining 6.3 acres of the site are retained as open space.

    This proposal seeks approval of a proposed Planned Unit Development (PUD).

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. [help]
    The project site includes two existing parcels of land:
    - *King County Parcel 262405-9022 at 7219 Lakemont Boulevard SE (324,544 square feet), and*
    - *King County Parcel 262405-9019 at 7231 Lakemont Boulevard SE (210,678 square feet)*

    Property I located within the SW ¼ of the NE ¼ and the NW ¼ OF SE ¼, SEC 26, TWP 24N, R5E, WM

B. Environmental Elements [help]

1. Earth [help]

a. General description of the site: [help] (select one): ☐Flat, ☒rolling, ☐hilly, ☒steep slopes, ☐mountainous, other: *Click here to enter text.*

b. What is the steepest slope on the site (approximate percent slope)? [help]
   45% (2:1)

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat,

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muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils. [help]

This native soil varied widely in composition across the site, including: silty sand with gravel, sand with gravel, silt with sand and gravel, and silt. Please refer to the Geotech Consultants, Inc. report and amendments.

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

The steep slopes north and west of the proposed development have a potential to experience shallow landslides, which would most likely be triggered by heavy rainfall or surface water directed onto the slope. Please refer to the Geotech Consultants, Inc. Geotechicnical Enginering Study (GES)report.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. [help]

Grading will occur to 'manufacture' the site to provide home building sites within the 5.9-acre development area. Depending on the quality of the site material, the import of fill may be required. Clean structural material will be obtained from local sources.

A comparison of the existing and proposed ground surface levels estimates the total earthwork volumes at approximately 33,000 cubic yards of excavation and 8,300 cubic yards of fill. Balance is 24,700 cubic yards of exported material.

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

Erosion is possible whenever construction activity disturbs ground surface and exposes soils. However, 'Best Management Practices' will be implemented consistent with Washington State and City of Bellevue requirements.

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

The project will create approximately 3 acres of impervious surface. This represents 25% of the 12 -acre project site, and 51% of the approximately 5.9-acre development area.

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

Construction site erosion control measures will be implemented under the Department of Ecology's Construction Stormwater General Permit. The permit mandates specific eorision control measures (Best Management Practices), water quality testing, monitoring of effectiveness, inspection and agency reporting.

2. Air [help]

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known. [help]
Emissions typical of construction activity will result from equipment during construction. Following construction of the homes, vehicles associated with residential development will be present.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. [help]
None known.

c. Proposed measures to reduce or control emissions or other impacts to air, if any: [help]
Sound attenuating equipment will be utilized. Work hours will be limited by city code to reduce impacts.

3. Water [help]

a. Surface Water:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. [help]
Three distinct Type N streams bound the north, west and south edge of the developed area. Coal Creek is a Type F stream forming part of the property's south boundary. Refer to Talasaea Consultant's and Confluence Environmental's reports for additional information.

Additionally, the off-site sewer and water extensions running north in Lakemont Boulevard cross two unnamed streams. Bellevue's stream inventory included in Chapter 11 of the comprehensive plan indicates both are potentially fish bearing (PF). Both streams cross beneath Lakemont Boulevard through 36-inch concrete culverts and are between 15 and 25 feet below the road surface.

The proposed sewer and water mains will have no impact on the culverts or the adjacent type PF streams.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans. [help]
Yes, significant work will occur within 200 feet of the above described waters. Adjacent to the onsite streams, buffer areas will be enhanced in accordance with Talasaea's mitigation plans. Beyond the established

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buffers, the improvements are described in PACE's preliminary engineering plans.

The proposed sewer and water extensions cross the two Lakemont Boulevard type PF streams. These crossings are confined to the road prism where the streams run through culverts and possess no natural stream charachteristics. However, the stream classification may prompt State Department of Fish & Wildlife to require Hydraulic Project Approval for the utility crossings.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material. [help]
None proposed or expected.

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

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. [help]
No. FEMA's Flood Insurance Rate Map of King County (panel 667 of 1725) indicates the Site and adjacent portions of Coal Creek are "determined to be outside 500-year floodplain."

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

b. Ground Water:

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known. [help]
No

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals…; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve. [help]
Not applicable.

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow?

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Will this water flow into other waters? If so, describe. [help]
The Storm Drainage Report (SDR) describes in full detail the collection, conveyance, detention, treatment and discharge of storm water.

2) Could waste materials enter ground or surface waters? If so, generally describe. [help]
No waste materials are expected, however should they be found, BMP measures will be utilized to provide protection.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe. [help]
Refer to Storm Drainage Report

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any: [help]
Refer to Storm Drainage Report

4. Plants [help]

a. Check the types of vegetation found on the site: [help]
☒deciduous tree: alder, maple, aspen, other: *Click here to enter text.*
☒evergreen tree: fir, cedar, pine, other: *Click here to enter text.*
☒shrubs
☒grass
☒pasture
☐crop or grain
☐Orchards, vineyards or other permanent crops.
☒wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other: *Click here to enter text.*
☐water plants: water lily, eelgrass, milfoil, other: *Click here to enter text.*
☐other types of vegetation: *Click here to enter text.*

b. What kind and amount of vegetation will be removed or altered? [help]
Vegetation scheduled for removal includes: lawn, pasture, second growth trees, invasive plants such as blackberries, and assorted shrubs.

c. List threatened and endangered species known to be on or near the site. [help]
None identified.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: [help]
Native plant materials have been included in the Preliminary Landscape design plans and buffer enhancement plans.

e. List all noxious weeds and invasive species known to be on or near the site. [help]
Noxious weed and invasive plant species are described in the critical areas report.

5. Animals [help]

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. [help]

Examples include:

birds: ☒hawk, ☐heron, ☐eagle, ☒songbirds, other: *Click here to enter text.*
mammals: ☒deer, ☒bear, ☐elk, ☐beaver, other: *Click here to enter text.*
fish: ☐bass, ☐salmon, ☐trout, ☐herring, ☐shellfish, other: *Click here to enter text.*

b. List any threatened and endangered species known to be on or near the site. [help]
None identified.

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

d. Proposed measures to preserve or enhance wildlife, if any: [help]
Landscape planting, buffer enhancement. See report by Talasaea Consultants for additional discussion.

e. List any invasive animal species known to be on or near the site. [help]
None known.

6. Energy and Natural Resources [help]

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. [help]
Electricity and natural gas. Homeowners may elect to use wood burning stoves.

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

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any: [help]
The homebuilder may elect to use low-flow water fixtures and other "Built-Green" items.

7. Environmental Health [help]

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. [help]
No

1) Describe any known or possible contamination at the site from present or past uses.

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[help]
None

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity. [help]
None known.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project. [help]
None

4) Describe special emergency services that might be required. [help]
None

5) Proposed measures to reduce or control environmental health hazards, if any: [help]
Environmental health is a priority. Standard construction methods and activities will employ Best Management Practices.

b. Noise [help]

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? [help]
Existing noise is typical of existing urban areas.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indi-cate what hours noise would come from the site. [help]
Short-term: Construction equipment during permitted daylight hours. Long-term: Noise typical of residential neighborhoods.

3) Proposed measures to reduce or control noise impacts, if any: [help]
Typical sound mitigation equipment.

8. Land and Shoreline Use [help]

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. [help]
The site and adjacent properties are low-density residential

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use? [help]
The site has been used for occasional grazing. No current farming activity.

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1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how: [help]
No.

c. Describe any structures on the site. [help]
Existing structures include two aging residential structures and associated sheds.

d. Will any structures be demolished? If so, what? [help]
All buildings within the development area will be removed.

e. What is the current zoning classification of the site? [help]
Residential R-1 and R-3.5

f. What is the current comprehensive plan designation of the site? [help]
Residential single-family medium.

g. If applicable, what is the current shoreline master program designation of the site? [help]
Not applicable.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify. [help]
Yes. Regulated critical areas include streams, wetlands, steep slopes and coal mine hazards.

i. Approximately how many people would reside or work in the completed project? [help]
35 homes x 2.5/home = 88+

j. Approximately how many people would the completed project displace? [help]
1-4 people

k. Proposed measures to avoid or reduce displacement impacts, if any: [help]
None

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: [help]
Homes will be designed to be architecturally pleasing and consistent with the surrounding residential neighborhoods. Refer to preliminary architectural plans for additional information.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any: [help]
Native planting has been incorporated into the perimeter design to be compatible with surrounding natural park land.

DSD - 000399

9. Housing [help]

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. [help]
35 homes will be built, priced in the middle income range for Bellevue.

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

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

10. Aesthetics [help]

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? [help]
35 feet to ridgeline. The exteriors are likely to be cedar or visually equal.

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

c. Proposed measures to reduce or control aesthetic impacts, if any: [help]
Aesthetics are a high priority to the builder, therefore, great attention is given to the architectural design and site landscape treatment. Please refer to the previously submitted conceptual plans.

11. Light and Glare [help]

a. What type of light or glare will the proposal produce? What time of day would it mainly occur? [help]
No unusual light or glare is anticipated.

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

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

d. Proposed measures to reduce or control light and glare impacts, if any: [help]
Street lights are required. Lighting will have directive shields to limit and control glare.

12. Recreation [help]

a. What designated and informal recreational opportunities are in the immediate vicinity? [help]
Cougar Mountain Regional Park, Newcastle Golf Club, Lakemont Highlands Neighborhood Park and Lewis Creek Park as well as generous hiking trails.

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

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [help]
The proposal will provide on-site recreation areas and trails that will provide a walking connection to Coal Creek Regional Park corridor and the Cougar Mountain Park.

13. Historic and cultural preservation [help]

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe. [help]
Yes. Refer to the Cultural Resources Assessment and Addendum prepared by Tierra Right-of-Way

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. [help]
The historic coal mine activity may represent local cultural value. Refer to reporting prepared by Tierra Right-of-Way.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc. [help]
A Cultural Resources Assessment and Addendum was prepared by Tierra Right-of-Way

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required. [help]
The historic coal mine remnants will not be disturbed. They are located deeply below and out of the development area. Project construction will only impart areas that have undergone significant disruption through farming and clearing.

14. Transportation [help]

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any. [help]
Lakemont Boulevard provides public R.O.W. to the site.

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b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? [help]
Prior to Covid King County Metro Bus Route 824 passes the property but does not presently stop near the project site.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? [help]
Approximately 105 parking spaces, including 70 garage stalls, 5 on-street spaces, and potentially up to 30 driveway spaces.

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private). [help]
Yes, new private roadways within the PUD will be constructed, and Lakemont Blvd will be improved.

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

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates? [help]
Gibson Traffic Consultants Inc. determined the project will produce 304 trips per day, and 32 PM peak hour trips.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe. [help]
No.

h. Proposed measures to reduce or control transportation impacts, if any: [help]
The homebuilder will encourage carpool, use of park and ride facilities, as well as public transit.

15. Public Services [help]

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. [help]
Yes, typical of residential.

b. Proposed measures to reduce or control direct impacts on public services, if any. [help]
Homeowners will pay King County property taxes, and project developer will be assessed impact fees.

16. Utilities [help]

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

other
RESPONSE – Electricity, natural gas, water, refuse service, telephone, sanitary sewer

c. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed. [help]
The development will construct extensions of water and sanitary sewer from about 1,400 LF north of the property.

C. Signature [help]

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

Signature:_____

Name of signee: *Scott Sherrow, PE*
Position and Agency/Organization: *Project Principal, PACE Engineers, Inc.*
Date Submitted: *November 30, 2020*

DSD - 000403

CRITICAL AREAS REPORT, HABITAT EVALUATION, AND CONCEPTUAL MITIGATION PLAN

PARK POINTE PUD
PERMIT #: 15-115585-DB, 16-143970-LK, AND 16-145946-LO

BELLEVUE, WASHINGTON

Prepared For:
ISOLA REAL ESTATE 111, LLC
Bellevue, Washington

Prepared By:
TALASAEA CONSULTANTS, INC.
Woodinville, Washington

17 May 2017
(Revised 11 January 2023)

DSD - 000404

Critical Areas Report, Habitat Evaluation, and Conceptual Mitigation Plan

Park Pointe PUD
Permit #: 15-115585-DB, 16-143970-LK, and 16-145946-LO

Bellevue, Washington

Prepared For:
Isola Real Estate 111, LLC
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17 May 2017
(Revised 11 January 2023)

DSD - 000405

EXECUTIVE SUMMARY

PROJECT NAME: Park Pointe PUD

CLIENT: Isola Real Estate 111, LLC, Mr. Jeff Wegener

SITE LOCATION: The Park Pointe PUD site is an assemblage of two tax parcels located at 7219 and 7331 Lakemont Boulevard SE, Bellevue, Washington. The tax parcel numbers are 2624059022 (Parcel A) and 2624059019 (Parcel B). The Public Land Survey System (PLSS) location of the Property is E ½ Section 26, Township 24N, Range 5E, W. M.

PROJECT STAFF: Bill Shiels, Principal; Ann Olsen, RLA, Senior Project Manager; David R. Teesdale, PWS, Senior Wetland Ecologist.

FIELD SURVEY: Site evaluations and critical area delineations were performed on 20 May 2015, 5 and 7 August 2015, and 3 March 2017.

CRITICAL AREAS DETERMINATION: Three wetlands and four streams were identified on, or adjacent to, the property. The wetlands were named Wetland A, Wetland AA, and Wetland B. Wetlands A and B are rated as a Category III wetlands with a 60-foot standard buffer. Wetland AA was later determined to be part of a sedimentation pond constructed in Stream 2 near the outfall of the culvert under Lakemont Boulevard. The gravel deposition in this sedimentation pond is removed on a five-year schedule. Therefore, Wetland AA is not a regulated feature. The four streams are Coal Creek, Stream 1, Stream 2, and Stream 3. Coal Creek flows along the southwestern boundary of the site and is a Type F based on physical parameters rather than observed fish presence. Streams 1, 2, and 3 are classified as Type N. Stream 1 flows out of Parcel A approximately 70 feet west of the northwest corner of Parcel B and into Coal Creek approximately 60 feet to the south. Stream 2 flows adjacent to the northern boundary of Parcel A for approximately 2,850 linear feet before commingling with Stream 1. Stream 3 is adjacent offsite of the southern boundary of the project site and flows into Coal Creek. Type F waters in the City of Bellevue have a 100-foot standard buffer, while Type N waters have a 50-foot standard buffer.

VEGETATION: The eastern portion of Parcel A is maintained as mowed lawn or horse pasture. The western portion of Parcel A is undeveloped and vegetated with mixed deciduous and coniferous forest. The vegetation on Parcel B is currently maintained as pasture with some trees and blackberries along the south and west property boundaries. Vegetation within Wetland A includes salmonberry, highbush cranberry, lady fern, field horsetail, and big-leaf sedge. Vegetation within Wetland B consists predominantly of Nootka rose, equisetum, buttercup, and various pasture grasses. Typical upland vegetation includes red alder, black cottonwood, Douglas fir, western redcedar, Indian plum, Himalayan blackberry, and sword fern.

SOILS: The Natural Resources Conservation Service has mapped two soil types on the subject property. These soils are Beausite gravelly sandy loam, 6-15% slopes, and Alderwood-Kitsap gravelly sandy loam. These soils are not considered to be hydric by the National Technical Committee on Hydric Soils. Slopes and geological characteristics are not included in this report. These are discussed in documents prepared by Geotech Consultants, Inc. (Geotechnical Engineering Study, January 19, 2016 and Geotechnical Supplemental Letter, March 29, 2017).

HYDROLOGY: Hydrology for Wetland A is supported primarily by shallow groundwater and seepage from a steep slope to the east of the wetland. Hydrology for Wetland B is supported by shallow groundwater seepage.

HABITAT ASSESSMENT: The western half of Parcel A is forested, does not contain wetlands, and is adjacent to the City of Bellevue Coal Creek Natural Area. The eastern half of Parcel A is maintained as lawn or horse pasture. All of Parcel B is developed with a single-family residence and associated outbuildings and surrounded by horse pasture.

The project site (Parcels A and B) was assessed for habitat potential using the City of Bellevue's Urban Wildlife Habitat Functional Assessment Model. The site scored high for habitat value due to its forested component and adjacency to relatively intact forested natural areas.

We evaluated the habitat potential of the site against the City of Bellevue's list of species of local importance. Of the 23 species of local importance listed by City of Bellevue code, only six were determined

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to have a likelihood of being present on the Site. These species are bald eagle (migration only), pileated woodpecker, red-tailed hawk, Townsend's big-eared bat, Keen's myotis, and the long-eared myotis. Townsend's big-eared bat is a Federally-listed species of concern and a State-listed candidate species. Pileated woodpecker is a State-listed Candidate species.

PROPOSED PROJECT: Isola Real Estate 111, LLC is proposing to develop the Site as a Planned Unit Development (PUD). The development will consist of 35 single-family residences with associated roads, trails, and utilities. All development will occur on the eastern portion of the property. Approximately 6 acres of the 12.29-acre Site will be developed. An on-site stormwater facility will include perforated downspout connections, flow control in a detention vault, and treatment of the runoff utilizing a proven media filtration structure. Treated stormwater will be released via a gravity outlet pipe that discharges into Stream 1 through a gabion basket energy dissipator to be located approximately 7 feet from the OHWM. The proposed site development plan is innovative in providing the allowable development while avoiding impacts to the maximum extent practicable.

ASSESSMENT OF DEVELOPMENTAL IMPACTS: No direct impacts to the wetlands or streams are proposed with this Project. The Project is proposing reduced buffer widths for the streams and steep slopes to accommodate the development footprint, as well as minor buffer encroachments for City-required right-of-way improvements along Lakemont Blvd SE. In addition, a soft-surface trail will be constructed in the buffer to connect to an existing trail system in the Coal Creek Natural Area and construction of a gravity flow stormwater discharge pipe will result in impacts to buffers due to manholes & a gabion basket energy dissipator.

Structure setbacks will also be reduced slightly to a width that remains functional to preclude structures adjacent to critical areas, while still accommodating the proposed development. This structure setback reduction reduces encroachments into the stream buffers. The total structural setback area reduction is 5,426 sf. Total buffer reductions and construction impacts are as follows:

• Reduced Stream Buffer for Right-of-Way Improvements:	114 sf
• Reduced Stream Buffers:	10,256 sf
• Reduced Steep Slope Buffers:	3,975 sf
• Combined Reduced Stream & Steep Slope Buffers:	7,230 sf
TOTAL BUFFER REDUCTION AREA	**21,575 sf**
• Soft-Surface Trail:	2,161 sf
• Gabion Basket Energy Dissipator:	104 sf
• Temporary Construction Impacts for Stormwater Outfall:	646 sf
TOTAL OTHER IMPACTS TO BUFFERS	**2,911 sf**

PROPOSED MITIGATION: The project proposes a combination of several different mitigation measures intended to compensate for buffer functions and values lost through reduced buffer widths and dedication to trails or ROW. The proposed mitigation will result in a net gain in critical area functions and values compared to existing conditions. The total mitigation proposed represents a 5:1 mitigation-to-impact ratio and consists of:

• Buffer Enhancement/Restoration/Re-establishment:	128,934 sf
• Enhanced Buffer Addition (beyond stream and steep slope standard buffers):	1,889 sf
TOTAL BUFFER MITIGATION AREA	**130,823 sf**
• Preserved Critical Areas (Coal Creek, Streams 1 & 2, & Wetlands A, AA & B):	12,684 sf
• Preserved Critical Area Buffer Habitat Areas:	104,267 sf
• Preserved Wildlife Corridor (Non-compensatory Habitat Conservation):	23,675 sf
ADDITIONAL HABITAT AREA:	**140,626 sf**

Critical Area Protection: All post-construction critical areas will be permanently protected with fencing and NGPA signs consistent with City Bellevue guidelines and placed in a dedicated easement.

Performance Monitoring: All mitigation areas will be monitored and maintained for a minimum of 5 years to ensure all goals, objectives, and performance standards are met.

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Appendix F: Park Pointe Coal Creek Typing Study, Confluence Environmental Company, May 11, 2017
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Chapter 1. INTRODUCTION

1.1 Report Purpose

This report is the result of a critical areas study and habitat evaluation of the Park Pointe PUD property located at 7219 and 7331 Lakemont Boulevard SE (referred to as "Site" hereinafter). The Site is situated in Bellevue, Washington (**Figure 1**). The purpose of this report is to identify, describe, and categorize critical areas and wildlife habitats located on or adjacent to the Site, to assess the impacts of the proposed development by Isola Real Estate 111, LLC, and then to provide a mitigation plan that meets the requirements of the City of Bellevue.

The site contains wetlands, streams, steep slopes, and their associated setbacks and buffers. The project proposes to merge a combination of critical area mitigation approaches recommended by the City, creative enhancement methods that provide the requisite benefits of critical area buffers within a modified footprint, and the flexibility inherent in Planned Unit Development (PUD) regulatory review.

The report has been prepared to comply with the reporting requirements of City of Bellevue Code §20.25H.075 and §20.25H.090. Specifically, this report provides the following information:

- Property Overview;
- Methodology for Critical Areas Investigations;
- Review and Evaluation of Existing Resource Information;
- Review and Evaluation of On-Site Critical Areas and Habitats;
- Analysis of Critical Area Regulations;
- Habitat Functional Assessment;
- Site Development Plan Description;
- Assessment of Development Impacts;
- Proposed Mitigation;
- Construction Sequencing;
- Monitoring, Maintenance and Contingency Plan;
- Post-monitoring Vegetation Management;
- Financial Guarantee; and
- Summary.

1.2 Statement of Accuracy

The critical area studies and regulatory reviews were conducted by trained professionals of Talasaea Consultants, Inc., in adherence to the protocols, guidelines, and generally accepted industry standards available at the time work was performed. The conclusions in this report are based on the results of analyses performed by Talasaea Consultants and represent our best professional judgment. To that extent, and within the limitations of project scope and budget, we believe the information provided herein is accurate and true to the best of our knowledge. Talasaea Consultants does not warrant any assumptions or conclusions not expressly made in this report or based on information or analyses other than what is included herein.

1.3 Qualifications

Field investigations and evaluations were conducted by David R. Teesdale, Senior Ecologist. David Teesdale has a Bachelor's Degree in Biology from Grinnell College, Iowa, and a Master's Degree in Ecology from Illinois State University. He has 21 years of experience in wetland delineations and biological evaluations. Buffer mitigation design was prepared by Ann Olsen, RLA. Ann has over 25 years of experience in designing critical area mitigation plans.

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Chapter 2. PROPERTY OVERVIEW

2.1 Property Description and Location

The Site is an assemblage of two tax parcels (**Figure 2**). The tax parcel numbers are 2624059022 (Parcel A, 7.45 acres) and 2624059019 (Parcel B, 4.84 acres). The total area of the Site is 12.29 acres in size. The Public Land Survey System (PLSS) location of the Site is E ½ Section 26, Township 24N, Range 5E, W. M.

2.2 Existing Conditions

The Site is an irregularly-shaped assemblage of two parcels located on the west side of Lakemont Boulevard SE within the City of Bellevue, Washington (**Figure 2**). The eastern ½ of Parcel A is developed with two residences and an outbuilding with mowed lawn or pasture extending from the northeast property corner to a steep-walled ravine. The western portion of Parcel A (to the west of the ravine) is in a relatively natural state and vegetated with mixed deciduous and coniferous forest. Remnant coal tailings are present within this area, though little native vegetation grows over the coal tailings. Parcel B is developed with one single-family residence and several outbuildings. The single-family residence was constructed in 1918, based on King County Parcel records. The remainder of the parcel is maintained as pasture for horses, although parts of Parcel B appear to be fallow.

The Site is bordered on the east side by Lakemont Boulevard SE and to the south, west, and north by City of Bellevue Parks Department property (Coal Creek Natural Area). Access to the Site is provided by three driveways off Lakemont Boulevard SE. Two driveways are located on Parcel A and the third is located on Parcel B.

The topography of the Site is variable based on location. The existing topographic site conditions of the two parcels will be discussed separately in **Sections 2.2.1** and **2.2.3**, below. Conditions of the geology and surface of the site are discussed in a separate study by Geotech Consultants, Inc. (Geotech 2016), provided in **Appendix A1** and a supplemental letter in 2017 (Geotech 2017), provided in **Appendix A2**. For this report, the term “vicinity” shall mean an area within ½ mile of the Site.

2.2.1 Historical Land Use

The land within the vicinity of the Site was historically part of a larger active coal mining operation from circa 1879 to circa 1930 called Red Town. Intermittent coal mining occurred up to circa 1960. In the Coal Mine Hazard Assessment and Ground Proofing Report prepared by Icicle Creek Engineers (Icicle Creek 2016), the existence and extent of three different coal mines under the Site are mapped and discussed (**Appendix B**). It should be noted that this report does not address geotechnical or mining issues and their critical areas. Interaction of any critical area boundaries was coordinated by the Pace Engineers in the site design process.

Between 1936 and 1964[1], Parcel B appears to have changed usage from primarily a single-family residence to include farming and pasture. The first residence on Parcel A was constructed in 1949. The second residence was constructed in 1964. By 1964, the eastern portion of Parcel A was cleared. Usage of the Site does not appear to have changed significantly since 1964.

2.2.2 Topographic Discussion of Parcel A

Parcel A has a steep-walled ravine splitting it essentially in half. The ravine crosses the parcel from near the middle of the north property boundary in a southwesterly direction to a point approximately 220 feet east of the parcel’s southwest corner. This feature effectively separates

[1] There appears to be a gap in available aerial photography between 1936 and 1964, based on online aerial imagery resources.

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the eastern ½ from the western ½ in terms of development potential. Therefore, these two portions of Parcel A will be discussed separately.

The topography of the eastern ½ of Parcel A is relatively flat to slightly rolling. A large mound of soil is located approximately in the middle of the parcel and east of the ravine's edge. The location and shape of this mound suggest that it may be the result of fill placement in the past.

Drainage on the eastern ½ of Parcel A is generally to the south-southwest, except near the ravine, where drainage flows generally in a northwesterly direction towards the northern ravine associated with Stream 2.

The ravine is between 160 to 200 feet wide, measured at the top-of-slope. It is up to 50 feet deep in parts and bordered by slopes greater than 33%. The ravine contains a perennial stream. The bottom of the ravine near the northern boundary of Parcel A is generally flat-bottomed but narrowing to the width of the active channel near the ravine's southernmost extent.

A second, smaller ravine is located along Parcel A's northern boundary. This ravine also contains a small stream that flows in a westerly direction from a culvert under Lakemont Boulevard SE. This smaller ravine and associated stream connect to the larger ravine approximately at the midpoint of Parcel A's northern boundary.

The topography of the western ½ of Parcel A rises from Coal Creek at the southwestern corner of the parcel to near the northern property boundary. Drainage from the high ground on the western ½ of Parcel A is split with a portion flowing to the southeast towards the ravine and the remainder flowing to the southwest.

2.2.3 Topographic Discussion of Parcel B

The topography of Parcel B is generally rolling. Drainage on Parcel B generally flows to the southwest towards Coal Creek. A small portion flows into a deep ravine located offsite adjacent to the parcel's southern boundary.

Chapter 3. METHODOLOGY

The critical areas analysis of the Site involved a two-part effort. The first part consisted of a preliminary assessment of the Site and immediate surrounding area using published environmental information. This information included:

1. Wetland and soils information from resource agencies;
2. Environmental critical areas information from the City of Bellevue and King County;
3. GIS analysis of orthophotography and LIDAR data; and
4. Relevant studies completed or ongoing on, or in the vicinity of, the Site as supplied by the Client.

The second part consisted of site investigations where direct observations of existing environmental conditions were made. Plant communities, soils, hydrology, stream, and wildlife habitat conditions were observed. This information was used to help characterize on-site wetlands and define the limits of the Ordinary High-Water Mark (OHWM) of streams for regulatory purposes (see **Section 3.2 – Field Investigation**, below)

3.1 Background Data Reviewed

Background information from the following sources was used prior to our field investigations:

- US Fish and Wildlife Service (USFWS), Wetlands Online Mapper (National Wetlands Inventory, NWI) (USFWS 2017) (https://www.fws.gov/wetlands/data/Mapper.html);
- Natural Resources Conservation Service (NRCS), Web Soil Survey (NRCS 2017) (www.websoilsurvey.nrcs.usda.gov/app/);

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- NRCS, State Soil Data Access (SDA) Hydric Soils List by State (NRCS 2017) (https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcseprd1316619.html);
- City of Bellevue GIS databases (City of Bellevue, 2017);
- King County GIS databases (King County, 2017);
- StreamNet database, 2017 (www.streamnet.org);
- SalmonScape database, 2017 (www.wdfw.wa.gov/mapping/salmonscape/databases);
- Washington State Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) Database on the Web (WDFW 2017) (http://wdfw.wa.gov/mapping/phs/);
- Washington Department of Natural Resources (WDNR) Natural Heritage Database;
- Orthophotography from USDA's National Agricultural Imagery Program (NAIP 2017), EarthExplorer (https://earthexplorer.usgs.gov/), HistoricAerials (https://www.historicaerials.com/), and Google Earth; and
- LiDAR terrain data from Puget Sound LiDAR Consortium, King County, and the Washington LiDAR Portal.

3.2 Field Investigation

The Site was initially evaluated by Talasaea Consultants, Inc. on 20 May 2015. The purpose of this initial evaluation was to assess the potential extent of critical habitat on Parcel A[2]. Subsequently, we provided the Client with a letter report detailing the on-site critical areas and our understanding of the ability of Parcel A to provide habitat for wildlife.

The Site, now including Parcel A, Parcel B, and Coal Creek, was evaluated on 5 and 7 August 2015 by Talasaea Consultants. An assessment of the potential fish habitat of Coal Creek was made on 5 August 2015. The locations of natural fish passage barriers were mapped by photographing the barrier with a GPS-enabled smartphone. The limits of wetland areas and OHWM of on-site streams were delineated and flagged during the 7 August 2015 site work. Additional assessments of wildlife habitat were made during the 7 August 2015 site work. A detailed site visit of Parcel B was conducted on 3 March 2017 to identify and delineate relevant segments of Stream 3 south of the Site and Coal Creek to properly evaluate their impacts to the Site.

Wetlands were delineated using the routine methodology described in the U.S. Army Corps of Engineers *Regional Supplement to the Corps of Engineers Wetland Delineation and Identification Manual: Western Mountains, Valleys, and Coast Region, Version 2* (U.S. Army Corps of Engineers 2010). Wetlands were rated using the Washington State Wetland Rating System for Western Washington (Hruby 2006), and buffers were assigned according to City of Bellevue Municipal Code (§20.25H.095.B). The OHWM of streams were delineated using the methodology described in *Determining the Ordinary High-Water Mark on Streams in Washington State* (Olson and Stockdale, 2010)[3]. Physical barriers to fish migration and typing of on-site streams were determined using the water typing criteria provided under WAC 222-16-030.

Plant species were identified according to the taxonomy of Hitchcock and Cronquist (Hitchcock and Cronquist 1973).[4] Taxonomic names were updated, and plant wetland status was assigned according to the *North American Digital Flora: National Wetland Plant List, Version 2.4.0* (Lichvar 2012). Wetland classes were determined with the U.S. Fish and Wildlife Service's

[2] Parcel B was not yet under contract by the Client.
[3] Since the time of our initial field work, this document has been updated. The results of our OHWM delineation are consistent with the new manual.
[4] Since the time of our initial field work, this document has been updated. The results of our field review are consistent with the updated 2018 version.

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system of wetland classification (Cowardin et al. 1979). Vegetation was considered hydrophytic if greater than 50% of the dominant plant species had a wetland indicator status of facultative or wetter (i.e., facultative, facultative wetland, or obligate wetland).

Wetland hydrology was determined based on the presence of hydrologic indicators listed in the Corps' Regional Supplement. These indicators are separated into Primary Indicators and Secondary Indicators. To confirm the presence of wetland hydrology, one Primary Indicator or two Secondary Indicators must be demonstrated. Indicators of wetland hydrology may include but are not necessarily limited to drainage patterns, drift lines, sediment deposition, watermarks, stream gauge data and flood predictions, historical records, visual observation of saturated soils, and visual observation of inundation.

Soils were considered hydric if one or more of the hydric indicators listed in the Corps' Regional Supplement are present. Indicators include the presence of organic soils, reduced, depleted, or gleyed soils, or redoximorphic features in association with reduced soils.

An evaluation of patterns of vegetation, soil, and hydrology was made along the interface of wetland and upland. Wetland boundary points were delineated and flagged for later survey. **Appendix C** contains data forms prepared by Talasaea for representative locations in both upland and wetland locations. These data forms document the vegetation, soil, and hydrology information that aided in the wetland boundary determination. **Appendix D** contains the DOE wetland rating forms.

Chapter 4. RESULTS

4.1 Analysis of Resource Information

This section describes the results of our in-house research and field investigations.

4.1.1 National Wetland Inventory

The National Wetland Inventory map for the Mercer Island and Issaquah quadrangles does not map any wetlands on or adjacent to the Site. One wetland (a palustrine emergent, temporarily flooded wetland, PEMA) is mapped approximately 0.4 miles northeast of the Site.

4.1.2 Natural Resources Conservation Service

The Natural Resources Conservation Service maps two soil types on the Site (**Figure 3**). These are Beausite gravelly sandy loam 6-15% slopes and Alderwood-Kitsap soil, very steep. The Beausite gravelly sandy loam 6-15% slopes comprises approximately ¾ of the Site. The Alderwood-Kitsap map unit is located in the western third of Parcel A. Soils within the Beausite and Alderwood-Kitsap series are not considered to be hydric soils by the National Technical Committee on Hydric Soils.

4.1.3 King County Critical Areas Map

King County GIS maps three streams and no wetlands on the Site. One stream is mapped flowing onto the site from approximately the midpoint of the northern boundary for Parcel A. It flows in a southwesterly direction and exits the Site at the southwestern corner of Parcel A. This feature is consistent with the Project's Stream 1. One stream is mapped flowing onto the site near the northeast corner of Parcel A. It flows in a westerly direction and joins Stream 1 near where Stream 1 flows onto the Site. This feature is consistent with Stream 2. The third stream appears to flow across the southeast corner of Parcel B, then flows in a westerly direction roughly parallel with the south property boundary of Parcel B. This feature is consistent with Stream 3, though this stream was not delineated as occurring within the Site. Both Stream 1 and Stream 3 flow into Coal Creek. Coal Creek flows along portions of the western edge of the project site, partially occurring within the Site.

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4.1.4 City of Bellevue Critical Areas Maps

The City of Bellevue GIS database maps three streams and no wetlands on the Site (**Figure 4**). The streams appear to be roughly analogous to those mapped by King County.

4.2 Analysis of Existing Site Conditions

Talasaea Consultants identified three wetlands and four streams on or adjacent to the Site (**Appendix E, Sheet W1.0**). The wetlands were delineated and marked in the field with surveyor tape. The OHWM of all four streams were delineated and identified with orange wire flags. The wetlands were labeled as Wetland A, Wetland AA, and Wetland B. Stream 1, Stream 2, and Coal Creek occur at least partially within the Site, while Stream 3 occurs adjacent to the southern Site boundary. Coal Creek receives water directly from Streams 1 and 3.

As discussed in **Section 2.2**, a potentially developable area of upland also exists on the Site, located to the west of Stream 1. Access to this western portion of the property would be challenging due to the ravine that contains Stream 1. Access to this portion of Parcel A from the north would require obtaining an access easement from the City of Bellevue Parks Department. The primary focus of this study is in the context of the larger developable area to the east of Stream 1 and adjoining ecological critical areas and their buffers; thus, minimal attention is given to the western portion of Parcel A, except to note that this portion provides significant value to wildlife and will be left as is.

4.2.1 Wetlands

Wetland A

Wetland A is a small (approximately 4,964 sf) depressional scrub-shrub wetland located within a terrace at the confluence of Streams 1 and 2 at the base of a deep (approximately 30 feet) steep-walled ravine. The wetland, itself, is relatively flat and level. However, there appears to be a remnant channel located against the slope that was ponded at the time of our site visit.

Wetland A is vegetated predominantly by salmonberry (*Rubus spectabilis*) and highbush cranberry (*Viburnum edule*), with lady fern (*Athyrium filix-femina*), piggyback plant (*Tolmea menziesii*), field horsetail (*Equisetum arvense*), and big-leaf sedge (*Carex amplifolia*) comprising the herbaceous stratum. Upland vegetation includes big-leaf maple (*Acer macrophyllum*), western redcedar (*Thuja plicata*), Indian plum (*Oemleria cerasiformis*), and sword fern (*Polystichum munitum*).

Soils within Wetland A are dark gray to dark grayish brown sandy loam. Redoximorphic features were present starting at six inches below the soil surface. The soil within the boundary of Wetland A satisfied the general requirements for the F3 (Depleted Matrix) hydric soil indicator.

Soils within the wetland were saturated to within one inch of the soil surface at the time of our site evaluation. The water table was observed at ten inches below the soil surface. Saturated soils during the growing season satisfies Hydrology Indicator A3 (Saturation).

It is possible that Wetland A could receive overland flooding from either of the two streams at a frequency of at least once every two years. However, the wetland also contains an area that permits ponding during parts of the growing season. Since it meets the general requirements for both a depressional and riverine wetland, it was rated as depressional, per the guidance provided on Page 38 of the Washington State Wetland Rating System for Western Washington (Hruby 2014).

Wetland A rated 7 points for Water Quality Functions, 6 points for Hydrology Functions, and 5 points for Habitat Functions. The Total Score for Functions is 18, which satisfies the requirements for classification as a Category III wetland. Category III wetlands in the City of Bellevue with a Habitat Score of 5 or less have a 60-foot standard buffer.

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Wetland AA

Wetland AA is a small (approximately 199 sf onsite) emergent wetland located adjacent to the OHWM of Stream 2 (**Photo 1**). Approximately half of this wetland is on the Site. The wetland and stream are in a relatively deep (approximately 14 feet), steep-walled ravine. The wetland is relatively flat and level.

Photo 1. Stream 2 with Gravel Deposits (20 May 2015)
(Photo viewing northwest near culvert under Lakemont Boulevard. Gravel bar is present. Maintenance road is visible on the right bank of Stream 2)

The wetland is sparsely vegetated with emergent plants. Plants include tall mannagrass (*Glyceria elata*), American brooklime (*Veronica americana*), and creeping buttercup (*Ranunculus repens*). However, most of the wetland lacked vegetation.

Soils within the wetland were consistent with recently deposited fine sand and silt. The soil has not had the opportunity to develop soil horizons or hydric soil characteristics due to its location within an active floodplain. Soils were saturated to the surface at the time of our site investigation.

We noted during a Site review on 11 December 2017 that Wetland AA no longer existed (**Photo 2** and **Photo** 3). By 1 December 2022, the wetland appeared to have returned albeit without an abundance of wetland-adapted vegetation (**Photo 4)**. Also during our 1 December 2022 review, we noted the presence of a maintenance road off of Lakemont Boulevard on the right side of Stream 2. Access to this maintenance road is restricted by wooden bollards. The road is constructed of crushed rock leading down to Stream 2. The right bank of Stream 2 is armored with riprap.

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Photo 2. Outfall of Sedimentation Pond on Stream 2 (11 December 2017)
(Photo viewing northeast towards the maintenance road.)

Photo 3. Stream 2 Sediment Pond showing No Wetland (11 December 2017)
(Photo viewing east towards culvert under Lakemont Boulevard. Gravel bar is missing.)

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Photo 4. Gravel Bar on Left Bank of Stream 2 (1 December 2022)
(Photo taken near outfall of the culvert under Lakemont Boulevard, viewing west.)

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The disappearance and reappearance of Wetland AA led us to question whether it is a regulated feature or not. We learned through conversations with the City of Bellevue Public Works Department that the area in question is maintained as a sediment trap and is cleaned out on a five-year schedule. Due to periodic dredging of the sedimentation pond, we conclude that Wetland AA is not a regulated feature based on our interpretation of the current WOTUS rule ("Title 40 CFR Part 120 - Definitions of Waters of the United States, Part 120,"). Stream 1 at the outfall of the culvert under Lakemont Boulevard has been altered to act as a sedimentation pond. The pond captures sediments that would eventually migrate into Coal Creek. Coal Creek also has similar sedimentation ponds upstream of where Coal Creek flows under I-405. The current WOTUS rule excludes "settling basins" as a regulated feature. We believe that the constructed pond on Stream 2 meets the general definition of a settling basin. Since it is dredged on a five-year basis, the gravel bar that develops is not a regulated feature (an artificial feature that is left unmaintained for more than five years can become a regulated feature).

Wetland B

Wetland B is a relatively small (approximately 41 sf) wetland located near the southwest boundary of Parcel B. It is an emergent slope wetland that generally drains to the southwest towards Coal Creek. Vegetation in Wetland B consists predominantly of various pasture grasses, *Equisetum* sp., creeping buttercup, and Nootka rose (*Rosa nutkana*). Hydrology for Wetland B appears to be supported, for the most part, by groundwater seepage and overland flow.

Wetland B scored 6 points for Water Quality Functions, 6 points for Hydrology Functions, and 5 points for Habitat Functions. The Total Score for Functions is 17, which satisfies the requirements as a Category III wetland. Per §20.25H.095.B, Category III wetlands in the City of Bellevue with a Habitat Score of 5 or less have a 60-ft standard buffer. The buffer for Wetland B is entirely within the buffer for Coal Creek.

4.2.2 Streams

Four streams that could potentially affect site development were identified on or adjacent to the Site. Coal Creek forms a portion of the southwestern edge of the Site but is largely off-site. It will have a buffer that extends onto the southwestern portion of the Site. Stream 3 is located off property to the south of Parcel B but is sufficiently close to have a buffer extending onto the Site. Stream 1 flows within the aforementioned ravine in a southwesterly direction. Stream 2 flows in a westerly direction generally along the north property boundary of Parcel A from a culvert under Lakemont Boulevard SE. Stream 2 joins with Stream 1 where Stream 1 crosses Parcel A's northern property boundary.

Buffer widths for streams within the City of Bellevue are based on water typing. Buffers are measured landward from the top-of-bank. In some cases, the top-of-bank is synonymous with the OHWM. However, if a steep slope area (defined as greater than 33% slope) exists adjacent to a stream, then the stream buffer is measured from the point on the landscape where the slope is less than 33% for at least 50 linear feet.

Coal Creek

Coal Creek has its headwaters southeast of the site in the Cougar Mountain Park Natural Area and flows generally to the northeast through the Coal Creek Natural Area to Lake Washington. This stream has been affected by past mining in the area and by a realignment of the stream's mouth to a point approximately 1,200 ft. north of its historical location (based on an evaluation of legacy aerial photographs).

Coal Creek is a Type F water that supports salmonid habitat from its mouth at Lake Washington up to the location of a natural fish passage barrier approximately 760 to the northwest of the northwest corner of the Site (**Figure 5**). The natural fish passage barrier identified is a rockslide that has created a narrow channel choked with large rocks (**Photo 5**). This cascade is likely the

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same one identified as a fish passage barrier on the Washington State Department of Fisheries Catalog of Washington Streams and Salmon Utilization (Williams, Laramie, and Ames 1975).

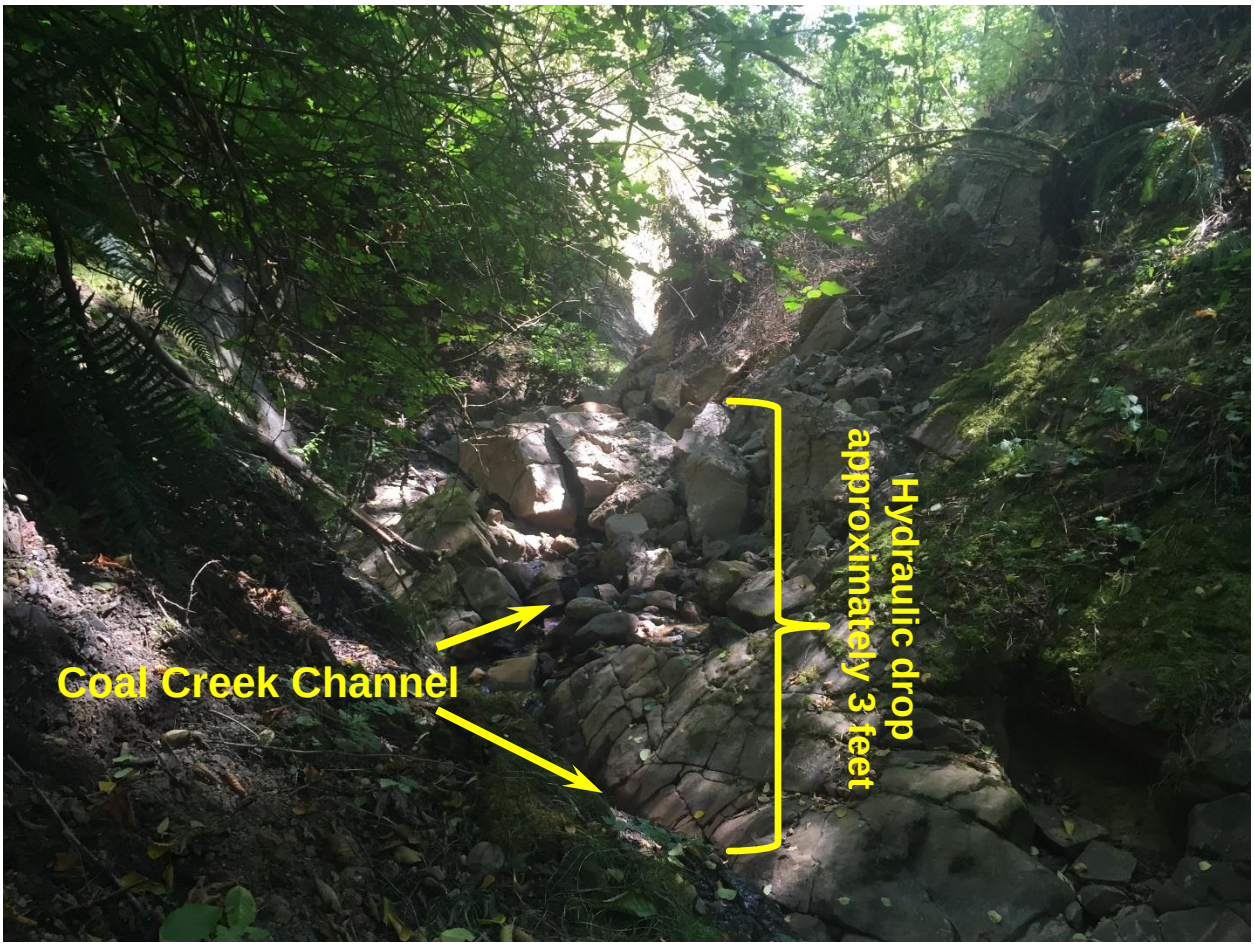

Photo 5. Rockslide Fish Passage Barrier on Coal Creek.
(Channel is blocked by large boulders. Water must flow through the interstitial spaces between the boulders and under the rock slab in the foreground. Little to no aboveground flow seen through the rockslide.)

The natural barrier is approximately 1,260 feet downstream of the point where the Coal Creek channel is at its closest to the Site. This point, where Coal Creek is closest to the Site, also corresponds to the location where Stream 1 flowing across the Site joins Coal Creek. We also noted during our reconnaissance of Coal Creek that its channel was dry upgradient of its confluence with Stream 1. We believe that Coal Creek upstream of the natural blockage does not contain resident fish. Coal mining in the area is thought to have extirpated any resident fish. However, no definitive studies have been conducted on fish presence upstream of the natural blockage. Therefore, per the methodology used by the City of Bellevue under §20.25H.075.B.2, Coal Creek must be considered a Type F water based on stream habitat conditions. This is discussed in detail in the memorandum “Park Pointe Coal Creek Typing Study” (Confluence Environmental, April 19, 2017) (**Appendix F**). The physical characteristics of Coal Creek were found to have met the physical criteria for fish habitat in Western Washington per WAC 222-16-

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031(3). Type F waters in the City of Bellevue have a 100-foot standard buffer measured from the top-of-bank[5].

Stream 1

Stream 1 is a perennially flowing stream that drains a large basin (approximately 1,480 acres) located on the south side of Newport Hill and Cougar Mountain. This is the stream identified in the paragraph above as providing perennial flow to Coal Creek.

The City of Bellevue GIS database identifies this stream as 0276A and gives it a water type of PF. The City does not provide metadata with their GIS data. Therefore, we do not know exactly what this "PF" designation stands for.

The stream is fed by groundwater rich in dissolved iron. The streambed across the property was coated by a thick layer of oxidized iron deposits. These deposits are also easily seen in **Photo 6.** Studies have shown that high levels of oxidized iron in a stream significantly reduce the presence of aquatic macroinvertebrates and can be damaging to fish gills (Gerhardt and Westermann 1995; Johnson and Ritchie 2003; Peuranen *et al*. 1994; Vuori 1995). The heavy iron precipitates we observed in Stream 1 likely preclude the potential of resident fish populations in the stream.

The point where Stream 1 leaves the Site is a large natural waterfall over a rock formation (**Figure 5** and **Photo 7** Photo **8**). This waterfall is a natural feature and constitutes a natural fish passage barrier. Since Stream 1 likely has no populations of resident fish and no opportunity for resident fish populations in Coal Creek (if any) to access the stream, we have rated Stream 1 as a Type N water. Type N waters in the City of Bellevue have a 50-foot standard buffer measured from the top-of-bank.

[5] Top-of-bank is defined by the City of Bellevue as "[t]he point closest to the boundary of the active floodplain of a stream where a break in the slope of the land occurs such that the grade beyond the break is flatter than 3:1 at any point for a minimum distance of 50 feet measured perpendicularly from the edge." Alternatively, the top-of-bank is also defined "[f]or a floodplain area not contained within a ravine, the edge of the active floodplain of a stream where the slope of the land beyond the edge is flatter than 3:1 at any point for a minimum distance of 50 feet measured perpendicularly from the edge."

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Photo 6. Heavy Deposits of Precipitated Iron in Stream 1.

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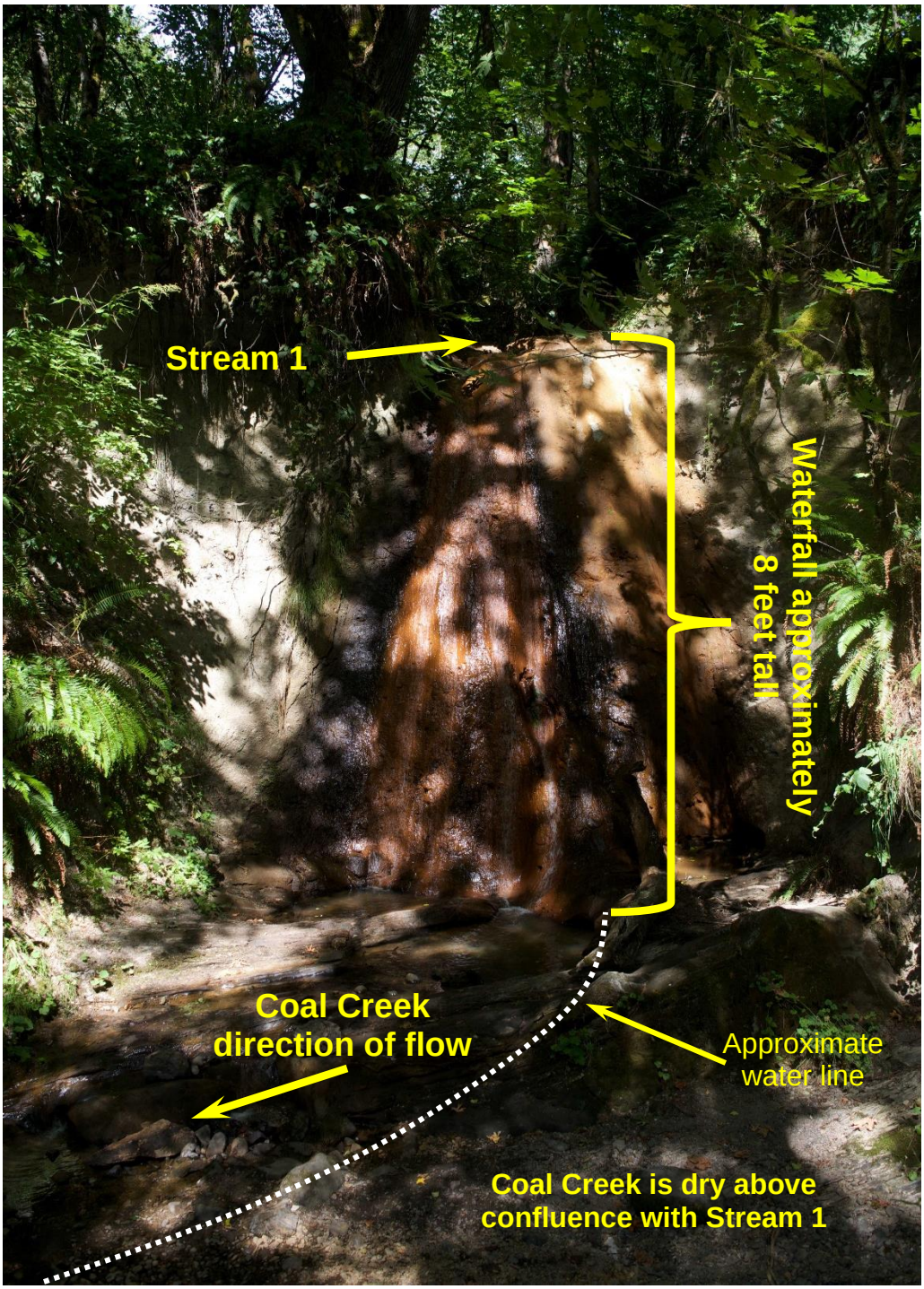

Photo 7. Natural Cascade of Stream 1 at Coal Creek.
(Confluence of Stream 1 with Coal Creek starts the summertime extent of aboveground flow within Coal Creek. Coal Creek channel upgradient of this confluence is well defined, but completely dry.)

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Photo 8. Top of Stream 1 Cascade on its East Side.
(Photo taken near top of cliff face.)

Stream 2

Stream 2 is a perennial tributary of Stream 1 and is identified by the City of Bellevue as 0276A-5 with a water type of PF. Stream 2 drains a small basin (approximately 80 acres) on the west side of Cougar Mountain. It crosses under Lakemont Boulevard SE through a four-foot diameter round concrete culvert. The culvert is approximately ¼ full of natural streambed gravel and appears to have no obstructions within it. The culvert is located north of the northeast property corner for Parcel A. Stream 2 flows in a westerly direction to the north of the Site for approximately 70 feet before entering the Site. Stream 2 then flows in a westerly direction for

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approximately 235 feet to Stream 1. The confluence of Stream 2 with Stream 1 is located approximately at the midpoint along the north boundary of Parcel A.

The iron loading on streambed material observed in Stream 1 does not appear on the streambed material for Stream 2. However, Stream 2 does have a natural steep gradient (approximately 17.5% based on LIDAR data) from its confluence with Stream 1 to a point approximately 125 feet to the east. The maximum gradient measured is approximately 30% over 75 feet starting at a point 50 feet east of the confluence of Stream 2 with Stream 1. Since there is a natural stream gradient greater than 16% on Stream 2 and the demonstrated lack of fish habitat in Stream 1, we conclude that Stream 2 is also a Type N water. Type N waters in the City of Bellevue have a 50-ft standard buffer measured from the top-of-bank.

Stream 3

Stream 3 is a small drainage located south of Parcel B. The City of Bellevue GIS database identifies it as 0276B with a water type PF and maps it crossing Parcel B at the parcel's southeast corner. We investigated the southeast corner of Parcel B thoroughly during our 6 August 2015 site evaluation and found no signs of a stream channel or pipe in that location. We did notice a deep, well-vegetated ravine existing along the south property boundary.

Stream 3 is conveyed underneath Lakemont Blvd SE through a pipe, which is located approximately 14 feet south of the southeast corner of the Site. Stream 3 then flows within a deeply incised ravine for approximately 430 feet before commingling with Coal Creek.

We were able to determine using analysis of LIDAR data that the average gradient of Stream 3 from its confluence with Coal Creek to a point approximately 240 feet to the east is greater than 16%. The maximum slope is approximately 22% from the confluence of Stream 3 with Coal Creek to a point approximately 79 feet east.

Since Stream 3 is likely ephemeral and upstream of a natural fish passage barrier on Coal Creek (which is also ephemeral upstream of its confluence with Stream 1), we conclude that Stream 3 is a Type N water. Type N waters in the City of Bellevue have a 50-ft standard buffer measured from the top-of-bank.

4.2.3 Western Upland Area

The portion of the site west of the primary development area is worthy of a brief description, although no impacts are planned in this area. This area is upland and contains approximately 2.9 acres (127,942 sf) of the total site. Of that amount, 0.5 acres (23,675 sf) are potentially developable, being located outside the standard critical area buffers and a restrictive easement already imposed on the Site. This is illustrated in the Mitigation Plans in **Appendix E**, on **Sheets W1.0 and W1.1**.

The upland area occurs within the northwest corner of Parcel A and is located between the northern property boundary and the main stem of Coal Creek. This area contains the remnants of old coal tailings in a relatively small area. Typical vegetation within this area includes big leaf maple, Douglas fir, vine maple, salal, sword fern, and salmonberry. Himalayan blackberry is also present, primarily over the old coal tailings where less hardy plants have trouble establishing themselves. This upland area is contiguous with the Coal Creek Natural Area and will provide important regional habitat value as a wildlife corridor maintained in its existing state.

4.2.4 Habitat Evaluation

We performed an evaluation of potential habitat on the Site using the City of Bellevue's Urban Wildlife Habitat Functional Assessment Model (The Watershed Company 2010) as part of a habitat assessment of the property. The Bellevue Urban Wildlife Habitat Functional Assessment Model assesses and rates the ability of a property within the City limits to provide usable habitat for wildlife. The datasheets for the existing conditions analysis are included in

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Appendix G. The Site scored 41 points for potential habitat function, which indicates that the property has high habitat value potential for wildlife, including species of local importance.

Section VIII of the Critical Areas Overlay District (COB §LUH 20.25H) deals with habitat associated with species of local importance. This list is included in **Table 1** below along with an analysis of the likelihood of a species presence on the Site.

Table 1. Species of Local Importance (LUC 20.25H.150)

Scientific Name	Common Name	Likelihood of presence	Rationale for Presence
Haliaeetus leucocephalus	Bald Eagle	Migration only	Tall trees on the property might provide roosting habitat. However, the property is in a relatively low spot on the landscape and does not provide suitable perching habitat or prey base. It is most likely that bald eagles might use the property during annual migrations.
Falco peregrinus	Peregrine falcon	No	Peregrine falcons are likely to utilize open country with suitable cliffs for roosting and nesting. Alternatively, they may utilize the downtown commercial areas of major cities. The subject property, however, does not provide suitable habitat for peregrine falcon.
Gavia immer	Common loon	No	Common loons are unable to walk on land and require open water (large rivers, lakes, and ponds) for suitable habitat. There are no such habitat types near the subject property.
Drycopus pileatus	Pileated woodpecker	Yes	Pileated woodpeckers require relatively large tracts of mature forest with a significant number of dead or dying trees. Standing snags of suitable diameter serve both as sites of nesting cavities and for insects, which comprise its diet. The subject property is connected to other large tracts of relatively mature forest.
Chetura vauxi	Vaux's swift	No	Vaux's swift require old-growth forests with hollow trees or abandoned chimneys for nesting and roosting. The forest on the subject property does not have the essential characteristics to support Vaux's swift.
Falco columbarius	Merlin	Low to very low Probability	Merlin generally prefer open country to dense forest. However, there may be enough open ground in the form of pasture on the site for them to find suitable habitat.
Progne subis	Purple martin	Low to very low Probability	Purple martins typically require open space and the presence of artificial nesting boxes (gourds, martin houses, etc.). The subject property does not have suitable nesting available.
Aechmophorus occidentalis	Western grebe	No	Like the common loon, western grebe are unable to walk on land and require open water in the form of large rivers, lakes, or ponds for suitable habitat. There are no large rivers, lakes, or ponds near the subject property.

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Scientific Name	Common Name	Likelihood of presence	Rationale for Presence
Ardea herodias	Great blue heron	Low to very low Probability	Great blue heron require wetlands, ponds, lakes, or streams for suitable habitat. The streams on the subject property are likely too small to provide a population of prey species for great blue heron. It is possible that the forested areas in the vicinity of the subject property could be used as a heron rookery. However, there are no records of heron using the subject property or areas within the general vicinity as a rookery.
Pandion haliaetus	Osprey	Low to very low Probability	Osprey are piscivorous eagles and must be near large rivers or lakes. The subject property is not located near suitably large rivers or lakes.
Butorides striatus	Green heron	No	Green heron require wetlands, lakes, or other shallow water areas. No such habitat exists on or near the subject property.
Buteo jamaicensis	Red-tailed hawk	Yes	The open pasture area of the subject property likely provides a population of suitable prey species while the trees along the edges of the pasture provide suitable perches and potential nest trees.
Plecotus townsendii	Townsend's big-eared bat	Potentially present	Townsend's big-eared bat will utilize many different types of habitats, but the habitat must be near caves. Old mines suffice as caves for diurnal roosting. The Coal Creek area is known to have several old coal mines that may be used by Townsend's big-eared bat, including known mining activities in the general vicinity of the subject property.
Myotis keenii	Keen's myotis	Potentially present	Keen's myotis, like Townsend's big-eared bat, requires caves, tree cavities, or loose bark for suitable roosting habitat. Tree cavities, or trees with loose bark, are indicative of more mature forests. There is likely suitable roosting habitat in the general vicinity of the subject property
Myotis volans	Long-legged myotis	Low to very low Probability	Long-legged myotis is a more montane-adapted species and more likely present at elevations over 4,500 feet.
Myotis evotis	Long-eared myotis	Potentially present	Long-eared myotis have similar habitat requirements as Keen's myotis and may be present in the general vicinity of the subject property
Rana pretiosa	Oregon spotted frog	No	Oregon spotted frogs are seldom found away from standing water, such as wetlands, lakes, or slow-moving streams. No such habitat exists in the general vicinity of the subject property.
Bufo boreas	Western toad	Low to very low Probability	Western toads prefer grasslands or meadows that are near ponds. There are no ponds in the general vicinity of the pastures on the subject property.

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Scientific Name	Common Name	Likelihood of presence	Rationale for Presence
Clemmys marmorata	Western pond turtle	Low to very low Probability	Western pond turtles have been mostly extirpated from King County. Their preferred habitat includes lakes, ponds, wetlands, and slow-moving streams. This type of habitat is not provided on the subject property.
Oncorhynchus tshawytscha	Chinook salmon	Low to very low Probability	Coal Creek and the stream on the subject property may provide habitat for chinook salmon, but a natural impediment to migration exists downstream.
Salvelinus confluentus	Bull trout	Low to very low Probability	Bull trout prefer streams with very cold water. These are typically headwater streams fed by glacial meltwater. The stream on the subject property likely does not meet bull trout preferred temperature requirements. Bull trout are known to migrate within and between WRIAs. However, the same downstream blockage that prevents chinook salmon from migrating to the subject property likely prevents bull trout migration as well.
Oncorhynchus kisutch	Coho salmon	Low to ery low Probability	The same downstream natural blockage that prevents migration of chinook salmon to the subject property will also prevent coho salmon from also migrating to the site.
Entosphenus tridentatus (formerly *Lampetra tridentatus* or *L. ayresii*)	River lamprey	Low to very low Probability	Current maps of river lamprey populations indicate that these fish are not typically found in King County.

The relatively high score for habitat on the Site is not surprising considering the forested ravine and extensively forested areas to the north and west of the subject property. The mowed fields and disturbed areas around structures on the site, themselves, would not warrant the high rating and are areas where wildlife is less likely to utilize the spaces for their lifecycle functions, including travel from one area to another. Migration through the site would occur largely along stream corridors, in heavily forested areas, and to a lesser extent in the edge zone between the fields and forest.

Of the list of species of local importance provided on **Table 1**, only six were determined as having any likelihood of being present on the Site, and that likelihood is typically low to very low. These species are bald eagle (migration only), pileated woodpecker, red-tailed hawk, Townsend's big-eared bat, Keen's myotis, and the long-eared myotis. Townsend's big-eared bat is a Federally-listed species of concern and a State-listed candidate species. Pileated woodpecker is a State-listed Candidate species. Protecting areas with mature forests (forests with significant numbers of dead or dying conifers and soft-wood deciduous trees) provides habitat for these six species and habitat for a multitude of other species not currently included on Federal or State priority species lists.

We performed an additional assessment of the potential impact to merlin and red-tailed hawk habitat as a result of the potential loss of pasture as foraging habitat. We limited our

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assessment to an area approximately ½ mile around the Site ("Assessment Unit"). The Assessment Unit is approximately 503 acres in size. Of that 503-acres, approximately 34.7 acres (7 percent of the total Assessment Unit) represents potential open area that might be used by either red-tail hawks or merlins as foraging habitat. The Site contains approximately 4.8 acres of the approximately 34.7 acres of potential foraging habitat (**Figure 6**). This constitutes approximately 14 percent of the potential foraging habitat and less than one percent of the Assessment Unit. We are sensitive to the concept that, while the loss of potential foraging habitat is relatively small within the Assessment Unit, continued small losses of potential foraging habitat over a larger area could lead to significant losses of habitat for red-tailed hawk and merlin.

At this point, it is important to note that, nationwide, populations of merlin and red-tail hawks are seen as stable and increasing ("Red-Tailed Hawk" 2014; "Red-Tailed Hawk" 2014). This is despite the burgeoning human population of the United States and the increases in urban landscape as cities expand and develop. Both red-tail hawk and merlin appear to be adapting to other artificially-maintained habitat areas, such as grassy areas along roadways (Speiser and Bosakowski 1988; Minor and Minor 1993).

4.3 Existing Conditions of Upland Buffers

The following paragraphs will discuss the historical uses of the subject property and the current ability of the standard buffer widths to provide protections to the streams and wetlands.

4.3.1 Historical Perspective

As discussed in **Section 2.2.1**, the Site had been significantly altered and impacted by coal mining. The northern portion of the ravine containing Streams 1 and 2 appears to have been logged prior to 1936, with significant areas of grading and impact along the right bank of Stream 1 and both banks of Stream 2, ostensibly from coal mining operations that were present at the time. Since then, the ravine has grown back with a relatively even-aged stand of red alder, black cottonwood, and big-leaf maple. There are very few conifers within this portion of the ravine forest, with young western redcedar being the dominant conifer present. The existing stream buffers are, therefore, mostly early successional. Big-leaf maples are a relatively long-lived species of tree. However, red alder and black cottonwood are considered early successional and short-lived, generally in the range of 80 to 120 years. Over time, these early successional trees will die, and the forest should transition from deciduous-dominated to a more conifer-dominated forest. A conifer-dominated forest consisting of Douglas fir, western hemlock, and western redcedar was likely present on the site prior to European colonization.

4.3.2 Functions and Services Provided by the Existing Stream Buffers

Buffers serve to provide protection to critical areas from development, as well as provide habitat for a variety of birds and other animal species. Outside of the human development context, buffers do not serve an ecological purpose. How buffers provide habitat services to critical areas has not been thoroughly researched, although much is known about the ability of a buffer to protect aquatic resources from human impacts, such as pollution, light, and noise. Buffers do provide a first line of water quality improvements, a limited amount of hydrological support, and habitat value for wildlife. The ability of a buffer to provide water quality services is relative to the average slope of the buffer, the soil composition, and the types and density of vegetation present. The ability of a buffer to provide habitat is relative to the habitat requirements of specific species. Finally, buffers serve to protect a critical area from disturbances caused by humans, such as light, noise, and intrusions that disrupt normal wildlife activities.

Habitat provided by a buffer is dependent upon the wildlife species one is considering and its dependence on the critical area being protected. Large mammal species may require larger relatively undisturbed areas adjacent to a critical area for its habitat needs. The fragmentation or shape of undisturbed habitat plays a key component on how a species perceives its value.

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Knowing the species that currently utilize a critical area is important in determining an appropriate buffer width.

The buffer also protects the on-site streams from impacts from human development, such as stormwater runoff, toxic runoff, noise, and light. The existing buffer does not have much opportunity to provide these water quality functions due to the current topography of the subject property.

4.3.3 Existing Stream Buffer Conditions – Above the Top-of-bank

The existing stream buffers measured per code from the top-of-bank, are degraded. A network of wide trails has been cut through the existing vegetation along the top-of-slope. This network of trails extends away from the top-of-slope. The trails appear to be maintained on an infrequent basis by mowing. The vegetation within the trails is predominantly grass with non-native blackberries becoming established along the edges of the mowed areas. Trash, debris, and an old car chassis exist within these disturbed portions of the buffers. The edge of the disturbance along the top-of-slope is mostly vegetated with non-native blackberry. The remainder of the stream buffer that is not currently impacted by mowing is vegetated with invasive non-native blackberry and successional young to middle-aged red alder trees.

By contrast, the vegetation along the left bank of Stream 1 is relatively diverse and is continuous for many thousands of feet. The value of the habitat provided along the left bank of Stream 1 far exceeds that of the right bank on the subject property by any metric. There are clear differences in quality of available habitat between buffers adjacent to the developed and managed areas and those buffers that abut other native vegetation.

We believe that three functional components of the existing buffer along are important to consider with respect to the proposed development:

1. The existing patterns of disturbance within the buffer;
2. The existing environmental conditions of the steep slope area; and
3. The functions and services provided by the buffer in its existing condition

4.3.4 Existing Stream Buffer Conditions – Below the Top-of-bank

The steep slope area of the right bank of Stream 1 and both banks of Stream 2 (on the subject property) was cleared of vegetation by 1936 as a result of ongoing coal mining activities. It is not known how long after 1936 the steep slope areas remained unvegetated. In any case, vegetation was able to re-establish itself in the intervening years. By 1968 (the next year of available aerial imagery), the steep slope areas appear forested. Currently, the vegetation along the previously cleared stream banks consists of an even-aged stand of young big-leaf maple, young red alder, and black cottonwood, with a few scattered western redcedar trees. The understory consists of scattered salmonberry, non-native blackberry, and sword fern. There are considerable piles of large woody debris on the slopes in several areas, including some near the top-of-slope of the areas with the steepest slopes. We believe that some of these woody debris piles may have been the result of tree cutting or pruning in the past.

4.3.5 Existing Patterns of Buffer Disturbance

The areas of disturbance include an approximately eight- to ten-foot swath that extends outward from the top-of-slope. Vegetation within the area of disturbance consists predominantly of grasses with some annual ferns (bracken fern). Mowing likely occurs at least once a year. Himalayan blackberry is prominent along the edges of the mowed areas. Pockets of forested vegetation are interspersed around the trail network. However, the vegetation within these forested areas consists predominantly of relatively young red alder trees, some native shrubs, and non-native blackberry.

Recent disturbances within this impact area include the remains of a car. This car was not present during our 2015 site evaluation. Other signs of disturbance include trash and debris.

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There are currently no restrictions (by fence or vegetation) preventing people or pets from accessing the impacted buffer area. Dr. Thomas Hruby (Washington Department of Ecology, retired) noted in his wetland rating documents (Hruby 2014) that intrusion into buffers by people or pets creates significant stress on wildlife that is present. The potential for disturbance by people, pets, and machinery significantly reduces the ability of the standard 50-foot buffer to provide habitat for many species of wildlife.

Chapter 5. ANALYSIS OF CRITICAL AREAS REGULATIONS

5.1 City of Bellevue

Critical areas on the project site are subject to the regulations of Bellevue Land Use Code (BLUC) Part §20.25H. This section contains standards and requirements for the protection of designated critical areas and defines permissible uses within the Critical Areas Overlay District. BLUC §20.25H Section III establishes allowed alterations within the Critical Areas Overlay District. BLUC §20.25H Section IV establishes standards and requirements for protection of streams, Section V establishes standards and requirements for protection of wetlands, Section VI establishes standards and requirements for protection of shorelines, and Section VIII establishes standards and requirements for protection of habitat associated with species of local importance. Section XII of BLUC §20.25H provides the purpose, submittal requirements, and reporting requirements for Critical Areas Reports for projects that may alter or impact critical areas of their buffers.

Development on sites that have wetlands or wetland buffers shall also incorporate where applicable the performance standards provided in BLUC §20.25H.080, which are listed below. The following guidelines are also being applied to the on-site stream buffers for this project.

A. “Lights shall be directed away from the wetland. Lighting levels shall meet the outdoor lighting standards for spillover into critical areas, per BLUC §20.25H;
B. 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;
C. Toxic runoff from new impervious surface area shall be routed away from the wetlands;
D. Treated water may be allowed to enter the wetland critical area buffer;
E. The outer edge of the wetland critical area buffer shall be planted with dense vegetation to limit pet or human use;
F. Use of pesticides, insecticides, and fertilizers within 150 feet of the edge of the stream buffer shall be in accordance with the City of Bellevue’s “Environmental Best Management Practices,” now or as hereafter amended.”

The project will implement several of the mitigation measures listed above as follows (**Table 2**):

Table 2. Summary of Proposed Mitigation Performance Standards

Examples of Disturbances	Measures to Minimize Impacts
Lights	Street and security lighting will be placed so that illumination is directed away from the buffer.
Noise	Planting of dense vegetation specified for mitigation of light-related impacts will also ameliorate impacts due to noise.
Toxic Runoff	Operational covenants will stipulate that no pesticides or herbicides will be used within 150 feet of the stream buffer (the use of herbicides to control non-native, invasive species in the course of routine mitigation monitoring and maintenance will be allowed as described in the Mitigation Plan). Road runoff will be collected and transferred to the project’s on-site stormwater treatment and detention facilities.

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Examples of Disturbances	Measures to Minimize Impacts
Stormwater runoff	All road runoff will be detained and cleaned by the proposed stormwater system for the project.
Pets and Human Disturbances	Buffer areas will be permanently protected by fencing to help prevent human and pet intrusions into the buffer, and the buffer areas (will be placed in a separate Natural Growth Protection Area (NGPA), per City requirements.

Stream buffers may be modified through the code provisions in §20.25H.075.C.2. This code provision describes the requirements necessary for buffer averaging. Averaging the buffers was reviewed; however, it was discovered that buffer averaging would not be possible on-site due to the physical constraints of the property while still achieving an economically viable project design. Section §20.25H.075.C.2 notes that modifications to stream buffers that do not meet the criteria for buffer averaging may be considered through a critical areas report, as stated below:

> "Modifications to the stream critical area buffer that do not meet the criteria of this subsection may be considered through a critical areas report."

The reductions are defined further under §20.25H.090 Critical Areas Report – Additional Provisions, subsection A – Limitations on Modifications. This provision states:

> "A stream critical area buffer shall not be modified below the widths set forth in this section, measured from the top-of-bank:"

In the table that follows, it indicates that a Type F stream has a minimum allowable buffer of 25 feet, while a Type N stream has a minimum allowable buffer width of 10 feet.

As we understand these code provisions, reducing the buffer using this code provision must be supported by a mitigation plan that provides a substantial benefit to habitat and other buffer functions compared to the standard buffer width measurement.

5.2 State and Federal Regulations

5.2.1 Washington State Regulations

Critical areas (wetlands and streams) on the Site are subject to regulation at the State level primarily by the following statutes:

- State Water Pollution Control Act (administered by DOE)
- Section 401 of the Federal Clean Water Act (administered by DOE)
- Hydraulic Code of Washington (administered by WDFW)

DOE uses Section 401 State Water Quality Certification (WQC) as the primary mechanism for implementing the provisions of the State Water Pollution Control Act. Section 401 WQC is typically issued in conjunction with Section 404 permits from the U.S. Army Corps of Engineers (Corps). Any impacts to the on-site streams would also be regulated under the Hydraulic Code of Washington as part of the Hydraulic Project Approval (HPA) permit process. It should be noted that an HPA would likely be required for an off-site impact of constructing utility crossings over or under Stream 2, to be in the Lakemont Boulevard SE ROW. This work does not affect the critical areas on the Site, and any potential impacts would be addressed by the State in its permit requirements.

5.2.2 Federal Regulations

Critical areas (wetlands and streams) on the Site are also subject to Federal regulations under Section 404 of the Clean Water Act. The Corps is responsible for administering compliance with Section 404 via the issuance of Nationwide or Individual Permits for any fill or dredging

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activities within wetlands or streams. No direct impacts (filling or dredging) to wetlands or streams are being proposed in this project.

Chapter 6. SITE DEVELOPMENT PLAN

Isola Real Estate 111, LLC has chosen to develop the property using the PUD code for the City of Bellevue. Developing the Site as a PUD provides more flexibility in building layout, setback requirements, and reductions in setback dimensions. This progressive PUD proposes to preserve and restore on-site habitat while supporting a low-impact designed development. The development proposal seeks to contain development on the flatter land adjacent to Lakemont Boulevard SE. The development will consist of 35 single-family residences with associated roads, trails, and utilities (**Sheets W1.1-1.2**). About 5.98 acres (260,581 sf) of the approximately 12.29-acre Site will be developed. The remainder of the Site {approximately 6.31 acres (274,642 sf)} will remain undeveloped as permanent open space. No direct impacts to wetlands or streams are proposed. Minor modifications to standard buffers are proposed with accompanying buffer enhancement.

PUDs have long been appreciated for allowing developers and cities to deviate from standard zoning and development regulations on large properties in exchange for site-specific open space conservation, innovative site design, and other design treatments and critical area enhancements. To develop as a PUD by reducing setbacks to the minimum width practicable, it was found to be necessary to reduce the buffers for Streams 1, 2, 3, and Coal Creek. The proposed site plan is the result of several design iterations to reduce the magnitude of the buffer impacts to the greatest extent while maintaining project goals and achieving improved buffer function. Replacement buffer areas and extensive buffer enhancement will be provided for all streams to compensate for the proposed buffer reductions.

The proposed site development plan is innovative in providing the allowable development while avoiding impacts to the maximum extent practicable. The development includes embracing the natural features of the buffers as amenities to the community. A limited access pedestrian trail will interlink the community with other trails and resources in the area, such as Coal Creek Natural Area. The portion of the site proposed to be developed is not of high habitat value in its existing condition, but rather is largely disturbed by a history of mining, agriculture, and other uses. The hydrology of the site will be maintained, and stormwater runoff from the future residential area will be treated prior to entering the natural environment. Native plants are to be used in the landscaping of the site to improve habitat value for the benefit of local wildlife species (birds, primarily) that may interact between the critical areas and built environment. The perimeter of the disturbed area will be enhanced to improve habitat values and buffer conditions, as described in **Chapter 8**, and illustrated in the Critical Area Conceptual Mitigation Plans in **Appendix E.**

Homes will be built using green construction technology that delivers energy conservation and long-term stewardship. Smaller lot sizes with smaller homes will allow more affordable family housing for Bellevue. In addition, the PUD will provide access to the regional trail system located along the Coal Creek Natural Area. This property of plateaus, hills, and slopes naturally creates important protective buffers to the streams; however, the buffers have been considerably degraded from decades of agricultural and residential use. The proposed mitigation will remove the invasive species common throughout the stream and wetland buffers, as well as the rusted mechanical equipment found during site evaluations. These areas of debris and invasive species removal will then be replanted with native trees and shrubs attractive for wildlife. These measures will help restore the slopes to highly desirable long-term habitat areas.

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LID techniques that have become standard building practices are extensively incorporated into the PUD development. The proposed development reduces the amount of new impervious surfaces by utilizing shortened driveways and pervious pavement materials. Proposed houses will be clustered in groups of two and four units, utilizing shared driveways to reduce new impervious surfaces. The clustered home units integrate with open spaces with additional connectivity to protected habitat through the use of soft surface trails. The proposed trails will connect to existing public trails in the Coal Creek Natural Area.

PACE Engineers has designed a stormwater management system for the proposed development that will integrate both low-impact development concepts and enhanced stormwater treatment. The following are characteristics of the stormwater management plan:

- Clean rooftop runoff will be infiltrated to the extent practicable along the stream buffer boundary;
- A detention vault capable of detaining greater than 90,000 cubic feet of runoff will handle most of the wintertime stormwater runoff;
- Discharge from the stormwater vault will be treated using an advanced treatment cartridge filtration system; and
- Treated stormwater will be released via a gravity outlet pipe that discharges into the buffer of Stream 1 approximately seven feet from the OHWM.

The development plan has been designed to avoid direct impacts to wetlands or streams on the Site. However, the location of stream buffers and building setbacks, as measured from the top-of-bank, extend well into existing degraded site conditions. Preserving these degraded buffer areas intact will likely not provide the buffer functions of a modified and enhanced reduced buffer. Reductions to buffer width, in combination with enhancing/restoring habitat, result in improved function of the remaining buffer. Buffer reductions are consistent with maintaining the site stability of the development. See the reports prepared by Geotech Consultants, Inc. (**Appendix A1** and **A2**) for more information regarding the steep slopes and other geological conditions of the site.

Chapter 7. ASSESSMENT OF DEVELOPMENT IMPACTS

No direct impacts to the wetlands or streams are proposed with this Project. The Project is proposing reduced buffer widths for the streams and steep slopes to accommodate the development footprint, as well as minor buffer encroachments for City-required right-of-way improvements along Lakemont Blvd SE. In addition, a soft-surface trail will be constructed in the buffer to connect to an existing trail system in the Coal Creek Natural Area and construction of a gravity flow stormwater discharge pipe will result in impacts to buffers due to the construction of a setup and staging area for directional boring, a gabion basket energy dissipator, and temporary impacts resulting from construction equipment required to construct the gabion basket energy dissipator (**Table 3**). No direct impacts will occur to wetlands or to their associated buffers.

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Table 3. Proposed Buffer Impacts

Proposed Buffer Impacts	Area (sf)	%*
Reduced Stream Buffer for Right-of-Way Dedication	114	0.04%
Reduced Stream Buffer	10,256	3.9%
Reduced Steep Slope Buffer	3,975	1.5%
Combined Reduced Stream & Steep Slope Buffer	7,230	2.7%
Total Buffer Reduction Impacts	**21,575**	**8.14%**
Soft-surface Trail	2,161	0.82%
Gabion Basket Energy Dissipator	104	0.04%
Temporary Construction Access to the Outfall Location	646	0.24%
Total Construction Related Impacts	**2,911**	**1.10%**

* Total standard buffers on the site pre-development is 264,349 sf (100%).

The City of Bellevue municipal code, under §20.25H.230, allows for such reductions through a critical areas report, which provides the rationale justifying the change. The approach proposed in this report measures the proposed buffer reduction against a combination of buffer replacement and extensive buffer enhancement and re-establishment. This chapter measures the scale of the impacts. The areas of proposed buffer impacts are illustrated in the Critical Areas Conceptual Mitigation Plans in **Appendix E**. A review of applicable codes relative to this proposal is included in **Appendix I**.

7.1 Dimensional Impacts to Stream Buffers

The standard buffers that apply to the site described in the existing conditions are illustrated in **Sheet W1.0** of **Appendix E**. Because of steep slopes along all four of the streams, measurement of stream buffer begins at the top-of-bank for all four streams. In §20.50.048 of the Bellevue's Land Use Code, top-of-bank is defined as:

A. "The point closest to the boundary of the active floodplain of a stream where a break in the slope of the land occurs such that the grade beyond the break is flatter than 3:1 at any point for a minimum distance of 50 feet measured perpendicularly from the break; and

B. For a floodplain area not contained within a ravine, the edge of the active floodplain of a stream where the slope of the land beyond the edge is flatter than 3:1 at any point for a minimum distance of 50 feet measured perpendicularly from the edge:

The City of Bellevue specifically recognizes that steep slopes adjacent to streams provide habitat value requiring protection. Measuring the stream buffer from the top-of-bank, according to code, provides water quality and hydrology protection to the stream[6]. The resultant protected width for a stream, therefore, often exceeds the standard stream buffer width itself. We believe that the steep-sloped areas provide buffer functions that should not be discounted, and this function may be improved with enhancements.

[6] City of Bellevue Land Use Code **does not** mention the ordinary high water mark as a reference point for measuring stream buffers.

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As stated in **Chapter 6** above, it will be necessary to reduce the standard stream buffer width in certain places for all the on-site streams (**Sheet W1.1, Appendix E**). The purpose of this buffer reduction is to allow for the development of the site in a logical manner, such that certain narrow points are widened. As shown in the mitigation plan sheet, the 50-foot wide Type N stream buffers for Streams 1, 2, and 3 are reduced in three areas. Similarly, for the Type F stream, Coal Creek, the 100-foot wide standard buffer is proposed to be reduced in two locations.

7.1.1 Critical Area Buffer Impacts

The area of proposed buffer reductions is approximately 21,575 sf for all proposed critical area buffer reductions, both stream and steep slopes (**Table 3**). The total critical area buffer on the site is approximately 264,349 sf. The proposed changes to buffer affect approximately 8.14% of the available buffer area.

Additional impacts to the buffers will result from the required trail connection to the Coal Creek Natural Area trail system and construction impacts for the stormwater outfall pipe. Total construction-related impacts to buffers is 2,911 sf which represents 1.10% of the available buffer areas. These areas of impact are detailed below:

7.1.1.1 Site Development

Providing the improvements of the PUD development in an efficient and logical manner will necessitate reducing the stream and steep slope buffers at certain points where it extends inward to the general developable area. The modification of the critical area buffer is well within the allowable reductions and will be mitigated as with all the other buffer impacts, as described in **Chapter 8**.

7.1.1.2 Right of Way Dedication

Required improvements to Lakemont Boulevard SE will necessitate dedicating a strip of land along the east side of the parcels. This strip, approximately three feet in width, will reduce stream buffers by approximately 114 sf. No other critical area buffers are affected by the dedication.

7.1.1.3 Soft-surface Trail Construction

A permanent stream buffer reduction of 2,161 sf will occur as a result of City-required public limited-access trail to the Coal Creek Natural Area. The trail will be constructed from the west side of the development towards the southern Site boundary and will connect with an existing trail within the riparian corridor. This limited-access trail will be a non-ADA pedestrian trail due to grades. It will feature a soft surface constructed with natural materials such as wood fiber.

7.1.1.4 Stormwater Outfall Construction

The design for the stormwater outfall has changed per the direction from the City of Bellevue Public Works. The new layout eliminates the pump station at the outlet of the detention vault, and instead provides a gravity outlet pipe that discharges to the buffer of Stream 1 approximately 7 feet from its OHWM. In reviewing the preliminary engineering, City staff indicated they would not support a pumped outfall or any construction within the restrictive easements, and that a redesigned system would need to comply with Section D-04.2 of Bellevue's 2016 Surface Water Engineering Standards which states that:

> *"If the 100-year peak discharge is greater than 0.5 cfs for either existing or developed conditions… then a conveyance system must be provided to convey the concentrated runoff across the downstream properties to an acceptable discharge point. Drainage easements for this conveyance system must be secured from downstream property owners and recorded prior to engineering plan approval."*

In the case of Park Pointe, both the existing and developed flow rates from the 100-year event exceed 0.5 cfs indicating runoff must be conveyed (piped) to an acceptable discharge point. The project engineer's (PACE) original proposal met the requirements of the Surface

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Water Engineering Standards by conveying concentrated runoff from the Site to Stream 3. However, this option was abandoned because the downstream property owner, Bellevue Parks and Community Services, would not grant an easement for the off-site storm drain. Similarly, a proposal to discharge to Coal Creek would not be permitted since construction would need to occur within a restrictive easement.

As an alternative, the project engineer was compelled to confine the storm drain system to the Site which indicated a discharge point to the buffer of Stream 1. Since the terrain of the Site between the stormwater vault and the proposed discharge area near Stream 1 would not allow for trenching, it is now proposed to provide gravity drainage by a pipe installed through a directional bore. This construction method will avoid impacting the existing cultural resources associated with the historic mining activity, avoid impacting existing trees, and impacts to steep slopes (**Sheet W1.1, Appendix E).**

The proposed installation of the 18" storm discharge pipe will utilize two methods of construction, including: 1) excavating a staging area and the location of the gabion energy dissipator, and 2) directional boring. The directional bore will be approximately 380 linear feet long ending at a gabion basket energy dissipator located above the OHWM of Stream 1. See engineering plans and section prepared by PACE. This proposed construction will not disturb the early successional forests that exist, the existing trail or proposed trail, or the steep slopes. The pipe will daylight near Stream 1 and will end at the gabion basket energy dissipator. This will impact 646 sf of what was previously buffer. Construction of the gabion basket energy dissipator will require an access path to construct. The gabion basket dissipator will permanently impact approximately 104 sf of buffer. Final engineering will provide a detailed analysis of the proposed route for both the pipe and the energy dissipator. All areas of construction disturbances for the access path to the gabion basket dissipator will be restored post-installation of the pipe. The disturbed areas will be planted with native evergreen and deciduous small trees and shrubs.

7.2 Structure Setback Reduction

To allow the project to be constructed without additional buffer reductions, a structural setback reduction will be requested. The standard structure setbacks from the critical area buffers are 15 feet and 25 feet, depending on stream typing. Coal Creek (Type F Stream) requires a 20-foot structure setback from the stream buffer and Streams 1, 2, and 3 (Type N streams) require a 15-foot structure setback from the stream buffer. The total structural setback area reduced will be 5,426 sf. With consideration to the needs for structure setbacks, it was determined that a reasonable width for maintenance or pedestrian access is 12 feet[7]. Within this space, all activities may occur for the buildings, including access, landscaping, passive recreation, vehicular movement, ladders, and temporary scaffolding (if needed for structural work).

This 12-foot minimum setback will apply along all the exposed stream buffers adjacent to the development. While this project proposes a reduction of the building setback dimension, this change does not reduce the critical area size, affect the critical area buffer function, or subject the critical area buffer to damage from building activities. The proposed residential units where the structure setback is reduced will not have any overhanging part extending into the buffer. The City of Bellevue allows reductions of critical area structure setbacks under BLUC §20.25H.075.D.3. The following provisions need to be ensured:

a. "Water quality, or slope stability as documented in a geotechnical report, will not be adversely affected.

[7] We had proposed an 11-foot structural setback on our previous report. The latest revision of the site plan was able to reduce the proposed reduction.

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b. Encroachment onto the structure setback will not disturb habitat of a species of local importance within a critical area or a critical area buffer.
c. Vegetation in the critical area and critical area buffer will not be disturbed by construction, development, or maintenance activities and will be maintained in a healthy condition for the anticipated life of the development; and
d. Enhancement planting on the boundary between the structure setback and the critical area buffer will reduce impacts of development within the structure setback."

As established earlier, water quality will be maintained by controlling stormwater from the project site in ways that will not degrade the critical areas buffer, or the streams and wetlands themselves. The proposed site design was evaluated in the geotechnical report, and it was determined that slope stability will not be compromised by locations that included a reduced building setback. As discussed earlier, the likelihood of local species of importance present at this site is low to very low, and the retained buffers should provide needed habitat and maintain corridors for the wildlife that are present. Vegetation in the areas of the critical area buffer at the edge of the development site will not be impacted by construction, as the 12-foot wide space will be adequate for construction and other activities at the buildings. The final mitigation planting design will include extensive enhancement planting within the buffer, and in particular, adjacent to the buffer perimeter at the boundary of the structure setback where dense shrub plantings, including rose or other thicket-forming species, should help reduce unwanted intrusions into the buffer. In addition, the site landscaping plan by Pace Engineers will feature native plant species, especially in planting areas set adjacent to the critical areas buffer.

7.3 Analysis of Buffer Function

Buffers provide protection to critical areas only in relation to development. As presented in **Chapter 4**, the current ability of the standard buffer widths to provide protections to the streams and wetlands is compromised by the current conditions of portions of these buffers. The standard buffer area is largely disturbed through regular maintenance and mowing, significant amounts of non-native invasive species, and the presence of trash, old vehicles, and debris scattered throughout the buffer. The potential for disturbance by people, pets, and machinery significantly reduces the ability of the standard stream buffers to provide habitat for many species of wildlife. **Chapter 4** outlines the existing conditions of the buffer in more detail.

7.3.1 Existing Habitat Functional Rating

A systematic evaluation was conducted, as described in **Chapter 4,** using the City of Bellevue's Urban Wildlife Habitat Functional Assessment Model (The Watershed Company 2010). For the purposes of our analysis, we reviewed two scenarios: 1) future buffer functions with no buffer reduction proposed, and 2) future buffer functions with the proposed reductions and mitigation for impacts. We initially chose not to evaluate a third option (buffer reduction without mitigation) because the City of Bellevue BLUC requires that some form of enhancement planting be done when buffer reduction is applied (§20.25H.075.D.3.d). However, were this option (buffer reduction with no enhancement mitigation proposed), the most likely result would be a monoculture of non-native blackberries with trees present only where they are currently preserved in the buffer.

Left to itself, natural successional vegetation within the poorly-vegetated portions of the buffer would very likely result in a monoculture of Himalayan blackberry, which is already present along the periphery of the undisturbed buffer with the disturbed buffer. Himalayan blackberry, once established, effectively prevents other more desirable vegetation from becoming established. Dense thickets of Himalayan blackberry inhibit the movement of animals between habitats and provides forage and shelter for non-native animal species, such as invasive European starlings and rats (Washington State Invasive Species Council). Himalayan blackberry (and evergreen blackberry) are noxious weeds by the Washington State Invasive Species Council and King County.

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Additionally, we have noted that English ivy, another species on the noxious weed list, is present within the buffer area in the northeast corner of the property. English ivy effectively smothers all groundcover vegetation and strangles trees as the vines grow up and surround tree trunks. We have observed ivy infestations within wetland and buffer areas on many other project sites that have contributed to the loss of forest canopy due to the strangulation of trees and increasing the potential of blow down resulting from a significantly increased sail area present during winter storms. Management of English ivy is a major component of one of our mitigation plans due to the deleterious effects this species has on native forest vegetation.

The datasheets for the existing conditions analysis are included in **Appendix G**. The Site scored 41 points for potential habitat function, which indicates that the property has high habitat value potential for wildlife, including species of local importance.

7.3.2 Future Condition with No Buffer Reduction

The potential future functional condition of onsite habitat where no buffer reduction has occurred was evaluated for comparison sake. The primary impact to the Site would be from an increase in development density within the buildable area. No other environmental factors would likely be changed as a result of a development with no buffer reduction proposed. A number of significant trees would be removed for development purposes. Mitigation for the loss of significant trees would follow the requirements of Bellevue Land Use Code §20.20.900. The degraded condition of the existing buffer would be left unchanged.

7.3.2.1 Functional Rating with No Buffer Reduction

We rated the site under this scenario using the City of Bellevue Draft Assessment Tool for Upland Habitat and found the site achieved a score of 40. The overall habitat function valuation reduces slightly, from a score of 41 to a score of 40, primarily due to increased development density. Development is limited to those areas of the Site that have relatively low habitat value due to ongoing land management and human intrusions. The Site retains enough high-quality habitat to maintain many of the higher-valued habitat areas. The reduction of score indicates that implementing the project in a manner that preserved the buffer size, but without enhancements or other mitigation, would cause a slight negative impact to buffer function, based on the Draft Functional Assessment Tool, as presented in Bellevue Urban Wildlife Habitat Functional Assessment Model (The Watershed Company 2010).

7.3.3 Mitigation of Impacts to Buffer Reduction

The currently proposed Site plan utilizes several approaches to increasing net buffer ecological function as mitigation for the physical reducing of the standard stream and steep slope buffers. To achieve this, Buffer Enhancement, Buffer Addition with Enhancement, and Buffer Re-establishment are proposed. **Sheets W1.2** and **2.0** of the mitigation plans shown in **Appendix E** illustrates the design.

7.3.3.1 Functional Rating of Buffer with Mitigation

The functional condition of the buffers with reduction and habitat mitigation were evaluated using the same tool as the existing condition and no-buffer reduction scenario. This was completed using the City of Bellevue's Urban Wildlife Habitat Functional Assessment Model (The Watershed Company 2010). For the purposes of this analysis, we factored in the potential effect of onsite infiltration of clean rooftop runoff, green development technologies, and enhanced stormwater systems to reduce new effective impervious surfaces. The datasheets for the existing conditions analysis are included in **Appendix G**. The Site scored 46 points for potential habitat function, which indicates that the enhancement and restoration activities offset the loss due to additional urban density on the site. According to the model, there would be a 5-point gain in habitat functional rating when the site is developed given the proposed mitigation plan elements.

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Chapter 8. PROPOSED MITIGATION

8.1 Agency Policies and Guidance

The proposed mitigation plan was designed in accordance with the policies and guidance provided in BLUC §20.25H. Pursuant to BLUC §20.25H.245, all proposed mitigation shall be based on best available science and shall demonstrate no net loss of critical areas functions and values.

8.2 Mitigation Sequencing

Mitigation sequencing has been applied to the proposed project pursuant to BLUC §20.25H.215. The mitigation sequencing requirements are:

- Avoiding the adverse impact altogether by not taking a certain action or parts of an action;
- Minimizing adverse impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;
- Rectify the adverse impact by repairing, rehabilitating, or restoring the affected environment;
- Reducing or eliminating the adverse impact over time by preservation and maintenance operations; or,
- Compensating for the adverse impact by replacing, enhancing, or providing substitute resources or environments.

The mitigation sequencing process was an intrinsic part of the analysis of the site development. Site development has been designed to minimize impacts to the existing critical area buffers to the maximum extent practicable while still meeting the requirements for a viable project, including compliance with all zoning code requirements for site access, circulation, setbacks, and parking. The project will compensate for unavoidable impacts by providing adequate mitigation in the form of buffer enhancement, restoration, and re-establishment, described in the following sections.

The mitigation plan provided in **Appendix E** is described in this section which will illustrate how the net change to the site is a net increase in ecological function. With the design presented on **Sheet W2.0**, the critical area buffers would be reduced from their standard width to a variety of widths.

The sections below will illustrate how the existing critical area buffers are improved in the mitigation associated with the proposed development:

1. The approach to critical area buffer mitigation;
2. The size and categories of buffer mitigation;
3. The wildlife usage of the restored buffer;
4. The enhancement planting that would occur in the retained buffer and steep slope areas;
5. The use of removed significant trees as large wood contributions; and
6. The water quality and hydrology functions of the project.

8.2.1 Approach to Critical Area Buffer Mitigation

The approach proposed for this project's mitigation is as described below:

i. **The non-critical area setbacks have been reduced to the maximum extent practicable.** The site design was prepared by Pace Engineers to provide dimensions of roadways, utility easements, and building footprints that achieve necessary functions with the minimum practical dimension. These modifications were constrained by relevant codes as well as the health, safety, and welfare of the

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community.

ii. **Higher habitat quality areas are being retained, while buffer reductions generally focus on areas of lower habitat value.** Most of the buffer reductions will occur within areas of lower habitat quality (i.e., pasture, mowed lawn, invasive species, human disturbance, trash, etc.). All the areas of proposed stream and steep slope buffer reduction (approx. 21,575 sf) will be within this lower quality habitat. Higher quality habitat will not be reduced or otherwise impacted by the proposed development.

The buffer for Stream 2 is essentially cleared of woody vegetation landward from the top-of-slope line. Similarly, the buffer for Stream 3 is mostly cleared of vegetation landward from the southern property boundary. The buffer reduction for Coal Creek is entirely lawn or pasture, except for two small incursions of the mixed forest described earlier.

In summary, the existing onsite portion of the buffers for Coal Creek, Streams 2 and 3 proposed to be reduced provide little to no habitat value or protection. The buffer reduction area for Stream 1 includes a young red alder forest over a highly disturbed landscape that includes mowed lawn, pasture, and other human disturbances.

iii. **Retained buffers are enhanced through removal of invasive species.** We propose to enhance all retained on-site buffer areas by removing all non-native species and replanting with native trees and shrubs. The resulting buffers, at maturity, will provide significantly better habitat value and protections compared to existing conditions. Any non-native bamboo creeping inward from an off-property patch will be managed regularly to prevent its spread on the site.

iv. **A favorable mitigation-to-impact ratio is utilized, in part by providing replacement buffer areas.** Additional buffer will be provided to all streams where possible. As shown on the mitigation plans in **Appendix E** (**Sheet W1.2**), the area of combined buffer replacement and buffer enhancement/restoration is 130,823 sf, compared to the area of buffer reductions, which is 21,575 sf. In addition, 2,911 sf will be impacted for the trail and stormwater outfall. The mitigation area to compensate for these impacts is approximately 130,823 sf (3.0 acres). The net increase of buffer functionality can be measured with these values, which is equivalent to a **5 to 1** ratio of mitigation to impact (mitigation area vs. impact area).

The area proposed to be used for replacement buffer for Coal Creek is currently poorly vegetated and used as pasture. Non-native species, such as Himalayan blackberry and Scot's broom, will be removed. The replacement buffer will be replanted with a variety of native trees and shrubs. Any enhancement plan prepared for this area will likely include interpretive signage and view corridors from the proposed trail through the buffer.

The proposed areas of buffer addition for Streams 1 and 2 are currently forested, but also include significant areas of Himalayan blackberry. The blackberry will be removed, and the additional buffer area replanted with native trees and shrubs.

v. **The buffer is contiguous with itself and other critical areas.** There is a continuous band of buffer around the north, west, and south sides of the property. At no point will the continuity of this buffer be broken, except for necessary trail

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construction adjacent to the southern Site boundary, as required by the City of Bellevue. The area of greatest buffer addition will occur adjacent to Coal Creek. Providing an expanded buffer for Coal Creek is appropriate since the on-site drainage predominately flows to Coal Creek, based on an analysis of topography.

vi. **Native vegetation will be retained and enhanced with extensive planting in the buffer**. Native vegetation within the reduced portions of the buffer will be retained. Enhancement planting of native trees and shrubs will occur wherever native vegetation is lacking within the remaining buffer area.

The area of buffer reduction on the western side facing Stream 1 and Coal Creek does contain some existing native vegetation, however, the condition of this portion of the buffer is degraded by continued human disturbance. Native vegetation and large wood will be salvaged from this portion of the site for re-use in habitat restoration and enhancement elsewhere within the buffer. The placement of large wood will be discussed in the final mitigation plan design to determine locations that would not threaten slope stability.

The area of buffer reduction for Stream 2 is currently mostly devoid of woody vegetation. This area will be enhanced through planting of native trees and shrubs. Planting the poorly vegetated area of the reduced Stream 2 buffer with native trees and shrubs will have the effect of improving slope stability through binding of the soil and removal of groundwater through evapotranspiration.

As with Stream 2, the area of proposed buffer reduction along Stream 3 is also poorly vegetated and mostly devoid of woody species. The actual steep slope portion of Stream 3 is off property to the south and is somewhat well-vegetated (Himalayan blackberry comprises a significant portion of the shrub layer within the Stream 3 buffer offsite). Reducing the buffer along Stream 3 on-site will not lead to additional slope instability. The area of reduced buffer on the property will be enhanced with native trees and shrubs. These species will likely improve slope stability through binding of the soil and removal of groundwater through evapotranspiration.

vii. **Wildlife habitat and migratory use is retained in the mitigation design.** This report concluded in **Section 4.2.4** that the Site has a limited likelihood of the presence of the listed species of local importance. The primary areas within the Site currently used for wildlife usage are the stream corridors and adjacent uplands, which are being preserved and enhanced in the post-construction development. Reducing the critical area buffers will not significantly degrade the buffer's current ability to provide wildlife habitat. Much of the critical area buffers under existing conditions include areas of significant human disturbance. While some species of wildlife have adapted to survive within residential areas, most species of wildlife tend to avoid areas of human population. The habitat value of the area of the standard buffer being reduced is small compared to the remaining forested ravines. This forested area extends northward and westward into offsite areas currently protected from development (they are owned by the City of Bellevue). The existing ravine provides a high-quality corridor for wildlife to move through the area without being disturbed by humans or their activities. As mentioned earlier, patterns of disturbance through the buffer have reduced plant diversity and habitat value. The ability of the reduced buffer to provide wildlife habitat and movement corridor will not be diminished with the removal of the disturbances or by the conversion of the degraded

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spaces to developed land use.

Intrusions of noise and light, as previously mentioned, can be ameliorated by planting the reduced buffer with native massing shrubs. Since the streams are located within ravines, light and noise from the proposed development will naturally be rapidly attenuated by the slope, the existing forest and shrub vegetation, and the proposed enhancement plantings. Therefore, we expect that the project may affect but is unlikely to adversely affect species of local importance that may utilize the developed site.

8.2.2 Areas of Critical Area Buffer Mitigation

Buffer enhancement and re-establishment involve the removal of non-native invasive species as well as trash and other human-related debris, and the addition of native plant species. The habitat value of the improved buffer areas will be increased by the installation of large woody debris and nesting structures, such as bat-roosting boxes and bird nesting boxes.

The proposed site development design will reduce approximately 21,575 sf of currently degraded critical area buffer and impact an additional 2,911 sf for trails and stormwater outfall. The mitigation area to compensate for these impacts is approximately 130,823 sf (3.0 acres). The net increase of buffer functionality can be measured with these values, which is equivalent to a **5 to 1** ratio of mitigation to impact.

8.2.3 Enhancement Planting in Critical Area Buffers and on Steep Slopes

The reduced buffer areas will be enhanced through the removal of invasive non-native blackberries, trash, and other debris. The buffer will then be planted with a selection of woody trees and shrubs that will provide many functions that are currently not provided under existing conditions. The planted trees and shrubs will provide additional sources of large and small woody debris for habitat.

While the quality of the habitat provided by the existing vegetation on the sloped areas is generally good, enhancements are very possible. Many locations within the steep slope area could be improved by selective planting of additional understory shrubs, small trees, Douglas fir, western hemlock, and western redcedar. Small trees would likely include serviceberry (*Amelanchier alnifolia*), mock orange (*Philadelphus lewisii*), red elderberry (*Sambucus racemosa*), Sitka mountain ash (*Sorbus sitchensis*), and others. Understory shrubs would likely include Nootka rose (*Rosa nutkana*), red currant (*Ribes sanguineum*), evergreen huckleberry (*Vaccinium ovatum*), and others.

The conifer tree species listed above are typically slow growing under an existing forest canopy. Eventually, the existing red alder trees, which have a lifespan of between 60 to 80 years, will die and create openings in the canopy. Black cottonwood trees, which have a lifespan of up to 120 years, will also start to die and create openings in the canopy. Additional canopy openings will likely be created by the regular loss of big-leaf maple branches. These canopy openings will be quickly exploited by the conifer trees planted, potentially speeding up the succession of the existing deciduous-dominated forest to a conifer-dominated forest, consistent with what likely existed prior to European colonization.

The additional shrubs and small trees will provide both aesthetic quality and enriched habitat for a variety of birds and native small animals. The shrub species likely to be planted within the reduced buffer area include bald hip rose (*Rosa gymnocarpa*), tall Oregongrape (*Mahonia aquifolium*), thimbleberry (*Rubus parviflorus*), salal (*Gaultheria shallon*), and others. The species selected for the reduced buffer will be of the massing variety, will provide quality habitat for a variety of birds and small mammals, and will be aesthetically pleasing to the residents throughout the year. Dense, massing shrubs will prevent people and pets from intruding within the buffer and will help reduce sound and light disturbances within the steep slope area. Fruits

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from the proposed plantings will provide a valuable food source for many species of mammals and birds.

8.2.4 Functions of Significant Trees as Large Wood

Significant trees, as defined by the City of Bellevue, will be impacted by the construction of this development. The project's landscape plans will address the appropriate mitigation for significant tree loss, as significant trees are not addressed in the Critical Areas Code for requiring mitigation. Habitat loss will be temporal so far as standing trees; however, as much large wood will be salvaged from the significant trees, as possible, for use in creating habitat features on-site. To the extent feasible, remaining native woody material will remain on-site, either as brush piles for habitat, or converted to wood chips or hog fuel for use in retaining the biomass of the significant trees within the critical area buffer. It should also be noted that many significant trees that could be subject to removal, being in a developable area, are being preserved in the Wildlife Habitat Corridor area (outlined further in **Section 8.3**, below). Given the potential for development of the site, the preservation, replacement, and re-use of significant trees within the project are above average compared to typical projects.

There are several conifers on the subject property that will likely be removed for the proposed development. These trees should be retained for use as large woody debris and cut to approximately 20-foot lengths, where possible. Downed logs and rootwads may be placed within the buffer outside of the steep slope areas to provide additional habitat value. The woody debris can be further modified using chainsaws to create pockets that can be filled with soil and duff, and then planted with western hemlock seedlings or huckleberry plants. The goal would be to simulate the habitat provided by a nurse log within the existing mature forest. The creation of such nurse logs should be considered experimental and special monitoring and contingency standards will need to be developed for them.

8.2.5 Water Quality and Hydrology in the Enhanced/Restored Buffers

The water quality and hydrology functions that could be lost due to the proposed buffer reduction would be provided through innovative site development plans. Stormwater and toxic runoff are easily controlled through the site's stormwater management plan. This plan will include enhanced stormwater treatment to remove toxic metals (such as copper from brake pads and zinc from tires) from stormwater prior to discharge into natural waters. Studies have shown that these metals can be fatal to adult salmonids in concentrations often found in stormwater runoff. Preventing untreated stormwater from flowing into the stream buffers will ensure that the quality of water within the streams will remain at or above current conditions

8.3 Additional On-site Habitat Benefits

The riparian and upland habitat westward of Stream 1, to the west property boundary, will not be altered by development. The project is proposing to dedicate the non-utilized developable land as an expansion of the protected critical area as a "Preserved Wildlife Corridor." This area is contiguous with undeveloped City of Bellevue parklands associated with Coal Creek, creating a large, relatively unbroken greenbelt of natural forested vegetation extending from the proposed western edge of development northwest to Coal Creek Parkway; a distance of approximately two miles and an area of greater than 300 acres.

The primary function of this expanded area is to serve as an important link in providing contiguous habitat throughout the area. As the large Coal Creek Natural Area is located adjacent to the property at this end of the site, the dedication of this land for wildlife use is a significant benefit, both by its size of 23,675 sf (0.54-acre) and its proximity to adjacent habitat.

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8.4 Mitigation Design Elements

8.4.1 Decompaction and Topsoil

All areas of buffer reestablishment with existing structures, impervious lawn areas, non-native vegetation, and associated utilities for the residences will be removed (**Sheet W2.0**). These areas will be restored through decompaction of existing soils and the importation of high-quality topsoil and/or the addition of soil amendments. High-quality topsoil will be placed a minimum of 6-inches deep across the decompacted buffer areas.

8.4.2 Habitat Features

Snags, down logs, rootwads, and stumps will be incorporated into the mitigation areas to provide ecologically important habitat features for wildlife (**Sheet W2.0**). All down woody material shall be coniferous species (western red cedar, Douglas fir, western hemlock, or Sitka spruce) obtained from the project site.

Snags provide perching, feeding and nesting sites for a variety of native birds. Cavity nesting bird species, such as tree swallows, violet-green swallows, chickadees, and woodpeckers, would be expected to utilize such features. A bird-nesting box will be attached to each installed snag to initially augment the natural habitat for swallow species. Down logs and stumps provide the slow release of nutrients as the wood decays, and provide cover for amphibians, small mammals, and other wildlife. Boulders recovered from site excavation (if available) will be placed in small piles throughout the mitigation area. These piles can provide habitat for reptiles and small mammals.

8.4.3 Mulch

The Client shall provide three (3) inches of medium bark mulch around all installed plants. Mulch shall be derived from fir, pine or hemlock species and shall not contain trash, rocks, or other debris that may be detrimental to plant growth.

8.4.4 Plantings

A variety of native trees and shrubs will be planted in the buffer mitigation area. Plant species have been chosen for a variety of qualities, including adaptations to specific water regimes, value to wildlife, value as a physical or visual barrier, pattern of growth (structural diversity), and aesthetic values. Native species were chosen to increase both the structural and species diversity of the mitigation areas, thereby increasing the value of the area to wildlife for food and cover. Plant materials will consist of a combination of bare-root stock (if available) and containers. A proposed plant list with the proposed plant species, size, and spacing, is provided on **Sheet W3.0, Appendix E**.

8.4.5 Temporary Irrigation System

A temporary irrigation system is not anticipated to be needed for enhancement plantings within existing vegetated buffer areas. Plantings shall be installed in the dormant season to help reduce transplant shock and encourage successful establishment. Plants shall be watered immediately after planting and shall be provided with supplemental irrigation during the dry season if drought stress is evident during the establishment period (generally the first two growing seasons after planting).

In all other areas of buffer re-establishment that are completely cleared and grubbed, an above-ground temporary irrigation system capable of full head-to-head coverage of all planted areas will be provided. The temporary irrigation system shall either utilize controller and point of connection (POC) from the site irrigation system or shall include a separate POC and controller with a backflow prevention device per water jurisdiction inspection and approval. The system shall be zoned to provide optimal pressure and uniformity of coverage, as well as separation for areas of full sun or shade and slopes exceeding 5%.

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The system shall be operational by June 15 (or at time of planting) and winterized by October 15. Irrigation shall be provided for the first 2 years of the monitoring period. The irrigation system shall be programmed to provide 1/2" of water two times per week (one cycle with two start times per week or every three days). A chart describing the location of all installed or open zones and corresponding controller numbers shall be placed inside the controller and given to the owner's representative. In addition to the temporary irrigation system, a soil moisture retention agent will be incorporated into the backfill of planting pits to minimize the potential for plant desiccation in the mitigation areas.

8.4.6 2-Board Fence and Critical Area Signs

Permanent fencing and critical areas signs shall be installed at the perimeter of all critical area buffers on the site. The fencing will be a rail style fence, split or 2-board type. Sign locations are provided on **Sheet W1.2.**

8.5 Mitigation Goals, Objectives, and Performance Standards

The goal of the mitigation plan is to restore the functions and values of a portion of the critical area buffers on the Site. The mitigation will be evaluated through the following objectives and performance standards. Mitigation monitoring will be performed by a qualified wetland biologist or ecologist.

Objective A: Create habitat structure and plant species diversity in the buffer enhancement areas currently possessing an existing canopy. These areas are identified as Area A & B on **Sheet W2.0** of **Appendix E**.

> ***Performance Standard A1:*** *In those areas, at least 8 species of desirable native woody plant species will be present at the end of Year 5.*
>
> ***Performance Standard A2:*** *Plant survival must be 100% for all installed native vegetation in all enhanced buffer areas at the end of Year 1 per the contractor's plant guarantee, and at least 75% for all installed native vegetation in years 2 through 5. Plants shall be replaced as needed to meet these standards in each of the monitoring years.*

Objective B: Create habitat structure and plant species diversity in the buffer enhancement areas currently lacking an existing canopy. These areas are identified as Areas C, D, & E on **Sheet W2.0** of **Appendix E**.

> ***Performance Standard B1:*** *In those areas, at least 12 species of desirable native woody plant species will be present at the end of Year 5. Woody plant coverage must be no less than 10% by the end of Year 1, no less than 60% by the end of Year 3, and no less than 80% by the end of Year 5. Woody coverage includes beneficial native woody plants that are naturally recruiting.*
>
> ***Performance Standard B2:*** *Plant survival must be 100% for all installed native vegetation in all restored buffer areas at the end of Year 1 per the contractor's plant guarantee, and at least 75% for all installed native vegetation in years 2 through 5. Plants shall be replaced as needed to meet these standards in each of the monitoring years.*

Objective C: Limit the amount of invasive and exotic species within the buffer enhancement areas.

> ***Performance Standard C****: After construction and following every monitoring event for the duration of the monitoring period, exotic and invasive plant species will be maintained at levels of 10% or less total cover throughout the mitigation areas. These species include, but are not limited to: Scot's broom, Himalayan and evergreen blackberry, Japanese knotweed, purple loosestrife, hedge bindweed, morning glory, and*

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creeping nightshade. English ivy, where present, shall be removed where growing in the soil and stems growing up tree trunks will be cut through.

Chapter 9. CONSTRUCTION SEQUENCING

9.1 Mitigation Construction Sequence

The following provides the general sequence of activities anticipated to be necessary to complete this mitigation project. Some of these activities may be conducted concurrently as the project progresses.

1. Conduct a site meeting between the Contractor, Talasaea Consultants, and the Owner's Representative to review the project plans, work areas, staging/stockpile areas, and material disposal areas.
2. Survey clearing/grading limits.
3. Flag existing trees and other vegetation to remain.
4. Install silt fencing, tree protection fencing (if required), and any other erosion and sedimentation control BMPs necessary for work in the project areas per civil plans.
5. Complete site grading per civil site development plans.
6. Remove all trash and debris and grub out invasive species in buffer areas
7. Decompact soils and place topsoil or soil amendments as required.
8. Install habitat features (snags, down logs, and stumps).
9. Mulch all cleared/grubbed buffer areas.
10. Construct soft surface trail in the buffer.
11. Complete site cleanup and install plant material as indicated on the planting plan.
12. Install 2-board fences and critical area signs.

9.2 Post-Construction Approval

Following mitigation construction completion Talasaea Consultants shall notify the City in writing to request a final site inspection for final construction approval. Once the City has approved of the mitigation construction, the monitoring period shall commence.

9.3 Post-Construction Assessment

Once construction is approved by the City, a qualified wetland ecologist or biologist from Talasaea Consultants shall conduct a post-construction assessment. The purpose of this assessment will be to establish baseline conditions at Year 0 of the required monitoring period. A Baseline Assessment report including “as-built” drawings will be submitted to the City. The as-built plans will identify and describe any changes in planting or other features in relation to the original approved plan.

Chapter 10. MONITORING PLAN

Performance monitoring of the mitigation areas will be conducted for a period of five years consistent with BLUC §20.25H.220(D). Monitoring events will be conducted according to the schedule presented in **Table 4** below. All monitoring will be performed by a qualified biologist or ecologist.

10.1 Reports

The reports will include: 1) Project Overview, 2) Mitigation Requirements, 3) Summary Data, 4) Maps and Plans, and 5) Conclusions. If the performance criteria are met, monitoring for the City will cease at the end of year five, unless objectives are met at an earlier date and the City accepts the mitigation project as successfully completed.

Table 4. Projected Schedule for Performance Monitoring and Maintenance Events

Year	Date	Maintenance Review	Performance Monitoring	Report Due to Agencies

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Year 0, As-built and Baseline Assessment	Winter 2020	X	X	X
1	Spring 2020	X	X	
	Fall 2020	X	X	X
2	Spring 2021	X	X	
	Fall 2021	X	X	X
3	Spring 2022	X		
	Fall 2022	X	X	X
4	Spring 2023	X		
	Fall 2023	X	X	X
5	Spring 2024	X		
	Fall 2024	X	X	X*

*Obtain final approval to facilitate bond release from the City of Bellevue (presumes performance criteria are met).

10.2 Monitoring Methods

Vegetation monitoring methods may include counts; photo-points; random sampling; sampling plots, quadrats, or transects; stem density; visual inspection; and/or other methods deemed appropriate by the permitting agencies and the biologist/ecologist. Vegetation monitoring components shall include general appearance, health, mortality, colonization rates, percent cover, percent survival, volunteer plant species, and invasive weed cover.

Permanent vegetation sampling plots, quadrats, and/or transects will be established at selected locations to adequately sample and represent all the plant communities within the mitigation project areas. The number, exact size, and location of transects, sampling plots, and quadrats will be determined at the time of the baseline assessment.

Percent areal cover of woody vegetation (forested and/or scrub-shrub plant communities) will be evaluated using point-intercept sampling methodology. Using this methodology, a tape will be extended between two permanent markers at each end of an established transect. Trees and shrubs intercepted by the tape will be identified, and the intercept distance recorded. Percent cover by species will then be calculated by adding the intercept distances and expressing them as a total proportion of the tape length.

The established vegetation sampling locations will be monitored and compared to the baseline data during each performance monitoring event to aid in determining the success of plant establishment. Percent survival of shrubs and trees will be evaluated in a 10-foot-wide strip along each established transect. The species and location of all shrubs and trees within this area will be recorded at the time of the baseline assessment and will be evaluated during each monitoring event to determine percent survival.

10.3 Photo Documentation

Locations will be established within the mitigation areas from which panoramic photographs will be taken throughout the monitoring period. These photographs will document general appearance and relative changes within the plant communities. A review of the photos over time will provide a semi-quantitative representation of the success of the planting plan. Vegetation sampling plot and photo-point locations will be shown on a map and submitted with the baseline assessment report and yearly performance monitoring reports.

10.4 Wildlife

Birds, mammals, reptiles, amphibians, and invertebrates observed in the mitigation areas (either by direct or indirect means) will be identified and recorded during scheduled monitoring events, and at any other times observations are made. Direct observations include actual sightings, while indirect observations include tracks, scat, nests, song, or other indicative signs. The kinds and locations of the habitat with the greatest use by each species will be noted, as will any breeding or nesting activities.

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10.5 Water Quality and Site Stability

Water quality will be assessed qualitatively unless it is evident there is a serious problem. In such an event, water quality samples will be taken and analyzed in a laboratory for suspected parameters. Qualitative assessments of water quality include:

- oil sheen or other surface films,
- abnormal color or odor of water,
- stressed or dead vegetation or aquatic fauna,
- turbidity, and
- the absence of aquatic fauna.

Observations will be made of the general stability of slopes and soils in the mitigation areas during each monitoring event. Any erosion of soils or slumping of slopes will be recorded and corrective measures will be taken.

Chapter 11. MAINTENANCE AND CONTINGENCY

Regular maintenance reviews will be performed according to the schedule presented in **Table 4** to address any conditions that could jeopardize the success of the mitigation project. Following maintenance reviews by the biologist or ecologist, required maintenance on the Site will be implemented within ten (10) business days of submission of a maintenance memo to the maintenance contractor and permittee.

Established performance standards for the project will be compared to the yearly monitoring results to judge the success of the mitigation. If during the monitoring period, there appears to be a significant problem with achieving the performance standards, the permittee shall work with the permitting agencies to develop a Contingency Plan in order to get the project back into compliance with the performance standards. Contingency plans can include, but are not limited to, the following actions: additional plant installation, erosion control, modifications to hydrology, and plant substitutions of type, size, quantity, and/or location. If required, a Contingency Plan shall be submitted by December 31st of any year when deficiencies are discovered.

The following list includes examples of maintenance (M) and contingency (C) actions that may be implemented during the monitoring period. This list is not intended to be exhaustive, and other actions may be implemented as deemed necessary.

- During year one, replace all dead woody plant material (M).
- Water all plantings at a rate of 1” of water every week between June 15 – October 15 during the first two years after installation, and for the first two years after any replacement plantings (C & M).
- Replace dead plants with the same species or a substitute species that meet the goals and objectives of the mitigation plan, subject to Talasaea and agency approval (C).
- Re-plant area after the reason for failure has been identified (e.g., moisture regime, poor plant stock, disease, shade/sun conditions, wildlife damage, etc.) (C).
- After consulting with City staff, minor excavations, if deemed to be more beneficial to the existing conditions than currently exists, will be made to correct surface drainage patterns (C).
- Remove/control weedy or non-native invasive plants (e.g., Scot's broom, reed canarygrass, Himalayan blackberry, purple loosestrife, Japanese knotweed, etc.) by manual or chemical means approved by permitting agencies. The use of herbicides or pesticides within the mitigation area would only be implemented if other measures failed or were considered unlikely to be successful and would require prior agency approval. All non-native vegetation must be removed and disposed of off-site. (C & M).

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- Weed all trees and shrubs to the dripline and provide 3-inch deep mulch rings 24 inches in diameter for shrubs and 36 inches in diameter for trees (M).
- Remove trash and other debris from the mitigation areas twice a year (M).
- Selectively prune woody plants at the direction of Talasaea Consultants to meet the mitigation plan's goal and objectives (e.g., thinning and removal of dead or diseased portions of trees/shrubs) (M).
- Repair or replace damaged structures including weirs, signs, fences, or bird boxes (M).

Chapter 12. POST-MONITORING VEGETATION MANAGEMENT

A Vegetation Management Plan (VMP) has been prepared to guide general landscape maintenance practices for this project, as well as maintenance practices for the mitigation areas following the conclusion of the five-year performance monitoring period. The goal of the VMP is to ensure long-term vegetation management that is consistent with the objectives and performance standards of the mitigation plan approved by the City of Bellevue. This includes vegetation management techniques as well as restrictions on activities in critical area buffers. **Appendix H** contains the complete VMP.

Chapter 13. FINANCIAL GUARANTEE

The applicant shall post a bond or other financial assurance device as required by the City to ensure that the mitigation plan is fully implemented, monitored, and maintained through the end of the required monitoring period. Financial guarantees shall meet the requirements of BLUC 20.40.490. As stated in this section of the code, the amount of any required assurance device will be for 150% of the cost of improvements calculated at the end of the assurance period. For maintenance, the amount would cover at least 20% for replacement materials, as calculated on the last day of the performance period.

Chapter 14. SUMMARY

The Park Pointe PUD property is an assemblage of two parcels totaling approximately 10 acres in size. The northern parcel (Parcel A) is approximately ½ developed on its eastern portion with a single-family residence and managed pasture. The remaining ½ of the parcel is relatively undisturbed and forested. The southern parcel (Parcel B) is developed with a single-family residence, associated outbuildings, and managed pasture.

Three wetlands and four streams were identified on, or adjacent to, the property. The wetlands were named Wetland A, Wetland AA, and Wetland B. The four streams are Coal Creek, Stream 1, Stream 2, and Stream 3. Wetland AA was later determined to be part of a sedimentation pond constructed in Stream 2 at the outfall of the culvert under Lakemont Boulevard. This pond is dredged on a five-year schedule. Since the sedimentation pond is a maintained feature, Wetland AA is not a regulated feature.

The proposed site development design will reduce approximately 21,575 sf of currently degraded critical area buffer and impact an additional 2,911 sf for trails and stormwater outfall. The mitigation area to compensate for these impacts is approximately 130,823 sf (3.0 acres). The net increase of buffer functionality can be measured with these values, which is equivalent to a **5 to 1** ratio of mitigation to impact.

All mitigation areas will be monitored for five years post-construction. All post-construction critical areas will be placed in a native growth protection area easement. A split-rail or similar style fence will be installed at the outer edge of the buffer areas, adjacent to the current edge of asphalt, and critical area signs will be installed at intervals determined by the City.

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Chapter 15. REFERENCES

City of Bellevue. 2011. City of Bellevue Land Use Code Part 20.25, Special and Overlay Districts. Current through Ordinance 6016, passed August 1, 2011. Accessed 2017-2020. https://bellevue.municipal.codes/LUC

City of Bellevue. 1997. City of Bellevue Sensitive Areas Notebook. Plate 148. April.

Confluence Environmental Company2017. Park Pointe Coal Creek Typing Study. April 19.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service, Department of the Interior. FWSOBS-70/31.

Geotech Consultants, Inc. 2016. Geotechnical Engineering Study. Proposed Housing Development, 7219 and 7331 Lakemont Boulevard Southeast, Bellevue, Washington. January 19.

Geotech Consultants, Inc. 2017. Supplemental Letter, Proposed Housing Development, 7219 and 7331 Lakemont Boulevard Southeast, Bellevue, Washington. March 29.

Gerhardt, A., and F. Westermann. 1995. "Effects of Precipitations of Iron Hydroxides on Leptophlebia marginata (L.)(Insecta: Ephemeroptera) in the Field." Archiv für Hydrobiologie, March: 81-93.

Hitchcock, C.L., and A. Cronquist. 1973. Flora of the Pacific Northwest. University of Washington Press. 730 pp.

Hruby, T. 2006. Washington State Wetland Rating System for Western Washington – Revised. Washington State Department of Ecology Publication #04-06-025.

Hruby, T. 2014. “Washington State Wetland Rating System for Western Washington. 2014 Update.” Publication No. 14-06-029. Washington: Shorelines and Environmental Assistance Program. Washington Department of Ecology.

Minor, William F., and Maureen Minor. 1993. “Nesting of Red-Tailed Hawks and Great Horned Owls in a Central New York Urban/Suburban Area.” *J. Field Ornithol.* 64 (4): 433–39.

“Red-Tailed Hawk.” 2014. Audubon. November 13, 2014. http://www.audubon.org/field-guide/bird/red-tailed-hawk.

Speiser, Robert, and Thomas Bosakowski. 1988. “Nest Site Preferences of Red-Tailed Hawks in the Highlands of Southeastern New York and Northern New Jersey.” *J. Field Ornithol.* 59 (4): 361–68.

“Title 40 CFR Part 120 - Definitions of Waters of the United States, Part 120.” n.d.

StreamNet. "StreamNet Mapper." StreamNet. 2017. Accessed May 2017. http://map.streamnet.org/website/bluesnetmapper/viewer.htm.

U.S. Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0). ed.J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-10-3. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

U.S. Department of Agriculture. National Agriculture Imagery Program (NAIP). Accessed 2017. https://www.fsa.usda.gov/programs-and-services/aerial-photography/imagery-programs/naip-imagery/index

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U.S. Fish and Wildlife Service. National Wetlands Inventory Map. Accessed May 2017. https://www.fws.gov/wetlands/data/Mapper.html.

Vuori, Kari-Matti. 1995. "Direct and Indirect Effects of Iron on River Ecosystems." Annales Zoologici Fennici, July 15: 317-329.

Washington State Department of Fish and Wildlife. Priority Habitats and Species Database. Accessed May 2017. https://www.wdfw.wa.gov/mapping/phs.

Washington State Department of Natural Resources. 2009. Natural Heritage Database. Accessed May 2017. https://data-wadnr.opendata.arcgis.com/datasets/ecological-systems-of-washington-zipped-raster-grid

The Watershed Company. 2010. Guidance: Using the Bellevue Urban Wildlife Functional Assessment Model.

Williams, R.W., R.W. Laramie, and J.J. Ames. 1975. A Catalog of Washington Streams and Salmon Utilization – Volume 1 Puget Sound Region. Olympia, Washington: Washington State Department of Fisheries.

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FIGURES

Figure 1: Vicinity Map & Directions
Figure 2: Existing Development
Figure 3: NRCS Soils Map
Figure 4: City of Bellevue Critical Areas Map
Figure 5: Coal Creek Barrier Locations
Figure 6: Pasture Grasses in ½-Mile Vicinity

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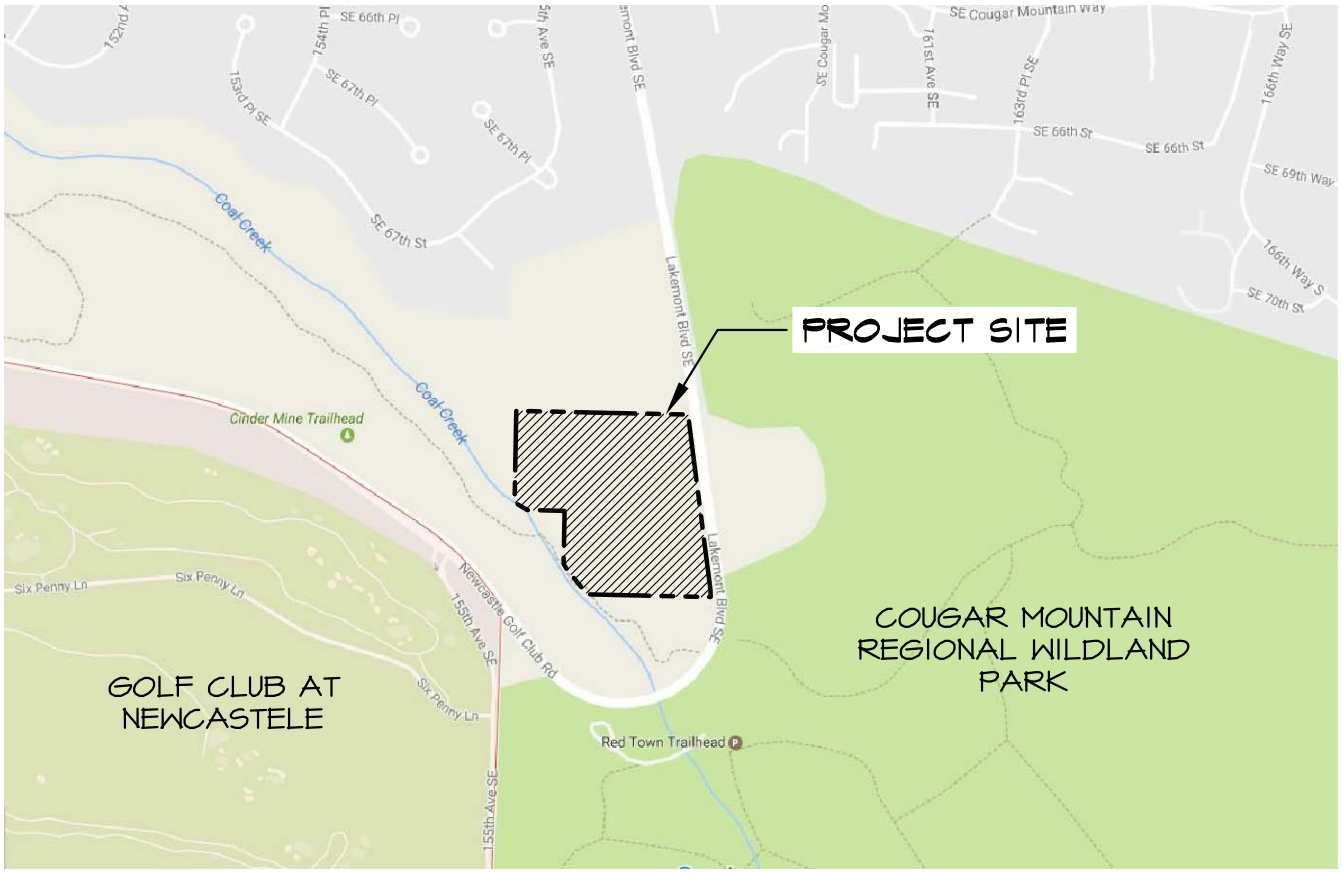

IMAGE SOURCE: GOOGLE MAPS, WWW.MAPS.GOOGLE.COM (ACCESSED 16 MAY 2017)

DRIVING DIRECTIONS:

1. FROM DOWNTOWN BELLEVUE HEAD SOUTH ON BELLEVUE WAY SE TOWARD MAIN STREET.
2. USE ANY LANE TO MERGE ONTO I-90 E VIA THE RAMP TO SPOKANE.
3. TAKE EXIT 13 TOWARD SE NEWPORT WAY.
4. UESE ANY LANE TO TURN RIGHT ONTO LAKEMONT BLVD SE.
5. IN 2.9 MILES YOU WILL ARRIVE AT YOUR DESTINATION: 7331 LAKEMONT BOULEVARD SE, BELLEVUE, WA

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FIGURE #1

VICINITY MAP & DIRECTIONS

CITY OF BELLEVUE RESPONSE LETTER
PARK POINTE PUD
BELLEVUE, WA

DESIGN	DRAWN	PROJECT
	KM	1543

SCALE NTS

DATE 1-9-2018

REVISED 6-4-2018

1

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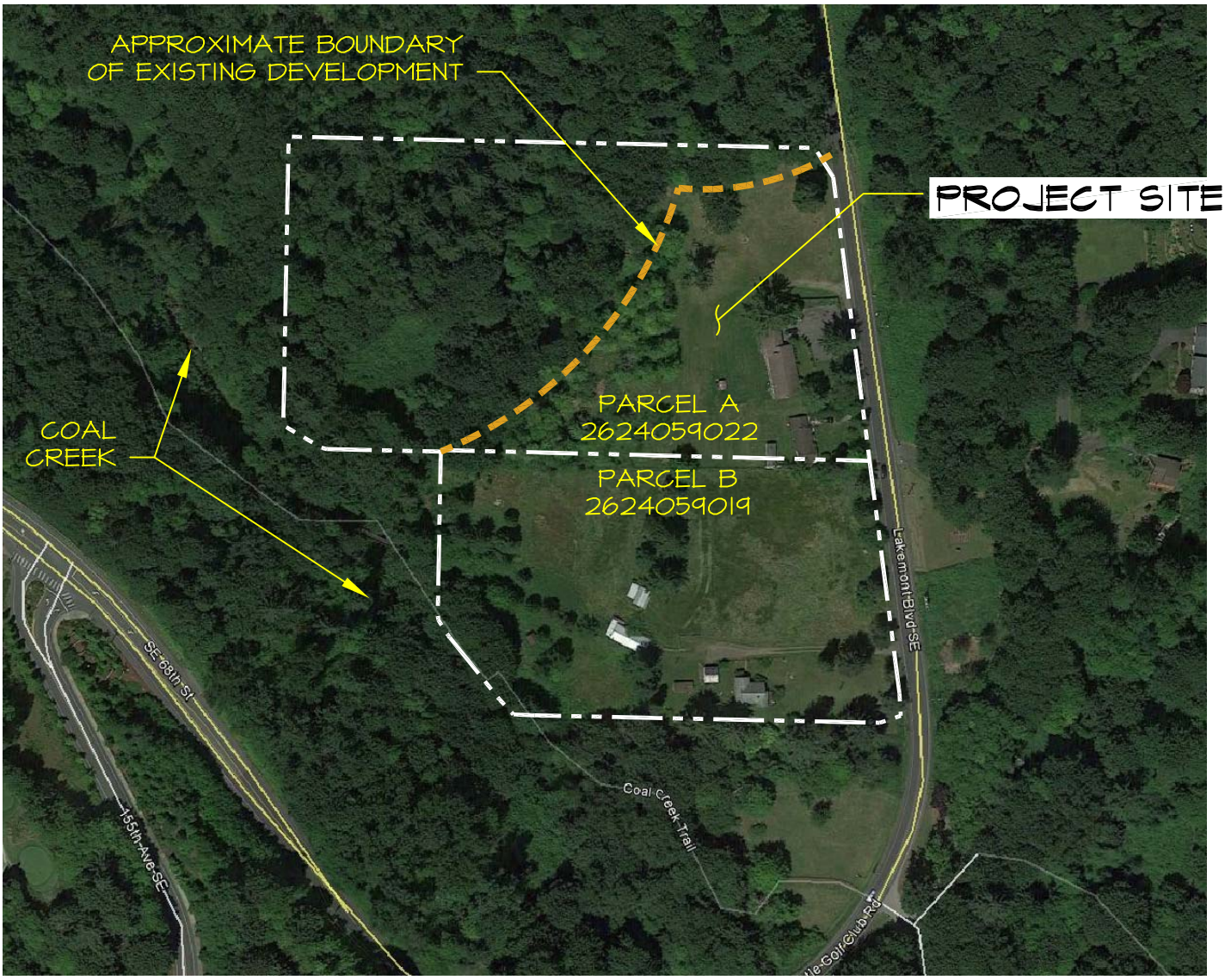

IMAGE SOURCE: GOOGLE EARTH; 2016 GOOGLE INC. (ACCESSED 16 MAY 2017)

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FIGURE #2

EXISTING DEVELOPMENT

CITY OF BELLEVUE RESPONSE LETTER
PARK POINTE PUD
BELLEVUE, WA

DESIGN	DRAWN	PROJECT
	KM	1543

SCALE: NTS

DATE: 1-9-2018

REVISED: 6-4-2018

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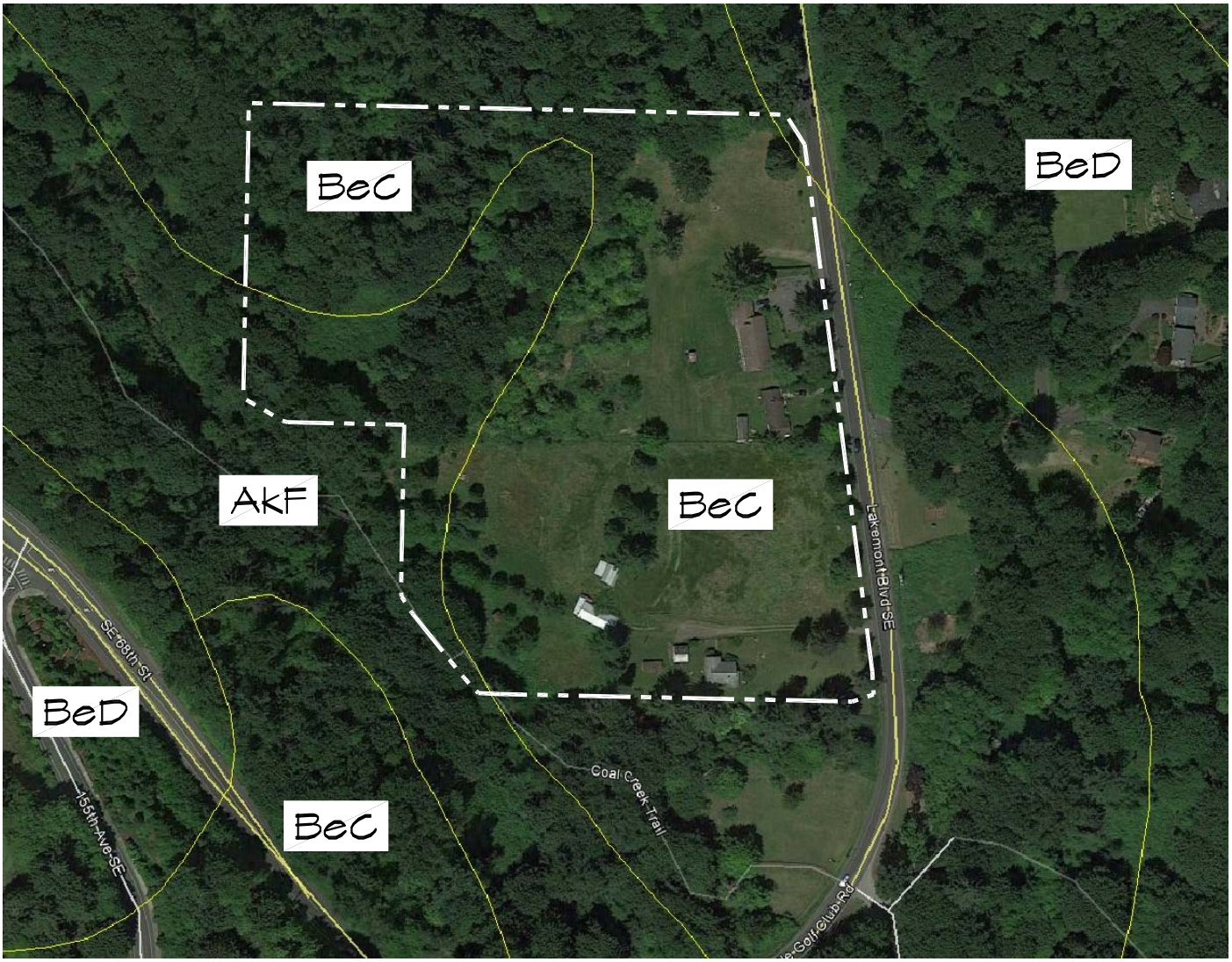

LEGEND

TYPE	DESCRIPTION, SLOPES
AkF	ALDERWOOD-KITSAP SOIL, VERY STEEP
BeC	BEAUSITE GRAVELLY SANDY LOAM 6-15% SLOPE
BeD	BEAUSITE GRAVELLY SANDY LOAM 15-30% SLOPE

SOURCE: SOIL SURVEY STAFF, NATURAL RESOURCES CONSERVATION SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE, WEB SOIL SURVEY. AVAILABLE ONLINE AT http://websoilsurvey.nrcs.usda.gov/. ACCESSED (5/16/2017).

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FIGURE #3

NRCS SOILS MAP

CITY OF BELLEVUE RESPONSE LETTER
PARK POINTE PUD
BELLEVUE, WA

DESIGN	DRAWN	PROJECT
	KM	1543

SCALE NTS

DATE 1-9-2018

REVISED 6-4-2018

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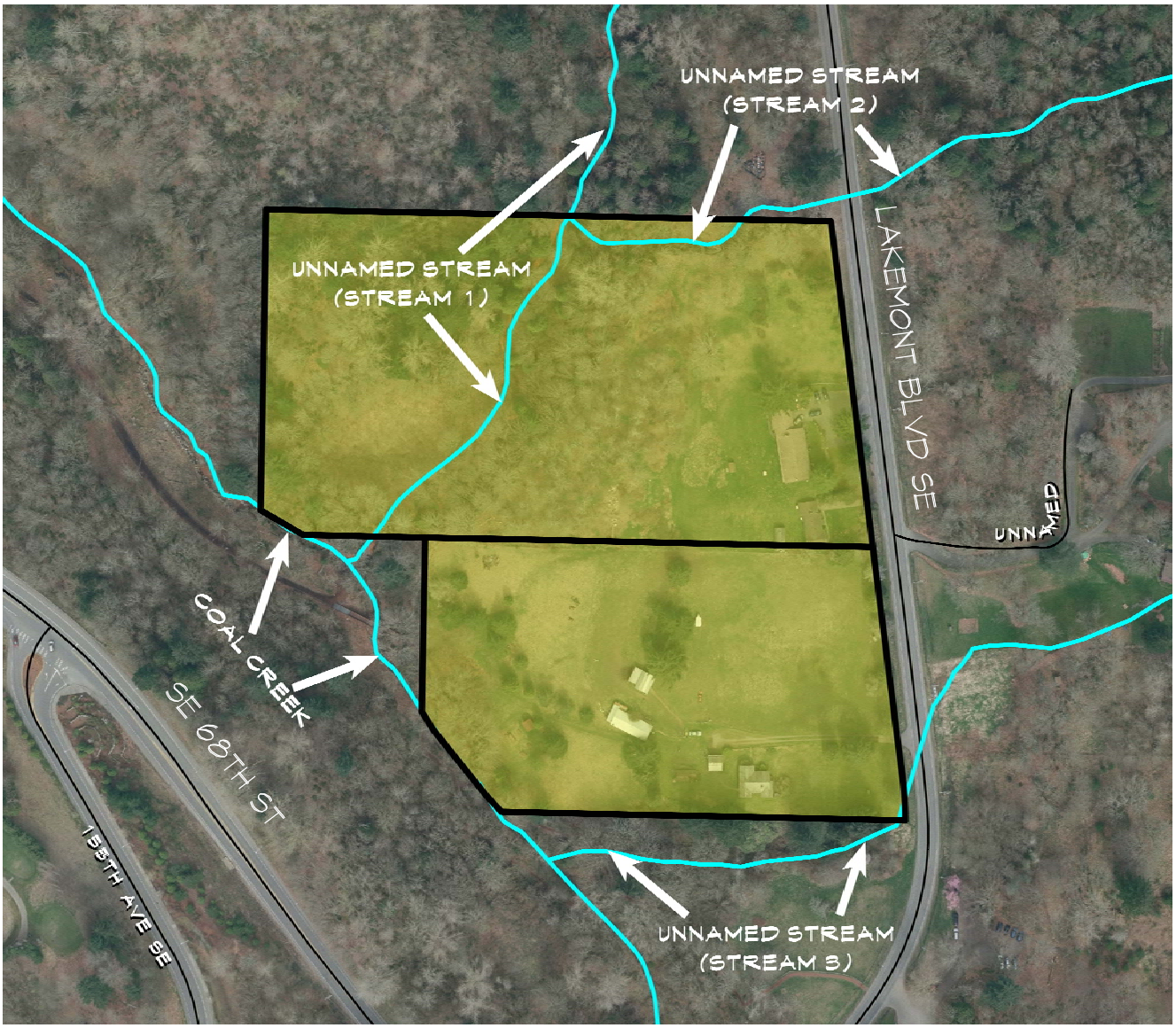

REFERENCE: GIS ROAD, STREAM AND PARCEL DATA FROM CITY OF BELLEVUE, 2013. AERIAL IMAGE 2012 FROM EARTH EXPLORER (DOWNLOADED 2015)

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FIGURE #4

CITY OF BELLEVUE CRITICAL AREAS MAP

CITY OF BELLEVUE RESPONSE LETTER
PARK POINTE PUD
BELLEVUE, WA

DESIGN	DRAWN	PROJECT
	KM	1543

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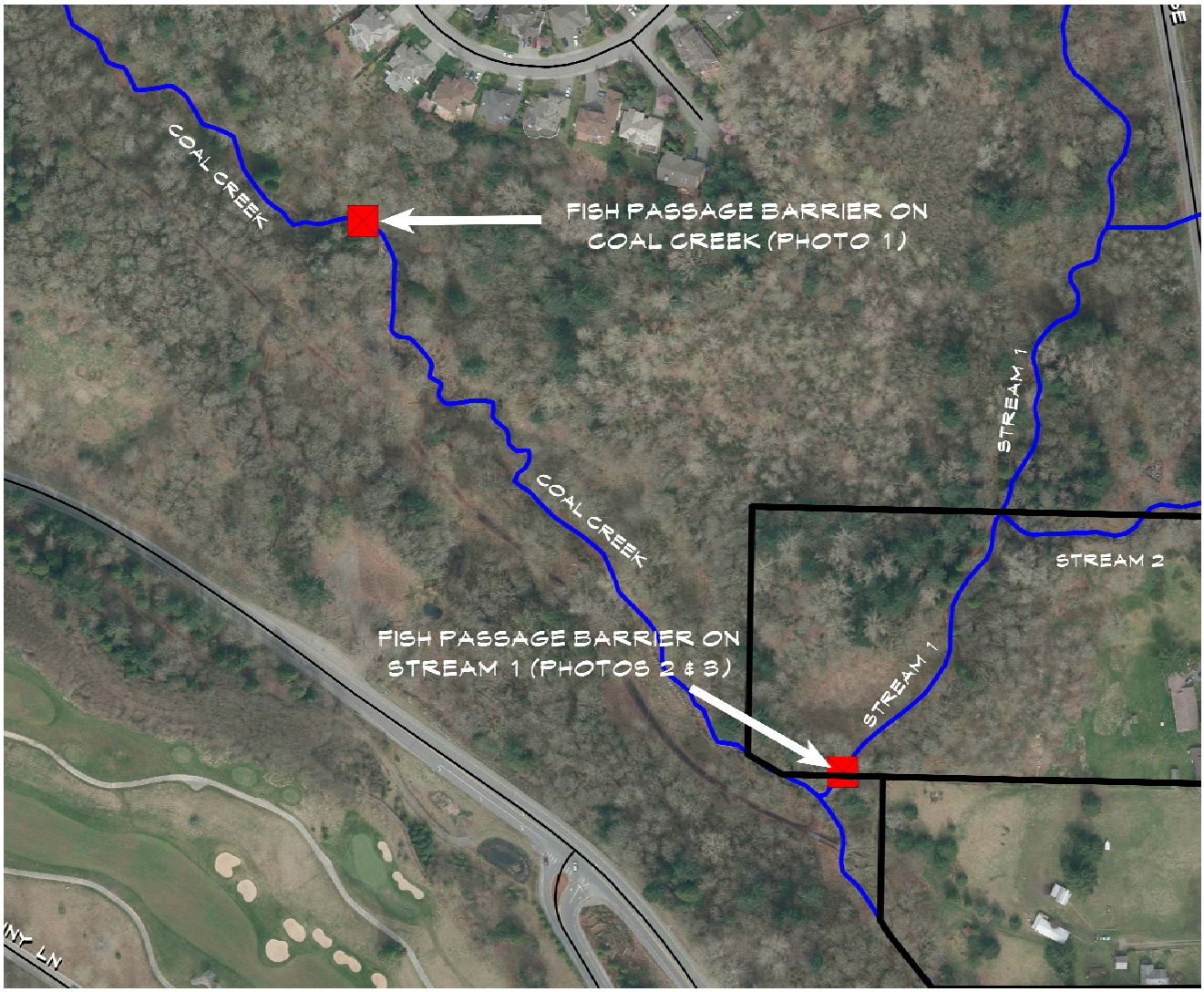

REFERENCE: GIS ROAD AND PARCEL DATA FROM CITY OF BELLEVUE, 2013. STREAM GIS DATA FROM KING COUNTY, 2010. AERIAL IMAGE 2012 FROM EARTH EXPLORER (DOWNLOADED 2015). FISH PASSAGE BARRIER LOCATIONS DETERMINED BY GPS-ENABLED CAMERA.

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FIGURE #5

COAL CREEK BARRIER LOCATIONS

CITY OF BELLEVUE RESPONSE LETTER
PARK POINTE PUD
BELLEVUE, WA

DESIGN	DRAWN	PROJECT
	KM	1543

SCALE: NTS
DATE: 1-9-2018
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REFERENCE: KING COUNTY IMAP (HTTPS://GISMAPS.KINGCOUNTY.GOV/IMAP/)
AERIAL IMAGE DATE: 2015

LEGEND

	PASTURE GRASSES WITHIN ½ MILE OF PROPERTY	34.7 AC
	PASTURE GRASSES WITHIN PROPERTY BOUNDARY	4.8 AC

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FIGURE #6

PASTURE GRASSES IN 1/2 MILE VICINITY

CITY OF BELLEVUE RESPONSE LETTER
PARK POINTE PUD
BELLEVUE, WA

DESIGN	DRAWN	PROJECT
	KM	1543

SCALE: NTS
DATE: 1-9-2018
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Appendix C:

Wetland Delineation Data Sheets, Talasaea Consultants, 2017

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

Project/Site: TAL-1543 Coal Creek City/County: Bellevue Sampling Date: 12/11/2017

Applicant/Owner: Isola Homes State: WA Sampling Point: WL-A-UPL

Investigator(s): KM Section, Township, Range: SE 1/4 S26, T24N, R05E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 20%

Subregion (LRR): A Lat: 47.536660 Long: -122.129723 Datum: NAD83

Soil Map Unit Name: BeC, AkF NWI classification: None Mapped

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 ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Pit located southeast of WL-A-WET testpit.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer macrophyllum*	70	Yes	FACU
2. *Thuja plicata*	15	Yes	FAC
3.			
4.			
	85 = Total Cover		
Sapling/Shrub Stratum (Plot size: 3m)			
1. *Oemleria cerasiformis*	35	Yes	FACU
2.			
3.			
4.			
5.			
	35 = Total Cover		
Herb Stratum (Plot size: 1m)			
1. *Polystichum munitum*	25	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 3m)			
1. *None*			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

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 =

Hydrophytic Vegetation Indicators:

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: No hydrophytic vegetation present.

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SOIL

Sampling Point: WL-A-UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10YR 3/4	100	-	-	-	-	Loam	
5-16	10YR 5/3	100	-	-	-	-	Sand/Rck	Sandstone-Coal Mix

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1 (**except MLRA 1**))
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks: Sandstone and coal mixture below 5 inches

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1)(**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B)**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6(**LRR A**)
- ☐Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No wetland hydrology present.

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

Project/Site: TAL-1543 Coal Creek City/County: Bellevue Sampling Date: 12/11/2017

Applicant/Owner: Isola Homes State: WA Sampling Point: WL-A-WET

Investigator(s): KM Section, Township, Range: SE 1/4 S26, T24N, R05E

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 2%

Subregion (LRR): A Lat: 47.536660 Long: -122.129723 Datum: NAD83

Soil Map Unit Name: BeC, AkF NWI classification: None Mapped

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 ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: Test pit located southeast of Stream 1

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status
1. *None.*			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 3m)			
1. *Rubus spectabilis*	40	Yes	FAC
2. *Viburnum edule*	30	Yes	FACW
3.			
4.			
5.			
	70 = Total Cover		
Herb Stratum (Plot size: 1m)			
1. *Athyrium filix-femina*	30	Yes	FAC
2. *Tolmiea menziesii*	20	Yes	FAC
3. *Equisetum arvense*	15	Yes	FAC
4. *Carex amplifolia*	10	No	OBL
5.			
6.			
7.			
8.			
	75 = Total Cover		
Woody Vine Stratum (Plot size: 3m)			
1. *None.*			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

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 =

Hydrophytic Vegetation Indicators:

- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: Wetland dominated by hydrophytic vegetation.

DSD - 000465

SOIL

Sampling Point: WL-A-UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	100	-	-	-	-	Clay Loam	A little greasy
8-16	10YR 3/1	60	10YR 4/4	30	C	M	ClL/O	Greasy

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1 (**except MLRA 1**))
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: ClL = Clay loam, O = organic. Abundance of ferrous iron present at surface and throughout the 8-16" layer. Saturation at 10 inches.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1)(**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B)**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6(**LRR A**)
- ☐Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): N/A.

Water Table Present? Yes ☒ No ☐ Depth (inches): 10

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 10

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Saturation and water table present at 10" depth from the soil surface.

DSD - 000466

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

Project/Site: TAL-1543 Coal Creek City/County: Bellevue Sampling Date: 12/11/2017

Applicant/Owner: Isola Homes State: WA Sampling Point: WL-B-UPL

Investigator(s): KM Section, Township, Range: SE 1/4 S26, T24N, R05E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 20%

Subregion (LRR): A Lat: 47.536660 Long: -122.129723 Datum: NAD83

Soil Map Unit Name: Alderwood Kitsap Soil, very steep NWI classification: None Mapped

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 ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Plot located North (uphill) of Wetland B.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Psuedotsuga menziesii*	30	Yes	FACU
2.			
3.			
4.			
	30 = Total Cover		
Sapling/Shrub Stratum (Plot size: 3m)			
1. *None.*			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 1m)			
1. *Polystichum munitum*	25	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 3m)			
1. *None*			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

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 =

Hydrophytic Vegetation Indicators:

- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: Plot dominated by upland species

DSD - 000467

SOIL

Sampling Point: WL-B-UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-8	10YR 2/2	100	-	-	-	-	Sandy Loam	
8-12	10YR 3/3	100	-	-	-	-	Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1 (**except MLRA 1**))
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks: No hydric soils indicators met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1)(**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B)**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6(**LRR A**)
- ☐Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No wetland hydrology present.

DSD - 000468

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

Project/Site: TAL-1543 Coal Creek City/County: Bellevue Sampling Date: 12/11/2017

Applicant/Owner: Isola Homes State: WA Sampling Point: WL-B-WET

Investigator(s): KM Section, Township, Range: SE 1/4 S26, T24N, R05E

Landform (hillslope, terrace, etc.): Hill slope/seep Local relief (concave, convex, none): None Slope (%): 20%

Subregion (LRR): A Lat: 47.536660 Long: -122.129723 Datum: NAD83

Soil Map Unit Name: BeC, AkF NWI classification: None Mapped

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 ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: Plot located in center of wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5m)	Absolute % Cover	Dominant Species?	Indicator Status
1. *None.*			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 3m)			
1. *Rosa nutkana*	10	Yes	FAC
2.			
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size: 1m)			
1. *Equisetum telmateia*	30	Yes	FACW
2. *Ranunculus repens*	25	Yes	FAC
3. *Agrostis stolonifera*	5	No	FAC
4.			
5.			
6.			
7.			
8.			
	60 = Total Cover		
Woody Vine Stratum (Plot size: 3m)			
1. *None*			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 40 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

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 = _____

Hydrophytic Vegetation Indicators:

☒ Dominance Test is >50%

☐ Prevalence Index is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: Hydrophytic vegetation present.

SOIL

Sampling Point: WL-B-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 2/1	100	-	-	-	-	SCL	Undecomposed wood found
8-16	10YR 3/2	90	10YR 4/4	10	C	M	SCL	More wood found

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1 (**except MLRA 1**))
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: SCL=Sandy Clayey Loam

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☒ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1)(**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B)**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6(**LRR A**)
- ☐Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 0.5

Water Table Present? Yes ☒ No ☐ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Saturation/Surface water visible seeping at surface.

DSD - 000470

Appendix D:

Washington State Wetland Rating System for Western Washington Publication #04-06-025

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DSD - 000471

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland A Date of site visit: 2015-08-06
Rated by DRT Trained by Ecology? ☒ Yes ☐ No Date of training 10-15
HGM Class used for rating Depressional Wetland has multiple HGM classes? ☐ Y ☒ N

NOTE: **Form is not complete without the figures requested** *(figures can be combined)*. Source of base aerial photo/map _____

OVERALL WETLAND CATEGORY (based on functions ☐ or special characteristics ☐)

1. Category of wetland based on FUNCTIONS

- ☐ **Category I** – Total score = 23 - 27
- ☐ **Category II** – Total score = 20 - 22
- ☒ **Category III** – Total score = 16 - 19
- ☐ **Category IV** – Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
			Circle the appropriate ratings	
Site Potential	M	M	L	
Landscape Potential	M	M	M	
Value	H	M	M	TOTAL
Score Based on Ratings	7	6	5	18

Score for each function based on three ratings *(order of ratings is not important)*

9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC		CATEGORY
Estuarine	☐	I II
Wetland of High Conservation Value	☐	I
Bog	☐	I
Mature Forest	☐	I
Old Growth Forest	☐	I
Coastal Lagoon	☐	I II
Interdunal	☐	I II III IV
None of the above		☐

DSD - 000472

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (*can be added to map of hydroperiods)*	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream *(can be added to another figure)*	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants (*can be added to figure above)*	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

DSD - 000473

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

☒ NO – go to 2 ☐ **YES** – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

☐ **NO – Saltwater Tidal Fringe (Estuarine)** ☐ **YES – Freshwater Tidal Fringe**

*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

☒ NO – go to 3 ☐ **YES** – The wetland class is **Flats**

*If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?
___The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size; ___At least 30% of the open water area is deeper than 6.6 ft (2 m).

☒ NO – go to 4 ☐ **YES –** The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?
☐ The wetland is on a slope (*slope can be very gradual*),
☐ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
☐ The water leaves the wetland **without being impounded**.

☐ NO – go to 5 ☐ **YES –** The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?
☐ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
☐ The overbank flooding occurs at least once every 2 years.

☐ NO – go to 6 ☐ **YES** – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

DSD - 000474

Wetland name or number: TAL-1543 Wetland A

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

☐ NO – go to 7 ☒ **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

☒ NO – go to 8 ☐ **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

DSD - 000475

DEPRESSIONAL AND FLATS WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

D 1.0. Does the site have the potential to improve water quality?	
D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = 3 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. points = 1	1
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic *(use NRCS definitions).* Yes = 4 No = 0	0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): Wetland has persistent, ungrazed, plants > 95% of area points = 5 Wetland has persistent, ungrazed, plants > ½ of area points = 3 Wetland has persistent, ungrazed plants > $^1/_{10}$ of area points = 1 Wetland has persistent, ungrazed plants < $^1/_{10}$ of area points = 0	5
D 1.4. Characteristics of seasonal ponding or inundation: *This is the area that is ponded for at least 2 months. See description in manual.* Area seasonally ponded is > ½ total area of wetland points = 4 Area seasonally ponded is > ¼ total area of wetland points = 2 Area seasonally ponded is < ¼ total area of wetland points = 0	2
Total for D 1 Add the points in the boxes above	

Rating of Site Potential If score is: ☐ **12-16 = H** ☐ **6-11 = M** ☐ **0-5 = L** *Record the rating on the first page*

D 2.0. Does the landscape have the potential to support the water quality function of the site?	
D 2.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0	0
D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3? Source: Click or tap here to enter text. Yes = 1 No = 0	0
Total for D 2 Add the points in the boxes above	1

Rating of Landscape Potential If score is: ☐ **3 or 4 = H** ☒ **1 or 2 = M** ☐ **0 = L** *Record the rating on the first page*

D 3.0. Is the water quality improvement provided by the site valuable to society?	
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? Yes = 1 No = 0	1
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list? Yes = 1 No = 0	0
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (*answer YES if there is a TMDL for the basin in which the unit is found*)? Yes = 2 No = 0	0
Total for D 3 Add the points in the boxes above	1

Rating of Value If score is: ☐ **2-4 = H** ☒ **1 = M** ☐ **0 = L** *Record the rating on the first page*

DSD - 000476

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation

D 4.0. Does the site have the potential to reduce flooding and erosion?

D 4.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression with no surface water leaving it (no outlet) points = 4 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet points = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch points = 1 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	0
D 4.2. Depth of storage during wet periods: *Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part.* Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5 Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3 The wetland is a "headwater" wetland points = 3 Wetland is flat but has small depressions on the surface that trap water points = 1 Marks of ponding less than 0.5 ft (6 in) points = 0	3
D 4.3. Contribution of the wetland to storage in the watershed: *Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.* The area of the basin is less than 10 times the area of the unit points = 5 The area of the basin is 10 to 100 times the area of the unit points = 3 The area of the basin is more than 100 times the area of the unit points = 0 Entire wetland is in the Flats class points = 5	3
Total for D 4 Add the points in the boxes above	6

Rating of Site Potential If score is: ☐ **12-16 = H** ☒ **6-11 = M** ☐ **0-5 = L** *Record the rating on the first page*

D 5.0. Does the landscape have the potential to support hydrologic functions of the site?

D 5.1. Does the wetland receive stormwater discharges? Yes = 1 No = 0	1
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 0	0
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0	0
Total for D 5 Add the points in the boxes above	1

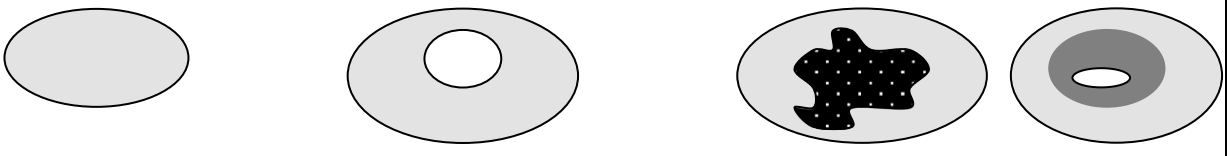
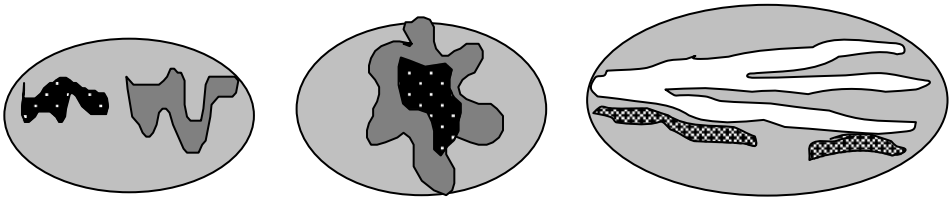
Rating of Landscape Potential If score is: ☐ **3 = H** ☒ **1 or 2 = M** ☐ **0 = L** *Record the rating on the first page*

D 6.0. Are the hydrologic functions provided by the site valuable to society?

D 6.1. The unit is in a landscape that has flooding problems. *Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.* The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): • Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2 • Surface flooding problems are in a sub-basin farther down-gradient. points = 1 Flooding from groundwater is an issue in the sub-basin. points = 1 The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. *Explain why* points = 0 There are no problems with flooding downstream of the wetland. points = 0	1
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0	2
Total for D 6 Add the points in the boxes above	3

Rating of Value If score is: ☒ **2-4 = H** ☐ **1 = M** ☐ **0 = L** *Record the rating on the first page*

DSD - 000477

These questions apply to wetlands of all HGM classes. HABITAT **FUNCTIONS** - Indicators that site functions to provide important habitat	
H 1.0. Does the site have the potential to provide habitat?	
H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.* ☐ Aquatic bed — 4 structures or more: points = 4 ☐ Emergent — 3 structures: points = 2 ☒ Scrub-shrub (areas where shrubs have > 30% cover) — 2 structures: points = 1 ☐ Forested (areas where trees have > 30% cover) — 1 structure: points = 0 *If the unit has a Forested class, check if:* ☐ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon	0
H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*). ☐ Permanently flooded or inundated — 4 or more types present: points = 3 ☒ Seasonally flooded or inundated — 3 types present: points = 2 ☐ Occasionally flooded or inundated — 2 types present: points = 1 ☐ Saturated only — 1 type present: points = 0 ☒ Permanently flowing stream or river in, or adjacent to, the wetland ☐ Seasonally flowing stream in, or adjacent to, the wetland ☐ **Lake Fringe wetland** — **2 points** ☐ **Freshwater tidal wetland** — **2 points**	1
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft^2. *Different patches of the same species can be combined to meet the size threshold and you do not have to name the species.* ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle*** If you counted: > 19 species — points = 2 5 - 19 species — points = 1 < 5 species — points = 0	1
H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*  **None** = 0 points — **Low** = 1 point — **Moderate** = 2 points All three diagrams in this row are **HIGH** = 3points 	1

DSD - 000478

Wetland name or number: TAL-1543 Wetland A

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. *The number of checks is the number of points.* ☒ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). ☐ _Standing snags (dbh > 4 in) within the wetland ☒ Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) ☐ Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet weathered where wood is exposed)* ☐ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated *(structures for egg-laying by amphibians)* ☒ Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	3
Total for H 1 Add the points in the boxes above	3

Rating of Site Potential If score is: ☐ **15-18 = H** ☐ **7-14 = M** ☒ **0-6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?

H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* % undisturbed habitat 1.3 + [(% moderate and low intensity land uses)/2] 1 = 2.3% If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon points = 0	0
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* % undisturbed habitat 53 + [(% moderate and low intensity land uses)/2] 1 = 54% Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0	3
H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (- 2) ≤ 50% of 1 km Polygon is high intensity points = 0	-2
Total for H 2 Add the points in the boxes above	1

Rating of Landscape Potential If score is: ☐ **4-6 = H** ☒ **1-3 = M** ☐ **< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?

H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated.* Site meets ANY of the following criteria: points = 2 ☐ It has 3 or more priority habitats within 100 m (see next page) ☐ It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) ☐ It is mapped as a location for an individual WDFW priority species ☐ It is a Wetland of High Conservation Value as determined by the Department of Natural Resources ☐ It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1 Site does not meet any of the criteria above points = 0	1

Rating of Value If score is: ☐ **2 = H** ☒ **1 = M** ☐ **0 = L** *Record the rating on the first page*

DSD - 000479

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE:*** *This question is independent of the land use between the wetland unit and the priority habitat.*

☐ **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

☐ **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

☐ **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

☐ **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multilayered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

☐ **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

☒ **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

☐ **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

☐ **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

☐ **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).*

☐ **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

☐ **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

☐ **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

☐ **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

DSD - 000480

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	**Category**
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? ☐ The dominant water regime is tidal, ☐ Vegetated, and ☐ With a salinity greater than 0.5 ppt ☐ Yes –Go to **SC 1.1** ☒ No= **Not an estuarine wetland**	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? ☐ Yes = **Category I** ☐ No - Go to **SC 1.2**	No
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? ☐ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) ☐ At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland. ☐ The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** No = **Category II**	No
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? ☐ Yes – Go to **SC 2.2** ☐ No – Go to **SC 2.3** SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? ☐ Yes **= Category I** ☐ No **= Not a WHCV** SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf ☐ Yes **– Contact WNHP/WDNR and go to SC 2.4** ☐ No **= Not a WHCV** SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? ☐ Yes **= Category I** ☒ No **= Not a WHCV**	No
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions.*** SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? ☐ Yes – Go to **SC 3.3** ☐ No – Go to **SC 3.2** SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? ☐ Yes – Go to **SC 3.3** ☐ No = **Is not a bog** SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? ☐ Yes = **Is a Category I bog** ☐ No – Go to **SC 3.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? ☐ Yes = **Is a Category I bog** ☒ No **= Is not a bog**	No

DSD - 000481

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.*** ☐ **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. ☐ **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). ☐ Yes = **Category I** ☒ No = **Not a forested wetland for this section**	No
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? ☐ The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks ☐ The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* ☐ Yes – Go to **SC 5.1** ☒ No = **Not a wetland in a coastal lagoon** SC 5.1. Does the wetland meet all of the following three conditions? ☐ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). ☐ At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland. ☐ The wetland is larger than $^1/_{10}$ ac (4350 ft^2) ☐ Yes = **Category I** ☐ No = **Category II**	No
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: ☐ Long Beach Peninsula: Lands west of SR 103 ☐ Grayland-Westport: Lands west of SR 105 ☐ Ocean Shores-Copalis: Lands west of SR 115 and SR 109 ☐ Yes – Go to **SC 6.1** ☒ No = **not an interdunal wetland for rating** SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? ☐ Yes = **Category I** ☐ No – Go to **SC 6.2** SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? ☐ Yes = **Category II** ☐ No – Go to **SC 6.3** SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? ☐ Yes = **Category III** ☐ No = **Category IV**	No
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	N/A

DSD - 000482

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DSD - 000483

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland B Date of site visit: 2015-08-06
Rated by DRT Trained by Ecology? ☒ Yes ☐ No Date of training 10-15
HGM Class used for rating Slope Wetland has multiple HGM classes? ☐ Y ☒ N

NOTE: **Form is not complete without the figures requested** *(figures can be combined)*. Source of base aerial photo/map _____

OVERALL WETLAND CATEGORY (based on functions ☐ or special characteristics ☐)

1. Category of wetland based on FUNCTIONS

- ☐ **Category I** – Total score = 23 - 27
- ☐ **Category II** – Total score = 20 - 22
- ☒ **Category III** – Total score = 16 - 19
- ☐ **Category IV** – Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
			Circle the appropriate ratings	
Site Potential	L	L	L	
Landscape Potential	L	L	M	
Value	H	H	M	TOTAL
Score Based on Ratings	5	6	5	17

Score for each function based on three ratings *(order of ratings is not important)*

9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC		CATEGORY
Estuarine	☐	I II
Wetland of High Conservation Value	☐	I
Bog	☐	I
Mature Forest	☐	I
Old Growth Forest	☐	I
Coastal Lagoon	☐	I II
Interdunal	☐	I II III IV
None of the above		☒

DSD - 000484

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (*can be added to map of hydroperiods)*	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream *(can be added to another figure)*	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants (*can be added to figure above)*	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

DSD - 000485

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

☒ NO – go to 2 ☐ **YES** – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

☐ **NO – Saltwater Tidal Fringe (Estuarine)** ☐ **YES – Freshwater Tidal Fringe**

*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

☒ NO – go to 3 ☐ **YES** – The wetland class is **Flats**

*If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?
___The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size; ___At least 30% of the open water area is deeper than 6.6 ft (2 m).

☒ NO – go to 4 ☐ **YES –** The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?
☒ The wetland is on a slope (*slope can be very gradual*),
☒ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
☒ The water leaves the wetland **without being impounded**.

☐ NO – go to 5 ☒ **YES –** The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?
☐ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
☐ The overbank flooding occurs at least once every 2 years.

☐ NO – go to 6 ☒ **YES** – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

DSD - 000486

Wetland name or number: TAL-1543 Wetland B

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

☒ NO – go to 7 ☐ **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

☒ NO – go to 8 ☐ **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

DSD - 000487

SLOPE WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

S 1.0. Does the site have the potential to improve water quality?	
S 1.1. Characteristics of the average slope of the wetland: *(a 1% slope has a 1 ft vertical drop in elevation for every 100 ft of horizontal distance*) Slope is 1% or less points = 3 Slope is > 1%-2% points = 2 Slope is > 2%-5% points = 1 Slope is greater than 5% points = 0	0
S 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic *(use NRCS definitions)*: Yes = 3 No = 0	0
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutants: Choose the points appropriate for the description that best fits the plants in the wetland. *Dense means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 in.* Dense, uncut, herbaceous plants > 90% of the wetland area points = 6 Dense, uncut, herbaceous plants > ½ of area points = 3 Dense, woody, plants > ½ of area points = 2 Dense, uncut, herbaceous plants > ¼ of area points = 1 Does not meet any of the criteria above for plants points = 0	3
Total for S 1 Add the points in the boxes above	3

Rating of Site Potential If score is: ☐ **12 = H** ☐ **6-11 = M** ☒ **0-5 = L** *Record the rating on the first page*

S 2.0. Does the landscape have the potential to support the water quality function of the site?	
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants? Yes = 1 No = 0	0
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1? Other sources _____ Yes = 1 No = 0	0
Total for S 2 Add the points in the boxes above	0

Rating of Landscape Potential If score is: ☐ **1-2 = M** ☒ **0 = L** *Record the rating on the first page*

S 3.0. Is the water quality improvement provided by the site valuable to society?	
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? Yes = 1 No = 0	1
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? *At least one aquatic resource in the basin is on the 303(d) list*. Yes = 1 No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? *Answer YES if there is a TMDL for the basin in which unit is found.* Yes = 2 No = 0	2
Total for S 3 Add the points in the boxes above	4

Rating of Value If score is: ☒ **2-4 = H** ☐ **1 = M** ☐ **0 = L** *Record the rating on the first page*

DSD - 000488

SLOPE WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream erosion

S 4.0. Does the site have the potential to reduce flooding and stream erosion?	
S 4.1. Characteristics of plants that reduce the velocity of surface flows during storms: Choose the points appropriate for the description that best fits conditions in the wetland. *Stems of plants should be thick enough (usually > 1/8 in), or dense enough, to remain erect during surface flows.* Dense, uncut, **rigid** plants cover > 90% of the area of the wetland points = 1 All other conditions points = 0	1

Rating of Site Potential If score is: ☒ **1 = M** ☐ **0 = L** *Record the rating on the first page*

S 5.0. Does the landscape have the potential to support the hydrologic functions of the site?	
S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land uses or cover that generate excess surface runoff? Yes = 1 No = 0	0

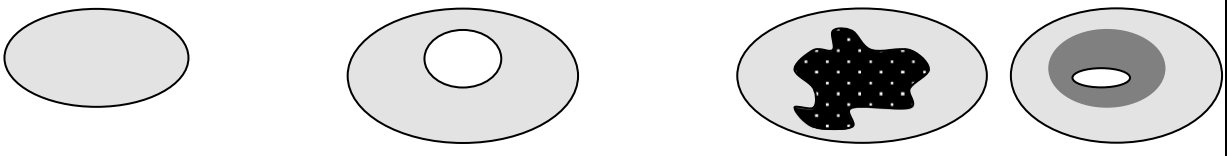
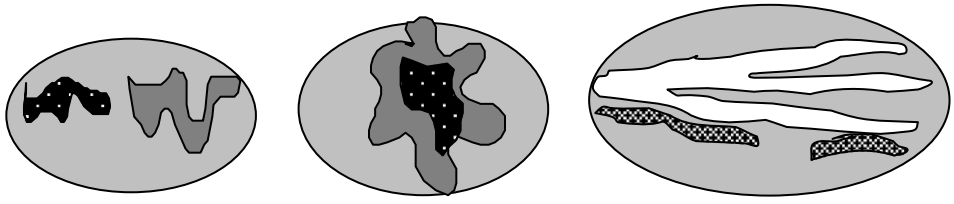
Rating of Landscape Potential If score is: ☐ **1 = M** ☒ **0 = L** *Record the rating on the first page*

S 6.0. Are the hydrologic functions provided by the site valuable to society?	
S 6.1. Distance to the nearest areas downstream that have flooding problems: The sub-basin immediately down-gradient of site has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds) points = 2 Surface flooding problems are in a sub-basin farther down-gradient points = 1 No flooding problems anywhere downstream points = 0	1
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0	2
Total for S 6 Add the points in the boxes above	3

Rating of Value If score is: ☒ **2-4 = H** ☐ **1 = M** ☐ **0 = L** *Record the rating on the first page*

NOTES and FIELD OBSERVATIONS:

DSD - 000489

These questions apply to wetlands of all HGM classes. HABITAT **FUNCTIONS** - Indicators that site functions to provide important habitat	
H 1.0. Does the site have the potential to provide habitat?	
H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.* ☐ Aquatic bed — 4 structures or more: points = 4 ☒ Emergent — 3 structures: points = 2 ☐ Scrub-shrub (areas where shrubs have > 30% cover) — 2 structures: points = 1 ☐ Forested (areas where trees have > 30% cover) — 1 structure: points = 0 *If the unit has a Forested class, check if:* ☐ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon	0
H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*). ☐ Permanently flooded or inundated — 4 or more types present: points = 3 ☐ Seasonally flooded or inundated — 3 types present: points = 2 ☒ Occasionally flooded or inundated — 2 types present: points = 1 ☐ Saturated only — 1 type present: points = 0 ☐ Permanently flowing stream or river in, or adjacent to, the wetland ☐ Seasonally flowing stream in, or adjacent to, the wetland ☐ **Lake Fringe wetland** — **2 points** ☐ **Freshwater tidal wetland** — **2 points**	0
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft^2. *Different patches of the same species can be combined to meet the size threshold and you do not have to name the species.* ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle*** If you counted: > 19 species — points = 2 5 - 19 species — points = 1 < 5 species — points = 0	0
H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*  **None** = 0 points **Low** = 1 point **Moderate** = 2 points All three diagrams in this row are **HIGH** = 3points 	0

DSD - 000490

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. *The number of checks is the number of points.* ☐ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). ☐ _Standing snags (dbh > 4 in) within the wetland ☐ Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) ☐ Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet weathered where wood is exposed)* ☐ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated *(structures for egg-laying by amphibians)* ☒ Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	1
Total for H 1 Add the points in the boxes above	1

Rating of Site Potential If score is: ☐ **15-18 = H** ☐ **7-14 = M** ☒ **0-6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?

H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* % undisturbed habitat 1.3 + [(% moderate and low intensity land uses)/2] 1 = 2.3% If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon points = 0	0
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* % undisturbed habitat 53 + [(% moderate and low intensity land uses)/2] 1 = 54% Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0	3
H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (- 2) ≤ 50% of 1 km Polygon is high intensity points = 0	-2
Total for H 2 Add the points in the boxes above	1

Rating of Landscape Potential If score is: ☐ **4-6 = H** ☒ **1-3 = M** ☐ **< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?

H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated.* Site meets ANY of the following criteria: points = 2 ☐ It has 3 or more priority habitats within 100 m (see next page) ☐ It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) ☐ It is mapped as a location for an individual WDFW priority species ☐ It is a Wetland of High Conservation Value as determined by the Department of Natural Resources ☐ It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1 Site does not meet any of the criteria above points = 0	1

Rating of Value If score is: ☐ **2 = H** ☒ **1 = M** ☐ **0 = L** *Record the rating on the first page*

DSD - 000491

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE:*** *This question is independent of the land use between the wetland unit and the priority habitat.*

☐ **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

☐ **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

☐ **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

☐ **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multilayered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

☐ **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

☒ **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

☐ **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

☐ **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

☐ **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).*

☐ **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

☐ **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

☐ **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

☐ **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

DSD - 000492

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	**Category**
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? ☐ The dominant water regime is tidal, ☐ Vegetated, and ☐ With a salinity greater than 0.5 ppt ☐ Yes –Go to **SC 1.1** ☒ No= **Not an estuarine wetland**	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? ☐ Yes = **Category I** ☐ No - Go to **SC 1.2**	No
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? ☐ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) ☐ At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland. ☐ The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** No = **Category II**	No
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? ☐ Yes – Go to **SC 2.2** ☐ No – Go to **SC 2.3** SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? ☐ Yes **= Category I** ☐ No **= Not a WHCV** SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf ☐ Yes **– Contact WNHP/WDNR and go to SC 2.4** ☐ No **= Not a WHCV** SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? ☐ Yes **= Category I** ☒ No **= Not a WHCV**	No
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions.*** SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? ☐ Yes – Go to **SC 3.3** ☐ No – Go to **SC 3.2** SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? ☐ Yes – Go to **SC 3.3** ☐ No = **Is not a bog** SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? ☐ Yes = **Is a Category I bog** ☐ No – Go to **SC 3.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? ☐ Yes = **Is a Category I bog** ☒ No **= Is not a bog**	No

DSD - 000493

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.*** ☐ **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. ☐ **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). ☐ Yes = **Category I** ☒ No = **Not a forested wetland for this section**	No
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? ☐ The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks ☐ The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* ☐ Yes – Go to **SC 5.1** ☒ No = **Not a wetland in a coastal lagoon** SC 5.1. Does the wetland meet all of the following three conditions? ☐ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). ☐ At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland. ☐ The wetland is larger than $^1/_{10}$ ac (4350 ft^2) ☐ Yes = **Category I** ☐ No = **Category II**	No
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: ☐ Long Beach Peninsula: Lands west of SR 103 ☐ Grayland-Westport: Lands west of SR 105 ☐ Ocean Shores-Copalis: Lands west of SR 115 and SR 109 ☐ Yes – Go to **SC 6.1** ☒ No = **not an interdunal wetland for rating** SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? ☐ Yes = **Category I** ☐ No – Go to **SC 6.2** SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? ☐ Yes = **Category II** ☐ No – Go to **SC 6.3** SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? ☐ Yes = **Category III** ☐ No = **Category IV**	No
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	N/A

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Appendix E:

Critical Areas Conceptual Mitigation Plans

(large plan sheets)

Sheet W1.0: Existing Conditions Plan
Sheet W1.1: Proposed Site Plan & Impacts Assessment
Sheet W1.2: Proposed Mitigation Concept
Sheet W2.0: Proposed Buffer Mitigation Overview
Sheet W3.0: Preliminary Plant List, Details, and Notes

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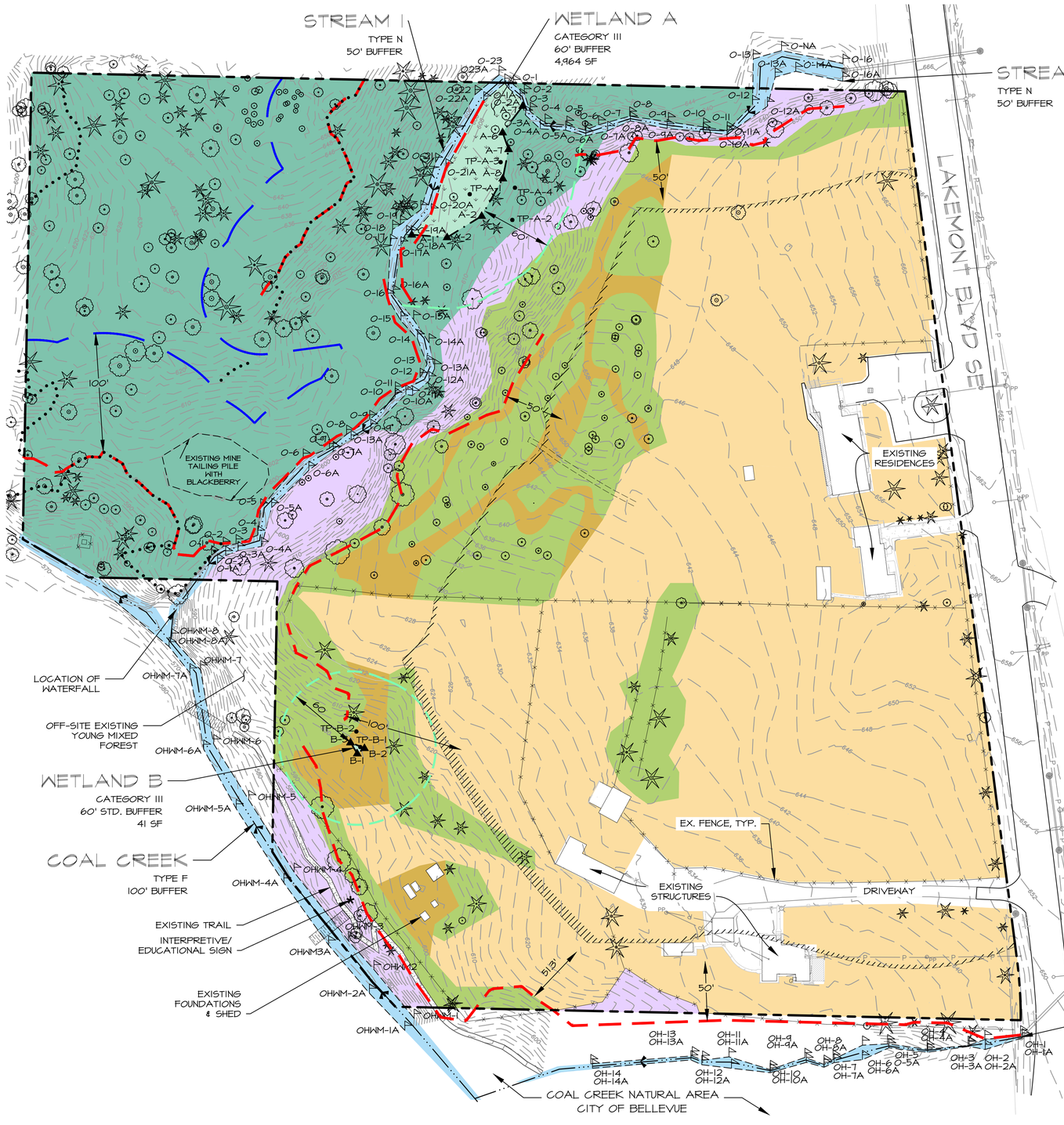


EXISTING CONDITIONS LEGEND

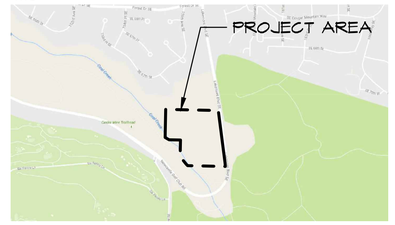
- MATURING FOREST WITH CLOSED CANOPY AND MIXED NATIVE SHRUBS
- EARLY SUCCESSIONAL FOREST WITH UNDERSTORY OF NATIVE SHRUBS
- DISTURBED EARLY SUCCESSIONAL FOREST WITH NON-NATIVE OR INVASIVE UNDERSTORY
- OPENINGS WITHIN EARLY SUCCESSIONAL FOREST DEGRADED BY FREQUENT HUMAN DISTURBANCE
- FREQUENTLY MAINTAINED NON-NATIVE LAWN OR PASTURE GRASSES

PLAN LEGEND

- PROPERTY LINE
- EXISTING WETLAND
- WETLAND BUFFER (STANDARD)
- STREAM CENTERLINE
- STREAM ORDINARY HIGH WATER MARK (OHWM)
- TOP OF BANK (3:1 SLOPE PER LUC 20.50.048.T
- STREAM BUFFER (STANDARD)
- STEEP SLOPE (SEE CIVIL PLANS)
- 100 EXISTING CONTOUR
- ▲A-# WETLAND DELINEATION FLAG
- OHWM-# ORDINARY HIGH WATER FLAG - COAL CREEK
- OH-# ORDINARY HIGH WATER FLAG - STREAM 3
- O-# ORDINARY HIGH WATER FLAG - STREAM 1 & 2
- TP-# TEST PIT
- EXISTING TREES

VICINITY MAP

NTS



SOURCE: GOOGLE MAPS; WWW.MAPS.GOOGLE.COM (ACCESSED 8/22/2016)

NORTH

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ENGINEER

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ADDRESS:	11255 KIRKLAND WAY SUITE 300 KIRKLAND, WA 98033
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CONTACT:	TOBY COENEN, PE

ENVIRONMENTAL CONSULTANT

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ADDRESS:	15020 BEAR CREEK RD. NE WOODINVILLE, WA 98077
PHONE:	(425) 861-7550
CONTACT:	ANN OLSEN, RLA SENIOR PROJECT PLANNER DAVID TEESDALE, PWS, SENIOR WETLAND ECOLOGIST

SHEET INDEX

SHEET NUMBER	SHEET TITLE
W1.0	EXISTING CONDITIONS PLAN
W1.1	PROPOSED SITE PLAN & IMPACTS ASSESSMENT
W1.2	PROPOSED MITIGATION PLAN
W2.0	PROPOSED BUFFER MITIGATION OVERVIEW
W3.0	PRELIMINARY PLANT LIST, DETAILS AND NOTES

NOTES

1. SITE PLAN PROVIDED BY PACE ENGINEERS, 11255 KIRKLAND WAY SUITE 300 KIRKLAND, WA 98033, (425) 827-2014.
2. SOURCE DRAWING WAS MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL ENHANCEMENT.
3. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT PREPARED BY TALASAEA CONSULTANTS IN DATED AUGUST 2019.

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BY:
CITY OF BELLEVUE
DEPARTMENT OF PLANNING

DATE:

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EXISTING CONDITIONS PLAN

GRAPHIC SCALE (IN FEET)
0 25 50 100
SCALE: 1"=50'

NORTH

FILE #: 15-115585-DB, 16-143970-LK, 16-145946-LO

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15020 Bear Creek Road Northeast - Woodinville, Washington 98077
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CRITICAL AREA CONCEPTUAL MITIGATION PLANS
EXISTING CONDITIONS PLAN
PARK POINTE PUD
BELLEVUE, WASHINGTON

Revisions	Date	By
CITY COMMENTS	10-25-2018	ABS
STORM OUTFALL	3-13-2019	MK
CITY SUBMITTAL	8-14-2019	FH
CITY COMMENTS	11-10-2020	FH
REVISION	01-2023	TH

Date	10-7-2016
Scale	AS SHOWN
Designed	AO
Drawn	FH
Checked	AO
Approved	BS
Project #	1543
Sheet #	W1.0

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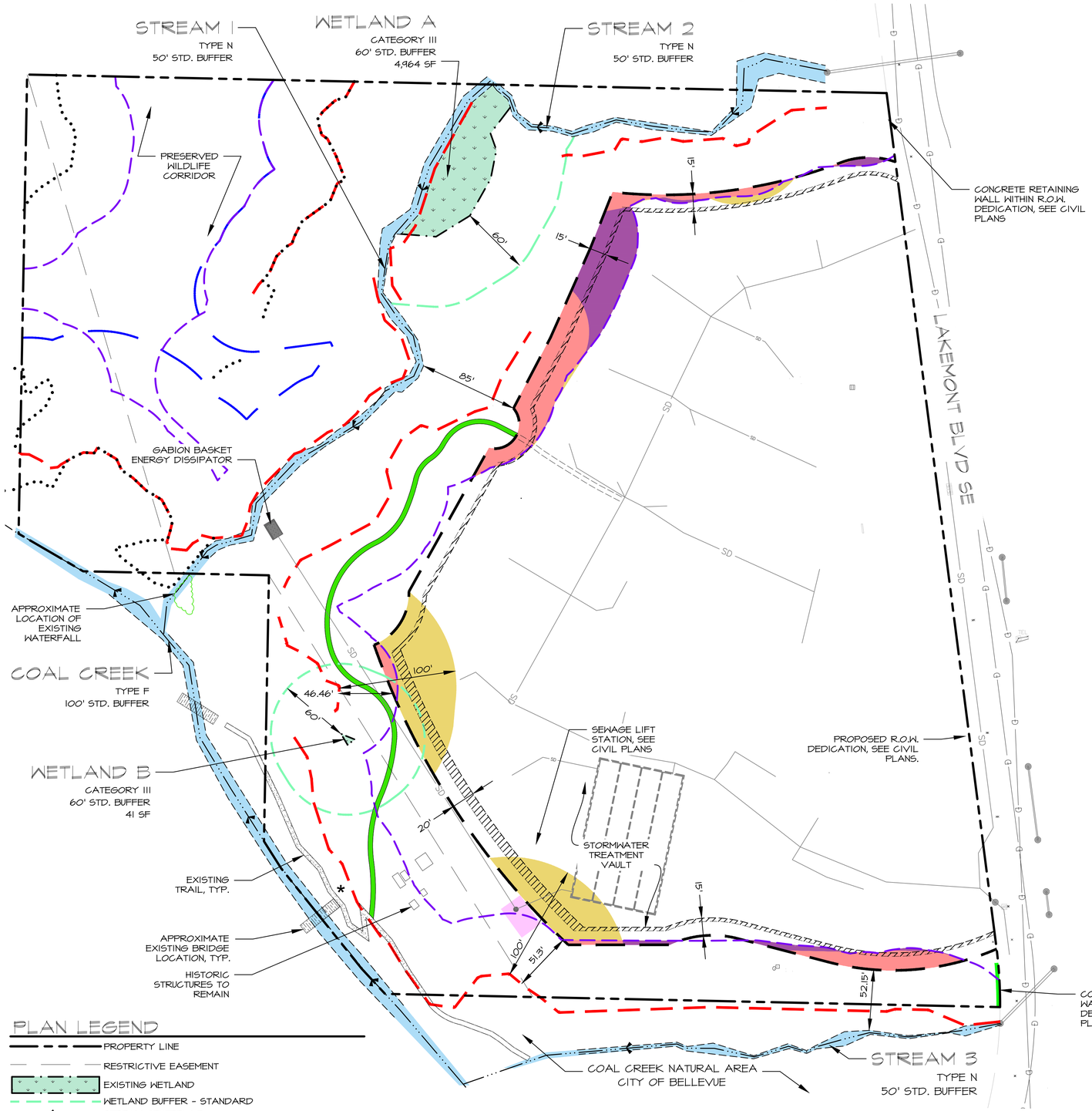

PLAN LEGEND

- PROPERTY LINE
- RESTRICTIVE EASEMENT
- EXISTING WETLAND
- WETLAND BUFFER - STANDARD
- STREAM CENTERLINE
- STREAM ORDINARY HIGH WATER MARK (OHWM)
- TOP OF BANK FOR STREAMS
- STREAM BUFFER - STANDARD
- TOP OF STEEP SLOPE (PER CIVIL)
- STEEP SLOPE BUFFER - STANDARD

PROPOSED SITE PLAN AND IMPACTS ASSESSMENT

GRAPHIC SCALE (IN FEET)
0 25 50 100
SCALE: 1"=50'

NORTH

BUFFER REDUCTION LEGEND

REDUCED STREAM BUFFER FOR RIGHT-OF-WAY IMPROVEMENTS	114 SF
REDUCED STREAM BUFFERS	10,256 SF
REDUCED STEEP SLOPE BUFFER	3,975 SF
COMBINED REDUCED STREAM & STEEP SLOPE BUFFER	7,230 SF
TOTAL BUFFER REDUCTION IMPACTS:	21,575 SF
TOTAL STRUCTURE SETBACK REDUCTION	5,426 SF

CONSTRUCTION IMPACTS LEGEND

SOFT SURFACE TRAIL	2,161 SF
GABION BASKET ENERGY DISSIPATOR & MANHOLES & HISTORICAL STRUCTURES	385 SF
STAGING AREA IMPACTS FOR DIRECTIONAL BORE PITS	646 SF
TOTAL CONSTRUCTION RELATED IMPACTS:	3,1921 SF

MITIGATION LEGEND

POST CONSTRUCTION BUFFER

SEE SHEET WI.2 FOR PROPOSED MITIGATION

PRE-DEVELOPMENT SITE CALCULATIONS TABLE

(SEE SHEET WI.2 FOR POST-DEVELOPMENT SITE CALCULATIONS TABLE)

CRITICAL AREAS (ON-SITE)	
WETLAND A:	4,964 SF
WETLAND B:	41 SF
STREAM 1:	4,408 SF
STREAM 2:	1,432 SF
COAL CREEK:	1,366 SF
TOTAL:	12,211 SF
CRITICAL AREA BUFFERS	225,391 SF
DEVELOPABLE AREAS	252,430 SF
PRESERVED WILDLIFE CORRIDOR	45,189 SF
TOTAL SITE AREA:	535,221 SF

NOTES

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CRITICAL AREA CONCEPTUAL MITIGATION PLANS
PROPOSED SITE PLAN & IMPACTS ASSESSMENT
PARK POINTE PUD
BELLEVUE, WASHINGTON

Revisions	Date	By
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STORM OUTFALL	3-13-2019	MW
CITY SUBMITTAL	8-14-2019	FH
CITY COMMENTS	11-10-2020	FH
REVISION	01-2023	TH

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Checked	AO
Approved	BS
Project #	1543
Sheet #	WI.1

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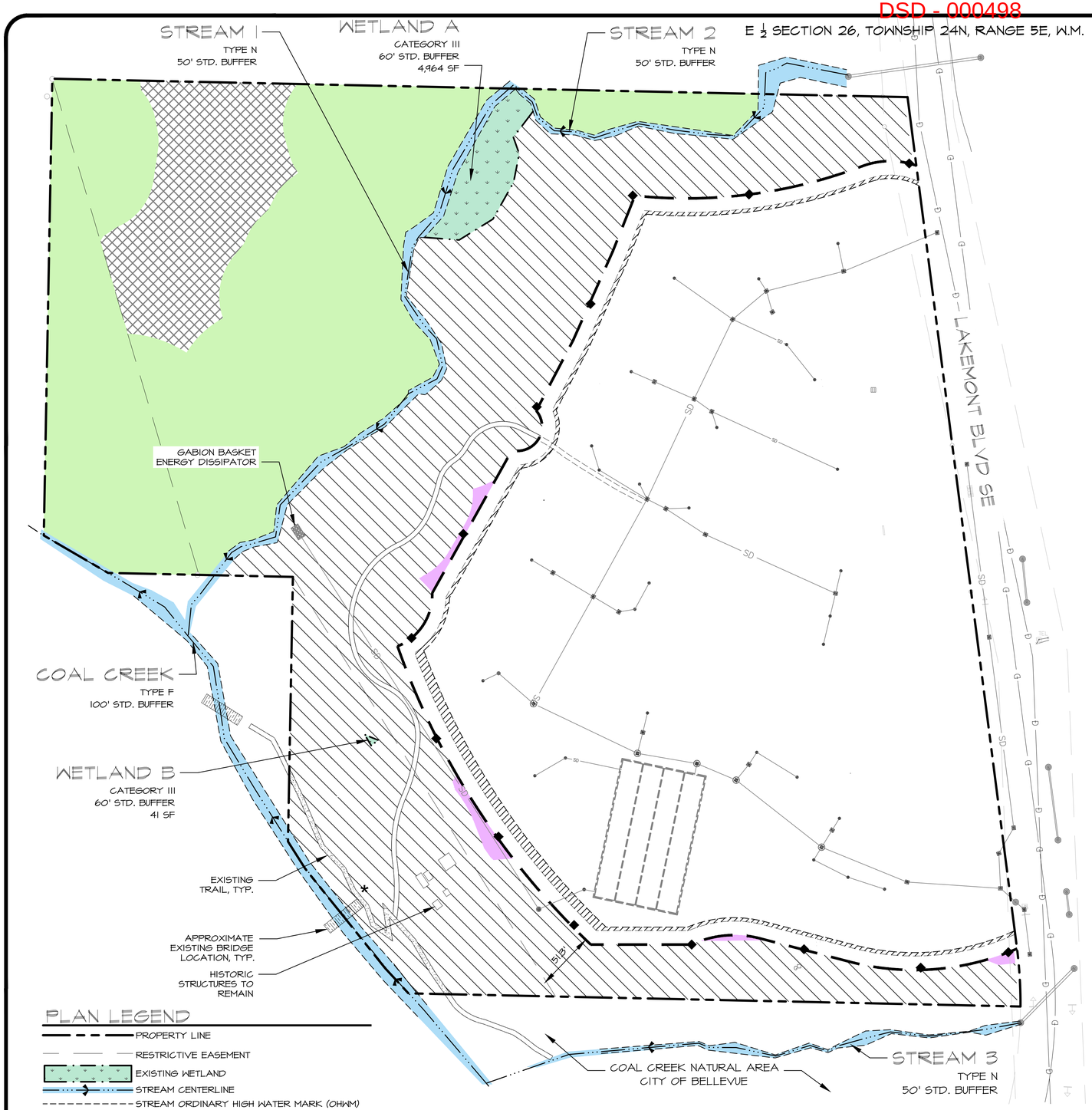

PLAN LEGEND

- PROPERTY LINE
- RESTRICTIVE EASEMENT
- EXISTING WETLAND
- STREAM CENTERLINE
- STREAM ORDINARY HIGH WATER MARK (OHWM)

PROPOSED MITIGATION PLAN

GRAPHIC SCALE (IN FEET)
0 25 50 100
SCALE: 1"=50'
NORTH

CRITICAL AREA MITIGATION LEGEND

MITIGATION FOR BUFFER REDUCTIONS/IMPACTS

BUFFER ENHANCEMENT, RESTORATION, & RE-ESTABLISHMENT	129,146 SF
ENHANCED BUFFER ADDITION (BEYOND STREAM AND STEEP SLOPE STANDARD BUFFERS)	1,889 SF
TOTAL MITIGATION AREA:	131,035 SF

MITIGATION TO IMPACT RATIO 5:1

MITIGATION LEGEND

- POST CONSTRUCTION BUFFER
- PROPOSED STRUCTURE SETBACK (FOR WETLANDS AND STREAMS)
- CRITICAL AREA SIGNS (SEE DETAIL ON W2.0)

ADDITIONAL ON-SITE HABITAT AREAS

CRITICAL AREAS (COAL CREEK, STREAM 1 &2, WETLANDS A, B)	12,211 SF
PRESERVED CRITICAL AREA BUFFER HABITAT AREAS	104,207 SF
PRESERVED WILDLIFE CORRIDOR (NON-COMPENSATORY HABITAT CONSERVATION)	23,675 SF
ADDITIONAL HABITAT AREA:	140,093 SF

POST-DEVELOPMENT SITE CALCULATIONS TABLE

SITE DEVELOPMENT PLAN AREA		260,259 SF
CRITICAL AREAS (ON-SITE)		
WETLAND A:	4964 SF	
WETLAND B:	41 SF	
STREAM 1:	4,408 SF	
STREAM 2:	1,432 SF	
COAL CREEK:	1,366 SF	
TOTAL:		12,211 SF
BUFFER ENHANCEMENT AREAS		131,035 SF
OTHER		
EXISTING TRAIL (ON-SITE):	1,288 SF	
PROPOSED TRAIL:	2,161 SF	
GABION BASKET ENERGY DISSIPATOR & MANHOLDES & HISTORIC STRUCTURES	385 SF	
TOTAL:		3,834 SF
PRESERVED CRITICAL AREA BUFFER (WEST OF STREAM 1 AND NORTH OF STREAM 2)		104,207 SF
PRESERVED WILDLIFE CORRIDOR		23,675 SF
TOTAL SITE AREA:		535,221 SF

NOTES

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BY:
CITY OF BELLEVUE
DEPARTMENT OF PLANNING

DATE:

FILE #: 15-115585-DB, 16-143970-LK, 16-145946-LO

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15020 Bear Creek Road Northeast - Woodinville, Washington 98077
Bus (425) 861-7500 - Fax (425) 861-7549

CRITICAL AREA CONCEPTUAL MITIGATION PLANS
PROPOSED MITIGATION CONCEPT
PARK POINTE PUD
BELLEVUE, WASHINGTON

Revisions	Date	By
CITY COMMENTS	10-25-2018	ABS
STORM OUTFALL	3-13-2019	MW
CITY SUBMITTAL	8-14-2019	FH
CITY COMMENTS	11-10-2020	FH
REVISION	01-2023	TH

Date 10-7-2016
Scale AS SHOWN
Designed AO
Drawn FH
Checked AO
Approved BS

Project #1543

Sheet # W1.2

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BUFFER MITIGATION LEGEND

AREA A - FORESTED SUB-CANOPY ENHANCEMENT — 12,369 SF

- GRUB OUT INVASIVE SPECIES, IF ANY, BY HAND
- ENHANCE ENTIRE AREA PRIMARILY WITH A MIX OF NATIVE MID-STORY SHRUBS
- ESTIMATED NUMBER OF TREES: 37
- ESTIMATED NUMBER OF SHRUBS: 87

AREA B - UNDISTURBED FORESTED BUFFER ENHANCEMENT — 30,551 SF

- GRUB OUT ALL INVASIVE SPECIES BY HAND
- STABILIZE ANY DISTURBED SOILS WITH A 3-INCH DEPTH OF BARK MULCH
- ENHANCE ENTIRE AREA, WHERE PLANTING OPPORTUNITIES EXIST, WITH AN APPROPRIATE MIX OF NATIVE EVERGREEN TREES AND MID-STORY SHRUBS THAT ARE LARGELY NOT PRESENT IN EXISTING CONDITION
- ESTIMATED NUMBER OF TREES: 91
- ESTIMATED NUMBER OF SHRUBS: 211

AREA C - DISTURBED FORESTED BUFFER ENHANCEMENT — 41,615 SF

- SELECTIVELY GRUB OUT ALL NON-NATIVE INVASIVE SPECIES BY HAND
- INSTALL HABITAT FEATURES SUCH AS DOWN LOGS, STUMPS, AND SNAGS WITH SHALLOW NEST BOXES IN SELECT LOCATIONS WHERE EXISTING NATIVE VEGETATION WILL NOT BE DISTURBED
- STABILIZE ANY DISTURBED SOILS WITH 3-INCH DEPTH OF BARK MULCH
- REVEGETATE ALL GRUBBED AND SELECTED OTHER AREAS WITH A MIX OF NATIVE EVERGREEN AND DECIDUOUS TREES, AS WELL AS MID- AND LOW-STORY SHRUBS.
- ESTIMATED NUMBER OF TREES: 125
- ESTIMATED NUMBER OF SHRUBS: 291

AREA D - RE-ESTABLISHMENT OF FORESTED BUFFER — 45,854 SF

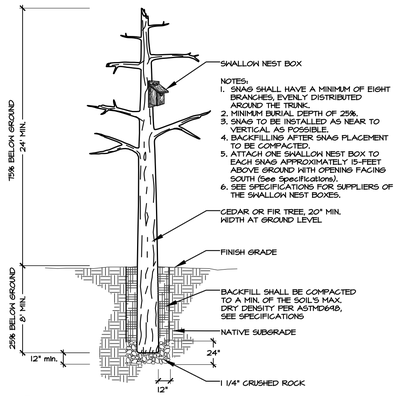
- REMOVE AND DISPOSE OF ANY TRASH, DEBRIS, OR NON-SIGNIFICANT STRUCTURES
- GRUB ENTIRE AREA BY MACHINE TO REMOVE ALL NON-NATIVE/INVASIVE SPECIES
- PRESERVE EXISTING NATIVE VEGETATION (WHERE APPLICABLE)
- DECOMPACT AND RESTORE DISTURBED SOILS WITH COMPOST OR IMPORTED TOPSOIL IF NECESSARY
- STABILIZE DISTURBED SOILS WITH 3-INCH DEPTH OF BARK MULCH
- REVEGETATE ENTIRE AREA WITH A MIX OF NATIVE EVERGREEN AND DECIDUOUS TREES, AS WELL AS MID- AND LOW-STORY SHRUBS.
- ESTIMATED NUMBER OF TREES: 549
- ESTIMATED NUMBER OF SHRUBS: 1,281

AREA E - RESTORATION OF CONSTRUCTION IMPACTS — 646 SF

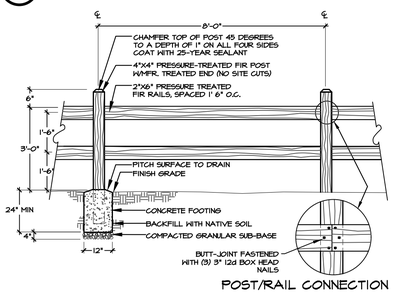
- INSTALL 9-INCH MINIMUM DEPTH OF NEW TOPSOIL IN ALL DISTURBED AREAS
- STABILIZE DISTURBED SOILS WITH 3-INCH DEPTH OF BARK MULCH
- REVEGETATE ENTIRE AREA WITH A MIX OF NATIVE EVERGREEN AND DECIDUOUS SHRUBS
- ESTIMATED NUMBER OF SHRUBS: 18

TOTAL AREA:	131,035
ESTIMATED TOTAL NUMBER OF TREES:	783
ESTIMATED TOTAL NUMBER OF SHRUBS:	3,575

NOTES:
1. FULL KING COUNTY PLANTING DENSITIES WERE USED FOR AREAS D & E WHERE RE-ESTABLISHMENT OR FULL RESTORATION OF FORESTED BUFFERS IS REQUIRED.
2. IN AREAS OF EXISTING NATIVE FOREST KING COUNTY PLANTING DENSITIES WERE USED AT A RATE OF 25%.



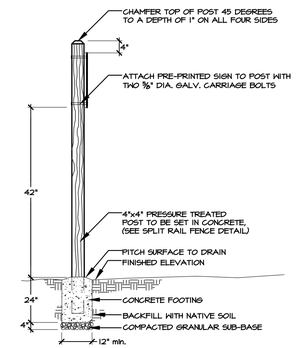
1 SNAG WITH NEST BOX DETAIL
N.T.S.



POST/RAIL CONNECTION

NOTES:
1. RAIL FENCE TO ALIGN WITH LAND GRADIENT.
2. TREAT WITH CLEAR PRESERVATIVE UPON COMPLETION OF INSTALLATION.
3. ALL FASTENERS TO BE GALVANIZED STEEL.

2 OPEN 2-BOARD FENCE DETAIL
N.T.S.



3 CRITICAL AREA SIGN DETAIL
N.T.S.

NOTES

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BY:
CITY OF BELLEVUE
DEPARTMENT OF PLANNING

DATE:

PROPOSED BUFFER MITIGATION OVERVIEW

GRAPHIC SCALE (IN FEET)
0 25 50 100
SCALE: 1"=50'
NORTH

PLAN LEGEND

- PROPERTY LINE
- EXISTING WETLAND
- STREAM WITH DIRECTION OF FLOW
- STREAM ORDINARY HIGH WATER MARK (OHWM)
- 2-BOARD FENCE - SEE DETAIL 2/P2.0
- CRITICAL AREA SIGN - SEE DETAIL 3/P2.0

HABITAT FEATURE LEGEND

- SNAG W/ SWALLOW NEST BOX - SEE DETAIL 1/P2.0
- DOWN LOG
- STUMP 3/P2.0

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Resource & Environmental Planning
10020 Bear Creek Road Northeast - Woodinville, Washington 98077
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CRITICAL AREA CONCEPTUAL MITIGATION PLANS
PROPOSED BUFFER MITIGATION OVERVIEW
PARK POINTE PUD
BELLEVUE, WASHINGTON

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CITY COMMENTS	11-10-2020	FH
REVISION	01-2023	TH

Date	10-7-2016
Scale	AS SHOWN
Designed	AO
Drawn	FH
Checked	AO
Approved	BS

Project #1543

Sheet # W2.0

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PRELIMINARY PLANT LIST

LARGE TREES

SYMBOL	SCIENTIFIC NAME	COMMON NAME	WL STATUS	QTY.	SPACING	SIZE (MIN.)	NOTES
	ACER MACROPHYLLUM	BIG LEAF MAPLE	FACU	TBD	AS SHOWN	4-5' HT.	SINGLE TRUNK, WELL BRANCHED
	BETULA PAPYRIFERA	PAPER BIRCH	FAC	TBD	AS SHOWN	5-6' HT.	SINGLE TRUNK, WELL BRANCHED
	CORNUS NUTTALLII	PACIFIC DOGWOOD	FACU	TBD	AS SHOWN	3'-4' HT.	SINGLE TRUNK, WELL BRANCHED
	FRANGULA (RHAMNUS) PURSHIANA	CASCARA	FAC	TBD	AS SHOWN	4-5' HT.	SINGLE TRUNK, WELL BRANCHED
	FRAXINUS LATIFOLIA	OREGON ASH	FACW	TBD	AS SHOWN	4-5' HT.	SINGLE TRUNK, WELL BRANCHED
	PICEA SITCHENSIS	SITKA SPRUCE	FAC	TBD	AS SHOWN	4-5' HT.	B&B, FULL & BUSHY
	PINUS CONTORTA	SHORE PINE	FAC	TBD	AS SHOWN	4-5' HT.	B&B, FULL & BUSHY
	PRUNUS EMARGINATA	BITTERCHERRY	FACU	TBD	AS SHOWN	4-5' HT.	SINGLE TRUNK, WELL BRANCHED
	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	FACU	TBD	AS SHOWN	4-5' HT.	B&B, FULL & BUSHY
	SALIX LASIANDRA	PACIFIC WILLOW	FACW	TBD	AS SHOWN	4-5' HT.	SINGLE TRUNK, WELL BRANCHED
	THUJA PLICATA	WESTERN RED CEDAR	FAC	TBD	AS SHOWN	4-5' HT.	B&B, FULL & BUSHY
	TSUGA HETEROPHYLLA	WESTERN HEMLOCK	FACU	TBD	AS SHOWN	4-5' HT.	B&B, FULL & BUSHY

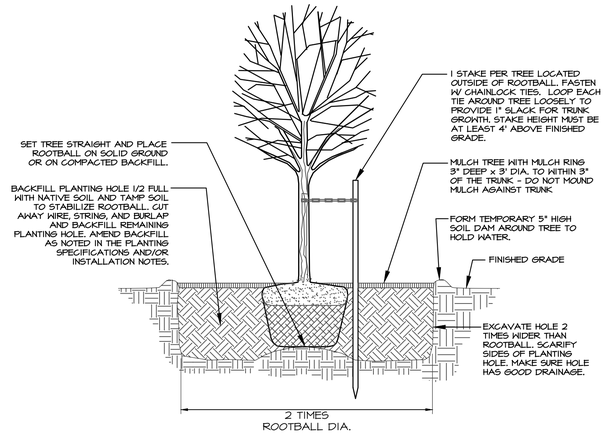
SMALL TREES/LARGE SHRUBS

SYMBOL	SCIENTIFIC NAME	COMMON NAME	WL STATUS	QTY.	SPACING	SIZE (MIN.)	NOTES
	ACER CIRCINATUM	VINE MAPLE	FAC	TBD	TBD	4' HT.	SINGLE TRUNK, WELL BRANCHED
	AMELANCHIER ALNIFOLIA	SERVICEBERRY	FACU	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)
	CORYLUS CORNUTA	WESTERN HAZELNUT	FACU	TBD	TBD	4' HT.	SINGLE TRUNK, WELL BRANCHED
	CRATAEGUS DOUGLASII	BLACK HAWTHORN	FAC	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)
	HOLODISCUS DISCOLOR	OCEAN SPRAY	FACU	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)
	OEMLERIA CERASIFORMIS	INDIAN PLUM	FACU	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)
	PHILADELPHUS LEWISII	MOCK ORANGE	UPL	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)
	PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK	FACW	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)
	PYRUS (MALUS) FUSCA	WESTERN CRABAPPLE	FACW	TBD	TBD	4' HT.	SINGLE TRUNK, WELL BRANCHED
	RIBES BRACTEOSUM	STINK CURRANT	FAC	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)
	RIBES SANGUINEUM	RED CURRANT	NL	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)
	SAMBUCUS RACEMOSA	RED ELDERBERRY	FACU	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)
	SORBUS SITCHENSIS	SITKA MOUNTAIN ASH	FAC	TBD	TBD	4' HT.	SINGLE TRUNK, WELL BRANCHED
	VIBURNUM EDULE	HIGH-BUSH CRANBERRY	FACW	TBD	TBD	24" HT.	MULTI-CANE (3 MIN.)

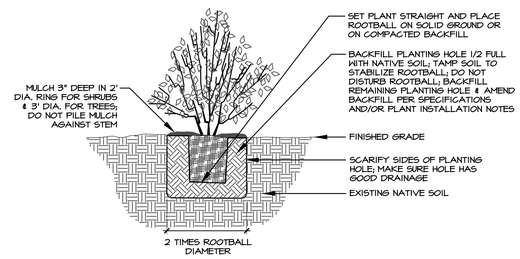
MASSING SHRUBS

SYMBOL	SCIENTIFIC NAME	COMMON NAME	WL STATUS	QTY.	SPACING	SIZE (MIN.)	NOTES
	CORNUS ALBA (SERICEA)	RED-OSIER DOGWOOD	FACW	TBD	TBD	18" HT.	MULTI-CANE (3 MIN.)
NO SYMBOL	GAULTHERIA SHALLON	SALAL	FACU	TBD	TBD	1 GAL.	FULL & BUSHY
	LONICERA INVOLUCRATA	BLACK TWIN-BERRY	FAC	TBD	TBD	18" HT.	MULTI-CANE (3 MIN.)
	MAHONIA AQUIFOLIUM	TALL OREGON GRAPE	FACU	TBD	TBD	18" HT.	FULL & BUSHY
NO SYMBOL	POLYSTICHUM MUNITUM	WESTERN SWORD FERN	FACU	TBD	TBD	1 GAL.	FULL & BUSHY
	ROSA GYMNOCARPA	BALDHIP ROSE	FACU	TBD	TBD	18" HT.	MULTI-CANE (3 MIN.)
	ROSA NUTKANA	NOOTKA ROSE	FAC	TBD	TBD	18" HT.	MULTI-CANE (3 MIN.)
	RUBUS PARVIFLORUS	THIMBLEBERRY	FACU	TBD	TBD	18" HT.	MULTI-CANE (3 MIN.)
	SYMPHORICARPOS ALBUS	COMMON SNOWBERRY	FACU	TBD	TBD	18" HT.	MULTI-CANE (3 MIN.)
	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	FACU	TBD	TBD	1 GAL.	FULL & BUSHY

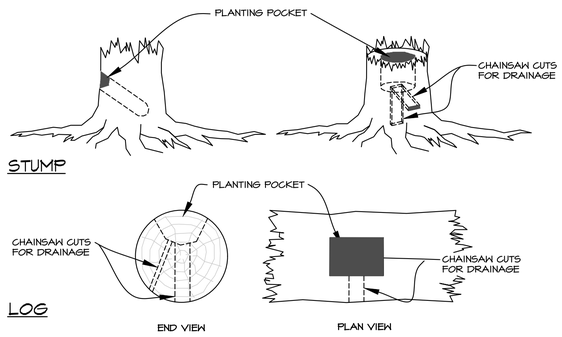
NOTE: QUANTITIES AND LAYOUT SHALL BE DETERMINED ON FINAL MITIGATION PLANS.



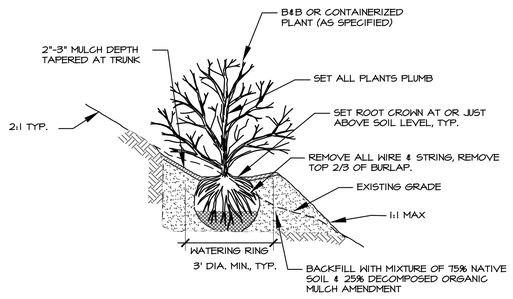
1 B&B TREE PLANTING DETAIL
NTS



2 CONTAINER STOCK PLANTING DETAIL
N.T.S.



3 PLANTING POCKET DETAIL
1"=1'



4 SLOPE PLANTING DETAIL
1"=1'

GENERAL PLANT INSTALLATION NOTES

1. PLANT TREES AND/OR SHRUBS 1" HIGHER THAN DEPTH GROWN AT NURSERY.
2. FOR CONTAINER TREES AND/OR SHRUBS, SCORE FOUR SIDES OF ROOTBALL PRIOR TO PLANTING. BUTTERFLY ROOTBALL IF ROOT CIRCLING IS EVIDENT.
3. STAKE DECIDUOUS AND EVERGREEN TREES 4 FEET AND OVER IN HEIGHT WITH ONE (1) STAKE PER TREE. STAKE TREES IMMEDIATELY AFTER PLANTING. PLACE STAKE AT THE OUTER EDGE OF THE ROOTS OR ROOTBALL, IN LINE WITH THE PREVAILING WIND. STAKES SHALL BE LOOSELY ATTACHED USING CHAIN-LOCK TREE TIES TO ALLOW FOR SOME TRUNK MOVEMENT.
4. TREE STAKES TO BE VERTICAL, PARALLEL, EVEN-TOPPED, UNSCARRED AND DRIVEN INTO UNDISTURBED SUBGRADE. REMOVE AFTER ONE YEAR.
5. WATER PLANTS IMMEDIATELY UPON PLANTING, THEN PROVIDE MANUAL WATERING OR A TEMPORARY IRRIGATION SYSTEM (IF SPECIFIED IN THE PLANTING SPECIFICATIONS) TO PREVENT PLANT MORTALITY AND ENSURE PROPER PLANT ESTABLISHMENT. PLANTS SHALL RECEIVE A MINIMUM OF APPROXIMATELY ONE INCH OF WATER EVERY WEEK DURING THE DRY SEASON (GENERALLY JUNE 15TH - OCTOBER 15TH, OR EARLIER OR LATER IF CONDITIONS WARRANT) FOR THE FIRST SEASON AFTER PLANTING. IRRIGATION AMOUNTS MAY NEED TO BE INCREASED DURING PROLONGED PERIODS OF HOT, DRY WEATHER.
6. FERTILIZE ALL TREES AND SHRUBS WITH A SLOW-RELEASE GENERAL PURPOSE GRANULAR FERTILIZER OR SLOW-RELEASE TABLETS AT MANUFACTURER'S SPECIFIED RATE.

NOTES

1. SITE PLAN PROVIDED BY PACE ENGINEERS, 11255 KIRKLAND WAY SUITE 300 KIRKLAND, WA 98033, (425) 827-2014.
2. SOURCE DRAWING WAS MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL ENHANCEMENT.
3. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT PREPARED BY TALASAEA CONSULTANTS IN DATED AUGUST 2019.

811 Know what's below. Call before you dig.

APPROVED FOR CONSTRUCTION

BY:
CITY OF BELLEVUE
DEPARTMENT OF PLANNING

DATE:

FILE #: 15-115585-DB, 16-143970-LK, 16-145946-LO

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
13020 Bear Creek Road Northeast - Woodinville, Washington 98077
Fax (425) 861-7549

CRITICAL AREA CONCEPTUAL MITIGATION PLANS
PRELIMINARY PLANT LIST, DETAILS, AND NOTES
PARK POINTE PUD
BELLEVUE, WASHINGTON

Revisions	Date	By
CITY COMMENTS	10-25-2018	ABS
STORM OUTFALL	3-13-2019	MW
CITY SUBMITTAL	8-14-2019	FH
CITY COMMENTS	11-10-2020	FH
REVISION	01-2023	TH

Date 10-7-2016
Scale AS SHOWN
Designed AO
Drawn FH
Checked AO
Approved BS

Project #1543

Sheet # W3.0

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Appendix F:

Park Pointe Coal Creek Typing Study. Confluence Environmental Company

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DSD - 000502

CONFLUENCE
ENVIRONMENTAL COMPANY

May 11, 2017

Mr. Alex Mason
VP of Entitlement
ISOLA Homes
1518 First Avenue S, Suite 301
Seattle, WA 98134

Re: Park Pointe Coal Creek Typing Study

Dear Mr. Mason:

The purpose of this letter is to address the City of Bellevue's (Bellevue) preliminary review comments on the Park Pointe PUD, and to address the stream typing for Coal Creek pursuant to the Bellevue Municipal Code (BMC). A February 3, 2017 Bellevue revision letter provided several requests related to land use and critical areas review. As it relates to stream typing, the Bellevue revision letter provided the following:

> ***Streams**: The City of Bellevue has mapped Coal Creek as a fish bearing stream. It is noted that the area downstream from the subject site does have a natural barrier for fish however Bellevue city code does recognize resident fish populations that may be present in stream reaches which are not accessible from downstream fish populations and the potential for fish habitat. Information regarding this stream reach is necessary to determine the stream typing. Note WAC 222-16-030:*
>
> > *(B) Stream segments having a defined channel of 2 feet or greater within the bankfull width in Western Washington; or 3 feet or greater within the bankfull width in Eastern Washington, and having a gradient greater than 16 percent and less than or equal to 20 percent, and having greater than 50 acres in contributing basin size in Western Washington or greater than 175 acres contributing basin size in Eastern Washington, based on hydrographic boundaries;*
>
> *Additional information regarding the stream channel and gradient is necessary to determine typing and applicable buffers. A formal stream typing should be conducted and included as part of the critical areas report.*

This letter documents the activities and findings associated with the Park Pointe Coal Creek Typing Study.

DSD - 000503

SITE DESCRIPTION

The Park Pointe PUD site consists of two tax parcels (2624059022 and 2624059019) located at 7219 and 7331 Lakemont Boulevard SE, Bellevue, Washington. The Public Land Survey System (PLSS) location of the Property is E ½ Section 26, Township 24N, Range 5E, W. M. The Property is bordered on the east side by Lakemont Boulevard SE and to the south, west, and north by City of Bellevue Parks Department property (Coal Creek Natural Area).

The site is currently developed as rural residences, and contains residential structures, lawn, pasture landscaping, and forested areas. Coal Creek flows in a generally northwesterly direction just outside of the south and west site boundaries. Tributaries to Coal Creek (identified as Streams 1-3 in Talasaea 2016), flow in a generally southwesterly direction across northwestern (Streams 1-2) and southeastern (Stream 3) portions of the site.

METHODS

Prior to, and following, a field investigation, agency sources and databases regarding fish habitat in and near the project area were researched. These sources included:

- City of Bellevue Stream Maps (Bellevue 2017)
- City of Bellevue Utilities (K. Paulsen, personal communication, email March 2, 2017)
- Seattle Public Utilities (K. Lynch, personal communication, email March 14, 2017)
- King County Water Resources Inventory Area Maps (King County 2017)
- Washington Department of Natural Resources (DNR) Forest Practices Application Review System (FPARS) Water Type Maps (DNR 2017)
- WDFW (Williams et al. 1975)
- Washington Department of Fish and Wildlife (WDFW) Salmonscape (WDFW 2017a)
- WDFW Priority Habitats and Species Maps (WDFW 2017b)
- WDFW Habitat Program (Fischer, Reinbold, personal communication, email March 10, 2017)
- WDFW Stock Assessment Program (Bosworth, Thompson, personal communication, phone interview March 6, 2017)
- StreamNet Mapper (StreamNet 2017)
- Muckleshoot Indian Tribe Fisheries Division (K. Walter, personal communication, email March 2, 2017)
- US Fish and Wildlife Service (Tabor, R., personal communication, email March 14, 2017)

On March 9, 2017 biologists from Confluence Environmental Company (Confluence) conducted a field investigation at the site to support the stream type assessment. Approximately 800 feet Coal Creek, from the confluence with Stream 1 to the Lakemont Blvd SE crossing adjacent to the site (project reach), was evaluated for fish presence and physical fish habitat characteristics (see Salmonscape figure in Appendix A). Fish presence was evaluated by both visual observation and conducting sweeps of the channel using nets. Two channel segments of approximately 150 feet in length were selected for sweeping based on the presence of pool habitat within the segment. Block nets were set across the

DSD - 000504

stream channel at the downstream end of the sweep segment and biologists walked the channel in a downstream direction methodically sweeping the channel and herding any fish present toward the block net. The block net was then removed from the channel and observed for any fish captured.

Physical habitat characteristics were evaluated based on the criteria for fish habitat in Western Washington per WAC 222-16-031(3), below:

> Waters having any of the following characteristics are presumed to have fish use:
>
> (A) Stream segments having a defined channel of 2 feet or greater within the bankfull width in Western Washington; or 3 feet or greater in width in Eastern Washington; and having a gradient of 16 percent or less;
>
> (B) Stream segments having a defined channel of 2 feet or greater within the bankfull width in Western Washington; or 3 feet or greater within the bankfull width in Eastern Washington, and having a gradient greater than 16 percent and less than or equal to 20 percent, and having greater than 50 acres in contributing basin size in Western Washington or greater than 175 acres contributing basin size in Eastern Washington, based on hydrographic boundaries.

Channel slope was evaluated using a hip chain to measure channel lengths and a clinometer and stadia rod to determine slope percentage, on an optimal line of sight basis. Measurements of bankfull width were taken at the point of each slope measurement using a stadia rod or measuring tape.

RESULTS

This section describes the results of the stream typing study.

The agency sources and online databases have general consensus that Coal Creek is fish bearing to a point where a partial passage barrier is identified at approximately river mile 4.2, which is just downstream of where Stream 1 joins Coal Creek. The fish passage barrier is shown in Salmonscape (Appendix A) and is described in Williams 1975, though Williams shows the location as river mile 3.7. The city of Bellevue stream maps and the DNR (FPARS) water type maps identify Coal Creek as a Type F stream throughout the project reach and upstream of Lakemont Blvd SE. A summary of the agency and online data is presented below in Table 1.

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Table 1. Stream 1 Survey

Source	Fish Distribution Results
Bellevue 2017	Mapped as Type F in lower reaches. Un-known through project reach.
Paulsen 2017	No data for project reach.
Lynch 2017	No data for project reach.
King County 2017	Cutthroat distribution shown to passage barrier at RM 4.2.
DNR 2017	Type F through project reach.
Williams et al. 1975	No data for project reach.
WDFW 2017a	No Salmonscape species shown through project reach.
WDFW 2017b	Cutthroat distribution shown to passage barrier at RM 4.2.
Fischer, Reinbold 2017	No data for project reach.
Bosworth, Thompson 2017	No data for project reach.
StreamNet 2017	No data for project reach.
Walter 2017	No data for project reach. Concurred with original Type N designation[1].
Tabor 2017	No data for project reach.

[1] Talasaea 2016

The field investigation yielded no visual observations or capture of fish during sweeping efforts.

For the project reach evaluated for physical characteristics, the habitat observed in Coal Creek qualitatively appears to provide suitable habitat for fish. The stream has a gravel bed, and is composed of predominantly riffle and pool habitat units. Qualitative observations of pool frequency was relatively low, and no large woody debris was observed in the project reach.

The channel consistently exhibited a bankfull width between 10 to 15 feet, and a slope of less than 5%. These physical characteristics meet the physical criteria for fish habitat in Western Washington per WAC 222-16-031(3).

DISCUSSION

BMC 20.25H.075 designates streams and their regulatory buffers. A Type F water per BMC 20.25H.075(B)(2) means:

> All segments of waters that are not type S waters, and that contain fish or *fish habitat*, including waters diverted for use by a federal, state, or tribal fish hatchery from the point of diversion for

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CONFLUENCE ENVIRONMENTAL COMPANY

> 1,500 feet or the entire tributary if the tributary is highly significant for protection of downstream water quality.

BMC 20.50.020 F defines fish habitat as:

> Any habitat which is used by any fish at any life stage at any time of the year, including potential habitat likely to be used by fish which could be recovered by restoration or management. "Fish Habitat" includes off-channel habitat.

Though fish habitat is defined under the BMC, the definition is broad and general in scope. As a general practice, the physical criteria for fish habitat from WAC 222-16-031(3) is used as the best available science to more specifically define fish habitat by Bellevue (Bedwell 2017).

Though no documentation of fish use in the project reach of Coal Creek could be found in available data sources, nor were any fish observed or captured during the field investigation, Coal Creek does meet the definitions of fish habitat provided by BMC 20.50.020 F and WAC 222-16-031(3). In the absence of verifiable documentation, Bellevue relies on the physical criteria of fish habitat in WAC 222-16-031(3) (Bedwell 2017) to determine the appropriate stream type designation. Given the results of the physical habitat evaluation, Coal Creek warrants a Type 3 designation under WAC 222-16-031(3) and a Type F designation under BMC 20.25H.075. Type F streams require a prescriptive buffer of 100 feet for undeveloped sites per BMC 20.25H.075(C)(1)(a)(i).

If you have any comments or questions, please feel free to contact me. My contact information is below.

Respectfully yours,

CHRIS BERGER, PWS
Senior Ecologist
206.604.9059 | chris.berger@confenv.com

Cc: Steve Calhoon, Pace Engineering

Appendix A: Online Data Maps

DSD - 000507

REFERENCES

City of Bellevue. 2015. Drainage Basin Maps. Bellevue, WA. URL: < http://www.ci.bellevue.wa.us/drainage-basins.htm > (accessed on March 7, 2017).

DNR (Washington Department of Natural Resources). 2017. Forest Practices Application Review System ArcIMS Mapping Application. Washington State Department of Natural Resources, Olympia. URL: < http://fortress.wa.gov/dnr/app1/fpars/viewer.htm> (accessed on March 7, 2017) .

King County. 2017. Water Resource Inventory Area 8 Cutthroat Distribution Map. Lake Washington/Cedar/Sammamish Watershed. URL: < http://govlink.org/watersheds/8/reports/fish-maps/cutthroat/default.aspx > (accessed on March 7, 2017).

StreamNet. 2017. StreamNet Mapper. MAPS and GIS Data. URL< http://psmfc.maps.arcgis.com/apps/webappviewer/index.html?id=3be91b0a32a9488a901c3885bbfc2bob > (accessed on March 7, 2017).

Talasaea. 2016. Critical Areas Report, Habitat Evaluation, and Conceptual Mitigation Plan; Park Pointe PUD, Bellevue, Washington. Prepared for ISOLA Homes. Prepared by Talasaea Consultants, Inc., Woodinville, WA.

WDFW. 2014b. Salmonscape interactive mapping system. Washington Department of Fish and Wildlife, Olympia. URL: <http://apps.wdfw.wa.gov/salmonscape/> (accessed on March 7, 2017).

WDFW (Washington Department of Fish and Wildlife). 2014a. Priority habitats and species on the web. Washington Department of Fish and Wildlife, Olympia. URL: < http://wdfw.wa.gov/mapping/phs/> (accessed on March 7, 2017).

Williams, R.W., R.M. Laramie, and J.J. Ames. 1975. A catalog of Washington streams and salmon utilization, Volume 1, Puget Sound Region. Washington Department of Fisheries. Olympia, WA.

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Appendix A

Maps

DSD - 000509

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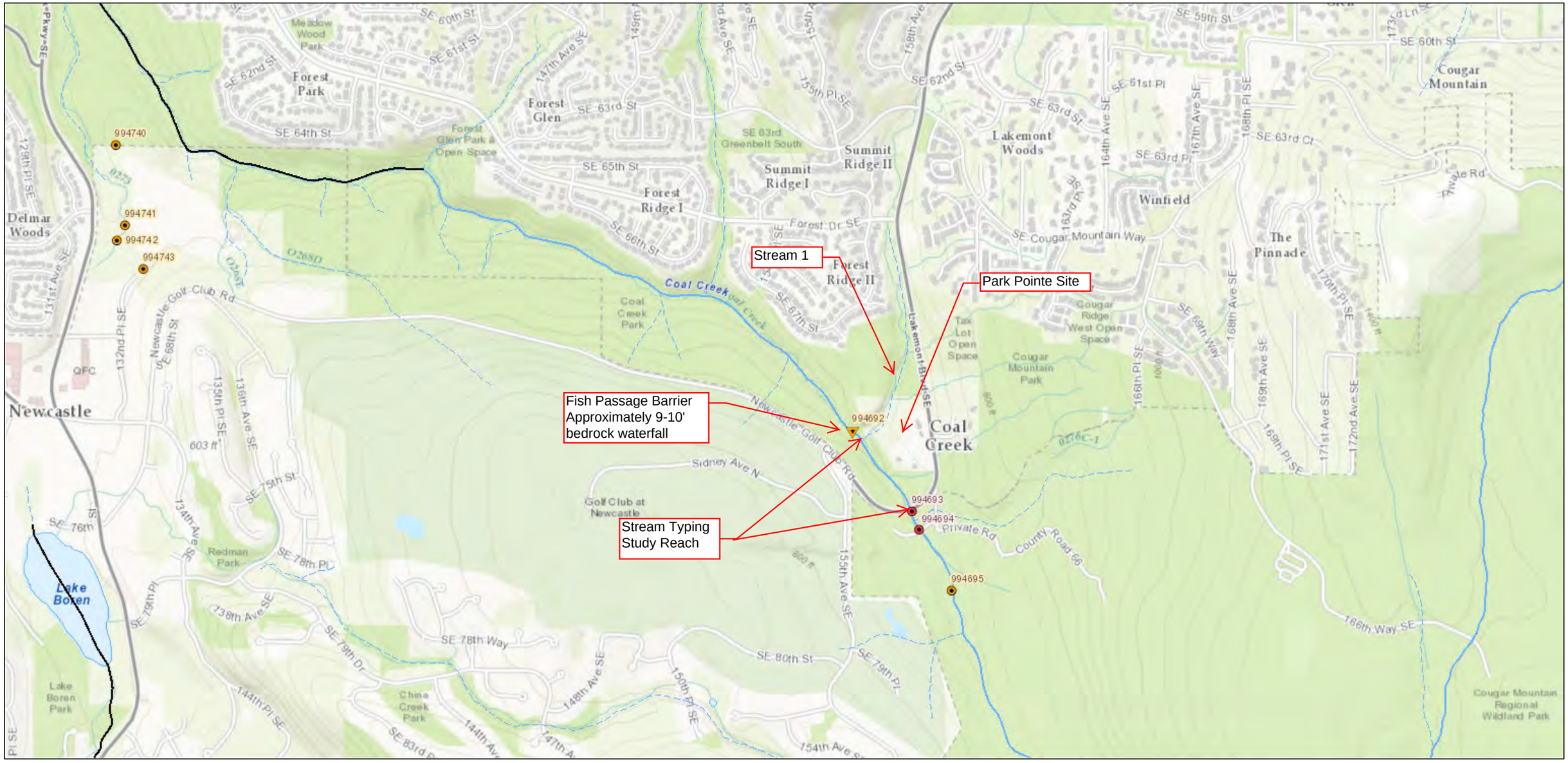
DSD - 000510

Park Pointe



April 14, 2017

1:18,056

0 0.2 0.4 0.8 mi

0 0.35 0.7 1.4 km

Culverts

- Total Blockage
- Total Blockage, Fishway Present
- Partial Blockage
- Partial Blockage, Fishway Present
- Unknown Blockage
- Unknown Blockage, Fishway Present

Dams

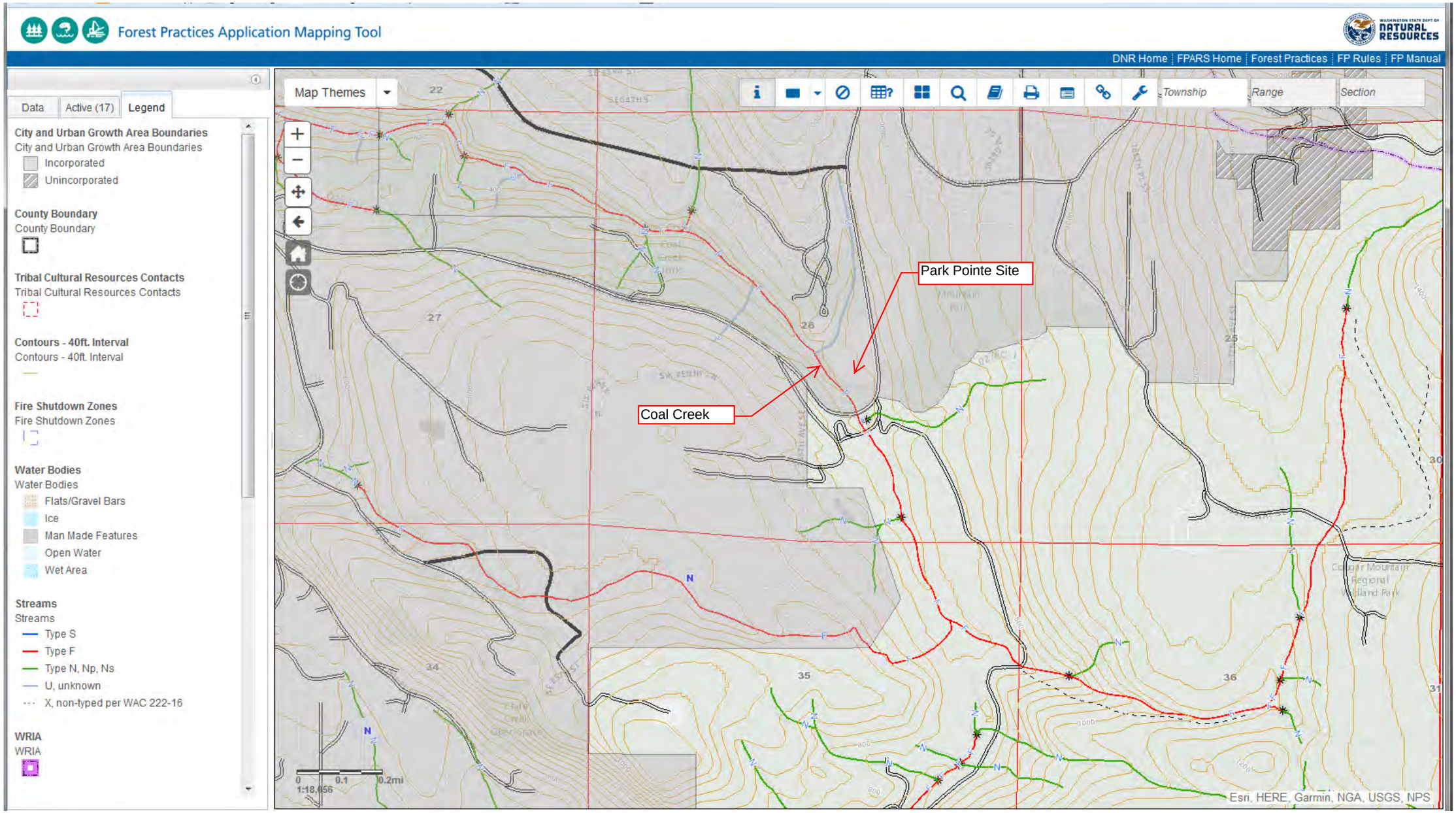
- Total Blockage
- Total Blockage, Fishway Present
- Partial Blockage
- Partial Blockage, Fishway Present

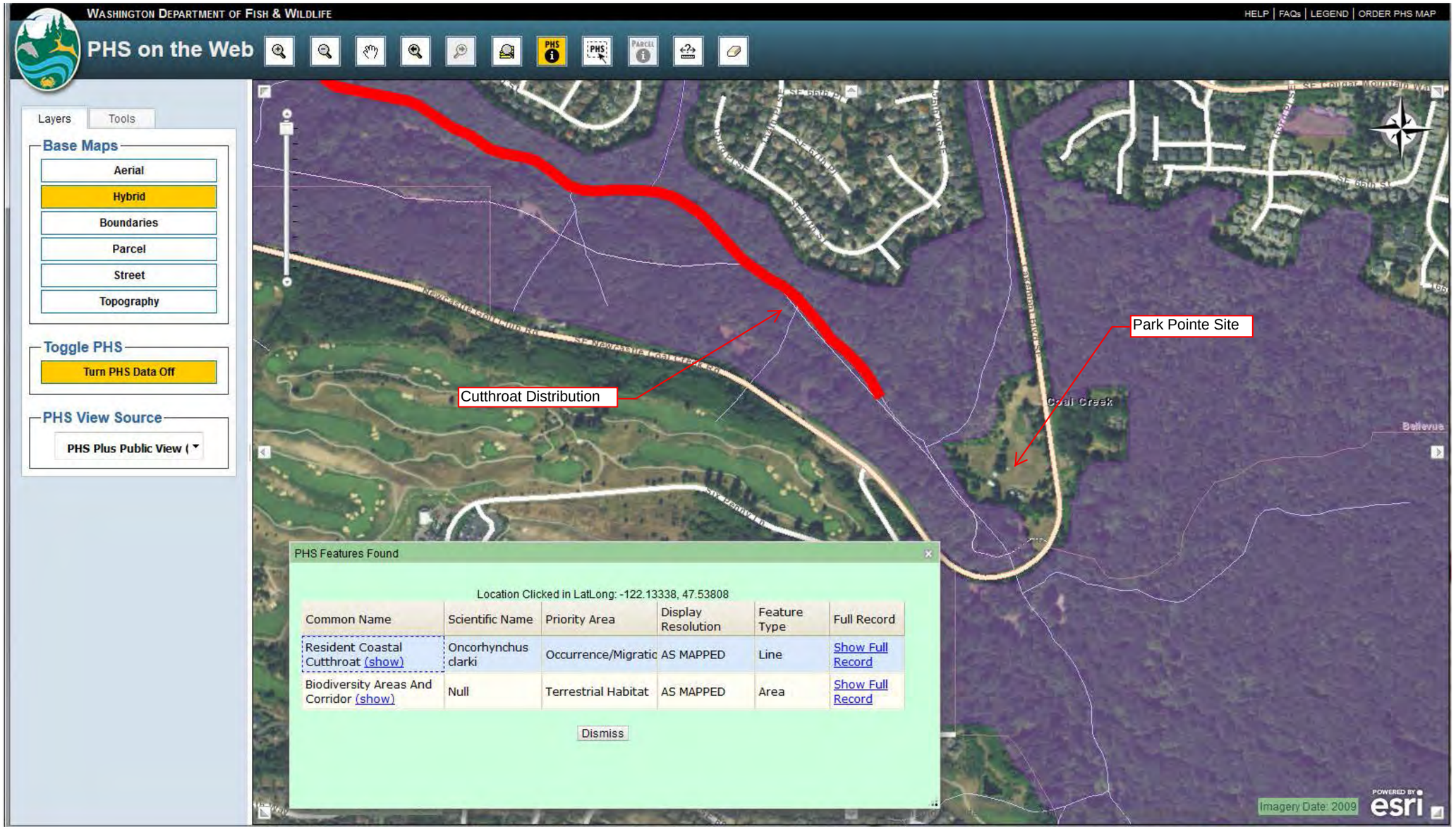
Other Barriers

- Total Blockage
- Total Blockage, Fishway Present
- Partial Blockage
- Unknown Blockage
- Unknown Blockage, Fishway Present
- Partial Blockage, Fishway Present
- Unknown Blockage
- All SalmonScape Species

Salmonscape

USGS/NHD
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the


Forest Practices Application Mapping Tool
DNR Home | FPARS Home | Forest Practices | FP Rules | FP Manual
Map Themes
Township
Range
Section
Data
Active (17)
Legend
City and Urban Growth Area Boundaries
City and Urban Growth Area Boundaries
Incorporated
Unincorporated
County Boundary
County Boundary
Tribal Cultural Resources Contacts
Tribal Cultural Resources Contacts
Contours - 40ft. Interval
Contours - 40ft. Interval
Fire Shutdown Zones
Fire Shutdown Zones
Water Bodies
Water Bodies
Flats/Gravel Bars
Ice
Man Made Features
Open Water
Wet Area
Streams
Streams
Type S
Type F
Type N, Np, Ns
U, unknown
X, non-typed per WAC 222-16
WRIA
WRIA
Park Pointe Site
Coal Creek
0 0.1 0.2mi
1:18,056
Esri, HERE, Garmin, NGA, USGS, NPS


WASHINGTON DEPARTMENT OF FISH & WILDLIFE
HELP | FAQs | LEGEND | ORDER PHS MAP
PHS on the Web
Layers
Tools
Base Maps
Aerial
Hybrid
Boundaries
Parcel
Street
Topography
Toggle PHS
Turn PHS Data Off
PHS View Source
PHS Plus Public View (
Cutthroat Distribution
Park Pointe Site
Coal Creek
Bellevue
PHS Features Found
Location Clicked in LatLong: -122.13338, 47.53808
Common Name | Scientific Name | Priority Area | Display Resolution | Feature Type | Full Record
Resident Coastal Cutthroat (show) | Oncorhynchus clarki | Occurrence/Migratic | AS MAPPED | Line | Show Full Record
Biodiversity Areas And Corridor (show) | Null | Terrestrial Habitat | AS MAPPED | Area | Show Full Record
Dismiss
Imagery Date: 2009
POWERED BY esri

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This map depicts the known freshwater distribution of cutthroat trout (*Oncorhynchus clarki*) for Water Resource Inventory Area (WRIA) 8. The depicted limits of known freshwater distribution of cutthroat trout are based upon the collective personal knowledge of participants in the WRIA 8 mapping project and data they gathered from published and unpublished databases.

This map may underestimate or overestimate the actual distribution of cutthroat trout. Also, this map may inaccurately depict the location of water bodies. For example, some water bodies may be incorrectly located on this map, or may not be depicted on this map at all. *All users of this map should seek the assistance of qualified professionals such as surveyors, hydrologists, or fishery biologists as needed to ensure that such users possess complete, precise, and up to date information on freshwater cutthroat trout distribution and water body location.*

The information depicted on this map is current as of May 2001. This map may be revised at any time. Although the WRIA 8 Technical Committee intends to revise this map on an annual basis, the WRIA 8 Technical Committee cannot and does not guarantee that this map will be revised on an annual basis or at any other interval.

NO EXPRESS OR IMPLIED WARRANTIES; NO WARRANTY OF MERCHANTABILITY; NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

There are not express or implied warranties for this map, the information it depicts, the data on which it is based, or any service furnished herein. There is no warranty of merchantability for this map's accuracy or its depiction of cutthroat trout distribution or water body location. This map is not warranted as fit for a particular purpose.

NOTES:
The upper reach of the Cedar River Watershed is not shown on this map in order to make the map more readable. No cutthroat trout are currently present above Cedar Falls.

Park Pointe Site

Known Freshwater Distribution of Cutthroat Trout for Water Resource Inventory Area (WRIA) 8

Cutthroat Trout Distribution - Streams
- Present - First Hand Information
- Present - Second Hand Information

Cutthroat Trout Distribution - Lakes
- Present

- 33 Data Point and Number (CLICK HERE to see data table for a description of each point.)
- WRIA 8 Boundary
- River
- Stream
- Major Road

N

0 2 4 6 Miles

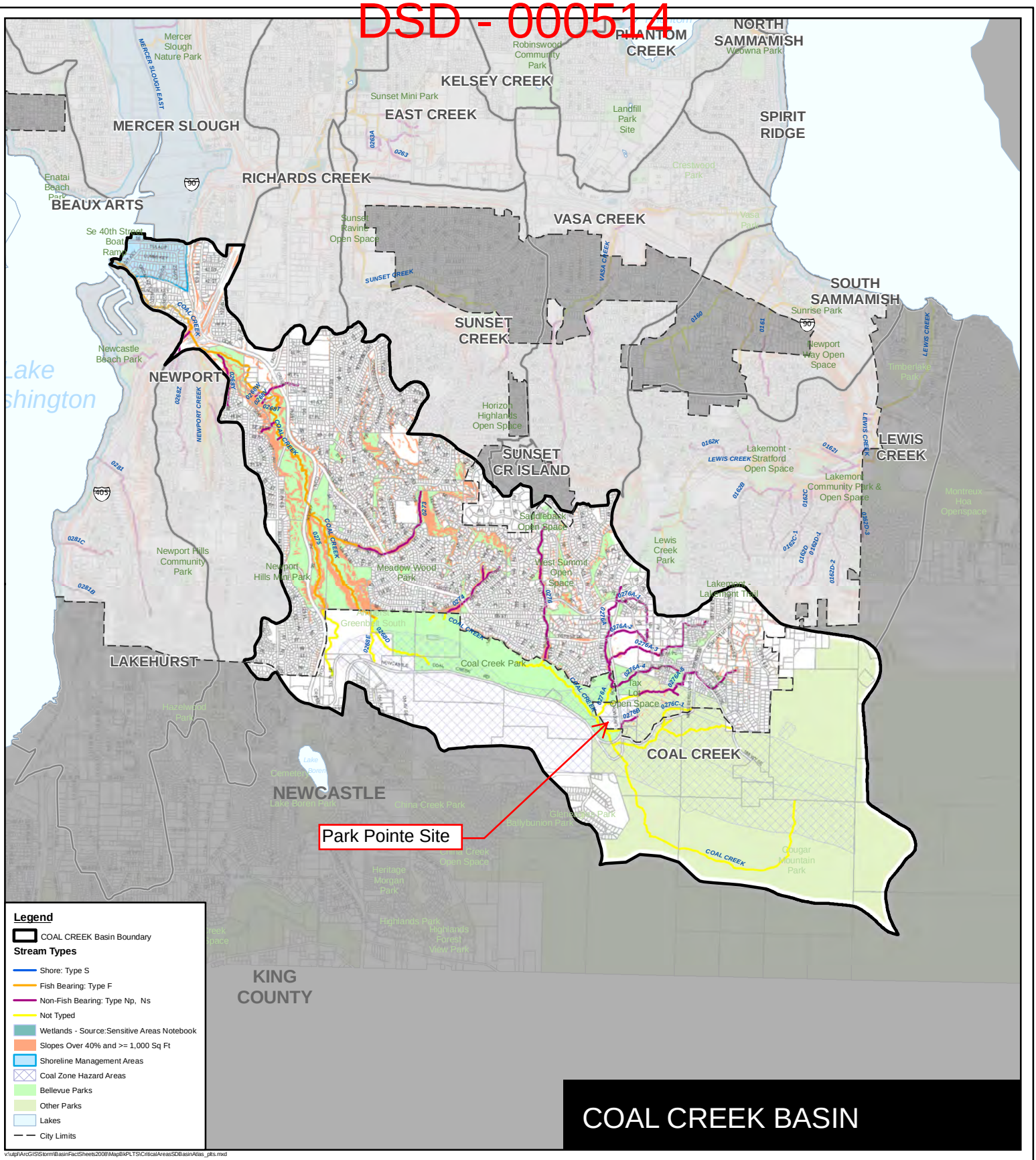
Revised May 2001

KING COUNTY

Map Produced by:
GIS & Visual Communications Unit, WLR

File Name: 0105CutthroatDistMap.eps md,lp,sk

DSD - 000514



= 3,800 feet

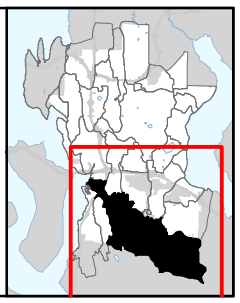
NORTH

City of Bellevue
IT Department
GIS Services
Plot Date: 7/28/2009

Critical Areas
by Storm Drainage Basin

City of Bellevue

This data is a geographic representation derived from the City of Bellevue Geographic Information System. The City of Bellevue does not guarantee that the information provided herein is accurate or complete. This information is provided on an "as is" basis and disclaims all warranties, express or implied, including but not limited to warranties of merchantability, fitness for a particular purpose and non-infringement. Any commercial use or sale of the information and data provided herein, or portions thereof, is prohibited without express written authorization by the City of Bellevue. The City of Bellevue is not responsible for any damages arising from the use of this data. Users should verify the information before making project



Coal Creek Basin

DSD - 000515

Lake Washington Watershed (WRIA 8)
State Stream #08-0268

LAND CHARACTERISTICS

Basin Area: 3,990 Total Acres (11% of the City)
Drainage Jurisdiction(s):
2,181.7 Acres - in Bellevue
1,275.7 Acres - in King County
532.1 Acres - in Newcastle

Highest Elevation: 1,561 Ft
Lowest Elevation: 18 Ft

Total Length of Open Channel: 85,838 Ft
Total Length of Storm Drainage Pipes: 266,341 Ft
Built Rain Storage Volume per Acre of Impervious Surface:
Less than 0.5 Inches

SALMON PRESENT in BASIN

Chinook*+
Rainbow & cutthroat trout
Coho+
Sockeye
Steelhead

* Listed Federal Endangered Species
\+ City Species of Local Importance (Bellevue Land Use Code 20.25H.150A)

POPULATION

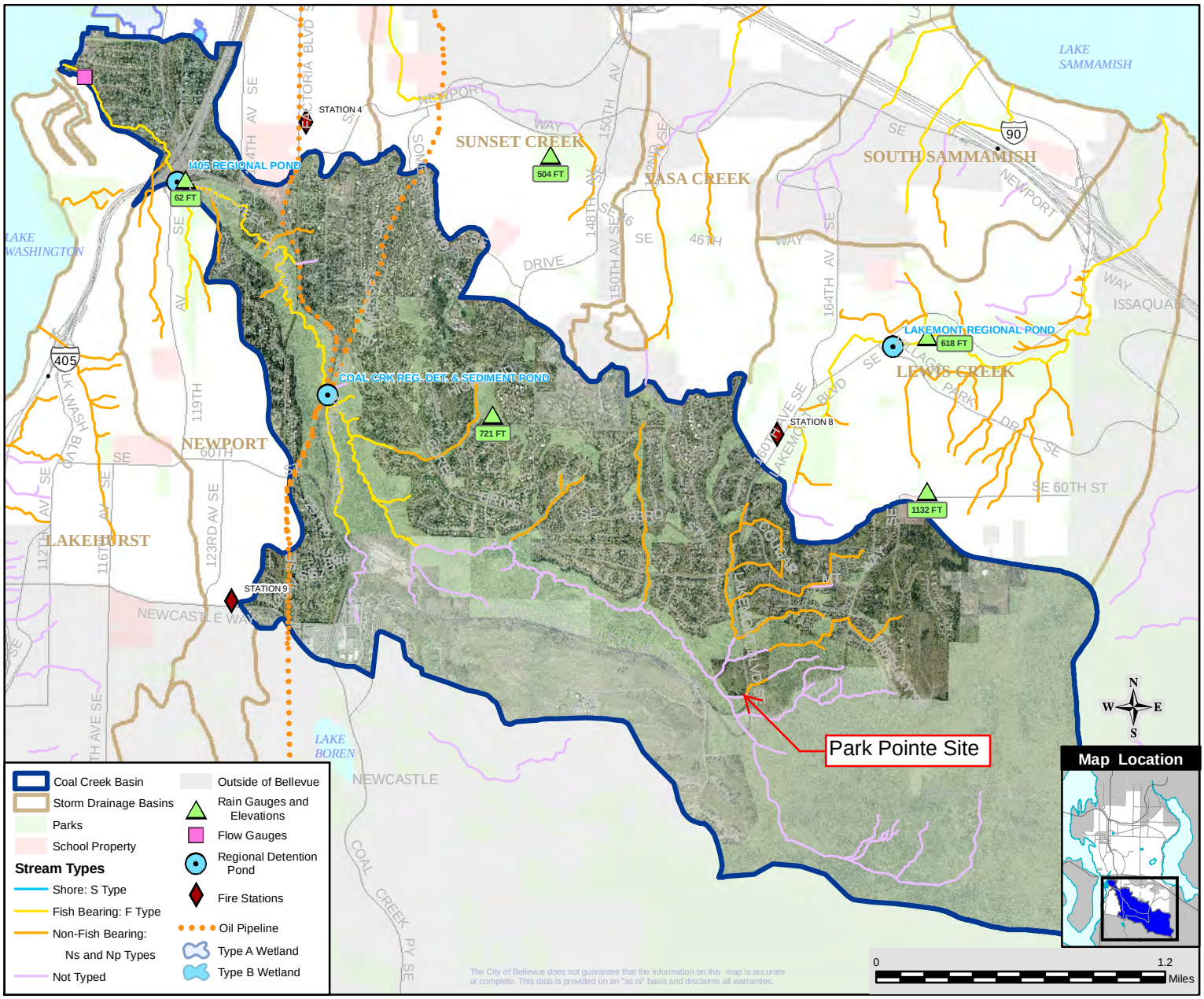
City Basin Population (2000): 10,144 (9.1% of the City)
Basin Population Density: 1,852 People/Square Mile
Number 3 of 26 Basins (One is the lowest density)

LAND USE (within Bellevue city limits)

Public Right of Way:	9.16%	365.38 Acres
Commercial/Office:	0.03%	0.6 Acres
Industrial:	0.01%	0.3 Acres
Institutional/Government:	3.06%	66.8 Acres
Mixed Use/Misc:	3.77%	82.2 Acres
Multi-Family Residential:	1.44%	31.4 Acres
Open Space/Park:	10.89%	237.7 Acres
Single Family Residential:	50.14%	1,093.9 Acres

LAND COVER

Impervious:	20%
Tree Canopy:	58%
Impervious in 100 Ft Stream Buffer:	8%
Tree Canopy in 100 Ft Stream Buffer:	85%

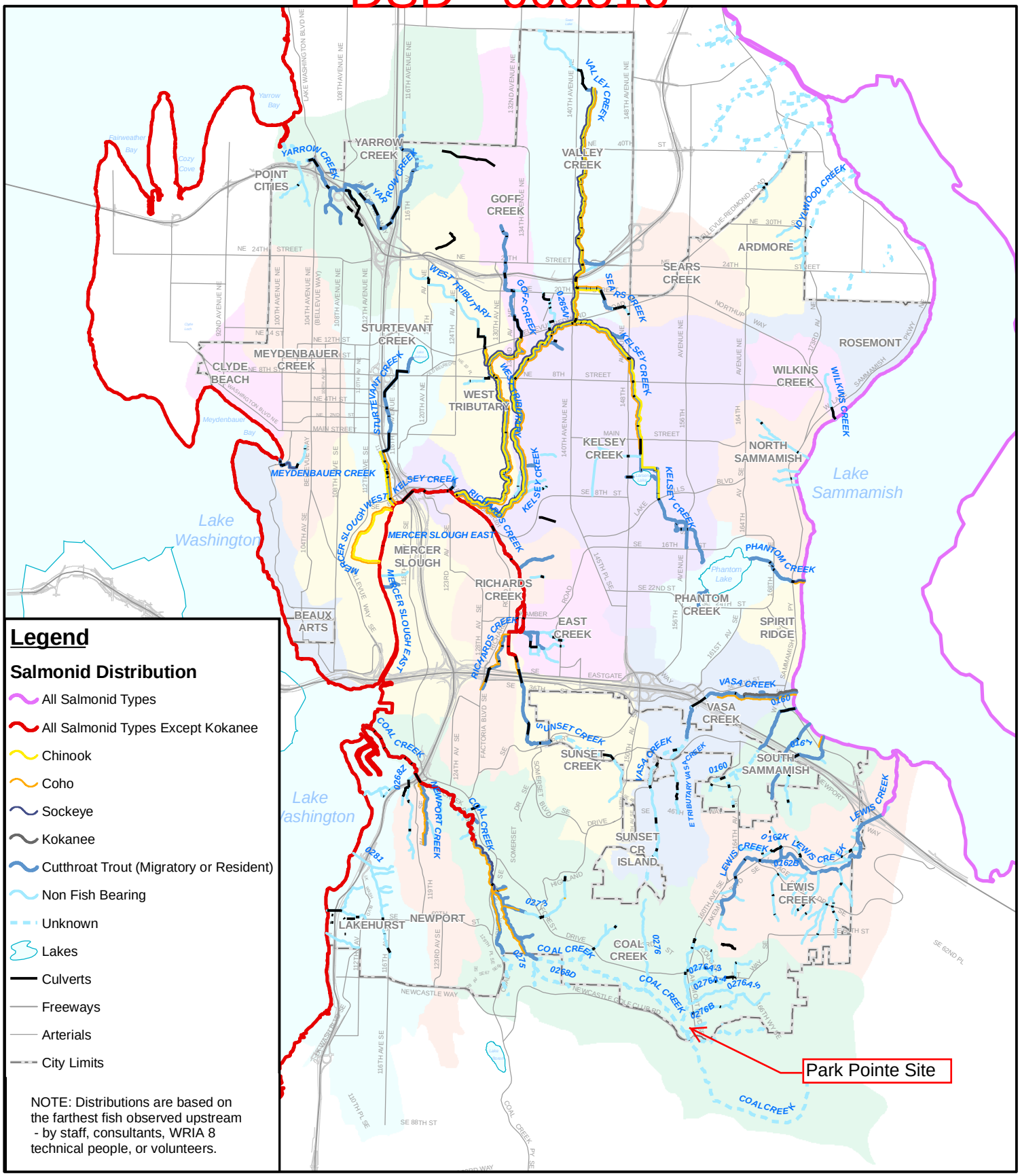


The City of Bellevue does not guarantee that the information on this map is accurate or complete. This data is provided on an "as is" basis and disclaims all warranties.

V:\utpl\ArcGIS\Storm\BasinFactSheets2010\MapBkPLTS\StormBasinFactSht21Jul2010_LegSW.mxd

Plot Date: 7/28/2010

DSD - 000516



NORTH

= 5,940 feet

City of Bellevue
IT Department
GIS Services

Plot Date: 4/12/2010

City of Bellevue

Fish Distribution and Storm Drainage Basins

The information on this map is a geographic representation derived from the City of Bellevue Geographic Information System. The City of Bellevue does not guarantee that the information on this map is accurate or complete. This map is provided on an "as is" basis and disclaims all warranties, express or implied, including but not limited to warranties of merchantability, fitness for a particular purpose and non-infringement. Any commercial use or sale of this map or portions thereof, is prohibited without express written authorization by the City of Bellevue. The City of Bellevue is not responsible for any damages arising from the use of information on this map. Use of this map is at user's risk. Users should verify the information before making project commitments.

DSD - 000517

SOUTH LAKE WASHINGTON DRAINAGES

Along the east shore of Lake Washington, between the East Channel Bridge and Renton, are Mercer Slough, Coal Creek, May Creek, and one small unnamed stream. These drain the hills and low mountain range lying between the south end of Lake Sammamish and Lake Washington, and total approximately 50 stream miles.

Stream Description

Mercer Slough enters Lake Washington near Newport under the I-90 highway. Its headwaters are formed by Kelsey and Sturtevant creeks. Kelsey Creek originates from the outlet of Larsen Lake in Lake Hills and flows 4.6 miles to Sturtevant Creek, then continues as Mercer Slough for 1.7 miles to Lake Washington. Sturtevant Creek originates from the outlet of Sturtevant Lake near Midlakes in Bellevue, and flows south 1.3 miles to Mercer Slough.

The heavy peat bog valley containing Mercer Slough is rapidly being converted to commercial-industrial use. Sturtevant and Kelsey drainages also lie in the heart of industrial, business, and concentrated residential developments. The entire stream is confined within well defined cut banks with a gentle gradient. Fine gravel materials are predominant within long riffle-glide sections. The stream banks have been cleared in much of the area where residential property abuts the stream.

Coal Creek also enters the east channel of Lake Washington at Newport, flowing northwest 7.0 miles from the Newport Hill-Newcastle area. Many old coal mines are evident above Newcastle. Coal Creek drops through a very deep ravine of steep gradient between R.M. 2.7 and 4.0. An impassable cascade and log jam occurs at R.M. 2.7 and a 10-foot impassable falls at R.M. 3.7. Although Newport Hills is a highly developed residential area, Coal Creek has remained in its natural state due mainly to steepness of the ravines. The entire watershed is in a densely wooded valley below R.M. 2.7. Highway 405 crosses Coal Creek at R.M. 0.7 where the stream passes through a 457-foot culvert. Stream widths below the canyon vary from 2 to 4 yards with flows from 7 to 15 cfs in the fall-winter spawning period. The stream is confined within well defined cut banks overgrown with grass, brush and deciduous growth to its confluence with Lake Washington. The bottom composition is comprised of good quality gravel for spawning.

May Creek originates from the outlet of Lake Kathleen and flows westerly 8.6 miles to Lake Washington near Kennydale. Twelve small tributaries provide flow to May Creek. The lower three miles is heavy residential while the upper watershed is largely urban and small farms. The valley floor above R.M. 3.0 averages less than 0.25 mile wide with steep hills to the north, and gentle foothills to the south. From R.M. 1.0 to 3.0 the stream lies in a broad ravine with a gradient approaching 150 feet per mile. Heavy deciduous growth occurs along the lower four miles of stream with the upper stream only sparsely shaded with scattered deciduous vegetation through the farmlands. Conifers and heavy underbrush cover the upper hillsides. The stream bottom is composed mainly of gravel and rubble throughout much of its length, with numerous good quality spawning riffles, many glides, and few pools. The stream ranges from 2 to 4 yards in width.

Salmon Utilization

Salmon utilization extends to all accessible stretches of Kelsey Creek, Sturtevant Creek, and May Creek. It is restricted to the lower 2.7 miles of Coal Creek. Mercer Slough serves only as transportation and rearing area. Coho are the dominant species with chinook and sockeye occurring only rarely. A select race of sockeye utilizes shallow gravelly beach zones along the lake's east shore for spawning.

Limiting Factors

The principal factors limiting salmon production in this drainage section are water quality, water supply, and general habitat deterioration. Water quality problems on Kelsey Creek have curtailed much of its salmon production. Low summer flows with associated high temperatures are particularly crctical to rearing juveniles in all systems. Large scale residential developments on May Creek create water quality problems from storm drains, siltation, road construction and culverts. Elimination of natural cover, along with increasing storm runoff further limits production.

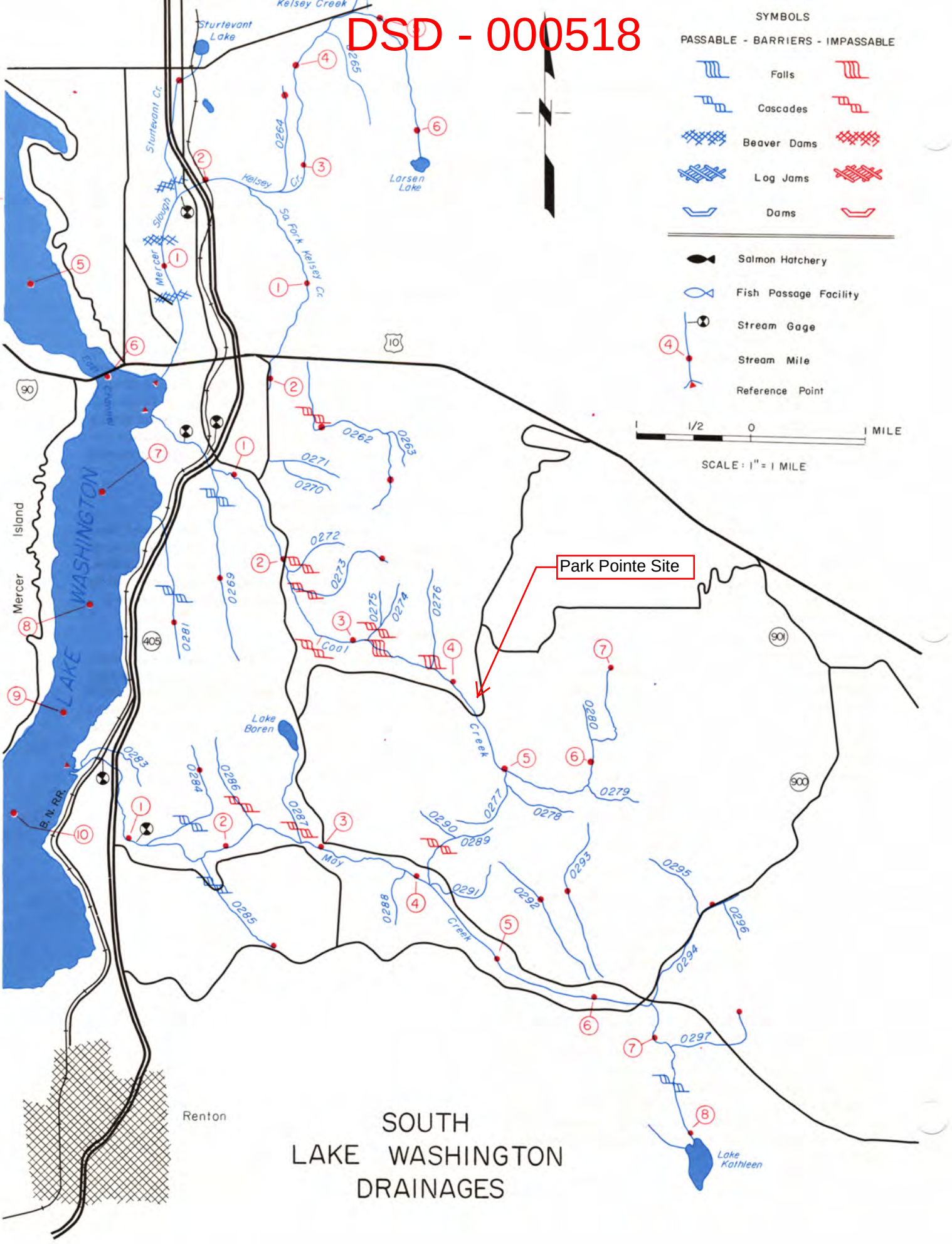
Beneficial Developments

City of Bellevue has developed and implemented plans to rehabilitate and preserve streams within its boundaries. No other specific projects or programs have been undertaken to benefit fish production. Stream maintenance, mainly removal of debris or small barriers, is conducted as needed.

Habitat Needs

The major requirement to maintain salmon production potential in this section will be to preserve water quality and quantity at levels no less than presently existing. Planning and coordination of water-associated project activities must consider fish and habitat requirements. Strict controls should be implemented regarding removal of stream water, introduction of storm drainage, placement of sanitary landfills and placement of culverts or bank protection devices.

DSD - 000518


SYMBOLS
PASSABLE - BARRIERS - IMPASSABLE
Falls
Cascades
Beaver Dams
Log Jams
Dams
Salmon Hatchery
Fish Passage Facility
Stream Gage
Stream Mile
Reference Point
1/2
0
1 MILE
SCALE: 1" = 1 MILE
Park Pointe Site
LAKE WASHINGTON
Mercer Island
Renton
Sturtevant Lake
Sturtevant Cr.
Kelsey Creek
Kelsey Cr.
So. Fork Kelsey Cr.
Mercer Slough
Larsen Lake
Lake Boren
Lake Kathleen
Moy Creek
B. N. RR.
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DSD - 000519

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DSD - 000520

Appendix G:

City of Bellevue Habitat Evaluation Assessment Data Sheets

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DSD - 000521

City of Bellevue
DRAFT FUNCTIONAL ASSESSMENT TOOL for Upland Habitat

Existing Condition

DSD - 000522

City of Bellevue

DRAFT FUNCTIONAL ASSESSMENT TOOL

for Upland Habitat

Property address 7219 Lakemont Bellevue, WA 98006

Location Range Township Section

Parcel number

Property owner

Telephone number ( ) -

Project name TAL-1543 Lakemont Boulevard Property

Project contact Michael Pollard

Telephone number( ) -

Address

Staff DRT

Date(s) of site visit(s) 05-20-15

Washington Department of Fish and Wildlife Priority Habitat and Species (PHS) data obtained? Y/N Y

1.0	PROPERTY DESIGNATION	Zone A	Zone B	Zone C	Zone D		Zone
1.1	Existing impervious surface	>90%	50-90%	20-50%	0-20%		0
2.0	**LANDSCAPE PARAMETERS**	**No points**	**1 point**	**2 points**	**3 points**	**Additional points**	**Total**
2.1	Land use/development density	Zone A	Zone B	Zone C	Zone D		3
2.2	*Occurrence (number) of habitat types	0	1	2	3+		3
2.3	**Proximity of known critical areas (distance to edge)	>2,500 ft	<2,500 ft	<1,200 ft	<100 ft	+1 point if contiguous with critical area	3
2.4	Habitat connectivity and corridors	No connection to other habitat areas	≥50-foot-wide connection to vegetated areas of at least 1 acre	≥50-foot-wide connection to vegetated areas of at least 50 acres but not listed parks***	≥50-foot-wide connection King County wildlife network or listed parks***	+1 point for ≥150-foot-wide connection King County wildlife network or listed parks***	4
2.5	Patch size	<0.-1.0 ac	1.0-5.0 ac	>5-10 ac	10-42 acres	>42 acres = 4 points	4

17

DSD - 000523

City of Bellevue

DRAFT FUNCTIONAL ASSESSMENT TOOL

for upland habitat

2.0	LANDSCAPE PARAMETERS	No points	1 point	2 points	3 points	Additional points	Total
2.6	***Interspersion of habitat patches (excluding patches <1 ac in area)**	No or isolated patch (no others within 0.5-ac circle)	Low	Moderate	High	+1 point if wildlife network or listed park is included	2
3.0	**LOCAL PARAMETERS**	**No points**	**1 point**	**2 points**	**3 points**	**Additional points**	**Total**
3.1	**Size of native trees on site**	No significant trees on site	6-12" dbh tree(s) present	12-20" dbh tree(s) present	>20" dbh tree(s) present	+1 point if tree(s) >30" dbh are present	3
3.2	**Coniferous component**	No conifers on site	Conifers very sparse or present in understory only	Conifers co- or sub-dominant in overstory	Conifers dominant	+1 point if conifers >30" dbh are present	1
3.3	**Percent cover (sample vegetated areas only)**						
	Ground layer (0-2.3 ft) (5-ft radius)	0%	0-25%	25-50%	50%+	+1 point for cover >75%; -1 point if mowed grass is >50%	2
	Shrub layer (2.3-25 ft) (10-ft radius)	0%	0-25%	25-50%	50%+	+1 point for cover >75%	2
	Canopy (>25 ft) (30-ft radius)	0%	0-25%	25-50%	50%+	+1 point for cover >75%	2
3.4	**Vegetative vertical structural diversity (foliage height diversity)**	FHD = 0	FHD < 0.70	FHD = 0.70-0.90	FHD > 0.90		2
3.5	**Vegetative species richness**	0-1 species	2-5 species	6-19 species	20+ species		2
3.6	**Invasive species component**	>75% cover	25-75% cover	10-25%cover	<10% cover		1

DSD - 000524

City of Bellevue

DRAFT FUNCTIONAL ASSESSMENT TOOL

for Upland Habitat

3.0	LOCAL PARAMETERS	No points	1 point	2 points	3 points	Additional points	Total
3.7	**Proximity to year-round water**	>1.0 mi or artificial feature with maintained /invasive buffer present within 0.3-1 mi	0.3-1.0 mi or artificial feature with maintained/ invasive buffer present within <0.3 mi	<0.3 mi or artificial feature with maintained/ invasive buffer present within patch	Natural water feature present within patch with native buffer		3
3.8	**Snags (≥4 in dbh)**	No snags on site	1/ac or fewer	2-6/ac	>7/ac	Add 0.5 point for each >20 in dbh and 1 point for each >30 in dbh	2
3.9	**Other habitat features**	None	1	2-4	5 or more		2
Landscape parameters points							19
Local parameters points							22
TOTAL POINTS							41

* Use circle of the appropriate size for the property's zone:

Zone A – 0.5 ac
Zone B – 5.0 ac
Zone C – 100 ac
Zone D – 250 ac

** PHS data required for sites in Zone D

***Parks: Mercer Slough, Phantom Lake wetland complex, Larson Lake wetland complex, Cougar Mountain Regional Wildland Park, Weowna Park; King County wildlife network

DSD - 000525

City of Bellevue
DRAFT FUNCTIONAL ASSESSMENT TOOL
for Upland Habitat

Post-Construction: No Buffer Enhancement; Reduced Development Footprint

DSD - 000526

City of Bellevue

DRAFT FUNCTIONAL ASSESSMENT TOOL

for Upland Habitat

Property address 7219 LAKEMONT BLVD SE

Location ____ Range ____ Township ____ Section ____

Parcel number ____

Property owner ____

Telephone number ( ) - -

Project name TAL-1543 LAKEMONT/PARK POINTE

Project contact ALEX MASON/ISOLA HOMES

Telephone number ( ) - -

Address ____

(PREPARED 4/17/17)
THIS EVALUATION IS AN IMPACT ASSESSMENT, WITH NO MITIGATION EVALUATED

Staff OA - TALASAEA

Date(s) of site visit(s) ____

Washington Department of Fish and Wildlife Priority Habitat and Species (PHS) data obtained? Y/N Y

1.0	PROPERTY DESIGNATION	Zone A	Zone B	Zone C	Zone D		Zone
1.1	Existing impervious surface	>90%	50-90%	20-50%	0-20%		C
2.0	**LANDSCAPE PARAMETERS**	**No points**	**1 point**	**2 points**	**3 points**	**Additional points**	**Total**
2.1	**Land use/development density**	Zone A	Zone B	Zone C	Zone D		2
2.2	***Occurrence (number) of habitat types**	0	1	2	3+		3
2.3	****Proximity of known critical areas (distance to edge)**	>2,500 ft	<2,500 ft	<1,200 ft	<100 ft	+1 point if contiguous with critical area	3
2.4	**Habitat connectivity and corridors**	No connection to other habitat areas	≥50-foot-wide connection to vegetated areas of at least 1 acre	≥50-foot-wide connection to vegetated areas of at least 50 acres but not listed parks***	≥50-foot-wide connection King County wildlife network or listed parks***	+1 point for ≥150-foot-wide connection King County wildlife network or listed parks***	4
2.5	**Patch size**	<0.-1.0 ac	1.0-5.0 ac	>5-10 ac	10-42 acres	>42 acres = 4 points	4

DSD - 000527

City of Bellevue

DRAFT FUNCTIONAL ASSESSMENT TOOL

for upland habitat

2.0	LANDSCAPE PARAMETERS	No points	1 point	2 points	3 points	Additional points	Total
2.6	***Interspersion of habitat patches (excluding patches <1 ac in area)**	No or isolated patch (no others within 0.5-ac circle)	Low	Moderate	High	+1 point if wildlife network or listed park is included	2
3.0	**LOCAL PARAMETERS**	**No points**	**1 point**	**2 points**	**3 points**	**Additional points**	**Total**
3.1	**Size of native trees on site**	No significant trees on site	6-12" dbh tree(s) present	12-20" dbh tree(s) present	>20" dbh tree(s) present	+1 point if tree(s) >30" dbh are present	3
3.2	**Coniferous component**	No conifers on site	Conifers very sparse or present in understory only	Conifers co- or sub-dominant in overstory	Conifers dominant	+1 point if conifers >30" dbh are present	1
3.3	**Percent cover (sample vegetated areas only)**						
	Ground layer (0-2.3 ft) (5-ft radius)	0%	0-25%	25-50%	50%+	+1 point for cover >75%; -1 point if mowed grass is >50%	2
	Shrub layer (2.3-25 ft) (10-ft radius)	0%	0-25%	25-50%	50%+	+1 point for cover >75%	2
	Canopy (>25 ft) (30-ft radius)	0%	0-25%	25-50%	50%+	+1 point for cover >75%	2
3.4	**Vegetative vertical structural diversity (foliage height diversity)**	FHD = 0	FHD < 0.70	FHD = 0.70-0.90	FHD > 0.90		2
3.5	**Vegetative species richness**	0-1 species	2-5 species	6-19 species	20+ species		2
3.6	**Invasive species component**	>75% cover	25-75% cover	10-25%cover	<10% cover		1

DSD - 000528

City of Bellevue

DRAFT FUNCTIONAL ASSESSMENT TOOL

for Upland Habitat

3.0	LOCAL PARAMETERS	No points	1 point	2 points	3 points	Additional points	Total
3.7	**Proximity to year-round water**	>1.0 mi or artificial feature with maintained /invasive buffer present within 0.3-1 mi	0.3-1.0 mi or artificial feature with maintained/ invasive buffer present within <0.3 mi	<0.3 mi or artificial feature with maintained/ invasive buffer present within patch	Natural water feature present within patch with native buffer		3
3.8	**Snags (≥4 in dbh)**	No snags on site	1/ac or fewer	2-6/ac	>7/ac	Add 0.5 point for each >20 in dbh and 1 point for each >30 in dbh	2
3.9	**Other habitat features**	None	1	2-4	5 or more		2
Landscape parameters points							18
Local parameters points							22
TOTAL POINTS							40

* Use circle of the appropriate size for the property's zone:

Zone A – 0.5 ac
Zone B – 5.0 ac
Zone C – 100 ac
Zone D – 250 ac

** PHS data required for sites in Zone D

***Parks: Mercer Slough, Phantom Lake wetland complex, Larson Lake wetland complex, Cougar Mountain Regional Wildland Park, Weowna Park; King County wildlife network

DSD - 000529

City of Bellevue
DRAFT FUNCTIONAL ASSESSMENT TOOL for Upland Habitat

Post-Construction: With Proposed Development and Buffer Enhancement

DSD - 000530

City of Bellevue

DRAFT FUNCTIONAL ASSESSMENT TOOL

for Upland Habitat

Property address 7219 LAKEMONT BLVD SE

Location Range Township Section

Parcel number

Property owner

Telephone number ( ) -

Project name TAL-1543 LAKEMONT/PARK POINTE

Project contact ALEX MASON, ISOLA HOMES

Telephone number ( ) -

Address

(PREPARED 3/24/2017) THIS EVALUATION IS A PREDICTIVE ASSESSMENT OF THE POST-5 YEAR HABITAT RESTORATION.

Staff OA - TALASAEA CONSULTANTS

Date(s) of site visit(s)

Washington Department of Fish and Wildlife Priority Habitat and Species (PHS) data obtained? Y/N Y

1.0	PROPERTY DESIGNATION	Zone A	Zone B	Zone C	Zone D		Zone
1.1	Existing impervious surface	>90%	50-90%	20-50%	0-20%		C
2.0	**LANDSCAPE PARAMETERS**	**No points**	**1 point**	**2 points**	**3 points**	**Additional points**	**Total**
2.1	**Land use/development density**	Zone A	Zone B	Zone C	Zone D		2
2.2	***Occurrence (number) of habitat types**	0	1	2	3+		3
2.3	****Proximity of known critical areas (distance to edge)**	>2,500 ft	<2,500 ft	<1,200 ft	<100 ft	+1 point if contiguous with critical area	3
2.4	**Habitat connectivity and corridors**	No connection to other habitat areas	≥50-foot-wide connection to vegetated areas of at least 1 acre	≥50-foot-wide connection to vegetated areas of at least 50 acres but not listed parks***	≥50-foot-wide connection King County wildlife network or listed parks***	+1 point for ≥150-foot-wide connection King County wildlife network or listed parks***	4
2.5	**Patch size**	<0.-1.0 ac	1.0-5.0 ac	>5-10 ac	10-42 acres	>42 acres = 4 points	4

DSD - 000531

City of Bellevue

DRAFT FUNCTIONAL ASSESSMENT TOOL

for upland habitat

2.0	LANDSCAPE PARAMETERS	No points	1 point	2 points	3 points	Additional points	Total
2.6	***Interspersion of habitat patches (excluding patches <1 ac in area)**	No or isolated patch (no others within 0.5-ac circle)	Low	Moderate	High	+1 point if wildlife network or listed park is included	2
3.0	**LOCAL PARAMETERS**	**No points**	**1 point**	**2 points**	**3 points**	**Additional points**	**Total**
3.1	**Size of native trees on site**	No significant trees on site	6-12" dbh tree(s) present	12-20" dbh tree(s) present	>20" dbh tree(s) present	+1 point if tree(s) >30" dbh are present	3
3.2	**Coniferous component**	No conifers on site	Conifers very sparse or present in understory only	Conifers co- or sub-dominant in overstory	Conifers dominant	+1 point if conifers >30" dbh are present	1
3.3	**Percent cover (sample vegetated areas only)**						
	Ground layer (0-2.3 ft) (5-ft radius)	0%	0-25%	25-50%	50%+	+1 point for cover >75%; -1 point if mowed grass is >50%	3
	Shrub layer (2.3-25 ft) (10-ft radius)	0%	0-25%	25-50%	50%+	+1 point for cover >75%	3
	Canopy (>25 ft) (30-ft radius)	0%	0-25%	25-50%	50%+	+1 point for cover >75%	2
3.4	**Vegetative vertical structural diversity (foliage height diversity)**	FHD = 0	FHD < 0.70	FHD = 0.70-0.90	FHD > 0.90		2
3.5	**Vegetative species richness**	0-1 species	2-5 species	6-19 species	20+ species		3
3.6	**Invasive species component**	>75% cover	25-75% cover	10-25%cover	<10% cover		3

DSD - 000532

City of Bellevue

DRAFT FUNCTIONAL ASSESSMENT TOOL

for Upland Habitat

3.0	LOCAL PARAMETERS	No points	1 point	2 points	3 points	Additional points	Total
3.7	**Proximity to year-round water**	>1.0 mi or artificial feature with maintained /invasive buffer present within 0.3-1 mi	0.3-1.0 mi or artificial feature with maintained/ invasive buffer present within <0.3 mi	<0.3 mi or artificial feature with maintained/ invasive buffer present within patch	Natural water feature present within patch with native buffer		3
3.8	**Snags (≥4 in dbh)**	No snags on site	1/ac or fewer	2-6/ac	>7/ac	Add 0.5 point for each >20 in dbh and 1 point for each >30 in dbh	2
3.9	**Other habitat features**	None	1	2-4	5 or more		3
Landscape parameters points							18
Local parameters points							28
TOTAL POINTS							46

* Use circle of the appropriate size for the property's zone:

Zone A – 0.5 ac
Zone B – 5.0 ac
Zone C – 100 ac
Zone D – 250 ac

** PHS data required for sites in Zone D

***Parks: Mercer Slough, Phantom Lake wetland complex, Larson Lake wetland complex, Cougar Mountain Regional Wildland Park, Weowna Park; King County wildlife network

DSD - 000533

Appendix H:

Vegetative Management Plan

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DSD - 000534

VEGETATION MANAGEMENT PLAN

Park Pointe PUD

Bellevue, Washington

May 17, 2017

This Vegetation Management Plan (VMP) is intended to guide general landscape maintenance practices for the Park Pointe PUD, as well as maintenance practices for the mitigation area. The goal of the VMP is to ensure long-term vegetation management that is consistent with the objectives and performance standards of the mitigation plan approved by the City of Bellevue in conjunction with the approval of the Critical Areas Report. This includes vegetation management techniques as well as restrictions on activities in buffers.

The VMP is intended for general application. Enforcement of the VMP shall be the responsibility of Park Pointe PUD, or their representative, hereinafter referred to as "Park Pointe". This VMP is adopted for the following purposes, which shall be considered in the administration of this plan. They are as follows:

- To preserve and enhance the physical and aesthetic character and ecological functions of the critical areas and buffers on the site;
- To promote landscape maintenance practices that result in a minimal disturbance to the natural environment;
- To promote the existence of wildlife through the establishment of native plantings;
- To allow future replanting and augmentation of native vegetation;
- To ensure prompt restoration, replanting, and effective erosion control of soil disturbances;
- To prevent and/or control erosion, and prevent stray sediment and polluted water from entering the adjacent natural systems;
- To promote maintenance practices that are consistent with the approved Mitigation Plan prepared by Talasaea Consultants;
- To support the goals and policies of the State of Washington Environmental Policy Act, the Federal Endangered Species Act, and the Clean Water Act; and
- To maintain the Site in accordance with City of Bellevue Code.

1.0 GENERAL SITE LANDSCAPE MAINTENANCE & MANAGEMENT

1.1 Fertilizer

Any fertilizer shall be carefully applied to avoid direct and indirect entry of fertilizer into streams or water bodies. In order to accurately determine fertilizer inputs, it is recommended that a soil sample be collected by Park Pointe for sampling of the major nutrients Nitrogen, Phosphorous, and Potassium (NPK), micronutrients, pH, and organic matter. The King Conservation District has a soil testing laboratory that will send back recommendations specific to the site and plant material so that the appropriate type and amount of fertilizer can be applied and potential contamination of surface and groundwater resulting from excess fertilizer can be avoided.

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1.2 Control of Invasive/Noxious Species

Non-native and noxious species include Scot's broom, Himalayan and evergreen blackberry, reed canarygrass, purple loosestrife, field bindweed, knotweed sp., English ivy, Canada thistle, and bittersweet nightshade. Herbicides shall be utilized only if manual control methods are not effective. Rodeo, or an equivalent approved by the City of Bellevue (such as Aquamaster), shall be the only herbicide allowed in the protected critical areas. Recommendations for manual and chemical removal of invasive/ noxious weed species shall be in compliance with the Best Management Practices established by the King County Noxious Weed Control Board. All invasive/noxious weeds or other non-native species shall be systematically and periodically removed on a specimen-by-specimen basis and disposed of off-site at an approved dump location.

2.0 CRITICAL AREAS MAINTENANCE & MANAGEMENT

After the conclusion of the 5-year performance monitoring period, maintenance of the mitigation areas and protection of on-site critical areas shall be the responsibility of Park Pointe, who shall:

- Ensure the ongoing protection of the critical area buffer by encouraging people and pets to stay within designated areas.
- Ensure removal of all trash and debris on a routine basis.
- Coordinate the immediate control and/or removal of any erosion, stray sediment, and polluted water.
- Coordinate the protection of the installed native plant material.
- Provide routine maintenance of all newly planted (or replanted) vegetation.
- Ensure the removal of invasive/noxious species as listed on the King County Noxious Species List.
- Coordinate cleaning and maintenance of signage to maintain visibility and repair damage.
- Provide maintenance for all structures (e.g., culverts, etc.) that are required to be cleaned and repaired as needed to maintain proper function.

2.1 Maintenance Schedule Guidelines

Park Pointe shall inspect the restored critical areas and shall take action to adequately address intrusion of invasive/noxious species; trash and debris, erosion, stray sediment, and/or polluted water; and plant mortality on a routine basis. It is recommended that these inspections be performed on a quarterly basis each year.

2.2 Contingency Items

Contingency items include, but are not limited to: additional plant installation, irrigation, erosion control, and invasive/noxious species control (Section 2.3 below). Contingency items include many of the items listed below, and shall be implemented if the purposes for adopting the VMP, as defined on page one, are not met.

Replanting – Park Pointe will replant areas that may experience plant mortality as necessary to maintain plant survival. Areas will be replanted with the same species or a substitute species approved by the City of Bellevue.

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Irrigation -- Park Pointe shall coordinate the watering of any newly installed plants from June 15th through October 15th. Watering shall be by manual means or through provision of a temporary irrigation system. During the first year after re-planting, irrigation shall be at the rate of 1/2" of water twice per week. During the second year, irrigation shall be at the rate of 1/2" of water once per week.

Erosion Control – Park Pointe shall promptly coordinate the correction of any erosion and shall prevent any stray sediment or polluted water from entering adjacent water bodies.

2.3 Control of Invasive/Noxious Species

Park Pointe shall coordinate the routine removal and control of invasive/noxious weeds or other non-native species with the goal of maintaining them below 10% of the total areal cover in the protected natural areas. These non-native and noxious species include Scot's broom, Himalayan and evergreen blackberry, reed canarygrass, purple loosestrife, field bindweed, Japanese knotweed, English ivy, Canada thistle, and bittersweet nightshade. Complete or near-complete removal of these species shall be performed by manual means whenever reasonably possible. Herbicides shall be utilized in the protected critical areas only if manual control methods are not effective. Rodeo, or an equivalent approved by King County (such as Aquamaster), will be the only herbicide allowed in the protected critical areas.

Recommendations for manual and chemical removal of invasive/ noxious weed species shall be in compliance with the Best Management Practices established by the King County Noxious Weed Control Board. All invasive/noxious weeds or other non-native species shall be systematically and periodically removed on a specimen-by-specimen basis and disposed of off-site at an approved dump location.

2.4 General Maintenance Items

1. Park Pointe shall coordinate the ongoing protection of the critical area by encouraging the public to stay within designated areas.
2. Park Pointe shall coordinate the removal of all trash and other debris on a routine basis. Large and/or hazardous items or large accumulations shall be removed promptly upon their discovery.
3. Park Pointe shall coordinate the routine maintenance of all newly planted trees and shrubs. These measures include maintaining and weeding mulch rings, including removal of all herbaceous plants within the mulch ring or dripline of all woody shrubs and trees. Invasive/noxious non-native plants shall be removed and/or controlled in all critical area.
4. Park Pointe shall coordinate the pruning of trees and large woody plants (e.g., thinning and removal of dead or diseased portions of trees/shrubs) within the critical area at the direction of a qualified arborist.
5. Park Pointe shall coordinate cleaning and maintenance of critical areas signage and check signage for visibility and damage. These efforts shall occur at least twice yearly.
6. Park Pointe shall coordinate cleaning and maintenance of all structures (e.g., culverts, etc.) to be cleaned and repaired as needed to maintain proper function.
7. Park Pointe acknowledges that the critical area is not to be maintained like traditional ornamental landscaping. Grasses and other herbaceous vegetation (other than reed canarygrass and other invasive/noxious species) shall be left alone.

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2.5 Tree Protection and Maintenance

All retained trees shall be maintained in healthy condition by Park Pointe in perpetuity, unless otherwise approved by the City of Bellevue.

Pruning and maintenance of trees shall be consistent with best management practices in the field of arboriculture and shall further the long-term health of the tree. Excessive pruning shall not be allowed unless necessary to protect life and property.

Hazardous trees may be removed if the hazardous tree exhibits threat of injury to people or damage to property and if the City of Bellevue approves removal. The following conditions are some indications of a potentially hazardous tree:

- large dead or detached branches;
- significant cavities or rotten wood along the trunk or in major branches;
- fungal infection;
- significant cracks or splits in the bark;
- strong lean of the trunk;
- poor branching structure;
- a damaged root system;
- previously topped or heavily pruned.

The City requires that the hazardous condition of a tree be confirmed by a Certified Arborist and that all proper permits be obtained (per applicable City code) prior to tree removal, except in the event of an emergency that poses an imminent threat to human health and/or property.

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Appendix I:

Responses to Performance Standards and Decision Criteria

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Standard
20.25H.100 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:
A. Lights shall be directed away from the wetland.
Site lighting shall be sensitive to the needs of wildlife. Direct illumination of the critical areas will be avoided.
B. 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.
Site roadways and activity areas are directed towards the center of the site. Where any activity approaches the perimeter of the development, extensive planting with coniferous trees shall help diffuse noise. Homes will be built with a high R-value insulation within the structure.
C. Toxic runoff from new impervious area shall be routed away from the wetlands.
All street run-off will be directed towards the advanced treatment system before discharge to streams. No wetlands will receive stormwater. Paved areas at the perimeter of the site will feature pervious pavement, and rooftop rainwater will be routed to the buffer.
D. Treated water may be allowed to enter the wetland critical area buffer.
Site stormwater from streets and paved areas will be directed to the advanced filtration system, before discharge to the critical areas buffer.
E. The outer edge of the wetland critical area buffer shall be planted with dense vegetation to limit pet or human use.
Dense plantings of rose, Oregon grape, or similar native species will be incorporated at the outer edge of the critical areas buffer in the final mitigation plans.
F. F. Use of pesticides, insecticides and fertilizers within 150 feet of the edge of the stream buffer shall be in accordance with the City of Bellevue's "Environmental Best Management Practices," now or as hereafter amended. (Ord. 5680, 6-26-06, § 3)
For the site landscaping, 100% of the developed space will be managed and guided by a Best Management Plan for Landscape Maintenance incorporating the City's current Environmental Best Practices and Design Standards manual.

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Criteria
20.25H.145 Critical areas report – Approval of modification. Modifications to geologic hazard critical areas and critical area buffers shall only be approved if the Director determines that the modification:
G. The proposed modification to the critical area or critical area buffer with any associated mitigation does not significantly impact habitat associated with species of local importance, or such habitat that could reasonably be expected to exist during the anticipated life of the development proposal if the area were regulated under this part.
The proposed modification of critical area buffers has been demonstrated in Chapter 4 of the project critical areas report that two species of local importance are associated with the site. In the long term improvement of the site, the habitat should continue to be available for both species, thus no loss is expected. In Chapter 9, the site ranked highly in habitat function under existing conditions, and after the mitigation, it is expected to have an increased habitat functional value.

Criteria
20.25H.250 Critical areas report – Submittal requirements. **A. Specific Proposal Required**. A critical areas report must be submitted as part of an application for a specific development proposal. In addition to the requirements of this section, additional information may be required for the permit applicable to the development proposal.
The project critical areas report is submitted with the applications, with intent to fully have requirements met and necessary information provided.
B. Minimum Report Requirements. The critical areas report shall be prepared by a qualified professional and shall at minimum include the content identified in this section. The Director may waive any of the report requirements where, in the Director's discretion, the information is not necessary to assess the impacts of the proposal and the level of protection of critical area function and value accomplished. At a minimum, the report shall contain the following:
1. Identification and classification of all critical areas and critical area buffers on the site;
The project critical areas report identifies and classifies three wetlands and three streams on the site.
2. Identification and characterization of all critical areas and critical area buffers on those properties immediately adjacent to the site;
A fourth stream was identified off site, and wetlands and streams that extended off site were characterized.
3. Identification of each regulation or standard of this code proposed to be modified;
The critical areas report identifies modification of the code to reduce buffers for streams under LUC 20.25H.075.C.2 and 20.25H.090, and to reduce the critical area building setback associated with stream buffers under section LUC 20.25H.075.D.3.
3. A habitat assessment consistent with the requirements of LUC 20.25H.165;
A thorough habitat assessment consistent with the requirements above were included in the critical areas report in Chapter 4.
4. An assessment of the probable cumulative impacts to critical areas resulting from development of the site and the proposed development;
An assessment of the impacts associated with the development, consistent with the requirements above were included in the critical areas report in Chapter 7.

5. An analysis of the level of protection of critical area functions and values provided by the regulations or standards of this code, compared with the level of protection provided by the proposal. The analysis shall include: a. A discussion of the functions and values currently provided by the critical area and critical area buffer on the site and their relative importance to the ecosystem in which they exist; b. A discussion of the functions and values likely to be provided by the critical area and critical area buffer on the site through application of the regulations and standards of this Code over the anticipated life of the proposed development; and c. A discussion of the functions and values likely to be provided by the critical area and critical area buffer on the site through the modifications and performance standards included in the proposal over the anticipated life of the proposed development;
A thorough analysis of critical area functions and values consistent with the requirements above were included in the critical areas report in Chapter 7. In the existing conditions, the site scored 41, in a scenario with an application of the standards set forth in the code scored a 40, and with the proposed mitigation the site scored 46, using a City of Bellevue habitat assessment model.
6. A discussion of the performance standards applicable to the critical area and proposed activity pursuant to LUC 20.25H.160, and recommendation for additional or modified performance standards, if any;
Performance standards are included in the monitoring section of Chapter 8 are considered consistent with the requirements of the proposed mitigation.
7. A discussion of the mitigation requirements applicable to the proposal pursuant to LUC 20.25H.210, and a recommendation for additional or modified mitigation, if any; and
A discussion of possible mitigation requirements and modified mitigation approach is presented consistent with the requirements above were included in Chapters 5, 7, and 8 of the project critical areas report.
8. Any additional information required for the specific critical area as specified in the sections of this part addressing that critical area.
Data forms associated with the critical area ratings are provided in Appendices C, D, and G of the project critical areas report. A Vegetation Monitoring Plan has been prepared and is presented in Appendix H.
C. Additional Report Submittal Requirements.
1. Unless otherwise provided, a critical areas report may be supplemented by or composed, in whole or in part, of any reports or studies required by other laws and regulations or previously prepared for and applicable to the development proposal site, as approved by the Director.
Included as supplemental information to the project critical areas report are a geotechnical study in Appendix A and a mine hazard study in Appendix B.
2. Where a project requires a critical areas report and a mitigation or restoration plan, the mitigation or restoration plan may be included with the critical areas report, and may be considered in determining compliance with the applicable decision criteria, except as set forth in subsection C.4 of this section.
Included with the project critical areas report is a Detailed Conceptual Mitigation Plan in Appendix E, designed to establish the direction and scope of a future detailed mitigation plan.
3. The applicant may consult with the Director prior to or during preparation of the critical areas report to obtain approval of modifications to the required contents of the report where, in the judgment of a qualified professional, more or less information is required to adequately address the potential critical area impacts and required mitigation.
In consideration of a revised ranking, a third party fisheries professional firm was engaged to review the stream classification of Coal Creek, and this report was included as Appendix F within the project critical areas report.

4. Proposals to obtain reductions in regulated critical area buffers below the buffers required by this part shall include the following information in addition to the minimum critical areas report contents described in subsection B of this section. The restoration proposed to improve existing function included in the proposal must be separate from any impact mitigation proposal: a. The specific restoration actions proposed and the specific regulated buffer dimensions proposed. b. The functions that will be enhanced by the restoration actions, addressing at minimum habitat, hydrology, water quality and (where applicable) stream process functions. c. Functions that will be provided outside of the reduced regulated buffer dimension proposed by the project, if any (for example, stormwater quality and quantity controls or low impact development features). d. The relative importance of the enhanced functions to the ecosystem in which they exist. e. A description of the net gain in functions by the restoration actions in the reduced regulated buffer area and the proposal, compared to the functions that would be preserved under standard buffer provisions of the CAO without restoration.
a. The restoration actions to improve existing buffer function are extensive buffer enhancement, and these are provided to mitigate buffer reductions as described in Chapter 8 and on Sheet W1.1. **b. Functions that are discussed in Chapters 7 and 8 of the project critical areas report include habitat, hydrology, and water quality.** **c. Functions that are provided outside of the mitigation action are in the project description of Chapter 7 of the Critical Areas Report.** **d. The relative importance of enhanced functions are discussed in the mitigation section, Chapter 8.** e. **A description of the net gain in buffer functions is provided in the functional analysis section, Chapters 7 and 8.**

Criteria
20.25H.255 Critical areas report – Decision criteria. A. 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:
NOTE: Part A is not applicable because the approval process would use Part B.
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;
2. Adequate resources to ensure completion of any required mitigation and monitoring efforts;
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
4. The resulting development is compatible with other uses and development in the same land use district.
A. Decision Criteria – Proposals to Reduce Regulated Critical Area Buffer. The Director may approve, or approve with modifications, a proposal to reduce the regulated critical area buffer on a site where the applicant demonstrates:
1. The proposal includes plans for restoration of degraded critical area or critical area buffer functions which demonstrate a net gain in overall critical area or critical area buffer functions;
The net gain in critical area buffer function is illustrated in Appendix E and Chapter 8 of the project critical areas report.

2. The proposal includes plans for restoration of degraded critical area or critical area buffer functions which demonstrate a net gain in the most important critical area or critical area buffer functions to the ecosystem in which they exist;
Enhancement of the degraded critical area buffer is a key element of the mitigation plan outlined in Chapter 8 and in Appendix E.
3. The proposal includes a net gain in stormwater quality function by the critical area buffer or by elements of the development proposal outside of the reduced regulated critical area buffer;
A combination of improvements to the buffer, low impact development design that captures run-off, and an advanced filtration and detention system will improve stormwater quality, as described by Chapters 6 and 8.
4. Adequate resources to ensure completion of any required restoration, mitigation and monitoring efforts;
A chapter describing provisions of required bonding is included at the end of the project critical areas report. The City will need to inform the applicant of required bonding.
5. 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
Based on the content of several chapters of the project critical areas report, especially the conclusions in Chapter 8, the proposed mitigation would achieve a net increase of critical area function and values.
6. The resulting development is compatible with other uses and development in the same land use district.
The land use district which contains this parcel also features single family subdivisions similar to this proposal. The innovation of this PUD should be inspirational to others wishing to develop in the City of Bellevue, in order that their emulations and achieve innovative site design and critical area function in future projects.

DSD - 000544

GEOTECH
CONSULTANTS, INC.

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Bellevue, Washington 98005
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January 19, 2016

JN 15349

Isola Homes
1518 – 1st Avenue South, Suite 301
Seattle, Washington 98134

Attention: Alex Mason

Subject: **Transmittal Letter – Geotechnical Engineering Study**
Proposed Housing Development
7219 and 7331 Lakemont Boulevard Southeast
Bellevue, Washington

Dear Mr.Mason:

We are pleased to present this geotechnical engineering report for the housing development to be constructed in Bellevue, Washington. The scope of our services consisted of exploring site surface and subsurface conditions, and then developing this report to provide recommendations for general earthwork and design criteria for foundations and retaining walls. This work was authorized by your acceptance of our proposal dated August 19, 2015.

The attached report contains a discussion of the study and our recommendations. Please contact us if there are any questions regarding this report, or for further assistance during the design and construction phases of this project.

Respectfully submitted,

GEOTECH CONSULTANTS, INC.

James H. Strange, P.E.
Associate

cc: **Malsam Tsang Structural Engineering** – Marc Malsam
via email: marc@malsam-tsang.com

TRC/JHS: at

DSD - 000545

GEOTECHNICAL ENGINEERING STUDY
Proposed Housing Development
7219 and 7331 Lakemont Boulevard Southeast
Bellevue, Washington

This report presents the findings and recommendations of our geotechnical engineering study for the site of the proposed housing development to be located in Bellevue.

We were provided with a preliminary site plan prepared by PACE dated June 3, 2015. Based on this plan, we understand that the development will consist of 45 residential lots, with associated access roads and underground utilities. A stormwater detention vault is planned at the southwest corner of the site. We have not been provided with a grading plan, but we anticipate that cuts and fills of about 5 feet are possible.

We understand that coal mine workings are located below the site and in the surrounding area. The scope of our work does not include an evaluation of potential impacts of the coal mine on the proposed development.

If the scope of the project changes from what we have described above, we should be provided with revised plans in order to determine if modifications to the recommendations and conclusions of this report are warranted.

SITE CONDITIONS

SURFACE

The Vicinity Map, Plate 1, illustrates the general location of the site in Bellevue. The site is bordered to the east by Lakemont Boulevard Southeast, and to the north, west, and south by wooded, sloping land owned by City of Bellevue Parks.

The site consists of two parcels of land. Two houses and a few small outbuildings are located near the east side of the northern parcel. A house and four medium to large outbuildings are located in the south and southwestern part of the southern parcel.

Most of the eastern part of the planned development area of the site slopes gently down toward the west. There is an 8-foot-tall knob near the west side of this gently sloping area in the northern parcel. North and west of the gently sloping area in the northern parcel the terrain slopes down toward the north and west with an inclination of 1.5:1 to 2:1 (H:V). The northern slope has a height of 10 to 15 feet and the western slope has a height of 30 to 40 feet. The northern slope is steepest, likely due to past fill placement over the top of the slope. A stream is located at the base of the northern and western slopes. At the southern parcel, the area west of the gentle slope steepens to a moderate inclination and extends west of the site. Further off-site toward the west the slope becomes steep and declines to a stream. We did not observe indications of instability of the site slopes.

The gently sloping eastern portion of the site is primarily vegetated with field grass, with landscaping bushes around the houses and some scattered trees. Trees and brush grow on the steep slopes toward the north and west.

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During our recent site visit we observed flowing water that emerged just south of a shed in the southwest part of the site. The water flowed westward and eventually off the site. We also observed standing water in some of the east-central part of the southern parcel and near the west side of the gently sloping area in that parcel.

SUBSURFACE

The subsurface conditions were explored by excavating 24 test pits at the approximate locations shown on the Site Exploration Plan, Plate 2. Our exploration program was based on the proposed construction, anticipated subsurface conditions and those encountered during exploration, and the scope of work outlined in our proposal.

The test pits were excavated on August 21 and December 22, 2015 with a rubber-tired backhoe. A geotechnical engineer from our staff observed the excavation process, logged the test pits, and obtained representative samples of the soil encountered. "Grab" samples of selected subsurface soil were collected from the backhoe bucket. The Test Pit Logs are attached to this report as Plates 3 through 14.

Soil Conditions

Test Pits 2 through 4, 8 through 10, and 21 through 24 encountered fill and buried topsoil that generally extended to depths of 2 to 5 feet. However, in Test Pits 3, 22, and 23, located close to the tops of the slopes at the north and west sides of the development, the fill and buried topsoil had a thickness of 7.5 to more than 10 feet. Test Pit 22 terminated at a depth of 10 feet due to heavy caving; it did not advance through the fill.

Based on surface conditions and the test pit findings, it appears that fill was placed to expand the gently sloping part of the site a fairly short distance beyond the former top of the steep northern and the north part of the western slope. Fill was also placed to raise the ground surface in a low area that extended from the northwest corner of the proposed development area southward, approaching the southern edge of the northern parcel.

Below the fill and buried topsoil in the above-described explorations, and below about a foot of surficial topsoil in the other explorations, the test pits encountered up to a few feet of loose to medium-dense soil. Medium-dense native soil was encountered within 3 feet of the lowest portion of the topsoil. This native soil varied widely in composition across the site, including: silty sand with gravel, sand with gravel, silt with sand and gravel, and silt.

Groundwater Conditions

Perched groundwater seepage was observed at a depth of 6 to 10 feet in Test Pits 9, 10, and 12, which were excavated in August, and at a depth of 2 to 10 feet in Test Pits 15 through 21, 23, and 24, which were excavated in December following/during heavy rains. The test pits were left open for only a short time period. Therefore, the seepage levels on the logs represent the location of transient water seepage and may not indicate the static groundwater level. It should be noted that groundwater levels vary seasonally with rainfall and other factors, and are typically highest during the normally wet winter and spring months. We anticipate that groundwater could be found in more permeable soil layers and between the looser near-surface soil and the underlying denser soil.

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The stratification lines on the logs represent the approximate boundaries between soil types at the exploration locations. The actual transition between soil types may be gradual, and subsurface conditions can vary between exploration locations. The logs provide specific subsurface information only at the locations tested. The relative densities and moisture descriptions indicated on the test pit logs are interpretive descriptions based on the conditions observed during excavation.

The compaction of test pit backfill was not in the scope of our services. Loose soil will therefore be found in the area of the test pits. If this presents a problem, the backfill will need to be removed and replaced with structural fill during construction.

CONCLUSIONS AND RECOMMENDATIONS

GENERAL

THIS SECTION CONTAINS A SUMMARY OF OUR STUDY AND FINDINGS FOR THE PURPOSES OF A GENERAL OVERVIEW ONLY. MORE SPECIFIC RECOMMENDATIONS AND CONCLUSIONS ARE CONTAINED IN THE REMAINDER OF THIS REPORT. ANY PARTY RELYING ON THIS REPORT SHOULD READ THE ENTIRE DOCUMENT.

The test pits conducted for this study generally encountered native, medium-dense soil within a few feet of the ground surface, and the soil became denser with depth. However, we observed up to 10 feet of loose fill in several test pits in the northern and northwestern part of the site. Other area of fill may be present at the site. Conventional footing foundations bearing on the competent native soil will provide suitable support to the proposed residences. Over-excavation of fill will be necessary where it is present at planned foundation locations.

The steep northern and western slopes are considered Steep Slope Geologic Hazard Areas by the City of Bellevue due to their height and inclination. Bellevue Code states that a buffer 50 feet wide should be established beginning at the top of Steep Slopes. However, the code includes a provision that the buffer can be reduced based on the evaluation of a geotechnical engineer. In our opinion a reduced buffer of 10 feet from the Steep Slope buffer is appropriate based on the absence of past landslides on the site slopes and the competent condition of the native soils that compose the core of the site. We recommend that the proposed residences be set back an additional 10 feet from the edge of the Steep Slope buffer and be founded on directly on competent native soils beneath the existing fill soils along the slope-edge of the residence. Specifically, all foundations within 25 feet of the steep slope shall be founded directly on the medium-dense to dense native soils underlying the fill soils. The remainders of the residences may be supported on structural fill placed above the competent native soils underlying the existing fills. In reference to the Bellevue code (20.25H.125) we believe the proposed reduction in buffer/setback conforms to Items A through C, and that the specific house/lot designs could be made to conform to Items D through J.

Like any steep slope in the Puget Sound region, the steep slopes north and west of the proposed development have a potential to experience shallow landslides, which would most likely be triggered by heavy rainfall or surface water directed onto the slope. Where the upper portion of the slopes consist of fill there is a somewhat increased potential for slope failures. However, because the fill at the top of the slopes is only on the order of about 10 feet thick, it is our opinion that increased potential will not pose a risk to the proposed residences, provided they have the recommended 10-foot-wide slope buffer and additional 10-foot-wide slope setback and are founded on the medium-dense to dense native soils at the site.

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Although sand with some permeability was encountered in some test pit explorations, the sand had a thickness of just a few feet and was underlain by soils with very low permeability. We also observed numerous instances of relatively high perched groundwater at the site; based on our findings, the site soils are not suitable for concentrated stormwater infiltration.

The soils that underlie the site are generally silty and thus moisture sensitive. It would be very difficult to use the site soils as structural fill when they are wet or during wet weather.

The generally silty soils will be susceptible to softening under foot traffic during the placement of forms and rebar, particularly in wet conditions. After scraping any loosened soils from the footing excavations, the bearing surfaces could be protected with several inches of clean crushed rock.

Storm detention/retention facilities and other utilities are often installed below, or near, structures. The walls of storm vaults must be designed as either cantilever or restrained retaining walls, as appropriate. Wall pressures for the expected soil conditions are presented in the ***Permanent Foundation and Retaining Walls*** section of this report. It is important that the portion of the structure above the permanent detained water level be backfilled with free-draining soil, as recommended for retaining walls. Should drainage not be provided, the walls must be designed for hydrostatic forces acting on the outside of the structure. The backfill for all underground structures must be compacted in lifts according to the criteria of this report. Trenches for underground structures and utilities should not cross a line extending downwards from a new or existing footing at an inclination of 1:1 (Horizontal:Vertical), or a line extending downwards from a property line at an inclination of 1:1. We should be consulted if these excavation zones will be exceeded for installation of storm facilities or other utilities.

The erosion control measures needed during the site development will depend heavily on the weather conditions that are encountered. We anticipate that a silt fence will be needed around the downslope sides of any cleared areas. Existing pavements, ground cover, and landscaping should be left in place wherever possible to minimize the amount of exposed soil. Rocked staging areas and construction access roads should be provided to reduce the amount of soil or mud carried off the property by trucks and equipment. Wherever possible, the access roads should follow the alignment of planned pavements. Trucks should not be allowed to drive off of the rock-covered areas. Cut slopes and soil stockpiles should be covered with plastic during wet weather. Following clearing or rough grading, it may be necessary to mulch or hydroseed bare areas that will not be immediately covered with landscaping or an impervious surface. On most construction projects, it is necessary to periodically maintain or modify temporary erosion control measures to address specific site and weather conditions.

The drainage and/or waterproofing recommendations presented in this report are intended only to prevent active seepage from flowing through concrete walls or slabs. Even in the absence of active seepage into and beneath structures, water vapor can migrate through walls, slabs, and floors from the surrounding soil, and can even be transmitted from slabs and foundation walls due to the concrete curing process. Water vapor also results from occupant uses, such as cooking and bathing. Excessive water vapor trapped within structures can result in a variety of undesirable conditions, including, but not limited to, moisture problems with flooring systems, excessively moist air within occupied areas, and the growth of molds, fungi, and other biological organisms that may be harmful to the health of the occupants. The designer or architect must consider the potential vapor sources and likely occupant uses, and provide sufficient ventilation, either passive or mechanical, to prevent a build up of excessive water vapor within the planned structure.

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Geotech Consultants, Inc. should be allowed to review the final development plans to verify that the recommendations presented in this report are adequately addressed in the design. Such a plan review would be additional work beyond the current scope of work for this study, and it may include revisions to our recommendations to accommodate site, development, and geotechnical constraints that become more evident during the review process.

We recommend including this report, in its entirety, in the project contract documents. This report should also be provided to any future property owners so they will be aware of our findings and recommendations.

SEISMIC CONSIDERATIONS

In accordance with the International Building Code (IBC), the site soil profile within 100 feet of the ground surface is best represented by Site Class Type D (Stiff Site Class). As noted in the USGS website, the mapped spectral acceleration value for a 0.2 second (S_s) and 1.0 second period (S_1) equals 1.32g and 0.51g, respectively.

The IBC states that a site-specific seismic study need not be performed provided that the peak ground acceleration be equal to $S_{DS}/2.5$, where S_{DS} is determined in ASCE 7. It is noted that S_{DS} is equal to $2/3S_{MS}$. S_{MS} equals F_a times S_S, where F_a is determined in Table 11.4-1. For our site, F_a = 1.0. The calculated peak ground acceleration that we utilized for the seismic-related parameters (earth pressures, seismic surcharges, and slope stability) of this report equals 0.35g.

The site soils are not susceptible to seismic liquefaction because of their dense nature and the absence of near-surface groundwater.

CONVENTIONAL FOUNDATIONS

The proposed structures can be supported on conventional continuous and spread footings bearing on undisturbed, medium-dense, native soil, or on structural fill placed above this competent native soil. As discussed in the ***General*** section, all foundations within 25 feet of the steep slope shall be founded directly on the medium-dense to dense native soils underlying the fill soils. The remainders of the residences may be supported on structural fill placed above the competent native soils underlying the existing fills. See the section entitled ***General Earthwork and Structural Fill*** for recommendations regarding the placement and compaction of structural fill beneath structures. Adequate compaction of structural fill should be verified with frequent density testing during fill placement. Prior to placing structural fill beneath foundations, the excavation should be observed by the geotechnical engineer to document that adequate bearing soils have been exposed.

We recommend that continuous and individual spread footings have minimum widths of 16 and 24 inches, respectively. Exterior footings should also be bottomed at least 18 inches below the lowest adjacent finish ground surface for protection against frost and erosion. The local building codes should be reviewed to determine if different footing widths or embedment depths are required. Footing subgrades must be cleaned of loose or disturbed soil prior to pouring concrete. Depending upon site and equipment constraints, this may require removing the disturbed soil by hand.

Depending on the final site grades, overexcavation may be required below some footings to expose competent native soil. Unless lean concrete is used to fill an overexcavated hole, the overexcavation must be at least as wide at the bottom as the sum of the depth of the overexcavation and the footing

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width. For example, an overexcavation extending 2 feet below the bottom of a 2-foot-wide footing must be at least 4 feet wide at the base of the excavation. If lean concrete is used, the overexcavation need only extend 6 inches beyond the edges of the footing. A typical detail for overexcavation beneath footings is attached as Plate 16.

An allowable bearing pressure of 2,500 pounds per square foot (psf) is appropriate for footings supported on competent native soil. A one-third increase in this design bearing pressure may be used when considering short-term wind or seismic loads. For the above design criteria, it is anticipated that the total post-construction settlement of footings founded on competent native soil will be about one-inch, with differential settlements on the order of one-half-inch in a distance of 30 feet along a continuous footing with a uniform load.

Lateral loads due to wind or seismic forces may be resisted by friction between the foundation and the bearing soil, or by passive earth pressure acting on the vertical, embedded portions of the foundation. For the latter condition, the foundation must be either poured directly against relatively level, undisturbed soil or be surrounded by level, well-compacted fill. We recommend using the following ultimate values for the foundation's resistance to lateral loading:

PARAMETER	ULTIMATE VALUE
Coefficient of Friction	0.45
Passive Earth Pressure	300 pcf

Where: pcf is Pounds per Cubic Foot, and Passive Earth Pressure is computed using the equivalent fluid density.

If the ground in front of a foundation is loose or sloping, the passive earth pressure given above will not be appropriate. We recommend maintaining a safety factor of at least 1.5 for the foundation's resistance to lateral loading, when using the above ultimate values.

FOUNDATION AND RETAINING WALLS

Retaining walls backfilled on only one side should be designed to resist the lateral earth pressures imposed by the soil they retain. The following recommended parameters are for walls that restrain level backfill:

PARAMETER	VALUE
Active Earth Pressure *	35 pcf
Passive Earth Pressure	300 pcf
Coefficient of Friction	0.45
Soil Unit Weight	130 pcf

Where: pcf is Pounds per Cubic Foot, and Active and Passive Earth Pressures are computed using the equivalent fluid pressures.

*** For a restrained wall that cannot deflect at least 0.002 times its height, a uniform lateral pressure equal to 10 psf times the height of the wall should be added to the above active equivalent fluid pressure.**

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The design values given above do not include the effects of any hydrostatic pressures behind the walls and assume that no surcharges, such as those caused by slopes, vehicles, or adjacent foundations will be exerted on the walls. If these conditions exist, those pressures should be added to the above lateral soil pressures. Where sloping backfill is desired behind the walls, we will need to be given the wall dimensions and the slope of the backfill in order to provide the appropriate design earth pressures. The surcharge due to traffic loads behind a wall can typically be accounted for by adding a uniform pressure equal to 2 feet multiplied by the above active fluid density. Heavy construction equipment should not be operated behind retaining and foundation walls within a distance equal to the height of a wall, unless the walls are designed for the additional lateral pressures resulting from the equipment.

The values given above are to be used to design only permanent foundation and retaining walls that are to be backfilled, such as conventional walls constructed of reinforced concrete or masonry. It is not appropriate to use the above earth pressures and soil unit weight to back-calculate soil strength parameters for design of other types of retaining walls, such as soldier pile, reinforced earth, modular or soil nail walls. We can assist with design of these types of walls, if desired. The passive pressure given is appropriate only for a shear key poured directly against undisturbed native soil, or for the depth of level, well-compacted fill placed in front of a retaining or foundation wall. The values for friction and passive resistance are ultimate values and do not include a safety factor. Restrained wall soil parameters should be utilized for a distance of 1.5 times the wall height from corners or bends in the walls. This is intended to reduce the amount of cracking that can occur where a wall is restrained by a corner.

Wall Pressures Due to Seismic Forces

The surcharge wall loads that could be imposed by the design earthquake can be modeled by adding a uniform lateral pressure to the above-recommended active pressure. The recommended surcharge pressure is 8**H** pounds per square foot (psf), where **H** is the design retention height of the wall. Using this increased pressure, the safety factor against sliding and overturning can be reduced to 1.2 for the seismic analysis.

Retaining Wall Backfill and Waterproofing

Backfill placed behind retaining or foundation walls should be coarse, free-draining structural fill containing no organics. This backfill should contain no more than 5 percent silt or clay particles and have no gravel greater than 4 inches in diameter. The percentage of particles passing the No. 4 sieve should be between 25 and 70 percent. If the native sandy soil is used as backfill, a minimum 12-inch width of free-draining gravel or a drainage composite similar to Miradrain 6000 should be placed against the backfilled retaining walls. The drainage composites should be hydraulically connected to the foundation drain system.

The purpose of these backfill requirements is to ensure that the design criteria for a retaining wall are not exceeded because of a build-up of hydrostatic pressure behind the wall. Also, subsurface drainage systems are not intended to handle large volumes of water from surface runoff. The top 12 to 18 inches of the backfill should consist of a compacted, relatively impermeable soil or topsoil, or the surface should be paved. The ground surface must also slope away from backfilled walls to reduce the potential for surface water to percolate into the backfill. Water percolating through pervious surfaces (pavers, gravel, permeable pavement, etc.) must also be prevented from flowing toward walls or into the backfill zone. The compacted subgrade below pervious surfaces and any associated drainage layer should

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therefore be sloped away. Alternatively, a membrane and subsurface collection system could be provided below a pervious surface.

It is critical that the wall backfill be placed in lifts and be properly compacted, in order for the above-recommended design earth pressures to be appropriate. The wall design criteria assume that the backfill will be well-compacted in lifts no thicker than 12 inches. The compaction of backfill near the walls should be accomplished with hand-operated equipment to prevent the walls from being overloaded by the higher soil forces that occur during compaction. The section entitled ***General Earthwork and Structural Fill*** contains additional recommendations regarding the placement and compaction of structural fill behind retaining and foundation walls.

The above recommendations are not intended to waterproof below-grade walls, or to prevent the formation of mold, mildew or fungi in interior spaces. Over time, the performance of subsurface drainage systems can degrade, subsurface groundwater flow patterns can change, and utilities can break or develop leaks. Therefore, waterproofing should be provided where future seepage through the walls is not acceptable. This typically includes limiting cold-joints and wall penetrations, and using bentonite panels or membranes on the outside of the walls. There are a variety of different waterproofing materials and systems, which should be installed by an experienced contractor familiar with the anticipated construction and subsurface conditions. Applying a thin coat of asphalt emulsion to the outside face of a wall is not considered waterproofing, and will only help to reduce moisture generated from water vapor or capillary action from seeping through the concrete. As with any project, adequate ventilation of basement and crawl space areas is important to prevent a build up of water vapor that is commonly transmitted through concrete walls from the surrounding soil, even when seepage is not present. This is appropriate even when waterproofing is applied to the outside of foundation and retaining walls. We recommend that you contact an experienced envelope consultant if detailed recommendations or specifications related to waterproofing design, or minimizing the potential for infestations of mold and mildew are desired.

The ***General***, ***Slabs-On-Grade***, and ***Drainage Considerations*** sections should be reviewed for additional recommendations related to the control of groundwater and excess water vapor for the anticipated construction.

SLABS-ON-GRADE

The building floors can be constructed as slabs-on-grade atop competent native soil, or on structural fill. The subgrade soil must be in a firm, non-yielding condition at the time of slab construction or underslab fill placement. Any soft areas encountered should be excavated and replaced with select, imported structural fill.

Even where the exposed soils appear dry, water vapor will tend to naturally migrate upward through the soil to the new constructed space above it. This can affect moisture-sensitive flooring, cause imperfections or damage to the slab, or simply allow excessive water vapor into the space above the slab. All interior slabs-on-grade should be underlain by a capillary break drainage layer consisting of a minimum 4-inch thickness of clean gravel or crushed rock that has a fines content (percent passing the No. 200 sieve) of less than 3 percent and a sand content (percent passing the No. 4 sieve) of no more than 10 percent. Pea gravel or crushed rock are typically used for this layer.

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As noted by the American Concrete Institute (ACI) in the *Guides for Concrete Floor and Slab Structures*, proper moisture protection is desirable immediately below any on-grade slab that will be covered by tile, wood, carpet, impermeable floor coverings, or any moisture-sensitive equipment or products. ACI also notes that vapor *retarders* such as 6-mil plastic sheeting have been used in the past, but are now recommending a minimum 10-mil thickness for better durability and long term performance. A vapor retarder is defined as a material with a permeance of less than 0.3 perms, as determined by ASTM E 96. It is possible that concrete admixtures may meet this specification, although the manufacturers of the admixtures should be consulted. Where vapor retarders are used under slabs, their edges should overlap by at least 6 inches and be sealed with adhesive tape. The sheeting should extend to the foundation walls for maximum vapor protection. If no potential for vapor passage through the slab is desired, a vapor *barrier* should be used. A vapor barrier, as defined by ACI, is a product with a water transmission rate of 0.01 perms when tested in accordance with ASTM E 96. Reinforced membranes having sealed overlaps can meet this requirement.

The ***General***, ***Permanent Foundation and Retaining Walls***, and ***Drainage Considerations*** sections should be reviewed for additional recommendations related to the control of groundwater and excess water vapor for the anticipated construction.

EXCAVATIONS AND SLOPES

Excavation slopes should not exceed the limits specified in local, state, and national government safety regulations. Temporary cuts to a depth of about 4 feet may be attempted vertically in unsaturated soil, if there are no indications of slope instability. However, vertical cuts should not be made near property boundaries, or existing utilities and structures. Based upon Washington Administrative Code (WAC) 296, Part N, the soil at the subject site would generally be classified as Type B. Therefore, temporary cut slopes greater than 4 feet in height should not be excavated at an inclination steeper than 1:1 (Horizontal:Vertical), extending continuously between the top and the bottom of a cut.

The above-recommended temporary slope inclination is based on the conditions exposed in our explorations, and on what has been successful at other sites with similar soil conditions. It is possible that variations in soil and groundwater conditions will require modifications to the inclination at which temporary slopes can stand. Temporary cuts are those that will remain unsupported for a relatively short duration to allow for the construction of foundations, retaining walls, or utilities. Temporary cut slopes should be protected with plastic sheeting during wet weather. It is also important that surface runoff be directed away from the top of temporary slope cuts. Cut slopes should also be backfilled or retained as soon as possible to reduce the potential for instability. Please note that sand or loose soil can cave suddenly and without warning. Excavation, foundation, and utility contractors should be made especially aware of this potential danger. These recommendations may need to be modified if the area near the potential cuts has been disturbed in the past by utility installation, or if settlement-sensitive utilities are located nearby.

All permanent cuts into native soil should be inclined no steeper than 2:1 (H:V). Fill slopes should not be constructed with an inclination greater than 2:1 (H:V). To reduce the potential for shallow sloughing, fill must be compacted to the face of these slopes. This can be accomplished by overbuilding the compacted fill and then trimming it back to its final inclination. Adequate compaction of the slope face is important for long-term stability and is necessary to prevent excessive settlement of patios, slabs, foundations, or other improvements that may be placed near the edge of the slope.

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Water should not be allowed to flow uncontrolled over the top of any temporary or permanent slope. All permanently exposed slopes should be seeded with an appropriate species of vegetation to reduce erosion and improve the stability of the surficial layer of soil.

Any disturbance to the existing slope outside of the building limits may reduce the stability of the slope. Damage to the existing vegetation and ground should be minimized, and any disturbed areas should be revegetated as soon as possible. Soil from the excavation should not be placed on the slope, and this may require the off-site disposal of any surplus soil.

DRAINAGE CONSIDERATIONS

Footing drains should be used where: (1) crawl spaces or basements will be below a structure; (2) a slab is below the outside grade; or, (3) the outside grade does not slope downward from a building. Drains should also be placed at the base of all earth-retaining walls. These drains should be surrounded by at least 6 inches of 1-inch-minus, washed rock that is encircled with non-woven, geotextile filter fabric (Mirafi 140N, Supac 4NP, or similar material). At its highest point, a perforated pipe invert should be at least 6 inches below the bottom of a slab floor or the level of a crawl space. The discharge pipe for subsurface drains should be sloped for flow to the outlet point. Roof and surface water drains must not discharge into the foundation drain system. A typical drain detail is attached to this report as Plate 15. For the best long-term performance, perforated PVC pipe is recommended for all subsurface drains.

As a minimum, a vapor retarder, as defined in the ***Slabs-On-Grade*** section, should be provided in any crawl space area to limit the transmission of water vapor from the underlying soils. Crawl space grades are sometimes left near the elevation of the bottom of the footings. As a result, an outlet drain is recommended for all crawl spaces to prevent an accumulation of any water that may bypass the footing drains. Providing even a few inches of free draining gravel underneath the vapor retarder limits the potential for seepage to build up on top of the vapor retarder.

Groundwater was observed during our field work. If seepage is encountered in an excavation, it should be drained from the site by directing it through drainage ditches, perforated pipe, or French drains, or by pumping it from sumps interconnected by shallow connector trenches at the bottom of the excavation.

The excavation and site should be graded so that surface water is directed off the site and away from the tops of slopes. Water should not be allowed to stand in any area where foundations, slabs, or pavements are to be constructed. Final site grading in areas adjacent to buildings should slope away at least 2 percent, except where the area is paved. Surface drains should be provided where necessary to prevent ponding of water behind foundation or retaining walls. A discussion of grading and drainage related to pervious surfaces near walls and structures is contained in the ***Foundation and Retaining Walls*** section. Water from roof, storm water, and foundation drains should not be discharged onto slopes; it should be tightlined to a suitable outfall located away from any slopes.

GENERAL EARTHWORK AND STRUCTURAL FILL

All building and pavement areas should be stripped of surface vegetation, topsoil, organic soil, and other deleterious material. It is important that existing foundations be removed before site development. The stripped or removed materials should not be mixed with any materials to be used as structural fill, but they could be used in non-structural areas, such as landscape beds.

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Structural fill is defined as any fill, including utility backfill, placed under, or close to, a building, behind permanent retaining or foundation walls, or in other areas where the underlying soil needs to support loads. All structural fill should be placed in horizontal lifts with a moisture content at, or near, the optimum moisture content. The optimum moisture content is that moisture content that results in the greatest compacted dry density. The moisture content of fill is very important and must be closely controlled during the filling and compaction process.

Fills placed on sloping ground should be keyed into the medium-dense soils. This is typically accomplished by placing and compacting the structural fill on level benches that are cut into the competent soils. The allowable thickness of the fill lift will depend on the material type selected, the compaction equipment used, and the number of passes made to compact the lift. The loose lift thickness should not exceed 12 inches. We recommend testing the fill as it is placed. If the fill is not sufficiently compacted, it can be recompacted before another lift is placed. This eliminates the need to remove the fill to achieve the required compaction. The following table presents recommended relative compactions for structural fill:

LOCATION OF FILL PLACEMENT	MINIMUM RELATIVE COMPACTION
Beneath footings, slabs or walkways	95%
Filled slopes and behind retaining walls	90%
Beneath pavements	95% for upper 12 inches of subgrade; 90% below that level

Where: Minimum Relative Compaction is the ratio, expressed in percentages, of the compacted dry density to the maximum dry density, as determined in accordance with ASTM Test Designation D 1557-91 (Modified Proctor).

Use of On-Site Soil

If grading activities take place during wet weather, or when the silty, on-site soil is wet, site preparation costs may be higher because of delays due to rain and the potential need to import granular fill. The on-site soil is generally silty and therefore moisture sensitive. Grading operations will be difficult during wet weather, or when the moisture content of this soil exceeds the optimum moisture content.

Moisture-sensitive soil may also be susceptible to excessive softening and "pumping" from construction equipment, or even foot traffic, when the moisture content is greater than the optimum moisture content. It may be beneficial to protect subgrades with a layer of imported sand or crushed rock to limit disturbance from traffic.

The ***General*** section should be reviewed for considerations related to the reuse of on-site soils. Structural fill that will be placed in wet weather should consist of a coarse, granular soil with a silt or clay content of no more than 5 percent. The percentage of particles passing the No. 200 sieve should be measured from that portion of soil passing the three-quarter-inch sieve.

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LIMITATIONS

The conclusions and recommendations contained in this report are based on site conditions as they existed at the time of our exploration and assume that the soil and groundwater conditions encountered in the test pits are representative of subsurface conditions on the site. If the subsurface conditions encountered during construction are significantly different from those observed in our explorations, we should be advised at once so that we can review these conditions and reconsider our recommendations where necessary. Unanticipated conditions are commonly encountered on construction sites and cannot be fully anticipated by merely taking samples in test pits. Subsurface conditions can also vary between exploration locations. Such unexpected conditions frequently require making additional expenditures to attain a properly constructed project. It is recommended that the owner consider providing a contingency fund to accommodate such potential extra costs and risks. This is a standard recommendation for all projects.

The recommendations presented in this report are directed toward the protection of only the proposed residences from damage due to slope movement. Predicting the future behavior of steep slopes and the potential effects of development on their stability is an inexact and imperfect science that is currently based mostly on the past behavior of slopes with similar characteristics. Landslides and soil movement can occur on steep slopes before, during, or after the development of property. At additional cost, we can provide recommendations for reducing the risk of future movement on the steep slopes, which could involve regrading the slopes or installing subsurface drains or costly retaining structures. The owner of any property containing, or located close to steep slopes must ultimately accept the possibility that some slope movement could occur, resulting in possible loss of ground or damage to the facilities around the proposed residences.

This report has been prepared for the exclusive use of Isola Homes and its representatives for specific application to this project and site. Our conclusions and recommendations are professional opinions derived in accordance with our understanding of current local standards of practice, and within the scope of our services. No warranty is expressed or implied. The scope of our services does not include services related to construction safety precautions, and our recommendations are not intended to direct the contractor's methods, techniques, sequences, or procedures, except as specifically described in our report for consideration in design. Our services also do not include assessing or minimizing the potential for biological hazards, such as mold, bacteria, mildew and fungi in either the existing or proposed site development.

ADDITIONAL SERVICES

Geotech Consultants, Inc. should be retained to provide geotechnical consultation, testing, and observation services during construction. This is to confirm that subsurface conditions are consistent with those indicated by our exploration, to evaluate whether earthwork and foundation construction activities comply with the general intent of the recommendations presented in this report, and to provide suggestions for design changes in the event subsurface conditions differ from those anticipated prior to the start of construction. However, our work would not include the supervision or direction of the actual work of the contractor and its employees or agents. Also, job and site safety, and dimensional measurements, will be the responsibility of the contractor.

During the construction phase, we will provide geotechnical observation and testing services when requested by you or your representatives. Please be aware that we can only document site work we actually observe. It is still the responsibility of your contractor or on-site construction team to verify that our recommendations are being followed, whether we are present at the site or not.

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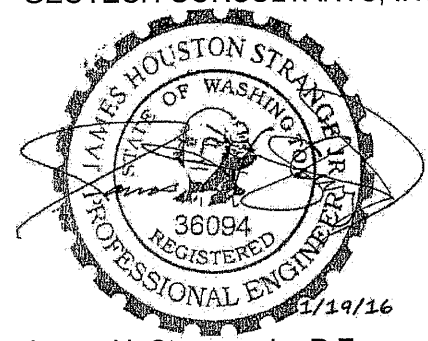
The following plates are attached to complete this report:

Plate 1	Vicinity Map
Plate 2	Site Exploration Plan
Plates 3 - 14	Test Pit Logs
Plate 15	Typical Footing Drain Detail
Plate 16	Typical Footing Overexcavation

We appreciate the opportunity to be of service on this project. Please contact us if you have any questions, or if we can be of further assistance.

Respectfully submitted,

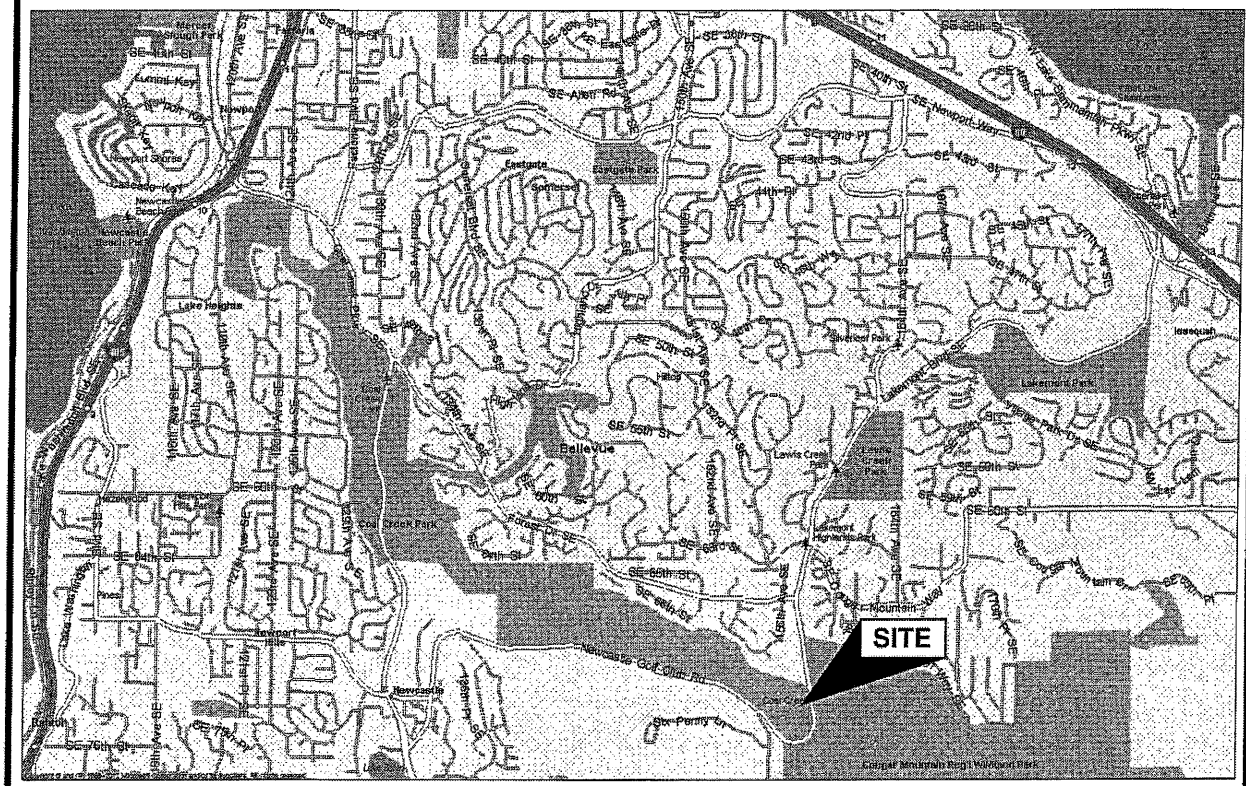
GEOTECH CONSULTANTS, INC.



James H. Strange, Jr., P.E.
Associate

TRC/JHS:at

NORTH



(Source: Microsoft MapPoint, 2013)

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VICINITY MAP

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Jan. 2016		1

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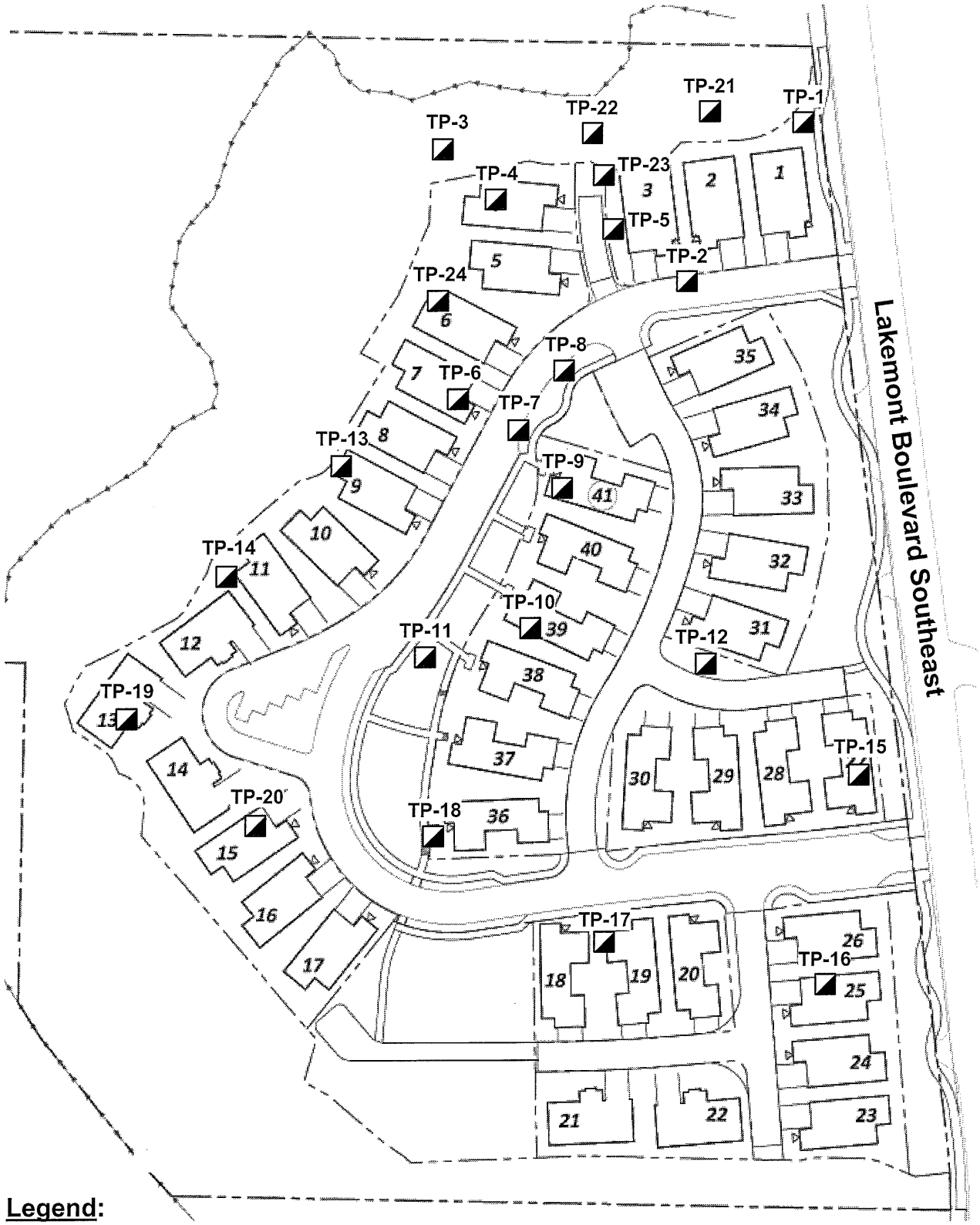

Legend:

Test Pit Location

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SITE EXPLORATION PLAN

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Jan. 2016	No Scale	2

TEST PIT 1

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
				Topsoil
5			SM	Gray-brown slightly silty SAND with gravel, fine to coarse-grained, moist, medium-dense
				-becomes medium-dense to dense and gray, with cobbles **(TILL)**
10				

* **Test Pit terminated at 8 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

TEST PIT 2

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
				Topsoil
			FILL	Dark brown silty SAND with gravel, organics, and pieces of glass, fine to coarse-grained, moist, loose **(FILL)**
5			SM	Gray slightly silty SAND with gravel and cobbles, fine to coarse-grained, moist, medium-dense to dense **(TILL)**
				-becomes dense to very dense, increased silt content
10				

* **Test Pit terminated at 7 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

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TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	3

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TEST PIT 3

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
			FILL	Brown SAND with pieces of coal, fine to coarse-grained, moist, loose **(FILL)** -with pieces of sandstone, reduced coal
5				Topsoil, pieces of a stump
			SM	Gray-brown slightly silty SAND with gravel, fine to coarse-grained, moist, loose to medium-dense -becomes medium-dense
10				

* **Test Pit terminated at 12.5 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

TEST PIT 4

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
			FILL	Dark brown silty SAND with organics and pieces of plastic, fine to coarse-grained, moist, loose **(FILL)**
5			SW SM	Brown SAND with silt and gravel, fine to coarse-grained, moist, medium-dense -becomes medium-dense to dense, reduced silt content
10				

* **Test Pit terminated at 7 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

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TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	4

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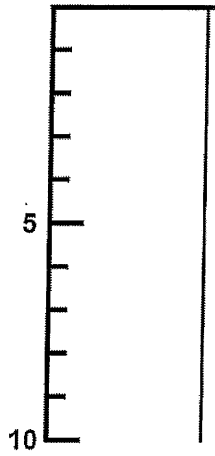
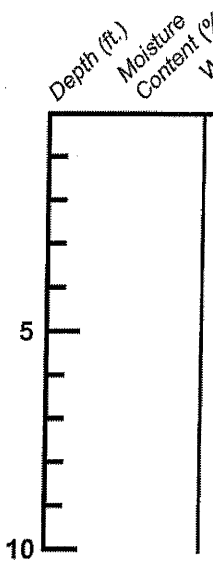
TEST PIT 5



USCS	Description
	Topsoil
SM	Brown SAND with gravel, fine to coarse-grained, moist, loose to medium-dense -becomes medium-dense

* **Test Pit terminated at 4 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

TEST PIT 6



USCS	Description
	Topsoil
GW	Gray sandy GRAVEL, fine to coarse-grained, moist, medium-dense to dense -becomes medium-dense
SM	Gray silty SAND with gravel, fine to coarse-grained, moist, dense **(TILL)**

* **Test Pit terminated at 6 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

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TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	5

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TEST PIT 7

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
				Topsoil
			GW	Gray-brown sandy GRAVEL, fine to coarse-grained, moist, medium-dense to dense
5			SM	Brown silty SAND with gravel, fine to coarse-grained, moist, dense **(TILL)**
10				

* **Test Pit terminated at 5.5 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

TEST PIT 8

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
			FILL	Dark brown silty SAND with gravel, organics, branches, and pieces of steel and brick, fine to coarse-grained, moist, loose **(FILL)**
5			SM	Brown silty SAND with gravel, fine to coarse-grained, moist, loose to medium-dense -becomes medium-dense to dense and gray-brown **(TILL)**
10				

* **Test Pit terminated at 7 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

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TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	6

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TEST PIT 9

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
			FILL	Brown to dark brown silty SAND with gravel and organics, fine to coarse-grained, moist, loose **(FILL)**
				Topsoil
			SM	Rust-brown mottled gray-brown silty SAND with gravel, fine to coarse-grained, moist, loose to medium-dense -becomes medium-dense
5		▼	SW	Brown SAND with gravel, fine to coarse-grained, moist to wet, medium-dense
			SM	Gray-brown silty SAND with gravel, fine to coarse-grained, moist, medium-dense to dense **(TILL)**
10				

* **Test Pit terminated at 7.8 feet on August 21, 2015.**
* **Perched groundwater seepage was observed at 6 feet during excavation.**
* **No caving observed during excavation.**

TEST PIT 10

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
				Dark brown silty SAND with gravel and organics, fine to coarse-grained, moist, loose **(FILL)**
				Topsoil
			SM	Brown silty SAND with gravel, fine to coarse-grained, moist, loose
			ML	Brown SILT with sand and gravel, non-plastic, fine to coarse-grained, moist, loose -reduced sand content, becomes rust-brown mottled gray-brown -becomes medium-dense
5				
		▼	SW	Brown SAND with gravel, fine to coarse-grained, moist to wet, medium-dense
			SM	Gray silty SAND with gravel, fine to coarse-grained, moist, dense **(TILL)**
10				

* **Test Pit terminated at 11.5 feet on August 21, 2015.**
* **Perched groundwater seepage was observed at 10 feet during excavation.**
* **No caving observed during excavation.**

GEOTECH CONSULTANTS, INC.

TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	7

DSD - 000565

TEST PIT 11

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
				Topsoil
			SM	Brown silty SAND with gravel, fine to coarse-grained, moist, loose to medium-dense
				-becomes medium-dense
			ML	Rust-brown mottled gray SILT, non-plastic, moist, medium-dense
5				
10				

* **Test Pit terminated at 4 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

TEST PIT 12

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
				Topsoil
			SM	Brown silty SAND with gravel, fine to coarse-grained, moist, loose
			SW	Brown SAND with gravel and cobbles, fine to coarse-grained, moist, medium-dense to dense
5			SM	Gray-brown silty SAND with gravel, fine to coarse-grained, moist, medium-dense to dense
		▼		-reduced medium and coarse-grained sand, becomes gray
10				

* **Test Pit terminated at 9 feet on August 21, 2015.**
* **Perched groundwater seepage was observed at 7.5 feet during excavation.**
* **No caving observed during excavation.**

GEOTECH CONSULTANTS, INC.

TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	8

DSD - 000566

TEST PIT 13

Depth (ft.) | Moisture Content (%) | Water Table | USCS | Description

Depth (ft.)	USCS	Description
		Topsoil
5	SM	Brown silty SAND with gravel, fine to coarse-grained, moist, loose
		-becomes medium-dense to dense and gray-brown
10		

* **Test Pit terminated at 8 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

TEST PIT 14

Depth (ft.) | Moisture Content (%) | Water Table | USCS | Description

Depth (ft.)	USCS	Description
		Topsoil
	SW	Brown SAND with gravel, fine to coarse-grained, moist, medium-dense
5	SM	Gray-brown silty SAND with gravel, fine to coarse-grained, moist, medium-dense
		-becomes medium-dense to dense
10		

* **Test Pit terminated at 7.7 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

GEOTECH CONSULTANTS, INC.

TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	9

TEST PIT 15

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
				Topsoil
		▼	SM	Rust-brown slightly silty SAND with gravel, fine to coarse-grained, moist to wet, loose to medium-dense
				-becomes medium-dense to dense, moist, and gray-brown
5			SW	Gray-brown to brown SAND with gravel and cobbles, fine to coarse-grained, moist to wet, medium-dense to dense
				-becomes dense to very dense
10				

* **Test Pit terminated at 7 feet on December 22, 2015.**
* **Perched groundwater seepage was observed at 3 feet during excavation.**
* **No caving observed during excavation.**

TEST PIT 16

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
				Topsoil
		▼	SM	Brown slightly silty SAND with gravel, fine to coarse-grained, moist to wet, loose to medium-dense
				-becomes medium-dense and gray-brown
5			SW	Gray-brown SAND with gravel, fine to coarse-grained, moist, medium-dense
			MH	Gray-brown bedded clayey SILT, plastic, moist to wet, medium-stiff to stiff
			SW	Gray SAND, fine to coarse-grained, moist to wet, medium-dense
10				

* **Test Pit terminated at 8 feet on December 22, 2015.**
* **Groundwater seepage was observed at 2.5 feet during excavation.**
* **Caving was observed below 3 feet during excavation.**

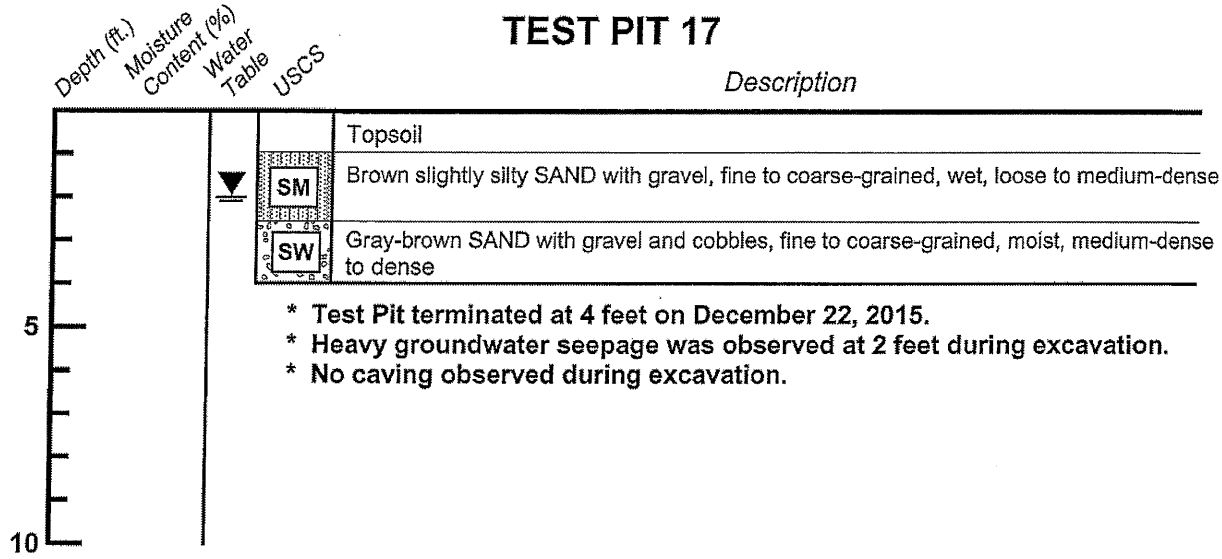
GEOTECH CONSULTANTS, INC.

TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

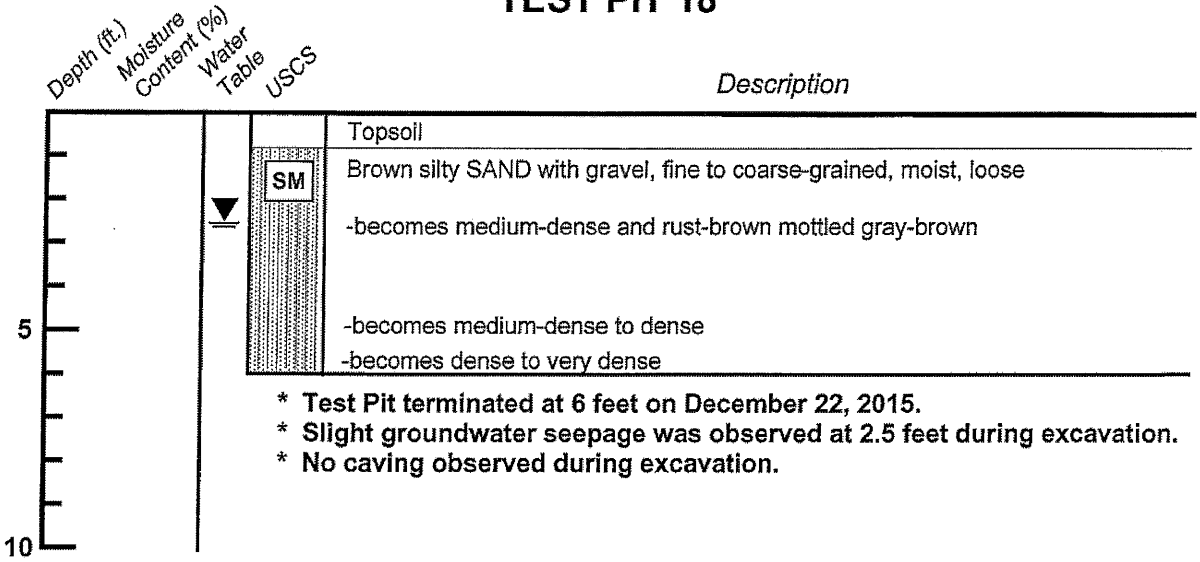
Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	10

TEST PIT 17



* **Test Pit terminated at 4 feet on December 22, 2015.**
* **Heavy groundwater seepage was observed at 2 feet during excavation.**
* **No caving observed during excavation.**

TEST PIT 18



* **Test Pit terminated at 6 feet on December 22, 2015.**
* **Slight groundwater seepage was observed at 2.5 feet during excavation.**
* **No caving observed during excavation.**

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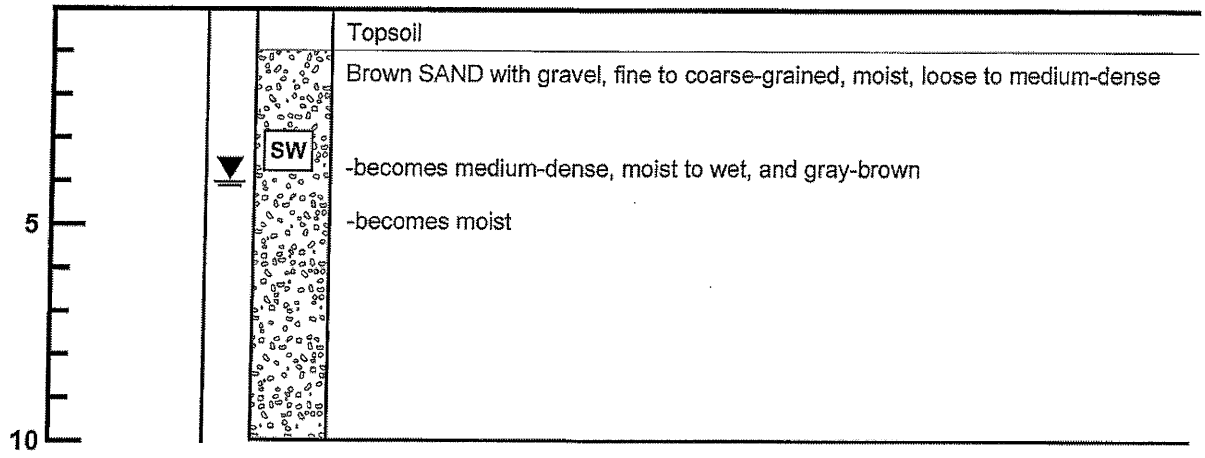
TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

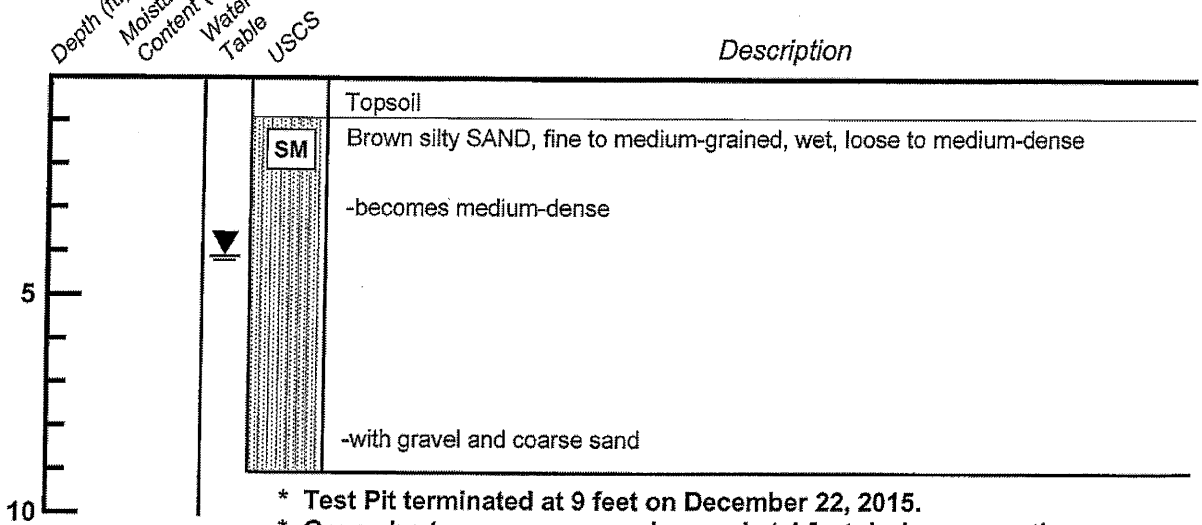
Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	11

TEST PIT 19



* **Test Pit terminated at 10 feet on December 22, 2015.**
* **Groundwater seepage was observed at 4 feet during excavation.**
* **Caving was observed above 5 feet during excavation.**

TEST PIT 20



* **Test Pit terminated at 9 feet on December 22, 2015.**
* **Groundwater seepage was observed at 4 feet during excavation.**
* **Caving was observed below 0 feet during excavation.**

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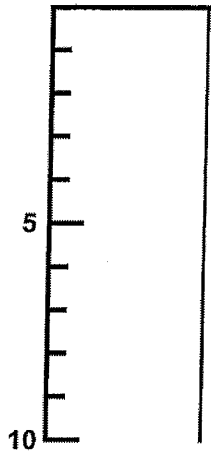
TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	12

DSD - 000570

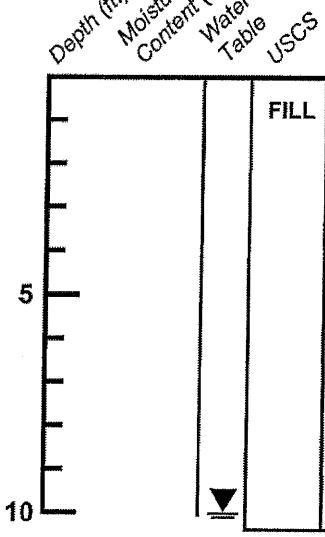
TEST PIT 21



USCS	Description
FILL	Dark brown silty SAND with organics, fine to coarse-grained, moist, loose **(FILL)**
	Topsoil
SM	Rust-brown mottled gray-brown silty SAND with gravel, fine to coarse-grained, moist, medium-dense -becomes medium-dense to dense **(TILL)** -becomes dense and gray-brown

* **Test Pit terminated at 5 feet on December 22, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

TEST PIT 22



USCS	Description
FILL	Dark brown to gray silty SAND with gravel and organics, fine to coarse-grained, moist, loose **(FILL)** -with a piece of steel pipe
	-stump or log

* **Test Pit terminated at 10.5 feet on December 22, 2015.**
* **Groundwater seepage was observed at 10 feet during excavation.**
* **Caving observed below 0 feet during excavation.**

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CONSULTANTS, INC.

TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	13

DSD - 000571

TEST PIT 23

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
			FILL	Dark brown silty SAND with organics, fine to coarse-grained, moist, loose **(FILL)**
				Topsoil
		▼	SW SM	Rust-brown to gray-brown SAND with silt, gravel, and boulders, fine to coarse-grained, moist to wet, medium-dense
5				-becomes medium-dense to dense
10				

* **Test Pit terminated at 6 feet on December 22, 2015.**
* **Groundwater seepage was observed at 3 feet during excavation.**
* **Caving was observed above 3 feet during excavation.**

TEST PIT 24

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
			FILL	Dark brown to gray-brown silty SAND with gravel and pieces of coal, fine to coarse-grained, moist, loose **(FILL)**
				Topsoil
			SM	Gray-brown silty SAND with gravel, fine to coarse-grained, moist, loose to medium-dense
5				-becomes medium-dense
10				-becomes medium-dense to dense

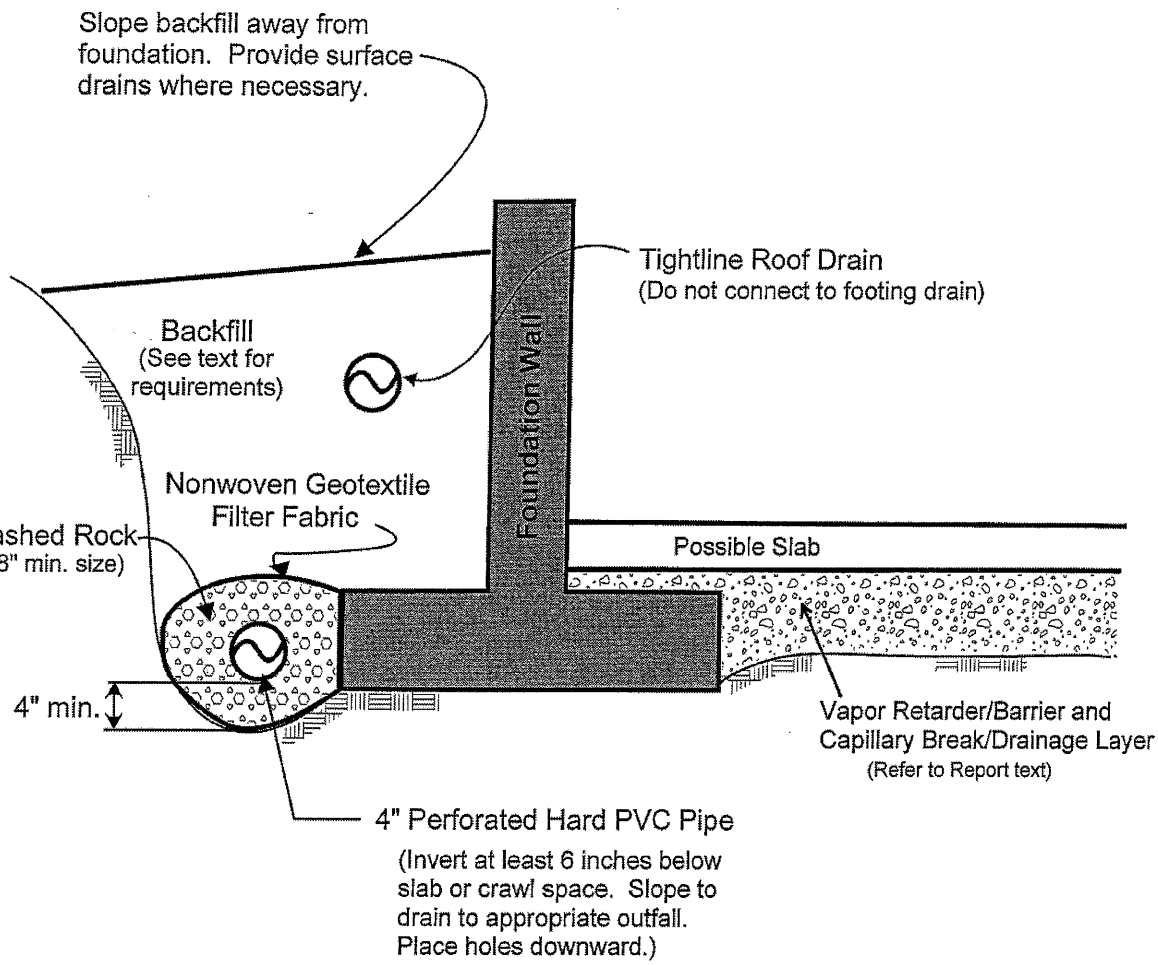
* **Test Pit terminated at 10.5 feet on December 22, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

GEOTECH CONSULTANTS, INC.

TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	14



NOTES:

(1) In crawl spaces, provide an outlet drain to prevent buildup of water that bypasses the perimeter footing drains.

(2) Refer to report text for additional drainage, waterproofing, and slab considerations.

GEOTECH CONSULTANTS, INC.

FOOTING DRAIN DETAIL

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Jan. 2016		15

DSD - 000573

From:	James Strange
To:	alex.mason@isolacm.com; peter.locke@isolacm.com; Michael Pollard
Cc:	Ann Tagland; Thor Christensen
Subject:	15349 GES Isola Homes 7219 and 7331 Lakemont Boulevard Southeast
Date:	Tuesday, January 19, 2016 3:58:32 PM
Attachments:	15349 GES Isola Homes 7219 and 7331 Lakemont Boulevard Southeast.pdf

Hi Guys-
Attached is the soil report for Lakemont. Let me know if you have any questions.
Cheers, James

James H. Strange, Jr. P.E.
Associate
Geotech Consultants, Inc.
13256 NE 20th St, Ste 16
Bellevue, WA 98005
P(425) 747-5618 / F(425) 747-8561/ Cell(206)250-3849

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DSD - 000574

GEOTECH
CONSULTANTS, INC.

2401 10th Ave E
Seattle, Washington 98102
(425) 747-5618 FAX (425) 747-8561

March 29, 2017

JN 15349

Isola Homes
1518 – 1st Avenue South, Suite 301
Seattle, Washington 98134

Attention: Alex Mason

via email: alex.mason@isolacm.com

Subject: **Supplemental Letter**
Proposed Housing Development
7219 and 7331 Lakemont Boulevard Southeast
Bellevue, Washington

Dear Mr. Mason:

We have prepared this letter to address geotechnical portions of City of Bellevue Review Comments dated February 3, 2017. We previously prepared a geotechnical engineering study for the site dated January 5, 2016. This letter should be considered a supplement to that study.

The steep northern and eastern slopes are considered Steep Slope Geologic Hazard Areas by the City of Bellevue due to their height and inclination. We understand that the City of Bellevue has requested a numerical analysis of the stability of the steep slopes following construction at the site. The City has also requested that we show locations of seepage on a site plan.

We have observed groundwater seepage at a few locations within the property. Those locations are shown on the Site Exploration Plan, Plate 1. The seepage areas are primarily located in areas that have been designated critical slope that are outside the proposed development area. In our opinion the seepage will not impact the proposed development. One area of seepage has been observed near the south edge of the site, in a proposed roadway. This area is only gently sloping, and the seepage will not affect slope stability at that location or in the surrounding area. We believe that seepage will be intercepted by the proposed pavements and underground utility trenches, and that it will not be present after the site has been developed.

We completed a slope stability analysis of three cross sections across the northern and western slopes using the computer program SLOPE/W. The cross section locations are shown on the Site Exploration Plan, Plate 1. The cross sections were developed using the topographic information provided to us.

Soil parameters were needed for the analysis, with the most significant being the defining strength parameters of the site soils, including angles of internal friction. The soils near the tops of the northern and western slopes have been generalized as up to about 10 feet of fill and loose native soil on the surface of the slope, underlain by medium-dense to dense silty sand to sand. The soil at Lot 13 consisted of medium-dense sand with gravel. Some rock spall fill will be needed in footing locations where fill is present. Based on our experience with similar soils, we used the following parameters in our slope stability analyses:

DSD - 000575

	Loose Fill And Near Surface Soil	*Medium-Dense Silty Sand Soil*	*Medium-Dense Sand Soil*	*Rock Spall Fill*
Angle of Internal Friction	28 degrees	32 degrees	36 degrees	45 degrees
Cohesion	0 psf	50 psf	0 psf	0 psf
Soil Density	115 pcf	125 pcf	125 pcf	120 pcf

The slopes were analyzed in static and dynamic (seismic) conditions. For the dynamic analysis, a seismic coefficient of 0.18 (equal to half of the potential peak horizontal ground acceleration of 0.36g) was included to represent a 475-year return period seismic event.

Based on the analyses, potential deep-seated slope failure surfaces for both the existing and post-development conditions have factors of safety greater than 1.5 under static conditions and 1.15 under seismic conditions. We believe these safety factors are very appropriate for the proposed development. The output sections of the stability analyses are included with this letter. Based on our analysis, the post-construction stability of the steep slopes satisfies the City of Bellevue standards.

Provided that the foundation, grading, and retaining recommended in our previous report are observed in the proposed development of the property, it is our opinion that modification of the critical area or critical area buffer will have no adverse impacts on stability of any adjacent slopes, and will not impact stability of any existing structures.

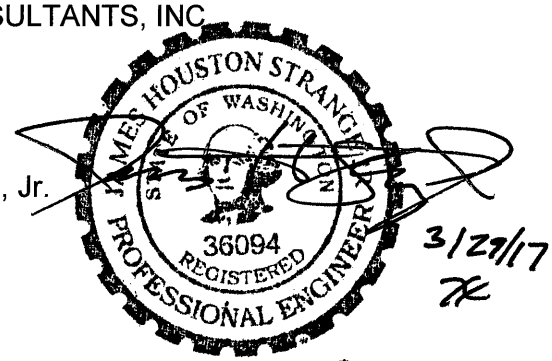
The following plates are attached to complete this report:

Plate 1	Site Exploration Plan
Plates 2 - 7	Slope Stability Analyses

We appreciate the opportunity to be of service on this project. Please contact us if you have any questions, or if we can be of further assistance.

Respectfully submitted,

GEOTECH CONSULTANTS, INC.



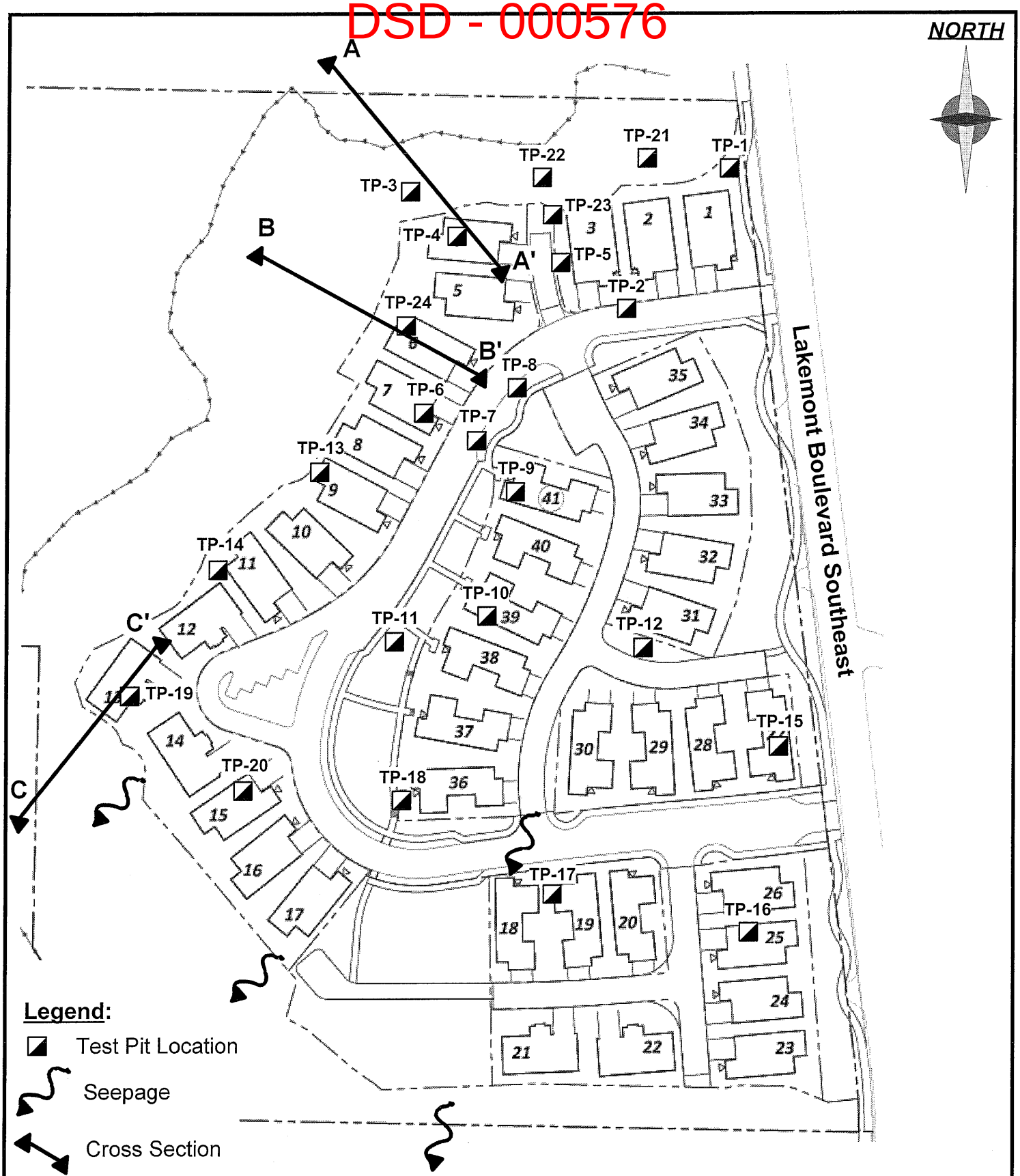
3/29/17

James H. Strange, Jr.
Associate

cc: **PACE Engineers** – Steve Calhoon
via email: stevec@paceengrs.com

TRC/JHS:mw

DSD - 000576



GEOTECH CONSULTANTS, INC.

SITE EXPLORATION PLAN

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017	No Scale	1

DSD - 000577

GEOTECH CONSULTANTS, INC.

2401 10th Ave E
Seattle, Washington 98102
(425) 747-5618 FAX (425) 747-8561

June 5, 2018

JN 15349

Isola Homes - Peter Locke / Alex Mason
1518 – 1st Avenue South, Suite 301
Seattle, Washington 98134

Subject: **Response to Corrections 2**
Proposed Housing Development
7219 and 7331 Lakemont Boulevard Southeast
Bellevue, Washington

Reference: "Geotechnical Engineering Study (GES)," subject site, Geotech Consultants, January 19, 2016
"Supplemental Letter," subject site, Geotech Consultants, March 29, 2017
"Critical Area Comment Letter," City of Bellevue, November 22, 2017
"Response to Corrections," subject site, Geotech Consultants, January 19, 2018

Dear Mssrs. Locke and Mason:

We are pleased to present this response to the geotechnical portions of the referenced Critical Area Comment Letter.

From the Critical Areas Response Letter
Geotech Consultants Response

The past revision letter providing critical area comments (dated 11/22/2017) noted the specific geotechnical performance standards and decision criteria that must be addressed by the applicant. Although the Clearing & Grading review has approved the slope stability analysis, the geotechnical report should address the following performance standards and decision criteria:

- LUC 20.25H.125 – Performance standards – Landslide hazards and steep slopes
  Design related responses to Items A-J provided by PACE.
  Our original GES recommends a 10 foot steep slope buffer and an additional 10 foot structure setback from the steep slope areas at the site. In particular to item C, the proposed development does not result in greater risk or the need for increased buffers on neighboring properties.
  Also, from page 3 of our original report - "In reference to the Bellevue code (20.25H.125) we believe the proposed reduction in buffer/setback conforms to Items A through C, and that the specific house/lot designs could be made to conform to Items D through J." **We believe our recommendations meet this code criteria.**

- LUC 20.25H.135 – Mitigation and monitoring – Additional provisions for landslide hazards and steep slopes
  Design related responses to Items A-C provided by PACE.
  In regards to A & B, full drainage and erosion control plans are/have been completed for the development. Stormwater will be directed to appropriate outfall away from any steep slopes. This is acceptable to Geotech.

- LUC 20.25H.135-140 – Critical areas report – Additional provisions for landslide hazards and steep slopes
  Design related responses to Items A-B provided by PACE.
  - H.140 B.1
    These plans are have been and are beign developed through this process.
  - H.140 B.2
    Our GES and follow up documents satisfy Item B.2 by assessing the geologic characteristics of the site and to the extent possible the surrounding area. In addition to our test pits, we have performed more than one site reconnaissance to assess the site characteristics and

DSD - 000578

surrounding feature. This information is the basis for our conclusions and recommendations offered in our original report and follow up documents.

- **H.140 B.3**
  Our GES and follow up documents satisfy Item B.3 in that the study was conducted for the known project and we have reviewed the plans throughout the process. Our report and analysis offers appropriate buffers and building setbacks from geologic hazards (steep slopes) in order to maintain site stability and to avoid potential impact on the hazard area and the any affected adjacent properties. This is acceptable to Geotech.
- **H.140 B.4**
  Our GES and follow up documents satisfy Item B.4 in that the study and analysis offers appropriate buffers and building setbacks from geologic hazards (steep slopes) in order to maintain site stability and to avoid potential impact on the hazard area and the any affected adjacent properties. We have completed detailed slope stability analysis to justify our recommendations and setbacks. This is acceptable to Geotech.

- **LUC 20.25H.145** - Critical areas report – Approval of modification
  In our opinion, provided the recommendations in our GES and follow up documents are executed in the proposed plans, the new development:

  A. Will not increase the threat of the geological hazard to adjacent properties over conditions that would exist if the provisions of this part were not modified;
  B. Will not adversely impact other critical areas;
  C. Is designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than would exist if the provisions of this part were not modified;
  D. Is certified as safe as designed and under anticipated conditions by a qualified engineer or geologist, licensed in the state of Washington;
  E. The provided geotechnical reports were prepared by a qualified professional demonstrating that modification of the critical area or critical area buffer will have no adverse impacts on stability of any adjacent slopes, and will not impact stability of any existing structures.

- **LUC 20.25H.250** – Critical areas report – Submittal requirements – this section is addressed in Talasaea's Critical Areas Report, Geotech should review and supplement information if necessary.
  We have reviewed Talasea's response and have nothing to add.

- **LUC 20.25H.255** – Critical areas report – Decision Criteria - this section is addressed in Talasaea's Critical Areas Report, Geotech should review and supplement information if necessary.
  We have reviewed Talasea's response and have nothing to add.

- **LUC 20.30P.140** – Critical areas land use permit - Decision criteria
  The Geotechnical Engineering Study recommends a reduced steep slope buffer of 10 feet and an additional 10-foot building setback from the buffer. The revised Detailed Conceptual Mitigation Plan (W0.0A), which Olin Anderson from Talasaea Consultants provided in September, includes the steep slope buffer overlaid on the development plan. It appears that Units 5 and 6 and potentially Unit 14 don't meet the geotechnical recommendation.
  We understand that these setbacks have been revised and meet with our recommendations.
  The steep slope area is also identified as a landslide hazard area, defined as *areas of slopes of 15 percent or more with more than 10 feet of rise, which also display any of the following characteristics:*
  e. Areas with seeps indicating a shallow ground water table on or adjacent to the slope face.
  (LUC 20.25H.120.A1). The Supplemental Letter from the geotechnical consultant (Geotech Consultants, March 29, 2017) confirmed the groundwater seepage is outside the proposed development area and would not affect slope stability.
  We concur with this statement.

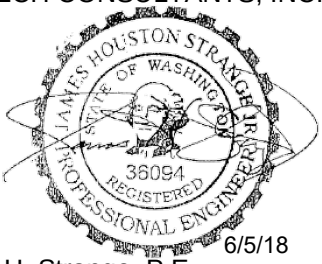
In our opinion, the referenced Geotechnical Engineering Study, Supplemental Letter, and the response letters are consistent with the geotechnical components of the code sections outlined above. In specific to **LUC**

DSD - 000579

20.25H.145, we believe our referenced documents address Section E of this code including Sheet 25. We have nothing to add to the responses by Talasea.

We appreciate the opportunity to be of service on this project. Please contact us if you have any questions, or if we can be of further assistance.

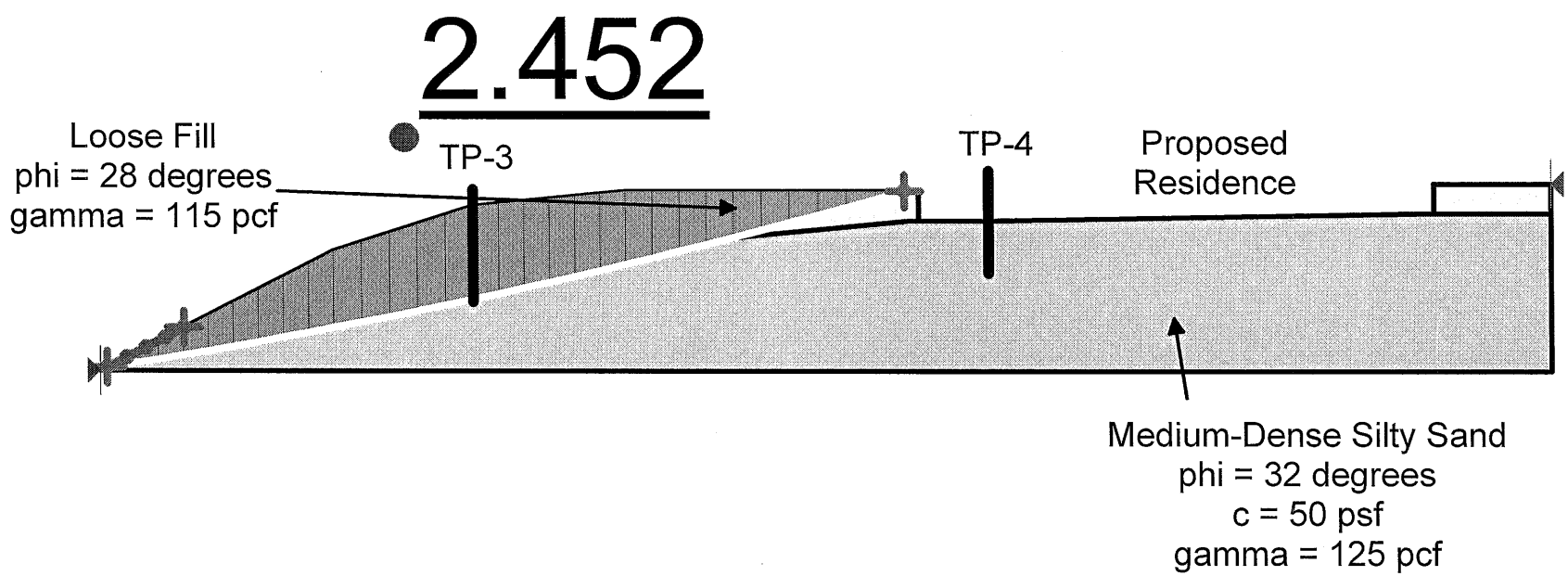
Respectfully submitted,
GEOTECH CONSULTANTS, INC.



6/5/18

James H. Strange, P.E.
Associate JHS:jhs

Section A - A'



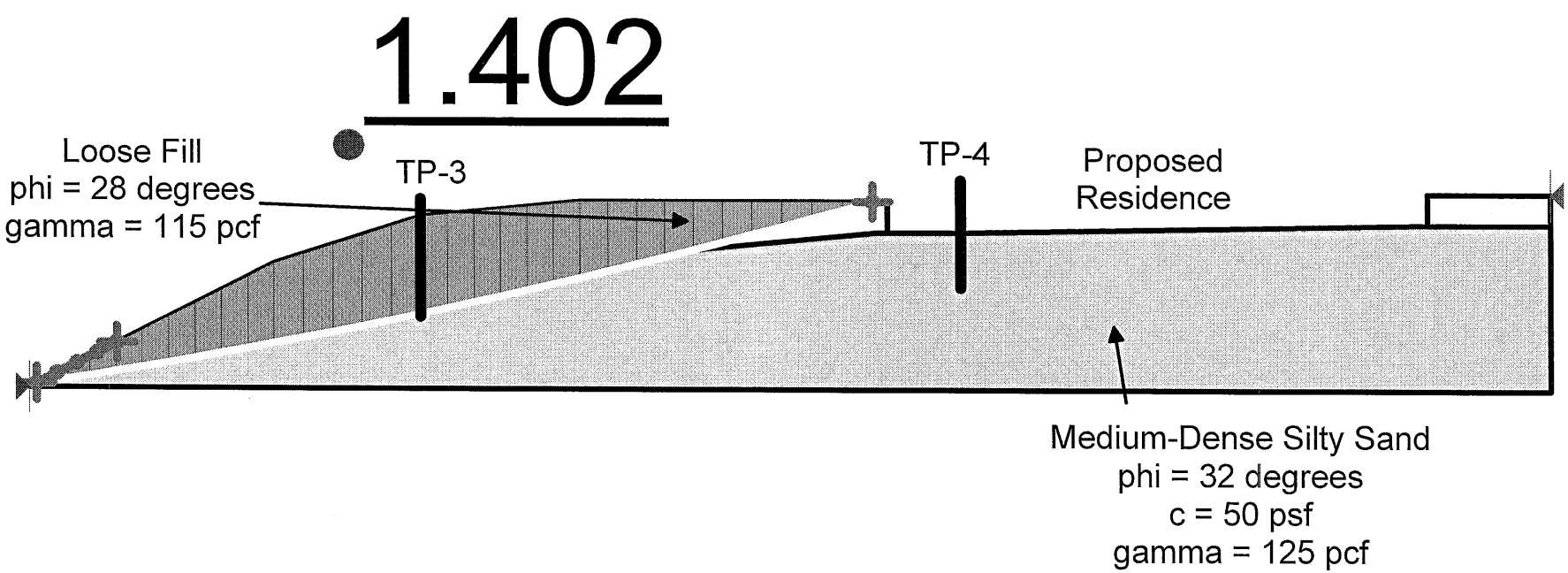
GEOTECH
CONSULTANTS, INC.

Static Slope Stability - Lot 4
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017		2

DSD - 000580

Section A - A'



DSD - 000581

GEOTECH
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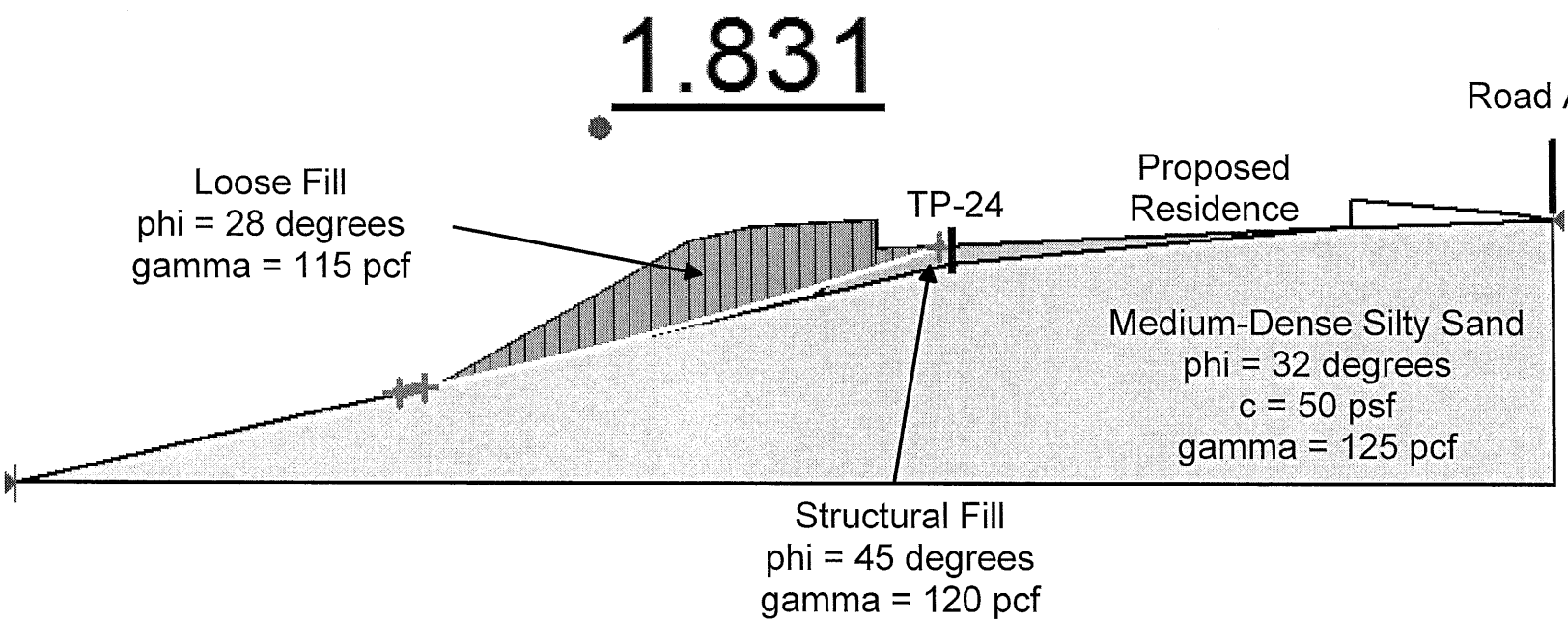
Seismic Slope Stability - Lot 4
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017		3

Section B - B'



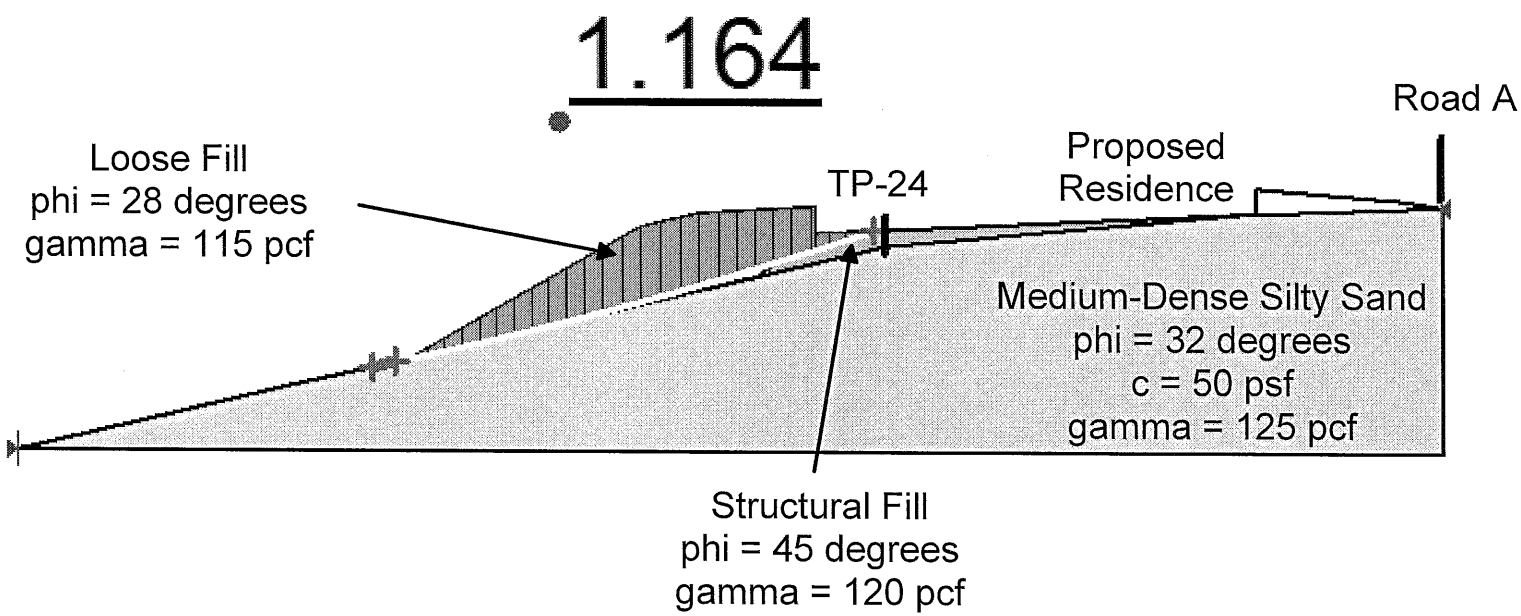
GEOTECH
CONSULTANTS, INC.

Static Slope Stability - Lot 6
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017		4

DSD - 000582

Section B - B'



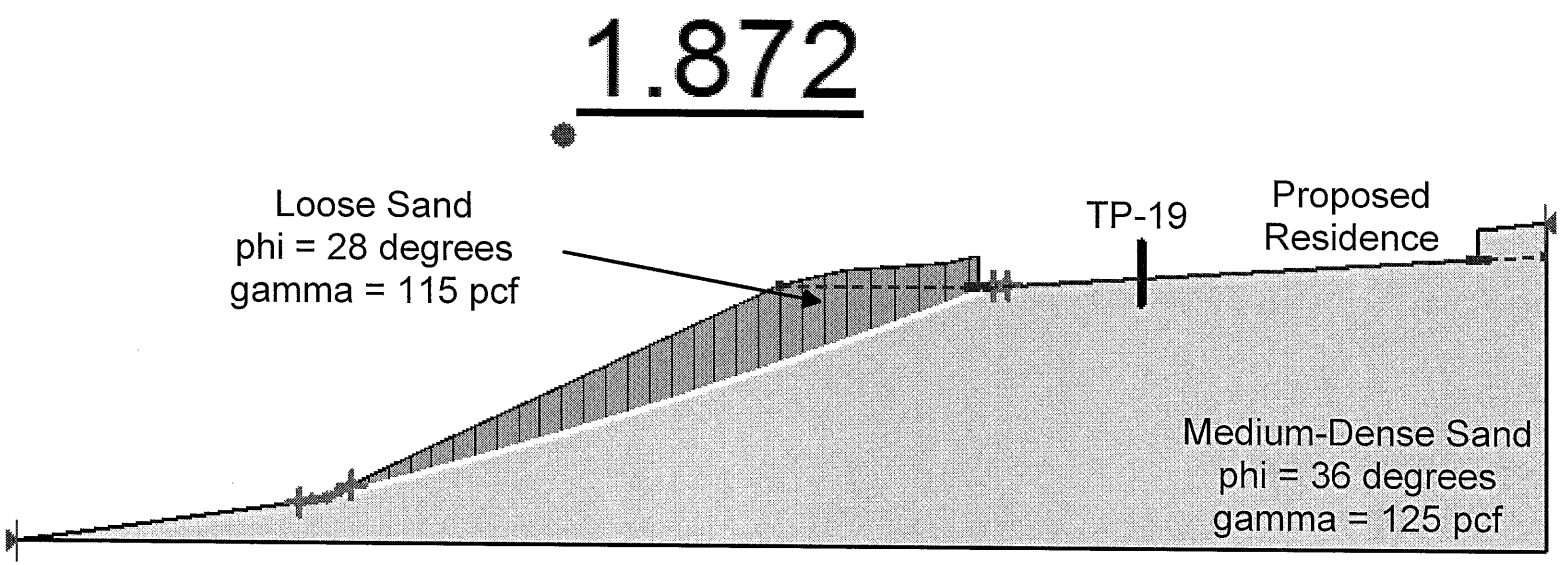
GEOTECH
CONSULTANTS, INC.

Seismic Slope Stability - Lot 6
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017		5

DSD - 000583

Section C - C'



DSD - 000584

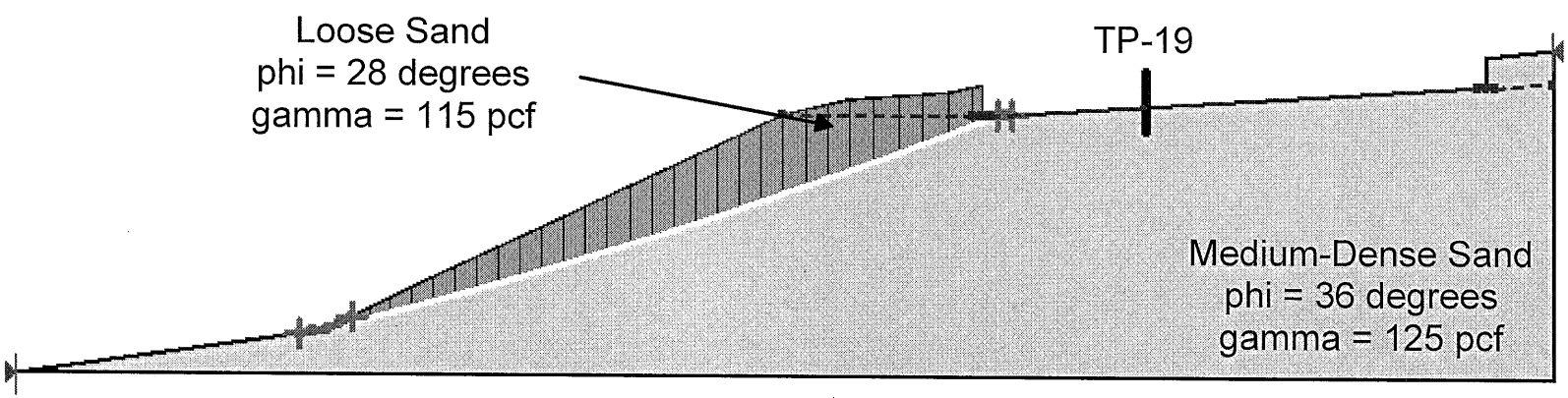
GEOTECH
CONSULTANTS, INC.

Static Slope Stability - Lot 13
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017		6

Section C - C'

1.184



DSD - 000585

GEOTECH
CONSULTANTS, INC.

Seismic Slope Stability - Lot 13
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017		7

DSD - 000586

GEOTECH
CONSULTANTS, INC.

2401 10th Ave E
Seattle, Washington 98102
(425) 747-5618 FAX (425) 747-8561

March 29, 2017

JN 15349

Isola Homes
1518 – 1st Avenue South, Suite 301
Seattle, Washington 98134

Attention: Alex Mason

via email: alex.mason@isolacm.com

Subject: **Supplemental Letter**
Proposed Housing Development
7219 and 7331 Lakemont Boulevard Southeast
Bellevue, Washington

Dear Mr. Mason:

We have prepared this letter to address geotechnical portions of City of Bellevue Review Comments dated February 3, 2017. We previously prepared a geotechnical engineering study for the site dated January 5, 2016. This letter should be considered a supplement to that study.

The steep northern and eastern slopes are considered Steep Slope Geologic Hazard Areas by the City of Bellevue due to their height and inclination. We understand that the City of Bellevue has requested a numerical analysis of the stability of the steep slopes following construction at the site. The City has also requested that we show locations of seepage on a site plan.

We have observed groundwater seepage at a few locations within the property. Those locations are shown on the Site Exploration Plan, Plate 1. The seepage areas are primarily located in areas that have been designated critical slope that are outside the proposed development area. In our opinion the seepage will not impact the proposed development. One area of seepage has been observed near the south edge of the site, in a proposed roadway. This area is only gently sloping, and the seepage will not affect slope stability at that location or in the surrounding area. We believe that seepage will be intercepted by the proposed pavements and underground utility trenches, and that it will not be present after the site has been developed.

We completed a slope stability analysis of three cross sections across the northern and western slopes using the computer program SLOPE/W. The cross section locations are shown on the Site Exploration Plan, Plate 1. The cross sections were developed using the topographic information provided to us.

Soil parameters were needed for the analysis, with the most significant being the defining strength parameters of the site soils, including angles of internal friction. The soils near the tops of the northern and western slopes have been generalized as up to about 10 feet of fill and loose native soil on the surface of the slope, underlain by medium-dense to dense silty sand to sand. The soil at Lot 13 consisted of medium-dense sand with gravel. Some rock spall fill will be needed in footing locations where fill is present. Based on our experience with similar soils, we used the following parameters in our slope stability analyses:

DSD - 000587

	Loose Fill And Near Surface Soil	*Medium-Dense Silty Sand Soil*	*Medium-Dense Sand Soil*	*Rock Spall Fill*
Angle of Internal Friction	28 degrees	32 degrees	36 degrees	45 degrees
Cohesion	0 psf	50 psf	0 psf	0 psf
Soil Density	115 pcf	125 pcf	125 pcf	120 pcf

The slopes were analyzed in static and dynamic (seismic) conditions. For the dynamic analysis, a seismic coefficient of 0.18 (equal to half of the potential peak horizontal ground acceleration of 0.36g) was included to represent a 475-year return period seismic event.

Based on the analyses, potential deep-seated slope failure surfaces for both the existing and post-development conditions have factors of safety greater than 1.5 under static conditions and 1.15 under seismic conditions. We believe these safety factors are very appropriate for the proposed development. The output sections of the stability analyses are included with this letter. Based on our analysis, the post-construction stability of the steep slopes satisfies the City of Bellevue standards.

Provided that the foundation, grading, and retaining recommended in our previous report are observed in the proposed development of the property, it is our opinion that modification of the critical area or critical area buffer will have no adverse impacts on stability of any adjacent slopes, and will not impact stability of any existing structures.

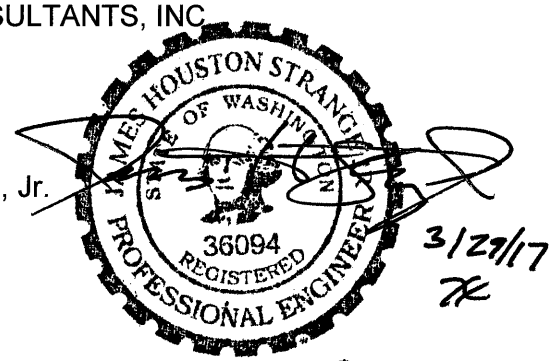
The following plates are attached to complete this report:

Plate 1	Site Exploration Plan
Plates 2 - 7	Slope Stability Analyses

We appreciate the opportunity to be of service on this project. Please contact us if you have any questions, or if we can be of further assistance.

Respectfully submitted,

GEOTECH CONSULTANTS, INC.



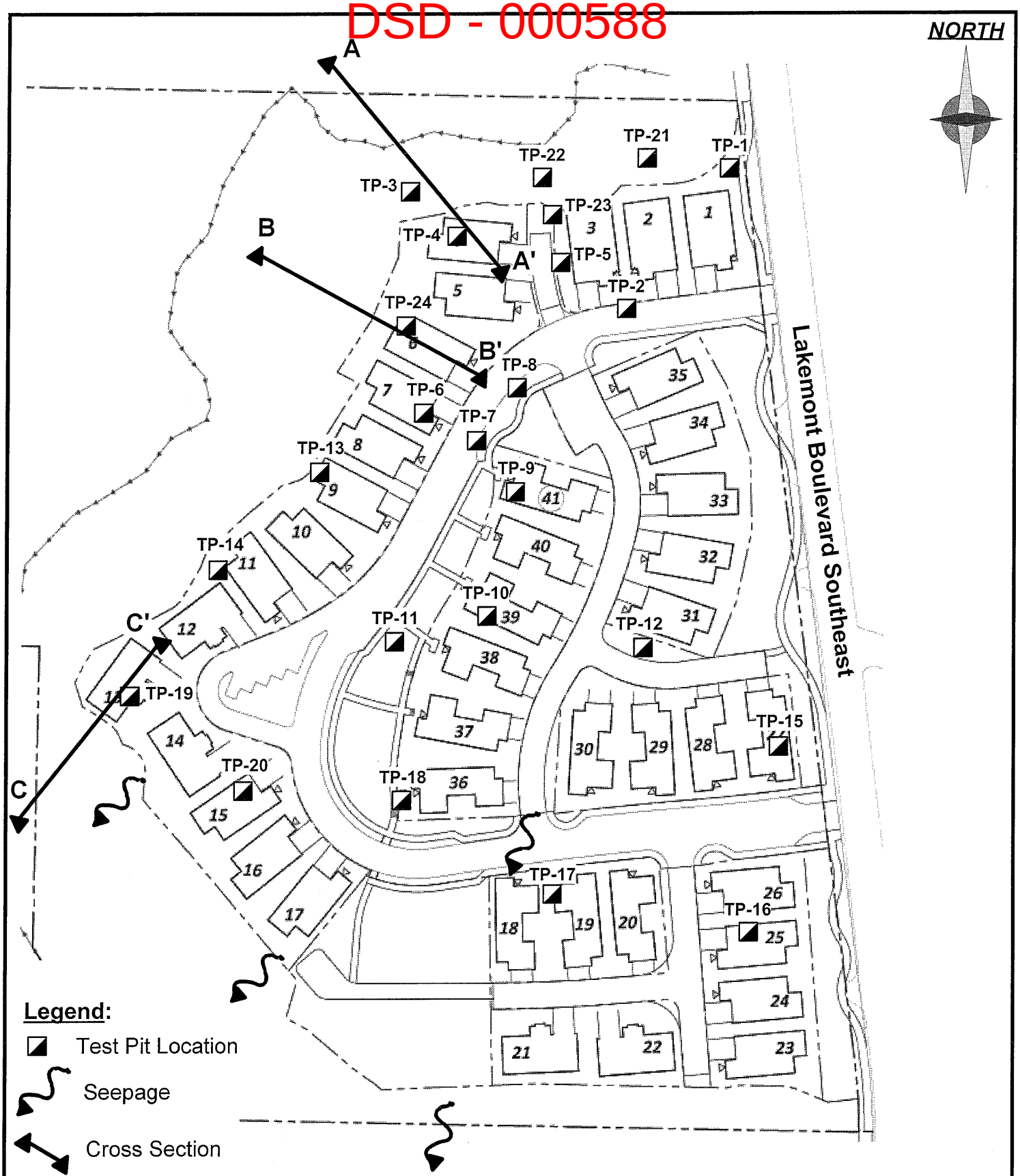
3/29/17

James H. Strange, Jr.
Associate

cc: **PACE Engineers** – Steve Calhoon
via email: stevec@paceengrs.com

TRC/JHS:mw

DSD - 000588



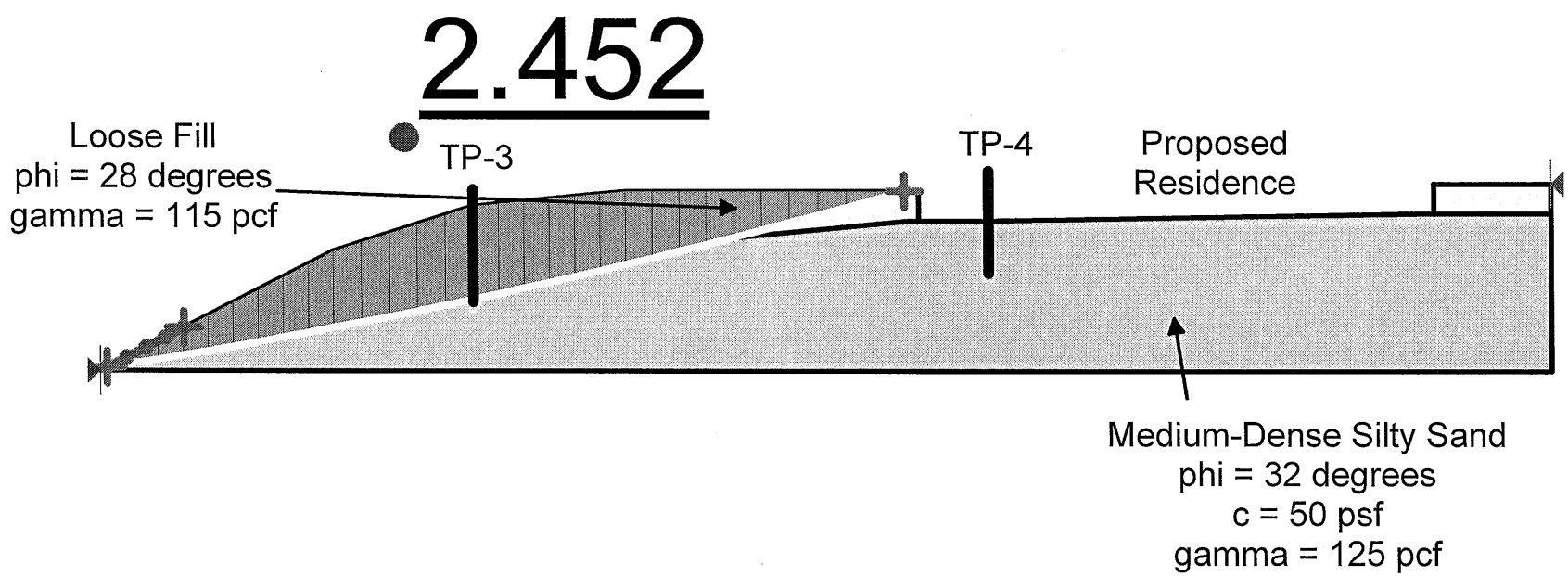
GEOTECH CONSULTANTS, INC.

SITE EXPLORATION PLAN

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017	No Scale	1

Section A - A'



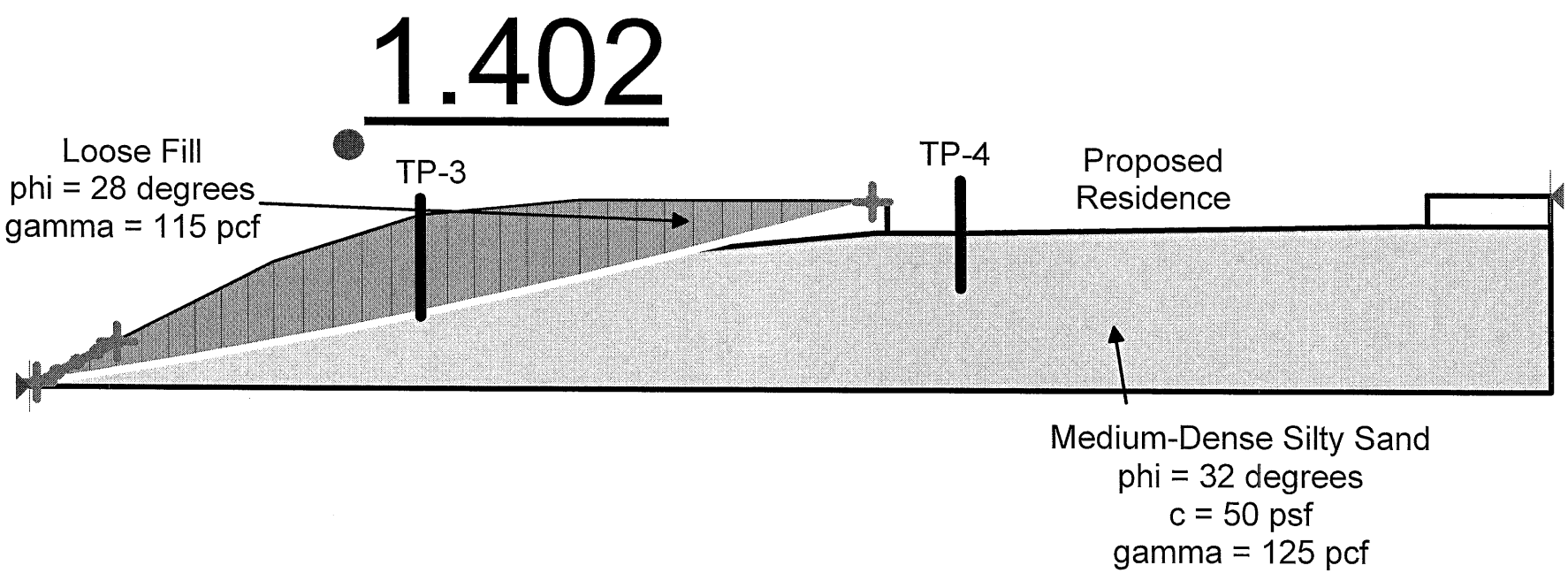
GEOTECH
CONSULTANTS, INC.

Static Slope Stability - Lot 4
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017		2

DSD - 000589

Section A - A'



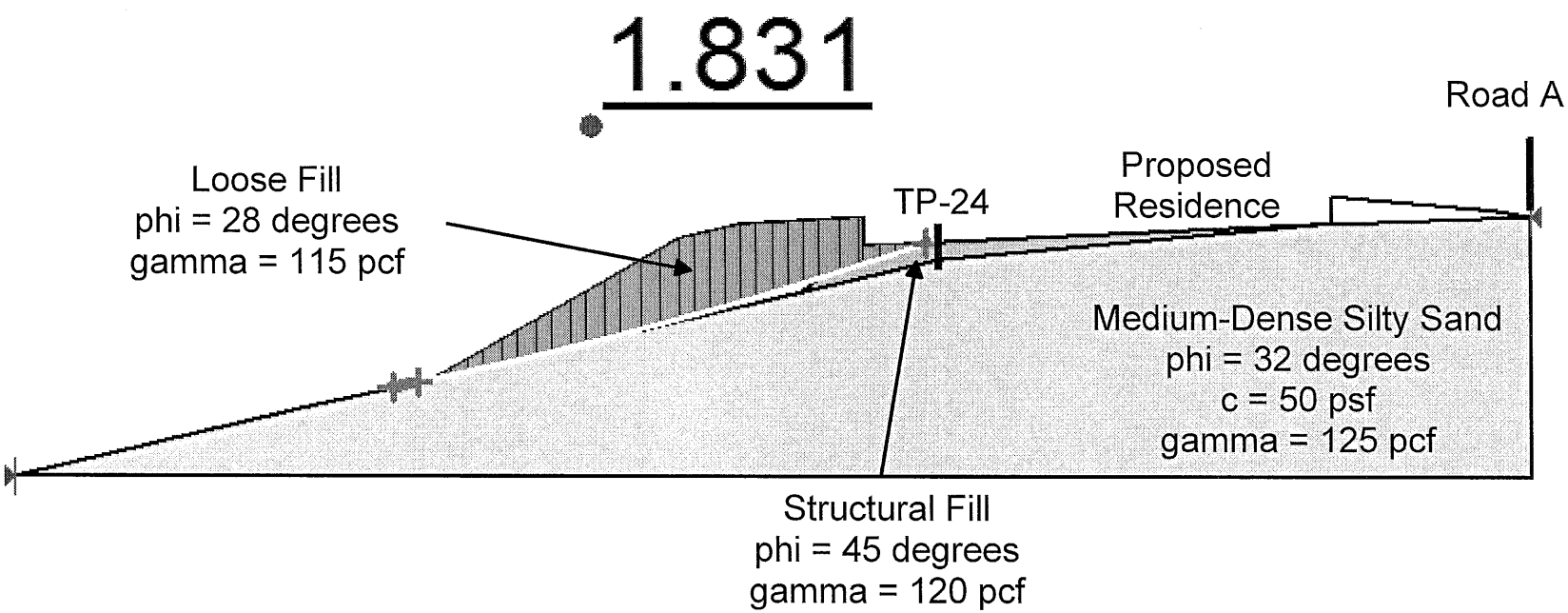
DSD - 000590

GEOTECH
CONSULTANTS, INC.

Seismic Slope Stability - Lot 4
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017		3

Section B - B'



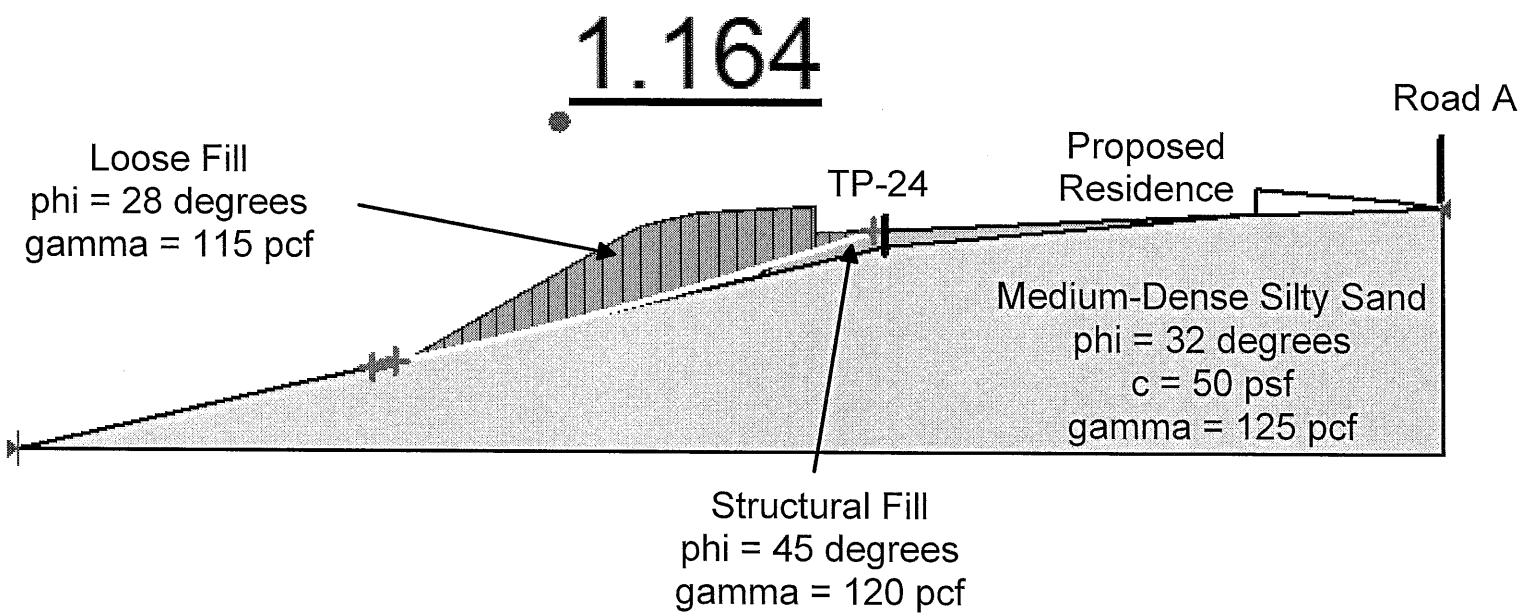
GEOTECH
CONSULTANTS, INC.

Static Slope Stability - Lot 6
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017		4

DSD - 000591

Section B - B'



GEOTECH
CONSULTANTS, INC.

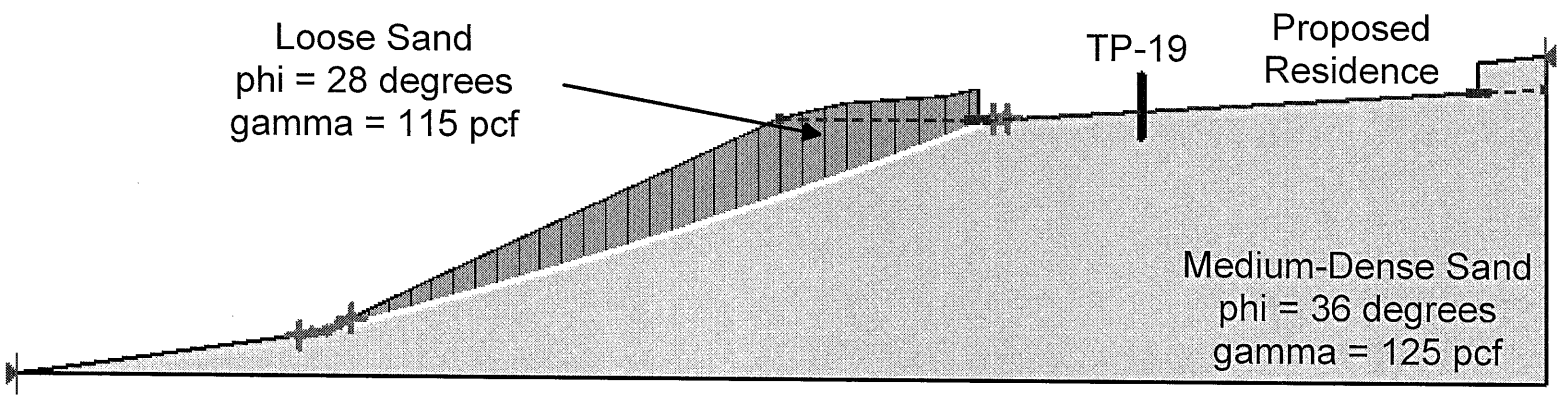
Seismic Slope Stability - Lot 6
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017		5

DSD - 000592

Section C - C'

1.872



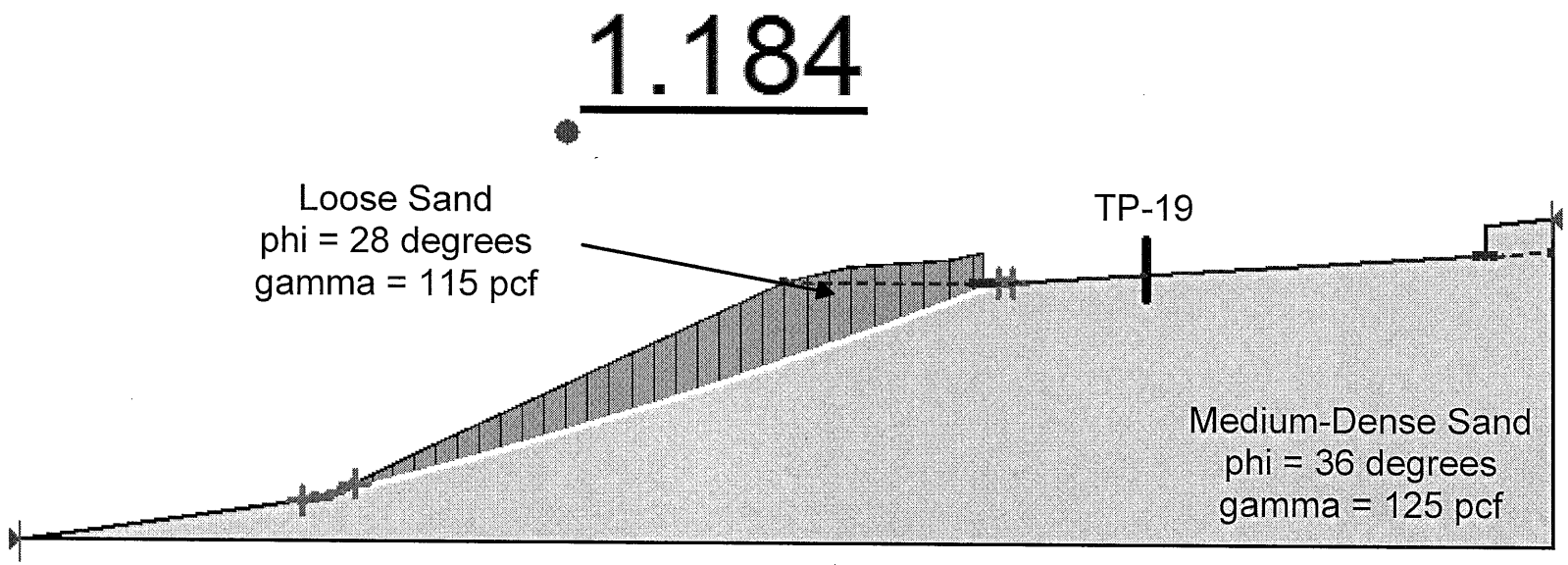
DSD - 000593

GEOTECH
CONSULTANTS, INC.

Static Slope Stability - Lot 13
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017		6

Section C - C'



GEOTECH
CONSULTANTS, INC.

Seismic Slope Stability - Lot 13
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017		7

DSD - 000594

DSD - 000595

GEOTECH
CONSULTANTS, INC.

2401 10th Ave E
Seattle, Washington 98102
(425) 747-5618 FAX (425) 747-8561

January 19, 2018

JN 15349

Isola Homes
1518 – 1st Avenue South, Suite 301
Seattle, Washington 98134

Attention: Peter Locke / Alex Mason

Subject: **Response to Corrections**
Proposed Housing Development
7219 and 7331 Lakemont Boulevard Southeast
Bellevue, Washington

Reference: "Geotechnical Engineering Study," subject site, Geotech Consultants, January 19, 2016
"Supplemental Letter," subject site, Geotech Consultants, March 29, 2017
"Critical Area Comment Letter," City of Bellevue, November 22, 2017

Dear Mssrs. Locke and Mason:

We are pleased to present this response to the geotechnical portions of the referenced Critical Area Comment Letter.

From the Critical Areas Response Letter –

The following geotechnical performance standards and decision criteria must be addressed:
LUC 20.25H.125 – Performance standards – Landslide hazards and steep slopes
LUC 20.25H.135-140 – Critical areas report – Additional provisions for landslide hazards and steep slopes
LUC 20.25H.145 - Critical areas report – Approval of modification
LUC 20.25H.250 – Critical areas report – Submittal requirements – this section is addressed in Talasaea's Critical Areas Report, Geotech should review and supplement information if necessary.
LUC 20.25H.255 – Critical areas report – Decision Criteria - this section is addressed in Talasaea's Critical Areas Report, Geotech should review and supplement information if necessary.
LUC 20.30P.140 – Critical areas land use permit - Decision criteria
The Geotechnical Engineering Study recommends a reduced steep slope buffer of 10 feet and an additional 10-foot building setback from the buffer. The revised Detailed Conceptual Mitigation Plan (W0.0A), which Olin Anderson from Talasaea Consultants provided in September, includes the steep slope buffer overlaid on the development plan. It appears that Units 5 and 6 and potentially Unit 14 don't meet the geotechnical recommendation.
The steep slope area is also identified as a landslide hazard area, defined as *areas of slopes of 15 percent or more with more than 10 feet of rise, which also display any of the following characteristics:*
e. Areas with seeps indicating a shallow ground water table on or adjacent to the slope face.
(LUC 20.25H.120.A1). The Supplemental Letter from the geotechnical consultant (Geotech Consultants, March 29, 2017) confirmed the groundwater seepage is outside the proposed development area and would not affect slope stability.

In our opinion, the referenced Geotechnical Engineering Study, Supplemental Letter, and this response letter are consistent with the geotechnical components of the code sections outlined above. In specific to **LUC 20.25H.145**, we believe our referenced documents address Section E of this code including Sheet 25. We have nothing to add to the responses by Talasasea. In regards to the setbacks from the steep slope for Units 5, 6, and 14, we have confirmed with Talasasea that the proposed structures will meet or exceed our recommended 20 feet from the top of steep slope setback.

DSD - 000596

Again, from the Critical Areas Response Letter -

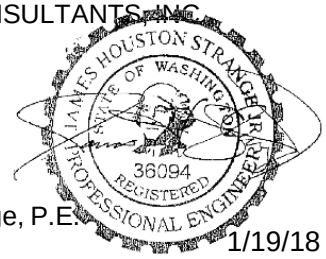
Tom McFarlane, Clearing & Grading Supervisor, provided comments on the geotechnical supplemental letter (March 29, 2017). Please respond to the following comments and requests for revisions:

1. The geotechnical engineer provided the results of slope stability analyses of slopes at 3 locations at the site. The published data included soil parameters for generalized soil conditions, cross-sections of post-development loading conditions, and factors of safety for static and seismic conditions (dynamic conditions included a horizontal seismic coefficient of 0.18g). The specific loading conditions for the proposed residences is not provided. However, we are assuming that appropriate loads were included in the computer model.
2. The narrative of the letter did not discuss the potential impacts of groundwater on the results of the analyses, or whether groundwater was included as a parameter in the analyses. At least one of the test pits shown in the cross sections (TP-19) was observed to have groundwater seepage during excavation. Please have the geotechnical engineer discuss the potential impacts of groundwater on existing (pre-development) and post- development site slope stability, and whether groundwater data was used in the computer model.
3. The geotechnical engineer indicates that the existing and post-development conditions have factors of safety greater than Bellevue's design factors; however, only the post development factors are provided in the letter. Please have the geotechnical engineer provide the results of the slope stability analyses for existing conditions, including cross-sections, groundwater effects, and resulting factors of safety.

In response to the concerns above, we have run additional slope stability analysis (attached to this letter). All of the groundwater sources encountered in our site explorations/visits have been perched on denser underlying soil layers with the underlying soil just being moist or very moist. As such, perched groundwater doesn't affect deep slope stability significantly. Perched groundwater was included in Section C-C' (Lot 13), but did not alter the analysis greatly. As discussed in our previous supplemental letter, we would anticipate the groundwater reaching the slope areas of the site would decrease significantly post construction as the drainage improvements, roofs, hardscapes, foundation drains, and underground utilities intercept water that is now making its way to the perched layers beneath the surface of the site. As requested, analysis of the existing site conditions are included in the attached slope stability analysis.

We appreciate the opportunity to be of service on this project. Please contact us if you have any questions, or if we can be of further assistance.

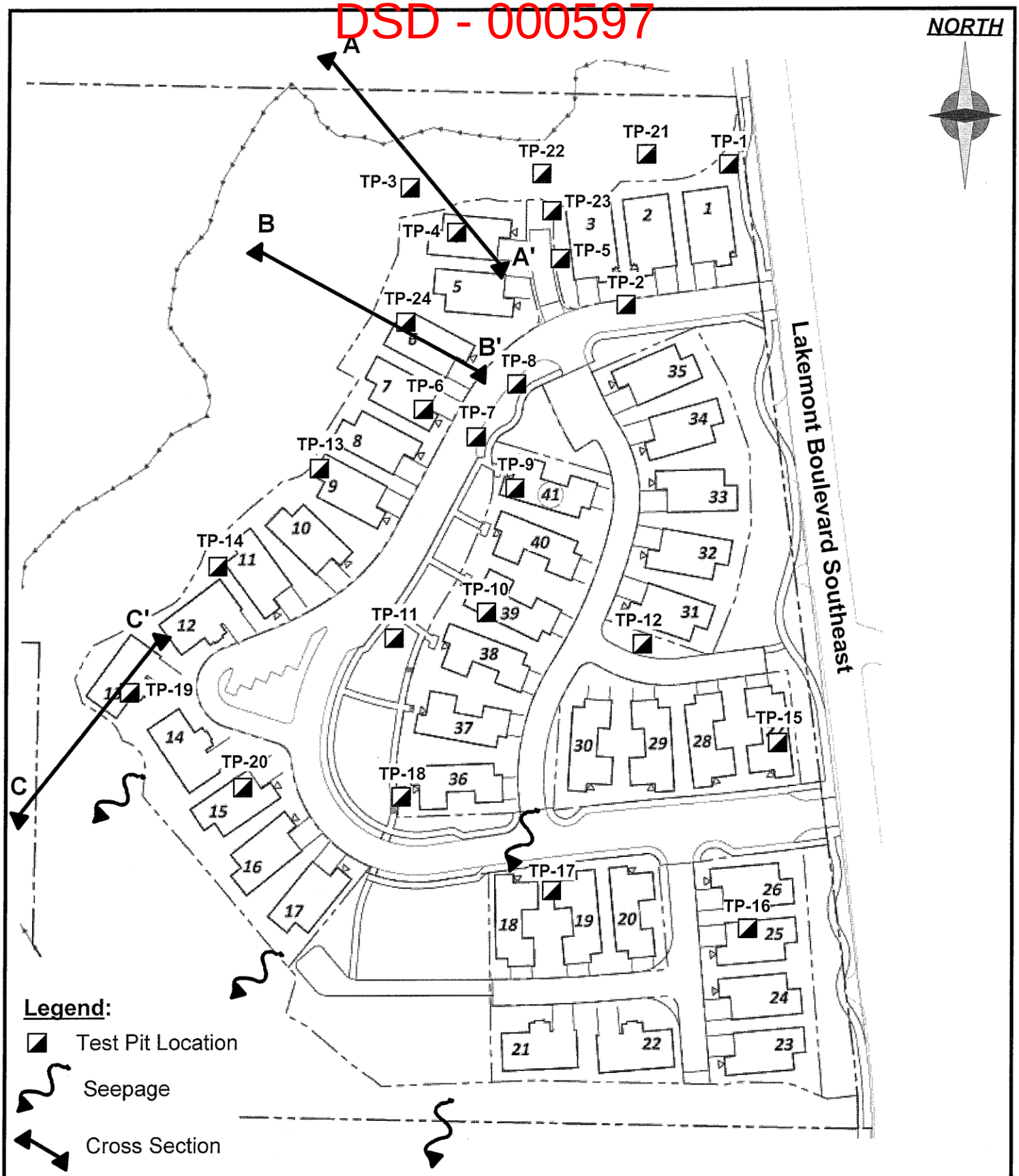
Respectfully submitted,
GEOTECH CONSULTANTS, INC.



James H. Strange, P.E.
Associate 1/19/18 JHS:jhs

Attachment: Supplemental Slope Stability Analysis

DSD - 000597



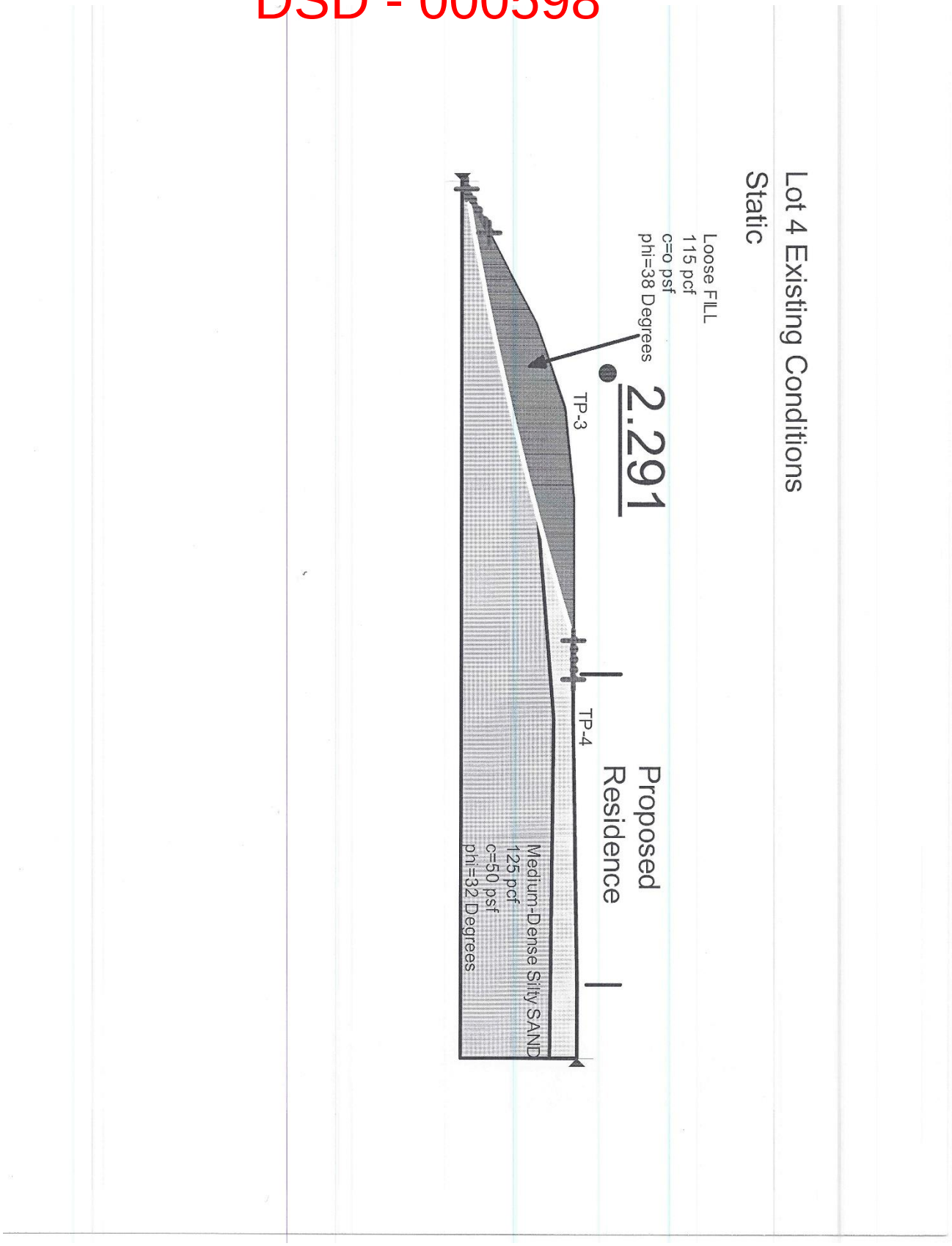
GEOTECH CONSULTANTS, INC.

SITE EXPLORATION PLAN

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017	No Scale	1

DSD - 000598



GEOTECH
CONSULTANTS, INC.

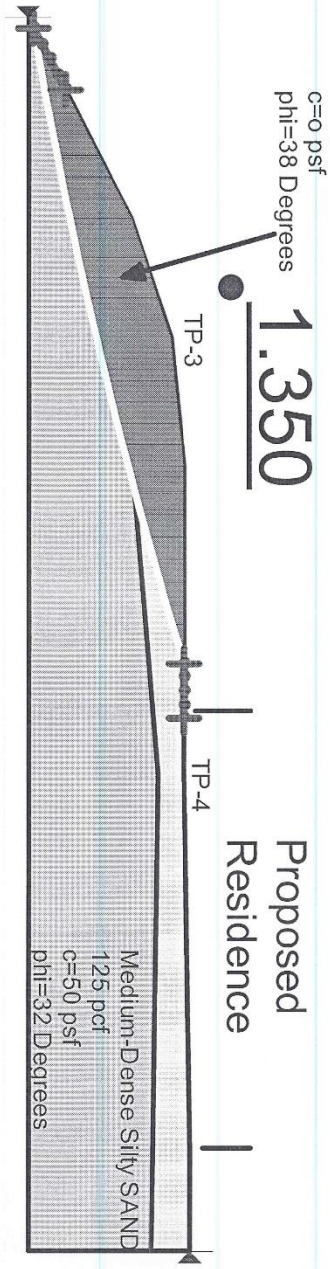
Slope Stability
7219 and 7331 Lakemont Boulevard SE
Bellevue. Washington

Job	Date:	Scale:	Plate:
15349	Jan 2018	Not to Scale	2

DSD - 000599

Lot 4 Existing Conditions

Seismic

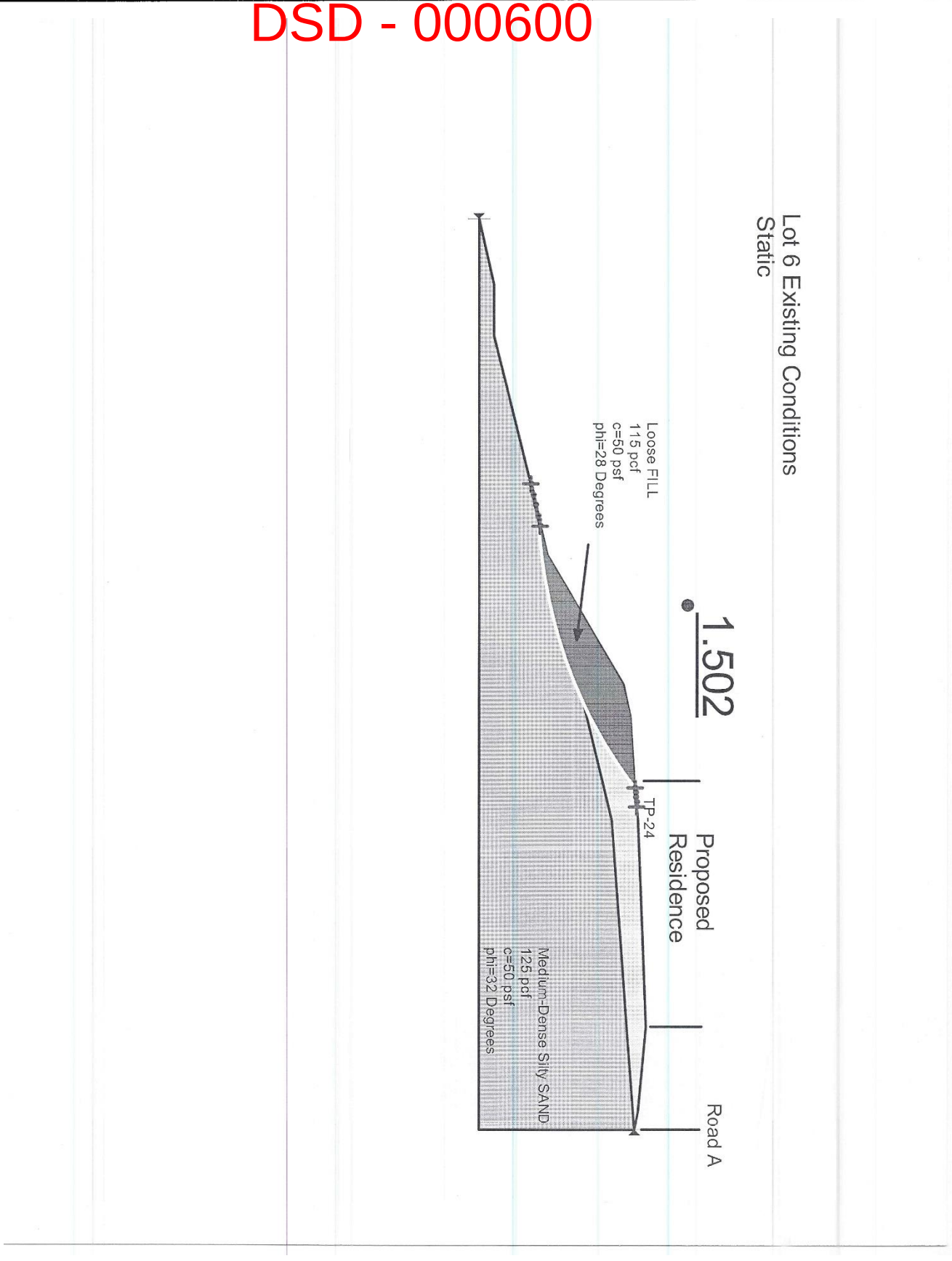


GEOTECH
CONSULTANTS, INC.

Slope Stability
7219 and 7331 Lakemont Boulevard SE
Bellevue. Washington

Job	Date:	Scale:	Plate:
15349	Jan 2018	Not to Scale	3

DSD - 000600

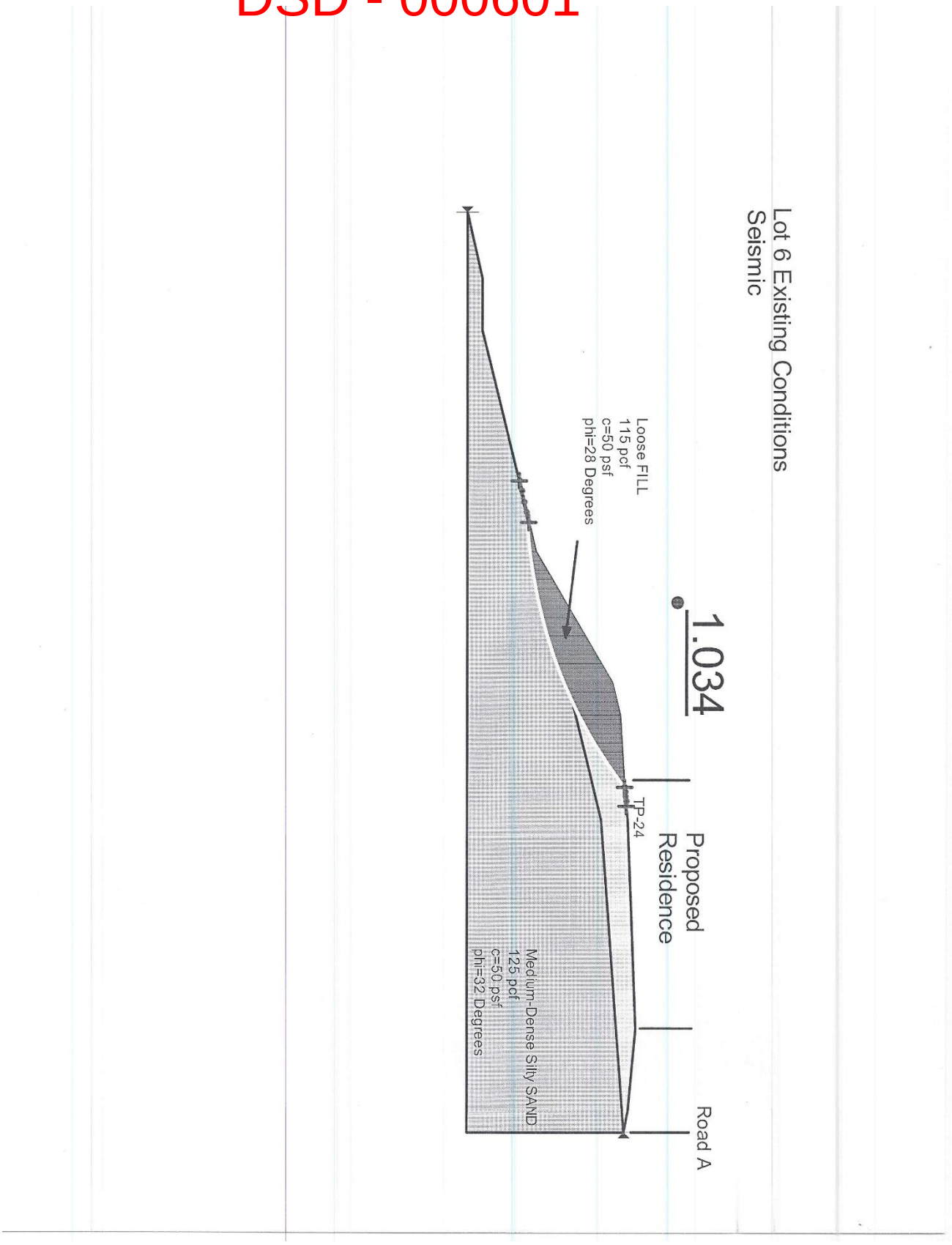


GEOTECH
CONSULTANTS, INC.

Slope Stability
7219 and 7331 Lakemont Boulevard SE
Bellevue. Washington

Job	Date:	Scale:	Plate:
15349	Jan 2018	Not to Scale	4

DSD - 000601

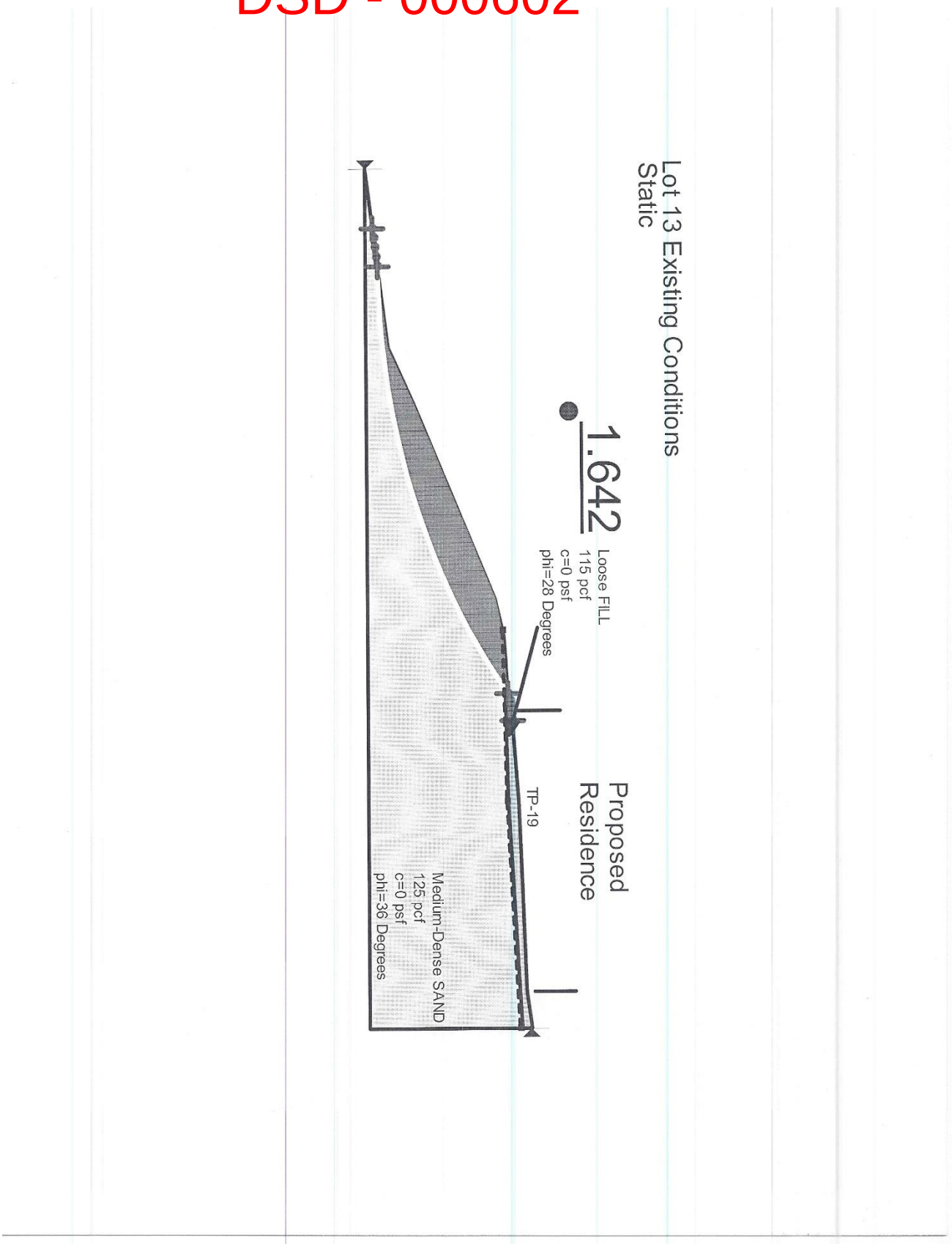


GEOTECH CONSULTANTS, INC.

Slope Stability
7219 and 7331 Lakemont Boulevard SE
Bellevue. Washington

Job	Date:	Scale:	Plate:
15349	Jan 2018	Not to Scale	5

DSD - 000602

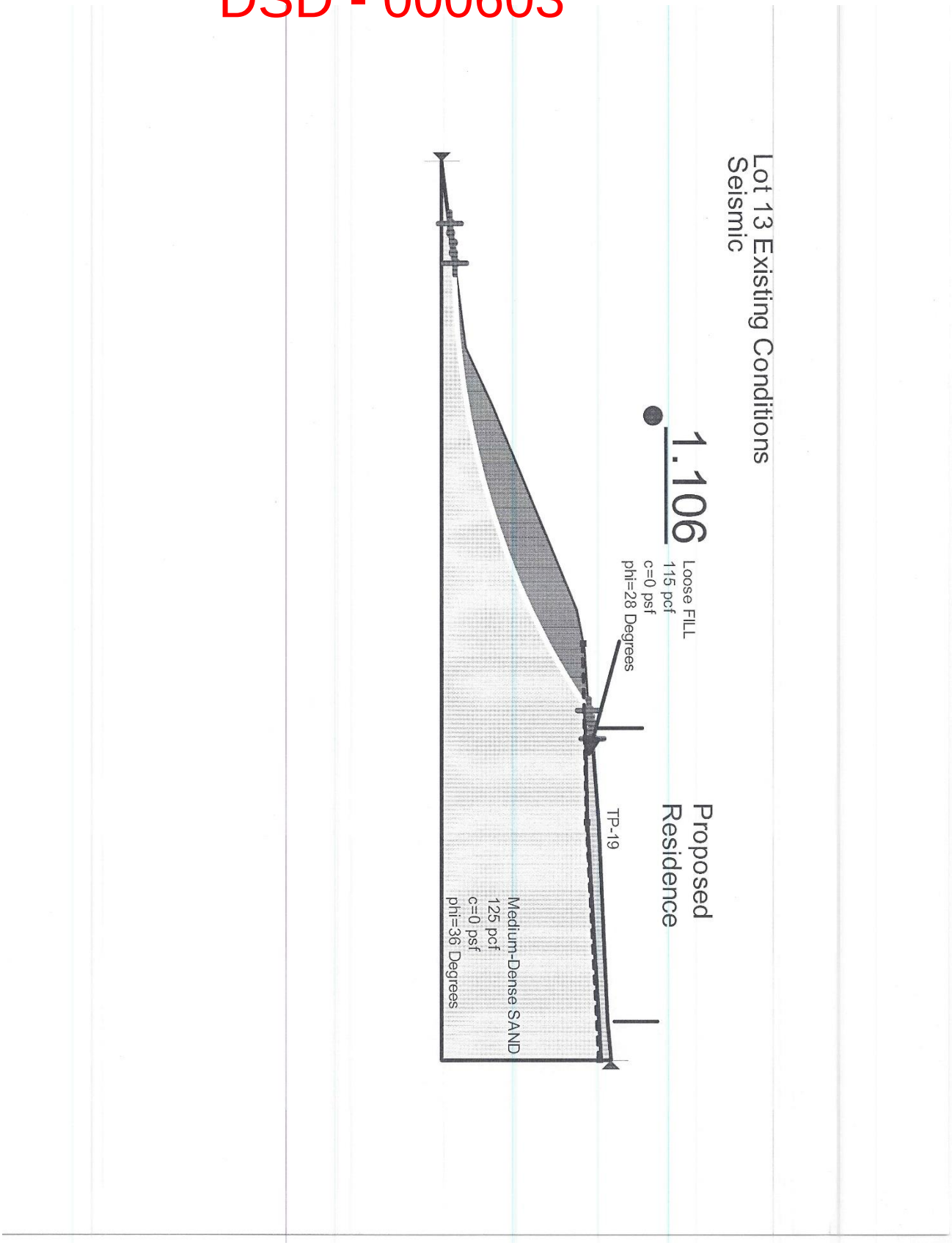


GEOTECH
CONSULTANTS, INC.

Slope Stability
7219 and 7331 Lakemont Boulevard SE
Bellevue. Washington

Job	Date:	Scale:	Plate:
15349	Jan 2018	Not to Scale	6

DSD - 000603

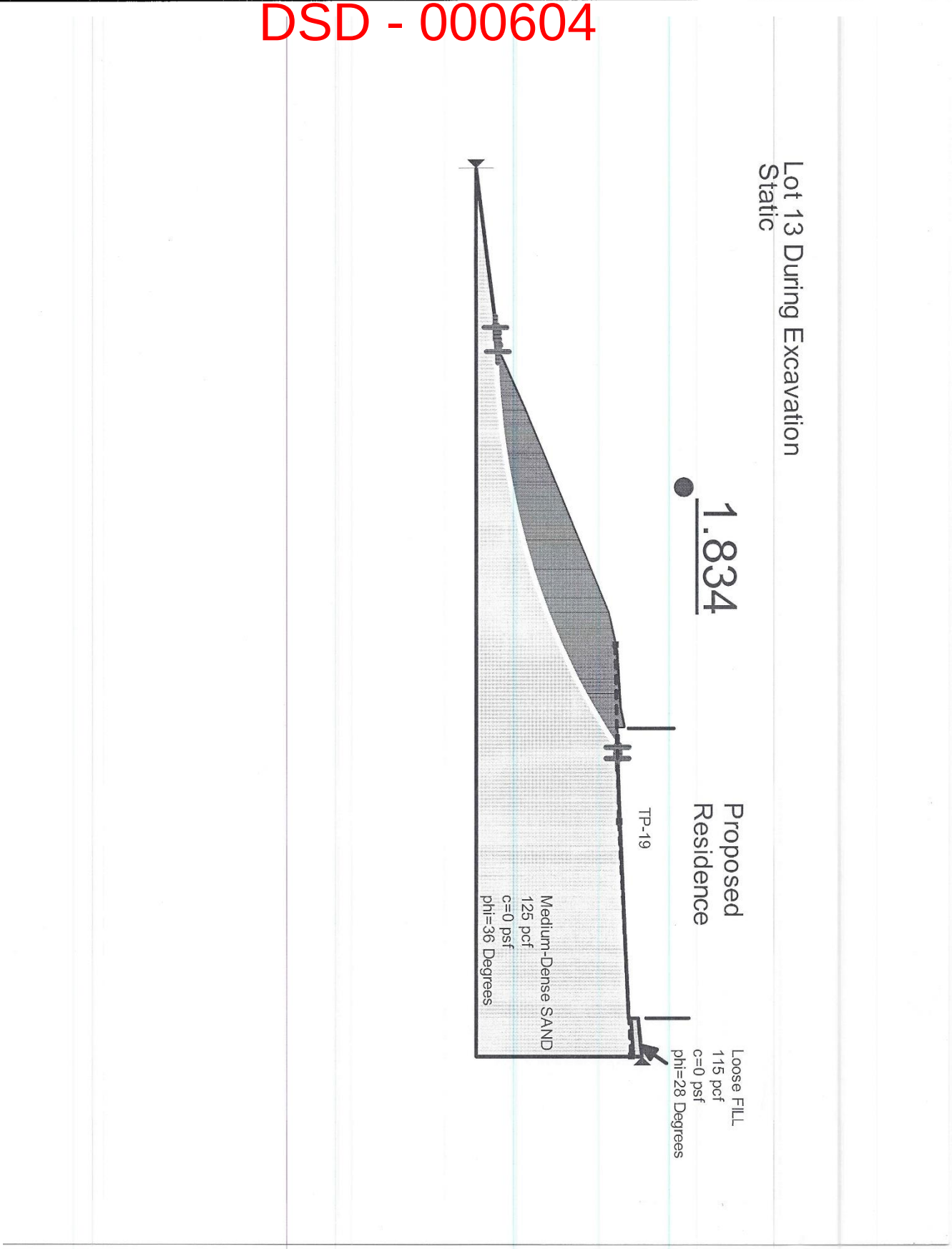


GEOTECH
CONSULTANTS, INC.

Slope Stability
7219 and 7331 Lakemont Boulevard SE
Bellevue. Washington

Job	Date:	Scale:	Plate:
15349	Jan 2018	Not to Scale	7

DSD - 000604

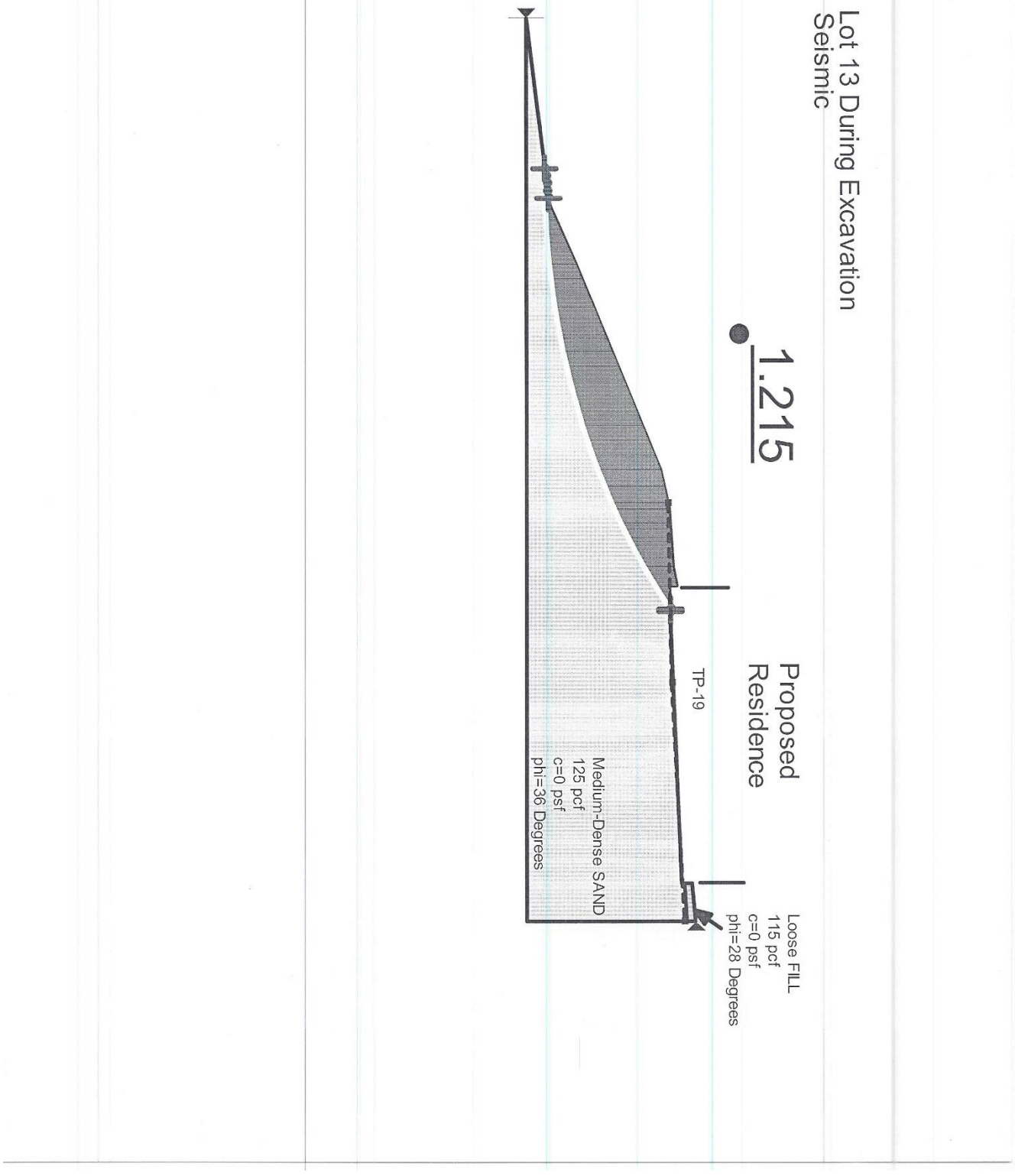


GEOTECH
CONSULTANTS, INC.

Slope Stability
7219 and 7331 Lakemont Boulevard SE
Bellevue. Washington

Job	Date:	Scale:	Plate:
15349	Jan 2018	Not to Scale	8

DSD - 000605



GEOTECH
CONSULTANTS, INC.

Slope Stability
7219 and 7331 Lakemont Boulevard SE
Bellevue. Washington

Job	Date:	Scale:	Plate:
15349	Jan 2018	Not to Scale	9

DSD - 000606

GEOTECH
CONSULTANTS, INC.

2401 10th Ave E
Seattle, Washington 98102
(425) 747-5618 FAX (425) 747-8561

June 5, 2018

JN 15349

Isola Homes - Peter Locke / Alex Mason
1518 – 1st Avenue South, Suite 301
Seattle, Washington 98134

Subject: **Response to Corrections 2**
Proposed Housing Development
7219 and 7331 Lakemont Boulevard Southeast
Bellevue, Washington

Reference: "Geotechnical Engineering Study (GES)," subject site, Geotech Consultants, January 19, 2016
"Supplemental Letter," subject site, Geotech Consultants, March 29, 2017
"Critical Area Comment Letter," City of Bellevue, November 22, 2017
"Response to Corrections," subject site, Geotech Consultants, January 19, 2018

Dear Mssrs. Locke and Mason:

We are pleased to present this response to the geotechnical portions of the referenced Critical Area Comment Letter.

From the Critical Areas Response Letter
Geotech Consultants Response

The past revision letter providing critical area comments (dated 11/22/2017) noted the specific geotechnical performance standards and decision criteria that must be addressed by the applicant. Although the Clearing & Grading review has approved the slope stability analysis, the geotechnical report should address the following performance standards and decision criteria:

- LUC 20.25H.125 – Performance standards – Landslide hazards and steep slopes
  Design related responses to Items A-J provided by PACE.
  Our original GES recommends a 10 foot steep slope buffer and an additional 10 foot structure setback from the steep slope areas at the site. In particular to item C, the proposed development does not result in greater risk or the need for increased buffers on neighboring properties.
  Also, from page 3 of our original report - "In reference to the Bellevue code (20.25H.125) we believe the proposed reduction in buffer/setback conforms to Items A through C, and that the specific house/lot designs could be made to conform to Items D through J." **We believe our recommendations meet this code criteria.**

- LUC 20.25H.135 – Mitigation and monitoring – Additional provisions for landslide hazards and steep slopes
  Design related responses to Items A-C provided by PACE.
  In regards to A & B, full drainage and erosion control plans are/have been completed for the development. Stormwater will be directed to appropriate outfall away from any steep slopes. This is acceptable to Geotech.

- LUC 20.25H.135-140 – Critical areas report – Additional provisions for landslide hazards and steep slopes
  Design related responses to Items A-B provided by PACE.
  - H.140 B.1
    These plans are have been and are beign developed through this process.
  - H.140 B.2
    Our GES and follow up documents satisfy Item B.2 by assessing the geologic characteristics of the site and to the extent possible the surrounding area. In addition to our test pits, we have performed more than one site reconnaissance to assess the site characteristics and

DSD - 000607

surrounding feature. This information is the basis for our conclusions and recommendations offered in our original report and follow up documents.

- **H.140 B.3**
  Our GES and follow up documents satisfy Item B.3 in that the study was conducted for the known project and we have reviewed the plans throughout the process. Our report and analysis offers appropriate buffers and building setbacks from geologic hazards (steep slopes) in order to maintain site stability and to avoid potential impact on the hazard area and the any affected adjacent properties. This is acceptable to Geotech.
- **H.140 B.4**
  Our GES and follow up documents satisfy Item B.4 in that the study and analysis offers appropriate buffers and building setbacks from geologic hazards (steep slopes) in order to maintain site stability and to avoid potential impact on the hazard area and the any affected adjacent properties. We have completed detailed slope stability analysis to justify our recommendations and setbacks. This is acceptable to Geotech.

- **LUC 20.25H.145** - Critical areas report – Approval of modification
  In our opinion, provided the recommendations in our GES and follow up documents are executed in the proposed plans, the new development:

  A. Will not increase the threat of the geological hazard to adjacent properties over conditions that would exist if the provisions of this part were not modified;
  B. Will not adversely impact other critical areas;
  C. Is designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than would exist if the provisions of this part were not modified;
  D. Is certified as safe as designed and under anticipated conditions by a qualified engineer or geologist, licensed in the state of Washington;
  E. The provided geotechnical reports were prepared by a qualified professional demonstrating that modification of the critical area or critical area buffer will have no adverse impacts on stability of any adjacent slopes, and will not impact stability of any existing structures.

- **LUC 20.25H.250** – Critical areas report – Submittal requirements – this section is addressed in Talasaea's Critical Areas Report, Geotech should review and supplement information if necessary.
  We have reviewed Talasea's response and have nothing to add.

- **LUC 20.25H.255** – Critical areas report – Decision Criteria - this section is addressed in Talasaea's Critical Areas Report, Geotech should review and supplement information if necessary.
  We have reviewed Talasea's response and have nothing to add.

- **LUC 20.30P.140** – Critical areas land use permit - Decision criteria
  The Geotechnical Engineering Study recommends a reduced steep slope buffer of 10 feet and an additional 10-foot building setback from the buffer. The revised Detailed Conceptual Mitigation Plan (W0.0A), which Olin Anderson from Talasaea Consultants provided in September, includes the steep slope buffer overlaid on the development plan. It appears that Units 5 and 6 and potentially Unit 14 don't meet the geotechnical recommendation.
  We understand that these setbacks have been revised and meet with our recommendations.
  The steep slope area is also identified as a landslide hazard area, defined as *areas of slopes of 15 percent or more with more than 10 feet of rise, which also display any of the following characteristics:*
  e. Areas with seeps indicating a shallow ground water table on or adjacent to the slope face.
  (LUC 20.25H.120.A1). The Supplemental Letter from the geotechnical consultant (Geotech Consultants, March 29, 2017) confirmed the groundwater seepage is outside the proposed development area and would not affect slope stability.
  We concur with this statement.

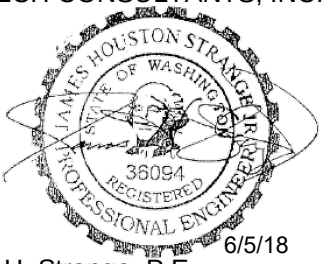
In our opinion, the referenced Geotechnical Engineering Study, Supplemental Letter, and the response letters are consistent with the geotechnical components of the code sections outlined above. In specific to **LUC**

DSD - 000608

20.25H.145, we believe our referenced documents address Section E of this code including Sheet 25. We have nothing to add to the responses by Talasea.

We appreciate the opportunity to be of service on this project. Please contact us if you have any questions, or if we can be of further assistance.

Respectfully submitted,
GEOTECH CONSULTANTS, INC.



6/5/18
James H. Strange, P.E.
Associate JHS:jhs

GEOTECH CONSULTANTS, INC.

Memorandum

JN: 15349
Date: November 10, 2020
To: Isola Homes - Peter Locke
From: James H. Strange, Jr., P.E.

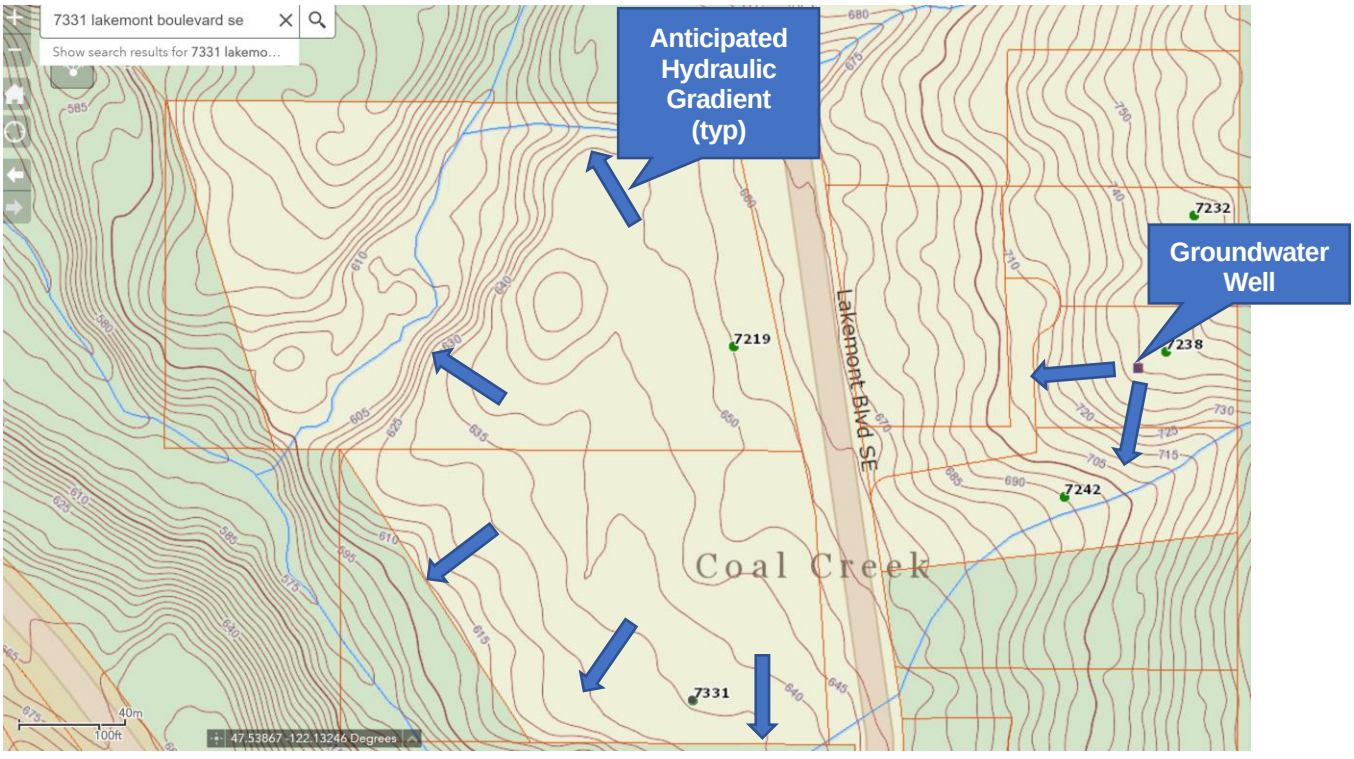
Reference: "Geotechnical Engineering Study (GES)," subject site, Geotech Consultants, January 19, 2016
"Supplemental Letter," subject site, Geotech Consultants, March 29, 2017
"Critical Area Comment Letter," City of Bellevue, November 22, 2017
"Response to Corrections," subject site, Geotech Consultants, January 19, 2018
"Response to Corrections 2," subject site, Geotech Consultants, June 5, 2018
"Land Use Review Comments," subject site, City of Bellevue, December 2, 2019.

RE: **Groundwater Recharge Concerns**
7219 and 7331 Lakemont Boulevard Southeast, Bellevue

We understand that there is a question about the proposed site drainage affecting the nearby well to the east. Specifically, from Item 6 of the correction notice:

> **Well impacts** – There are 3 households across Lakemont Blvd that depend on a well for their domestic water supply. They have written concerns that the proposed development could impact the water quantity/quality for their well. Please address this specific potential impact.

The subject site is significantly downgradient from the well to the east. As can be seen in the GIS clip of King County's IMAP below, the site is approximately 85 feet lower than the wellhead in question. Based on the topography and our understanding of the subsurface conditions, shallow groundwater flow (hydraulic gradient) on the site would be toward the adjacent streams to the south, west and north, but not to the east. As such, the development at the site would not be expected to contribute or diminish the recharge quantity or quality of the well in question.



DSD - 000610

We appreciate the opportunity to be of service on this project. If you have any questions, or if we may be of further service, please do not hesitate to contact us.

Sincerely,
GEOTECH CONSULTANTS INC.

11/10/20
James H. Strange, Jr., P.E.
Associate

DSD - 000611

associated
earth sciences
incorporated

October 15, 2014
Project No. KE140474A

The Estate of Ernest M. Swanson
c/o Law Offices of Paul Houser, Jr.
1620 Duvall Avenue NE, Suite 201
Renton, Washington 98059

Attention: Mr. Paul Houser

Subject: Coal Mine Hazard Assessment
Swanson Property
7331 Lakemont Boulevard
Bellevue, Washington

Dear Mr. Houser:

This report presents the findings of the coal mine hazard assessment completed for the subject project. Our work has been completed in general accordance with our August 12, 2014 proposal letter for the exclusive use of The Estate of Ernest M. Swanson, and its agents, in accordance with generally accepted geotechnical engineering practice. No other warranty, express or implied, is made.

INTRODUCTION

The purpose of this study was to evaluate the locations of historic coal mine workings in relation to the subject site and how those workings could affect future site development. Our scope of work included the following tasks:

- Conducting a field reconnaissance of the site to document any surficial evidence of past mine activity, adits, or subsidence.
- Reviewing the Washington State Department of Natural Resources (DNR) coal mine map collection to evaluate the locations of mine workings in the vicinity of the subject property.
- Preparation of this report.

DSD - 000612

SITE DESCRIPTION

The subject site consists of an irregularly shaped parcel of approximately 3.9 acres located at 7331 Lakemont Boulevard SE in Bellevue, Washington (Figure 1). The property contains an existing single-family home, a barn, and two outbuildings. Review of King County Assessor records indicates that the home was built in 1918. The property outside of the building areas is vegetated by field grasses with scattered trees, most of which are located along the perimeter of the parcel. The topography of the site generally slopes down toward the west at a gentle to moderately steep inclination. Review of a topographic map downloaded from the King County geographical information system (imap) indicates that the total relief across the site is approximately 45 feet with ground surface elevations ranging from a low of approximately 610 feet at the west end of the property to a high of approximately 655 feet in the northeastern portion of the site.

During our reconnaissance of the property, no surface indications of previous mining activity were observed, such as mine entrances, slag piles, or areas of subsidence. Review of the City of Bellevue Coal Mine Hazard Map indicates that the property is located in a designated Mine Hazard Area.

GEOLOGIC SETTING

Review of the regional geologic map of the area titled *Geologic Map of King County*, compiled by Booth, Troost, and Wisher (2007), indicates that the area of the project site is underlain by Vashon lodgement till with exposures of Renton Formation bedrock located a short distance to the west. The Vashon lodgement till is a glacial sediment that was deposited as ice advanced into the Puget Lowland during the Fraser Glaciation, approximately 10,000 to 15,000 years ago.

The Renton Formation, which underlies the glacial sediments in the area, is composed of sedimentary rock. The rock was derived from sediments that were deposited in an extensive, swampy, estuarine environment during late Eocene to early Oligocene time (approximately 35 to 40 million years ago). These sediments included abundant deposits of organic material that were transformed into coal as they were subject to pressure from burial and other geologic forces. Subsequent land movement resulted in regional tilting of the rock. Based on review of geologic literature, the coal seams in the area of the subject site dip down toward the north at an inclination of approximately 36 to 40 degrees. Review of a well log obtained from the Washington State Department of Ecology (Ecology) well log data base for a water well located on the Swanson property indicates that the contact between the glacial sediments and the Renton Formation sandstone is located at a depth of approximately 51 feet at the well location. A copy of the well log is included in Appendix A.

DSD - 000613

COAL MINING HISTORY

Coal was discovered in the Newcastle area in the 1860s and by the 1870s mining production was up to as much as 150,000 tons per year. Large-scale mining continued through the 1920s. Smaller-scale, independent coal mining was continued in the area after this time, but by the mid-1940s coal production had dropped below 50,000 tons per year. Mining in the area ceased in 1963 (McDonald and McDonald, 1987).

Underground mining in the area was typically conducted by constructing a near-horizontal shaft or "gangway" along the strike of a coal seam. The gangway was either connected to the surface by an inclined shaft or "slope" constructed parallel to the dip slope, or it was extended horizontally until it intersected the ground surface. Mine workings were extended up-dip of the gangway along the coal seam. In the project area, the workings were constructed using the "room and pillar" method of mining. In this method, large "pillars" of coal are left in place to support the roof in the mining area while "rooms" of coal are extracted. The "rooms" consisted of either "chutes" constructed parallel to the dip of the seam, or "cross-cuts" constructed parallel to its strike. In either case, the width of the "room" was typically 6 to 8 feet. The height of the workings, including the gangways, was typically limited to 8 to 12 feet. Although it was common practice to remove the pillars as mining progressed, this practice was not always followed for safety and/or economic reasons. Removal of the pillars increased the risk of roof collapse.

REVIEW OF HISTORICAL MINE MAPS

As part of our study, we conducted a review of historic coal mining maps on file with the DNR. Review of these maps indicates the presence of multiple coal seams accessed by multiple gangways below the subject property. Specifically, the following underground coal mine workings are mapped either directly below or near the subject site:

- 2nd Level No. 3 Seam Gangway;
- 3rd Level No. 3 Seam Gangway;
- 4th Level No. 3 Seam Gangway;
- Tunnel connecting 2nd and 3rd Level #3 Seam Gangways;
- No. 3 Seam Slope;
- 4th Level East Muldoon Seam Gangway and Associated Room and Pillar Workings;
- 2nd Level No. 4 Seam Gangway;
- 3rd Level No. 4 Seam Gangway;
- No. 3½ Seam Gangway.

A composite map of the known underground mine workings below and near the subject property is shown on Figure 2. A cross-section through the property showing the approximate elevations of these workings is included on Figure 3.

DSD - 000614

The locations of the underground mine workings shown on Figures 2 and 3 should be considered approximate. The lack of suitable landmarks on some of the maps makes them difficult to correlate with existing site features. Some discrepancies were observed between different maps. In addition, the locations of some of the workings were likely never recorded. Most of the coal mine maps on file with DNR consisted of maps originally submitted as part of an annual report to the local mine inspector. It is known that some of the original maps have been lost over the years. For these reasons, and other factors, it is likely that the available mapping does not include a complete record of the underground coal mine workings in the area. According to McDonald and McDonald (1987), in the early 1950s a sinkhole appeared in the curving section of the county road (present day Lakemont Boulevard) south of the Swanson property. The sinkhole was reportedly caused by a mine-related air shaft underlying the road. This air shaft was not observed on any of the maps we reviewed. In addition, maps of room and pillar mine workings associated with some of the gangways were not depicted on the maps, or appeared incomplete. Because the purpose of the gangways was to provide access to the coal seams for mining purposes, it is likely that some room and pillar workings are associated with these gangways. Copies of some of the more informative maps found in the DNR collection showing coal mine workings in the area of the subject site are included in Appendix B.

CONCLUSIONS

The research conducted for our study has indicated the presence of fairly extensive coal mine workings below the subject property. Although no evidence of subsidence was observed on the site, the known presence of workings in this area suggests that this is a possibility.

Development restrictions in areas underlain by coal mine workings are defined under Section 20.25H.130 of the *Bellevue Land Use Code* (BLUC). This section of the code defines Coal Mine Subsidence (CMS) Zone 2 as *"Areas directly underlain by coal mine workings at a depth of 200 feet or less, documented prospects, and areas within 100 feet of such areas."*

Review of the DNR map collection indicates that a gangway was constructed in the No. 3½ Seam at an elevation of 608 to 610 feet. The documented elevation of this gangway puts it within 50 feet of the ground surface elevations on the subject site. The mapped location of the No. 3½ Seam Gangway (as depicted on map K20) lies approximately 100 to 200 feet south of the project site. However, during a telephone discussion with DNR geologist Tim Walsh regarding the coal mine workings in the area, Mr. Walsh indicated that Milt Swanson had told him that the No. 3½ Seam Gangway is actually located directly below the subject site. For this reason, we have shown this gangway below the property on Figures 2 and 3. For the reasons stated, the actual location of this gangway is uncertain. Assuming that the anecdotal information regarding the location of the No. 3½ Seam Gangway is correct, then the site would classify as lying within CMS Zone 2. Depending upon their extent, room and pillar workings associated with the Level 2 Gangway of the No. 4 Seam may also lie within 200 feet of the

DSD - 000615

ground surface. A map showing the extent of the workings associated with this gangway was not found in the DNR map collection.

As specified in Section 20.25H.130D3 of the BLUC, Bellevue permitting requirements for development within CMS Zone 2 includes "*...site-specific evaluation of potential for sinkhole development, including subsurface investigation. ...Drilling is required for coal mine workings or other hazards that cannot be adequately investigated by investigations from surface. Drilling may demonstrate that there is no risk of sinkhole development due to the absence or fully collapsed condition of mine workings. Alternatively, drilling may document sinkhole risks, and the applicant must then design a mitigation program to eliminate all such risks.*" Approval of development applications in CMS Zone 2 is subject to City approval of a plan designed to mitigate coal mine hazard risks in the proposed development area. Subsurface exploration of the site and preparation of a coal mine hazard mitigation plan is outside of the scope of our current study but could be completed by AESI for additional cost at the request of the client.

CLOSURE

We appreciate this opportunity to have been of service to you with your project. Should you have any questions, or require additional information, please do not hesitate to call.

Sincerely,
ASSOCIATED EARTH SCIENCES, INC.
Kirkland, Washington

Timothy J. Peter, L.E.G., L.Hg.
Senior Project Geologist

State of Washington 704 Licensed Geologist
Jon N. Sondergaard
10/15/14

Jon N. Sondergaard, L.G., L.E.G.
Senior Principal Engineering Geologist

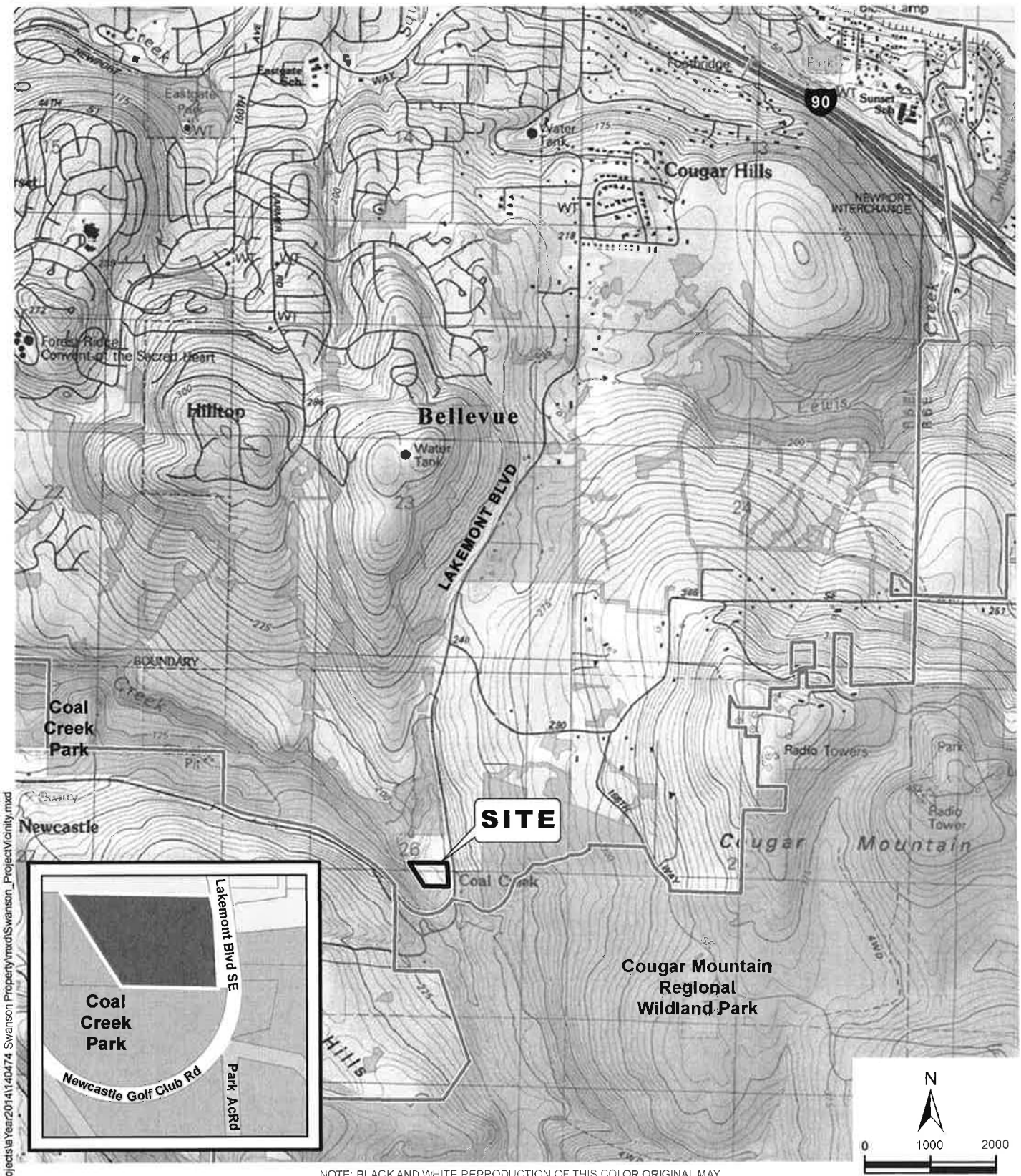
Attachments:
Figure 1. Vicinity Map
Figure 2. Composite Underground Mine Working Map
Figure 3. Mine Workings Cross-Section
Appendix A. Well Log
Appendix B. Selected Coal Mine Workings Maps

DSD - 000616

Reference Cited:

McDonald, R.K. and L. McDonald, 1987, The coals of Newcastle: A hundred years of hidden history: Issaquah Alps Trail Club.

DSD - 000617



REFERENCE: USGS, KING CO

NOTE: BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION.

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associated earth sciences incorporated

VICINITY MAP

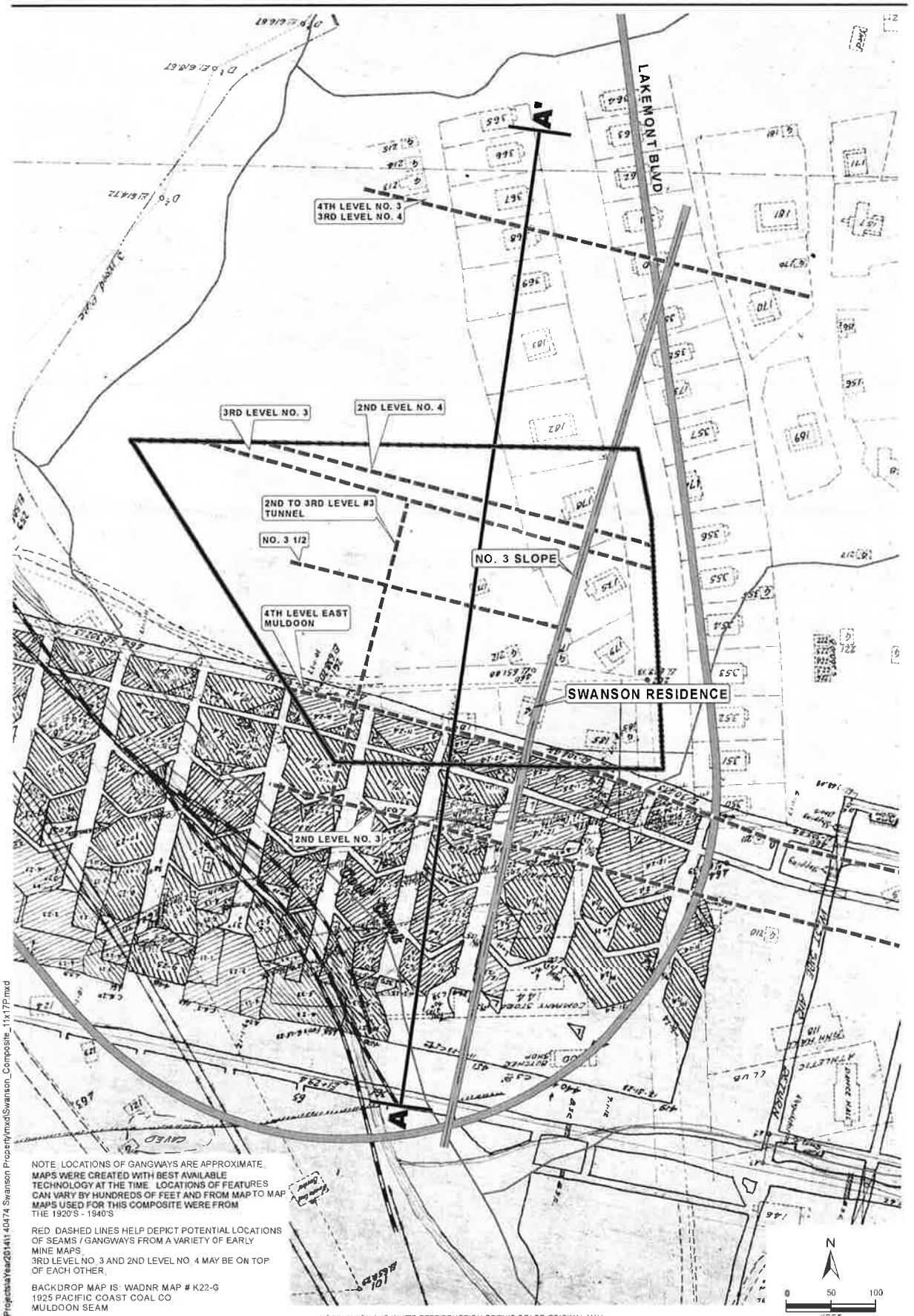
SWANSON PROPERTY
BELLEVUE, WASHINGTON

FIGURE 1

DATE 10/14

PROJ. NO. KE140474A

DSD - 000618



NOTE: LOCATIONS OF GANGWAYS ARE APPROXIMATE. MAPS WERE CREATED WITH BEST AVAILABLE TECHNOLOGY AT THE TIME. LOCATIONS OF FEATURES CAN VARY BY HUNDREDS OF FEET AND FROM MAP TO MAP. MAPS USED FOR THIS COMPOSITE WERE FROM THE 1920'S - 1940'S.

RED DASHED LINES HELP DEPICT POTENTIAL LOCATIONS OF SEAMS / GANGWAYS FROM A VARIETY OF EARLY MINE MAPS. 3RD LEVEL NO. 3 AND 2ND LEVEL NO. 4 MAY BE ON TOP OF EACH OTHER.

BACKDROP MAP IS: WADNR MAP # K22-G 1925 PACIFIC COAST COAL CO MULDOON SEAM

REFERENCE: WADNR COAL MINE MAP COLLECTION, KING CO

NOTE: BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION.

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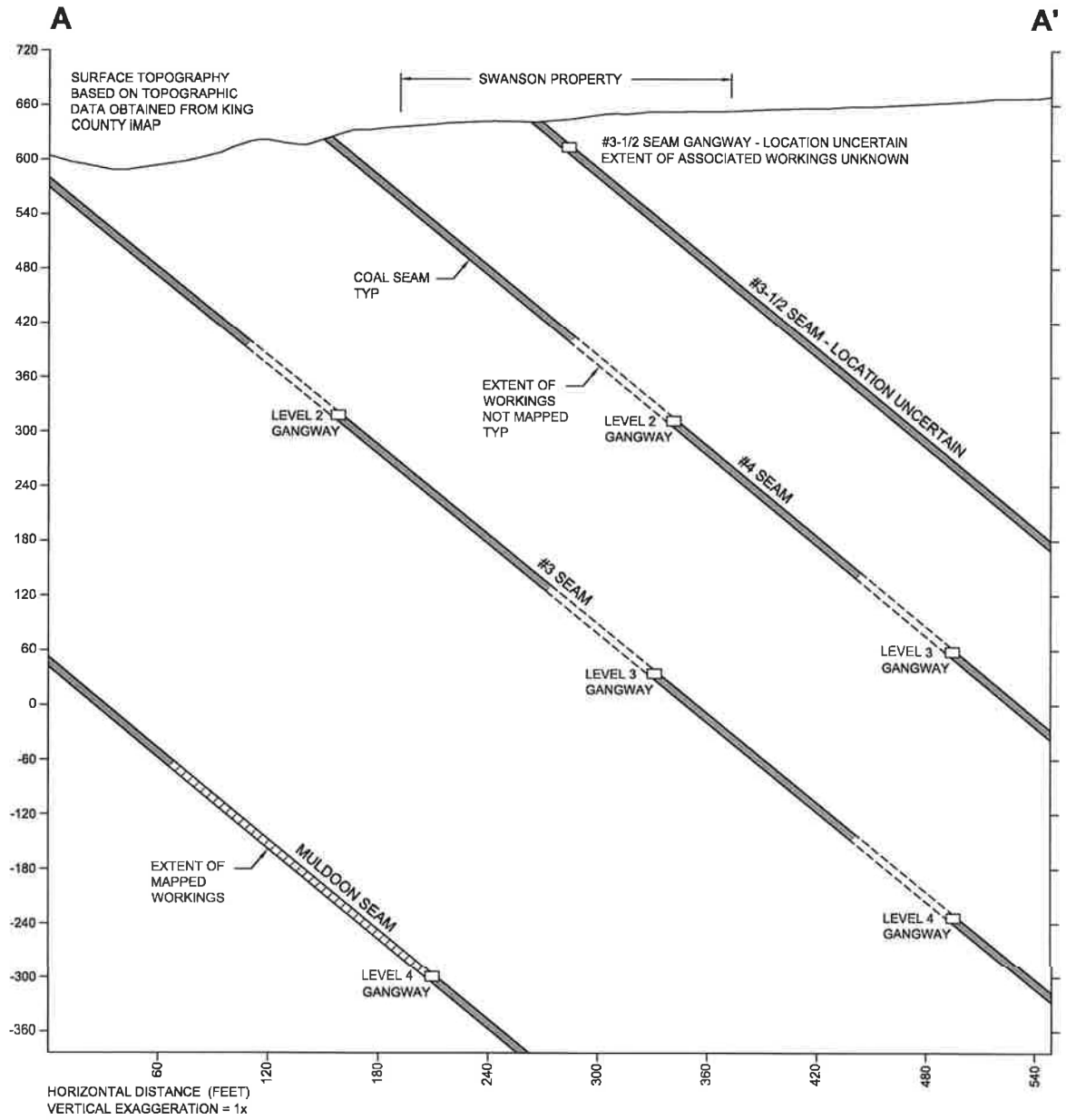
COMPOSITE UNDERGROUND MINE WORKING MAP

SWANSON PROPERTY
BELLEVUE, WASHINGTON

FIGURE 2
DATE 10/14
PROJ. NO. KE140474A



140474 Swanson Prop \ 140575 Geo Secta.dwg LAYOUT: Section A-A

associated earth sciences incorporated

MINE WORKINGS CROSS-SECTION
SWANSON PROPERTY
BELLEVEU, WASHINGTON

FIGURE 3
DATE 10/14
PROJECT NO. KE140474A

DSD - 000620

APPENDIX A

Well Log

DSD - 000621

Fi... and First Copy with
Del... Ecology
Seco... — Owner's Copy
Third... — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON DEPT. OF ECOLOGY

Application No.

Permit No.

(1) OWNER: Name ERNEST SWANSON Address 7331 LAKEMONT Blvd SE ISS. WN OLYMPIA, WA. 98506

(2) LOCATION OF WELL: County KING SE ¼ Sec 26 T 24 N., R. 05 W.M

Bearing and distance from section or subdivision corner

APR 21 9 01 AM '83

(3) PROPOSED USE: Domestic [X] Industrial [ ] Municipal [ ] Irrigation [ ] Test Well [ ] Other [ ]

(4) TYPE OF WORK: Owner's number of well (if more than one)

New well [X] Method: Dug [ ] Bored [ ]
Deepened [ ] Cable [X] Driven [ ]
Reconditioned [ ] Rotary [ ] Jetted [ ]

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 113 ft. Depth of completed well 113 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from +1 ft. to 54 ft.
Threaded [ ] 4" Diam. from 33 ft. to 113 ft.
Welded [X] " Diam. from ft. to ft.

Perforations: Yes [X] No [ ]
Type of perforator used Saw Cut
SIZE of perforations 18 in. by 6 in.
perforations from 108 ft. to 113 ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes [ ] No [X]
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes [ ] No [X] Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes [X] No [ ] To what depth? 18 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes [ ] No [X]
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name N/A
Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level ft.
Static level 16 ft below top of well Date 4-5-83
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes [ ] No [X] If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Baller test 9 gal./min. with 82 ft. drawdown after 1½ hrs.
Artesian flow N/A g.p.m. Date 4-5-83
Temperature of water Was a chemical analysis made? Yes [ ] No [X]

(10) WELL LOG:

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
BROWN CLAY	0	4
BROWN HARD PAN	4	11
GRAY HARD PAN	11	41
PEAT	41	43
GRAY HARD PAN	43	51
BROWN moderately DENSE SAND STONE	51	87
Light GRAY moderately Dense Sand Stone	87	96
Light BROWN moderately Dense Sand Stone	96	113
* WATER ENTERING HOLE SOMEWHERE Between 110'+113'		

Work started 3-31 19 83 Completed 4-7 19 83

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME BURAS DRILLING COMPANY (Person, firm, or corporation) (Type or print)

Address 1519 DAYTON ST. N.E. RENTON

[Signed] Jim Buras (Well Driller)

License No. 0690 Date 4-18 19 83

(USE ADDITIONAL SHEETS IF NECESSARY)

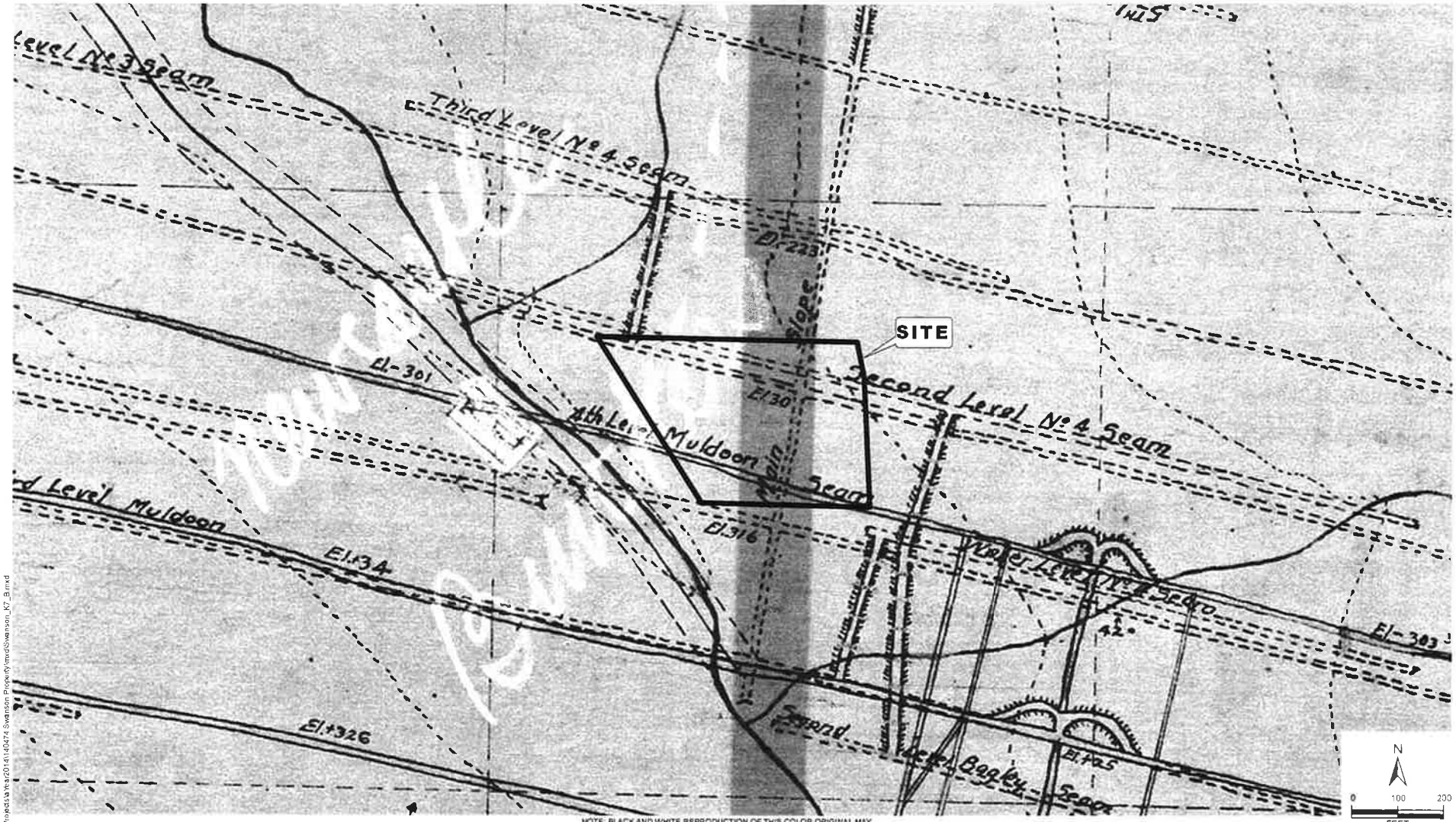
ECY 050-1 20

DSD - 000622

APPENDIX B

Selected Coal Mine Workings Maps

DSD - 000623



REFERENCE: WSDNR COAL MINE MAP COLLECTION

NOTE: BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION.

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associated earth sciences incorporated

K7-B 1923 PACIFIC COAST COAL CO. NEWCASTLE - ISSQAUAH MINE MAP

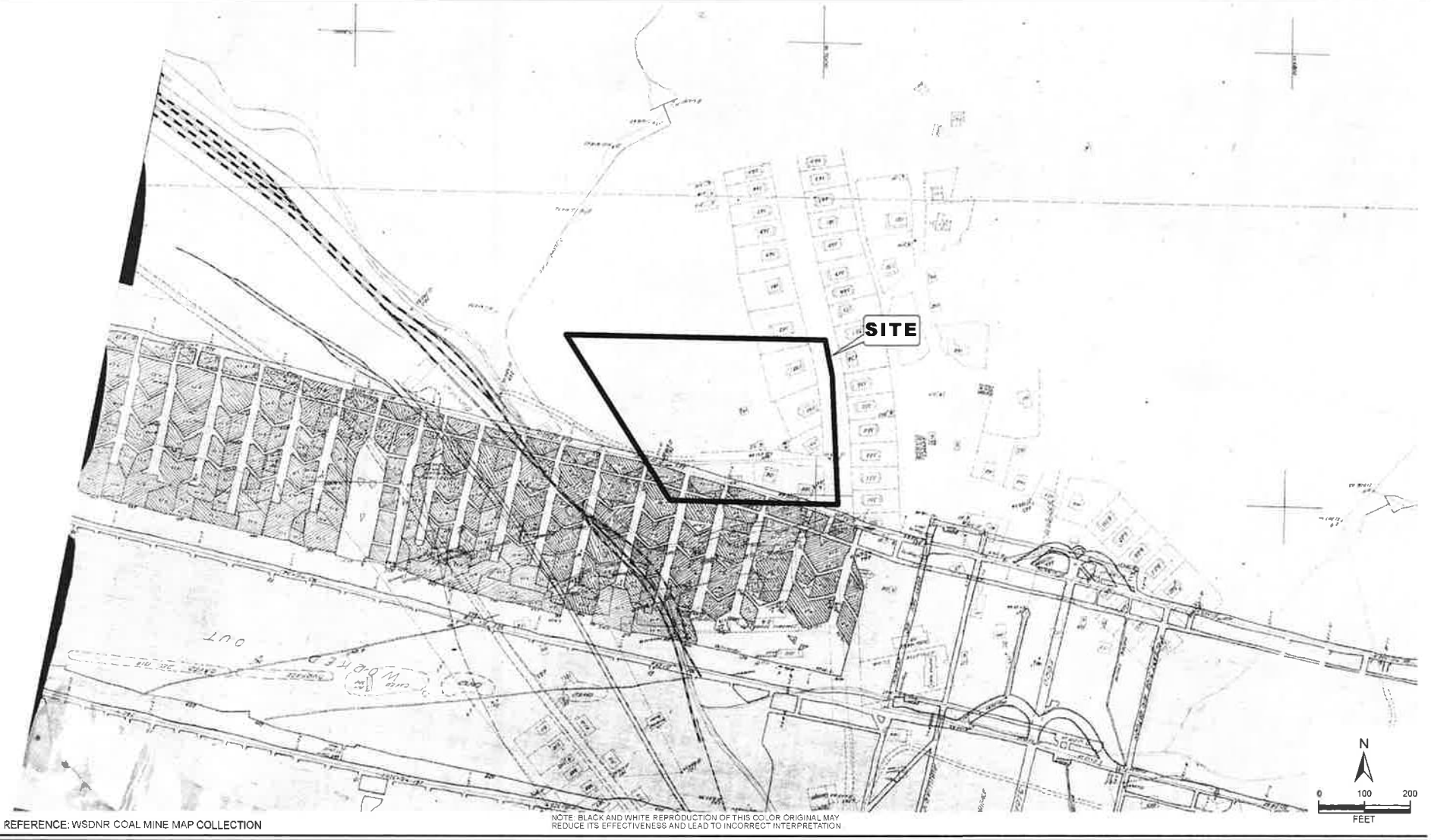
SWANSON PROPERTY
BELLEVUE, WASHINGTON

FIGURE APPENDIX B-1

DATE 10/14

PROJ. NO. KE140474A

DSD - 000624



REFERENCE: WSDNR COAL MINE MAP COLLECTION

NOTE: BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION

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K22-G 1925 PACIFIC COAST COAL CO. MULDOON SEAM MAP

SWANSON PROPERTY
BELLEVUE, WASHINGTON

FIGURE APPENDIX B-2
DATE 10/14
PROJ. NO. KE140474A

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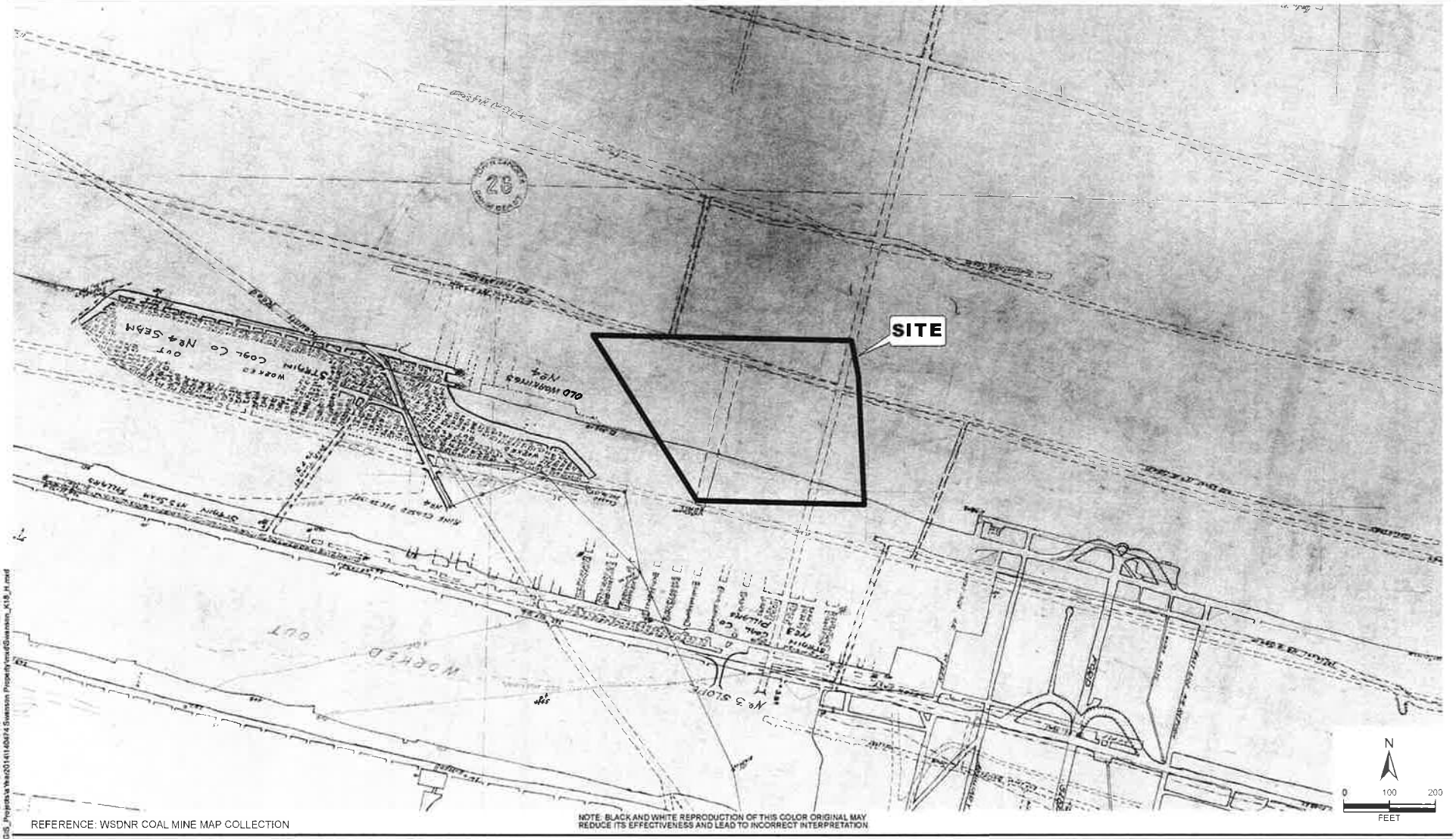

REFERENCE: WSDNR COAL MINE MAP COLLECTION

NOTE: BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION

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K18-H 1942 NEWCASTLE MINE - STRAIN COAL CO. MAP

SWANSON PROPERTY
BELLEVUE, WASHINGTON

FIGURE APPENDIX B-3

DATE 10/14

PROJ. NO. KE140474A

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DSD - 000626

Report
Geological Engineering Services
Preliminary Coal Mine Hazard Assessment
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

December 1, 2014
ICE File No. 1120-001

Prepared For:
David G. Jentry

Prepared By:
Icicle Creek Engineers, Inc.

DSD - 000627

ICICLE CREEK
ENGINEERS
Geotechnical, Geologic and Environmental Services

December 1, 2014

David G. Jentry
P.O. Box 3128
Kodiak, Alaska 99615

Report
Geological Engineering Services
Preliminary Coal Mine Hazard Assessment
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington
ICE File No. 1120-001

1.0 INTRODUCTION

This report summarizes Icicle Creek Engineers' (ICE's) preliminary coal mine hazard assessment for two adjacent properties (King County Parcel Nos. 2624059022 and 2624059019) located at 7219 and 7331 Lakemont Boulevard SE in Bellevue, Washington (referred to as the Jentry property and the Swanson property in this report). The properties are shown relative to nearby features on the Vicinity Map and Site Plan, Figures 1 and 2, respectively.

Our services were completed in general accordance with our Confirming Agreement dated November 6, 2014 and were authorized in writing by David G. Jentry, the owner of the Jentry property, on November 11, 2014.

2.0 BACKGROUND INFORMATION

According to King County tax records, the Jentry property is about 6.5 acres and the Swanson property is directly south of the Jentry property and occupies about 3.9 acres. We understand that development schemes are being considered for both properties.

According to the City of Bellevue Critical Areas mapping and as defined by Bellevue Land Use Code (LUC) Chapter 20.25H.120, both properties are within a "Coal Mine Hazard Area." For this reason, a coal mine "hazard assessment" is required to evaluate the potential for future regional trough (ground) subsidence or sinkhole development due to collapse of abandoned coal mines and to provide design measures, or recommend areas within the properties to avoid for development, as appropriate, to mitigate for potential ground subsidence.

3.0 SCOPE OF SERVICES

The purpose of our services was to complete a preliminary coal mine hazard assessment consistent with Bellevue LUC Part 20.25H.130 (Coal Mine Hazard Area). Specifically, ICE's services included the following:

DSD - 000628

- Review available historic coal mine records from the City of Bellevue, Washington State Department of Natural Resources (DNR), US Geological Survey (USGS) and our in-house technical library to evaluate the location of the mined-out areas, together with the depth of mining, thickness of zone mined and mining methods.
- Mine mapping included superimposing the identified mines onto a property topographic base map (the base map for the property was be obtained through the King County iMAP Parcel Viewer) and a 2013 aerial photograph of the area from Google Earth. The topographic map with property lines (parcels) as was used to develop geologic a cross-section showing the location and depth of mined-out areas.
- Surface reconnaissance mapping to identify mine openings such as adits or air shafts, together with stockpiles of mine rock fill or other areas in which the original ground surface has been altered.
- Classify the mine hazards as either a Coal Mine Subsidence (CMS) Zone 1 or a CMS Zone 2.
- Provide an evaluation of regional trough subsidence.
- Develop preliminary mitigation(s) for building design and construction, as appropriate.
- Provide recommendations for additional study, including "ground proofing" or subsurface exploration.

4.0 CITY OF BELLEVUE COAL MINE HAZARD REGULATION

ICE's analysis of coal mine hazards at the Jentry and Swanson properties was completed in general accordance with the City of Bellevue LUC Part 20.25H.130 (Coal Mine Hazard Area). Specific mine hazard categories are summarized as follows:

This preliminary coal mine hazard assessment was completed consistent with Bellevue LUC Part 20.25H.130 (Coal Mine Hazard Area).

A CMS Zone 1 is described by Bellevue LUC as areas that are affected by Potential Trough Subsidence where ground strain could exceed 0.003 inches per inch, and/or where ground tilt may exceed 1V:350H (horizontal to vertical) (Bellevue LUC Part 20.25H.130.C.1).

A CMS Zone 2 is described by Bellevue LUC as *Areas directly underlain by coal mine workings at a depth of 200 feet or less, documented prospects and areas within 100 feet of such areas* (Bellevue LUC Part 20.25H.130.C.2).

Other regulatory issues include Areas of Potential Undocumented Workings where there is the potential for undocumented mine workings (Bellevue LUC Part 10.25H.130.C.3). According to Bellevue LUC Part 20.25H.130.C.3, the potential for undocumented workings must be evaluated for any property within 100 feet of the subcrop lines of the Jones and Primrose seams between and beyond known coal mine workings, except for construction of attached additions to, or miscellaneous structures accessory to and within 50 feet of, existing residential buildings. The Jentry and Swanson properties are more than 100 feet from the subcrop of the Jones and Primrose coal seams therefore an evaluation of undocumented workings is not required other than what is done as a standard of engineering practice in this area (site review and field reconnaissance).

A CMS Zone can be changed (CMS Zone 2 to CMS Zone 1) or removed provided *that it is demonstrated by site-specific evaluation of trough subsidence that magnitudes of potential surface strains and tilts at the property are less than the levels specified* (Bellevue LUC Part 20.25H.130.C.4); such a change requires

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acceptance by the Director of the Bellevue Department of Planning and Community Development (Bellevue LUC Part 20.25H.130.C.4).

Other considerations include the possible presence of mine rock fill. Mine rock fill includes stockpiles of mining by-products consisting of coal fines, cinders, and broken rock.

5.0 INFORMATION SOURCES

Past mining in the project area was evaluated by reviewing information presented in the following list.

- Bellevue, June 23, 2006, *Ordinance No. 5680* and *Land Use Code Part 20.25H.130*.
- Bellevue, http://www.nwmaps.net/mapsearch.htm, interactive map showing coal mine hazards within Bellevue.
- Bellevue, July 8, 2009, *Critical Areas by Storm Drainage Basin, Coal Creek Basin*.
- Dunrud, C. Richard, 1990, unpublished compiled mine map of the Newcastle area showing the extent of mined-out areas and location of surface openings.
- Skelly and Loy, 1985, *Abandoned Coal Mine Survey, Coal Creek, King County, Washington*, prepared for US Department of Interior, Office of Surface Mining, Denver, Colorado, 66 pages.
- US Geological Survey (USGS) , Yount, J.C. et al., 1991, *Bedrock Geologic Map of the Seattle 30' by 60' Quadrangle, Washington*, Open-File Report OF-91-147.

6.0 ABANDONED COAL MINE DESCRIPTION

The Jentry and Swanson properties are located within the Newcastle mining district that was active from about 1879 to about 1930, with intermittent activity from 1930 to about 1960. Based on our review of the historic mine maps, three abandoned underground coal mines including the Newcastle Mines (No. 4 Mine/Coal Seam and the No. 3 Mine/Coal Seam) and the Ford Slope (Muldoon Mine/Coal Seam) underlie both properties as shown on the Coal Mine Location Map, Figure 3. All of these mines were large-scale operations. The coal was extracted using "room-and-pillar" mining methods on seams dipping about 40 degrees below the horizontal to the north-northeast. The orientation of the abandoned underground coal mines relative to the ground surface is shown on the Geologic Cross-Section A-A', Figure 4.

The depth to the individual mines below each of the properties is shown on the following table:

Mine	Jentry Property Depth to Mine Workings (feet)	Swanson Property Depth to Mine Workings (feet)
No. 4 Mine	350 to 685	<20 to 350
No. 3 Mine	630 to 960	300 to 630
Ford Slope (Muldoon Coal Seam)	not mined (coal seam is intact)	>930

A tunnel (main slope) that accessed the No. 4 Mine underlies the south end of the Swanson property at approximately 0 feet at the collapsed mine entry) to about 140 feet below the ground surface. The entrance to the No. 4 Mine main slope, as shown on Figure 3, can be observed from the Coal Creek Trail about 20 feet south of the Swanson property and is partially filled in. As shown on Figure 3, the No. 4 Coal Seam is unmined along strike adjacent to the access tunnel underlying the south end of the Swanson property. A second access tunnel is located about 175 feet south of the southeast corner of the Swanson property as shown on Figure 3. This access tunnel is now buried under Lakemont

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Boulevard SE and has been "opened" at various times by a sinkhole (that a car fell into) and during the installation of a main gas line in the early 1990s.

The thickness of the No. 4 Coal Seam was reported to be approximately 6 feet (Skelly and Loy, 1985). The coal seam was worked on multiple levels that were partially to completely worked out using room-and-pillar mining methods (coal extraction exceeding 80 percent). The thickness of the No. 3 Coal Seam was approximately 5 to 10 feet (Skelly and Loy, 1985). The coal seam was worked similar to the No. 3 Coal Seam with coal extraction exceeding 90 percent. The thickness of the Muldoon Coal Seam was approximately 6 feet (Skelly and Loy, 1985) and was extensively mined with extraction ratios exceeding 90 percent.

7.0 GEOLOGIC SETTING

According to regional geologic mapping by the USGS (1991), the Jentry and Swanson properties are underlain by Renton formation bedrock. Renton formation bedrock is generally described as Upper Eocene-age sandstone, interbedded with siltstone, coal and claystone. No soil or bedrock outcrops were observed within the properties. We observed a 20-foot thick exposure of Glacial Till soil at the No. 4 Mine access tunnel (described above). Glacial Till consists of a mixture of silt, sand, gravel, cobbles and boulders in a dense condition as a result of being overridden by up to 3,000 feet of glacial ice about 14,000 years ago. It is likely that a veneer of Glacial Till (about 20-feet thick) overlies the Renton formation bedrock within the vicinity of the properties though is eroded (absent) within the floor of Coal Creek that parallels the west boundary of the Swanson property.

8.0 SITE CONDITIONS

8.1 SURFACE CONDITIONS

On November 14, 2014, Jeff Schwartz of ICE completed a surface reconnaissance of the Jentry and Swanson properties to observe/evaluate features such as mine openings or irregular topographic features associated with subsidence caused from collapsed underground coal mine workings. The properties are roughly rectangular adjacent properties, with the Jentry property bordering and directly north of the Swanson property. The properties are bordered to the north, south and west by the City of Bellevue Parks Coal Creek Natural Area (CCNA) and to the east by Lakemont Boulevard SE and similar residential development.

Coal Creek borders the Swanson property to the west within the CCNA. A southwest-flowing tributary stream to Coal Creek crosses through the east-central portion of the Jentry property. A west-flowing tributary stream to Coal Creek borders the Swanson property to the south. Coal Creek and the associated tributaries are shown on Figure 2. The ground surface across the majority of the Jentry and Swanson properties gently slopes down to the west to southwest at up to a 10 percent grade from about Elevation 650 feet along the east end of the properties. Steeper slopes (about 70 percent grade on average) were observed along the valley slopes of the incised valleys formed by Coal Creek and its tributaries.

The east portion of the Jentry property and the majority of the Swanson property are used as pasture. The central portion of the Jentry property is forested, with recent clearing. The west portion of the Jentry property (valley slopes of the tributary stream) is forested with mature second-growth evergreen and deciduous trees. We observed a number of structures on the Swanson property, including a single-story wood framed house built in 1918 (according to King County Department of Assessments), a

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detached garage, barn and two outbuildings. We observed three structures on the Jentry property, a single-story brick house with a daylight basement built in 1964 (according to King County Department of Assessments), and a single-story wood-framed house and an outbuilding. The foundations consisted of continuous spread footings, with concrete stemwalls exposed at ground level and post and pillars. We did not observe any significant evidence for settlement of the structures, including cracks in the stemwalls or brickwork, sloped floors and roofs or uneven door and window frames.

We did not observe topographic depressions or other ground surface irregularities within or adjacent to the Jentry or Swanson properties that may be associated with past underground mining activities, except for the entrance to the No. 4 Mine main slope south of the Swanson property. We did not observe evidence of coal fines or fragments on the properties that may suggest disposal of waste coal from historical mining. Mine waste (coal fines) was observed along the Coal Creek Trail west of the Swanson property. No springs or ground water seepage were observed on either of the properties at the time of our site visit.

9.0 ANALYSIS OF COAL MINE HAZARDS

9.1 CMS ZONE 1 AND REGIONAL TROUGH SUBSIDENCE ANALYSIS

CMS Zone 1 areas are areas that are potentially affected by regional trough subsidence which is not a public safety concern, but could cause damage to structures. In an area potentially affected by regional trough subsidence, the ground may subside in a manner that may cause ground tilt and ground strain. Based on analytical methods, the area would be within a CMS Zone 1 if the calculated ground tilt (in feet) exceeds 1V:350H (vertical to horizontal) or ground strain exceeds 0.003 inches per inch (in/in) (Bellevue LUC 20.25H.130 C.1).

We estimated the potential for regional trough subsidence from the combined effects of the mine workings of the No. 4, No. 3 and Muldoon Coal Seams underlying the properties using the procedures described Bellevue LUC 20.25H.130 H). This analysis was completed using an in-house computer application developed using the British National Coal Board, Subsidence Engineer's Handbook methodologies.

Our analysis assumes a scenario in which the mined-out zones are partially collapsed and use a Remaining Equivalent Mined Height (REMH) based on extensive drilling into nearby abandoned coal mines. For our analysis we used REMH values equivalent to 5 percent of the working height of the No. 4, No. 3 and Muldoon Coal Seams.

Our analysis suggests that the total vertical regional trough subsidence from the collapse of the coal mine workings of the No. 4, No. 3 and Muldoon Coal Seams under the properties is generally uniform and ranges from about 6½ to 8 inches across both properties, with ground tilt up to about 1:500 (damage threshold is 1:350) and a ground strain of up to about 0.0005 inches per inch (in/in - damage threshold is 0.003 in/in). The magnitude of ground tilt and ground strain are less than the defined thresholds for damage, therefore a CMS Zone 1 does not exist within the Jentry or Swanson properties.

9.2 CMS ZONE 2

CMS Zone 2 areas are where coal mine workings are less than 200 feet below the ground surface, documented prospects and areas within 100 feet of such areas (Bellevue LUC 20.25H.130 C.2). At this time, CMS Zone 2 designation is appropriate for the south portion of the Swanson property as shown on

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the Coal Mine Hazards Map, Figure 5, as it is underlain by shallow coal mine workings and the access tunnel of the No. 4 Mine that are less than 200 feet below the ground surface.

When defining the limits of the CMS Zone 2, we understand that the Bellevue LUC Part 20.25H.130.C.2 requires a 100-foot "buffer" from the mine workings that are less than 200-feet deep. Based on our confidence in the accuracy of mine mapping in the area from several nearby ground proofing (subsurface exploration) projects, we recommend this "buffer" be reduced to 50 feet along the updip limit of the mine workings (including the access tunnel) for the No. 4 Mine.

In western Washington, sinkhole development is known to occur typically in areas underlain by abandoned coal mine working less than 100-feet deep. ICE has observed and evaluated nearly 1,000 sinkholes in Washington; only three sinkholes occurred where the mine workings were over 100 feet deep and were in unique geologic conditions that are not present at the Jentry and Swanson properties. For this reason, we recommend that this buffer be reduced to 0 feet along the downdip limit of the mine workings (where the No. 4 Mine is about 200-feet deep).

9.3 UNDOCUMENTED COAL MINE WORKINGS

The Jentry and Swanson properties do not lie within 100 feet of the subcrop lines of the Jones and Primrose seams between and beyond known coal mine workings (Bellevue LUC Part 20.25H.130.C). It is not likely that other undocumented mining-related prospects and surface features exist within the properties based on our review of available information and our site observations. However, if mining-related features such as excavated bedrock, coal spoils or a prospect opening are discovered during site preparation, ICE should be contacted immediately for further evaluation.

9.4 MINE ROCK FILL

Because the Jentry and Swanson properties are centrally-located within a historic mine area, it is possible that mine rock fill may occur at or near the surface of the properties. However, our site observations and a review of the historic 1936 aerial photograph (King County iMAP) showing the properties to be a mix of open-space, forest and cleared areas, do not suggest mine rock fill within the properties.

10.0 CONCLUSIONS

Based on our review of available information, site observations and preliminary analysis of coal mine hazards at the properties, we have developed the following conclusions:

- Based on our review of the historic mine maps, the No. 4 Mine, No. 3 Mine and the Ford Slope Muldoon Mine underlie all or portions of the Jentry and Swanson properties as shown on Figures 3 and 4.
- The south portion of the Swanson property lies within a CMS Zone 2, where the Swanson property is underlain by the access tunnel (Main Slope) and mine workings of the No. 4 Mine at a depth less than 200 feet as shown on Figure 5. The CMS Zone 2 includes a 50-foot wide buffer along the surface projection of the updip mapped limit of the coal mine workings and the mapped limits of the access tunnel. No buffer is included on the downdip side because of extensive information on the location of the mine and expected performance with regard to sinkhole development of workings at this depth.

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- No evidence for the presence of undocumented mining and mine rock fill was observed within the properties.

11.0 MITIGATION

Based on our information review, historic mine map review and site observations, no mitigations are recommended within the Jentry and Swanson properties outside of the CMS Zone 2. However, we recommend that test pits dug with a track-mounted excavator be completed in this area to evaluate for mine rock fill. Mine rock fill typically has a high coal content and is not adequate for foundation support and may emit methane gas.

If development is planned within the CMS Zone 2 (south portion of the Swanson property), Bellevue LUC Part 20.25H.130.D.3 requires a site-specific evaluation of potential for sinkhole development. Ground proofing (subsurface exploration by drilling) can be completed that may demonstrate that there is no risk of sinkhole development due to the absence or fully-collapsed condition of mine workings. Alternatively, drilling may document sinkhole risks, and the applicant must then design a mitigation program to eliminate all such risks. By ground proofing, the CMS Zone 2 area within the Swanson property could be further evaluated and possibly "declassified" if the explorations demonstrate that the abandoned No. 4 Mine access tunnel and coal mine workings are substantially collapsed.

As previously described, the properties are located in an area of extensive historical mining. It is possible that undocumented mining (usually a "prospector's tunnel"), an abandoned dry well, septic tank or dug water well, and/or mine rock fill, may be encountered. We recommend that ICE be contacted immediately if a shallow void or evidence of mine rock fill is encountered during site development.

12.0 USE OF THIS REPORT

We have prepared this report for use by David G. Jentry. The data and report should be provided to prospective contractors for their bidding or estimating purposes, but our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

We should be given the opportunity to review our conclusions and recommendations when the preliminary design plans are available to provide written modification or verification of these recommendations. Our firm should be retained to review the final design drawings and specifications prior to final submittal to see that our recommendations have been interpreted and implemented as intended.

There are possible variations in subsurface conditions at the subject properties. A contingency for unanticipated conditions should be included in the project budget and schedule. We recommend that our firm be retained to provide sufficient observation, testing and consultation during construction to evaluate whether the conditions encountered are consistent with our expectations and to provide recommendations for design changes should the conditions encountered during the work differ from those anticipated.

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

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We trust this report meets your present needs. Please call if you have any questions concerning this preliminary coal mine hazard assessment.

Yours very truly,
Icicle Creek Engineers, Inc.

Kathy S. Killman, LEG
Principal Engineering Geologist

Brian R. Beaman, PE, LEG, LHG
Principal Engineer/Geologist

Document ID: 1120001.REP

Submitted via email (PDF) and surface mail (two copies)

Attachments: Vicinity Map – Figure 1
Site Plan – Figure 2
Coal Mine Location Map – Figure 3
Geologic Cross-Section A-A' – Figure 4
Coal Mine Hazards Map – Figure 5

cc: Jon Nelson, Land Development Advisors, LLC (email)

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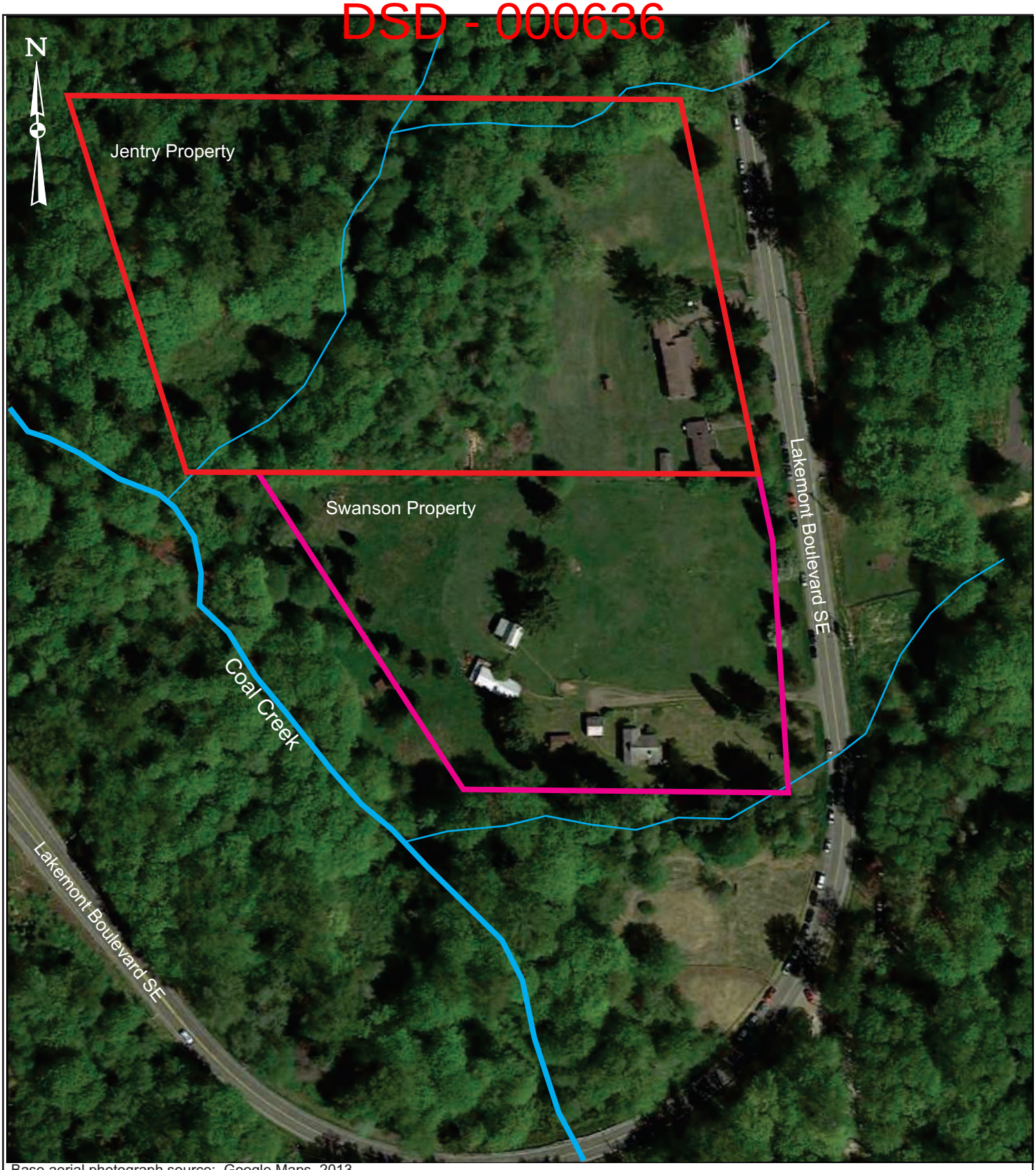
VICINITY MAP

King County Parcel Nos. 2624059022 and 2624059019

ICICLE CREEK ENGINEERS
29335 NE 20th Street
Carnation, Washington 98014
(425) 333-0093

SCALE: As Shown	ICE FILE NUMBER
DESIGNED: ---	1120-001
DRAWN: JMS	Figure
CHECKED: BRB	1
DATE: 12/1/14	

DSD - 000636



Base aerial photograph source: Google Maps, 2013

0 150 300
Approximate Scale in Feet

SITE PLAN

King County Parcel Nos. 2624059022 and 2624059019

ICICLECREEK ENGINEERS
29335 NE 20th Street
Carnation, Washington 98014
(425) 333-0093

SCALE: As Shown	ICE FILE NO.
DESIGNED: ---	1120-001
DRAWN: JMS	Figure
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DATE: 12/1/14	

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Base aerial photograph source: Google Maps, 2013

0 150 300
Approximate Scale in Feet

EXPLANATION

- No. 4 Mine
- No. 3 Mine
- Muldoon Mine
- Abandoned Mine Opening (caved - filled in)
- A — A' Geologic Cross-Section Location (see Figure 4)

Note: The location of abandoned underground coal mines are based on unpublished mine maps prepared by C. Richard Dunrud (USGS)

COAL MINE LOCATION MAP

King County Parcel Nos. 2624059022 and 2624059019

ICICLE CREEK ENGINEERS
29335 NE 20th Street
Carnation, Washington 98014
(425) 333-0093

SCALE: As Shown	ICE FILE NO.
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DRAWN: JMS	Figure
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DATE: 12/1/14	

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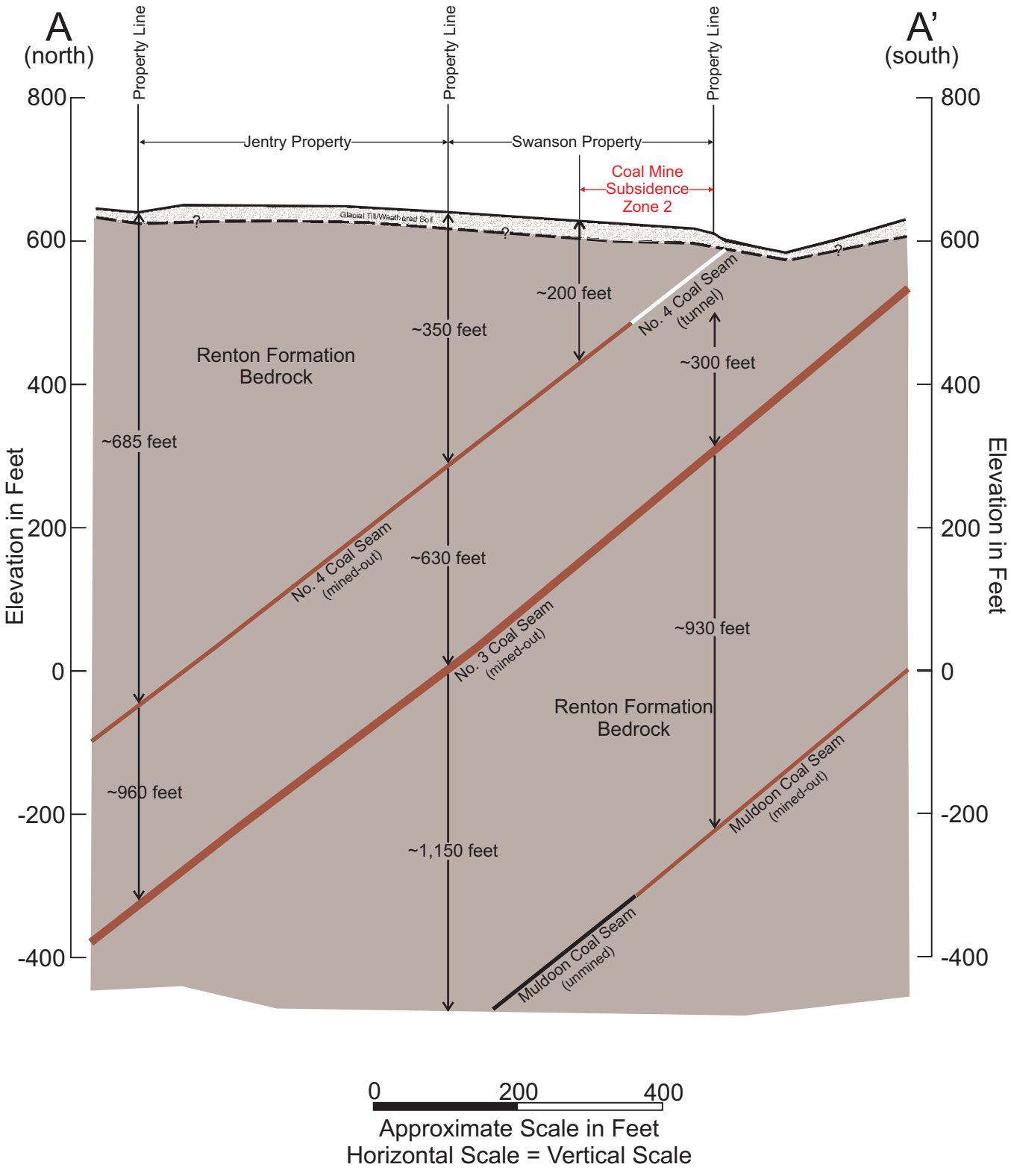

GEOLOGIC CROSS-SECTION A-A'

King County Parcel Nos. 2624059022 and 2624059019

ICICLE CREEK ENGINEERS
29335 NE 20th Street
Carnation, Washington 98014
(425) 333-0093

SCALE: As Shown	ICE FILE NO.
DESIGNED: ---	1120-001
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DATE: 12/1/14	

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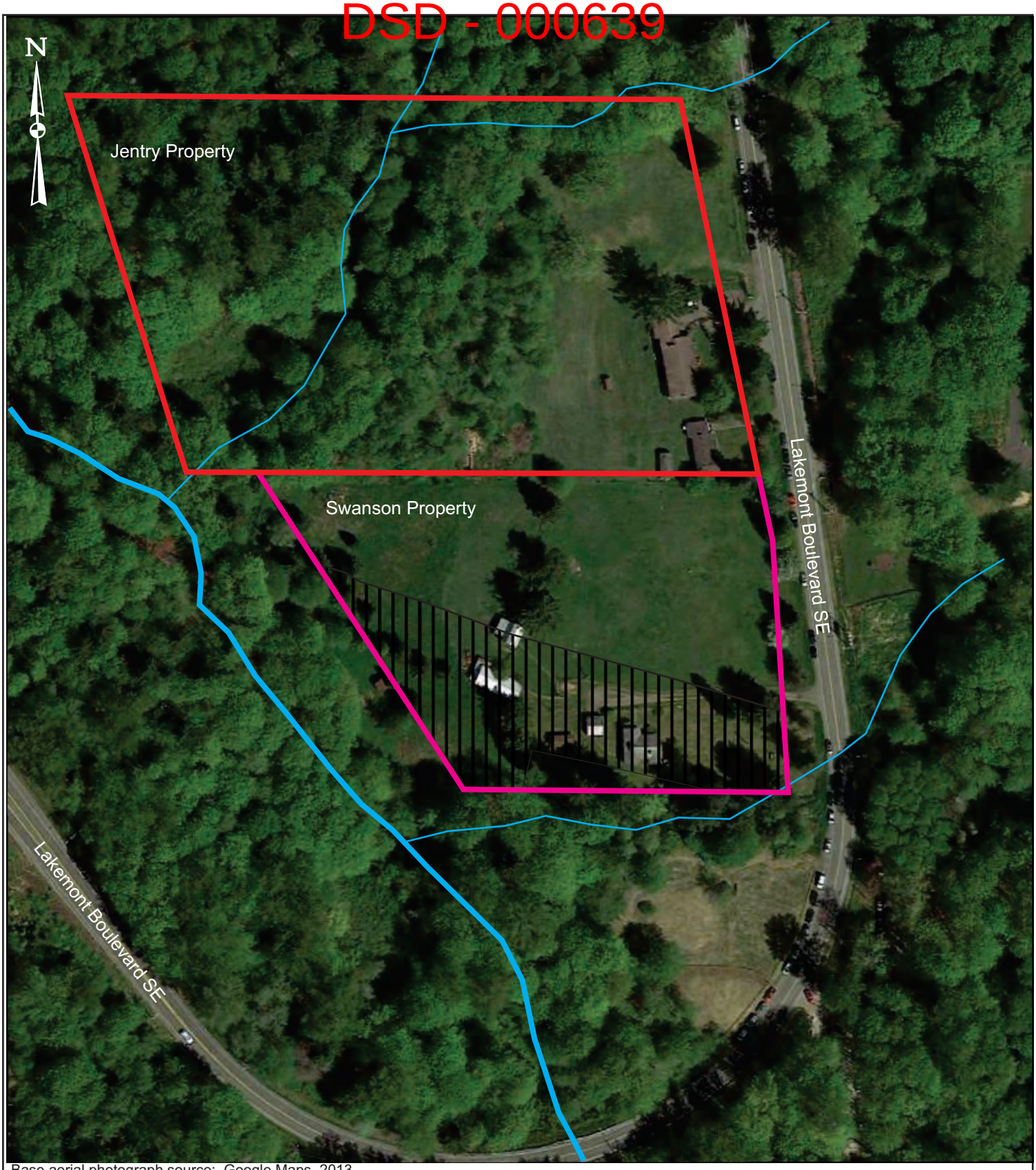

Base aerial photograph source: Google Maps, 2013

0 150 300
Approximate Scale in Feet

EXPLANATION

Coal Mine Subsidence (CMS) Zone 2
(areas underlain by coal mine workings at a depth of 200 feet or less. Includes 50-foot wide buffer - see report text).

Note: Coal Mine Hazard mapping based on definitions provided in the Bellevue Land Use Code Chapter 20.25H.130.

COAL MINE HAZARDS MAP

King County Parcel Nos. 2624059022 and 2624059019

ICICLE CREEK ENGINEERS
29335 NE 20th Street
Carnation, Washington 98014
(425) 333-0093

SCALE: As Shown	ICE FILE NO.
DESIGNED: ---	1120-001
DRAWN: JMS	Figure
CHECKED: BRB	5
DATE: 12/1/14	

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Report
Geological Engineering Services
Proposed Property Development
Coal Mine Hazard Assessment and
Ground Proofing Program
Swanson Property
King County Parcel No. 262405-9019
7331 Lakemont Boulevard SE
Bellevue, Washington

August 2, 2016
ICE File No. 1180-001

Prepared For:
Isola Homes

Prepared By:
Icicle Creek Engineers, Inc.

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ICICLECREEK ENGINEERS

August 2, 2016

Alex Mason, Vice President of Entitlement
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1518 1st Avenue South, Suite 301
Seattle, Washington 98134

Report
Geological Engineering Services
Proposed Property Development
Coal Mine Hazard Assessment and Ground Proofing Program
Swanson Property
King County Parcel No. 262405-9019
7331 Lakemont Boulevard SE
Bellevue, Washington
ICE File No. 1180-001

1.0 INTRODUCTION

At the request of Alex Mason of Isola Homes, Icicle Creek Engineers (ICE) has prepared this report of our geological engineering services for a coal mine hazard assessment and ground proofing program of the Swanson Property located at 7331 Lakemont Boulevard SE (King County Parcel No. 262405-9019) in Bellevue, Washington. The Swanson Property is shown relative to nearby physical features on the Vicinity Map, Figure 1. The general layout of the Swanson Property is shown on the Site Plan, Figure 2.

Our services were completed in general accordance with our Scope of Services and Fee Estimate dated January 13, 2016 and were authorized in writing by Ron Froton of Isola Homes on January 26, 2016.

2.0 BACKGROUND INFORMATION

ICE previously completed a preliminary coal mine hazard evaluation of the Swanson Property and the adjoining property to the north (referred to as the "Jentry Property" as shown on Figure 2); the results are presented in ICE's report dated December 1, 2014 that was prepared for David Jentry, owner of the Jentry Property. We understand that Isola Homes may develop the Swanson and Jentry properties for residential use including paved access, building lots and stormwater detention.

The City of Bellevue has regionally mapped "Coal Mine Hazard Areas" across most of the Swanson Property (City of Bellevue, Critical Areas Maps, Human Created Hazards). The regulatory aspects of Coal Mine Hazard Areas are described in detail in Section 4.0 of this report. ICE concluded in our December 2014 report that the south portion of the Swanson Property is within a Coal Mine Subsidence (CMS) Zone 2 area and recommended subsurface exploration to better evaluate the hazards related to abandoned underground coal mines (subject to this report).

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3.0 SCOPE OF SERVICES

The purpose of our services was to complete a coal mine hazard assessment and ground proofing program targeting the potentially developable (some area is in wetland and is excluded) area at the Swanson Property. Specifically, our services included the following:

- Review ICE's 2014 report and readily available historic coal mine records from the Washington State Department of Natural Resources.
- Complete a site visit to perform site reconnaissance and to stake test borings for the purpose of the utility locate.
- Drill 12 test borings in the south part of the Swanson Property where the abandoned underground coal mine/seam is less than 100-feet deep using track-mounted drilling equipment (referred to as "air-track") owned and operated by McCallum Rock Drilling.
- Drill four test borings in the south part of the Swanson Property where the abandoned underground coal mine/seam are more than 100-feet deep using track-mounted drilling equipment (referred to as "mud-rotary") owned and operated by Gregory Drilling.
- Reclassify all or part of CMS Zone 2, if appropriate, consistent the City of Bellevue LUC Part 20.25H.130 C.4.
- Develop mitigation related to coal mine hazards for site use including road access, stormwater detention and/or building design and construction, if appropriate.

4.0 REGULATORY CONSIDERATIONS

ICE's analysis of coal mine hazards at the Swanson Property was completed in general accordance with the City of Bellevue Land Use Code (LUC) Part 20.25H.130 (Coal Mine Hazard Area). Specific mine hazard categories are summarized below.

CMS Zone 1 is described by the City of Bellevue LUC as areas that are affected by Potential Trough Subsidence where ground strain could exceed 0.003 inches per inch, and/or where ground tilt may exceed 1V:350H (vertical to horizontal) (Bellevue LUC Part 20.25H.130.C.1).

In our December 2014 report, we concluded that no CMS Zone 1 occurs within the Swanson Property area based on our analysis of ground tilt and ground strain for which the magnitudes are less than the defined thresholds for property damage.

Based on the City of Bellevue LUC Part 20.25H.130 and available information at the time of our 2014 study (primarily a historic mine map review), the south part of the Swanson Property is within a CMS Zone 2. This part of the Swanson Property is referred to as the "Primary Area of Interest" (PAOI) and the "Secondary Area of Interest" (SAOI) in this report. The PAOI is where residential development is proposed; the SAOI is where a stormwater pond or underground vault is proposed.

The PAOI and SAOI were classified as a CMS Zone 2 because the area is underlain by the access tunnel (Main Slope) and mine workings of the No. 4 Mine at a depth less than 200 feet as shown on Figure 5 of ICE's December 2014 report. These areas are shown on Figure 2 and on the Abandoned Underground Coal Mine Map (No. 4 Mine/Coal Seam), Figure 3. An updated mine location based on the current ground proofing study is also shown on Figure 3.

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According to City of Bellevue LUC Part 20.25H.130 C.2, development can occur in CMS Zone 2 *only after potential public safety mine hazards are investigated and eliminated. A direct subsurface investigation program is required to investigate potential sinkhole development*. This report refers to the "direct subsurface investigation program" as "ground proofing."

The PAOI is divided by a 100-foot-wide corridor where a known inclined mine shaft for the No. 4 Mine exists as shown on Figure 3; this corridor is the SAOI.

5.0 NO. 4 MINE BACKGROUND INFORMATION

ICE's December 2014 report adequately summarizes the history of mining in the Swanson Property area. Additional information related to the No. 4 Mine and reviewed for the current study include the following documents:

- King County iMAP, aerial photograph dated 1936.
- McDonald, R.K. and McDonald, Lucille, 1987, The Coals of Newcastle, A Hundred Years of History, by the Issaquah Alps Trails Club in cooperation with the Newcastle Historical Society.
- Pacific Coast Coal Company (PCCC), 1928a, "Map of Newcastle Mine, No. 4 Seam," 1 Plate, Scale 1 inch = 100 feet. The original of this map was in the possession of Mr. Milt Swanson (deceased, formerly of Bellevue, Washington). A copy of this map is also on file in the mine map collection with the State of Washington Department of Natural Resources (DNR).
- PCCC, 1928b, "Map of Newcastle Mine, Composite," 1 Plate, Scale 1 inch = 100 feet. The original of this map was in the possession of Mr. Swanson. A copy of this map is also on file in the WDNR mine map collection.
- Skelly and Loy, 1985, "Abandoned Coal Mine Survey, Coal Creek, King County, Washington," prepared for U.S. Department of Interior, Office of Surface Mining (OSM), Denver, Colorado, 66 pages. A copy of this document is in the DNR library.
- USGS, Dunrud, C. Richard, 1990, unpublished compiled abandoned underground mine map of the Newcastle area showing the extent of mined out areas and location of surface openings. A copy of this map is in the ICE library.
- Washington State Department of Natural Resources (DNR), copies of the "Annual Reports of the Inspectors of Coal Mines," dated 1887, 1889, 1891, 1892, 1893 and 1894. Copies of these reports were provided to ICE by Mr. Swanson in 1990.

ICE previously completed several interviews with individuals familiar with the coal mining history in the Swanson Property area. We personally interviewed Mr. Swanson and Mr. Timothy Walsh of the DNR in 1990. At the time of our 1990 interviews, we were not able to meet with Mr. Fred Rounds, due to his poor health. However, we do have interview notes that are pertinent to the Swanson Property from our discussions with Mr. Rounds during a meeting with him in 1987. Mr. Swanson was a long-time resident of this area (the owner of the property subject to this report) and a mine historian. Mr. Walsh is a geologist, recently retired from the DNR, whose past responsibilities included the organization of the historical coal mine map collection for Washington State. Mr. Rounds (deceased) was a miner that worked in the Primrose Seam (a nearby coal mine) during its development in the 1930s.

The detailed history of coal mining in the Bellevue area is well documented in the publication by McDonald and McDonald (1987). This publication also provides useful descriptions of general mining terminology.

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This report describes mining activities and explains certain mining terms that the readers of this report may not be familiar with.

A general summary of historic mining activities in the Swanson Property area is presented in the following paragraphs.

1879 to December 1894 - Active mining in the "Newcastle Mine"

The No. 3 Mine and the No. 4 Mine are referred to collectively in the historical documents as the "Newcastle Mine."

The main entry tunnel or "slope" for the Newcastle Mine accessed the No. 3 seam to five levels extending to a depth of over 1,300 feet below the ground surface. Mines were typically worked in levels extending out along the strike of the coal seam from a main slope. Each level was then worked "up-dip" in order to maximize the use of gravity to move loosened coal to the coal cars.

Tunnels were driven in non-coal bearing rock formations from the No. 3 seam (No. 3 Mine) to access the No. 4 seam (No. 4 Mine) at the 1st, 2nd and 5th levels. Rock material separating the No. 3, No. 4 and other coal bearing seams consists of sandstone and shale. The thickness of the No. 3 and No. 4 seams is about 10 feet and 5 feet, respectively (McDonald R.K and McDonald, Lucille, 1987, page 4). The entrance to the No. 3 Mine has been crudely backfilled and is located under the pavement of Lakemont Boulevard (Swanson, 1990) and was exposed during the gas main installation in Lakemont Boulevard SE in 1990 (personal observation). This location corresponds well with the location shown on the historic mine maps (Pacific Coast Coal Company, 1928a and 1928b).

In 1887, the Mine Inspector reported (DNR, 1887, page 7) that the No. 4 seam had been abandoned. There was no explanation as to why the No. 4 workings had been abandoned. It is suspected that the coal was of low quality (Swanson, 1990).

In 1891, the Newcastle mine was being worked on a slope angle of 40 to 41 degrees, and to a depth of 1,350 feet (DNR, 1891, page 15). The Mine Inspector also reports that the mine has been extensively worked and many of the roof support pillars are being crushed by the weight of the overburden. On page 16 of DNR (1891), the Mine Inspector indicates that the 1st, 2nd and 3rd levels of the No. 3 seam had not been completely worked out due to spontaneous combustion fires.

In 1893 (DNR, 1893, pages 31 and 32) the Mine Inspector reported that there were considerable problems with pillar crushing in the Newcastle Mine which required the construction of cribs and sand-filled compartments parallel to the pillars. The Mine Inspection report indicates that the cribbing and other shoring had improved the caving problems.

In December 1894, the Newcastle Mine was permanently closed due to a mine fire (DNR, 1894, page 51, and McDonald, R.K and McDonald, Lucille, page 47). PCCC (1928 a and b) does not show detail of the workings in the Nos. 3 and 4 seams of the Newcastle Mine. The 1985 Skelly and Loy report also does not show detail of the Newcastle Mine workings.

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Based on our discussions with Mr. Rounds and Mr. Swanson and our review of the Mine Inspector's reports, it is our opinion that the 1st, 2nd, 3rd, 4th and 5th levels of the No. 3 Mine and the 1st, 2nd and 5th levels of the No. 4 Mine were partially to completely worked out using room-and-pillar mining methods.

6.0 GROUND PROOFING PROGRAM

The Swanson Property is underlain by abandoned underground coal mines summarized as follows:

Mine	Swanson Property Depth to Mine Workings (feet)
No. 4 Mine	<20 to 350
No. 3 Mine	300 to 630
Ford Slope (Muldoon Coal Seam)	>930

Only the No. 4 Mine is of concern at the Swanson Property for the purpose of this ground proofing program because the mine workings are less than 200 feet below the ground surface within the PAOI and SAOI. The other abandoned underground mines and the No. 4 Mine workings that are more than 200 feet below the ground surface were previously evaluated for CMS Zone 1 concerns as described in ICE's December 2014 report; these areas were determined to be less than the designated thresholds for ground tilt and strain that could cause damage to structures. As stated in our 2014 report, we recommended that the CMS Zone 1 classification was not appropriate for the Swanson Property.

For the current study, subsurface conditions within the PAOI were explored by drilling 16 test borings (Borings B-1 through B-16) using air-track drill equipment owned and operated by McCallum Rock Drilling for mine targets of less than 100-feet deep (referred to as "shallow test borings" on Figures 2 and 3), and mud-rotary drill equipment owned and operated by Gregory Drilling for mine targets of more than 100-feet deep (referred to as "deep" and "deeper test borings" on Figures 2 and 3). The mine target depth for the deeper test borings was approximately 170 feet. The borings were drilled between February 8 and 22, 2016. The boring locations are shown on Figures 2 and 3. Exploration locations were established by measuring from physical features at the site. The results of our ground proofing are presented in the Coal Mine Hazards Map (No. 4 Mine/Coal Seam), Figure 4.

Soil and bedrock samples (drill cuttings) were observed continuously as the borings were advanced. The subsurface explorations were continuously logged by Jeff Schwartz, a licensed engineering geologist from our firm. Soils were classified in general accordance with ASTM Test Method D 2488 as shown on the Explanation for Boring Logs, Figure 5. Bedrock was classified in general accordance with Chapter 4 of the May 2015 WSDOT Geotechnical Design Manual. The boring logs are presented in Figures 6 through 21.

A summary of the subsurface conditions observed in the test borings is presented below.

DSD - 000646

Test Boring Number	Total Depth (feet)	Depth to Bedrock (feet)(1)	Depth to Coal Seam/Mine (feet)	Void Thickness (feet)	Unmined - Intact Coal	Thickness of Intact Coal (feet)
B-1	90	40	Not Encountered(2)	-	-	-
B-2(3)	90	63	85	No voids	Yes	5
B-3	96	30	86	No voids	Yes	7
B-4	105	30	103	No voids	Yes	2+(4)
B-5	145	45	132	No voids	Yes	8
B-6	125	34	117	No voids	Yes	8
B-7	190	35	178	No voids	Yes	7
B-8	155	14	144	No voids	Yes	7
B-9	91	46	88	No voids	Yes	3+(4)
B-10	90	36	76	No voids	Yes	10
B-11	86	45	85	No voids	Yes	1+(4)
B-12	60	24	40	No voids	Yes	9
B-13	85	45	67	No voids	Yes	7
B-14	118	29	116	1.3(5)	-(6)	-(6)
B-15	70	60	Not encountered(2)	-	-	-
B-16	190	56	178	No voids	Yes	5

(1) The overburden generally consisted of Glacial Till (dense to very dense silty sand with gravel and cobbles).
(2) Borings B-1 and B-15 encountered drill bit plugging or hole deflection and could not be advanced below the total depth indicated.
(3) Boring B-2 was drilled on an incline (not vertical) at 55 degrees below horizontal.
(4) The coal seam was not fully penetrated in Borings B-4, B-9 and B-11 because of bit plugging.
(5) Boring B-14 encountered a 2-foot void which, based on the coal seam inclination of about 40 degrees, is equivalent to a 1.3-foot true thickness void.
(6) Lost drill circulation at the void; drilling terminated.

7.0 CONCLUSIONS AND RECOMMENDATIONS

In our opinion, sufficient subsurface exploration (ground proofing) has been completed within the PAOI at the Swanson Property to evaluate the potential for sinkholes within the CMS Zone 2 area. The results of the ground proofing also reinforce our previous conclusions that CMS Zone 1 was not applicable within the Swanson Property as described in ICE's December 2014 report.

It is important to note that the entire CMS Zone 2 area, where test borings were completed for the current study, is mantled with 14 to 63 feet of Glacial Till (average thickness of 36 feet) which has the strength of reinforced concrete.

Based on our experience in researching sinkhole potential (database of over 1,000 sinkholes in Washington State), only three sinkholes have occurred where the mine depth is over 100-feet deep. In these three sinkhole occurrences, the geologic conditions were unique with over 100 feet of clean sand and gravel overlying the bedrock. The mine breached into the sand and gravel overburden resulting in an "hour glass effect" of the sand and gravel flowing into the mine. These conditions do not exist at the Swanson Property. Based on our research and experience, most sinkholes form over the "mine subcrop" or where the overburden is less than 50-feet thick. At the Swanson Property within the PAOI, it appears

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that the coal is intact (not mined) at a depth up 120 feet, and probably closer to 150 feet, based on our ground proofing.

In all borings except one (Boring B-14) intact coal or a completely collapsed mine zone was encountered. Boring B-14 encountered a 1.3 foot void at a depth about 118 feet. In our opinion, this amount of void at this depth should be considered substantially collapsed (no risk of sinkhole development).

In our opinion, development should be unrestricted with regard to coal mine hazards within the PAOI as shown on Figure 2; we recommend that the PAOI be reclassified as a Declassified Coal Mine Area as shown on Figure 4.

Based on the results of our ground proofing study, we recommend that the 100-foot wide "corridor" referred to as the SAOI (where an inclined mine shaft is located) be classified as a CMS Zone 2, with further classifications as Lower Risk CMS Zone 2 and Higher Risk CMS Zone 2 as shown on Figure 4. The Lower Risk CMS Zone 2 could be used for a stormwater detention pond or underground vault provided that the pond/vault site is maintained within the area where the mine shaft is more than 100 feet below the ground surface as shown on Figure 4. No development should occur within remainder of the SAOI where the mine shaft is less than 100 feet below the ground surface; this area is shown as the Higher Risk CMS Zone 2 on Figure 4.

The SAOI could be utilized for other uses (residential) or the stormwater detention pond or vault shifted to areas where the mine shaft is less than 100 feet below the ground surface if additional ground proofing is completed within this corridor to evaluate the status of collapse of the mine shaft and the character of the overburden soils and bedrock.

At this time, a specific plan for the location of the stormwater detention pond or vault, along with the method of discharge to Coal Creek are not known. **ICE should be retained to review and comment for the stormwater plan concepts for use of the SAOI area.**

8.0 USE OF THIS REPORT

We have prepared this report for use by Isola Homes in the design of a portion of the project. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions. This report should not be considered a final report; a detailed report will be provided at a later date.

There are always risks to public health and safety and property damage related to development in areas of Coal Mine Hazards. However, this risk can be reduced to an acceptable level by ground proofing of the coal seam/mine, as was completed for this evaluation. This risk cannot be eliminated, just as the risk of seismic hazards cannot be eliminated in this area. Potential owner(s) of this property should be informed of the hazards that do exist and be provided a copy of this report for their own evaluation of risk acceptance.

Variations in subsurface conditions are possible between the locations of the explorations; variations may also occur with time. Some contingency for unanticipated conditions should be included in the project budget and schedule.

DSD - 000648

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

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We trust this report meets your present needs. Please call if you have any questions concerning this report.

Yours very truly,
Icicle Creek Engineers, Inc.

Kathy S. Killman, LEG
Principal Engineering Geologist

Brian R. Beaman, PE, LEG, LHG
Principal Engineer/Geologist/Hydrogeologist

Document ID: 1180001.REP

Submitted via email (PDF) and surface mail (two original copies)

Attachments: Vicinity Map – Figure 1
Site Plan – Figure 2
Abandoned Underground Coal Mine Map – Figure 3
Coal Mine Hazard Map – Figure 4
Explanation for Boring Logs – Figure 5
Borings Logs – Figures 6 through 21

DSD - 000649

FIGURES

DSD - 000650

VICINITY MAP

SWANSON PROPERTY - 7331 LAKEMONT BOULEVARD SE, BELLEVUE, WASHINGTON

ICICLECREEK ENGINEERS
29335 NE 20th Street
Carnation, Washington 98014
(425) 333-0093

SCALE: As Shown	ICE FILE NO.
DESIGNED: ---	1180-001
DRAWN: BRB	Figure
CHECKED: KSK	1
DATE: 08/02/16	

DSD - 000651

Base aerial photograph source: Google Maps, 2013

0 150 300
Approximate Scale in Feet

EXPLANATION

- B-3 Shallow Test Boring (less than 100-feet deep)
- B-5 Deep Test Boring (target depth greater than 100-feet deep)
- B-7 Deeper Test Boring (target depth ~170-feet deep)
- Primary Area of Interest (PAOI - proposed development area)
- Secondary Area of Interest (SAOI - proposed stormwater pond area)

SITE PLAN

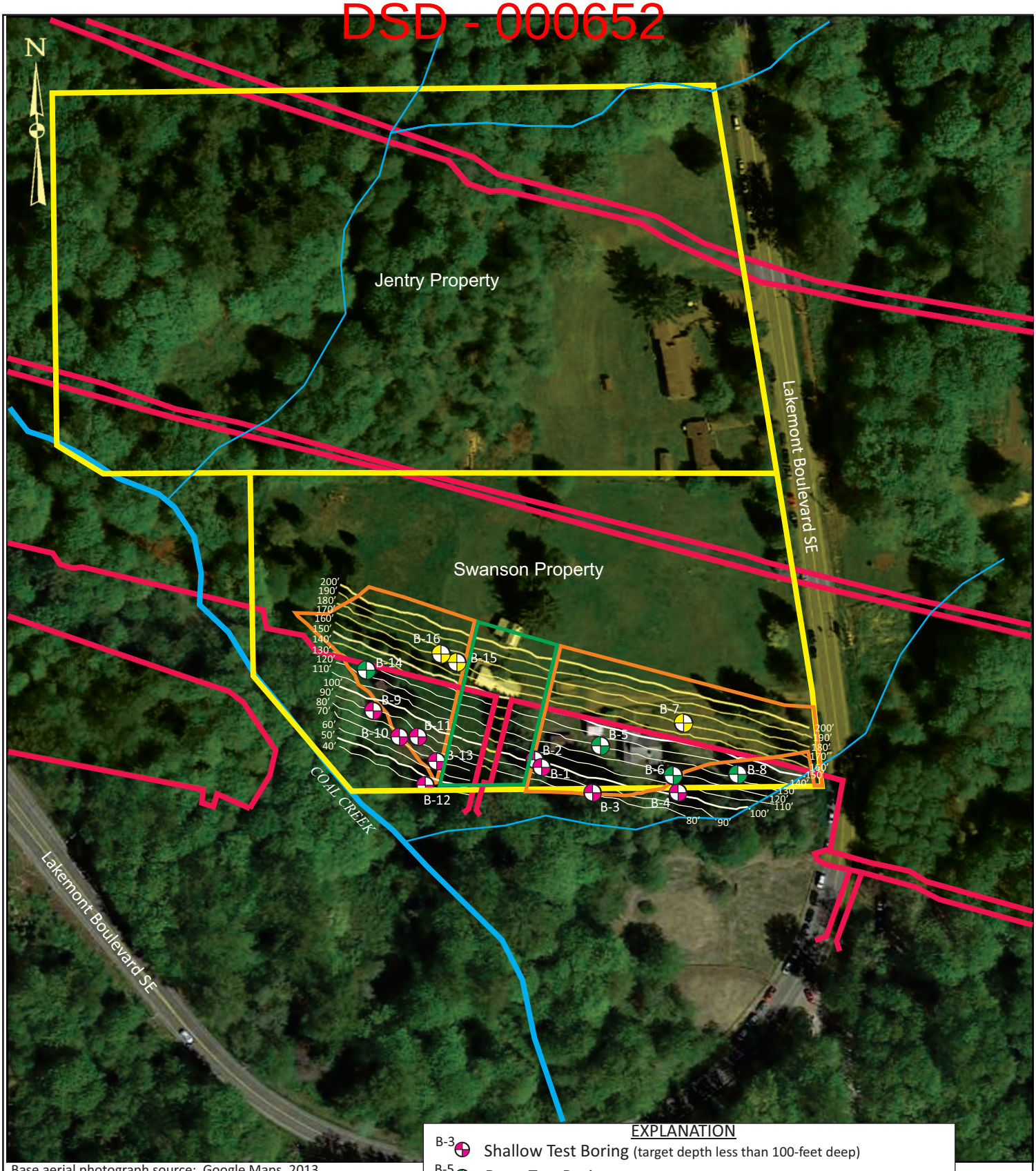
SWANSON PROPERTY - 7331 LAKEMONT BOULEVARD SE, BELLEVUE, WASHINGTON

ICICLECREEK ENGINEERS
29335 NE 20th Street
Carnation, Washington 98014
(425) 333-0093

SCALE: As Shown
DESIGNED: ---
DRAWN: JMS
CHECKED: BRB
DATE: 08/02/16

ICE FILE NO.
1180-001
Figure
2

DSD - 000652



Base aerial photograph source: Google Maps, 2013

0 150 300
Approximate Scale in Feet

EXPLANATION

- B-3 Shallow Test Boring (target depth less than 100-feet deep)
- B-5 Deep Test Boring (target depth greater than 100-feet deep)
- B-7 Deeper Test Boring (target depth ~170-feet deep)
- Primary Area of Interest (PAOI - proposed development area)
- Secondary Area of Interest (SAOI - proposed stormwater pond area)
- Outline of the Abandoned No. 4 Mine
- 100′ Estimated Depth (feet) of Abandoned No. 4 Mine/Coal Seam

ABANDONED UNDERGROUND COAL MINE MAP (NO. 4 MINE/COAL SEAM)

SWANSON PROPERTY - 7331 LAKEMONT BOULEVARD SE, BELLEVUE, WASHINGTON

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Carnation, Washington 98014
(425) 333-0093

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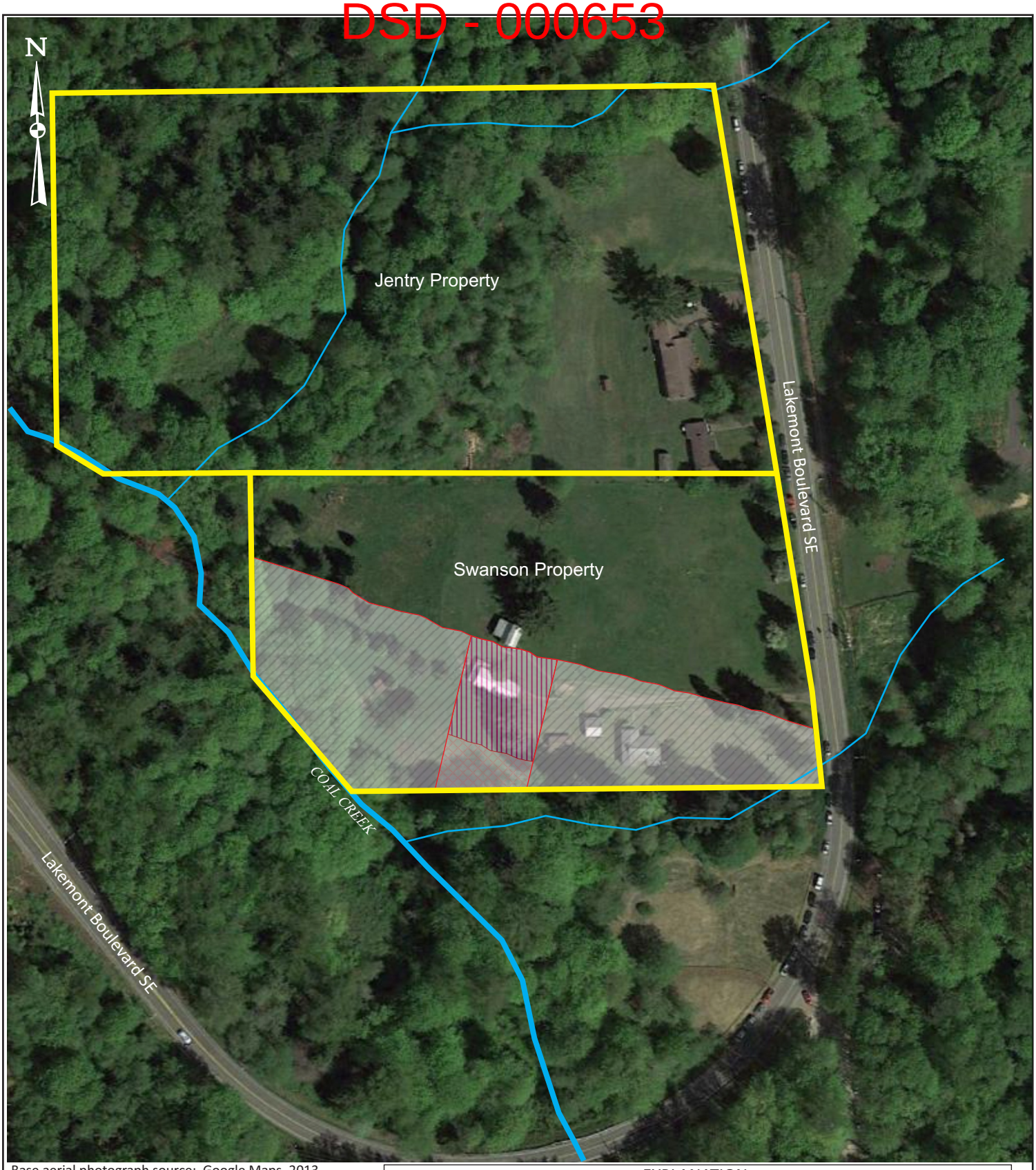
DATE: 08/02/16

ICE FILE NO. 1180-001

Figure 3

DSD - 000653



Base aerial photograph source: Google Maps, 2013

0 150 300
Approximate Scale in Feet

EXPLANATION

Declassified Coal Mine Area (includes the PAOI - no subsidence affects expected; see report text for details)

Higher Risk CMS Zone 2 (within the SAOI - abandoned mine tunnel less than 100 feet below the ground surface; recommend passive use only)

Lower Risk CMS Zone 2 (within the SAOI - abandoned mine tunnel more than 100 feet below the ground surface; recommend use for stormwater pond)

PAOI = Primary Area of Interest; SAOI = Secondary Area of Interest

COAL MINE HAZARDS MAP (NO. 4 MINE/COAL SEAM)

SWANSON PROPERTY - 7331 LAKEMONT BOULEVARD SE, BELLEVUE, WASHINGTON

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29335 NE 20th Street
Carnation, Washington 98014
(425) 333-0093

SCALE: As Shown
DESIGNED: ---
DRAWN: JMS
CHECKED: BRB
DATE: 08/02/16

ICE FILE NO.
1180-001
Figure
4

DSD - 000654

Unified Soil Classification System

MAJOR DIVISIONS			Soil Classification and Generalized Group Description	
Coarse-Grained Soils	GRAVEL More than 50% of coarse fraction retained on the No. 4 sieve	CLEAN GRAVEL	GW	Well-graded gravels
			GP	Poorly-graded gravels
		GRAVEL WITH FINES	GM	Gravel and silt mixtures
			GC	Gravel and clay mixtures
	SAND More than 50% of coarse fraction passes the No. 4 sieve	CLEAN SAND	SW	Well-graded sand
			SP	Poorly-graded sand
More than 50% retained on the No. 200 sieve		SAND WITH FINES	SM	Sand and silt mixtures
			SC	Sand and clay mixtures
Fine-Grained Soils	SILT AND CLAY Liquid Limit less than 50	INORGANIC	ML	Low-plasticity silts
			CL	Low-plasticity clays
		ORGANIC	OL	Low plasicity organic silts and organic clays
More than 50% passing the No. 200 sieve	SILT AND CLAY Liquid Limit greater than 50	INORGANIC	MH	High-plasticity silts
			CH	High-plasticity clays
		ORGANIC	OH	High-plasticity organic silts and organic clays
Highly Organic Soils	Primarily organic matter with organic odor		PT	Peat

Notes: 1) Soil classification based on visual classification of soil is based on ASTM D 2488.
2) Soil classification using laboratory tests is based on ASTM D 2487.
3) Description of soil density or consistency is based on interpretation of blow count data and/or test data.

Soil Particle Size Definitions

Component	Size Range
Boulders	Coarser than 12 inch
Cobbles	3 inch to 12 inch
Gravel	3 inch to No. 4 (4.78 mm)
Coarse	3 inch to 3/4 inch
Fine	3/4 inch to No. 4 (4.78 mm)
Sand	No. 4 (4.78 mm) to No. 200 (0.074mm)
Coarse	No. 4 (4.78 mm) to No. 10 (2.0 mm)
Medium	No. 10 (2.0 mm) to No. 40 (0.42 mm)
Fine	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and Clay	Finer than No. 200 (0.074 mm)

Soil Moisture Modifiers

Soil Moisture	Description
Dry	Absence of moisture
Moist	Damp, but no visible water
Wet	Visible water

Key to Boring Log Symbols

Sampling Method	Boring Log Symbol	Description
Blows required to drive a 2.4 inch I.D. split-barrel sampler 12-inches or other indicated distance using a 300-pound hammer falling 30 inches.	34	Location of relatively undisturbed sample
	12	Location of disturbed sample
	21	Location of sample attempt with no recovery
Blows required to drive a 1.5-inch I.D. split barrel sampler (SPT - Standard Penetration Test) 12-inches or other indicated distance using a 140-pound hammer falling 30 inches.	14	Location of sample obtained in general accordance with Standard Penetration Test (ASTM D-1586) test procedures.
	30	Location of SPT sampling attempt with no recovery.
Pushed Sampler	P	Sampler pushed with the weight of the hammer or against weight of the drilling rig.
Grab Sample	G	Sample obtained from drill cuttings.

Note: The lines separating soil types on the logs represents approximate boundaries only. The actual boundaries may vary or be gradual.

Laboratory Tests

Test	Symbol
Moisture Content	MC
Density	DN
Grain Size	GS
Percent Fines	PF
Atterberg Limits	AL
Hydrometer Analysis	HA
Consolidation	CN
Compaction	CP
Permeability	PM
Unconfined Compression	UC
Unconsolidated Undrained TX	UU
Consolidated Undrained TX	CU
Consolidated Drained TX	CD
Chemical Analysis	CA

DSD - 000655

SAB: 03/07/16

Boring B-1

47.5362530°, -122.1300539°

Approximate Ground Surface Elevation: 629 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown to reddish-yellow silty fine to medium SAND with gravel (Weathered Soil)		SM				0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒		Groundwater encountered at about 12 feet at the time of drilling	10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35			SM	☒			35
40	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 40 feet		40
45			Rock	☒			45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 6

DSD - 000656

Boring B-1

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1080-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
60	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			60
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85			Rock	☒			85
90	Boring completed at 90.0 feet due to plugged drill bit on 02/08/16						90
95							95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 6

DSD - 000657

SAB: 03/07/16

Boring B-2

47.5362738°, -122.1300888°

Approximate Ground Surface Elevation: 629 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown to reddish-yellow silty fine to medium SAND with gravel (Weathered Soil)		SM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35			SM	☒			35
40			SM	☒			40
45			SM	☒			45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 7

DSD - 000658

Boring B-2

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1080-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			50
55			SM	☒			55
60			SM	☒			60
63	Light gray SILTSTONE (Renton Formation bedrock)				Top of bedrock encountered at about 63 feet		
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80	Brown carbonaceous SHALE (Renton Formation bedrock)		Rock	☒			80
85	Black COAL (Renton Formation bedrock)		Rock	☒	No. 4 Coal Seam - intact/not mined		85
90	Boring completed at 90.0 feet on 02/08/16						90
95							95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 7

DSD - 000659

SAB: 03/07/16

Boring B-3

47.5361733°, -122.1298246°

Approximate Ground Surface Elevation: 628 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1080-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to coarse GRAVEL with sand (Weathered Soil)		GM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 30 feet		30
35			Rock	☒			35
40			Rock	☒			40
45			Rock	☒			45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 8

DSD - 000660

Boring B-3

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
	Light gray SILTSTONE (Renton Formation bedrock)						
55			Rock	☒			55
60			Rock	☒			60
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
	Brown carbonaceous SHALE (Renton Formation bedrock)						
85			Rock	☒			85
	Black COAL (Renton Formation bedrock)						
90			Rock	☒	No. 4 Coal Seam - intact/not mined		90
	Light brown fine-grained SANDSTONE (Renton Formation bedrock)						
95			Rock	☒			95
	Boring completed at 96.0 feet on 02/09/16						
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 8

DSD - 000661

SAB: 03/07/16

Boring B-4

47.5361715°, -122.1294357°

Approximate Ground Surface Elevation: 631 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to coarse GRAVEL with sand (Weathered Soil)		GM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 30 feet		30
35			Rock	☒			35
40			Rock	☒			40
45			Rock	☒			45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 9

DSD - 000662

Boring B-4

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
60			Rock	☒			60
65	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85			Rock	☒			85
90			Rock	☒			90
95			Rock	☒			95
100							100

See Figure 5 for explanation of symbols

DSD - 000663

Boring B-4

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
100	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			100
	Black COAL (Renton Formation bedrock)				No. 4 Coal Seam - intact/not mined		
105	Boring completed at 105.0 feet on 02/09/16						105
110							110
115							115
120							120
125							125
130							130
135							135
140							140
145							145
150							150

See Figure 5 for explanation of symbols

DSD - 000664

SAB: 03/07/16

Boring B-5

47.5363209°, -122.1297696°

Approximate Ground Surface Elevation: 633 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to medium SAND with gravel (Glacial Till)		SM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35			SM	☒			35
40			SM	☒			40
45	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 45 feet		45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 10

DSD - 000665

Boring B-5

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)						
60			Rock	☒			60
65	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85			Rock	☒			85
90			Rock	☒			90
95	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 10

DSD - 000666

Boring B-5

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
100	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			100
105			Rock	☒			105
110			Rock	☒			110
115			Rock	☒			115
120			Rock	☒			120
125			Rock	☒			125
130			Rock	☒			130
135	Black COAL (Renton Formation bedrock)		Rock	☒	No. 4 Coal Seam - intact/not mined		135
140	Light brown fine-grained SANDSTONE (Renton Formation bedrock)		Rock	☒			140
145	Boring completed at 145.0 feet on 02/15/16						145
150							150

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 10

DSD - 000667

SAB: 03/07/16

Boring B-6

47.5362249°, -122.1294611°

Approximate Ground Surface Elevation: 633 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to medium SAND with gravel (Weathered Soil)		SM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 34 feet		35
40	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)		Rock	☒			40
45			Rock	☒			45
50	Gray SILTSTONE (Renton Formation bedrock)						50

See Figure 5 for explanation of symbols

DSD - 000668

Boring B-6

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
60			Rock	☒			60
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85			Rock	☒			85
90	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			90
95			Rock	☒			95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 11

DSD - 000669

Boring B-6

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
100	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			100
105			Rock	☒			105
110			Rock	☒			110
115			Rock	☒			115
120	Black COAL (Renton Formation bedrock)		Rock	☒	No. 4 Coal Seam - intact/not mined		120
125	Boring completed at 125.0 feet on 02/16/16 and 02/17/16						125
130							130
135							135
140							140
145							145
150							150

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 11

DSD - 000670

SAB: 03/07/16

Boring B-7

47.5363870°, -122.1294048°

Approximate Ground Surface Elevation: 638 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to medium SAND with gravel (Weathered Soil)		SM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35	Light brown SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 35 feet		35
40			Rock	☒			40
45			Rock	☒			45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 12

DSD - 000671

Boring B-7

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Light brown SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
	Gray SILTSTONE (Renton Formation bedrock)						
60			Rock	☒			60
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85			Rock	☒			85
90			Rock	☒			90
95			Rock	☒			95
	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)						
100							100

See Figure 5 for explanation of symbols

DSD - 000672

Boring B-7

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
100	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)		Rock	☒			100
	Gray SILTSTONE (Renton Formation bedrock)						
105			Rock	☒			105
110			Rock	☒			110
115			Rock	☒			115
120			Rock	☒			120
125			Rock	☒			125
130			Rock	☒			130
135			Rock	☒			135
140			Rock	☒			140
145			Rock	☒			145
150							150

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 12

DSD - 000673

Boring B-7

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
150	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			150
155			Rock	☒			155
160			Rock	☒			160
165			Rock	☒			165
170			Rock	☒			170
175	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)		Rock	☒			175
180	Black COAL (Renton Formation bedrock)		Rock	☒	No. 4 Coal Seam - intact/not mined		180
185	Light brown fine-grained SANDSTONE (Renton Formation bedrock)		Rock	☒			185
190	Boring completed at 190.0 feet on 02/19/16 and 02/22/16						190
195							195
200							200

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 12

DSD - 000674

SAB: 03/07/16

Boring B-8

47.5362286°, -122.1291634°

Approximate Ground Surface Elevation: 636 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to medium SAND with gravel (Weathered Soil)		SM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒			10
14	Gray SILTSTONE (Renton Formation bedrock)				Top of bedrock encountered at about 14 feet		
15			Rock	☒			15
20			Rock	☒			20
25			Rock	☒			25
30			Rock	☒			30
35			Rock	☒			35
40			Rock	☒			40
45			Rock	☒			45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 13

DSD - 000675

Boring B-8

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)						
60			Rock	☒			60
	Gray SILTSTONE (Renton Formation bedrock)						
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85			Rock	☒			85
90			Rock	☒			90
95			Rock	☒			95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 13

DSD - 000676

Boring B-8

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
100	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			100
105			Rock	☒			105
110			Rock	☒			110
115			Rock	☒			115
120			Rock	☒			120
125			Rock	☒			125
130			Rock	☒			130
135			Rock	☒			135
140			Rock	☒			140
	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)						
145	Black COAL (Renton Formation bedrock)		Rock	☒	No. 4 Coal Seam - intact/not mined		145
150							150

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 13

DSD - 000677

Boring B-8

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
150	Black COAL (Renton Formation bedrock)		Rock	☒	No. 4 Coal Seam - intact/not mined		150
	Light brown/light gray fine-grained SANDSTONE (Renton Formation bedrock)						
155	Boring completed at 155.0 feet on 02/15/16 and 02/16/16						155
160							160
165							165
170							170
175							175
180							180
185							185
190							190
195							195
200							200

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 13

DSD - 000678

SAB: 03/07/16

Boring B-9

47.5364241°, -122.1308277°

Approximate Ground Surface Elevation: 603 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to medium SAND with gravel (Weathered Soil)		SM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel, occasional cobbles and boulders (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35			SM	☒			35
40			SM	☒			40
45			SM	☒			45
46	Light gray SILTSTONE (Renton Formation bedrock)				Top of bedrock encountered at about 46 feet		
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 14

DSD - 000679

Boring B-9

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
60			Rock	☒			60
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85			Rock	☒			85
90	Dark brown calcareous SHALE and black COAL (Renton Formation bedrock)		Rock	☒	No. 4 Coal Seam - intact/not mined		90
95	Boring completed at 91.0 feet on 02/09/16						95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 14

DSD - 000680

Boring B-10

47.5363454°, -122.1307084°

SAB: 03/07/16

Approximate Ground Surface Elevation: 608 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to coarse GRAVEL with sand (Weathered Soil)		GM				0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒		Groundwater encountered at about 10 feet at the time of drilling	10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35			SM	☒			35
36	Light gray SILTSTONE (Renton Formation bedrock)				Top of bedrock encountered at about 36 feet		
40			Rock	☒			40
45			Rock	☒			45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 15

DSD - 000681

Boring B-10

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray silty fine to medium SAND with gravel and occasional cobbles (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
60			Rock	☒			60
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
	Black COAL (Renton Formation bedrock)						
80			Rock	☒	No. 4 Coal Seam - intact/not mined		80
85			Rock	☒			85
	Light gray to white fine-grained SANDSTONE (Renton Formation bedrock)					Groundwater encountered at about 86.0 feet at the time of drilling	
90	Boring completed at 90.0 feet on 02/08/16						90
95							95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 15

DSD - 000682

SAB: 03/07/16

Boring B-11

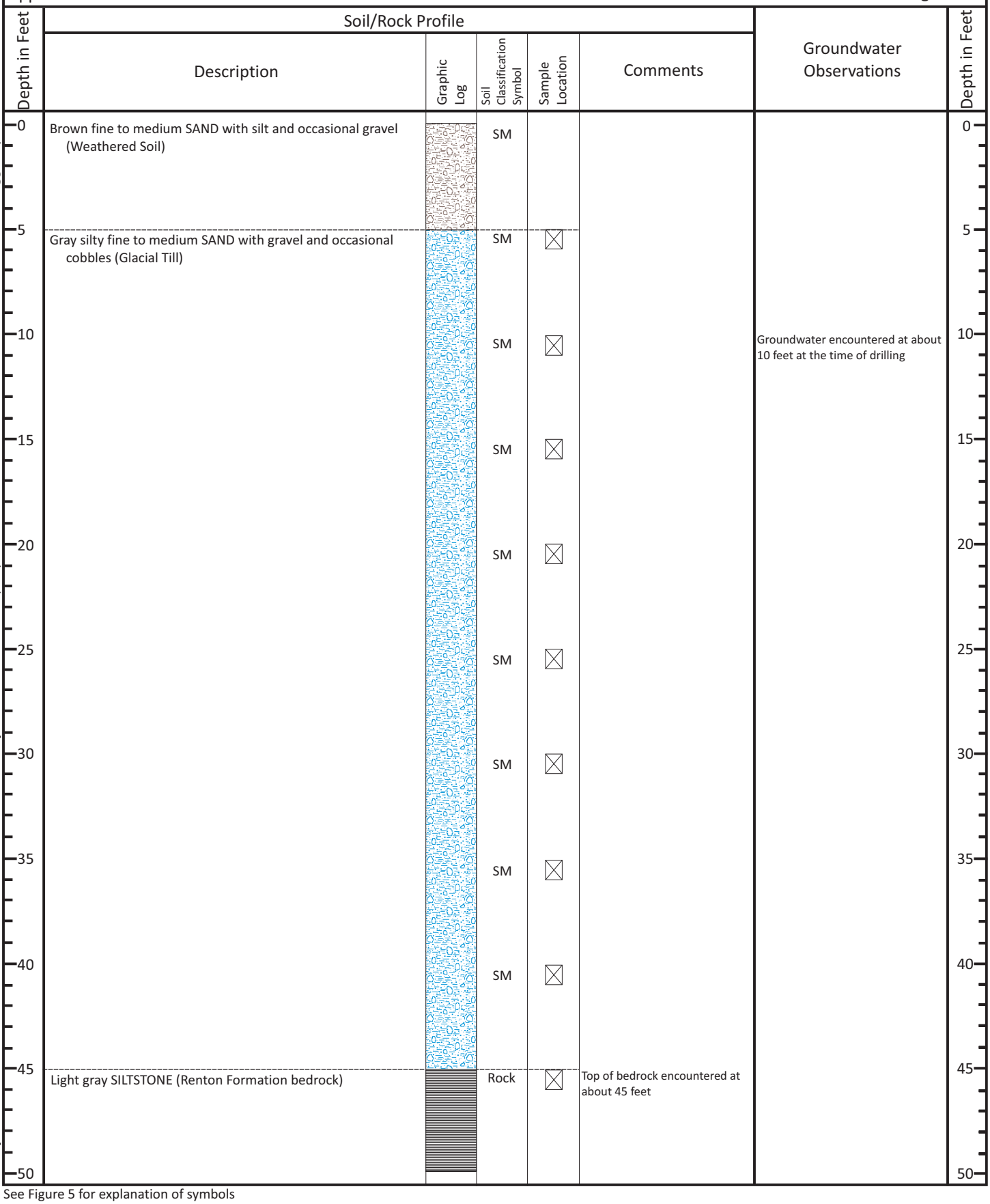
47.5363490°, -122.1306266°

Approximate Ground Surface Elevation: 613 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001



See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 16

DSD - 000683

Boring B-11

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
60			Rock	☒			60
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)		Rock	☒	No. 4 Coal Seam - drill action suggests intact coal seam (no fluid loss)		85
	Boring completed at 86.0 feet because of drill bit plugging on 02/09/16						
90							90
95							95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 16

DSD - 000684

SAB: 03/07/16

Boring B-12

47.5361987°, -122.1305957°

Approximate Ground Surface Elevation: 609 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to coarse GRAVEL with sand (Weathered Soil)		GM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 24 feet		25
30			Rock	☒			30
35			Rock	☒			35
40	Dark brown carbonaceous SHALE (Renton Formation bedrock) / Black COAL (Renton Formation bedrock)		Rock	☒			40
45			Rock	☒	No. 4 Coal Seam - intact/not mined		45
50	White SANDSTONE (Renton Formation bedrock)						50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 17

DSD - 000685

Boring B-12

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	White SANDSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
60	Boring completed at 60.0 feet on 02/08/16						60
65							65
70							70
75							75
80							80
85							85
90							90
95							95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 17

DSD - 000686

Boring B-13

47.5362702°, -122.1305421°

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Approximate Ground Surface Elevation: 616 feet

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown fine to medium SAND with silt and occasional gravel (Weathered Soil)		SM				0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒		Groundwater encountered at about 10 feet at the time of drilling	10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35			SM	☒			35
40			SM	☒			40
45	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 45 feet		45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 18

DSD - 000687

Boring B-13

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
60			Rock	☒			60
65			Rock	☒			65
	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)						
70	Black COAL (Renton Formation bedrock)		Rock	☒	No. 4 Coal Seam - intact/not mined		70
75			Rock	☒			75
	White SANDSTONE (Renton Formation bedrock)						
80			Rock	☒			80
85	Boring completed at 85.0 feet on 02/09/16						85
90							90
95							95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 18

DSD - 000688

SAB: 03/07/16

Boring B-14

47.5365518°, -122.1308613°

Approximate Ground Surface Elevation: 604 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown to reddish-yellow silty fine to medium SAND with gravel (Glacial Till)		SM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel, occasional cobbles and boulders (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 29 feet		30
35			Rock	☒			35
40			Rock	☒			40
	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)						
45	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 19

DSD - 000689

Boring B-14

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
60			Rock	☒			60
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85			Rock	☒			85
90			Rock	☒			90
95			Rock	☒			95
100							100

See Figure 5 for explanation of symbols

DSD - 000690

Boring B-14

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
100	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			100
105			Rock	☒			105
110			Rock	☒			110
115			Rock	☒			115
	Void	☒			No. 4 Mine is substantially collapsed		
	Boring completed at 118.0 feet because of drill fluid circulation loss on 02/17/16						
120							120
125							125
130							130
135							135
140							140
145							145
150							150

See Figure 5 for explanation of symbols

DSD - 000691

Boring B-15

47.5365762°, -122.1304455°

SAB: 03/07/16

Approximate Ground Surface Elevation: 626 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown to reddish-yellow silty fine to medium SAND with gravel (Weathered Soil)		SM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel, occasional cobbles and boulders (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35			SM	☒			35
40			SM	☒			40
45			SM	☒			45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 20

DSD - 000692

Boring B-15

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray silty fine to medium SAND with gravel, occasional cobbles and boulders (Glacial Till)		SM	☒			50
55			SM	☒			55
60	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 60 feet		60
65			Rock	☒			65
70	Boring completed at 70.0 feet because the drilling fluid surface seal was leaking on 02/18/16						70
75							75
80							80
85							85
90							90
95							95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 20

DSD - 000693

Boring B-16

47.5366016°, -122.1305206°

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Approximate Ground Surface Elevation: 624 feet

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to medium SAND with gravel (Weathered Soil)		SM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35			SM	☒			35
40			SM	☒			40
45			SM	☒			45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 21

DSD - 000694

Boring B-16

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			50
55			SM	☒			55
	Gray SILTSTONE (Renton Formation bedrock)				Top of bedrock encountered at about 56 feet		
60			Rock	☒			60
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85			Rock	☒			85
90			Rock	☒			90
	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)						
95	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 21

DSD - 000695

Boring B-16

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
100	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			100
105			Rock	☒			105
110			Rock	☒			110
115			Rock	☒			115
120			Rock	☒			120
125			Rock	☒			125
130			Rock	☒			130
135			Rock	☒			135
140			Rock	☒			140
145	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			145
150							150

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 21

DSD - 000696

Boring B-16

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
150	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			150
155			Rock	☒			155
160			Rock	☒			160
165			Rock	☒			165
	Gray SILTSTONE and dark brown carbonaceous SHALE (Renton Formation bedrock)						
170			Rock	☒			170
175			Rock	☒			175
	Black COAL (Renton Formation bedrock)				No. 4 Mine fully collapsed		
180			Rock	☒			180
185	Light gray fine-grained SANDSTONE (Renton Formation bedrock)		Rock	☒			185
190	Boring completed at 190.0 feet on 02/18/16 and 02/19/16						190
195							195
200							200

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 21

DSD - 000697

Revised Report
Geological Engineering Services
Proposed Park Pointe Property Development
Coal Mine Hazard Assessment and
Ground Proofing Program
Swanson Property
King County Parcel No. 262405-9019
7331 Lakemont Boulevard SE
Bellevue, Washington

October 5, 2016
ICE File No. 1180-001

Prepared For:
Isola Homes

Prepared By:
Icicle Creek Engineers, Inc.

DSD - 000698

ICICLECREEK ENGINEERS

October 5, 2016

Alex Mason, Vice President of Entitlement
Isola Homes
1518 1st Avenue South, Suite 301
Seattle, Washington 98134

Revised Report
Geological Engineering Services
Proposed Park Pointe Property Development
Coal Mine Hazard Assessment and Ground Proofing Program
Swanson Property
King County Parcel No. 262405-9019
7331 Lakemont Boulevard SE
Bellevue, Washington
ICE File No. 1180-001

1.0 INTRODUCTION

At the request of Alex Mason of Isola Homes, Icicle Creek Engineers (ICE) has prepared this revised report of our geological engineering services related to a coal mine hazard assessment and ground proofing program of the Swanson Property located at 7331 Lakemont Boulevard SE (King County Parcel No. 262405-9019) in Bellevue, Washington. The Swanson Property occupies the south part of the proposed Park Pointe residential project being planned by Isola Homes. The Swanson Property is shown relative to nearby physical features on the Vicinity Map, Figure 1. The general layout of the Swanson Property is shown on the Site Plan, Figure 2.

Our services were completed in general accordance with our Scope of Services and Fee Estimate dated January 13, 2016 and were authorized in writing by Ron Froton of Isola Homes on January 26, 2016.

2.0 BACKGROUND INFORMATION

ICE previously completed a preliminary coal mine hazard evaluation of the Swanson Property and the adjoining property to the north (referred to as the "Jentry Property" as shown on Figure 2); the results are presented in ICE's report dated December 1, 2014 that was prepared for David Jentry, owner of the Jentry Property. We understand that Isola Homes may develop the Swanson and Jentry properties for residential use (Park Pointe project) including paved access, building lots and stormwater detention.

The City of Bellevue has regionally mapped "Coal Mine Hazard Areas" across most of the Swanson Property (City of Bellevue, Critical Areas Maps, Human Created Hazards). The regulatory aspects of Coal Mine Hazard Areas are described in detail in Section 4.0 of this report. ICE concluded in our December 2014 report that the south portion of the Swanson Property is within a Coal Mine Subsidence (CMS) Zone 2 area and recommended subsurface exploration to better evaluate the hazards related to abandoned underground coal mines (subject to this report).

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Residential development of the Park Pointe site will be planned to avoid coal mine hazards that pose a risk to potential property damage and human safety (avoid "Coal Mine Subsidence (CMS) Zone 2" described in section **4.0** of this report).

We understand that a stormwater vault is planned within the "Lower Risk CMS Zone 2." The stormwater vault measures about 127 feet by 77 feet with a base level at about Elevation 613 feet. The excavation required to install this vault will need to be about 13 to 18 feet below the existing ground surface.

3.0 SCOPE OF SERVICES

The purpose of our services was to complete a coal mine hazard assessment and ground proofing program targeting the potentially developable (some area is in wetland and is excluded) area at the Swanson Property. Specifically, our services included the following:

- Review ICE's 2014 report and readily available historic coal mine records from the Washington State Department of Natural Resources.
- Complete a site visit to perform site reconnaissance and to stake test borings for the purpose of the utility locate.
- Drill 12 test borings in the south part of the Swanson Property where the abandoned underground coal mine/seam is less than 100-feet deep using track-mounted drilling equipment (referred to as "air-track") owned and operated by McCallum Rock Drilling.
- Drill four test borings in the south part of the Swanson Property where the abandoned underground coal mine/seam are more than 100-feet deep using track-mounted drilling equipment (referred to as "mud-rotary") owned and operated by Gregory Drilling.
- Reclassify all or part of CMS Zone 2, if appropriate, consistent the City of Bellevue LUC Part 20.25H.130 C.4.
- Develop mitigation related to coal mine hazards for site use including road access, stormwater detention and/or building design and construction, if appropriate.

4.0 REGULATORY CONSIDERATIONS

ICE's analysis of coal mine hazards at the Swanson Property was completed in general accordance with the City of Bellevue Land Use Code (LUC) Part 20.25H.130 (Coal Mine Hazard Area). Specific mine hazard categories are summarized below.

CMS Zone 1 is described by the City of Bellevue LUC as areas that are affected by Potential Trough Subsidence where ground strain could exceed 0.003 inches per inch, and/or where ground tilt may exceed 1V:350H (vertical to horizontal) (Bellevue LUC Part 20.25H.130.C.1).

In our December 2014 report, we concluded that no CMS Zone 1 occurs within the Swanson Property area based on our analysis of ground tilt and ground strain for which the magnitudes are less than the defined thresholds for property damage.

Based on the City of Bellevue LUC Part 20.25H.130 and available information at the time of our 2014 study (primarily a historic mine map review), the south part of the Swanson Property is within a CMS Zone 2. This part of the Swanson Property is referred to as the "Primary Area of Interest" (PAOI) and the "Secondary Area of Interest" (SAOI) in this report. The PAOI is where residential development is proposed; the SAOI is where a stormwater underground vault is proposed.

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The PAOI and SAOI were classified as a CMS Zone 2 because the area is underlain by the access tunnel (Main Slope) and mine workings of the No. 4 Mine at a depth less than 200 feet as shown on Figure 5 of ICE's December 2014 report. These areas are shown on Figure 2 and on the Abandoned Underground Coal Mine Map (No. 4 Mine/Coal Seam), Figure 3. An updated mine location based on the current ground proofing study is also shown on Figure 3.

According to City of Bellevue LUC Part 20.25H.130 C.2, development can occur in CMS Zone 2 *only after potential public safety mine hazards are investigated and eliminated. A direct subsurface investigation program is required to investigate potential sinkhole development*. This report refers to the "direct subsurface investigation program" as "ground proofing."

The PAOI is divided by a 100-foot-wide corridor where a known inclined mine shaft for the No. 4 Mine exists as shown on Figure 3; this corridor is the SAOI.

5.0 NO. 4 MINE BACKGROUND INFORMATION

ICE's December 2014 report adequately summarizes the history of mining in the Swanson Property area. Additional information related to the No. 4 Mine and reviewed for the current study include the following documents:

- King County iMAP, aerial photograph dated 1936.
- McDonald, R.K. and McDonald, Lucille, 1987, The Coals of Newcastle, A Hundred Years of History, by the Issaquah Alps Trails Club in cooperation with the Newcastle Historical Society.
- Pacific Coast Coal Company (PCCC), 1928a, "Map of Newcastle Mine, No. 4 Seam," 1 Plate, Scale 1 inch = 100 feet. The original of this map was in the possession of Mr. Milt Swanson (deceased, formerly of Bellevue, Washington). A copy of this map is also on file in the mine map collection with the State of Washington Department of Natural Resources (DNR).
- PCCC, 1928b, "Map of Newcastle Mine, Composite," 1 Plate, Scale 1 inch = 100 feet. The original of this map was in the possession of Mr. Swanson. A copy of this map is also on file in the WDNR mine map collection.
- Skelly and Loy, 1985, "Abandoned Coal Mine Survey, Coal Creek, King County, Washington," prepared for U.S. Department of Interior, Office of Surface Mining (OSM), Denver, Colorado, 66 pages. A copy of this document is in the DNR library.
- USGS, Dunrud, C. Richard, 1990, unpublished compiled abandoned underground mine map of the Newcastle area showing the extent of mined out areas and location of surface openings. A copy of this map is in the ICE library.
- Washington State Department of Natural Resources (DNR), copies of the "Annual Reports of the Inspectors of Coal Mines," dated 1887, 1889, 1891, 1892, 1893 and 1894. Copies of these reports were provided to ICE by Mr. Swanson in 1990.

ICE previously completed several interviews with individuals familiar with the coal mining history in the Swanson Property area. We personally interviewed Mr. Swanson and Mr. Timothy Walsh of the DNR in 1990. At the time of our 1990 interviews, we were not able to meet with Mr. Fred Rounds, due to his poor health. However, we do have interview notes that are pertinent to the Swanson Property from our discussions with Mr. Rounds during a meeting with him in 1987. Mr. Swanson was a long-time resident of this area (the owner of the property subject to this report) and a mine historian. Mr. Walsh is a geologist, recently retired from the DNR, whose past responsibilities included the organization of the

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historical coal mine map collection for Washington State. Mr. Rounds (deceased) was a miner that worked in the Primrose Seam (a nearby coal mine) during its development in the 1930s.

The detailed history of coal mining in the Bellevue area is well documented in the publication by McDonald and McDonald (1987). This publication also provides useful descriptions of general mining terminology.

A general summary of historic mining activities in the Swanson Property area is presented in the following paragraphs.

1879 to December 1894 - Active Mining in the "Newcastle Mine"

The No. 3 Mine and the No. 4 Mine are referred to collectively in the historical documents as the "Newcastle Mine."

The main entry tunnel or "slope" for the Newcastle Mine accessed the No. 3 seam to five levels extending to a depth of over 1,300 feet below the ground surface. Mines were typically worked in levels extending out along the strike of the coal seam from a main slope. Each level was then worked "up-dip" in order to maximize the use of gravity to move loosened coal to the coal cars.

Tunnels were driven in non-coal bearing rock formations from the No. 3 seam (No. 3 Mine) to access the No. 4 seam (No. 4 Mine) at the 1st, 2nd and 5th levels. Rock material separating the No. 3, No. 4 and other coal bearing seams consists of sandstone and shale. The thickness of the No. 3 and No. 4 seams is about 10 feet and 5 feet, respectively (McDonald R.K and McDonald, Lucille, 1987, page 4). The entrance to the No. 3 Mine has been crudely backfilled and is located under the pavement of Lakemont Boulevard (Swanson, 1990) and was exposed during the gas main installation in Lakemont Boulevard SE in 1990 (personal observation). This location corresponds well with the location shown on the historic mine maps (Pacific Coast Coal Company, 1928a and 1928b).

In 1887, the Mine Inspector reported (DNR, 1887, page 7) that the No. 4 seam had been abandoned. There was no explanation as to why the No. 4 workings had been abandoned. It is suspected that the coal was of low quality (Swanson, 1990).

In 1891, the Newcastle mine was being worked on a slope angle of 40 to 41 degrees, and to a depth of 1,350 feet (DNR, 1891, page 15). The Mine Inspector also reports that the mine has been extensively worked and many of the roof support pillars are being crushed by the weight of the overburden. On page 16 of DNR (1891), the Mine Inspector indicates that the 1st, 2nd and 3rd levels of the No. 3 seam had not been completely worked out due to spontaneous combustion fires.

In 1893 (DNR, 1893, pages 31 and 32) the Mine Inspector reported that there were considerable problems with pillar crushing in the Newcastle Mine which required the construction of cribs and sand-filled compartments parallel to the pillars. The Mine Inspection report indicates that the cribbing and other shoring had improved the caving problems.

In December 1894, the Newcastle Mine was permanently closed due to a mine fire (DNR, 1894, page 51, and McDonald, R.K and McDonald, Lucille, page 47). PCCC (1928 a and b) does not show detail of the

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workings in the Nos. 3 and 4 seams of the Newcastle Mine. The 1985 Skelly and Loy report also does not show detail of the Newcastle Mine workings.

Based on our discussions with Mr. Rounds and Mr. Swanson and our review of the Mine Inspector's reports, it is our opinion that the 1st, 2nd, 3rd, 4th and 5th levels of the No. 3 Mine and the 1st, 2nd and 5th levels of the No. 4 Mine were partially to completely worked out using room-and-pillar mining methods.

6.0 GROUND PROOFING PROGRAM

The Swanson Property is underlain by abandoned underground coal mines summarized as follows:

Mine	Swanson Property Depth to Mine Workings (feet)
No. 4 Mine	<20 to 350
No. 3 Mine	300 to 630
Ford Slope (Muldoon Coal Seam)	>930

Only the No. 4 Mine is of concern at the Swanson Property for the purpose of this ground proofing program because the mine workings are less than 200 feet below the ground surface within the PAOI and SAOI. The other abandoned underground mines and the No. 4 Mine workings that are more than 200 feet below the ground surface were previously evaluated for CMS Zone 1 concerns as described in ICE's December 2014 report; these areas were determined to be less than the designated thresholds for ground tilt and strain that could cause damage to structures. As stated in our 2014 report, we recommended that the CMS Zone 1 classification was not appropriate for the Swanson Property.

For the current study, subsurface conditions within the PAOI were explored by drilling 16 test borings (Borings B-1 through B-16) using air-track drill equipment owned and operated by McCallum Rock Drilling for mine targets of less than 100-feet deep (referred to as "shallow test borings" on Figures 2 and 3), and mud-rotary drill equipment owned and operated by Gregory Drilling for mine targets of more than 100-feet deep (referred to as "deep" and "deeper test borings" on Figures 2 and 3). The mine target depth for the deeper test borings was approximately 170 feet. The borings were drilled between February 8 and 22, 2016. The boring locations are shown on Figures 2 and 3. Exploration locations were established by measuring from physical features at the site. The results of our ground proofing are presented in the Coal Mine Hazards Map (No. 4 Mine/Coal Seam), Figure 4.

Soil and bedrock samples (drill cuttings) were observed continuously as the borings were advanced. The subsurface explorations were continuously logged by Jeff Schwartz, a licensed engineering geologist from our firm. Soils were classified in general accordance with ASTM Test Method D 2488 as shown on the Explanation for Boring Logs, Figure 5. Bedrock was classified in general accordance with Chapter 4 of the May 2015 WSDOT Geotechnical Design Manual. The boring logs are presented in Figures 6 through 21.

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A summary of the subsurface conditions observed in the test borings is presented below.

Test Boring Number	Total Depth (feet)	Depth to Bedrock (feet)(1)	Depth to Coal Seam/Mine (feet)	Void Thickness (feet)	Unmined - Intact Coal	Thickness of Intact Coal (feet)
B-1	90	40	Not Encountered(2)	-	-	-
B-2(3)	90	63	85	No voids	Yes	5
B-3	96	30	86	No voids	Yes	7
B-4	105	30	103	No voids	Yes	2+(4)
B-5	145	45	132	No voids	Yes	8
B-6	125	34	117	No voids	Yes	8
B-7	190	35	178	No voids	Yes	7
B-8	155	14	144	No voids	Yes	7
B-9	91	46	88	No voids	Yes	3+(4)
B-10	90	36	76	No voids	Yes	10
B-11	86	45	85	No voids	Yes	1+(4)
B-12	60	24	40	No voids	Yes	9
B-13	85	45	67	No voids	Yes	7
B-14	118	29	116	1.3(5)	-(6)	-(6)
B-15	70	60	Not encountered(2)	-	-	-
B-16	190	56	178	No voids	Yes	5

(1) The overburden generally consisted of Glacial Till (dense to very dense silty sand with gravel and cobbles).
(2) Borings B-1 and B-15 encountered drill bit plugging or hole deflection and could not be advanced below the total depth indicated.
(3) Boring B-2 was drilled on an incline (not vertical) at 55 degrees below horizontal.
(4) The coal seam was not fully penetrated in Borings B-4, B-9 and B-11 because of bit plugging.
(5) Boring B-14 encountered a 2-foot void which, based on the coal seam inclination of about 40 degrees, is equivalent to a 1.3-foot true thickness void.
(6) Lost drill circulation at the void; drilling terminated.

7.0 CONCLUSIONS AND RECOMMENDATIONS

In our opinion, sufficient subsurface exploration (ground proofing) has been completed within the PAOI at the Swanson Property to evaluate the potential for sinkholes within the CMS Zone 2 area. The results of the ground proofing also reinforce our previous conclusions that CMS Zone 1 was not applicable within the Swanson Property as described in ICE's December 2014 report.

It is important to note that the entire CMS Zone 2 area, where test borings were completed for the current study, is mantled with 14 to 63 feet of Glacial Till (average thickness of 36 feet) which has the strength of reinforced concrete.

Based on our experience in researching sinkhole potential (database of over 1,000 sinkholes in Washington State), only three sinkholes have occurred where the mine depth is over 100-feet deep. In these three sinkhole occurrences, the geologic conditions were unique with over 100 feet of clean sand and gravel overlying the bedrock. The mine breached into the sand and gravel overburden resulting in an "hour glass effect" of the sand and gravel flowing into the mine. These conditions do not exist at the

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Swanson Property. Based on our research and experience, most sinkholes form over the "mine subcrop" or where the overburden is less than 50-feet thick. At the Swanson Property within the PAOI, it appears that the coal is intact (not mined) at a depth up 120 feet, and probably closer to 150 feet, based on our ground proofing.

In all borings except one (Boring B-14) intact coal or a completely collapsed mine zone was encountered. Boring B-14 encountered a 1.3 foot void at a depth about 118 feet. In our opinion, this amount of void at this depth should be considered substantially collapsed (no risk of sinkhole development).

In our opinion, development should be unrestricted with regard to coal mine hazards within the PAOI as shown on Figure 2; we recommend that the PAOI be reclassified as a Declassified Coal Mine Area as shown on Figure 4.

Based on the results of our ground proofing study, we recommend that the 100-foot wide "corridor" referred to as the SAOI (where an inclined mine shaft is located) be classified as a CMS Zone 2, with further classifications as Lower Risk CMS Zone 2 and Higher Risk CMS Zone 2 as shown on Figure 4. The Lower Risk CMS Zone 2 could be used for a stormwater vault provided that the stormwater vault site is sited within the area where the mine shaft is more than 100 feet below the ground surface as shown on Figure 4 (Lower Risk CMS Zone 2). No development should occur within the remainder of the SAOI where the mine shaft is less than 100 feet below the ground surface; this area is shown as the Higher Risk CMS Zone 2 on Figure 4.

The SAOI could be utilized for other uses (residential) or the stormwater vault shifted to areas where the mine shaft is less than 100 feet below the ground surface if additional ground proofing is completed within this corridor to evaluate the status of collapse of the mine shaft and the character of the overburden soils and bedrock.

At this time, a specific plan for the method of discharge to Coal Creek is not known.

ICE should review the design plans for the Park Pointe project when available.

8.0 USE OF THIS REPORT

We have prepared this revised report for use by Isola Homes in the design of a portion of the project. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

If there are significant changes in the grades, configurations or types of facilities to be constructed, the conclusions and recommendations presented in this report may not be fully applicable. When the design has been finalized, we recommend that we be retained to review those portions of the specifications and drawings which relate to geotechnical considerations to see that our recommendations have been interpreted and implemented as intended.

There are always risks to public health and safety and property damage related to development in areas of Coal Mine Hazards. However, this risk can be reduced to an acceptable level by ground proofing of the coal seam/mine, as was completed for this evaluation. This risk cannot be eliminated, just as the risk of seismic hazards cannot be eliminated in this area. Potential owner(s) of this property should be informed

DSD - 000705

of the hazards that do exist and be provided a copy of this report for their own evaluation of risk acceptance.

Variations in subsurface conditions are possible between the locations of the explorations; variations may also occur with time. Some contingency for unanticipated conditions should be included in the project budget and schedule.

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

****

We trust this revised report meets your present needs. Please call if you have any questions.

Yours very truly,
Icicle Creek Engineers, Inc.

Kathy S. Killman, LEG
Principal Engineering Geologist

Brian R. Beaman, PE, LEG, LHG
Principal Engineer/Geologist/Hydrogeologist

Document ID: 1180001.RevRep

Submitted via email (PDF) and surface mail (one original copy)

Attachments: Vicinity Map – Figure 1
Site Plan – Figure 2
Abandoned Underground Coal Mine Map – Figure 3
Coal Mine Hazard Map – Figure 4
Explanation for Boring Logs – Figure 5
Borings Logs – Figures 6 through 21

DSD - 000706

FIGURES

DSD - 000707

VICINITY MAP

PARK POINTE RESIDENTIAL PROJECT (SWANSON PROPERTY), BELLEVUE, WASHINGTON

ICICLECREEK ENGINEERS
29335 NE 20th Street
Carnation, Washington 98014
(425) 333-0093

SCALE: As Shown	ICE FILE NO.
DESIGNED: ---	1180-001
DRAWN: BRB	Figure
CHECKED: KSK	1
DATE: 10/05/16	

DSD - 000708

Base aerial photograph source: Google Maps, 2013

0 150 300
Approximate Scale in Feet

EXPLANATION

B-3 Shallow Test Boring (less than 100-feet deep)

B-5 Deep Test Boring (target depth greater than 100-feet deep)

B-7 Deeper Test Boring (target depth ~170-feet deep)

Primary Area of Interest (PAOI - proposed development area)

Secondary Area of Interest (SAOI - proposed stormwater pond area)

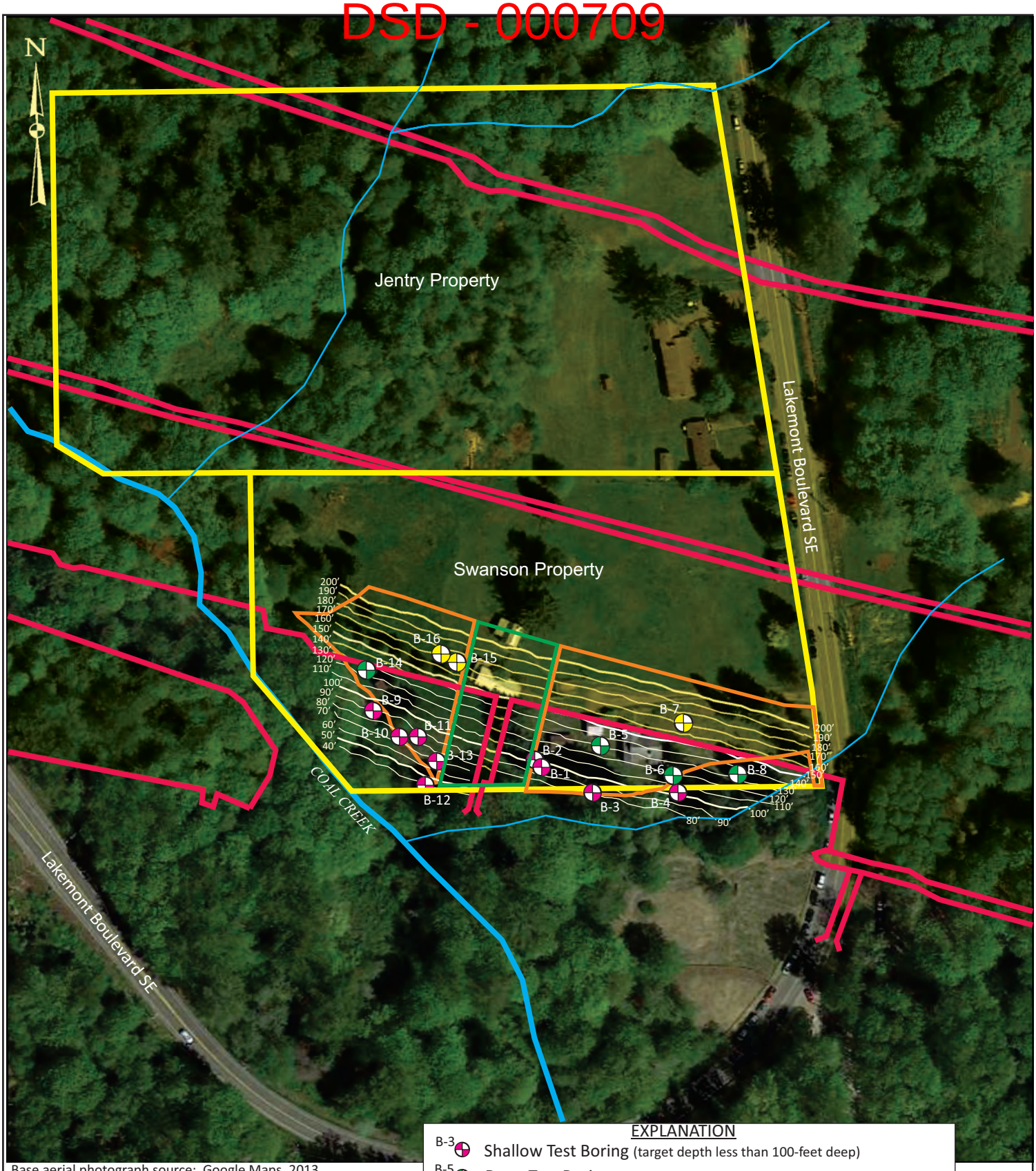
SITE PLAN

PARK POINTE RESIDENTIAL PROJECT (SWANSON PROPERTY), BELLEVUE, WASHINGTON

ICICLECREEK ENGINEERS
29335 NE 20th Street
Carnation, Washington 98014
(425) 333-0093

SCALE: As Shown	ICE FILE NO.
DESIGNED: ---	1180-001
DRAWN: JMS	Figure
CHECKED: BRB	2
DATE: 10/05/16	

DSD - 000709



Base aerial photograph source: Google Maps, 2013

0 150 300
Approximate Scale in Feet

EXPLANATION

- B-3 Shallow Test Boring (target depth less than 100-feet deep)
- B-5 Deep Test Boring (target depth greater than 100-feet deep)
- B-7 Deeper Test Boring (target depth ~170-feet deep)
- Primary Area of Interest (PAOI - proposed development area)
- Secondary Area of Interest (SAOI - proposed stormwater pond area)
- Outline of the Abandoned No. 4 Mine
- 100′ Estimated Depth (feet) of Abandoned No. 4 Mine/Coal Seam

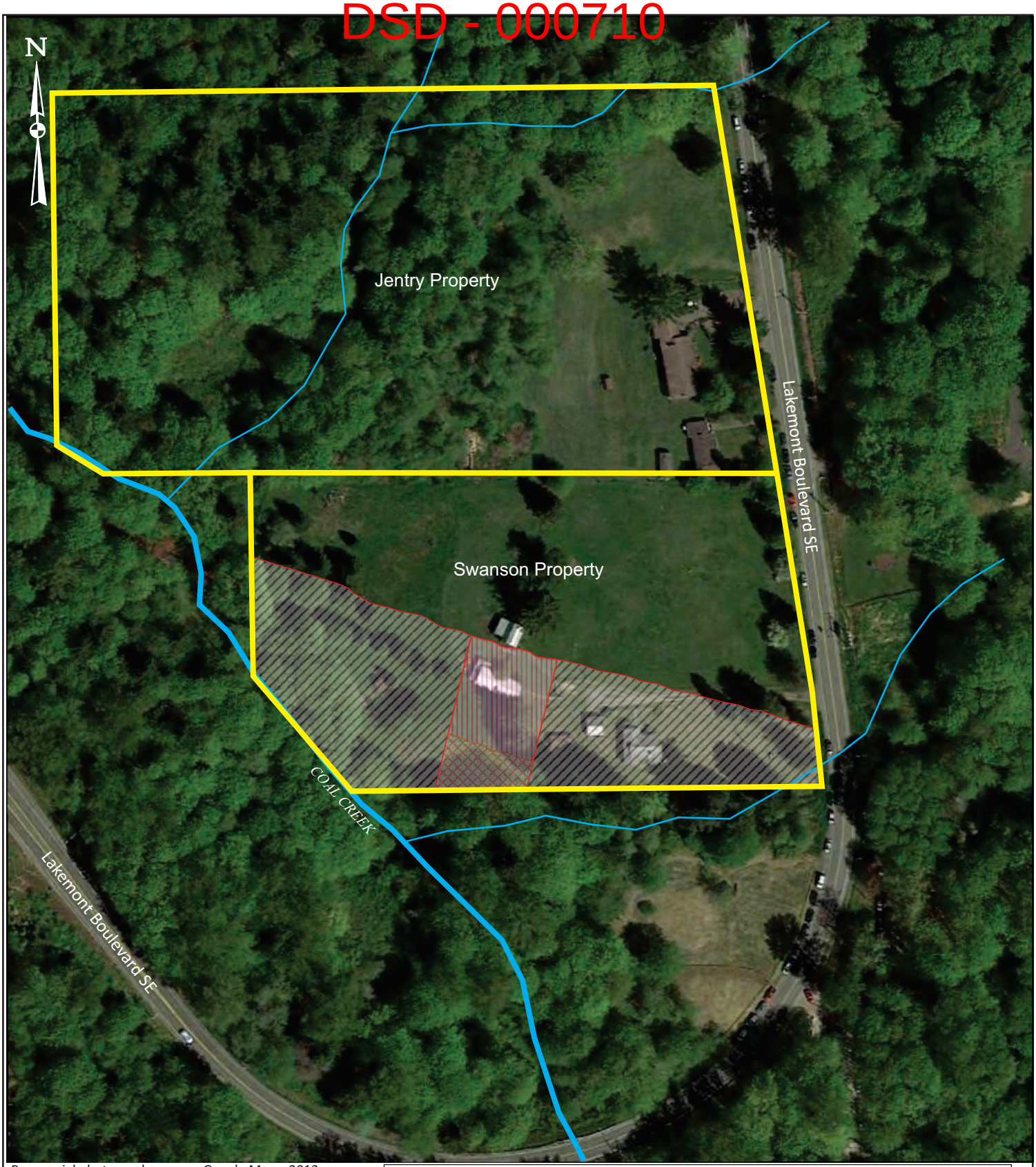
ABANDONED UNDERGROUND COAL MINE MAP (NO. 4 MINE/COAL SEAM)

PARK POINTE RESIDENTIAL PROJECT (SWANSON PROPERTY), BELLEVUE, WASHINGTON

ICICLECREEK ENGINEERS
29335 NE 20th Street
Carnation, Washington 98014
(425) 333-0093

SCALE: As Shown	ICE FILE NO.
DESIGNED: ---	1180-001
DRAWN: JMS	Figure
CHECKED: BRB	3
DATE: 10/05/16	

DSD - 000710



Base aerial photograph source: Google Maps, 2013

0 150 300
Approximate Scale in Feet

EXPLANATION

Declassified Coal Mine Area (includes the PAOI - no subsidence affects expected; see report text for details)

Higher Risk CMS Zone 2 (within the SAOI - abandoned mine tunnel less than 100 feet below the ground surface; recommend passive use only)

Lower Risk CMS Zone 2 (within the SAOI - abandoned mine tunnel more than 100 feet below the ground surface; recommend use for stormwater vault)

PAOI = Primary Area of Interest; SAOI = Secondary Area of Interest

COAL MINE HAZARDS MAP (NO. 4 MINE/COAL SEAM)

PARK POINTE RESIDENTIAL PROJECT (SWANSON PROPERTY), BELLEVUE, WASHINGTON

ICICLECREEK ENGINEERS
29335 NE 20th Street
Carnation, Washington 98014
(425) 333-0093

SCALE: As Shown	ICE FILE NO.
DESIGNED: ---	1180-001
DRAWN: JMS	Figure
CHECKED: BRB	4
DATE: 10/05/16	

DSD - 000711

Unified Soil Classification System

MAJOR DIVISIONS			Soil Classification and Generalized Group Description	
Coarse-Grained Soils	GRAVEL More than 50% of coarse fraction retained on the No. 4 sieve	CLEAN GRAVEL	GW	Well-graded gravels
			GP	Poorly-graded gravels
		GRAVEL WITH FINES	GM	Gravel and silt mixtures
			GC	Gravel and clay mixtures
	SAND More than 50% of coarse fraction passes the No. 4 sieve	CLEAN SAND	SW	Well-graded sand
			SP	Poorly-graded sand
More than 50% retained on the No. 200 sieve		SAND WITH FINES	SM	Sand and silt mixtures
			SC	Sand and clay mixtures
Fine-Grained Soils	SILT AND CLAY Liquid Limit less than 50	INORGANIC	ML	Low-plasticity silts
			CL	Low-plasticity clays
		ORGANIC	OL	Low plasicity organic silts and organic clays
More than 50% passing the No. 200 sieve	SILT AND CLAY Liquid Limit greater than 50	INORGANIC	MH	High-plasticity silts
			CH	High-plasticity clays
		ORGANIC	OH	High-plasticity organic silts and organic clays
Highly Organic Soils	Primarily organic matter with organic odor		PT	Peat

Notes: 1) Soil classification based on visual classification of soil is based on ASTM D 2488.
2) Soil classification using laboratory tests is based on ASTM D 2487.
3) Description of soil density or consistency is based on interpretation of blow count data and/or test data.

Soil Particle Size Definitions

Component	Size Range
Boulders	Coarser than 12 inch
Cobbles	3 inch to 12 inch
Gravel	3 inch to No. 4 (4.78 mm)
Coarse	3 inch to 3/4 inch
Fine	3/4 inch to No. 4 (4.78 mm)
Sand	No. 4 (4.78 mm) to No. 200 (0.074mm)
Coarse	No. 4 (4.78 mm) to No. 10 (2.0 mm)
Medium	No. 10 (2.0 mm) to No. 40 (0.42 mm)
Fine	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and Clay	Finer than No. 200 (0.074 mm)

Soil Moisture Modifiers

Soil Moisture	Description
Dry	Absence of moisture
Moist	Damp, but no visible water
Wet	Visible water

Key to Boring Log Symbols

Sampling Method	Boring Log Symbol	Description
Blows required to drive a 2.4 inch I.D. split-barrel sampler 12-inches or other indicated distance using a 300-pound hammer falling 30 inches.	34	Location of relatively undisturbed sample
	12	Location of disturbed sample
	21	Location of sample attempt with no recovery
Blows required to drive a 1.5-inch I.D. split barrel sampler (SPT - Standard Penetration Test) 12-inches or other indicated distance using a 140-pound hammer falling 30 inches.	14	Location of sample obtained in general accordance with Standard Penetration Test (ASTM D-1586) test procedures.
	30	Location of SPT sampling attempt with no recovery.
Pushed Sampler	P	Sampler pushed with the weight of the hammer or against weight of the drilling rig.
Grab Sample	G	Sample obtained from drill cuttings.

Note: The lines separating soil types on the logs represents approximate boundaries only. The actual boundaries may vary or be gradual.

Laboratory Tests

Test	Symbol
Moisture Content	MC
Density	DN
Grain Size	GS
Percent Fines	PF
Atterberg Limits	AL
Hydrometer Analysis	HA
Consolidation	CN
Compaction	CP
Permeability	PM
Unconfined Compression	UC
Unconsolidated Undrained TX	UU
Consolidated Undrained TX	CU
Consolidated Drained TX	CD
Chemical Analysis	CA

DSD - 000712

SAB: 03/07/16

Boring B-1

47.5362530°, -122.1300539°

Approximate Ground Surface Elevation: 629 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown to reddish-yellow silty fine to medium SAND with gravel (Weathered Soil)		SM				0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒		Groundwater encountered at about 12 feet at the time of drilling	10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35			SM	☒			35
40	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 40 feet		40
45			Rock	☒			45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 6

DSD - 000713

Boring B-1

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1080-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
60	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			60
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85			Rock	☒			85
90	Boring completed at 90.0 feet due to plugged drill bit on 02/08/16						90
95							95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 6

DSD - 000714

Boring B-2

47.5362738°, -122.1300888°

SAB: 03/07/16

Approximate Ground Surface Elevation: 629 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown to reddish-yellow silty fine to medium SAND with gravel (Weathered Soil)		SM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35			SM	☒			35
40			SM	☒			40
45			SM	☒			45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 7

DSD - 000715

Boring B-2

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1080-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			50
55			SM	☒			55
60			SM	☒			60
	Light gray SILTSTONE (Renton Formation bedrock)				Top of bedrock encountered at about 63 feet		
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
	Brown carbonaceous SHALE (Renton Formation bedrock)						
80			Rock	☒			80
85	Black COAL (Renton Formation bedrock)		Rock	☒	No. 4 Coal Seam - intact/not mined		85
90	Boring completed at 90.0 feet on 02/08/16						90
95							95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 7

DSD - 000716

SAB: 03/07/16

Boring B-3

47.5361733°, -122.1298246°

Approximate Ground Surface Elevation: 628 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1080-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to coarse GRAVEL with sand (Weathered Soil)		GM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 30 feet		30
35			Rock	☒			35
40			Rock	☒			40
45			Rock	☒			45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 8

DSD - 000717

Boring B-3

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			55
60			Rock	☒			60
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85	Brown carbonaceous SHALE (Renton Formation bedrock)		Rock	☒			85
90	Black COAL (Renton Formation bedrock)		Rock	☒	No. 4 Coal Seam - intact/not mined		90
95	Light brown fine-grained SANDSTONE (Renton Formation bedrock)		Rock	☒			95
100	Boring completed at 96.0 feet on 02/09/16						100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 8

DSD - 000718

SAB: 03/07/16

Boring B-4

47.5361715°, -122.1294357°

Approximate Ground Surface Elevation: 631 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to coarse GRAVEL with sand (Weathered Soil)		GM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 30 feet		30
35			Rock	☒			35
40			Rock	☒			40
45			Rock	☒			45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 9

DSD - 000719

Boring B-4

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
60			Rock	☒			60
65	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85			Rock	☒			85
90			Rock	☒			90
95			Rock	☒			95
100							100

See Figure 5 for explanation of symbols

DSD - 000720

Boring B-4

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
100	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			100
	Black COAL (Renton Formation bedrock)				No. 4 Coal Seam - intact/not mined		
105	Boring completed at 105.0 feet on 02/09/16						105
110							110
115							115
120							120
125							125
130							130
135							135
140							140
145							145
150							150

See Figure 5 for explanation of symbols

DSD - 000721

SAB: 03/07/16

Boring B-5

47.5363209°, -122.1297696°

Approximate Ground Surface Elevation: 633 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to medium SAND with gravel (Glacial Till)		SM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35			SM	☒			35
40			SM	☒			40
45	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 45 feet		45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 10

DSD - 000722

Boring B-5

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)						
60			Rock	☒			60
65	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85			Rock	☒			85
90			Rock	☒			90
95	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 10

DSD - 000723

Boring B-5

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
100	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			100
105			Rock	☒			105
110			Rock	☒			110
115			Rock	☒			115
120			Rock	☒			120
125			Rock	☒			125
130			Rock	☒			130
135	Black COAL (Renton Formation bedrock)		Rock	☒	No. 4 Coal Seam - intact/not mined		135
140	Light brown fine-grained SANDSTONE (Renton Formation bedrock)		Rock	☒			140
145	Boring completed at 145.0 feet on 02/15/16						145
150							150

See Figure 5 for explanation of symbols

DSD - 000724

Boring B-6

47.5362249°, -122.1294611°

Approximate Ground Surface Elevation: 633 feet

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to medium SAND with gravel (Weathered Soil)		SM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 34 feet		35
40	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)		Rock	☒			40
45			Rock	☒			45
50	Gray SILTSTONE (Renton Formation bedrock)						50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 11

DSD - 000725

Boring B-6

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
60			Rock	☒			60
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85			Rock	☒			85
90	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			90
95			Rock	☒			95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 11

DSD - 000726

Boring B-6

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
100	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			100
105			Rock	☒			105
110			Rock	☒			110
115			Rock	☒			115
120	Black COAL (Renton Formation bedrock)		Rock	☒	No. 4 Coal Seam - intact/not mined		120
125	Boring completed at 125.0 feet on 02/16/16 and 02/17/16						125
130							130
135							135
140							140
145							145
150							150

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 11

DSD - 000727

SAB: 03/07/16

Boring B-7

47.5363870°, -122.1294048°

Approximate Ground Surface Elevation: 638 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to medium SAND with gravel (Weathered Soil)		SM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35	Light brown SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 35 feet		35
40			Rock	☒			40
45			Rock	☒			45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 12

DSD - 000728

Boring B-7

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Light brown SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
	Gray SILTSTONE (Renton Formation bedrock)						
60			Rock	☒			60
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85			Rock	☒			85
90			Rock	☒			90
95			Rock	☒			95
	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)						
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 12

DSD - 000729

Boring B-7

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
100	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)		Rock	☒			100
	Gray SILTSTONE (Renton Formation bedrock)						
105			Rock	☒			105
110			Rock	☒			110
115			Rock	☒			115
120			Rock	☒			120
125			Rock	☒			125
130			Rock	☒			130
135			Rock	☒			135
140			Rock	☒			140
145			Rock	☒			145
150							150

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 12

DSD - 000730

Boring B-7

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
150	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			150
155			Rock	☒			155
160			Rock	☒			160
165			Rock	☒			165
170			Rock	☒			170
175	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)		Rock	☒			175
180	Black COAL (Renton Formation bedrock)		Rock	☒	No. 4 Coal Seam - intact/not mined		180
185	Light brown fine-grained SANDSTONE (Renton Formation bedrock)		Rock	☒			185
190	Boring completed at 190.0 feet on 02/19/16 and 02/22/16						190
195							195
200							200

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 12

DSD - 000731

Boring B-8

47.5362286°, -122.1291634°

SAB: 03/07/16

Approximate Ground Surface Elevation: 636 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to medium SAND with gravel (Weathered Soil)		SM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒			10
15	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 14 feet		15
20			Rock	☒			20
25			Rock	☒			25
30			Rock	☒			30
35			Rock	☒			35
40			Rock	☒			40
45			Rock	☒			45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 13

DSD - 000732

Boring B-8

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)						
60			Rock	☒			60
	Gray SILTSTONE (Renton Formation bedrock)						
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85			Rock	☒			85
90			Rock	☒			90
95			Rock	☒			95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 13

DSD - 000733

Boring B-8

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
100	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			100
105			Rock	☒			105
110			Rock	☒			110
115			Rock	☒			115
120			Rock	☒			120
125			Rock	☒			125
130			Rock	☒			130
135			Rock	☒			135
140			Rock	☒			140
	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)						
145	Black COAL (Renton Formation bedrock)		Rock	☒	No. 4 Coal Seam - intact/not mined		145
150							150

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 13

DSD - 000734

Boring B-8

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
150	Black COAL (Renton Formation bedrock)		Rock	☒	No. 4 Coal Seam - intact/not mined		150
	Light brown/light gray fine-grained SANDSTONE (Renton Formation bedrock)						
155	Boring completed at 155.0 feet on 02/15/16 and 02/16/16						155
160							160
165							165
170							170
175							175
180							180
185							185
190							190
195							195
200							200

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 13

DSD - 000735

Boring B-9

47.5364241°, -122.1308277°

SAB: 03/07/16

Approximate Ground Surface Elevation: 603 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to medium SAND with gravel (Weathered Soil)		SM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel, occasional cobbles and boulders (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35			SM	☒			35
40			SM	☒			40
45			SM	☒			45
46	Light gray SILTSTONE (Renton Formation bedrock)				Top of bedrock encountered at about 46 feet		
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 14

DSD - 000736

Boring B-9

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
60			Rock	☒			60
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85			Rock	☒			85
90	Dark brown calcareous SHALE and black COAL (Renton Formation bedrock)		Rock	☒	No. 4 Coal Seam - intact/not mined		90
95	Boring completed at 91.0 feet on 02/09/16						95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 14

DSD - 000737

Boring B-10

47.5363454°, -122.1307084°

SAB: 03/07/16

Approximate Ground Surface Elevation: 608 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to coarse GRAVEL with sand (Weathered Soil)		GM				0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒		Groundwater encountered at about 10 feet at the time of drilling	10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35			SM	☒			35
36	Light gray SILTSTONE (Renton Formation bedrock)				Top of bedrock encountered at about 36 feet		
40			Rock	☒			40
45			Rock	☒			45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 15

DSD - 000738

Boring B-10

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray silty fine to medium SAND with gravel and occasional cobbles (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
60			Rock	☒			60
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
	Black COAL (Renton Formation bedrock)						
80			Rock	☒	No. 4 Coal Seam - intact/not mined		80
85			Rock	☒			85
	Light gray to white fine-grained SANDSTONE (Renton Formation bedrock)					Groundwater encountered at about 86.0 feet at the time of drilling	
90	Boring completed at 90.0 feet on 02/08/16						90
95							95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 15

DSD - 000739

SAB: 03/07/16

Boring B-11

47.5363490°, -122.1306266°

Approximate Ground Surface Elevation: 613 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown fine to medium SAND with silt and occasional gravel (Weathered Soil)		SM				0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒		Groundwater encountered at about 10 feet at the time of drilling	10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35			SM	☒			35
40			SM	☒			40
45	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 45 feet		45
50							50

See Figure 5 for explanation of symbols

DSD - 000740

Boring B-11

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
60			Rock	☒			60
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)		Rock	☒	No. 4 Coal Seam - drill action suggests intact coal seam (no fluid loss)		85
	Boring completed at 86.0 feet because of drill bit plugging on 02/09/16						
90							90
95							95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 16

DSD - 000741

Boring B-12

47.5361987°, -122.1305957°

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Approximate Ground Surface Elevation: 609 feet

Depth in Feet	Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to coarse GRAVEL with sand (Weathered Soil)		GM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 24 feet		25
30			Rock	☒			30
35			Rock	☒			35
40	Dark brown carbonaceous SHALE (Renton Formation bedrock) Black COAL (Renton Formation bedrock)		Rock	☒			40
45			Rock	☒	No. 4 Coal Seam - intact/not mined		45
50	White SANDSTONE (Renton Formation bedrock)						50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 17

DSD - 000742

Boring B-12

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	White SANDSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
60	Boring completed at 60.0 feet on 02/08/16						60
65							65
70							70
75							75
80							80
85							85
90							90
95							95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 17

DSD - 000743

SAB: 03/07/16

Boring B-13

47.5362702°, -122.1305421°

Approximate Ground Surface Elevation: 616 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown fine to medium SAND with silt and occasional gravel (Weathered Soil)		SM				0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒		Groundwater encountered at about 10 feet at the time of drilling	10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35			SM	☒			35
40			SM	☒			40
45	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 45 feet		45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 18

DSD - 000744

Boring B-13

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
60			Rock	☒			60
65			Rock	☒			65
	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)						
70	Black COAL (Renton Formation bedrock)		Rock	☒	No. 4 Coal Seam - intact/not mined		70
75			Rock	☒			75
	White SANDSTONE (Renton Formation bedrock)						
80			Rock	☒			80
85	Boring completed at 85.0 feet on 02/09/16						85
90							90
95							95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 18

DSD - 000745

Boring B-14

47.5365518°, -122.1308613°

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Approximate Ground Surface Elevation: 604 feet

Depth in Feet	Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown to reddish-yellow silty fine to medium SAND with gravel (Glacial Till)		SM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel, occasional cobbles and boulders (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 29 feet		30
35			Rock	☒			35
40			Rock	☒			40
	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)						
45	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			45
50							50

Soil/Rock Profile

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 19

DSD - 000746

Boring B-14

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			50
55			Rock	☒			55
60			Rock	☒			60
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85			Rock	☒			85
90			Rock	☒			90
95			Rock	☒			95
100							100

See Figure 5 for explanation of symbols

DSD - 000747

Boring B-14

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
100	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			100
105			Rock	☒			105
110			Rock	☒			110
115			Rock	☒			115
	Void	☒			No. 4 Mine is substantially collapsed		
	Boring completed at 118.0 feet because of drill fluid circulation loss on 02/17/16						
120							120
125							125
130							130
135							135
140							140
145							145
150							150

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 19

DSD - 000748

Boring B-15

47.5365762°, -122.1304455°

Approximate Ground Surface Elevation: 626 feet

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown to reddish-yellow silty fine to medium SAND with gravel (Weathered Soil)		SM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel, occasional cobbles and boulders (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35			SM	☒			35
40			SM	☒			40
45			SM	☒			45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 20

DSD - 000749

Boring B-15

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray silty fine to medium SAND with gravel, occasional cobbles and boulders (Glacial Till)		SM	☒			50
55			SM	☒			55
60	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒	Top of bedrock encountered at about 60 feet		60
65			Rock	☒			65
70	Boring completed at 70.0 feet because the drilling fluid surface seal was leaking on 02/18/16						70
75							75
80							80
85							85
90							90
95							95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 20

DSD - 000750

SAB: 03/07/16

Boring B-16

47.5366016°, -122.1305206°

Approximate Ground Surface Elevation: 624 feet

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
0	Brown silty fine to medium SAND with gravel (Weathered Soil)		SM			No groundwater encountered at the time of drilling	0
5	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			5
10			SM	☒			10
15			SM	☒			15
20			SM	☒			20
25			SM	☒			25
30			SM	☒			30
35			SM	☒			35
40			SM	☒			40
45			SM	☒			45
50							50

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 21

DSD - 000751

Boring B-16

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
50	Gray silty fine to medium SAND with gravel and occasional cobbles (Glacial Till)		SM	☒			50
55			SM	☒			55
	Gray SILTSTONE (Renton Formation bedrock)				Top of bedrock encountered at about 56 feet		
60			Rock	☒			60
65			Rock	☒			65
70			Rock	☒			70
75			Rock	☒			75
80			Rock	☒			80
85			Rock	☒			85
90			Rock	☒			90
	Dark brown carbonaceous SHALE and black COAL (Renton Formation bedrock)						
95	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			95
100							100

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 21

DSD - 000752

Boring B-16

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
100	Gray SILTSTONE (Renton Formation bedrock)		Rock	☒			100
105			Rock	☒			105
110			Rock	☒			110
115			Rock	☒			115
120			Rock	☒			120
125			Rock	☒			125
130			Rock	☒			130
135			Rock	☒			135
140			Rock	☒			140
145	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			145
150							150

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 21

DSD - 000753

Boring B-16

SAB: 03/07/16

Logged by: JMS

Project Name: Swanson Property

ICE Project No. 1180-001

Depth in Feet	Soil/Rock Profile: Description	Graphic Log	Soil Classification Symbol	Sample Location	Comments	Groundwater Observations	Depth in Feet
150	Light gray SILTSTONE (Renton Formation bedrock)		Rock	☒			150
155			Rock	☒			155
160			Rock	☒			160
165			Rock	☒			165
	Gray SILTSTONE and dark brown carbonaceous SHALE (Renton Formation bedrock)						
170			Rock	☒			170
175			Rock	☒			175
	Black COAL (Renton Formation bedrock)				No. 4 Mine fully collapsed		
180			Rock	☒			180
185	Light gray fine-grained SANDSTONE (Renton Formation bedrock)		Rock	☒			185
190	Boring completed at 190.0 feet on 02/18/16 and 02/19/16						190
195							195
200							200

See Figure 5 for explanation of symbols

Icicle Creek Engineers

Boring Log - Figure 21

DSD - 000754

ICICLECREEK ENGINEERS

May 17, 2018

John Jackels
Isola Homes
13555 SE 36th Street. Suite 320
Bellevue, Washington 98006

Letter
Geotechnical Consultation
Response to Comments – Coal Mine Hazards
Park Pointe PUD – 16-145946-LO and 16-143970-LK
Bellevue, Washington
ICE File No. 1180-001

INTRODUCTION

This letter provides a summary of Icicle Creek Engineers (ICE's) Response to Comments for the Park Pointe PUD as outlined in the City of Bellevue (Peter Rosen) review letter related to coal mine hazards. ICE previously completed a Geological Engineering report for the project, the results are presented in our report referenced as follows:

- ICE, October 5, 2016, *Geological Engineering Services, Proposed Park Pointe Development, Coal Mine Hazard Assessment and Ground Proofing Program, Swanson Property, King County Parcel No. 262405-9019, 7332 Lakemont Boulevard SE, Bellevue, Washington*, prepared for Isola Homes, 57 pages.

BACKGROUND INFORMATION

The City of Bellevue review letter is referenced as follows:

- City of Bellevue, November 22, 2017, *Park Point PUD – 16-145946-OL and 16-1433970-LK*, prepared by Peter Rosen, 8 pages.

Toby Coenen, PE, of PACE provided ICE with the design plan referenced as follows:

- PACE, May 4, 2018, *Park Pointe PUD, 7219 & 7331 Lakemont Blvd SE, Stormwater Site Plan, PUD Revision 1,* sheet E5.

ICE RESPONSE TO CITY OF BELLEVUE COMMENTS

Our Response to City of Bellevue Comments follows a restatement of the review comment in bold/italics.

Coal Mine Hazards – The Revised Coal Mine Hazard Assessment (Icicle Creek Engineers, October 5, 2016) provides results of a ground-proofing study and includes Figure 4 which identifies a higher and lower risk Coal Mine Subsidence (CMS) Zone 2. The report recommends that the stormwater vault can be sited within the lower risk CMS Zone 2, but no development should occur within the higher risk CMS Zone 2 (where the mine shaft is less than 100 feet below the ground surface). Please confirm the proposed site plan is consistent with identified boundaries of the higher risk CMS Zone 2 in Figure 4, and that no development including the stormwater vault, access Road E, or the sewer lift station would encroach into the higher risk CMZ Zone 2.

DSD - 000755

ICE has reviewed the design plan referenced above by PACE; no other plans were reviewed. Based on our review of the Stormwater Plan, no drainage structures, including the stormwater vault and the sewer lift station, are proposed within the Higher Risk CMS Zone 2. The current Stormwater Plan is consistent with recommendations presented in ICE's report dated October 5, 2016. According to email correspondence from Mr. Coenen, Access Road E has been eliminated.

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****

We trust this letter meets your present needs. Please call if you have any questions.

Yours very truly,
Icicle Creek Engineers, Inc.

Brian R. Beaman, PE, LEG, LHG
Principal Engineer/Geologist/Hydrogeologist

Document ID: 1180001.CMH Response

Submitted via email and surface mail (one original copy)
cc: Toby Coenen, PE, Project Manager, PACE (email)

DSD - 000756

ICICLECREEK ENGINEERS

November 4, 2020

Jeff Wegener, Isola Homes
c/o Scott Sherrow, PACE
11255 Kirkland Way, Suite 300
Kirkland, Washington 98033

Letter
Geotechnical Consultation
Response to Comments
Park Pointe PUD (19-121109-LL, 16-143970-LK, 16-145946-LO)
Residential Development
Bellevue, Washington
ICE File No. 1180-001

This letter presents the results of Icicle Creek Engineers' (ICE's) geotechnical consultation regarding our response to City of Bellevue design plans comments prepared by Tom McFarlane, Development Services. These comments are related to the Park Pointe PUD in Bellevue, Washington. The following is a summary of Mr. McFarlane's comments:

DRAFT

"I have reviewed the plans and documents that were submitted for the Park Pointe PUD Planned Unit Development (16-143970 LK), Critical Areas permit (16-145946 LO), and Preliminary Plat (19-121109 LL). The following comments are based on review of the preliminary plat application and are related to the coal mine hazard assessment provided by Icicle Creek Engineers.

The hazard assessment identifies a CMS (Coal Mine Subsidence) Zone 2 on the subject property. The CMS Zone 2 is subdivided into a higher risk zone and a lower risk zone. The report recommends that development on the lower risk zone be limited to a stormwater detention pond or underground vault, and that no development occur within the higher risk zone (see attached excerpt from the report).

On review of the preliminary plat plans, it was noted that a portion of lot 16 and a section of a sanitary sewer line and a sewer force main extend onto the lower risk CMS Zone 2 (see attached scans of Sheet P2-Base Density Calculation, and P5-Site Plan B). This configuration is contrary to the recommendations in the hazard assessment. No development is shown in the higher risk CMS Zone 2.

The project plans must be revised to exclude any development other than the stormwater vault and associated storm lines from the lower risk CMS Zone 2."

ICE Response: We have reviewed sheet P2 and sheet E8 of the current civil design plans (PACE, revised October 30, 2020). It appears that about 40 feet of sanitary sewer (SS - gravity) and 50 feet of force main (FM) are planned to cross the northwest corner of a Lower Risk CMS Zone 2. A "Lower Risk CMS Zone 2" is described by ICE in our report dated October 5, 2016 (Coal Mine Hazard Assessment and Ground Proofing Program) as being suitable for siting a stormwater vault, where the abandoned mine *"is more*

DSD - 000757

than 100 feet below the ground surface." At the SS and FM crossing area, the mine is about 150 to 200 feet below the ground surface. In addition, Boring B-15 and Boring B-16 that were completed as part of ICE's October 2016 Coal Mine Hazard Assessment and Ground Proofing Program were located less than 50 feet from the SS and FM area (within the Lot 16 area). These borings encountered about 55 and 51 feet, respectively, of Glacial Till overlying the Renton Formation Bedrock. Glacial Till has the strength of unreinforced concrete and this thickness of any mine caving should effectively be bridged by the Glacial Till.

In our opinion, the 40- and 50-foot segments of SS and FM should be "sleeved" with a structural pipe capable of providing support to span a 10-foot void to mitigate sinkhole risk within Lower Risk CMS Zone 2. No mitigation is required to mitigate this condition within the affected area of Lot 16 as the building site is located outside of Lower Risk CMS Zone 2.

****

We trust this information meets your present needs. If you have any questions or if we can be of further assistance, please call.

DRAFT

Yours very truly,
Icicle Creek Engineers, Inc.

Brian R. Beaman, PE, LEG, LHG
Principal Engineer/Geologist/Hydrogeologist

Document ID: 1180001.RspCom

Submitted via email (pdf) and surface mail (one original copy)

DSD - 000758

PARK POINTE PUD
PRELIMINARY STORM DRAINAGE REPORT

For

City of Bellevue
October 10, 2016
Revised May 17, 2017
Revised June 6, 2018
Revised August 16, 2019
Revised November 30, 2020

Prepared For:

Isola Homes
13555 SE 36th Street, #320
Bellevue, WA 98006

Prepared by:
Christian Nichols, P.E.

Reviewed by:
Scott Sherrow, P.E.

November 30, 2020

Prepared By:

PACE Engineers, Inc.
11255 Kirkland Way #300
Kirkland, WA 98033
425.827.2014

PACE
An Engineering Services Company

DSD - 000759

PARK POINTE PUD

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SECTION 1: PROJECT OVERVIEW

Jurisdictional Requirements

This report supports the Park Pointe Planned Unit Development (PUD) proposed by Isola Homes. The project involves constructing 35 single-family detached homes on two existing lots at 7219 and 7331 Lakemont Boulevard. The City of Bellevue provided initial project input during a pre-application meeting and summarized their finding in a letter dated July 14, 2015 (City reference number 15-115585-DB).

The City of Bellevue Utilities Department regulates development impacts on stormwater with the January 2016 *Storm and Surface Water Engineering Standards* (SSWES). This manual establishes minimum requirements for development and also outlines the report and plan requirements necessary to document compliance of these standards. This report follows the general outline provided by the Standards.

The reviewer should recognize that this report is preliminary. A final report will be submitted in conjunction with construction documents following review and approval of the PUD application.

This preliminary report was revised for the November, 2020 resubmittal of the Park Pointe PUD application. As part of this revision, the overall project underwent significant revisions in response to City of Bellevue staff review as summarized in Peter Rosen's December 2, 2019 review letter. This report documents the following significant project changes including (1) removal of the underlying plat subdivision request, and (2) the revision of the stormwater discharge approach eliminating the surface dispersion adjacent to Coal Creek.

Additionally, this revision provides greater detail to explain how the project complies with the overall regulatory framework, and expands the discussion of LID design features to highlight non-structural methods used on the project. The intent is to focus reviewers' efforts to specific areas of expertise and oversight (i.e., public works' emphasis on the SSWES Minimum Requirements, and planning staff's focus on general site layout and overall design issues.

Project Description

The subject property is an irregularly-shaped assemblage of two tax parcels located on the west side of Lakemont Boulevard within the City of Bellevue, Washington. The two parcels total to an area of 12.29 acres, and is currently occupied with single-family residences, maintained pasture, and mowed lawn.

The site is located in the SE ¼ of Section 26, Township 24 North, Range 5 East of the Willamette Meridian in King County, WA. See *Figure 1-1: Vicinity Map* on the following page. The site is bordered on the east by Lakemont Boulevard Southeast, and undeveloped forest to the north, south, and west. Coal Creek and the Coal Creek Trail are adjacent to the site in the south west corner of the site. The two tax parcels comprising the project area are, 262405-9019 and 262405-9022.

Proposed development of the property includes the construction of 35 single-family residences, driveways, sidewalks, landscaping, stormwater flow control facilities, and

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SECTION 3: OFFSITE ANALYSIS

Downstream Resource Review:
The following resources were reviewed in preparation of this report.

- Site Survey
- *FEMA – Flood Insurance Rate Map (FIRM #53033C0667 F)*
- FEMA Flood Insurance Rate (FIRM) Map 53033C0667 F, dated May 16, 1995, was reviewed. The project site is located within Zone X, with no flood areas identified on the site. See FIRM map included at the end of this section.
- *Geotechnical Report* by Geotech Consultants, Inc. January 19, 2016
- *Coal Mine Hazard Assessment and Ground Proofing Program* by Icicle Creek Engineers, Inc. August 2, 2016.

Downstream Investigation:

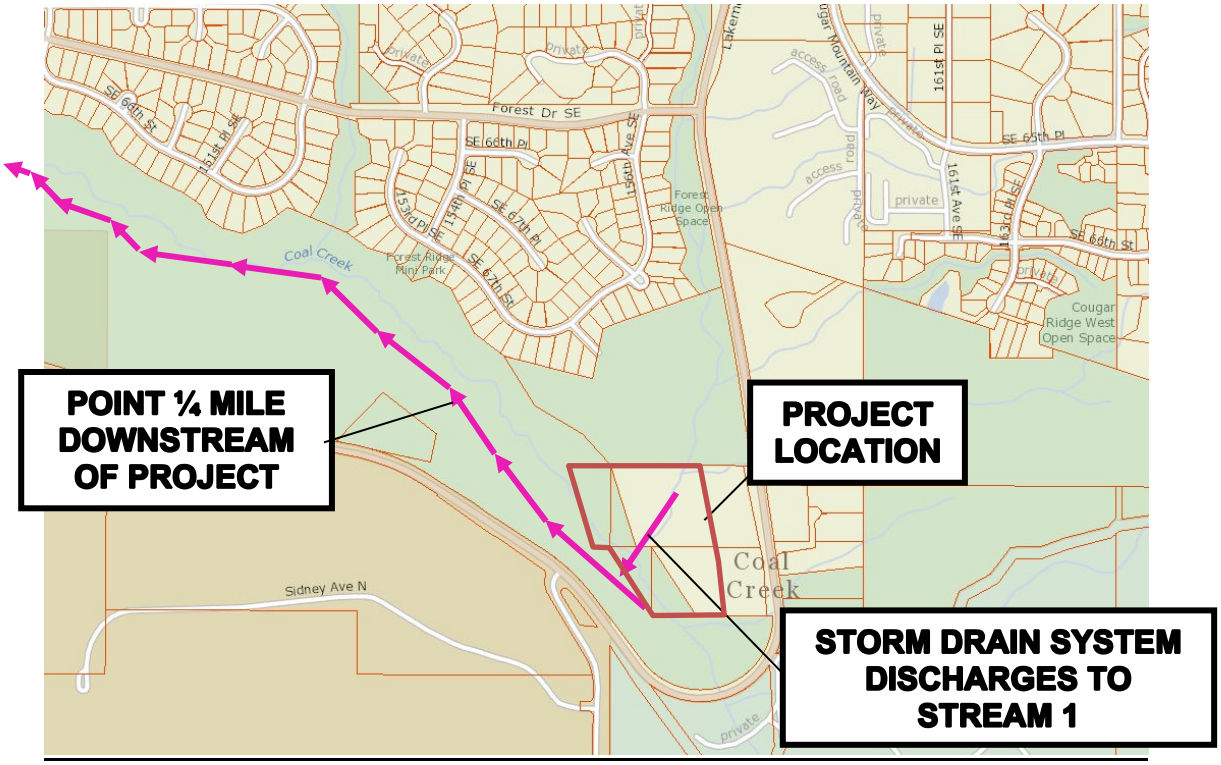

Figure 3-1: Downstream Map

The site lies within the Coal Creek Drainage Basin and proposes to route stormwater to a vault on-site before controlled discharge to Stream 1. Stream 1 is tributary to Coal Creek which discharges into Lake Washington approximate 4.25 miles downstream of the site.

Field Inspection:
The field investigation was conducted on September 26, 2016. The weather was mostly sunny with a temperature of 68 degrees under dry conditions. The existing site generally slopes from the northeast to the southwest. Storm drainage sheet flows southwesterly

The Stormwater Site Planning process is integrated with the project's overall Low Impact Development (LID) efforts. LID strategies are difficult to separate from the project's On-Site Stormwater Management Best Management Practices (BMPs) that are covered in Minimum Requirement 5 (MR 5). We have therefore combined our discussion of both requirements in Section 4 of this report.

Minimum Requirement #2: Construction Stormwater Pollution Prevention:
A Construction Stormwater Pollution Prevention Plan Long Form (SWPPP) will be included with the final engineering design of this project.

Minimum Requirement #3: Source Control of Pollution:
This site is not a high-use site and therefore is not required to provide specific source control BMPs to address pollution containment.

Minimum Requirement #4: Preservation of Natural Drainage Systems and Outfalls:
The subject project is a redevelopment of an existing developed property; however, the project is classified as new development per Table 2.2 of the 2016 SSWES.

For the purposes of this report, this discussion is confined to the developed part of the site that is occupied by the existing houses and pasture. This area does not have a piped stormwater conveyance system. Instead, runoff exits the area as sheet and shallow concentrated flow into the three streams that bound the north, west and south sides of the development area. These streams combine in Coal Creek near the southwest corner of the development area. Under proposed conditions, runoff will discharge to the same southwest location via a storm sewer. The proposed storm drain outfall system will avoid erosion between the site and the existing streams.

Minimum Requirement #5: On-Site Stormwater Management:
Projects proposing greater than 2,000 square feet shall employ On-Site Stormwater Management. This project will employ On-site Stormwater Best Management Practices (BMPs) to infiltrate, disperse, and retain stormwater runoff onsite to the maximum extent feasible without causing flooding or erosion impacts.

The expanded discussion is included in Section 4 of this report.

Minimum Requirement #6: Runoff Treatment:
SSWES Chapter D5 establishes thresholds for requiring stormwater treatment facilities:

- Projects in which the total of pollution generating impervious surface (PGIS) is 5,000 square feet or more in a threshold discharge area of the project, or
- Projects in which the total of pollution-generating pervious surfaces (PGPS) is three-quarters (3/4) of an acre or more in a threshold discharge area, and from which there is a surface discharge in a natural or man-made conveyance system from the site.

This project produces approximately 59,747 square feet of new and replaced PGIS. Runoff treatment is required per Table 2.1 of the SSWES. Basic Water Quality treatment will be accomplished through the use of Contech StormFilters located downstream of the detention vault. Additional benefit is derived from the Flow Through Bioretention Planter though that BMP is not counted toward fulfilment of Minimum Requirement #6.

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See Section 5 for sizing of the water quality features.

Minimum Requirement #7: Flow Control:
Per Table 2.2 of the 2016 SSWES, the following require construction of flow control facilities and/or On-site Stormwater Management BMPs:

- Projects in which the total effective impervious surface is 10,000 square feet or more in a threshold discharge area; or
- Projects that convert ¾ acres or more of native vegetation to lawn or landscape, or convert 2.5 acres or more of native vegetation to pasture in a threshold discharge area, and from which there is a surface discharge in a natural or man-made conveyance system from the site; or
- Projects that through a combination of impervious surfaces and converted pervious surfaces cause a 0.1 cubic feet per second increase in the 100-year flow frequency from a threshold discharge area as estimated using the Western Washington Hydrology Model or other approved model.

The project results in 137,900-sf (3.16 ac) of new and replaced impervious surfaces, therefore, the project is required to provide flow control. Flow control will be provided with the construction of a detention vault. The detention vault has been sized using MGS Flood. See Section 5 for flow control calculations.

Minimum Requirement #8: Wetlands Protection:

The initial review of this report raised concerns that development could alter runoff patterns and impact the hydrology of the wetlands west of the project's developed area. To address this, clean roof runoff from portions of 3 houses adjacent to Wetland A will be dispersed and allowed to drain directly to it. The reviewer is directed to Figure 2-1 which depicts the specific areas routed to Wetland A and the difference in flows between pre- and post-developed conditions flowing to the wetland. As seen in the figure, the additional flow conveyed to Wetland A will not adversely affect it. Runoff from these roof areas will bypass the detention vault and no flow control is provided for the runoff. To compensate for this uncontrolled runoff, runoff from a similar existing area is routed to the detention vault. In this case, flows from the Lakemont Boulevard pavement are detained. This area trade is explained further in Section 5 of this report.

Site wetlands have been delineated adjacent to the streams on the property. Talasea Consultants provided an in-depth review of the wetlands and other critical areas; consult that report for additional information.

Minimum Requirement #9: Operation and Maintenance:
An operation and Maintenance (O&M) Manual will be developed as part of the final engineering submittal.

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SECTION 3: OFFSITE ANALYSIS

Downstream Resource Review:
The following resources were reviewed in preparation of this report.

- Site Survey
- *FEMA – Flood Insurance Rate Map (FIRM #53033C0667 F)*
- FEMA Flood Insurance Rate (FIRM) Map 53033C0667 F, dated May 16, 1995, was reviewed. The project site is located within Zone X, with no flood areas identified on the site. See FIRM map included at the end of this section.
- *Geotechnical Report* by Geotech Consultants, Inc. January 19, 2016
- *Coal Mine Hazard Assessment and Ground Proofing Program* by Icicle Creek Engineers, Inc. August 2, 2016.

Downstream Investigation:

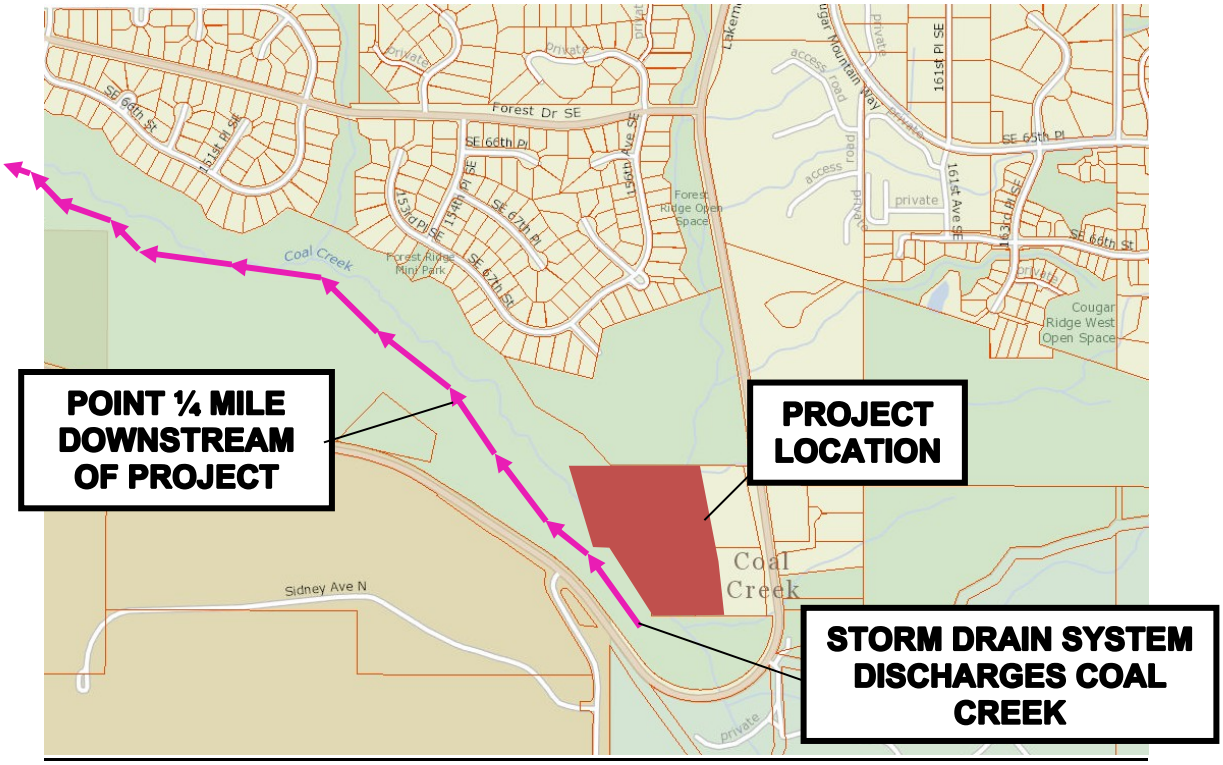

Figure 3-1: Downstream Map

The site lies within the Coal Creek Drainage Basin and proposes to route stormwater to a vault on-site before controlled discharge to Coal Creek. Coal Creek discharges into Lake Washington approximate 4.25 miles downstream of the site.

Field Inspection:
The field investigation was conducted on September 26, 2016. The weather was mostly sunny with a temperature of 68 degrees under dry conditions. The existing site generally slopes from the northeast to the southwest. Storm drainage sheet flows southwesterly

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through grass and forested land before entering Coal Creek and flowing northwest towards Lake Washington.

The proposed site development will not produce backwater effects upstream of the site and therefore the upstream area has been excluded from this analysis.

The existing site was not observed to have a piped conveyance system. Storm runoff generated from the site appears to sheet flow towards the nearby stream. Runoff is collected along the side of the trail and flows through piped culverts that discharge into the stream. No signs of erosion were observed on-site or between the site and the stream. The stream was observed for approximately ¼ mile downstream. The stream was dry during the field inspection and water was only encountered after the waterfall from another stream. Due to signs of erosion in the stream bed, outfall protection will be utilized where the pipe from the vault connects to the stream.

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SECTION 4: LID AND ON-SITE STORMWATER MANAGEMENT STRATEGIES

Section 4 expands on project conformance with Minimum Requirement 1 (Preparation of Stormwater Site Plan) and Minimum Requirement 5 (On-Site Stormwater Management). These are combined because the requirement for designing with Low Impact Development (LID) strategies is imposed through both Minimum Requirements 1 and 5.

This discussion follows the general outline contained in SSWES Chapter D6. We also relied on the Department of Ecology *Low Impact Development Manual for Puget Sound* (LID Manual) in considering certain aspects site planning and design.

A. Tier #1 – Minimize Runoff Generation

The first priority in managing stormwater runoff on-site is to minimize the amount of stormwater runoff that is generated. The project has evaluated Tier 1 BMPs in the order presented in Table 6.1 of the 2016 SWES and has implemented all Tier 1 techniques that are applicable to the site without causing erosion or flooding on-site or downstream.

Smart Site Design

The Smart Site Design goals are best described by the LID Manual. Specifically, the Park Pointe site planning effort adheres to the specific LID opportunities for new suburban development outlined in Section 3.2 of the LID manual including:

Section 3.2.1 Roads, Driveways and Parking – The proposed development layout minimizes impervious surface – a primary goal of Smart Site Design – by:

- Reducing the overall roadway length when compared to a conventional subdivision by eliminating lengthy cul-de-sacs.
- Reducing road widths relative to conventional road standards (Road B is 20 feet wide versus a conventional 22- or 24-foot section).
- Reducing typical driveway lengths (only half the homes are expected to provide driveway parking).
- Minimizing the amount of on-street parking. Only 5 on-street parking spaces are provided for the 35 homes.
- Sidewalks are located strategically to reflect expected pedestrian movement instead of prescriptive standards that frequently require walks on both side of a street.

These planning efforts reduce the transportation system's impervious area by roughly 20% compared with conventional road and driveway layouts.

Section 3.2.2 Building Design – House choice greatly affects the overall development impact. Par Pointe reduces these impacts through the following:

- Comparatively modest house size
- Selecting house designs that are better suited to increased density when compared to conventional suburban housing stock.

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Preserve Native Vegetation

Approximately half the overall site will remain undeveloped. This includes enhancing native vegetation within critical areas buffers.

Full Dispersion or Full Infiltration

Neither full dispersion nor full infiltration are practical on this site to natural constraints.

- Full infiltration is infeasible on the site due to the site being underlain by soils with low permeability and high groundwater. Only limited infiltration is anticipated.
- Full dispersion is not feasible. This BMP requires dispersion through a vegetative flow path that must be comprised of (a) native vegetation, (b) minimum length, and (c) maximum slope. The site topography does not offer an adequate flow path between the discharge point and receiving water.

Amended Soils

The soil within all developed pervious areas will be amended to meet the specifications of BMP T5.13, Post-Construction Soil Quality and Depth. This includes landscaped areas, grass lawns, as well as those stream and wetland buffers where plantings are proposed for enhancement and mitigation.

B. Tier #2 Retain Runoff On-site

The following Tier 2 BMPs must be evaluated for implementation in the order presented to retain runoff generated by the project. All runoff from impervious surfaces should be managed with at least one of the BMPs from Table 6.2A of the SSWES as site conditions allow, without causing erosion or flooding on-site or downstream. Natural Drainage Practices (NDPs) may be substituted for the required roof downspout controls and dispersion BMPs or used in addition to those required BMPs wherever site conditions allow and design criteria can be met (Table 6.2B).

The Required Tier 2 On-site stormwater management BMPs have been evaluated for feasibility on the project.

Roof downspout infiltration

Direct roof-to-infiltration is not proposed for two reasons:

- The overall density of the development lacks the physical space to accommodate setbacks to infiltration trenches or drywells.
- Infiltration capacity is restricted because the site is underlain with soils with limited permeability and high groundwater.

Roof Downspout Dispersion – Splash Blocks or Pop-up Drainage Emitter

Roof runoff from parts of all houses will discharge to splash blocks. From there, a number of alternative flow paths are depicted on Plan Sheet E4 including:

- Roof/downspout to dispersion through stream and wetland buffer. The direct discharge is necessary to maintain hydrology and runoff patterns to critical areas.

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- Roof/downspout dispersion to developed site with splash-blocks. Portions of five houses discharge directly to lawn/landscape before draining to the impervious paved roadway.
- Roof/downspout dispersion to pervious pavement. Splash-blocks discharge adjacent to the proposed pervious pavement. We recognize that the native soils below the permeable pavement offer limited infiltration. However, the intent of the BMP is not complete infiltration, but rather to retain as much rainfall on site as practical while attenuating overall runoff peaks and volumes.
- Roof/downspout dispersion to bioretention swale. Where physical space permits, narrow bioretention swales are proposed between houses to further slow runoff.

All of the above BMPs are identified as allowable alternatives with the exception of the required discharges to critical areas.

C. Natural Drainage Practices used in conjunction with Tier 2 BMPs

Natural Drainage Practices in Table 6.2B of the 2016 SWES have been evaluated and utilized for this project in concert with the BMPs previously evaluated. All are shown on Sheet E4 of the engineering plans.

Bioretention

Six narrow bioretention swales have been designed to collect limited amounts of roof runoff. The design of this facility adheres to the requirements listed in SSWES Section D6-03.2A1. To avoid prolonged ponding during the winter, the swales will be equipped with underdrains.

Pervious Pavement

Pervious pavement will be used on the property and will be connected to the detention vault. The design of this facility adheres to the requirements listed in SSWES Section D6-03.2B. An underdrain system will be provided to accept water in excess of the soil's infiltration capacity.

Rain Recycling

A below grade cistern will accept roof runoff from house numbers 17, 18 and 19. This runoff will be routed to a below grade cistern that will provide water for pea patch gardeners with an overflow to the detention vault west of the lots.

Vegetated Roofs

Consideration not required as all roof runoff addressed through lower tier BMPs.

Reverse Slope Sidewalks

Topography constraints preclude extensive consideration. BMP not practical where walk is adjacent to retaining walls. Other sidewalks are not adjacent to down-gradient vegetated areas (i.e. adjacent ground drains onto walk rather than away from walk). BMP deemed impractical.

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Minimal Excavation Foundation Systems

The extensive site grading needed to achieve the design grades throughout the site severely limits the number of houses where this BMP can be used because mass grading will disturb the native soil profile. Additional constraints imposed by this BMP are not understood at this preliminary project stage (e.g. viability of pile foundations with proposed buildings). BMP not considered further at this time.

D. Tier 3 – Infiltrate or Disperse Runoff Prior to Discharge

After evaluating and implementing all possible techniques and BMPs from Tiers 1 and 2, the following techniques must be implemented in the order presented below and used to infiltrate or disperse as much of the remaining runoff as possible, as site conditions allow, without causing flooding or erosion.

Perforated Stub-Out Connections

Roof runoff previously addressed through lower tier BMPs.

Dispersion Trenches

Topographical constraints preclude the implementation of dispersion trenches. Runoff from the detention vault was once designed to discharge to a dispersion trench upslope from Coal Creek, but it was ultimately decided infeasible due to existing slopes.

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SECTION 5: FLOW CONTROL AND WATER QUALITY ANALYSIS AND DESIGN

A. Hydrologic Analysis

The drainage analysis for detention and water quality sizing was performed following SSWES requirements. Per the Geotechnical Engineering Study provided by Geotech Consultants, Inc., the site is underlain with glacial till with very low permeability.

Pre-developed Conditions

The subject property is approximately 12.29 acres with a disturbed area of 6.37 acres. This analysis is confined to the disturbed area. The existing property is developed with two single-family houses.

Runoff from the site naturally sheet flows to the southwest into Coal Creek and eventually flows into Lake Washington. Pre-developed conditions for the entire project site were analyzed based on historic forested conditions. See *Pre-developed Conditions* in Table 1.

Table 1 – Pre-developed conditions land use

Site Basin Area		
Land Use	Area	
	(SF)	(Acre)
Forested	277,314	6.366
Total	277,314	6.366

Developed Conditions

Proposed development of the property will include construction of 35 single-family residences, driveways, sidewalks, landscaping, stormwater flow control facilities, and underground utilities.

All proposed impervious areas were measured from the proposed site plan and include disturbed area within the ROW. These areas are depicted and tabulated in Figure 4-1.

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Table 2 – Developed conditions land use

Site Basin Area						
Land Use	Area		Impervious		Pervious	
	(SF)	(Acre)	(SF)	(Acre)	(SF)	(Acre)
Total	277,314	6.37	137,900	3.16	139,414	3.21

The area tributary to the proposed stormwater vault has changed from the initial report draft. We altered the overall boundary in response to the site redesign, and also included the existing pavement within Lakemont Boulevard that drains to the new conveyance system. This 11,900 square feet of additional paved area cannot be separated from the site runoff due to topographic constraints.

To prevent oversizing the detention vault, runoff from an equal quantity of new impervious surface can be diverted away from the detention vault. We achieved this area trade by diverting runoff from 9,510 square feet of roof area to the critical area buffers adjacent to the buildings. The reviewer is directed to plan sheet E4 for the location of the specific roof areas. An additional area trade comes from the far south end of the proposed Lakemont Boulevard improvements where 1,050 square feet of new sidewalk and pavement are located at an elevation that will not drain to the detention vault.

The total area trade involves (a) 10,560 square feet of new impervious area requiring detention that bypasses the vault, and (b) 11,900 square feet of existing pavement from Lakemont Boulevard that does not require flow control, but is nonetheless diverted to the detention vault. See Figure 4-1 for a graphical depiction.

B. Water Quality Calculations

Per Table 2.1 of the 2016 SSWES, projects in which the total pollution generating impervious surface (PGIS) is 5,000 square feet or more in a threshold discharge area are required to provide water quality. The developed site is proposing approximately 59,748 sf of PGIS (see Figure 4-2 and Table 3 below), therefore, water quality is required.

Table 3 – PGIS areas

Site Basin Area		
Land Use	Impervious	
	(SF)	(Acre)
Road	30,378	0.70
Driveways	22,493	0.52
ROW Road	6,877	0.16

Water quality is provided by Contech StormFilters at the outflow of the vault. A preliminary sizing by Contech requires five 27-inch cartridges to provide basic water quality. The calculation to determine the number of cartridges required have been dictated by mass-

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loading criteria, because the significance of the PGIS area is greater than the detained flows out of the vault.

C. Detention Calculations

Per Table 2.2 of the SSWES, flow control facilities are required for projects that have more than 10,000 sf of effective impervious area. According to Table 2 of this report, this project proposes approximately 137,900 sf of effective impervious area. Because the project's effective impervious area is more than 10,000 sf, this project is required to provide flow control.

The Site revisions eliminated the interconnected flow-through bioretention planters and modified the quantity of pervious and impervious areas. As a result, the detention system was re-modeled to arrive at an accurate understanding of flows and volumes. The flow control standard requires matching developed discharge durations to predeveloped levels over a range of flows between 50% of the 2-year peak flow up to the full 50-year peak flow. The LID standard which extends the range of predeveloped rates down to 8% of the 2-year peak is not used. Software output contained in the initial draft of the report displayed included these results and indicated the vault did not meet the LID standard. This was mistakenly interpreted to imply the proposed BMPs we inadequate. This software modeling results were corrected to eliminate this source of confusion.

On-Site Stormwater Management BMPs reduce runoff intensity, duration, and volume. SSWES Section D6-03.3 quantifies the benefits by providing Flow Control or Sizing Credits. The results are typically a reduction in the overall detention volume. To simplify modeling and provide a margin of safety, the flow control credit for the bioretention swales and the rain recycling was not included in the modeling. The lone BMP considered in the simulation was the limited infiltration available through the pervious pavement. We anticipate the final engineering will consider all BMPs.

The vault calculations in Appendix A indicate the vault stores 92,400 cubic feet at the riser with one foot of freeboard.

SECTION 6: CONVEYANCE SYSTEM ANALYSIS AND DESIGN

The Site revisions eliminated the stormwater discharge to the existing 24-inch culvert on the southeast corner of the site. Therefore, conveyance calculations have been removed as well as the previously submitted Figure 6-1 indicating the tributary area to the existing culvert. Conveyance calculations for onsite storm pipes will be performed and included with the final engineering design.

SECTION 7: SPECIAL REPORTS AND STUDIES

The PUD application package includes reports discussing geotechnical site conditions, the existing mine hazard critical area, and streams and wetlands.

The report amendment includes a memorandum summarizing slope stability responding to the initial application review comments.

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SECTION 8: OTHER PERMITS

Additional permits anticipated for this project include:

- City of Bellevue:
  - Right-Of-Way Use Permit
  - Utility Extension Permit
  - Clearing and Grading Permit
  - Building Permits
- Washington State Department of Fish & Wildlife
  - Hydraulic Project Approval for working within stream (storm outfall)
- Washington State Department of Ecology
  - Coverage under the Construction Stormwater General Permit (construction site erosion control)

SECTION 9: CSWPPP ANALYSIS AND DESIGN

Detailed TESC calculations and CSWPPP Long Form will be included in final engineering design.

SECTION 10: BOND QUANTITIES, FACILITY SUMMARIES, AND DECLARATION OF COVENANT

An engineering cost estimate will be provided prior to final engineering approval for this project.

SECTION 11: OPERATION AND MAINTENANCE MANUAL

An Operations and Maintenance Manual will be included with the final engineering design.

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APPENDIX

DSD - 000775

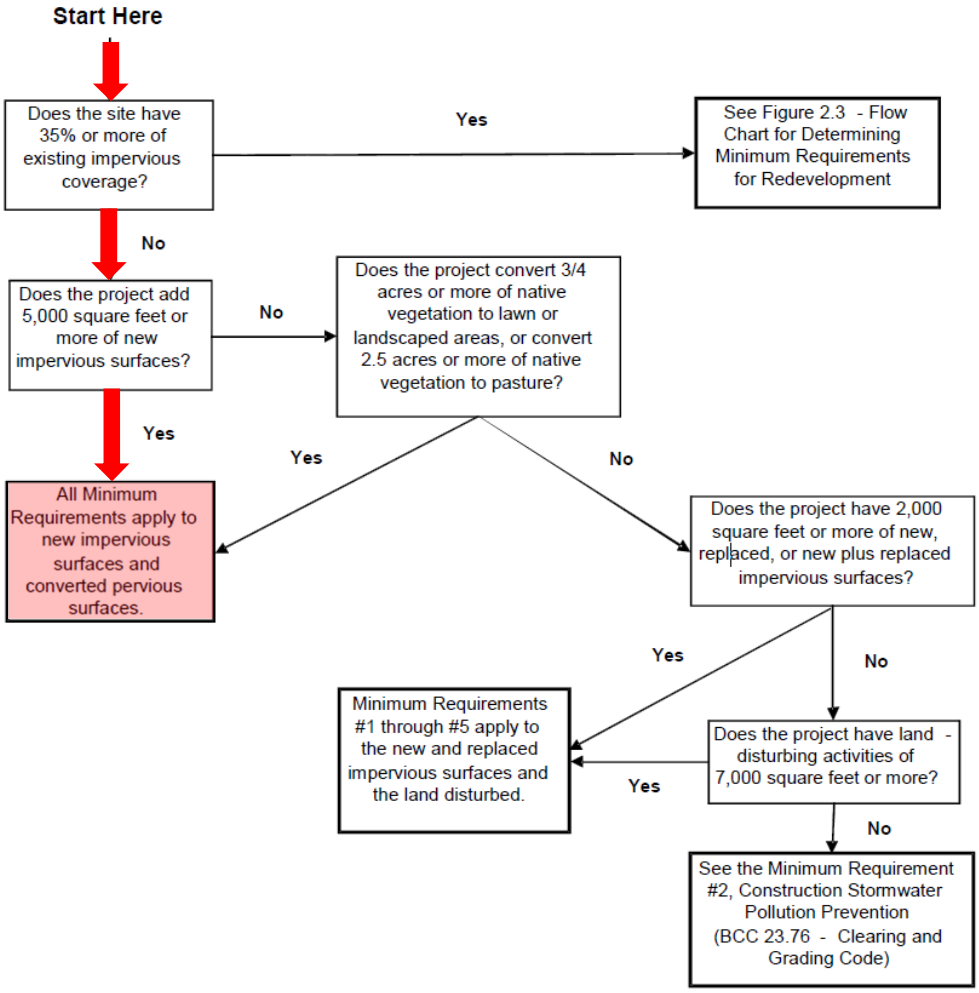

Figure 2.2 Flow Chart for Determining Requirements for New Development

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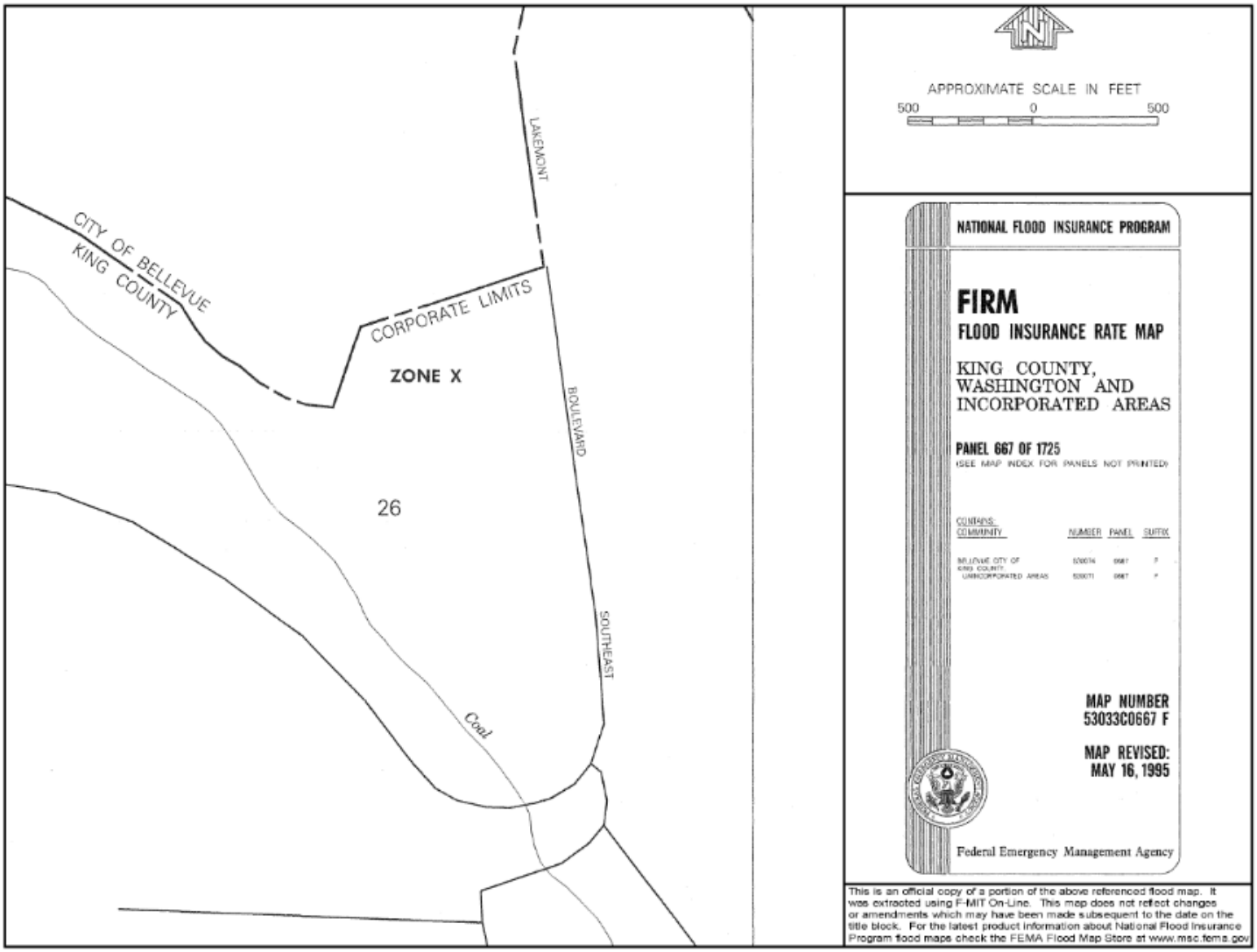
LAKEMONT
CITY OF BELLEVUE
KING COUNTY
CORPORATE LIMITS
ZONE X
BOULEVARD
26
SOUTHEAST
Coal
APPROXIMATE SCALE IN FEET
500
0
500
NATIONAL FLOOD INSURANCE PROGRAM
FIRM
FLOOD INSURANCE RATE MAP
KING COUNTY, WASHINGTON AND INCORPORATED AREAS
PANEL 667 OF 1725
(SEE MAP INDEX FOR PANELS NOT PRINTED)
CONTAINS:
COMMUNITY
NUMBER
PANEL
SUFFIX
BELLEVUE, CITY OF
KING COUNTY
UNINCORPORATED AREAS
MAP NUMBER
53033C0667 F
MAP REVISED:
MAY 16, 1995
Federal Emergency Management Agency
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

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Coal Creek Basin

Lake Washington Watershed (WRIA 8)
State Stream #08-0268

LAND CHARACTERISTICS

Basin Area: 3,990 Total Acres (11% of the City)
Drainage Jurisdiction(s):
2,181.7 Acres - in Bellevue
1,275.7 Acres - in King County
532.1 Acres - in Newcastle

Highest Elevation: 1,561 Ft
Lowest Elevation: 18 Ft

Total Length of Open Channel: 85,838 Ft
Total Length of Storm Drainage Pipes: 266,341 Ft
Built Rain Storage Volume per Acre of Impervious Surface:
Less than 0.5 Inches

SALMON PRESENT in BASIN

Chinook*+
Sockeye
Rainbow & cutthroat trout
Steelhead
Coho+

* Listed Federal Endangered Species
\+ City Species of Local Importance (Bellevue Land Use Code 20.25H.150A)

POPULATION

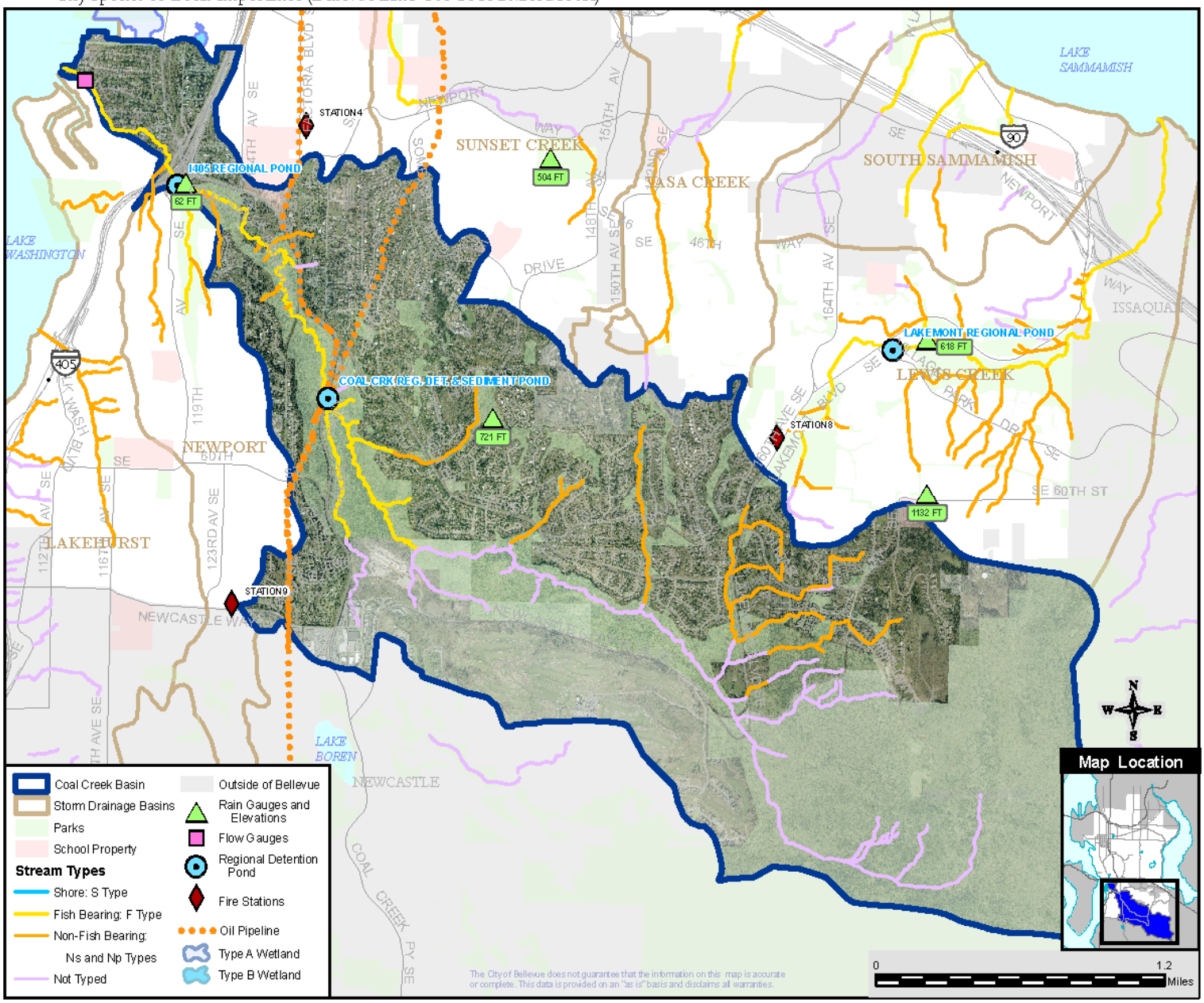
City Basin Population (2000): 10,144 (9.1% of the City)
Basin Population Density: 1,852 People/Square Mile
Number 3 of 26 Basins (One is the lowest density)

LAND USE (within Bellevue city limits)

Public Right of Way:	9.16%	365.38 Acres
Commercial/Office:	0.03%	0.6 Acres
Industrial:	0.01%	0.3 Acres
Institutional/Government:	3.06%	66.8 Acres
Mixed Use/Misc:	3.77%	82.2 Acres
Multi-Family Residential:	1.44%	31.4 Acres
Open Space/Park:	10.89%	237.7 Acres
Single Family Residential:	50.14%	1,093.9 Acres

LAND COVER

Impervious:	20%
Tree Canopy:	58%
Impervious in 100 Ft Stream Buffer:	8%
Tree Canopy in 100 Ft Stream Buffer:	85%

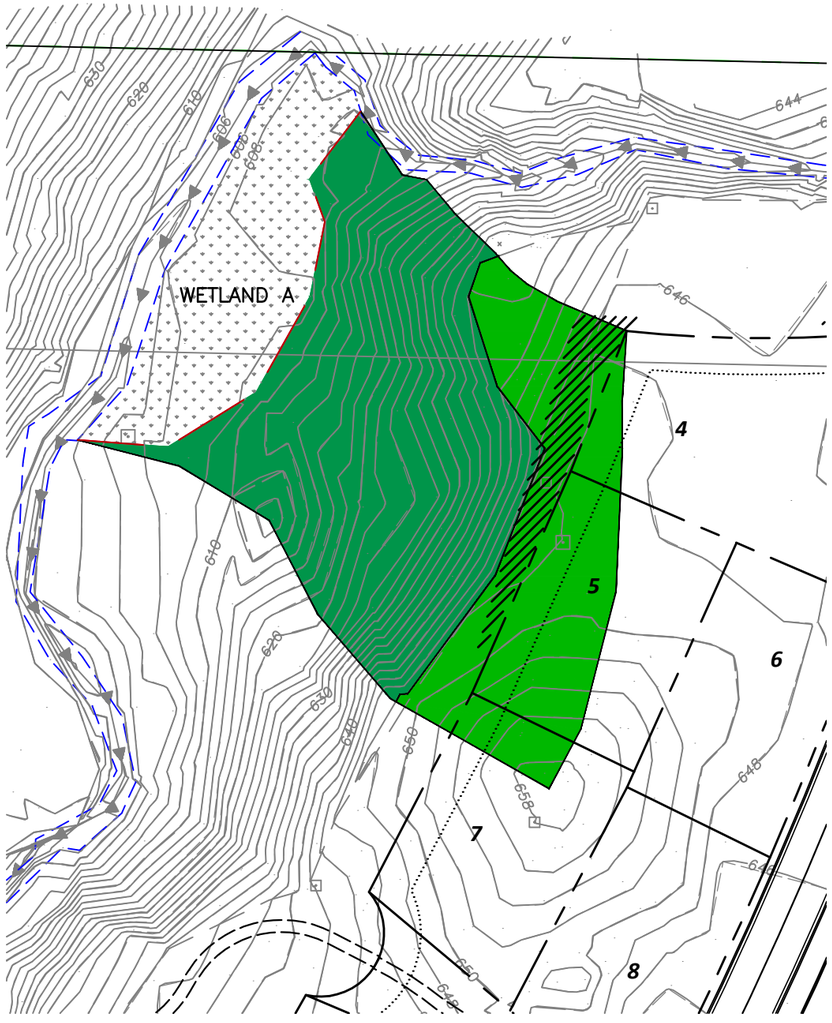


V:\utpl\ArcGIS\Storm\BasinFactSheets2010\MapBkPLTS\StormBasinFactSht21Jul2010_LegSW.mxd

Plot Date: 7/28/2010

DSD - 000778

PREDEVELOPED CONDITIONS



LEGEND:

PREDEVELOPED CONDITIONS:

FOREST = 11,660 SF (0.268 AC)

TILL GRASS = 6,563 SF (0.151 AC)

DEVELOPED CONDITIONS:

TILL GRASS = 2,537 SF (0.058 AC)
EX. TILL GRASS = 3,098 SF (0.071 AC)

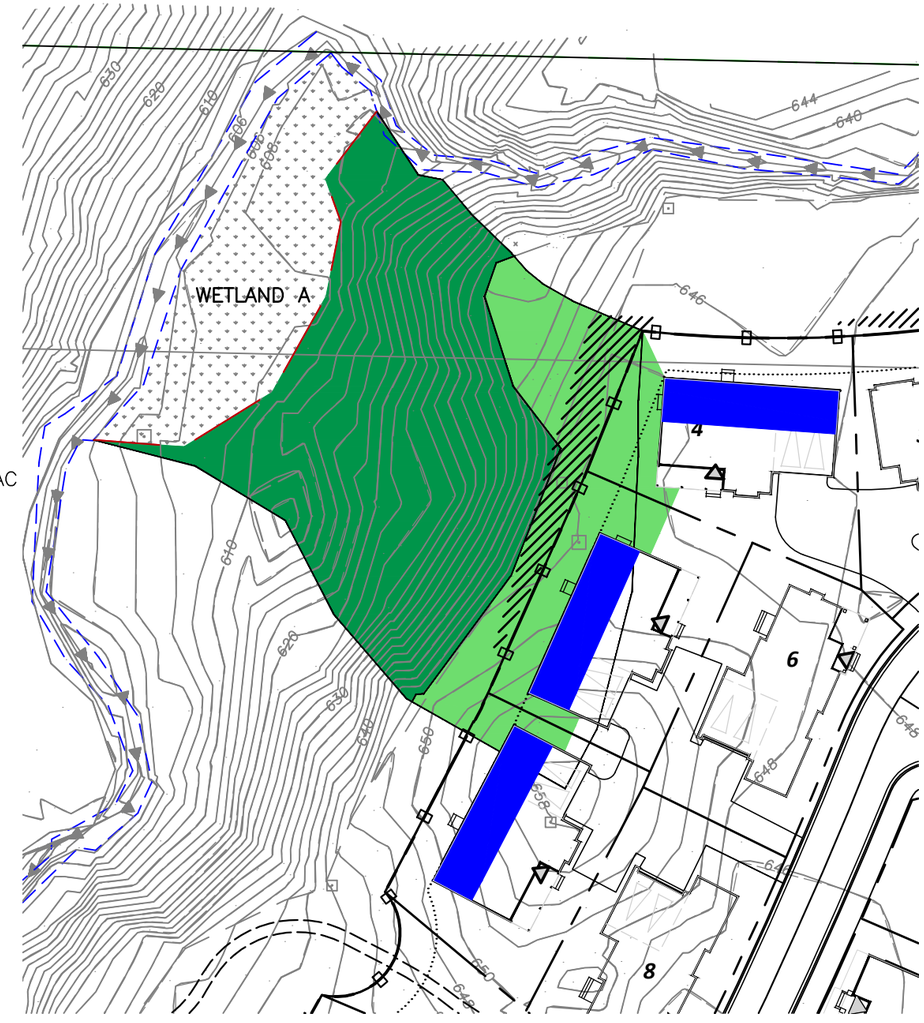
IMPERVIOUS ROOF AREA = 2,468 SF (0.057 AC

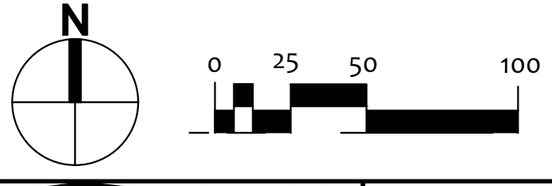
EX. FOREST = 11,660 SF (0.268 AC)

FLOWS TO WETLAND A		
	PREDEVELOPED (CFS)	POSTDEVELOPED (CFS)
2–YR	0.037	0.054
10–YR	0.054	0.075
25–YR	0.097	0.125
100–YR	0.151	0.198

*CALCULATED W/ CONTINUOUS HYDROLOGIC MODEL MGS FLOOD W/ 15–MINUTE TIMESTEPS

POSTDEVELOPED CONDITIONS





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PARK POINTE
FIGURE 2-1

FLOW TO WETLANDS

2020-10-22

PROJECT NO. 15436

SHEET 1 OF 1

FILE NAME: N:\PROJECTS\15436 LAKECOURT PROPERTY FEASIBILITY\CAD\ENGINEERING\PLANSET\WETLAND\15436_FLOW TO WETLANDS.DWG

DSD - 000779

LEGEND:

IMPERVIOUS AREA
ON-SITE:
ROAD = 30,378 SF
DRIVEWAYS = 22,493 SF
SIDEWALK = 7,716 SF
HOUSE = 65,060 SF

ROW:
ROAD = 6,877 SF

SIDEWALK = 4,036 SF

TOTAL IMPERVIOUS = 136,560 SF (3.13 AC)

PERVIOUS AREA
ONSITE:
TILL GRASS = 134,613 SF

ROW:
PLANTER = 3,790 SF

TOTAL PERVIOUS = 138,403 SF (3.18 AC)

TRADE AREA:

BYPASSED AREA
HOUSES = 9,510 SF
ROW = 1,050 SF
TOTAL = 10,560 SF (0.24 AC)

NON-TARGETED AREA COLLECTED
ROW = 11,900 SF (0.27 AC)

AREA INPUT FOR FACILITY SIZING:

IMPERVIOUS = 137,900 SF (3.16 AC)
PERVIOUS = 139,414 SF (3.21 AC)

N

0 50 100 200

FILE NAME: P:\PROJ\15436 LAKECAST PROPERTY FEASIBILITY\CAD\ENGINEERING\FIGURES\FIGURE 4-1_DEVELOPED_AREA_MAP.DWG

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PARK POINTE
FIGURE 4-1

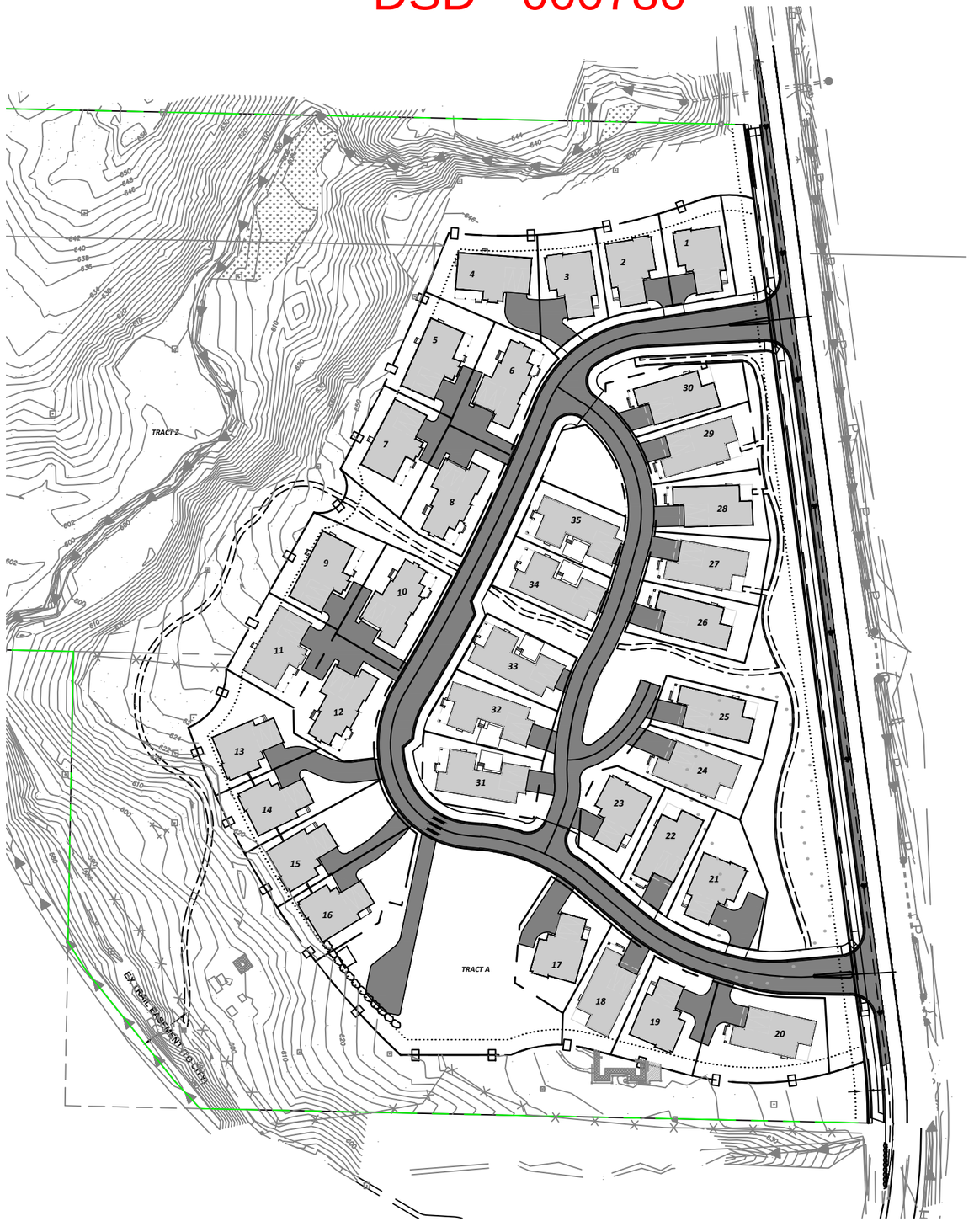
DEVELOPED AREA MAP

2020-11-10

PROJECT NO. 15436

SHEET 1 OF 1

DSD - 000780



LEGEND:

PGIS AREA
ON-SITE:
ROAD = 30,378 SF
DRIVEWAYS = 22,493 SF

ROW:
ROAD = 6,877 SF

TOTAL = 59,748 SF
(1.37 AC)

N

0 50 100 200

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PARK POINTE
FIGURE 4-2

PGIS AREA MAP

2020-11-10

PROJECT NO.
15436
SHEET 1 OF 1

FILE NAME: P:\PDX\15436 LAKECAST PROPERTY FEASIBILITY\CAD\ENGINEERING\PLANSET\PGIS_AREA_EXHIBIT.DWG

DSD - 000781

MGS FLOOD
PROJECT REPORT

Program Version: MGSFlood 4.50
Program License Number: 201610006
Project Simulation Performed on: 11/09/2020 4:35 PM
Report Generation Date: 11/09/2020 4:36 PM

Input File Name: PUD Vault Sizing 15min.fld
Project Name: Lakemont
Analysis Title: Detention Sizing
Comments:

PRECIPITATION INPUT

Computational Time Step (Minutes): 15

Extended Precipitation Time Series Selected
Climatic Region Number: 19

Full Period of Record Available used for Routing
Precipitation Station : 96005605 Puget East 56 in_5min 10/01/1939-10/01/2097
Evaporation Station : 961056 Puget East 56 in MAP
Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 1
HSPF Parameter Region Name : USGS Default

********** Default HSPF Parameters Used (Not Modified by User) **********

********** WATERSHED DEFINITION **********

Predevelopment/Post Development Tributary Area Summary

	Predeveloped	Post Developed
Total Subbasin Area (acres)	6.370	6.370
Area of Links that Include Precip/Evap (acres)	0.000	0.000
Total (acres)	6.370	6.370

----------SCENARIO: PREDEVELOPED
Number of Subbasins: 1

---------- Subbasin : PREDEV ----------

	-------Area (Acres) --------
Till Forest	6.370
Subbasin Total	6.370

DSD - 000782

----------SCENARIO: POSTDEVELOPED
Number of Subbasins: 1

---------- Subbasin : POST DEV ----------
-------Area (Acres) --------

Till Grass	3.210
Impervious	3.160
Subbasin Total	6.370

********** **LINK DATA** **********

----------SCENARIO: PREDEVELOPED
Number of Links: 0

********** **LINK DATA** **********

----------SCENARIO: POSTDEVELOPED
Number of Links: 1

Link Name: DET VAULT
Link Type: Structure
Downstream Link: None

Prismatic Pond Option Used

Pond Floor Elevation (ft)	:	616.00
Riser Crest Elevation (ft)	:	627.00
Max Pond Elevation (ft)	:	627.50
Storage Depth (ft)	:	11.00
Pond Bottom Length (ft)	:	120.0
Pond Bottom Width (ft)	:	70.0
Pond Side Slopes (ft/ft)	:	L1= 0.00 L2= 0.00 W1= 0.00 W2= 0.00
Bottom Area (sq-ft)	:	8400.
Area at Riser Crest El (sq-ft)	:	8,400.
(acres)	:	0.193
Volume at Riser Crest (cu-ft)	:	92,400.
(ac-ft)	:	2.121
Area at Max Elevation (sq-ft)	:	8400.
(acres)	:	0.193
Vol at Max Elevation (cu-ft)	:	96,600.
(ac-ft)	:	2.218

Massmann Infiltration Option Used
Hydraulic Conductivity (in/hr) : 0.00
Massmann Regression Used to Estimate Hydralic Gradient
Depth to Water Table (ft) : 100.00
Bio-Fouling Potential : Low
Maintenance : Average or Better

Riser Geometry

DSD - 000783

Riser Structure Type : Circular
Riser Diameter (in) : 18.00
Common Length (ft) : 0.000
Riser Crest Elevation : 627.00 ft

Hydraulic Structure Geometry

Number of Devices: 3

---Device Number 1 ---
Device Type : Circular Orifice
Control Elevation (ft) : 616.00
Diameter (in) : 1.42
Orientation : Horizontal
Elbow : No

---Device Number 2 ---
Device Type : Circular Orifice
Control Elevation (ft) : 622.50
Diameter (in) : 1.90
Orientation : Horizontal
Elbow : No

---Device Number 3 ---
Device Type : Circular Orifice
Control Elevation (ft) : 623.80
Diameter (in) : 1.20
Orientation : Horizontal
Elbow : Yes

Structure Stage, Storage Discharge Tables

Link: Lnk2 DET VAULT

Elev (ft)	Storage (ac-ft)	Discharge (cfs)	Infilt Discharge (cfs)
616.000	0.000	0.000	0.000
616.035	6.744E-03	0.010	0.000
616.070	1.349E-02	0.014	0.000
616.140	2.699E-02	0.020	0.000
616.280	5.399E-02	0.028	0.000
616.420	8.099E-02	0.035	0.000
616.560	0.108	0.040	0.000
616.700	0.135	0.045	0.000
616.840	0.162	0.049	0.000
616.980	0.189	0.053	0.000
617.120	0.216	0.057	0.000
617.260	0.243	0.060	0.000
617.400	0.270	0.064	0.000
617.540	0.297	0.067	0.000
617.680	0.324	0.070	0.000
617.820	0.351	0.073	0.000
617.960	0.378	0.075	0.000
618.100	0.405	0.078	0.000

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618.240	0.432	0.081	0.000
618.380	0.459	0.083	0.000
618.520	0.486	0.085	0.000
618.660	0.513	0.088	0.000
618.800	0.540	0.090	0.000
618.940	0.567	0.092	0.000
619.080	0.594	0.094	0.000
619.220	0.621	0.097	0.000
619.360	0.648	0.099	0.000
619.500	0.675	0.101	0.000
619.640	0.702	0.103	0.000
619.780	0.729	0.105	0.000
619.920	0.756	0.107	0.000
620.060	0.783	0.108	0.000
620.200	0.810	0.110	0.000
620.340	0.837	0.112	0.000
620.480	0.864	0.114	0.000
620.620	0.891	0.116	0.000
620.760	0.918	0.117	0.000
620.901	0.945	0.119	0.000
621.041	0.972	0.121	0.000
621.181	0.999	0.122	0.000
621.321	1.026	0.124	0.000
621.461	1.053	0.126	0.000
621.601	1.080	0.127	0.000
621.741	1.107	0.129	0.000
621.881	1.134	0.130	0.000
622.021	1.161	0.132	0.000
622.161	1.188	0.134	0.000
622.301	1.215	0.135	0.000
622.351	1.225	0.136	0.000
622.400	1.234	0.136	0.000
622.450	1.244	0.137	0.000
622.500	1.253	0.137	0.000
622.535	1.260	0.156	0.000
622.570	1.267	0.163	0.000
622.605	1.274	0.169	0.000
622.640	1.280	0.175	0.000
622.780	1.307	0.191	0.000
622.920	1.334	0.204	0.000
623.060	1.361	0.215	0.000
623.200	1.388	0.225	0.000
623.340	1.415	0.234	0.000
623.480	1.442	0.243	0.000
623.620	1.469	0.250	0.000
623.665	1.478	0.253	0.000
623.710	1.487	0.255	0.000
623.755	1.495	0.258	0.000
623.800	1.504	0.260	0.000
623.835	1.511	0.269	0.000
623.870	1.518	0.273	0.000
623.905	1.524	0.277	0.000
623.940	1.531	0.281	0.000
624.080	1.558	0.293	0.000
624.220	1.585	0.304	0.000
624.360	1.612	0.314	0.000

DSD - 000785

624.500	1.639	0.324	0.000
624.640	1.666	0.333	0.000
624.780	1.693	0.341	0.000
624.920	1.720	0.349	0.000
625.060	1.747	0.357	0.000
625.200	1.774	0.365	0.000
625.340	1.801	0.372	0.000
625.480	1.828	0.379	0.000
625.620	1.855	0.386	0.000
625.760	1.882	0.393	0.000
625.900	1.909	0.400	0.000
626.040	1.936	0.406	0.000
626.180	1.963	0.413	0.000
626.320	1.990	0.419	0.000
626.460	2.017	0.425	0.000
626.600	2.044	0.431	0.000
626.740	2.071	0.437	0.000
626.880	2.098	0.443	0.000
627.020	2.125	0.495	0.000
627.160	2.152	1.468	0.000
627.300	2.179	2.964	0.000
627.440	2.206	4.526	0.000
627.580	2.233	5.745	0.000
627.720	2.260	6.444	0.000
627.860	2.287	7.055	0.000
628.000	2.314	7.575	0.000

**************************FLOOD FREQUENCY AND DURATION STATISTICS********************

----------SCENARIO: PREDEVELOPED
Number of Subbasins: 1
Number of Links: 0

----------SCENARIO: POSTDEVELOPED
Number of Subbasins: 1
Number of Links: 1

********** Link: DET VAULT ********** Link WSEL Stats
Annual Maxima WSEL

Max Date	WSEL (ft)
12/07/1939	622.547
01/18/1941	620.007
12/20/1941	621.168
11/23/1942	622.578
10/17/1943	618.473
02/07/1945	622.880
02/06/1946	620.231
11/23/1946	621.539
10/19/1947	623.019
02/23/1949	621.291
01/22/1950	623.027
02/09/1951	624.311

10/03/1951	619.548
01/12/1953	622.964
01/06/1954	621.298
11/19/1954	619.995
01/06/1956	623.745
02/26/1957	622.532
01/17/1958	621.812
01/13/1959	623.323
11/21/1959	622.971
11/24/1960	623.268
12/21/1961	619.983
02/04/1963	620.337
11/15/1963	620.410
12/01/1964	621.546
12/29/1965	621.379
12/16/1966	622.729
01/20/1968	620.946
12/11/1968	621.838
01/27/1970	622.944
12/07/1970	622.265
03/05/1972	624.643
12/23/1972	623.977
01/18/1974	622.355
12/27/1974	620.868
12/04/1975	621.613
08/26/1977	619.261
12/15/1977	623.488
03/05/1979	619.063
12/18/1979	626.001
12/30/1980	621.858
10/06/1981	624.772
01/08/1983	622.370
03/21/1984	619.438
11/04/1984	620.285
01/19/1986	623.362
11/24/1986	625.116
04/06/1988	620.868
04/06/1989	620.727
01/09/1990	626.888
04/05/1991	625.067
01/31/1992	623.338
03/23/1993	619.351
03/03/1994	619.820
12/27/1994	622.662
02/09/1996	627.052
01/02/1997	625.374
10/08/1997	619.577
11/26/1998	625.250
03/29/2000	621.278
05/05/2001	620.599
11/15/2001	620.224
03/31/2003	624.505
10/24/2003	621.678
02/08/2005	620.145
11/28/2005	622.689
11/27/2006	621.259

01/07/2008	622.723
02/18/2009	624.981
01/10/2010	622.556
11/17/2010	624.699
10/02/2011	621.168
01/20/2013	626.161
01/29/2014	621.846
03/30/2015	620.207
01/06/2016	623.964
11/01/2016	620.842
01/31/2018	621.453
01/12/2019	622.983
03/31/2020	620.150
02/11/2021	623.989
12/21/2021	621.412
03/31/2023	622.502
01/25/2024	622.342
12/22/2024	625.210
01/03/2026	623.362
01/29/2027	621.306
02/21/2028	622.631
12/11/2028	621.404
01/22/2030	623.739
12/31/2030	621.867
01/21/2032	623.241
12/23/2032	621.753
01/16/2034	625.954
02/20/2035	620.450
02/27/2036	622.003
03/09/2037	619.618
12/15/2037	622.594
12/01/2038	619.311
01/14/2040	621.777
12/26/2040	622.734
04/15/2042	622.482
02/23/2043	621.603
03/21/2044	620.863
02/11/2045	622.508
02/18/2046	622.098
02/02/2047	620.891
12/04/2047	623.157
03/18/2049	620.326
12/05/2049	620.955
04/09/2051	620.596
02/22/2052	619.468
06/05/2053	619.972
12/11/2053	620.185
11/01/2054	624.210
02/08/2056	627.019
11/19/2056	625.701
05/21/2058	622.103
12/02/2058	623.395
01/23/2060	620.186
10/27/2060	622.615
01/03/2062	620.853
01/01/2063	622.482

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12/23/2063	624.231
12/02/2064	621.245
01/13/2066	619.284
12/17/2066	622.982
01/20/2068	623.509
09/23/2069	619.708
12/14/2069	620.143
02/14/2071	619.545
11/04/2071	620.583
12/25/2072	627.082
12/16/2073	622.357
11/20/2074	619.420
10/17/2075	623.175
08/26/2077	618.763
12/02/2077	620.782
02/25/2079	619.896
12/17/2079	626.800
11/21/2080	623.635
02/15/2082	623.599
02/20/2083	623.159
11/26/2083	623.960
12/14/2084	621.182
01/19/2086	621.446
11/23/2086	622.544
12/10/2087	620.433
11/05/2088	623.012
11/10/2089	621.739
12/09/2090	624.259
01/31/2092	624.454
03/23/2093	619.432
12/14/2093	619.520
12/27/2094	621.245
12/15/2095	622.798
03/19/2097	623.081

Ranked Annual Maxima Water Surface Elevation (ft)

Tr (Years)	WSEL (ft)
1.004	618.473
1.010	618.763
1.016	619.063
1.023	619.261
1.030	619.284
1.036	619.311
1.043	619.351
1.050	619.420
1.057	619.432
1.064	619.438
1.072	619.468
1.079	619.520
1.086	619.545
1.094	619.548
1.101	619.577
1.109	619.618
1.117	619.708
1.125	619.820

DSD - 000789

1.133	619.896
1.141	619.972
1.149	619.983
1.158	619.995
1.166	620.007
1.175	620.143
1.184	620.145
1.193	620.150
1.202	620.185
1.211	620.186
1.220	620.207
1.230	620.224
1.240	620.231
1.249	620.285
1.259	620.326
1.269	620.337
1.280	620.410
1.290	620.433
1.301	620.450
1.312	620.583
1.323	620.596
1.334	620.599
1.345	620.727
1.357	620.782
1.368	620.842
1.380	620.853
1.392	620.863
1.405	620.868
1.417	620.868
1.430	620.891
1.443	620.946
1.457	620.955
1.470	621.168
1.484	621.168
1.498	621.182
1.512	621.245
1.527	621.245
1.542	621.259
1.557	621.278
1.572	621.291
1.588	621.298
1.604	621.306
1.621	621.379
1.638	621.404
1.655	621.412
1.672	621.446
1.690	621.453
1.708	621.539
1.727	621.546
1.746	621.603
1.766	621.613
1.785	621.678
1.806	621.739
1.827	621.753
1.848	621.777
1.870	621.812

DSD - 000790

1.892	621.838
1.915	621.846
1.939	621.858
1.963	621.867
1.987	622.003
2.013	622.098
2.039	622.103
2.065	622.265
2.093	622.342
2.121	622.355
2.150	622.357
2.179	622.370
2.210	622.482
2.241	622.482
2.273	622.502
2.306	622.508
2.340	622.532
2.376	622.544
2.412	622.547
2.449	622.556
2.488	622.578
2.527	622.594
2.569	622.615
2.611	622.631
2.655	622.662
2.700	622.689
2.747	622.723
2.796	622.729
2.846	622.734
2.898	622.798
2.952	622.880
3.008	622.944
3.067	622.964
3.127	622.971
3.190	622.982
3.256	622.983
3.325	623.012
3.396	623.019
3.471	623.027
3.548	623.081
3.630	623.157
3.715	623.159
3.805	623.175
3.898	623.241
3.997	623.268
4.101	623.323
4.210	623.338
4.325	623.362
4.447	623.362
4.575	623.395
4.712	623.488
4.856	623.509
5.010	623.599
5.174	623.635
5.349	623.739
5.536	623.745

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5.737	623.960
5.953	623.964
6.186	623.977
6.438	623.989
6.711	624.210
7.009	624.231
7.334	624.259
7.691	624.311
8.084	624.454
8.519	624.505
9.005	624.643
9.548	624.699
10.162	624.772
10.860	624.981
11.661	625.067
12.589	625.116
13.678	625.210
14.973	625.250
16.540	625.374
18.472	625.701
20.915	625.954
24.104	626.001
28.439	626.161
34.675	626.800
44.416	626.888
61.766	627.019
101.359	627.052
282.357	627.082

WSEL Frequency Data(ft)
(Recurrence Interval Computed Using Gringorten Plotting Position)

Tr (yrs)	WSEL Peak (ft)
1.05-Year	619.424
1.11-Year	619.641
1.25-Year	620.287
2.00-Year	622.051
3.33-Year	623.013
5-Year	623.593
10-Year	624.753
25-Year	626.037
50-Year	626.935
100-Year	627.051

************Groundwater Recharge Summary **************

Recharge is computed as input to Perlnd Groundwater Plus Infiltration in Structures

Model Element	Total Predeveloped Recharge During Simulation Recharge Amount (ac-ft)
Subbasin: PREDEV	1494.548
Total:	1494.548

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Total Post Developed Recharge During Simulation

Model Element	Recharge Amount (ac-ft)
Subbasin: POST DEV	469.767
Link: DET VAULT	0.000
Total:	469.767

Total Predevelopment Recharge is Greater than Post Developed
Average Recharge Per Year, (Number of Years= 158)
Predeveloped: 9.459 ac-ft/year, Post Developed: 2.973 ac-ft/year

*************Water Quality Facility Data **************

----------SCENARIO: PREDEVELOPED

Number of Links: 0

----------SCENARIO: POSTDEVELOPED

Number of Links: 1

********** Link: DET VAULT **********

Basic Wet Pond Volume (91% Exceedance): 24120. cu-ft
Computed Large Wet Pond Volume, 1.5*Basic Volume: 36180. cu-ft

Infiltration/Filtration Statistics----------
Inflow Volume (ac-ft): 3333.55
Inflow Volume Including PPT-Evap (ac-ft): 3333.55
Total Runoff Infiltrated (ac-ft): 0.00, 0.00%
Total Runoff Filtered (ac-ft): 0.00, 0.00%
Primary Outflow To Downstream System (ac-ft): 3333.21
Secondary Outflow To Downstream System (ac-ft): 0.00
Percent Treated (Infiltrated+Filtered)/Total Volume: 0.00%

*************Compliance Point Results **************

Scenario Predeveloped Compliance Subbasin: PREDEV

Scenario Postdeveloped Compliance Link: DET VAULT
****Point of Compliance Annual Maxima Flow Data ****

Predevelopment Runoff		Postdevelopment Runoff	
Date	Annual Max Q (cfs)	Date	Annual Max Q (cfs)
05/01/1940	0.258	12/07/1939	0.158
12/20/1940	0.176	01/18/1941	0.108
11/24/1941	0.370	12/20/1941	0.122
11/23/1942	0.313	11/23/1942	0.165
01/23/1944	0.121	10/17/1943	8.460E-02
02/07/1945	0.352	02/07/1945	0.200

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02/05/1946	0.220	02/06/1946	0.111
02/02/1947	0.210	11/23/1946	0.127
03/21/1948	0.313	10/19/1947	0.212
11/27/1948	0.234	02/23/1949	0.124
03/03/1950	0.705	01/22/1950	0.212
02/09/1951	0.338	02/09/1951	0.311
01/30/1952	0.113	10/03/1951	0.101
01/18/1953	0.185	01/12/1953	0.207
01/22/1954	0.226	01/06/1954	0.124
02/28/1955	0.111	11/19/1954	0.108
01/06/1956	0.230	01/06/1956	0.257
04/05/1957	0.258	02/26/1957	0.154
01/16/1958	0.299	01/17/1958	0.130
01/12/1959	0.250	01/13/1959	0.233
01/28/1960	0.438	11/21/1959	0.208
11/20/1960	0.236	11/24/1960	0.229
03/04/1962	0.144	12/21/1961	0.107
02/03/1963	0.163	02/04/1963	0.112
01/01/1964	0.225	11/15/1963	0.113
05/04/1965	0.556	12/01/1964	0.127
04/11/1966	0.198	12/29/1965	0.125
01/19/1967	0.323	12/16/1966	0.185
02/04/1968	0.189	01/20/1968	0.120
04/19/1969	0.242	12/11/1968	0.130
01/14/1970	0.177	01/27/1970	0.206
12/06/1970	0.213	12/07/1970	0.135
02/27/1972	0.497	03/05/1972	0.333
12/23/1972	0.217	12/23/1972	0.284
02/19/1974	0.249	01/18/1974	0.136
12/27/1974	0.340	12/27/1974	0.119
12/03/1975	0.214	12/04/1975	0.127
05/31/1977	0.131	08/26/1977	9.716E-02
12/15/1977	0.229	12/15/1977	0.243
03/04/1979	0.180	03/05/1979	9.416E-02
12/17/1979	0.351	12/18/1979	0.405
12/26/1980	0.165	12/30/1980	0.130
10/06/1981	0.524	10/06/1981	0.341
01/05/1983	0.252	01/08/1983	0.136
03/14/1984	0.216	03/21/1984	9.976E-02
02/11/1985	0.159	11/04/1984	0.111
01/18/1986	0.453	01/19/1986	0.235
11/24/1986	0.423	11/24/1986	0.360
04/06/1988	0.216	04/06/1988	0.119
04/05/1989	0.201	04/06/1989	0.117
01/09/1990	0.638	01/09/1990	0.446
04/04/1991	0.778	04/05/1991	0.357
01/27/1992	0.310	01/31/1992	0.234
03/23/1993	0.178	03/23/1993	9.849E-02
03/03/1994	0.152	03/03/1994	0.105
02/19/1995	0.283	12/27/1994	0.177
02/09/1996	0.592	02/09/1996	0.714
01/02/1997	0.349	01/02/1997	0.374
03/23/1998	0.148	10/08/1997	0.102
11/04/1998	1.017	11/26/1998	0.367
01/26/2000	0.269	03/29/2000	0.124
05/05/2001	0.197	05/05/2001	0.115

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05/03/2002	1.009	11/15/2001	0.111
02/06/2003	0.435	03/31/2003	0.324
01/23/2004	0.130	10/24/2003	0.128
02/05/2005	0.188	02/08/2005	0.110
11/27/2005	0.255	11/28/2005	0.180
12/14/2006	0.225	11/27/2006	0.123
03/21/2008	0.517	01/07/2008	0.184
02/17/2009	0.408	02/18/2009	0.353
01/06/2010	0.521	01/10/2010	0.160
11/17/2010	0.364	11/17/2010	0.336
01/31/2012	0.212	10/02/2011	0.122
01/20/2013	0.524	01/20/2013	0.412
04/05/2014	0.252	01/29/2014	0.130
03/30/2015	0.176	03/30/2015	0.110
01/04/2016	0.382	01/06/2016	0.283
06/14/2017	0.811	11/01/2016	0.118
04/17/2018	0.351	01/31/2018	0.126
03/30/2019	0.239	01/12/2019	0.209
04/14/2020	0.197	03/31/2020	0.110
02/10/2021	0.357	02/11/2021	0.285
12/20/2021	0.216	12/21/2021	0.125
02/02/2023	0.349	03/31/2023	0.138
01/19/2024	0.229	01/25/2024	0.136
12/22/2024	0.481	12/22/2024	0.365
03/09/2026	0.233	01/03/2026	0.235
01/28/2027	0.231	01/29/2027	0.124
02/19/2028	0.289	02/21/2028	0.173
12/04/2028	0.235	12/11/2028	0.125
01/22/2030	0.270	01/22/2030	0.257
12/30/2030	0.287	12/31/2030	0.130
01/20/2032	0.436	01/21/2032	0.228
03/01/2033	0.166	12/23/2032	0.129
01/16/2034	0.441	01/16/2034	0.402
02/19/2035	0.246	02/20/2035	0.113
03/24/2036	0.246	02/27/2036	0.132
03/08/2037	0.112	03/09/2037	0.102
11/24/2037	0.226	12/15/2037	0.168
12/11/2038	0.150	12/01/2038	9.790E-02
01/14/2040	0.362	01/14/2040	0.129
12/25/2040	0.262	12/26/2040	0.186
04/15/2042	0.323	04/15/2042	0.137
03/31/2043	0.450	02/23/2043	0.127
06/29/2044	0.209	03/21/2044	0.119
03/23/2045	0.220	02/11/2045	0.142
02/16/2046	0.231	02/18/2046	0.133
02/01/2047	0.160	02/02/2047	0.119
06/07/2048	0.242	12/04/2047	0.222
03/16/2049	0.161	03/18/2049	0.112
12/04/2049	0.304	12/05/2049	0.120
04/05/2051	0.199	04/09/2051	0.115
04/30/2052	0.179	02/22/2052	0.100
06/04/2053	1.977	06/05/2053	0.107
04/08/2054	0.113	12/11/2053	0.110
02/17/2055	0.310	11/01/2054	0.303
02/07/2056	0.568	02/08/2056	0.494
11/19/2056	0.702	11/19/2056	0.390

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01/24/2058	0.397	05/21/2058	0.133
12/28/2058	0.298	12/02/2058	0.237
01/19/2060	0.145	01/23/2060	0.110
10/23/2060	0.356	10/27/2060	0.171
02/03/2062	0.990	01/03/2062	0.119
12/30/2062	0.233	01/01/2063	0.137
12/23/2063	0.349	12/23/2063	0.305
11/30/2064	0.186	12/02/2064	0.123
01/13/2066	0.132	01/13/2066	9.750E-02
01/19/2067	0.221	12/17/2066	0.209
01/18/2068	0.406	01/20/2068	0.244
01/04/2069	0.148	09/23/2069	0.104
04/09/2070	0.147	12/14/2069	0.110
02/14/2071	0.145	02/14/2071	0.101
11/03/2071	0.192	11/04/2071	0.115
12/25/2072	0.510	12/25/2072	0.924
03/16/2074	0.277	12/16/2073	0.136
01/17/2075	0.110	11/20/2074	9.951E-02
03/24/2076	0.257	10/17/2075	0.223
02/12/2077	9.918E-02	08/26/2077	8.944E-02
12/02/2077	0.157	12/02/2077	0.118
11/03/2078	0.231	02/25/2079	0.106
12/17/2079	0.600	12/17/2079	0.440
11/21/2080	0.300	11/21/2080	0.251
02/14/2082	0.329	02/15/2082	0.249
02/12/2083	0.204	02/20/2083	0.222
11/26/2083	0.250	11/26/2083	0.283
12/14/2084	0.192	12/14/2084	0.122
01/18/2086	0.256	01/19/2086	0.126
11/23/2086	0.269	11/23/2086	0.157
01/14/2088	0.187	12/10/2087	0.113
11/05/2088	0.344	11/05/2088	0.211
12/03/2089	0.161	11/10/2089	0.129
12/04/2090	0.243	12/09/2090	0.307
04/28/2092	0.767	01/31/2092	0.321
03/22/2093	0.155	03/23/2093	9.967E-02
03/02/2094	0.130	12/14/2093	0.101
11/29/2094	0.194	12/27/2094	0.123
11/10/2095	0.232	12/15/2095	0.193
01/29/2097	0.422	03/19/2097	0.217

******Point of Compliance Ranked Maxima Flow Data ******

Predevelopment		Postdevelopment	
Tr (yrs)	Q (cfs)	Tr (yrs)	Q (cfs)
1.004	9.918E-02	1.004	8.460E-02
1.010	0.110	1.010	8.944E-02
1.016	0.111	1.016	9.416E-02
1.023	0.112	1.023	9.716E-02
1.030	0.113	1.030	9.750E-02
1.036	0.113	1.036	9.790E-02
1.043	0.121	1.043	9.849E-02
1.050	0.130	1.050	9.951E-02
1.057	0.130	1.057	9.967E-02
1.064	0.131	1.064	9.976E-02

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1.072	0.132	1.072	0.100
1.079	0.144	1.079	0.101
1.086	0.145	1.086	0.101
1.094	0.145	1.094	0.101
1.101	0.147	1.101	0.102
1.109	0.148	1.109	0.102
1.117	0.148	1.117	0.104
1.125	0.150	1.125	0.105
1.133	0.152	1.133	0.106
1.141	0.155	1.141	0.107
1.149	0.157	1.149	0.107
1.158	0.159	1.158	0.108
1.166	0.160	1.166	0.108
1.175	0.161	1.175	0.110
1.184	0.161	1.184	0.110
1.193	0.163	1.193	0.110
1.202	0.165	1.202	0.110
1.211	0.166	1.211	0.110
1.220	0.176	1.220	0.110
1.230	0.176	1.230	0.111
1.240	0.177	1.240	0.111
1.249	0.178	1.249	0.111
1.259	0.179	1.259	0.112
1.269	0.180	1.269	0.112
1.280	0.185	1.280	0.113
1.290	0.186	1.290	0.113
1.301	0.187	1.301	0.113
1.312	0.188	1.312	0.115
1.323	0.189	1.323	0.115
1.334	0.192	1.334	0.115
1.345	0.192	1.345	0.117
1.357	0.194	1.357	0.118
1.368	0.197	1.368	0.118
1.380	0.197	1.380	0.119
1.392	0.198	1.392	0.119
1.405	0.199	1.405	0.119
1.417	0.201	1.417	0.119
1.430	0.204	1.430	0.119
1.443	0.209	1.443	0.120
1.457	0.210	1.457	0.120
1.470	0.212	1.470	0.122
1.484	0.213	1.484	0.122
1.498	0.214	1.498	0.122
1.512	0.216	1.512	0.123
1.527	0.216	1.527	0.123
1.542	0.216	1.542	0.123
1.557	0.217	1.557	0.124
1.572	0.220	1.572	0.124
1.588	0.220	1.588	0.124
1.604	0.221	1.604	0.124
1.621	0.225	1.621	0.125
1.638	0.225	1.638	0.125
1.655	0.226	1.655	0.125
1.672	0.226	1.672	0.126
1.690	0.229	1.690	0.126
1.708	0.229	1.708	0.127

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1.727	0.230	1.727	0.127
1.746	0.231	1.746	0.127
1.766	0.231	1.766	0.127
1.785	0.231	1.785	0.128
1.806	0.232	1.806	0.129
1.827	0.233	1.827	0.129
1.848	0.233	1.848	0.129
1.870	0.234	1.870	0.130
1.892	0.235	1.892	0.130
1.915	0.236	1.915	0.130
1.939	0.239	1.939	0.130
1.963	0.242	1.963	0.130
1.987	0.242	1.987	0.132
2.013	0.243	2.013	0.133
2.039	0.246	2.039	0.133
2.065	0.246	2.065	0.135
2.093	0.249	2.093	0.136
2.121	0.250	2.121	0.136
2.150	0.250	2.150	0.136
2.179	0.252	2.179	0.136
2.210	0.252	2.210	0.137
2.241	0.255	2.241	0.137
2.273	0.256	2.273	0.138
2.306	0.257	2.306	0.142
2.340	0.258	2.340	0.154
2.376	0.258	2.376	0.157
2.412	0.262	2.412	0.158
2.449	0.269	2.449	0.160
2.488	0.269	2.488	0.165
2.527	0.270	2.527	0.168
2.569	0.277	2.569	0.171
2.611	0.283	2.611	0.173
2.655	0.287	2.655	0.177
2.700	0.289	2.700	0.180
2.747	0.298	2.747	0.184
2.796	0.299	2.796	0.185
2.846	0.300	2.846	0.186
2.898	0.304	2.898	0.193
2.952	0.310	2.952	0.200
3.008	0.310	3.008	0.206
3.067	0.313	3.067	0.207
3.127	0.313	3.127	0.208
3.190	0.323	3.190	0.209
3.256	0.323	3.256	0.209
3.325	0.329	3.325	0.211
3.396	0.338	3.396	0.212
3.471	0.340	3.471	0.212
3.548	0.344	3.548	0.217
3.630	0.349	3.630	0.222
3.715	0.349	3.715	0.222
3.805	0.349	3.805	0.223
3.898	0.351	3.898	0.228
3.997	0.351	3.997	0.229
4.101	0.352	4.101	0.233
4.210	0.356	4.210	0.234
4.325	0.357	4.325	0.235

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4.447	0.362	4.447	0.235
4.575	0.364	4.575	0.237
4.712	0.370	4.712	0.243
4.856	0.382	4.856	0.244
5.010	0.397	5.010	0.249
5.174	0.406	5.174	0.251
5.349	0.408	5.349	0.257
5.536	0.422	5.536	0.257
5.737	0.423	5.737	0.283
5.953	0.435	5.953	0.283
6.186	0.436	6.186	0.284
6.438	0.438	6.438	0.285
6.711	0.441	6.711	0.303
7.009	0.450	7.009	0.305
7.334	0.453	7.334	0.307
7.691	0.481	7.691	0.311
8.084	0.497	8.084	0.321
8.519	0.510	8.519	0.324
9.005	0.517	9.005	0.333
9.548	0.521	9.548	0.336
10.162	0.524	10.162	0.341
10.860	0.524	10.860	0.353
11.661	0.556	11.661	0.357
12.589	0.568	12.589	0.360
13.678	0.592	13.678	0.365
14.973	0.600	14.973	0.367
16.540	0.638	16.540	0.374
18.472	0.702	18.472	0.390
20.915	0.705	20.915	0.402
24.104	0.767	24.104	0.405
28.439	0.778	28.439	0.412
34.675	0.811	34.675	0.440
44.416	0.990	44.416	0.446
61.766	1.009	61.766	0.494
101.359	1.017	101.359	0.714
282.357	1.977	282.357	0.924

***** Point of Compliance Flow Frequency Data *****

Recurrence Interval Computed Using Gringorten Plotting Position

Predevelopment Runoff		Postdevelopment Runoff	
Tr (Years)	Discharge (cfs)	Tr (Years)	Discharge (cfs)
2-Year	0.242	2-Year	0.132
5-Year	0.396	5-Year	0.249
10-Year	0.523	10-Year	0.339
25-Year	0.770	25-Year	0.406
50-Year	0.996	50-Year	0.463
100-Year	1.016	100-Year	0.708
200-Year	1.654	200-Year	0.853
500-Year	2.513	500-Year	1.041

** Record too Short to Compute Peak Discharge for These Recurrence Intervals

***** Point of Compliance Flow Duration Data *****

Predevelopment Runoff		Postdevelopment Runoff	

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Discharge (cfs)	Exceedance Probability	Discharge (cfs)	Exceedance Probability
0.000E+00	1.0000E+00	0.000E+00	1.0000E+00
9.886E-03	2.5597E-01	4.619E-03	5.5767E-01
1.977E-02	1.8586E-01	9.237E-03	5.3231E-01
2.966E-02	1.4060E-01	1.386E-02	5.0335E-01
3.954E-02	1.0736E-01	1.847E-02	4.7170E-01
4.943E-02	8.2420E-02	2.309E-02	4.3916E-01
5.932E-02	6.3715E-02	2.771E-02	4.0854E-01
6.920E-02	4.9694E-02	3.233E-02	3.7732E-01
7.909E-02	3.8905E-02	3.695E-02	3.4692E-01
8.897E-02	3.0550E-02	4.157E-02	3.1683E-01
9.886E-02	2.3965E-02	4.619E-02	2.8706E-01
0.109	1.8850E-02	0.051	2.5813E-01
0.121	1.4041E-02	0.055	2.3003E-01
0.129	1.1800E-02	0.060	2.0307E-01
0.138	9.4951E-03	0.065	1.7671E-01
0.148	7.6541E-03	0.069	1.5167E-01
0.158	6.2637E-03	0.074	1.2816E-01
0.168	5.1539E-03	0.079	1.0708E-01
0.178	4.2540E-03	0.083	8.8402E-02
0.188	3.4960E-03	0.088	7.2097E-02
0.198	2.9085E-03	0.092	5.8208E-02
0.208	2.4509E-03	0.097	4.6396E-02
0.217	2.0366E-03	0.102	3.7173E-02
0.227	1.7067E-03	0.106	2.9869E-02
0.237	1.4349E-03	0.111	2.3698E-02
0.242	1.3332E-03	0.115	1.8597E-02
0.257	1.0867E-03	0.121	1.3593E-02
0.267	9.6464E-04	0.125	1.0976E-02
0.277	8.3339E-04	0.129	8.1834E-03
0.287	7.2581E-04	0.134	5.8015E-03
0.297	6.3360E-04	0.139	4.0815E-03
0.306	5.6160E-04	0.143	3.9761E-03
0.316	5.0795E-04	0.148	3.8950E-03
0.326	4.5437E-04	0.152	3.8174E-03
0.336	4.0835E-04	0.157	3.7249E-03
0.346	3.5006E-04	0.162	3.6212E-03
0.356	3.0690E-04	0.166	3.5036E-03
0.366	2.6989E-04	0.171	3.3860E-03
0.376	2.3615E-04	0.176	3.2503E-03
0.386	2.1070E-04	0.180	3.1034E-03
0.396	1.8483E-04	0.185	2.9507E-03
0.405	1.5724E-04	0.189	2.8085E-03
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0.425	1.2136E-04	0.199	2.5057E-03
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0.475	6.5029E-05	0.222	1.7844E-03
0.484	5.6207E-05	0.226	1.6594E-03
0.494	4.6253E-05	0.231	1.5307E-03
0.504	3.4869E-05	0.236	1.4054E-03

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0.791	9.5367E-07	0.369	2.1231E-04
0.801	9.5367E-07	0.374	1.9968E-04
0.811	9.5367E-07	0.379	1.8215E-04
0.821	7.7486E-07	0.383	1.7118E-04
0.830	7.7486E-07	0.388	1.5277E-04
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0.850	7.7486E-07	0.396	1.3040E-04
0.860	7.7486E-07	0.402	1.1158E-04
0.870	7.7486E-07	0.406	9.8228E-05
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0.890	7.7486E-07	0.416	7.3493E-05
0.900	7.7486E-07	0.420	6.5565E-05
0.910	7.7486E-07	0.425	5.5432E-05
0.919	7.7486E-07	0.430	4.7147E-05
0.929	7.7486E-07	0.434	3.9935E-05
0.939	7.7486E-07	0.439	3.1114E-05
0.949	7.7486E-07	0.443	2.1696E-05
0.959	7.7486E-07	0.448	1.8477E-05
0.969	7.7486E-07	0.453	1.6987E-05
0.979	7.7486E-07	0.457	1.5736E-05
0.989	7.7486E-07	0.462	1.4842E-05
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1.058	2.3842E-07	0.494	4.5300E-06

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1.216	2.3842E-07	0.568	3.4571E-06
1.226	2.3842E-07	0.573	3.4571E-06
1.236	2.3842E-07	0.577	3.4571E-06
1.246	2.3842E-07	0.582	3.2783E-06
1.256	2.3842E-07	0.587	3.2783E-06
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1.621	2.3842E-07	0.757	9.5367E-07
1.631	2.3842E-07	0.762	9.5367E-07
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1.839	2.3842E-07	0.859	7.7486E-07
1.849	2.3842E-07	0.864	5.9605E-07
1.859	2.3842E-07	0.868	4.1723E-07
1.868	2.3842E-07	0.873	4.1723E-07
1.878	2.3842E-07	0.878	4.1723E-07
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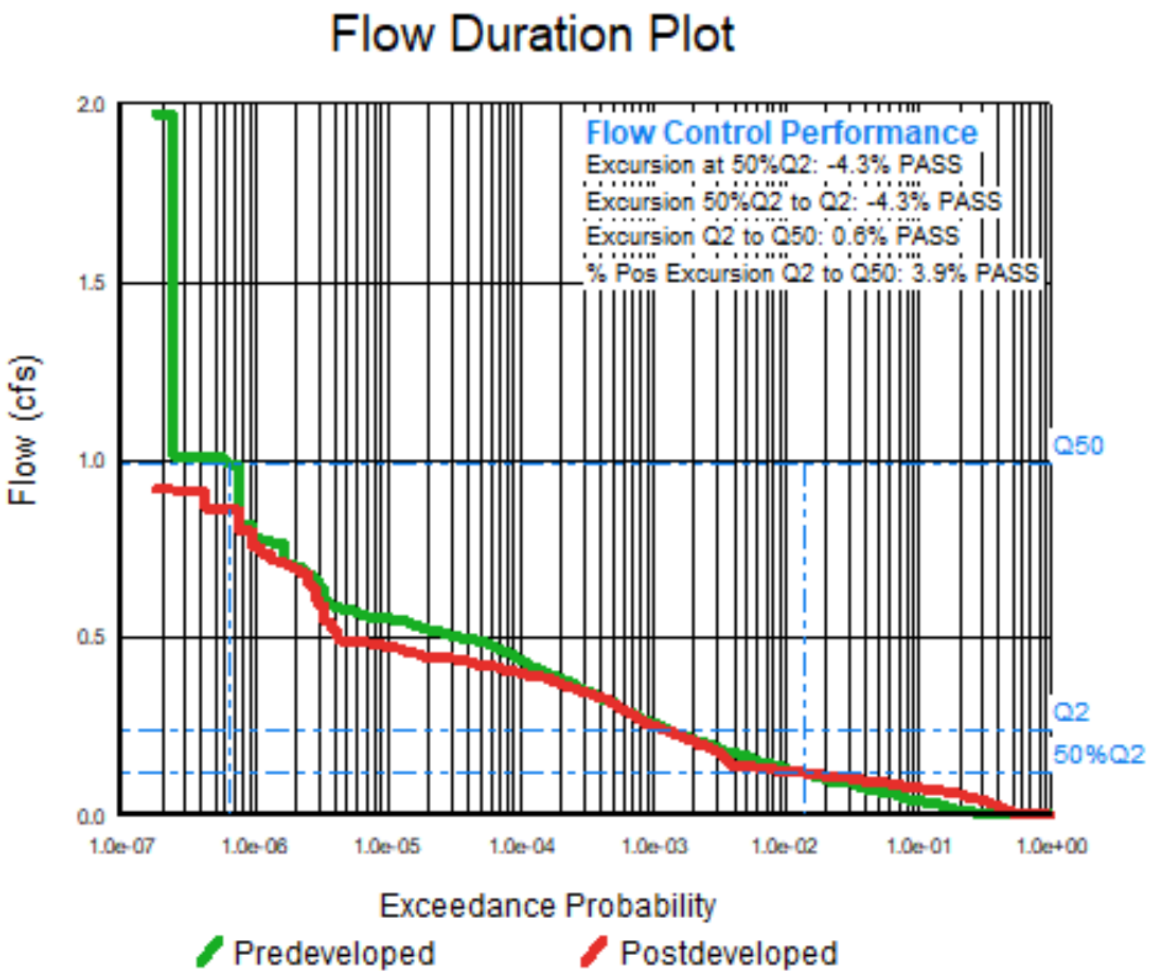
1.918	2.3842E-07	0.896	4.1723E-07
1.928	2.3842E-07	0.901	4.1723E-07
1.938	2.3842E-07	0.905	4.1723E-07
1.948	2.3842E-07	0.910	4.1723E-07
1.957	2.3842E-07	0.914	4.1723E-07
1.967	2.3842E-07	0.919	2.3842E-07
1.977	1.8050E-07	0.924	1.7881E-07

****** Flow Duration Performance ******

Excursion at Predeveloped 50%Q2 (Must be Less Than or Equal to 0%):	-4.3%	PASS
Maximum Excursion from 50%Q2 to Q2 (Must be Less Than or Equal to 0%):	-4.3%	PASS
Maximum Excursion from Q2 to Q50 (Must be less than 10%):	0.6%	PASS
Percent Excursion from Q2 to Q50 (Must be less than 50%):	3.9%	PASS

MEETS ALL FLOW DURATION DESIGN CRITERIA: PASS

DSD - 000803


Flow Duration Plot
Flow Control Performance
Excursion at 50%Q2: -4.3% PASS
Excursion 50%Q2 to Q2: -4.3% PASS
Excursion Q2 to Q50: 0.6% PASS
% Pos Excursion Q2 to Q50: 3.9% PASS
Q50
Q2
50%Q2
Flow (cfs)
2.0
1.5
1.0
0.5
0.0
1.0e-07
1.0e-06
1.0e-05
1.0e-04
1.0e-03
1.0e-02
1.0e-01
1.0e+00
Exceedance Probability
Predeveloped
Postdeveloped

DSD - 000804

D|C|G civil structural

DRAINAGE REPORT

Park Pointe PUD
7219 & 7331 Lakemont Blvd, Bellevue, WA 98006

Project Engineer: Tim Gabelein, PE
November 15, 2022

15 November 2022

Prepared For:
Shelter Homes
10700 Northup Way, #10
Bellevue, WA,98004

Engineer:
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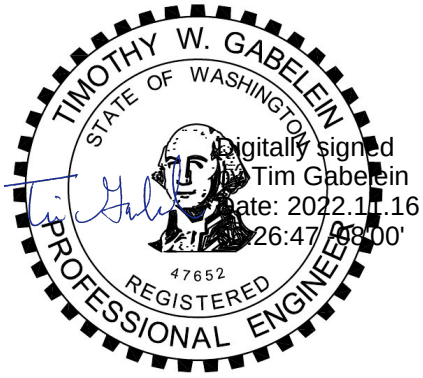
Seattle, WA 98115
(206) 523-0024
Contact: Tim Gabelein, PE

DSD - 000805

CERTIFICATE OF ENGINEER

The technical material and data contained within this report has been prepared by or under the direction of the following registered professional engineer(s), licensed in accordance with the laws of the State of Washington to practice in the State of Washington.



I hereby state that this drainage report has been prepared by me or under my supervision and meets the standard of care and expertise which is usual and customary in this community for professional engineers. I understand that the City of Bellevue does not and will not assume liability for the sufficiency, suitability, or performance of drainage facilities prepared by me.

DSD - 000806

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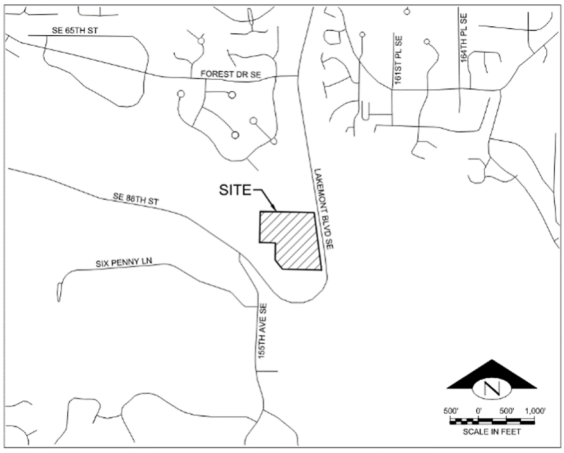
DSD - 000808

1. PROJECT OVERVIEW

The City of Bellevue Utilities Department regulates development impacts on stormwater with the January 2021 Storm and Surface Water Engineering Standards (SSWES) and the 2019 DOE Surface Water Management Manual of Western Washington (SWMMWW). Together, these manuals will be referred to from hereon as the "Drainage Manual". The drainage manual establishes minimum requirements for development and also outlines the report and plan requirements necessary to document compliance of these standards. This report follows the general outline provided by the Standards. The subject property is an irregularly shaped assemblage of two tax parcels (parcel #: 2624059022 & 2624059019) located on the west side of Lakemont Boulevard SE within the City of Bellevue, Washington. The two parcels total to an area of 12.29 acres, and is currently occupied with single-family residences, maintained pasture, and mowed lawn. The total project site encompasses approximately 5.93 acres of the on-site area with approximately 0.36 acres of frontage improvements.



VICINITY MAP
SCALE: AS SHOWN

The site is located in the SE ¼ of Section 26, Township 24 North, Range 5 East of the Willamette Meridian in King County, WA. See Figure 1-1: Vicinity Map on the following page. The site is bordered on the east by Lakemont Boulevard Southeast, and undeveloped forest to the north, south, and west. Coal Creek and the Coal Creek Trail are adjacent to the site in the southwest corner of the site.

Proposed development of the property includes the construction of 35 single-family residences, driveways, sidewalks, landscaping, stormwater flow control facilities, and sanitary sewer lift station. The property is located in the Coal Creek Drainage Basin. The existing stormwater discharge point will be maintained under post-developed conditions per Minimum Requirement #4, "Preservation of Natural Drainage Systems and Outfalls" described in the SSWES. The project site is subject to Minimum Requirement #5, "On-Site Stormwater Management", which requires LID stormwater design BMPs to be evaluated to the maximum extent feasible. Please see Section 3 of this report for detailed information regarding LID BMP feasibilities. Additionally, the project site is subject to Minimum Requirements #6 & #7 called "Runoff Treatment" and "Flow Control", respectively, due to the large size of the proposed development. The project proposes a detention vault and an OldCastle BioPod to meet flow control and water quality requirements. Please see Section 6 of this report for more information.

The Geotechnical Report prepared by Geotech Consultants, Inc indicates that the site is underlain by glacial till with very low permeability. The site is generally not suitable for infiltration. Additionally, the project abuts steep slopes which makes dispersion BMPs unfavorable.

DSD - 000809

The proposed development is located just east of two existing wetlands, Wetland A and Wetland B, that will be downstream of the proposed improvements. A Critical Areas Report, Habitat Evaluation, and Conceptual Mitigation Plan has been provided by Talasaea Consultants, Inc. (please see APPENDIX C) for the adjacent critical areas that have been considered when performing our stormwater design and stormwater outfall location. Due to an adjacent wetland, the project is also subject to Minimum Requirement #8, “Wetland Protection”. Further analysis can be found in Section 6 of the report.

The City of Bellevue Utilities Department regulates development impacts on stormwater with the January 2021 Storm and Surface Water Engineering Standards (SSWES) and the 2019 DOE Surface Water Management Manual of Western Washington (SWMMWW). Together, these manuals will be referred to from hereon as the “Drainage Manual”. The drainage manual establishes minimum requirements for development and also outlines the report and plan requirements necessary to document compliance of these standards. This report follows the general outline provided by the Standards.

DSD - 000810

2. EXISTING CONDITIONS

The subject property is approximately 12.29 acres with the project area encompassing approximately 6.29 acres. This analysis is confined to the disturbed project area. The existing property currently contains two single-family residences with associated landscaping, hardscapes, and utilities required to support the development. Please see the Existing Conditions Map and the Existing Conditions Area Table found below for more information regarding existing site topography, land cover, and land uses.

Generally speaking, the site naturally sheet flows from the northeast to the southwest into Coal Creek and eventually combines into Lake Washington. No existing piped conveyance system is known to exist on the project site.

Existing Conditions Area Table

Existing Project Site Areas		
Land Use	Area (SF)	Area (Acre)
Impervious (On-Site)	16,054	0.368
Impervious (ROW)	8,783	0.202
Lawn (ROW)	6,970	0.160
Pasture (On-Site)	242,090	5.558
Total	273,897	6.288

DSD - 000811

EXISTING CONDITIONS MAP

PARCEL BOUNDARY (TYP)

WETLAND A PER TALASAEA CONSULTANTS

PROJECT BOUNDARY (TYP)

EX OFF-SITE STREAM (TYP)

FLOW ARROWS (TYP)

EX TREE AND DRIPLINE (TYP)

ON-SITE DRAINAGE BASIN
0.368 ac - Impervious
5.558 ac - Pervious (Pasture)

ORDINARY HIGH WATER MARK (TYP)

EX DRIVEWAY (TO BE REMOVED)

FRONTAGE DRAINAGE BASIN
0.202 ac - Impervious
0.160 ac - Pervious (Lawn)

EX HOUSE (TO BE REMOVED)

EX SHED (TO BE REMOVED)

EX SIDEWALK (TO BE REMOVED)

EX HOUSE (TO BE REMOVED)

EX SHED (TO BE REMOVED)

EX BARN (TO BE REMOVED)

WETLAND B PER TALASAEA CONSULTANTS

EX SHED (TO BE REMOVED)

EX SHED (TO BE REMOVED)

EX SIDEWALK (TO BE REMOVED)

EX BUILDING (TO BE REMOVED)

N

40 20 0 40 80

SCALE IN FEET

EXISTING FEATURES LEGEND:

- AREA DRAIN
- #XX TREE ID NUMBER (SEE ARBORIST REPORT)
- ASPHALT SURFACE
- BENCHMARK
- BUILDING
- CENTERLINE ROW
- CONCRETE PIPE END
- CONCRETE SURFACE
- DECK
- DITCH (FLOWLINE)
- FENCE LINE (CHAIN LINK/WIRE)
- FENCE LINE (WOOD)
- FIRE HYDRANT
- GUARD RAIL
- G GAS LINE
- G GAS METER
- GAS VALVE
- MB MAILBOX
- MONUMENT IN CASE (FOUND)
- MONUMENT (SURFACE, FOUND)
- P POWER METER
- P POWER (OVERHEAD)
- UP POWER (UNDERGROUND)
- PP POWER POLE
- PP POWER POLE W/ LIGHT
- REBAR AS NOTED (FOUND)
- SIGN
- SEWER MANHOLE
- SD STORM LINE
- STORM CATCHBASIN
- UT TELEPHONE LINE (UNDERGROUND)
- TEL SIZE TYPE TELEPHONE SENTRY
- TREE (AS NOTED)
- W WATER LINE
- WV WATER VALVE
- WETLAND AREA
- WETLAND FLAG
- YARD LIGHT
- CP CONCRETE PIPE
- PV POWER VAULT

No.	DATE	BY	REVISION

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TIMOTHY W. GABELMAN STATE OF WASHINGTON 47652 REGISTERED PROFESSIONAL ENGINEER

BASE MAP/TOPOGRAPHY PROVIDED BY OTHERS. DCG CANNOT BE HELD LIABLE FOR ACCURACY. CONTRACTOR SHALL FIELD VERIFY GRADES, UTILITIES, & ALL OTHER EX FEATURES & CONDITIONS. IF CONDITIONS ARE NOT AS SHOWN &/OR PLANS CANNOT BE CONSTRUCTED AS SHOWN, CONTACT DCG PRIOR TO CONSTRUCTION.

OWNER: SHELTER HOMES
10700 NORTHUP WAY, #110
BELLEVUE, WA 98004

PROJECT: PARK POINTE PUD
7219 LAKEMONT BLVD SE, BELLEVUE, WA
EXISTING CONDITIONS MAP

PROJ. MANAGER:	TG
DESIGNED BY:	NA/CB/GR
DRAWN BY:	GR
CHECKED BY:	ED
SCALE:	AS SHOWN
DATE: 5/2/22	REV. A
	SHEET 1 OF 1

SHEET NUMBER
E1.0

CAD FILE NUMBER: P:\CLIENTS-CIVIL\SHELTER HOMES\7219 LAKEMONT BLVD SE BELLEVUE\REVIEW\EXHIBITS\DRAINAGE REPORT EXHIBITS.DWG
LAST MODIFIED BY: MIKE - SAVE DATE: 5/2/2022 8:11 AM - SHEET SET: XXXX - ORIGINAL SHEET SIZE: ANSI FULL BLEED D (34.00 X 22.00 INCHES)
AUTOCAD VERSION: CIVIL 3D 2013

DSD - 000812

3. PROPOSED CONDITIONS

Proposed development of the property includes the construction of 35 single-family residences, driveways, sidewalks, landscaping, a stormwater flow control facility, a stormwater water quality facility, and other supporting utilities required for the development. Generally, the project site has maintained similar topography to the existing condition, sloping from northeast to southwest. Generally, the developed site will increase stormwater runoff quantities due to the large scale of the development. Supporting the development is a roadway network that will need to be treated prior to discharging to the natural drainage discharge location. Please see Section 6 for detention vault sizing and water quality facility sizing, both proposed to mitigate the stormwater impacts generated from the project site.

Please see the Proposed Conditions Map found at the end of this section and the Proposed Conditions Area Table found below for more information regarding site topography, land cover, and land uses.

Proposed Conditions Area Table

Proposed Project Site Areas		
Land Use	Area (SF)	Area (Acre)
Impervious (On-Site)	129,632	2.976
Impervious (ROW)	11,785	0.270
Pasture (On-Site)	128,472	2.950
Pasture (ROW)	4,008	0.092
Total	273,897	6.288

DSD - 000813

PROPOSED CONDITIONS MAP

PARCEL BOUNDARY (TYP)

ON-SITE DRAINAGE BYPASS BASIN
0.140 - Pervious (Pasture)

BSBL (TYP)

WETLAND A PER TALASAEA CONSULTANTS

EX OFF-SITE STREAM (TYP)

ORDINARY HIGH WATER MARK (TYP)

PROJECT BASIN DELINEATION BOUNDARIES (TYP)

EG CONTOURS (TYP)

ON-SITE DRAINAGE BASIN
2.976 ac - Impervious
2.798 ac - Pervious (Pasture)

MITIGATION SWAP AREA (UPSTREAM)
0.27 ac - Impervious

FRONTAGE DRAINAGE BASIN
0.250 ac - Impervious
0.087 ac - Pervious (Pasture)

WETLAND B PER TALASAEA CONSULTANTS

PROPOSED DETENTION VAULT

ON-SITE DRAINAGE BYPASS BASIN
0.152 - Pervious (Pasture)

FRONTAGE DRAINAGE BYPASS BASIN
0.020 ac - Impervious
0.005 ac - Pervious (Pasture)

N

40 20 0 40 80
SCALE IN FEET

PROPOSED SURFACE LEGEND:

- CONCRETE
- ASPHALT
- CONCRETE DRIVE
- GRAVEL
- WOOD CHIPS (TRAIL)
- ROOF

No.	DATE	BY	REVISION

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TIMOTHY W. GABELEIN — STATE OF WASHINGTON — 47652 — REGISTERED PROFESSIONAL ENGINEER

BASE MAP/TOPOGRAPHY PROVIDED BY OTHERS. DCG CANNOT BE HELD LIABLE FOR ACCURACY. CONTRACTOR SHALL FIELD VERIFY GRADES, UTILITIES, & ALL OTHER EX FEATURES & CONDITIONS. IF CONDITIONS ARE NOT AS SHOWN &/OR PLANS CANNOT BE CONSTRUCTED AS SHOWN, CONTACT DCG PRIOR TO CONSTRUCTION.

OWNER: SHELTER HOMES
10700 NORTHUP WAY, #110
BELLEVUE, WA 98004

PROJECT: PARK POINTE PUD
7219 LAKEMONT BLVD SE, BELLEVUE, WA
PROPOSED SURFACES

PROJ. MANAGER:	TG
DESIGNED BY:	NA/CB/GR
DRAWN BY:	GR
CHECKED BY:	ED
SCALE:	AS SHOWN
DATE: 11/15/22	REV. A
SHEET 1 OF 1	

SHEET NUMBER
E1.1

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LAST MODIFIED BY: MKE - SAVE DATE: 5/2/2022 3:13 PM - SHEET SET: XXXX - ORIGINAL SHEET SIZE: ANSI FULL BLEED D (34.00 X 22.00 INCHES)
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3.1 Conditions and Requirements Summary

Minimum Requirement #1: Preparation of Stormwater Site Plans

The Stormwater Site Planning process is integrated with the project's overall Low Impact Development (LID) efforts. LID strategies are difficult to separate from the project's On-Site Stormwater Management Best Management Practices (BMPs) that are covered in Minimum Requirement 5 (MR 5). We have therefore combined our discussion of both requirements in Section 4 of this report.

Minimum Requirement #2: Construction Stormwater Pollution Prevention:

A Construction Stormwater Pollution Prevention Plan Long Form (SWPPP) will be included with the final engineering design of this project.

Minimum Requirement #3: Source Control of Pollution:

This site is not a high-use site and therefore is not required to provide specific source control BMPs to address pollution containment.

Minimum Requirement #4: Preservation of Natural Drainage Systems and Outfalls:

The subject project is a redevelopment of an existing developed property; however, the project is classified as new development per Figure 1.4 of the SSWES (see APPENDIX G).

For the purposes of this report, this discussion is confined to the developed part of the site that is occupied by the existing houses and pasture. This area does not have a piped stormwater conveyance system. Instead, runoff exits the area as sheet and shallow concentrated flow into the three streams that bound the north, west and south sides of the development area. These streams combine in Coal Creek near the southwest corner of the development area. Under proposed conditions, runoff will discharge to the same southwest location via a storm sewer. Additionally, there are two downstream wetlands that will need to be recharged in the developed conditions. Both existing wetlands (Wetland A & Wetland B) have upstream tributary areas in the proposed condition that will closely mimic the existing drainage patterns for protection purposes. The proposed storm drain outfall system will avoid erosion between the site and the existing streams.

Minimum Requirement #5: On-Site Stormwater Management:

Projects proposing greater than 2,000 square feet shall employ On-Site Stormwater Management. This project will employ On-site Stormwater Best Management Practices (BMPs) to infiltrate, disperse, and retain stormwater runoff onsite to the maximum extent feasible without causing flooding or erosion impacts per List #2 of Section D1-04.2(e) of the Drainage Manual. Please see a detailed evaluation of List #2 below:

Lawn and Landscaped Areas:

1. Post-Construction Soil Quality and Depth in accordance with Chapter D5 of this manual and BMP T5.13 in Chapter 5 of Volume V of the DOE SWMMWW.
   Post-Construction Soil Quality and Depth is proposed for all landscaped areas proposed on the project.

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Roofs:

1. Full Dispersion in accordance with Chapter D5 of this manual and BMP T5.30 in Chapter 5 of Volume V of the DOE Manual, or Downspout Full Infiltration Systems in accordance with Chapter D5 of this manual and BMP T5.10A in Section 3.1.1 in Chapter 3 of Volume III of the DOE Manual.
   Full dispersion cannot be achieved per Chapter D5 of the Drainage Manual due to a lack space suitable to provide a 100' vegetated flowpath. Full infiltration is not feasible on-site due to the City of Bellevue Infiltration Potential mapping and the project geotechnical evaluation indicating shallow hardpan layers, high groundwater tables, and to not direct stormwater runoff to steep sloped areas.
2. Bioretention (See Chapter D5 of this manual and Chapter 7 of Volume V of the DOE Manual) facilities that have a minimum horizontally projected surface area below the overflow which is at least 5% of the total surface area draining to it.
   Bioretention BMPs are infeasible due to infiltration not being feasible due to the City of Bellevue Infiltration Potential Mapping, the proximity to steep slopes, and perched groundwater found in test pits per the geotechnical evaluation.
3. Downspout Dispersion Systems in accordance with Chapter D5 of this Manual and BMP T5.10B in Section 3.1.2 in Chapter 3 of Volume III of the DOE Manual.
   Downspout Dispersion Systems is not feasible due to the lack of vegetated flowpath and proximity to steep slopes.
4. Perforated Stub-out Connections in accordance with Chapter D5 of this Manual and BMP T5.10C in Section 3.1.3 in Chapter 3 of Volume III of the DOE Manual.
   Infiltration BMPs are not feasible on-site due to the City of Bellevue Infiltration Potential mapping and the project's geotechnical evaluation indicating shallow hardpan layers and high groundwater tables.

Other Hard Surfaces:

1. Full Dispersion in accordance with Chapter D5 of this manual and BMP T5.30 in Chapter 5 of Volume V of the DOE Manual.
   Full dispersion cannot be achieved per Chapter D5 of the Drainage Manual due to a lack space suitable to provide a 100' vegetated flowpath.
2. Permeable Pavement in accordance with Chapter D5 of this manual and BMP T5.15 in Chapter 5 of Volume V of the DOE Manual.
   Permeable Pavement is infeasible per the City of Bellevue Infiltration Potential Mapping indicating infiltration infeasibility, the proximity to steep slopes, and perched groundwater found in test pits per the geotechnical evaluation.
3. Bioretention BMPs (See Chapter D5 of this manual and Chapter 7 of Volume V of the DOE Manual) that have a minimum horizontally projected surface area below the overflow which is at least 5% of the total surface area draining to it.
   Bioretention BMPs are infeasible due to infiltration not being feasible due to the City of Bellevue Infiltration Potential Mapping, the proximity to steep slopes, and perched groundwater found in test pits per the geotechnical evaluation.
4. Sheet Flow Dispersion in accordance with Chapter D5 of this manual and BMP T5.12, or Concentrated Flow Dispersion in accordance with Chapter D5 of this manual and BMP T5.11 in Chapter 5 of Volume V of the DOE Manual.

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Sheet Flow Dispersion cannot be achieved due to a lack of space suitable for a 10' vegetated flowpath in addition to the proximity to steep slopes.

Minimum Requirement #6: Runoff Treatment:

SSWES Chapter D5 establishes thresholds for requiring stormwater treatment facilities:

- Projects in which the total of pollution generating impervious surface (PGIS) is 5,000 square feet or more in a threshold discharge area of the project, or
- Projects in which the total of pollution-generating pervious surfaces (PGPS) is three-quarters (3/4) of an acre or more in a threshold discharge area, and from which there is a surface discharge in a natural or man-made conveyance system from the site.

This project produces approximately 54,392 square feet of new and replaced PGIS. Runoff treatment is required per Section D1-04.2(f) of the SSWES. Enhanced Water Quality treatment will be accomplished using a BioPod Underground water quality facility (BPU-612IB) located downstream of the detention vault. The BioPod is an approved water quality device through the Technology Assessment Protocol – Ecology (TAPE) program meeting the General Use Level Designation (GULD) to provide water quality meeting the enhanced requirements.

Minimum Requirement #7: Flow Control:

Per Section D1-04.2(g) of the SSWES, the following require construction of flow control facilities and/or On-site Stormwater Management BMPs:

- Projects in which the total effective impervious surface is 10,000 square feet or more in a threshold discharge area; or
- Projects that convert ¾ acres or more of native vegetation to lawn or landscape, or convert 2.5 acres or more of native vegetation to pasture in a threshold discharge area, and from which there is a surface discharge in a natural or man-made conveyance system from the site; or
- Projects that through a combination of impervious surfaces and converted pervious surfaces cause a 0.1 cubic feet per second increase in the 100-year flow frequency from a threshold discharge area as estimated using the Western Washington Hydrology Model or other approved model.

The project results in 141,416-sf (3.25 ac) of new and replaced impervious surfaces, therefore, the project is required to provide flow control. Flow control will be provided with the construction of a detention vault. The detention vault has been sized using WWHM. See Section 6 for flow control calculations.

Minimum Requirement #8: Wetlands Protection:

Please see the Critical Areas Report, Habitat Evaluation, and Conceptual Mitigation Plan prepared by Talasaea Consultants, Inc included in APPENDIX C of this report. The report raised concerns that the development could alter runoff patterns and impact the hydrology of both Wetland A and Wetland B located downstream of the proposed development. Wetland AA is outside of the project area and is not expected to remain protected throughout the construction process. Please see the following pages which contains Figure I-3.5 from the

DSD - 000817

Drainage Manual filled out for each of the downstream wetlands (Wetland A & Wetland B) to determine the level of protection required for each. For both Wetland A and Wetland B, general protection, protection from pollutants, and wetland hydroperiod protection is required.

Wetland buffers and construction fencing is proposed to provide general protection to each of these wetlands. All on-site PGIS surfaces are proposed to be treated prior to being discharged from the project site to the stormwater runoff's natural drainage location. Therefore, all downstream wetlands will be protected from upstream pollutants generated as part of the project improvements.

Wetland A per Figure I-3.5 of the SWMMWW needs general protection, protection from pollutants, and wetland hydroperiod protection. Wetland A, per email correspondence with Talasea Consultants included in APPENDIX I of this report, is a riverine wetland, meaning that the wetland hydrology occurs through stream overbank flooding that occurs at least once every two years. The project proposes to bypass the backyard proposed pervious areas of Units 1-4 to maintain similar surface water runoff rates tributary to the wetland. Since the wetland is recharged primarily from stream flooding and we are maintaining similar flowrates into the wetland as the existing overland flowrates, Wetland A has general protection, protection from pollutants, and has met the wetland hydroperiod protection requirements. Please review the wetland hydrology WWHM located in Appendix J of this report.

Wetland B is a small 45 square foot wetland located at the base of steep slopes ranging from 25%-55%, identified as a steep slope area per the Bellevue Map Viewer and an erosion hazard area per the King County iMap. This wetland that is required to meet general protection, protection from pollutants, and wetland hydroperiod protection. The project is proposing to meet wetland buffers and provide construction fencing to provide general protection and protection from construction related pollutants. All pollutants from the project site will be collected and conveyed into a water quality facility prior to being discharged to the natural drainage location downstream of this wetland, protecting Wetland B from pollutants. However, recharging this wetland is deemed infeasible per dispersion recommendations in the Drainage Manual. Per V-3 Dispersion BMPs Design Guidelines, "No erosion or flooding of downstream properties may result" and, "Runoff discharged towards landslide hazard areas must be evaluated by a geotechnical engineer or qualified geologist. Do not place the discharge point on or above slopes greater than 20%, or above erosion hazard areas, without assessment by a geotechnical engineer or qualified geologist and approval by the Local Plan Approval Authority." Per the Geotechnical Report included in APPENDIX B of this report, "Water from roof, storm water, and foundation drains should not be discharged onto slopes; it should be tightlined to a suitable outfall located away from any slopes." Due to this recommendation, recharging the wetland located within a steep sloped critical area is infeasible. Minor unconcentrated landscaped areas will flow towards this wetland in the developed condition partially recharging the wetland. Please review the wetland hydrology WWHM located in Appendix J of this report.

Minimum Requirement #9: Operation and Maintenance:

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An operation and Maintenance (O&M) Manual will be developed as part of the final engineering submittal.

4. INFILTRATION FEASIBILITY ASSESSMENT AND INFILTRATION BMP DESIGN

Per the Bellevue Map Viewer, the project site is mapped as an infiltration infeasible area. To support the infiltration infeasibility per the Bellevue Map Viewer, please refer to the Geotechnical Engineering Study prepared by the Geotech Consultants, Inc. included in the Appendix of this report. On-site soils are generally medium-dense soil within a few feet of the ground surface, generally getting denser with depth. The northwestern portion of the project site is underlain by fill soils which will need to be over excavated to facilitate the proposed buildings in that area. The report goes on to say, “We also observed numerous instances of relatively high perched groundwater at the site; based on our findings, the site soils are not suitable for concentrated stormwater infiltration.” In a document titled, “Summary Letter” provided by Geotech Consultants, Inc., “Impermeable soils (dense glacial till or silt) were encountered at depths of 2.5 to 5 feet below the original ground level and perched groundwater was observed in test pits 9, 10, and 12 at depths of 6-10 feet. Additionally, the project site is adjacent to steep slopes which is not advantageous to locate stormwater infiltration BMPs adjacent to. Due to shallow impermeable soils, perched groundwater located in sections of the project site, and the steep slopes present just off the project site, no infiltration BMPs are proposed as part of the development.

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5. OFF-SITE ANALYSIS

Please refer to the off-site analysis performed by PACE Engineers, Inc. on September 26, 2016 included in Appendix K of this report.

DSD - 000820

6. HYDROLOGIC ANALYSIS

6.1 Hydrologic Analysis

The drainage analysis for detention and water quality sizing was performed following SSWES requirements. Per the Geotechnical Engineering Study provided by Geotech Consultants, Inc., the site is underlain with glacial till with very low permeability, indicating that Soil Group C should be utilized for the purposes of stormwater modeling.

Pre-developed Conditions

The subject property is approximately 12.29 acres with a disturbed area of 6.29 acres. This analysis is confined to the disturbed area (project site). The existing property is developed with two single-family houses with sheds and supporting utilities and landscaping.

Runoff from the site naturally sheet flows to the southwest into Coal Creek and eventually flows into Lake Washington. Pre-developed conditions for the entire project site were analyzed based on historic forested conditions. See Pre-Developed Conditions in Table 1 utilized for WWHM Modeling. For existing land use areas, please see the Existing Conditions Map located in Section 2 of this report.

Table 1: Pre-Developed Conditions Land Use (WWHM)

Existing Project Site Areas (WWHM)		
Land Use	Area (SF)	Area (Acre)
Forested	273,897	6.288
Total	273,897	6.288

Developed Conditions

Proposed development of the property will include construction of 35 single-family residences, driveways, sidewalks, landscaping, stormwater flow control facilities, and underground utilities.

All proposed impervious areas were measured from the proposed site plan and include disturbed area within the ROW. These areas are depicted and tabulated in Figure 4-1. A mitigation swap with a portion of the upstream area that will flow onto our site has been proposed to mitigate for some of the bypassed areas located on-site. Approximately 0.27 acre of upstream area will be collected and conveyed to the on-site detention system and will mitigate for the “On-Site Drainage Bypass Basin” and the “Frontage Drainage Bypass Basin”. Please see the *Proposed Conditions Map* included at the end of Section 3.

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Table 2: Developed Conditions Land Use

Developed Project Site Areas (WWHM)		
Land Use	Area (SF)	Area (Acre)
**Impervious (On-Site)	129,632	2.976
**Impervious (ROW)	10,890	0.250
**Impervious (Upstream)	11,761	0.270
*Impervious (ROW Bypass)	871	0.020
**Pasture (On-Site)	115,732	2.657
*Pasture (On-Site Bypass)	12,741	0.292
**Pasture (ROW)	3,790	0.087
*Pasture (ROW Bypass)	218	0.005
Total	285,635	6.557

*These areas were included in the mitigation swap. The Upstream Area totaling to 0.270 acre of impervious roadway will account for the Impervious (ROW Bypass) [871 SF, 0.020 AC], Pasture (ROW Bypass) [218 SF, 0.005 AC], Pasture (On-Site Bypass) [12,741 SF, 0.292]. The leftover bypass after the mitigation swap is 0.047 AC of pasture.
**These areas are conveyed to the proposed detention vault on-site and have been designed to meet flow control discharge requirements.

The total developed project site areas increased from the existing conditions due to the collected upstream area to support the mitigation swap for the on-site and frontage bypass areas. The upstream area includes all the upstream area west of the Lakemont Boulevard SE centerline that was not part of the frontage improvements. The road transitions from a centerline crown to a superelevated roadway which sheet flows stormwater runoff from both lanes of Lakemont Boulevard SE to our proposed detention vault.

To prevent oversizing the detention vault, a mitigation swap is proposed. A portion of on-site area and frontage area cannot be routed through gravity conveyance to the proposed detention vault and water quality system. Please see the *Proposed Conditions Map* included in Section 3 of this report for a visualization of these areas.

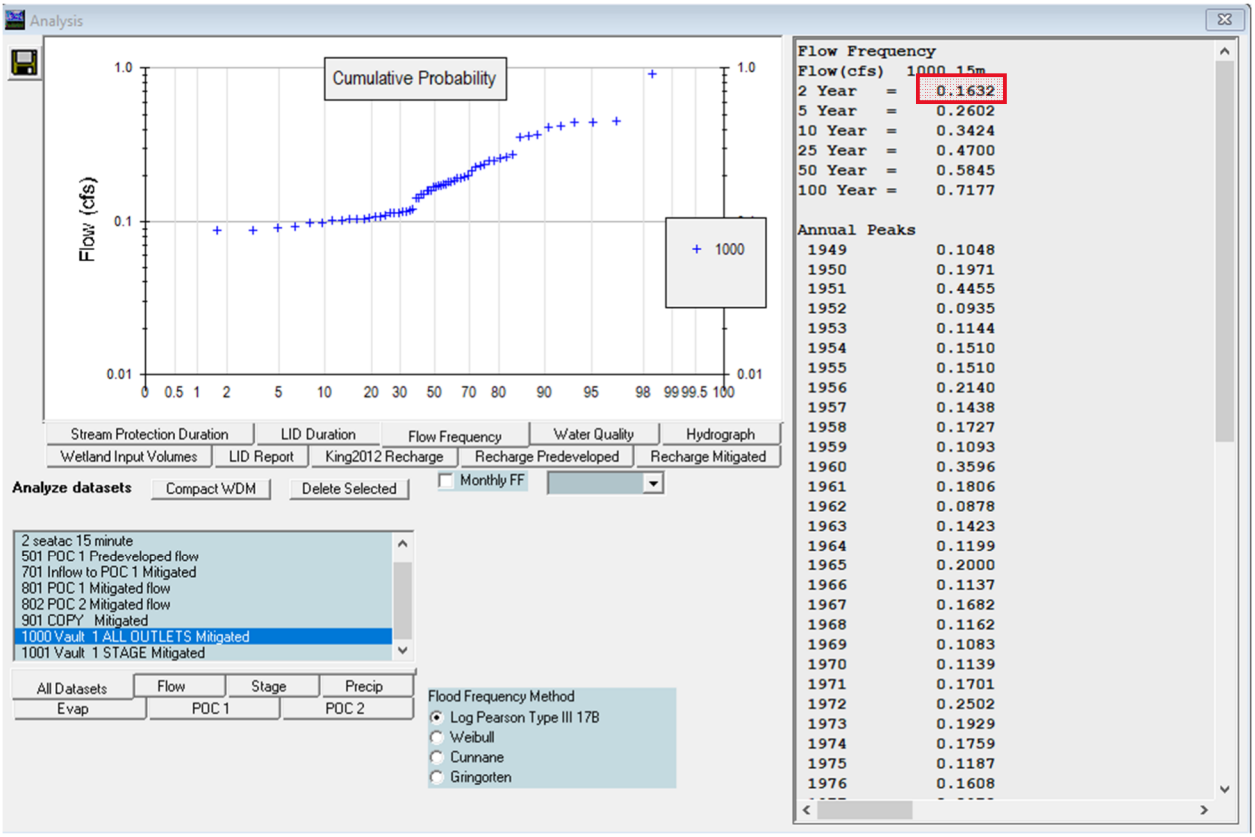
The total area trade involves collecting 11,761 SF (0.270 AC) of upstream PGIS surface and bypassing 13,830 SF (0.317 AC) of on-site and frontage area. The remaining 0.047 AC of pasture surface will bypass the proposed flow control and water quality facilities, however, those areas will provide wetland recharge to the two wetlands downstream.

6.2 Water Quality Calculations

Per Section D1-04.2(f) of the SSWES, projects in which the total proposed pollution generating impervious surface (PGIS) is 5,000 square feet or more in a threshold discharge area is required to provide water quality. The developed site proposes greater than 5,000 SF and therefore, water quality requirements are triggered for the project.

Water quality will be provided by a OldCastle BioPod Underground water quality facility (BPU-612IB) downstream of the detention vault. Per the OldCastle General Use Level Designation (GULD) for enhanced level treatment, the water quality facility must be sized to mitigate the full 2-year release rate from the detention facility. Please see the following pages for the BioPod detail and GULD for more information.

The full 2-year release rate from the proposed detention facility is 0.1632 CFS. Please see the WWHM printout below:



The BioPod water quality facility (BPU-612IB) has the capacity to treat 0.213 cfs of flow, which is greater than the full 2-year release rate from the detention facility. Therefore, the water quality facility has been sized to mitigate for the enhanced water quality requirements triggered by the project site.

DSD - 000823

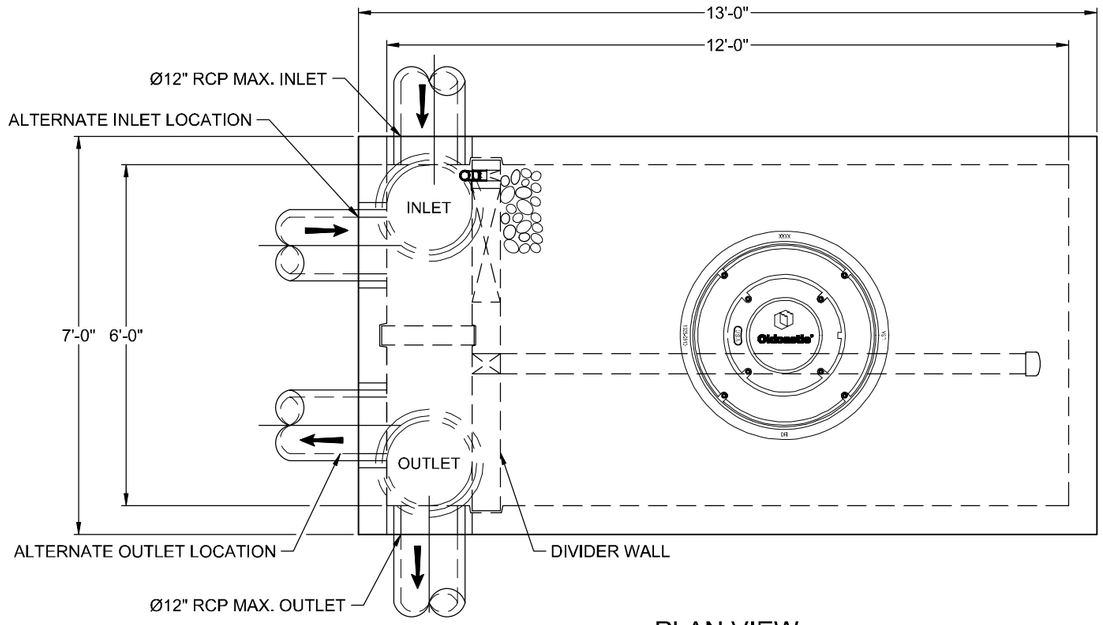
SITE SPECIFIC DATA	
Structure ID	ID
Treatment Flow Rate (cfs)	-
Peak Flow Rate (cfs)	-
Rim Elevation	-
Top of Vault Elevation	-

Pipe Data	Pipe Location	Pipe Size	Pipe Type	Invert Elevation
Inlet	-	-	-	-
Outlet	-	-	-	-

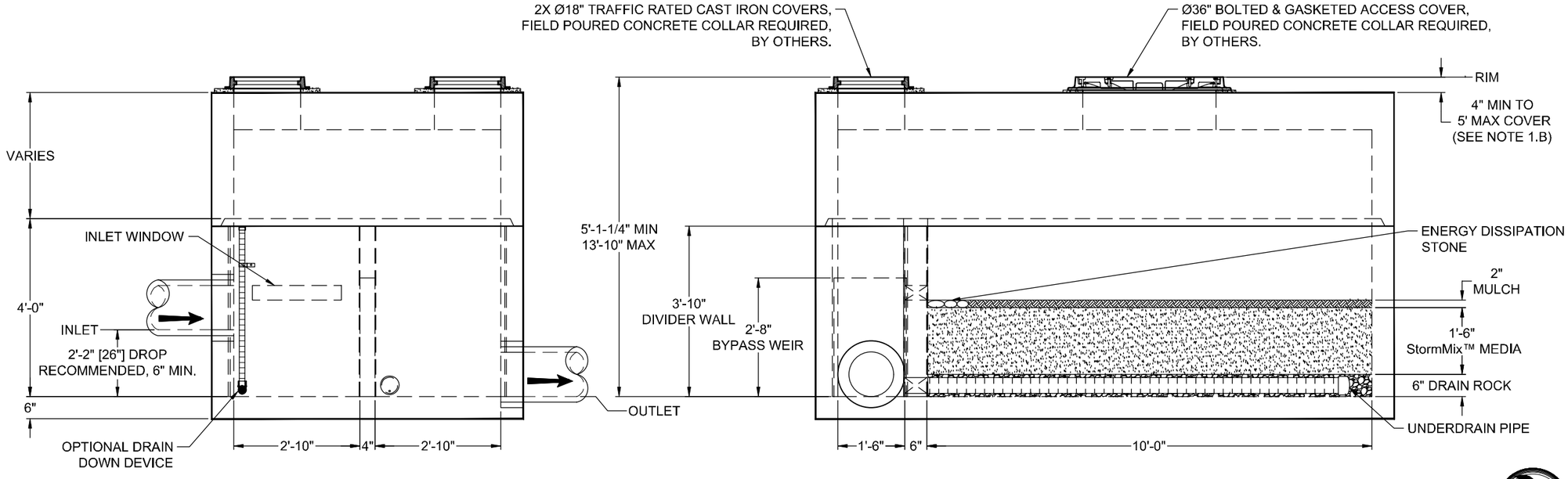
Notes:

PERFORMANCE SPECIFICATIONS	
Treatment Flow Capacities:*	
NJDEP 80% Removal, 75 micron	0.240 cfs
WA Ecology GULD - Basic, Enhanced & Phosphorus	0.213 cfs
Bypass Capacity	5.0 cfs

*Contact Oldcastle for alternative treatment flow capacities.



PLAN VIEW



LEFT END VIEW

ELEVATION VIEW

NOTES:

1. DESIGN LOADINGS:
   A. AASHTO HS-20-44 (WITH IMPACT)
   B. DESIGN SOIL COVER: 5'-0" MAXIMUM
   C. ASSUMED WATER TABLE: BELOW BASE OF PRECAST (ENGINEER-OF-RECORD TO CONFIRM SITE WATER TABLE ELEVATION)
   D. LATERAL EARTH PRESSURE: 45 PCF (DRAINED)
   E. LATERAL LIVE LOAD SURCHARGE: 80 PSF (APPLIED TO 8'-0" BELOW GRADE)
   F. NO LATERAL SURCHARGE FROM ADJACENT BUILDINGS, WALLS, PIERS, OR FOUNDATIONS.
2. CONCRETE 28-DAY MINIMUM COMPRESSIVE STRENGTH: 5,000 PSI MINIMUM.
3. REINFORCING: REBAR, ASTM A615/A706, GRADE 60
4. CEMENT: ASTM C150
5. REQUIRED ALLOWABLE SOIL BEARING CAPACITY: 2,500 PSF
6. REFERENCE STANDARD:
   A. ASTM C890
   B. ASTM C913
   C. ACI 318-14
7. THIS STRUCTURE IS DESIGNED TO THE PARAMETERS NOTED HEREIN. ENGINEER-OF-RECORD SHALL VERIFY FY THAT NOTED PARAMETERS MEET OR EXCEED PROJECT REQUIREMENTS. IF DESIGN PARAMETERS ARE INCORRECT, REVIEWING ENGINEER/AUTHORITY SHALL NOTIFY OLDCASTLE INFRASTRUCTURE UPON REVIEW.
8. INLET AND OUTLET HOLES WILL BE FACTORY CORED/CAST PER PLANS AND CUSTOMER REQUIREMENTS. INLET AND OUTLET LOCATIONS CAN BE MIRRORED.
9. CONTRACTOR RESPONSIBLE TO VERIFY ALL SIZES, LOCATIONS, AND ELEVATIONS OF OPENINGS.
10. CONTRACTOR RESPONSIBLE TO ENSURE ADEQUATE BEARING SURFACE IS PROVIDED (I.E. COMPACTED AND LEVEL PER PROJECT SPECIFICATIONS).
11. SECTION HEIGHTS, SLAB/WALL THICKNESSES, AND KEYWAYS ARE SUBJECT TO CHANGE AS REQUIRED FOR SITE REQUIREMENTS AND/OR DUE TO PRODUCT AVAILABILITY AND PRODUCTION FACILITY CONSTRAINTS.
12. MAXIMUM PICK WEIGHTS*:
    A. TOP: XX,XXX LBS
    B. BASE: XX,XXX LBS*
    (* COMBINED WEIGHT OF BASE INCLUDES BYPASS WEIR, DIVIDER WALL, ROCK & MEDIA)
13. INTERNALS SHALL CONSIST OF UNDERDRAIN PIPE, ROCK, STORMMIX™ MEDIA, MULCH, DIVIDER WALL, BYPASS WEIR AND OPTIONAL DRAIN DOWN.

Bioretention/ Biofiltration

Oldcastle Infrastructure™
A CRH COMPANY

Ph: 800.579.8819 | www.oldcastleinfrastructure.com/stormwater

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BioPod™ Biofilter System (STANDARD)

Underground Vault with Internal Bypass

CUSTOMER
-

PROJECT NAME
-

SHEET NAME	REVISION	SHEET
Specifier Drawing BPU-612IB	-	1 OF 1
	REV DATE -	

DSD - 000824

March 2022

GENERAL USE LEVEL DESIGNATION FOR BASIC (TSS), DISSOLVED METALS (ENHANCED), AND PHOSPHORUS TREATMENT

For

Oldcastle Infrastructure, Inc.'s
The BioPod™ Biofilter
(Formerly the TreePod Biofilter)

Ecology's Decision

Based on Oldcastle Infrastructure, Inc. application submissions for The BioPod™ Biofilter (BioPod), Ecology hereby issues the following use level designation:

1) General Use Level Designation (GULD) for Basic, Enhanced, and Phosphorus Treatment:
   - Sized at a hydraulic loading rate of 1.6 gallons per minute (gpm) per square foot (sq ft) of media surface area.
   - Constructed with a minimum media thickness of 18-inches (1.5-feet)
2) Ecology approves the BioPod at the hydraulic loading rate listed above, to achieve the maximum water quality design flow rate. The water quality design flow rates are calculated using the following procedures:
   - Western Washington: For treatment installed upstream of detention or retention, the water quality design flow rate is the peak 15-minute flow rate as calculated using the latest version of the Western Washington Hydrology Model or other Ecology- approved continuous runoff model.
   - Eastern Washington: For treatment installed upstream of detention or retention, the water quality design flow rate is the peak 15-minute flow rate as calculated using one of the three methods described in Chapter 2.7.6 of the Stormwater Management Manual for Eastern Washington (SWMMEW) or local manual.
   - Entire State: For treatment installed downstream of detention, the water quality design flow rate is the full 2-year release rate of the detention facility.
3) For systems that have a drain down outlet, designers must increase the water quality design flow rate calculated in Item 2, above, to account for the water that will enter the initial bay but won't be treated by the engineered soil. Multiple the flow rate determined above by 1.05

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to determine the required flowrate for the BioPod unit.

4) The GULD has no expiration date, but may be amended or revoked by Ecology.

Ecology's Conditions of Use

The BioPod shall comply with these conditions:

1) Applicants shall design, assemble, install, operate, and maintain the BioPod installations in accordance with Oldcastle Infrastructure Inc.'s applicable manuals and the Ecology Decision.
2) The minimum size filter surface-area for use in Washington is determined by using the design water quality flow rate (as determined in Ecology Decision, Item 3, above) and the hydraulic loading rate (as identified in Ecology Decision, Item 1, above). Calculate the required area by dividing the water quality design flow rate (cu-ft/sec) by the hydraulic loading rate (converted to ft/sec) to obtain the required surface area (sq ft) of the BioPod unit.
3) BioPod media shall conform to the specifications submitted to and approved by Ecology.
4) The applicant tested the BioPod without plants. This GULD applies to the BioPod Stormwater Treatment System whether plants are included in the final product or not.
5) Maintenance: The required inspection/maintenance interval for stormwater treatment devices is often dependent on the efficiency of the device and the degree of pollutant loading from a particular drainage basin. Therefore, Ecology does not endorse or recommend a "one size fits all" maintenance cycle for a particular model/size of manufactured filter treatment device.
    - The BioPod is designed for a target maintenance interval of 1 year. Maintenance includes replacing the mulch, assessing plant health, removal of trash, and raking the top few inches of engineered media.
    - The BioPod system initially tested at the Lake Union Ship Canal Test Facility in Seattle, WA required maintenance after 1.5 months, or 6.3% of a water year. Monitoring personnel observed similar maintenance issues with other systems evaluated at the Test Facility. Runoff from the Test Facility may be unusual and maintenance requirements of systems installed at the Test Facility may not be indicative of typical maintenance requirements. Because of this, the initial version of the GULD required Oldcastle to subsequently "conduct hydraulic testing to obtain information about maintenance requirements on a site with runoff that is more typical of the Pacific Northwest". Quarterly testing from a 15-month maintenance frequency assessment conducted on a BioPod system installed along a roadway in Des Moines, WA indicated the system was able to treat a full water year before requiring maintenance.
    - Test results provided to Ecology from a BioPod System evaluated in a lab following New Jersey Department of Environmental Protection Laboratory Protocol for Filtration MTDs have indicated the BioPod System is capable of longer maintenance intervals.
    - Owners/operators must inspect BioPod systems for a minimum of twelve months from the start of post-construction operation to determine site-specific inspection/maintenance schedules and requirements. Owners/operators must conduct inspections monthly during the wet season, and every other month during the dry season. (According to the SWMMWW, the wet season in western Washington is October 1 to April 30. According

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to the SWMMEW, the wet season in eastern Washington is October 1 to June 30.) After the first year of operation, owners/operators must conduct inspections based on the findings during the first year of inspections.

- Conduct inspections by qualified personnel, follow manufacturer's guidelines, and use methods capable of determining either a decrease in treated effluent flow rate and/or a decrease in pollutant removal ability.

6) Install the BioPod in such a manner that you bypass flows exceeding the maximum operating rate and you will not resuspend captured sediment.

7) Discharges from the BioPod shall not cause or contribute to water quality standard violations in receiving waters.

Approved Alternate Configurations

BioPod Internal Bypass

1) The BioPod Internal Bypass configuration may be combined with a Curb Inlet, Grated Inlet, and Piped-In Inlet. Water quality flows and peak flows are directed from the curb, overhead grate, or piped inlet to a contoured inlet rack. The inlet rack disperses water quality flows over the top surface of the biofiltration chamber. Excess flows are diverted over a curved bypass weir to the outlet area without passing through the treatment area. Both water quality flows and bypass flows are combined in the outlet area prior to being discharged out of the system.

2) To select a BioPod Internal Bypass unit, the designer must determine the size of the standard unit using the sizing guidance described above. Systems that have an internal bypass may use the off-line water quality design flow rate.

3) The internal bypass configuration has a maximum flow rate of 900 gallons per minute. Sites where the anticipated flow rate at the treatment device is larger than 900 gpm must use an external bypass, or size the treatment device for the on-line water quality design flow rate.

Applicant:	Oldcastle Infrastructure, Inc.
Applicant's Address:	7100 Longe St, Suite 100 Stockton, CA 95206

Application Documents:

BioPod™ Stormwater Filter Maintenance Frequency Assessment, Prepared for Oldcastle Infrastructure, Inc., Prepared by Herrera Environmental Consultants, Inc. February 2022

Technical Evaluation Report TreePod™ BioFilter System Performance Certification Project, Prepared for Oldcastle, Inc., Prepared by Herrera Environmental Consultants, Inc. February 2018

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Technical Memorandum: Response to Board of External Reviewers' Comments on the Technical Evaluation Report for the TreePod™ Biofilter System Performance Certification Project, Oldcastle, Inc. and Herrera Environmental Consultants, Inc., February 2018

Technical Memorandum: Response to Board of External Reviewers' Comments on the Technical Evaluation Report for the TreePod™ Biofilter System Performance Certification Project, Oldcastle, Inc. and Herrera Environmental Consultants, Inc., January 2018

Application for Pilot Use Level Designation, TreePod™ Biofilter – Stormwater Treatment System, Oldcastle Stormwater Solutions, May 2016

Emerging Stormwater Treatment Technologies Application for Certification: The TreePod™ Biofilter, Oldcastle Stormwater Solutions, April 2016

Applicant's Use Level Request:

- General Use Level Designation as a Basic, Enhanced, and Phosphorus Treatment device in accordance with Ecology's *Stormwater Management Manual for Western Washington*

Applicant's Performance Claims:

Based on results from laboratory and field-testing, the applicant claims the BioPod™ Biofilter operating at a hydraulic loading rate of 153 inches per hour is able to remove:

- 80% of Total Suspended Solids (TSS) for influent concentrations greater than 100 mg/L and achieve a 20 mg/L effluent for influent concentrations less than 100 mg/L.
- 60% dissolved zinc for influent concentrations 0.02 to 0.3 mg/L.
- 30% dissolved copper for influent concentrations 0.005 to 0.02 mg/L.
- 50% or greater total phosphorus for influent concentrations 0.1 to 0.5 mg/L.

Ecology's Recommendations:

Ecology finds that:

- Oldcastle Infrastructure, Inc. has shown Ecology, through laboratory and field testing, that the BioPod™ Biofilter is capable of attaining Ecology's Basic, Total Phosphorus, and Enhanced treatment goals.

Findings of Fact:

Field Testing

- Herrera Environmental Consultants, Inc. conducted monitoring of the BioPod™ Biofilter at the Lake Union Ship Canal Test Facility in Seattle Washington between November 2016 and April 2018. Herrera collected flow-weight composite samples during 14 separate storm events and peak flow grab samples during 3 separate storm events. The system was sized at an infiltration rate of 153 inches per hour or a hydraulic loading rate of 1.6 gpm/ft^2.

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- The D_{50} of the influent PSD ranged from 3 to 292 microns, with an average D_{50} of 28 microns.
- Influent TSS concentrations ranged from 17 mg/L to 666 mg/L, with a mean concentration of 98 mg/L. For all samples (influent concentrations above and below 100 mg/L) the bootstrap estimate of the lower 95 percent confidence limit (LCL 95) of the mean TSS reduction was 84% and the bootstrap estimate of the upper 95 percent confidence limit (UCL95) of the mean TSS effluent concentration was 8.2 mg/L.
- Dissolved copper influent concentrations from the 17 events ranged from 9.0 µg/L to 21.1 µg/L. The 21.1 µg/L data point was reduced to 20.0 µg/L, the upper limit to the TAPE allowed influent concentration range, prior to calculating the pollutant removal. A bootstrap estimate of the LCL95 of the mean dissolved copper reduction was 35%.
- Dissolved zinc influent concentrations from the 17 events ranged from 26.1 µg/L to 43.3 µg/L. A bootstrap estimate of the LCL95 of the mean dissolved zinc reduction was 71%.
- Total phosphorus influent concentrations from the 17 events ranged from 0.064 mg/L to 1.56 mg/L. All influent data greater than 0.5 mg/L were reduced to 0.5 mg/L, the upper limit to the TAPE allowed influent concentration range, prior to calculating the pollutant removal. A bootstrap estimate of the LCL95 of the mean total phosphorus reduction was 64%.
- The system experienced rapid sediment loading and needed to be maintained after 1.5 months. Monitoring personnel observed similar sediment loading issues with other systems evaluated at the Test Facility. The runoff from the Test Facility may not be indicative of maintenance requirements for all sites.

- Herrera Environmental Consultants, Inc. conducted a maintenance frequency assessment of the BioPod™ installed along a roadway in Des Moines, WA between September 2020 and January 2022.
  - Herrera collected influent grab samples during 10 storm events and paired effluent samples during 5 storm events. Influent concentrations ranged from 1 mg/L to 164 mg/L, with a median concentration of 23 mg/L. Effluent concentrations ranged from 1 mg/L to 19 mg/L, with a median of 5 mg/L.
  - Herrera collected influent PSD samples during 3 storm events. The D_{50} for the samples were 42, 1306, and 57 microns. The 1306 micron value was collected during an event with an influent TSS concentration of 1 mg/L. It is assumed this sample was atypical and that it contained a few grains of very coarse sand and almost no other particles.
  - Herrera used a water truck to conduct flow testing 7 times to assess how long the system could filter at the design flow rate without bypass. Results show the system was able to treat up to a full water year before the system needed maintenance.

Laboratory Testing

- Good Harbour Laboratories (GHL) conducted laboratory testing at their site in Mississauga, Ontario in October 2017 following the New Jersey Department of Environmental Protection Laboratory Protocol for Filtration MTDs. The testing evaluated a 4-foot by 6-foot standard biofiltration chamber and inlet contour rack with

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bypass weir. The test sediment used during the testing was custom blended by GHL using various commercially available silica sands, which had an average d_{50} of 69 µm. Based on the lab test results:

  - GHL evaluated removal efficiency over 15 events at a Maximum Treatment Flow Rate (MTFR) of 37.6 gpm, which corresponds to a MTFR to effective filtration treatment area ratio of 1.80 gpm/ft^2. The system, operating at 100% of the MTFR with an average influent concentration of 201.3 mg/L, had an average removal efficiency of 99 percent.
  - GHL evaluated sediment mass loading capacity over an additional 16 events using an influent SSC concentration of 400 mg/L. The first 11 runs were evaluated at 100% of the MTFR. The BioPod began to bypass, so the remaining 5 runs were evaluated at 90% of the MTFR. The total mass of the sediment captured was 245.0 lbs and the cumulative mass removal efficiency was 96.3%.

- Herrera Environmental Consultants Inc. conducted laboratory testing in September 2014 at the Seattle University Engineering Laboratory. The testing evaluated the flushing characteristics, hydraulic conductivity, and pollutant removal ability of twelve different media blends. Based on this testing, Oldcastle Infrastructure, Inc. selected one media blend, Mix 8, for inclusion in their TAPE evaluation of the BioPod™ Biofilter.
  - Herrera evaluated Mix 8 in an 8-inch diameter by 36-inch tall polyvinyl chloride (PVC) column. The column contained 18-inches of Mix 8 on top of 6-inches of pea gravel. The BioPod will normally include a 3-inch mulch layer on top of the media layer; however, this was not included in the laboratory testing.
  - Mix 8 has a hydraulic conductivity of 218 inches per hour; however, evaluation of the pollutant removal ability of the media was based on an infiltration rate of 115 inches per hour. The media was tested at 75%, 100%, and 125% of the infiltration rate. Based on the lab test results:
    - The system was evaluated using natural stormwater. The dissolved copper and dissolved zinc concentrations in the natural stormwater were lower than the TAPE influent standards; therefore, the stormwater was spiked with 66.4 mL of 100 mg/L Cu solution and 113.6 mL of 1,000 mg/L Zn solution.
    - The BioPod removed an average of 81% of TSS, with a mean influent concentration of 48.4 mg/L and a mean effluent concentration of 9.8 mg/L.
    - The BioPod removed an average of 94% of dissolved copper, with a mean influent concentration of 10.6 µg/L and a mean effluent concentration of 0.6 µg/L.
    - The BioPod removed an average of 97% of dissolved zinc, with a mean influent concentration of 117 µg/L and a mean effluent concentration of 4 µg/L.
    - The BioPod removed an average of 97% of total phosphorus, with a mean influent concentration of 2.52 mg/L and a mean effluent concentration of 0.066 mg/L. When total phosphorus influent concentrations were capped at the TAPE upper limit of 0.5 mg/L, calculations showed an average removal of 87%.

Other BioPod Related Issues to be Addressed by the Company:

1. None identified at this time.

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Technology Description: Download at https://oldcastleprecast.com/stormwater/bioretention-biofiltration-applications/bioretention-biofiltration-solutions/

Contact Information:

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Applicant website: https://oldcastleprecast.com/stormwater/

Ecology web link: https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Stormwater-permittee-guidance-resources/Emerging-stormwater-treatment-technologies

Ecology: Douglas C. Howie, P.E.
Department of Ecology
Water Quality Program
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Revision History

Date	Revision
March 2018	GULD granted for Basic Treatment
March 2018	Provisional GULD granted for Enhanced and Phosphorus Treatment
June 2016	PULD Granted
April 2018	GULD for Basic and Provisional GULD for Enhanced and Phosphorus granted, changed name to BioPod from TreePod
July 2018	GULD for Enhanced and Phosphorus granted
September 2018	Changed Address for Oldcastle
December 2018	Added minimum media thickness requirement
May 2019	Changed language on who must Install and maintain the device from Oldcastle to Applicants
August 2019	Added text on sizing using infiltration rate and water quality design flow rate
October 2019	Added text describing ability to use off-line design water quality flow rate for sizing due to internal bypass
December 2021	Extended approval to installations without plants, added sizing adjustment when using facilities with a drawdown outlet
March 2022	Added results from the maintenance frequency assessment to the Ecology's Conditions of Use and the Findings of Fact sections

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6.3 Detention Calculations

Per Section D1-04.2(g) of the SSWES, flow control facilities are required for projects that have more than 10,000 SF or more of effective impervious surfaces in a threshold discharge area. According to *Table 2: Developed Conditions Land Use* of this report, the project proposes approximately 129,632 SF of effective impervious area on-site, and therefore is required to provide flow control for the entirety of the project improvements.

The project site's stormwater network does not include any Low Impact Development (LID) BMPs due to the nature of the soils, high groundwater, and steep slopes adjacent to the project site. Therefore, the majority of the stormwater runoff is proposed to be collected and conveyed in a tight-lined system consisting of catch basins, inlets, and pipes and routed to the detention facility located on the low end of the project site. Flow control requirements indicate that the developed stormwater discharge durations shall match the fully forested pre-developed discharge rates between 50% of the 2-year to the 50-year peak flow. The LID Standard which extends the range of the pre-developed rates down to 8% of the 2-year peak flow is not used.

Hydrologic modeling has been included in Appendix D of this stormwater report. Stormwater calculations were performed utilizing WWHM2012 utilizing 15-minute timestep. Stormwater calculations require a total storage of 74,844 cubic feet at the top of the riser with half a foot of freeboard. The flow control riser is 9.9' tall providing 9.9' of live storage volume within the detention vault. The detention vault provides the below three orifices to restrict the flows leaving the project site:

- A 1 13/32" (1.40625") orifice is provided at the bottom of the riser, below the outlet pipe elevation.
- A 1 9/16" (1.5625") orifice is provided 5.1' above the bottom of the riser.
- A 2 3/16" (2.1875") orifice is provided 8.2' above the bottom of the riser.

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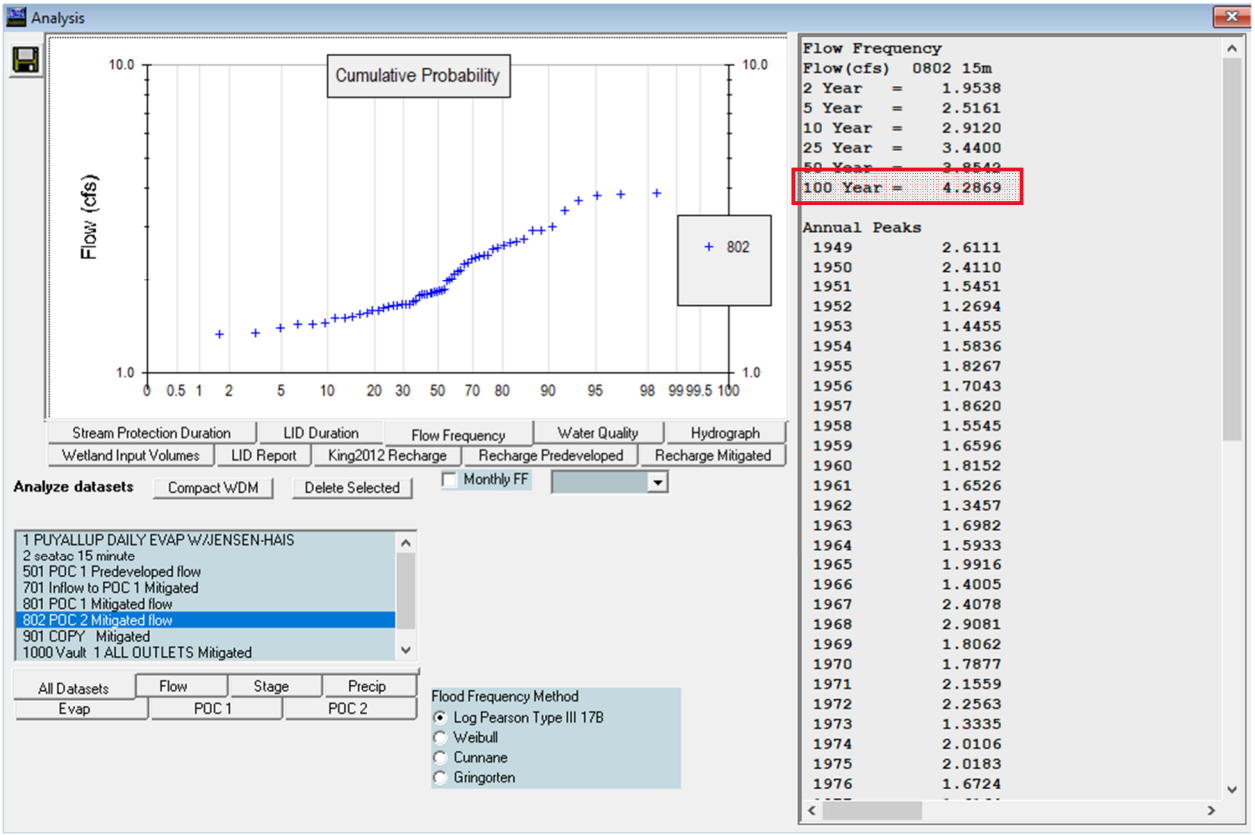
6.4 Conveyance System Analysis and Design

The conveyance system on the project site has been designed to meet the 100-year storm event. The below analysis evaluates the most constrained pipe on the project site when compared to the 100-year flow event in WWHM.

The most constrained pipe on the project site is the pipe exiting the detention vault during the 100-year storm event. This pipe is an 18" diameter PVC pipe running at 1.0%. The peak flows of the stormwater runoff entering the detention vault (assuming the vault is full and all flows entering are bypassing the system) total to 4.2869 CFS. Please see the below WWHM Printout:



The most constrained pipe on the project site is an 18" PVC storm line running at 1%. Per Manning's Equation for uniform pipe flow, the capacity of an 18" PVC pipe is 11.378 CFS which is greater than the 100-year flow generated from the site. Therefore, the proposed stormwater system can convey the 100-year storm event. Please see the calculations included below:

Manning's Equation | 18" PVC Pipe @ 1.0%

$$Q = \frac{1.486 \cdot A \cdot R^{2/3} \cdot S^{\frac{1}{2}}}{n} = 11.378 \text{ CFS}$$

Q = Volume of Flow (CFS)
A = Area of Pipe
$= \pi r^2 = 3.14\ (0.75)\ (0.75) = 1.767\ ft^2$

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R = Hydraulic Radius = $\frac{A}{P_w}$ = 1.767 ft^2 / 4.712 ft = 0.375 ft

P_w = wetted perimeter (full) = $D\pi$ = 1.5’ (3.14) = 4.712 ft

S = Slope = $0.01^{1/2}$ = 0.1

n = Manning Coefficient = 0.012 (PVC)

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APPENDICES

APPENDIX A – COMPLETED INFILTRATION FEASIBILITY CHECKLIST
APPENDIX B – GEOTECHNICAL/HYDROGEOLOGIC REPORT
APPENDIX C – TALASAEA WETLAND REPORT
APPENDIX D – WWHM MODEL
APPENDIX E – OPERATIONS AND MAINTENANCE MANUAL FOR STORMWATER MANAGEMENT FACILITIES **(TO BE PROVIDED AT FINAL ENGINEERING)**
APPENDIX F – SSWES FIGURE 2
APPENDIX G – FEMA FIRM MAP #53033C0652F
APPENDIX H – WETLAND HYDROLOGY COORDINATION
APPENDIX I – WETLAND HYDROLOGY WWHM
APPENDIX J – OFF-SITE ANALYSIS (BY PACE ENGINEERS, INC)
APPENDIX K – COLE MINE HAZARD ASSESSMENT AND GROUND PROOFING PROGRAM

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APPENDIX D-11

Infiltration Feasibility Checklist

Note: This checklist may be used as a guide for basic infiltration feasibility requirements. This Infiltration Feasibility Checklist does not substitute for codes and regulations. The applicant is responsible for compliance with all codes and regulations, whether or not described in this document.

On-site stormwater management includes BMPs designed to reduce runoff volume and pollutants from development using infiltration, dispersion, and retention of stormwater runoff on-site. On-site infiltration is now required by the City of Bellevue Engineering Standards unless it is determined to be infeasible. This checklist summarizes typical steps that a land development applicant will complete as part of stormwater planning for feasibility of infiltrating BMPs. If infiltration is determined to be infeasible, the stormwater planning can focus on non-infiltrating BMPs. This checklist does not address non-infiltrating BMPs.

The infiltration feasibility steps include:

- Step 1. Review the City of Bellevue Infiltration Potential Map
- Step 2. Evaluate Horizontal Setbacks and Site Constraints (Review of Basic Non-Geotechnical Constraints)
- Step 3. Conduct Geotechnical/Soil Investigations and Evaluate Vertical Separation Requirements
    - If vertical separation requirements are not met, prepare Geotechnical Report for Infiltration Feasibility to support determination of Infiltration Infeasibility OR
    - Continue infiltration assessment
- Step 4. Conduct Infiltration Testing
    - For portions of the site where the measured infiltration rate is less than 0.3 inches per hour, prepare Geotechnical Report for Infiltration Feasibility to support Determination of Infiltration Infeasibility OR
    - Continue infiltration assessment
- Step 5. Determine Design Infiltration Rate. See Surface Water Engineering Standards Chapter D5-03.2.2.5
- Step 6. Conduct Receptor Characterization, Groundwater Monitoring, and Mounding Analysis. See Surface Water Engineering Standards Chapter D5-03.2.6
    - Prepare Geotechnical Report for Simplified Infiltration Assessment (Limited to Certain Small On-Lot Individual Roof Infiltration Systems) OR
    - Prepare Geotechnical Report for Standard Infiltration Assessment
- Step 7. Evaluate Use of Infiltration to Meet Minimum Requirements. See Surface Water Engineering Standards Chapter D5-03.2.2.7

Step 1 and Step 2 can be performed by a lay person, civil engineer, architect, or other land use planner. A licensed geotechnical professional is required for Step 3 through Step 7. The licensed professional may be a licensed professional engineer with geotechnical expertise or a licensed geologist, hydrogeologist, engineering geologist, registered in the State of Washington.

Step 1. Review the City of Bellevue Infiltration Potential Map

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The first step in determining infiltration feasibility is review of the City's existing Infiltration Potential Map, available on the City's website. If the project site is infeasible for infiltration based on this map, further infiltration investigations are not required unless the site is located within 50-foot buffer from base of slopes 25 percent or steeper. An applicant may still elect to investigate infiltrating BMPs, but this is not required.

- ☑ Site location information and map.
  - For portion of site within infeasibility area except as noted below, infiltrating BMPs are restricted. No additional subsurface exploration and infiltration testing are required.
  - Exception: For portion of site within 50-foot buffer from base of slopes 25 percent or steeper, infiltration may be feasible, proceed to Step 2.

Step 2. Evaluate Horizontal Setbacks and Site Constraints (Review of Basic Non-Geotechnical Constraints)

For any portion of the site that falls within an area that limits or restricts infiltration BMPs, as documented and approved through the Site Assessment and Planning submittal review (Chapter D1), further infiltration investigation to meet Minimum Requirements # 5 through #7 is not required.

Step 3. Conduct Geotechnical/Soil Investigations

Geotechnical/soil investigations are required in this step to evaluate the suitability or infeasibility of the site for infiltration, help establish the basis for determining an infiltration rate for design (Steps 4 and 5), and help evaluate the potential for subsurface drainage issues (Step 6), slope stability, foundation capacity, and other geotechnical design information needed to design and assess constructability of proposed infiltration facilities.

A determination of infiltration infeasibility may be approved if the Geotechnical/Soils Report (Section D2-06.5) documents that groundwater seepage or a hydraulically-restrictive material is encountered within 5 feet of the base of the proposed infiltration facility, or shallower depths for small on-lot individual roof infiltration, bioretention, and permeable pavement facilities. The Geotechnical/Soils Report must be prepared by a licensed professional engineer with geotechnical expertise, or a licensed geologist, hydrogeologist, engineering geologist, registered in the State of Washington.

Required geotechnical/soils information:

- ☐ Vertical separation requirements are not met, **Geotechnical Report for Infiltration Feasibility** to support determination of Infiltration Infeasibility is attached.
- ☐ Vertical separation requirements are met, continue to Step 4.

Step 4. Conduct Infiltration Testing

For sizing of Roof Downspout Infiltration Systems on sites with soil types that meet the conditions specified below, a Simplified Infiltration Assessment may be conducted in lieu of infiltration testing.

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Other projects shall use the Standard Infiltration Assessment procedures detailed below.

☐ **Simplified Infiltration Assessment (Grain Size Testing for Small On-Lot Individual Roof Downspout Infiltration Systems)**

The simplified infiltration assessment design documentation is intended for small projects where the field work conducted during Step 3 documents that the existing native soils are greater than 3 feet in thickness, medium-grained or coarser outwash type soils (i.e., those meeting USDA soil texture classes ranging from coarse sand and cobbles to medium sand), and shallow ground water is not encountered. If these conditions exist, simplified facility sizing can be used to size Roof Downspout Infiltration Systems per Chapter D5-04.4.7B, and no additional infiltration testing is required to support sizing of this particular type of facility. If native soils are not outwash type soils or are finer-grained than medium-grained sand or coarser soils, or for design of other infiltration BMPs, then infiltration testing is required. Proceed to Step 4b.

- ☐ **Geotechnical Report for Infiltration Feasibility** documents more than 3 feet of permeable outwash type soil is present beneath the proposed facility base and above the seasonal high ground water surface, bedrock or other low-permeability unit.
- ☐ Estimated depth to seasonal high ground water: _____
  - ➢ Basis for estimated depth to seasonal high ground water:
    - ☐ Ground water level monitoring during wet season (December through March).
    - ☐ Observations at time of exploration during December through March. Describe antecedent rainfall conditions: _____
    - ☐ Other. Describe: _____
- ☐ Native outwash type soils are medium-grained sand or coarser soils as documented by laboratory mechanical grain-size distribution testing (sieve testing) per *American Society for Testing and Materials* (ASTM) D-422. Provide detailed geologic/soil log for each exploration, grain size distribution (sieve data) and geotechnical soils report stamped by a licensed professional to support simplified design.

☐ **Standard Infiltration Assessment (Infiltration Testing)**

- ➢ Type of infiltration test:
  - ☐ Small-scale PIT. Area of base: _____. Volume of water used: _____
  - ☐ Large-scale PIT. Area of base: _____. Volume of water used: _____
  - ☐ Date tested: _____. Test length (hours and minutes): _____
- ➢ Field Infiltration Data:
  - ☐ Field infiltration data:
    - Water level in pit, flow rate and totalizer recorded every 15 minutes for initial pre-soak time and every 5 to 10 minutes for final hour
    - Falling water level data recorded after flow of water ceases; falling water levels recorded every minute for first 10 minutes, and every 5 to 15 minutes after for one hour.
  - ☐ Field infiltration rate: _____ inches per hour

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- Infiltration test pit over-excavation observations (deepened to at least 3 feet below test depth)
  - ☐ No post-test seepage observed
  - ☐ Post-test seepage observed
    - Depth of seepage: _____ feet below ground surface

☐ Measured infiltration rate is less than 0.3 inches per hour, infiltrating BMPs are not feasible. **Geotechnical Report for Infiltration Feasibility** with test documentation to support determination of Infiltration Infeasibility is attached.

Once infiltration is determined to be initially feasible based on the geotechnical field work **for Step 3 and Step 4, information from Step 5 and Step 6 are used to complete geotechnical portion of infiltration feasibility documentation for design. Required geotechnical reports for infiltration assessment will include either Geotechnical Report for Simplified Infiltration Assessment or Geotechnical Report for Standard Infiltration Assessment. Submittal requirements are described in** Section D2-06.5 – Geotechnical/Soils Reports and are also listed below:

☐ **Geotechnical Report for Simplified Infiltration Assessment**

☐ **Updated Geotechnical Report for Infiltration Feasibility**
☐ Grain size testing demonstrating soils are Medium-grained or coarser outwash type soils (i.e., those Type A and Type B soils meeting USDA soil texture classes ranging from coarse sand and cobbles to medium sand);
☐ Thickness and permeability of infiltration receptor horizon beneath proposed infiltration BMP. This is a summary of soil and shallow ground water conditions from the subsurface explorations and infiltration testing activities.
☐ Basis for seasonal high groundwater level determination
☐ Describe lateral extent of infiltration receptor horizon, including a detailed description of the condition of the upper soil structure, including the pathway the discharged stormwater will take.
☐ Discuss the discharge point or area of the infiltrating water, particularly at it relates to potential drainage impacts to adjacent properties, wetlands, streams or to geologic hazards. Geologic cross sections are recommended to illustrate lateral extent and discharge point or area of infiltrated water, if warranted.
☐ Results and conclusions.
☐ Raw data and calculations, to be included in an appendix.

☐ **Geotechnical Report for Standard Infiltration Assessment**

☐ **Updated Geotechnical Report for Infiltration Feasibility**
☐ Thickness and permeability of infiltration receptor horizon beneath proposed infiltration BMP. This is a summary of soil and shallow ground water conditions from the subsurface explorations and infiltration testing activities.
☐ Evaluation of native soils for determination of groundwater protective characteristics, if required.
  - Cation Exchange Capacity
  - Organic Matter Content
  - Grain Size Distribution
☐ Basis for seasonal high groundwater level determination:
  - Description of methods used and the standards upon which the methods were based.

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  - Description of groundwater levels relative to the investigation depth and vertical separation requirements per Chapter D5.
  - Seasonal fluctuation of groundwater table based on well water levels and observed mottling of soils and groundwater flow direction.
- ☐ Assessment of ambient groundwater quality, if that is a concern.
- ☐ Field and Design infiltration rate: discussion of correction factors selected, basis of selection, and resulting long-term design infiltration rate
- ☐ Describe lateral extent of infiltration receptor horizon, including a detailed description of the condition of the upper soil structure, including the pathway the discharged stormwater will take.
- ☐ Discuss the discharge point or area of the infiltrating water, particularly at it relates to potential drainage impacts to adjacent properties, wetlands, streams or to geologic hazards. Geologic cross sections are recommended to illustrate lateral extent and discharge point or area of infiltrated water, if warranted.
- ☐ Results of ground water mounding analysis, if required per Chapter D5, provide the following:
  - Description of data used.
  - Analysis procedures, including modeling tools and methods.
  - Potential for groundwater mounding or seepage as a result of proposed infiltration facilities.
- ☐ Results and conclusions.

Raw data and calculations, to be included in an appendix.

DSD - 000840

GEOTECH
CONSULTANTS, INC.

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January 19, 2016

JN 15349

Isola Homes
1518 – 1st Avenue South, Suite 301
Seattle, Washington 98134

Attention: Alex Mason

Subject: **Transmittal Letter – Geotechnical Engineering Study**
Proposed Housing Development
7219 and 7331 Lakemont Boulevard Southeast
Bellevue, Washington

Dear Mr.Mason:

We are pleased to present this geotechnical engineering report for the housing development to be constructed in Bellevue, Washington. The scope of our services consisted of exploring site surface and subsurface conditions, and then developing this report to provide recommendations for general earthwork and design criteria for foundations and retaining walls. This work was authorized by your acceptance of our proposal dated August 19, 2015.

The attached report contains a discussion of the study and our recommendations. Please contact us if there are any questions regarding this report, or for further assistance during the design and construction phases of this project.

Respectfully submitted,

GEOTECH CONSULTANTS, INC.

James H. Strange, P.E.
Associate

cc: **Malsam Tsang Structural Engineering** – Marc Malsam
via email: marc@malsam-tsang.com

TRC/JHS: at

DSD - 000841

GEOTECHNICAL ENGINEERING STUDY
Proposed Housing Development
7219 and 7331 Lakemont Boulevard Southeast
Bellevue, Washington

This report presents the findings and recommendations of our geotechnical engineering study for the site of the proposed housing development to be located in Bellevue.

We were provided with a preliminary site plan prepared by PACE dated June 3, 2015. Based on this plan, we understand that the development will consist of 45 residential lots, with associated access roads and underground utilities. A stormwater detention vault is planned at the southwest corner of the site. We have not been provided with a grading plan, but we anticipate that cuts and fills of about 5 feet are possible.

We understand that coal mine workings are located below the site and in the surrounding area. The scope of our work does not include an evaluation of potential impacts of the coal mine on the proposed development.

If the scope of the project changes from what we have described above, we should be provided with revised plans in order to determine if modifications to the recommendations and conclusions of this report are warranted.

SITE CONDITIONS

SURFACE

The Vicinity Map, Plate 1, illustrates the general location of the site in Bellevue. The site is bordered to the east by Lakemont Boulevard Southeast, and to the north, west, and south by wooded, sloping land owned by City of Bellevue Parks.

The site consists of two parcels of land. Two houses and a few small outbuildings are located near the east side of the northern parcel. A house and four medium to large outbuildings are located in the south and southwestern part of the southern parcel.

Most of the eastern part of the planned development area of the site slopes gently down toward the west. There is an 8-foot-tall knob near the west side of this gently sloping area in the northern parcel. North and west of the gently sloping area in the northern parcel the terrain slopes down toward the north and west with an inclination of 1.5:1 to 2:1 (H:V). The northern slope has a height of 10 to 15 feet and the western slope has a height of 30 to 40 feet. The northern slope is steepest, likely due to past fill placement over the top of the slope. A stream is located at the base of the northern and western slopes. At the southern parcel, the area west of the gentle slope steepens to a moderate inclination and extends west of the site. Further off-site toward the west the slope becomes steep and declines to a stream. We did not observe indications of instability of the site slopes.

The gently sloping eastern portion of the site is primarily vegetated with field grass, with landscaping bushes around the houses and some scattered trees. Trees and brush grow on the steep slopes toward the north and west.

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During our recent site visit we observed flowing water that emerged just south of a shed in the southwest part of the site. The water flowed westward and eventually off the site. We also observed standing water in some of the east-central part of the southern parcel and near the west side of the gently sloping area in that parcel.

SUBSURFACE

The subsurface conditions were explored by excavating 24 test pits at the approximate locations shown on the Site Exploration Plan, Plate 2. Our exploration program was based on the proposed construction, anticipated subsurface conditions and those encountered during exploration, and the scope of work outlined in our proposal.

The test pits were excavated on August 21 and December 22, 2015 with a rubber-tired backhoe. A geotechnical engineer from our staff observed the excavation process, logged the test pits, and obtained representative samples of the soil encountered. "Grab" samples of selected subsurface soil were collected from the backhoe bucket. The Test Pit Logs are attached to this report as Plates 3 through 14.

Soil Conditions

Test Pits 2 through 4, 8 through 10, and 21 through 24 encountered fill and buried topsoil that generally extended to depths of 2 to 5 feet. However, in Test Pits 3, 22, and 23, located close to the tops of the slopes at the north and west sides of the development, the fill and buried topsoil had a thickness of 7.5 to more than 10 feet. Test Pit 22 terminated at a depth of 10 feet due to heavy caving; it did not advance through the fill.

Based on surface conditions and the test pit findings, it appears that fill was placed to expand the gently sloping part of the site a fairly short distance beyond the former top of the steep northern and the north part of the western slope. Fill was also placed to raise the ground surface in a low area that extended from the northwest corner of the proposed development area southward, approaching the southern edge of the northern parcel.

Below the fill and buried topsoil in the above-described explorations, and below about a foot of surficial topsoil in the other explorations, the test pits encountered up to a few feet of loose to medium-dense soil. Medium-dense native soil was encountered within 3 feet of the lowest portion of the topsoil. This native soil varied widely in composition across the site, including: silty sand with gravel, sand with gravel, silt with sand and gravel, and silt.

Groundwater Conditions

Perched groundwater seepage was observed at a depth of 6 to 10 feet in Test Pits 9, 10, and 12, which were excavated in August, and at a depth of 2 to 10 feet in Test Pits 15 through 21, 23, and 24, which were excavated in December following/during heavy rains. The test pits were left open for only a short time period. Therefore, the seepage levels on the logs represent the location of transient water seepage and may not indicate the static groundwater level. It should be noted that groundwater levels vary seasonally with rainfall and other factors, and are typically highest during the normally wet winter and spring months. We anticipate that groundwater could be found in more permeable soil layers and between the looser near-surface soil and the underlying denser soil.

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The stratification lines on the logs represent the approximate boundaries between soil types at the exploration locations. The actual transition between soil types may be gradual, and subsurface conditions can vary between exploration locations. The logs provide specific subsurface information only at the locations tested. The relative densities and moisture descriptions indicated on the test pit logs are interpretive descriptions based on the conditions observed during excavation.

The compaction of test pit backfill was not in the scope of our services. Loose soil will therefore be found in the area of the test pits. If this presents a problem, the backfill will need to be removed and replaced with structural fill during construction.

CONCLUSIONS AND RECOMMENDATIONS

GENERAL

THIS SECTION CONTAINS A SUMMARY OF OUR STUDY AND FINDINGS FOR THE PURPOSES OF A GENERAL OVERVIEW ONLY. MORE SPECIFIC RECOMMENDATIONS AND CONCLUSIONS ARE CONTAINED IN THE REMAINDER OF THIS REPORT. ANY PARTY RELYING ON THIS REPORT SHOULD READ THE ENTIRE DOCUMENT.

The test pits conducted for this study generally encountered native, medium-dense soil within a few feet of the ground surface, and the soil became denser with depth. However, we observed up to 10 feet of loose fill in several test pits in the northern and northwestern part of the site. Other area of fill may be present at the site. Conventional footing foundations bearing on the competent native soil will provide suitable support to the proposed residences. Over-excavation of fill will be necessary where it is present at planned foundation locations.

The steep northern and western slopes are considered Steep Slope Geologic Hazard Areas by the City of Bellevue due to their height and inclination. Bellevue Code states that a buffer 50 feet wide should be established beginning at the top of Steep Slopes. However, the code includes a provision that the buffer can be reduced based on the evaluation of a geotechnical engineer. In our opinion a reduced buffer of 10 feet from the Steep Slope buffer is appropriate based on the absence of past landslides on the site slopes and the competent condition of the native soils that compose the core of the site. We recommend that the proposed residences be set back an additional 10 feet from the edge of the Steep Slope buffer and be founded on directly on competent native soils beneath the existing fill soils along the slope-edge of the residence. Specifically, all foundations within 25 feet of the steep slope shall be founded directly on the medium-dense to dense native soils underlying the fill soils. The remainders of the residences may be supported on structural fill placed above the competent native soils underlying the existing fills. In reference to the Bellevue code (20.25H.125) we believe the proposed reduction in buffer/setback conforms to Items A through C, and that the specific house/lot designs could be made to conform to Items D through J.

Like any steep slope in the Puget Sound region, the steep slopes north and west of the proposed development have a potential to experience shallow landslides, which would most likely be triggered by heavy rainfall or surface water directed onto the slope. Where the upper portion of the slopes consist of fill there is a somewhat increased potential for slope failures. However, because the fill at the top of the slopes is only on the order of about 10 feet thick, it is our opinion that increased potential will not pose a risk to the proposed residences, provided they have the recommended 10-foot-wide slope buffer and additional 10-foot-wide slope setback and are founded on the medium-dense to dense native soils at the site.

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Although sand with some permeability was encountered in some test pit explorations, the sand had a thickness of just a few feet and was underlain by soils with very low permeability. We also observed numerous instances of relatively high perched groundwater at the site; based on our findings, the site soils are not suitable for concentrated stormwater infiltration.

The soils that underlie the site are generally silty and thus moisture sensitive. It would be very difficult to use the site soils as structural fill when they are wet or during wet weather.

The generally silty soils will be susceptible to softening under foot traffic during the placement of forms and rebar, particularly in wet conditions. After scraping any loosened soils from the footing excavations, the bearing surfaces could be protected with several inches of clean crushed rock.

Storm detention/retention facilities and other utilities are often installed below, or near, structures. The walls of storm vaults must be designed as either cantilever or restrained retaining walls, as appropriate. Wall pressures for the expected soil conditions are presented in the ***Permanent Foundation and Retaining Walls*** section of this report. It is important that the portion of the structure above the permanent detained water level be backfilled with free-draining soil, as recommended for retaining walls. Should drainage not be provided, the walls must be designed for hydrostatic forces acting on the outside of the structure. The backfill for all underground structures must be compacted in lifts according to the criteria of this report. Trenches for underground structures and utilities should not cross a line extending downwards from a new or existing footing at an inclination of 1:1 (Horizontal:Vertical), or a line extending downwards from a property line at an inclination of 1:1. We should be consulted if these excavation zones will be exceeded for installation of storm facilities or other utilities.

The erosion control measures needed during the site development will depend heavily on the weather conditions that are encountered. We anticipate that a silt fence will be needed around the downslope sides of any cleared areas. Existing pavements, ground cover, and landscaping should be left in place wherever possible to minimize the amount of exposed soil. Rocked staging areas and construction access roads should be provided to reduce the amount of soil or mud carried off the property by trucks and equipment. Wherever possible, the access roads should follow the alignment of planned pavements. Trucks should not be allowed to drive off of the rock-covered areas. Cut slopes and soil stockpiles should be covered with plastic during wet weather. Following clearing or rough grading, it may be necessary to mulch or hydroseed bare areas that will not be immediately covered with landscaping or an impervious surface. On most construction projects, it is necessary to periodically maintain or modify temporary erosion control measures to address specific site and weather conditions.

The drainage and/or waterproofing recommendations presented in this report are intended only to prevent active seepage from flowing through concrete walls or slabs. Even in the absence of active seepage into and beneath structures, water vapor can migrate through walls, slabs, and floors from the surrounding soil, and can even be transmitted from slabs and foundation walls due to the concrete curing process. Water vapor also results from occupant uses, such as cooking and bathing. Excessive water vapor trapped within structures can result in a variety of undesirable conditions, including, but not limited to, moisture problems with flooring systems, excessively moist air within occupied areas, and the growth of molds, fungi, and other biological organisms that may be harmful to the health of the occupants. The designer or architect must consider the potential vapor sources and likely occupant uses, and provide sufficient ventilation, either passive or mechanical, to prevent a build up of excessive water vapor within the planned structure.

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Geotech Consultants, Inc. should be allowed to review the final development plans to verify that the recommendations presented in this report are adequately addressed in the design. Such a plan review would be additional work beyond the current scope of work for this study, and it may include revisions to our recommendations to accommodate site, development, and geotechnical constraints that become more evident during the review process.

We recommend including this report, in its entirety, in the project contract documents. This report should also be provided to any future property owners so they will be aware of our findings and recommendations.

SEISMIC CONSIDERATIONS

In accordance with the International Building Code (IBC), the site soil profile within 100 feet of the ground surface is best represented by Site Class Type D (Stiff Site Class). As noted in the USGS website, the mapped spectral acceleration value for a 0.2 second (S_s) and 1.0 second period (S_1) equals 1.32g and 0.51g, respectively.

The IBC states that a site-specific seismic study need not be performed provided that the peak ground acceleration be equal to $S_{DS}/2.5$, where S_{DS} is determined in ASCE 7. It is noted that S_{DS} is equal to $2/3S_{MS}$. S_{MS} equals F_a times S_S, where F_a is determined in Table 11.4-1. For our site, $F_a = 1.0$. The calculated peak ground acceleration that we utilized for the seismic-related parameters (earth pressures, seismic surcharges, and slope stability) of this report equals 0.35g.

The site soils are not susceptible to seismic liquefaction because of their dense nature and the absence of near-surface groundwater.

CONVENTIONAL FOUNDATIONS

The proposed structures can be supported on conventional continuous and spread footings bearing on undisturbed, medium-dense, native soil, or on structural fill placed above this competent native soil. As discussed in the ***General*** section, all foundations within 25 feet of the steep slope shall be founded directly on the medium-dense to dense native soils underlying the fill soils. The remainders of the residences may be supported on structural fill placed above the competent native soils underlying the existing fills. See the section entitled ***General Earthwork and Structural Fill*** for recommendations regarding the placement and compaction of structural fill beneath structures. Adequate compaction of structural fill should be verified with frequent density testing during fill placement. Prior to placing structural fill beneath foundations, the excavation should be observed by the geotechnical engineer to document that adequate bearing soils have been exposed.

We recommend that continuous and individual spread footings have minimum widths of 16 and 24 inches, respectively. Exterior footings should also be bottomed at least 18 inches below the lowest adjacent finish ground surface for protection against frost and erosion. The local building codes should be reviewed to determine if different footing widths or embedment depths are required. Footing subgrades must be cleaned of loose or disturbed soil prior to pouring concrete. Depending upon site and equipment constraints, this may require removing the disturbed soil by hand.

Depending on the final site grades, overexcavation may be required below some footings to expose competent native soil. Unless lean concrete is used to fill an overexcavated hole, the overexcavation must be at least as wide at the bottom as the sum of the depth of the overexcavation and the footing

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width. For example, an overexcavation extending 2 feet below the bottom of a 2-foot-wide footing must be at least 4 feet wide at the base of the excavation. If lean concrete is used, the overexcavation need only extend 6 inches beyond the edges of the footing. A typical detail for overexcavation beneath footings is attached as Plate 16.

An allowable bearing pressure of 2,500 pounds per square foot (psf) is appropriate for footings supported on competent native soil. A one-third increase in this design bearing pressure may be used when considering short-term wind or seismic loads. For the above design criteria, it is anticipated that the total post-construction settlement of footings founded on competent native soil will be about one-inch, with differential settlements on the order of one-half-inch in a distance of 30 feet along a continuous footing with a uniform load.

Lateral loads due to wind or seismic forces may be resisted by friction between the foundation and the bearing soil, or by passive earth pressure acting on the vertical, embedded portions of the foundation. For the latter condition, the foundation must be either poured directly against relatively level, undisturbed soil or be surrounded by level, well-compacted fill. We recommend using the following ultimate values for the foundation's resistance to lateral loading:

PARAMETER	ULTIMATE VALUE
Coefficient of Friction	0.45
Passive Earth Pressure	300 pcf

Where: pcf is Pounds per Cubic Foot, and Passive Earth Pressure is computed using the equivalent fluid density.

If the ground in front of a foundation is loose or sloping, the passive earth pressure given above will not be appropriate. We recommend maintaining a safety factor of at least 1.5 for the foundation's resistance to lateral loading, when using the above ultimate values.

FOUNDATION AND RETAINING WALLS

Retaining walls backfilled on only one side should be designed to resist the lateral earth pressures imposed by the soil they retain. The following recommended parameters are for walls that restrain level backfill:

PARAMETER	VALUE
Active Earth Pressure *	35 pcf
Passive Earth Pressure	300 pcf
Coefficient of Friction	0.45
Soil Unit Weight	130 pcf

Where: pcf is Pounds per Cubic Foot, and Active and Passive Earth Pressures are computed using the equivalent fluid pressures.

*** For a restrained wall that cannot deflect at least 0.002 times its height, a uniform lateral pressure equal to 10 psf times the height of the wall should be added to the above active equivalent fluid pressure.**

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The design values given above do not include the effects of any hydrostatic pressures behind the walls and assume that no surcharges, such as those caused by slopes, vehicles, or adjacent foundations will be exerted on the walls. If these conditions exist, those pressures should be added to the above lateral soil pressures. Where sloping backfill is desired behind the walls, we will need to be given the wall dimensions and the slope of the backfill in order to provide the appropriate design earth pressures. The surcharge due to traffic loads behind a wall can typically be accounted for by adding a uniform pressure equal to 2 feet multiplied by the above active fluid density. Heavy construction equipment should not be operated behind retaining and foundation walls within a distance equal to the height of a wall, unless the walls are designed for the additional lateral pressures resulting from the equipment.

The values given above are to be used to design only permanent foundation and retaining walls that are to be backfilled, such as conventional walls constructed of reinforced concrete or masonry. It is not appropriate to use the above earth pressures and soil unit weight to back-calculate soil strength parameters for design of other types of retaining walls, such as soldier pile, reinforced earth, modular or soil nail walls. We can assist with design of these types of walls, if desired. The passive pressure given is appropriate only for a shear key poured directly against undisturbed native soil, or for the depth of level, well-compacted fill placed in front of a retaining or foundation wall. The values for friction and passive resistance are ultimate values and do not include a safety factor. Restrained wall soil parameters should be utilized for a distance of 1.5 times the wall height from corners or bends in the walls. This is intended to reduce the amount of cracking that can occur where a wall is restrained by a corner.

Wall Pressures Due to Seismic Forces

The surcharge wall loads that could be imposed by the design earthquake can be modeled by adding a uniform lateral pressure to the above-recommended active pressure. The recommended surcharge pressure is 8**H** pounds per square foot (psf), where **H** is the design retention height of the wall. Using this increased pressure, the safety factor against sliding and overturning can be reduced to 1.2 for the seismic analysis.

Retaining Wall Backfill and Waterproofing

Backfill placed behind retaining or foundation walls should be coarse, free-draining structural fill containing no organics. This backfill should contain no more than 5 percent silt or clay particles and have no gravel greater than 4 inches in diameter. The percentage of particles passing the No. 4 sieve should be between 25 and 70 percent. If the native sandy soil is used as backfill, a minimum 12-inch width of free-draining gravel or a drainage composite similar to Miradrain 6000 should be placed against the backfilled retaining walls. The drainage composites should be hydraulically connected to the foundation drain system.

The purpose of these backfill requirements is to ensure that the design criteria for a retaining wall are not exceeded because of a build-up of hydrostatic pressure behind the wall. Also, subsurface drainage systems are not intended to handle large volumes of water from surface runoff. The top 12 to 18 inches of the backfill should consist of a compacted, relatively impermeable soil or topsoil, or the surface should be paved. The ground surface must also slope away from backfilled walls to reduce the potential for surface water to percolate into the backfill. Water percolating through pervious surfaces (pavers, gravel, permeable pavement, etc.) must also be prevented from flowing toward walls or into the backfill zone. The compacted subgrade below pervious surfaces and any associated drainage layer should

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therefore be sloped away. Alternatively, a membrane and subsurface collection system could be provided below a pervious surface.

It is critical that the wall backfill be placed in lifts and be properly compacted, in order for the above-recommended design earth pressures to be appropriate. The wall design criteria assume that the backfill will be well-compacted in lifts no thicker than 12 inches. The compaction of backfill near the walls should be accomplished with hand-operated equipment to prevent the walls from being overloaded by the higher soil forces that occur during compaction. The section entitled ***General Earthwork and Structural Fill*** contains additional recommendations regarding the placement and compaction of structural fill behind retaining and foundation walls.

The above recommendations are not intended to waterproof below-grade walls, or to prevent the formation of mold, mildew or fungi in interior spaces. Over time, the performance of subsurface drainage systems can degrade, subsurface groundwater flow patterns can change, and utilities can break or develop leaks. Therefore, waterproofing should be provided where future seepage through the walls is not acceptable. This typically includes limiting cold-joints and wall penetrations, and using bentonite panels or membranes on the outside of the walls. There are a variety of different waterproofing materials and systems, which should be installed by an experienced contractor familiar with the anticipated construction and subsurface conditions. Applying a thin coat of asphalt emulsion to the outside face of a wall is not considered waterproofing, and will only help to reduce moisture generated from water vapor or capillary action from seeping through the concrete. As with any project, adequate ventilation of basement and crawl space areas is important to prevent a build up of water vapor that is commonly transmitted through concrete walls from the surrounding soil, even when seepage is not present. This is appropriate even when waterproofing is applied to the outside of foundation and retaining walls. We recommend that you contact an experienced envelope consultant if detailed recommendations or specifications related to waterproofing design, or minimizing the potential for infestations of mold and mildew are desired.

The ***General***, ***Slabs-On-Grade***, and ***Drainage Considerations*** sections should be reviewed for additional recommendations related to the control of groundwater and excess water vapor for the anticipated construction.

SLABS-ON-GRADE

The building floors can be constructed as slabs-on-grade atop competent native soil, or on structural fill. The subgrade soil must be in a firm, non-yielding condition at the time of slab construction or underslab fill placement. Any soft areas encountered should be excavated and replaced with select, imported structural fill.

Even where the exposed soils appear dry, water vapor will tend to naturally migrate upward through the soil to the new constructed space above it. This can affect moisture-sensitive flooring, cause imperfections or damage to the slab, or simply allow excessive water vapor into the space above the slab. All interior slabs-on-grade should be underlain by a capillary break drainage layer consisting of a minimum 4-inch thickness of clean gravel or crushed rock that has a fines content (percent passing the No. 200 sieve) of less than 3 percent and a sand content (percent passing the No. 4 sieve) of no more than 10 percent. Pea gravel or crushed rock are typically used for this layer.

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As noted by the American Concrete Institute (ACI) in the *Guides for Concrete Floor and Slab Structures*, proper moisture protection is desirable immediately below any on-grade slab that will be covered by tile, wood, carpet, impermeable floor coverings, or any moisture-sensitive equipment or products. ACI also notes that vapor *retarders* such as 6-mil plastic sheeting have been used in the past, but are now recommending a minimum 10-mil thickness for better durability and long term performance. A vapor retarder is defined as a material with a permeance of less than 0.3 perms, as determined by ASTM E 96. It is possible that concrete admixtures may meet this specification, although the manufacturers of the admixtures should be consulted. Where vapor retarders are used under slabs, their edges should overlap by at least 6 inches and be sealed with adhesive tape. The sheeting should extend to the foundation walls for maximum vapor protection. If no potential for vapor passage through the slab is desired, a vapor *barrier* should be used. A vapor barrier, as defined by ACI, is a product with a water transmission rate of 0.01 perms when tested in accordance with ASTM E 96. Reinforced membranes having sealed overlaps can meet this requirement.

The ***General***, ***Permanent Foundation and Retaining Walls***, and ***Drainage Considerations*** sections should be reviewed for additional recommendations related to the control of groundwater and excess water vapor for the anticipated construction.

EXCAVATIONS AND SLOPES

Excavation slopes should not exceed the limits specified in local, state, and national government safety regulations. Temporary cuts to a depth of about 4 feet may be attempted vertically in unsaturated soil, if there are no indications of slope instability. However, vertical cuts should not be made near property boundaries, or existing utilities and structures. Based upon Washington Administrative Code (WAC) 296, Part N, the soil at the subject site would generally be classified as Type B. Therefore, temporary cut slopes greater than 4 feet in height should not be excavated at an inclination steeper than 1:1 (Horizontal:Vertical), extending continuously between the top and the bottom of a cut.

The above-recommended temporary slope inclination is based on the conditions exposed in our explorations, and on what has been successful at other sites with similar soil conditions. It is possible that variations in soil and groundwater conditions will require modifications to the inclination at which temporary slopes can stand. Temporary cuts are those that will remain unsupported for a relatively short duration to allow for the construction of foundations, retaining walls, or utilities. Temporary cut slopes should be protected with plastic sheeting during wet weather. It is also important that surface runoff be directed away from the top of temporary slope cuts. Cut slopes should also be backfilled or retained as soon as possible to reduce the potential for instability. Please note that sand or loose soil can cave suddenly and without warning. Excavation, foundation, and utility contractors should be made especially aware of this potential danger. These recommendations may need to be modified if the area near the potential cuts has been disturbed in the past by utility installation, or if settlement-sensitive utilities are located nearby.

All permanent cuts into native soil should be inclined no steeper than 2:1 (H:V). Fill slopes should not be constructed with an inclination greater than 2:1 (H:V). To reduce the potential for shallow sloughing, fill must be compacted to the face of these slopes. This can be accomplished by overbuilding the compacted fill and then trimming it back to its final inclination. Adequate compaction of the slope face is important for long-term stability and is necessary to prevent excessive settlement of patios, slabs, foundations, or other improvements that may be placed near the edge of the slope.

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Water should not be allowed to flow uncontrolled over the top of any temporary or permanent slope. All permanently exposed slopes should be seeded with an appropriate species of vegetation to reduce erosion and improve the stability of the surficial layer of soil.

Any disturbance to the existing slope outside of the building limits may reduce the stability of the slope. Damage to the existing vegetation and ground should be minimized, and any disturbed areas should be revegetated as soon as possible. Soil from the excavation should not be placed on the slope, and this may require the off-site disposal of any surplus soil.

DRAINAGE CONSIDERATIONS

Footing drains should be used where: (1) crawl spaces or basements will be below a structure; (2) a slab is below the outside grade; or, (3) the outside grade does not slope downward from a building. Drains should also be placed at the base of all earth-retaining walls. These drains should be surrounded by at least 6 inches of 1-inch-minus, washed rock that is encircled with non-woven, geotextile filter fabric (Mirafi 140N, Supac 4NP, or similar material). At its highest point, a perforated pipe invert should be at least 6 inches below the bottom of a slab floor or the level of a crawl space. The discharge pipe for subsurface drains should be sloped for flow to the outlet point. Roof and surface water drains must not discharge into the foundation drain system. A typical drain detail is attached to this report as Plate 15. For the best long-term performance, perforated PVC pipe is recommended for all subsurface drains.

As a minimum, a vapor retarder, as defined in the ***Slabs-On-Grade*** section, should be provided in any crawl space area to limit the transmission of water vapor from the underlying soils. Crawl space grades are sometimes left near the elevation of the bottom of the footings. As a result, an outlet drain is recommended for all crawl spaces to prevent an accumulation of any water that may bypass the footing drains. Providing even a few inches of free draining gravel underneath the vapor retarder limits the potential for seepage to build up on top of the vapor retarder.

Groundwater was observed during our field work. If seepage is encountered in an excavation, it should be drained from the site by directing it through drainage ditches, perforated pipe, or French drains, or by pumping it from sumps interconnected by shallow connector trenches at the bottom of the excavation.

The excavation and site should be graded so that surface water is directed off the site and away from the tops of slopes. Water should not be allowed to stand in any area where foundations, slabs, or pavements are to be constructed. Final site grading in areas adjacent to buildings should slope away at least 2 percent, except where the area is paved. Surface drains should be provided where necessary to prevent ponding of water behind foundation or retaining walls. A discussion of grading and drainage related to pervious surfaces near walls and structures is contained in the ***Foundation and Retaining Walls*** section. Water from roof, storm water, and foundation drains should not be discharged onto slopes; it should be tightlined to a suitable outfall located away from any slopes.

GENERAL EARTHWORK AND STRUCTURAL FILL

All building and pavement areas should be stripped of surface vegetation, topsoil, organic soil, and other deleterious material. It is important that existing foundations be removed before site development. The stripped or removed materials should not be mixed with any materials to be used as structural fill, but they could be used in non-structural areas, such as landscape beds.

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Structural fill is defined as any fill, including utility backfill, placed under, or close to, a building, behind permanent retaining or foundation walls, or in other areas where the underlying soil needs to support loads. All structural fill should be placed in horizontal lifts with a moisture content at, or near, the optimum moisture content. The optimum moisture content is that moisture content that results in the greatest compacted dry density. The moisture content of fill is very important and must be closely controlled during the filling and compaction process.

Fills placed on sloping ground should be keyed into the medium-dense soils. This is typically accomplished by placing and compacting the structural fill on level benches that are cut into the competent soils. The allowable thickness of the fill lift will depend on the material type selected, the compaction equipment used, and the number of passes made to compact the lift. The loose lift thickness should not exceed 12 inches. We recommend testing the fill as it is placed. If the fill is not sufficiently compacted, it can be recompacted before another lift is placed. This eliminates the need to remove the fill to achieve the required compaction. The following table presents recommended relative compactions for structural fill:

LOCATION OF FILL PLACEMENT	MINIMUM RELATIVE COMPACTION
Beneath footings, slabs or walkways	95%
Filled slopes and behind retaining walls	90%
Beneath pavements	95% for upper 12 inches of subgrade; 90% below that level

Where: Minimum Relative Compaction is the ratio, expressed in percentages, of the compacted dry density to the maximum dry density, as determined in accordance with ASTM Test Designation D 1557-91 (Modified Proctor).

Use of On-Site Soil

If grading activities take place during wet weather, or when the silty, on-site soil is wet, site preparation costs may be higher because of delays due to rain and the potential need to import granular fill. The on-site soil is generally silty and therefore moisture sensitive. Grading operations will be difficult during wet weather, or when the moisture content of this soil exceeds the optimum moisture content.

Moisture-sensitive soil may also be susceptible to excessive softening and "pumping" from construction equipment, or even foot traffic, when the moisture content is greater than the optimum moisture content. It may be beneficial to protect subgrades with a layer of imported sand or crushed rock to limit disturbance from traffic.

The ***General*** section should be reviewed for considerations related to the reuse of on-site soils. Structural fill that will be placed in wet weather should consist of a coarse, granular soil with a silt or clay content of no more than 5 percent. The percentage of particles passing the No. 200 sieve should be measured from that portion of soil passing the three-quarter-inch sieve.

DSD - 000852

LIMITATIONS

The conclusions and recommendations contained in this report are based on site conditions as they existed at the time of our exploration and assume that the soil and groundwater conditions encountered in the test pits are representative of subsurface conditions on the site. If the subsurface conditions encountered during construction are significantly different from those observed in our explorations, we should be advised at once so that we can review these conditions and reconsider our recommendations where necessary. Unanticipated conditions are commonly encountered on construction sites and cannot be fully anticipated by merely taking samples in test pits. Subsurface conditions can also vary between exploration locations. Such unexpected conditions frequently require making additional expenditures to attain a properly constructed project. It is recommended that the owner consider providing a contingency fund to accommodate such potential extra costs and risks. This is a standard recommendation for all projects.

The recommendations presented in this report are directed toward the protection of only the proposed residences from damage due to slope movement. Predicting the future behavior of steep slopes and the potential effects of development on their stability is an inexact and imperfect science that is currently based mostly on the past behavior of slopes with similar characteristics. Landslides and soil movement can occur on steep slopes before, during, or after the development of property. At additional cost, we can provide recommendations for reducing the risk of future movement on the steep slopes, which could involve regrading the slopes or installing subsurface drains or costly retaining structures. The owner of any property containing, or located close to steep slopes must ultimately accept the possibility that some slope movement could occur, resulting in possible loss of ground or damage to the facilities around the proposed residences.

This report has been prepared for the exclusive use of Isola Homes and its representatives for specific application to this project and site. Our conclusions and recommendations are professional opinions derived in accordance with our understanding of current local standards of practice, and within the scope of our services. No warranty is expressed or implied. The scope of our services does not include services related to construction safety precautions, and our recommendations are not intended to direct the contractor's methods, techniques, sequences, or procedures, except as specifically described in our report for consideration in design. Our services also do not include assessing or minimizing the potential for biological hazards, such as mold, bacteria, mildew and fungi in either the existing or proposed site development.

ADDITIONAL SERVICES

Geotech Consultants, Inc. should be retained to provide geotechnical consultation, testing, and observation services during construction. This is to confirm that subsurface conditions are consistent with those indicated by our exploration, to evaluate whether earthwork and foundation construction activities comply with the general intent of the recommendations presented in this report, and to provide suggestions for design changes in the event subsurface conditions differ from those anticipated prior to the start of construction. However, our work would not include the supervision or direction of the actual work of the contractor and its employees or agents. Also, job and site safety, and dimensional measurements, will be the responsibility of the contractor.

During the construction phase, we will provide geotechnical observation and testing services when requested by you or your representatives. Please be aware that we can only document site work we actually observe. It is still the responsibility of your contractor or on-site construction team to verify that our recommendations are being followed, whether we are present at the site or not.

DSD - 000853

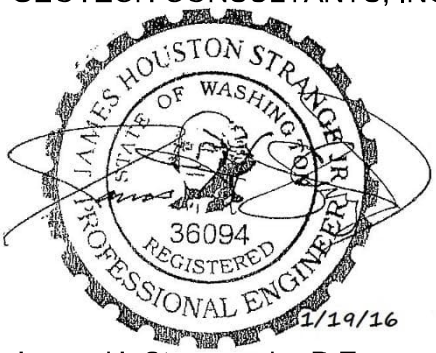
The following plates are attached to complete this report:

Plate 1	Vicinity Map
Plate 2	Site Exploration Plan
Plates 3 - 14	Test Pit Logs
Plate 15	Typical Footing Drain Detail
Plate 16	Typical Footing Overexcavation

We appreciate the opportunity to be of service on this project. Please contact us if you have any questions, or if we can be of further assistance.

Respectfully submitted,

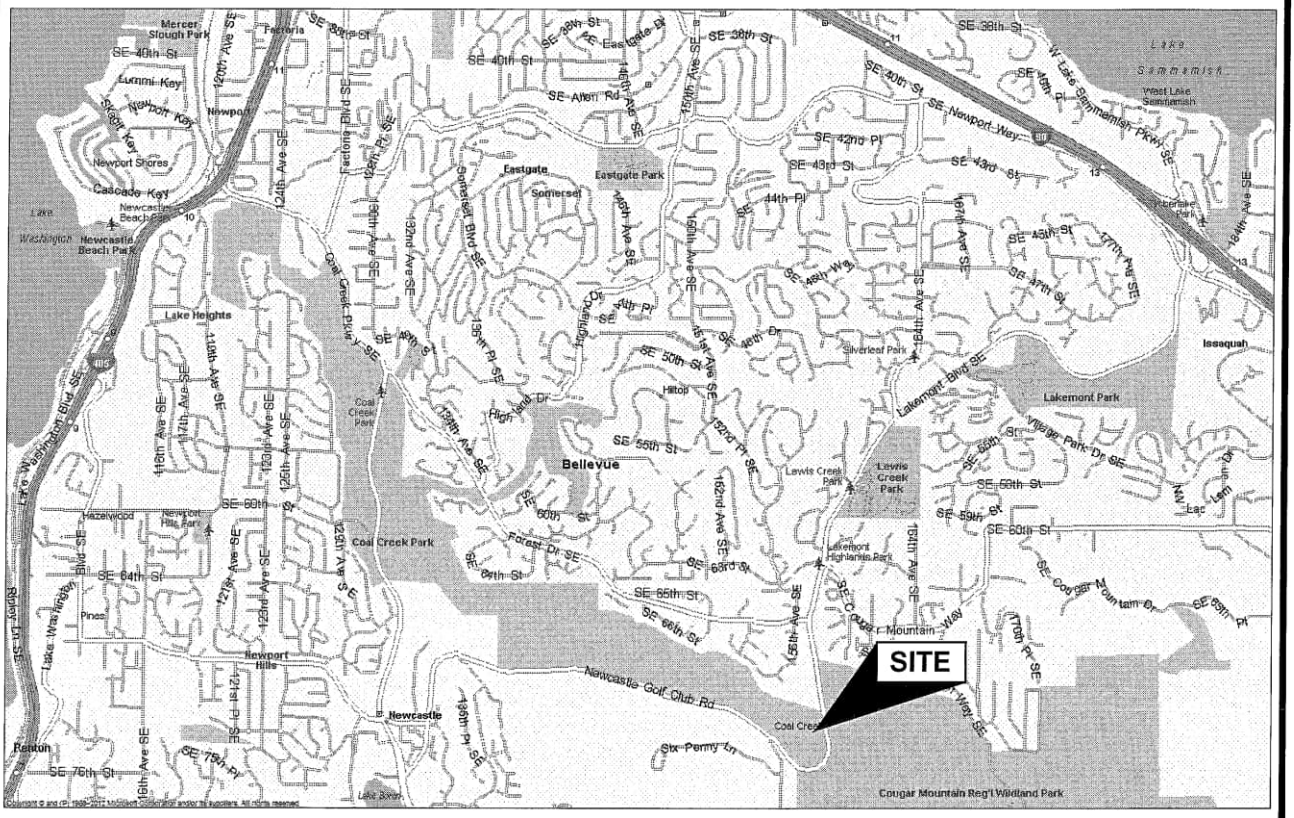
GEOTECH CONSULTANTS, INC.



James H. Strange, Jr., P.E.
Associate

TRC/JHS:at

NORTH



(Source: Microsoft MapPoint, 2013)

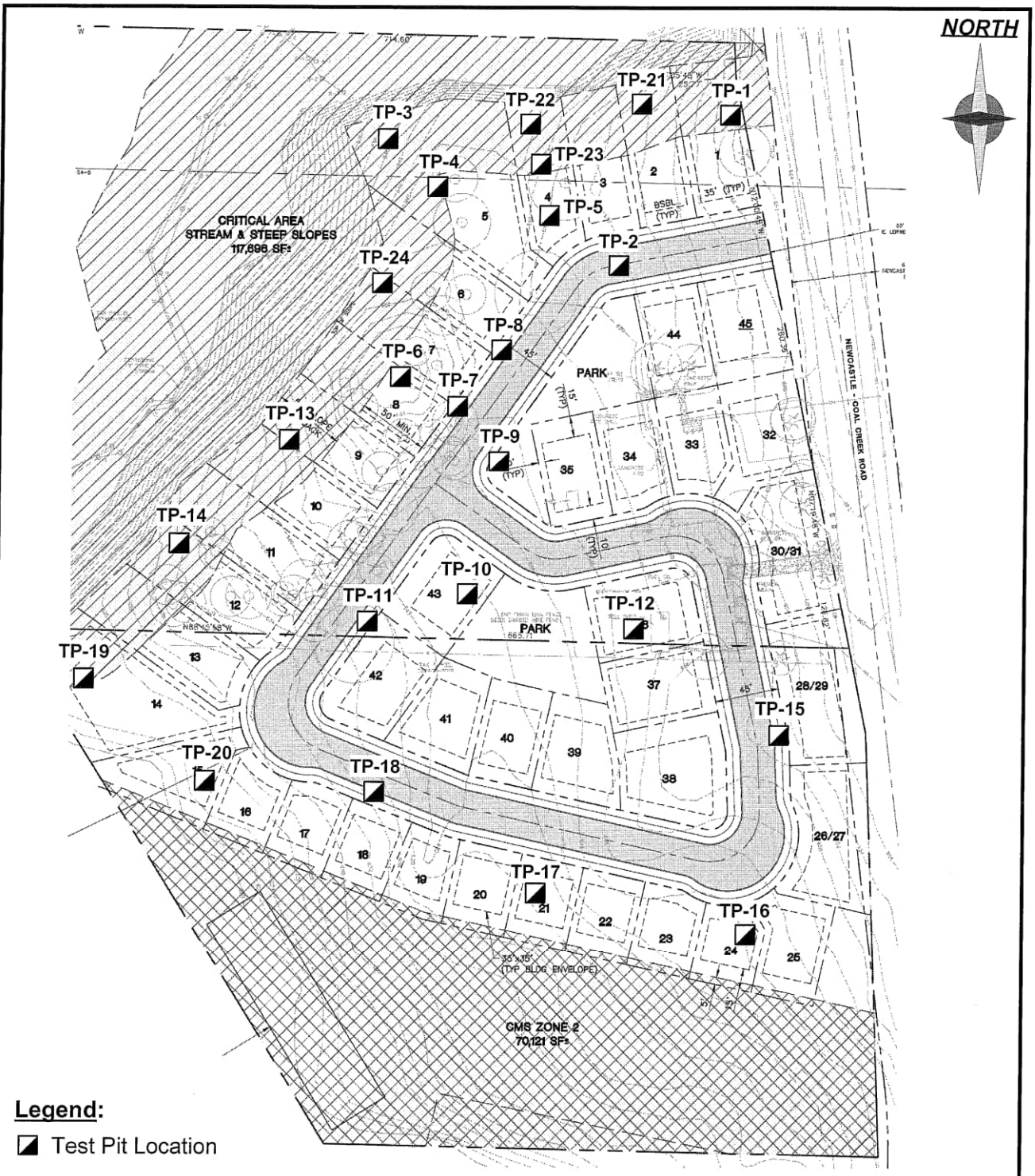
GEOTECH CONSULTANTS, INC.

VICINITY MAP

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Jan. 2016		1

DSD - 000855



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CONSULTANTS, INC.

SITE EXPLORATION PLAN
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Jan. 2016	No Scale	2

DSD - 000856

TEST PIT 1

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
				Topsoil
			SM	Gray-brown slightly silty SAND with gravel, fine to coarse-grained, moist, medium-dense
5				-becomes medium-dense to dense and gray, with cobbles **(TILL)**
10				

* **Test Pit terminated at 8 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

TEST PIT 2

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
				Topsoil
			FILL	Dark brown silty SAND with gravel, organics, and pieces of glass, fine to coarse-grained, moist, loose **(FILL)**
			SM	Gray slightly silty SAND with gravel and cobbles, fine to coarse-grained, moist, medium-dense to dense **(TILL)**
5				-becomes dense to very dense, increased silt content
10				

* **Test Pit terminated at 7 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

GEOTECH CONSULTANTS, INC.

TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	3

DSD - 000857

TEST PIT 3

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
5			FILL	Brown SAND with pieces of coal, fine to coarse-grained, moist, loose **(FILL)** -with pieces of sandstone, reduced coal
				Topsoil, pieces of a stump
10			SM	Gray-brown slightly silty SAND with gravel, fine to coarse-grained, moist, loose to medium-dense -becomes medium-dense

* **Test Pit terminated at 12.5 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

TEST PIT 4

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
5			FILL	Dark brown silty SAND with organics and pieces of plastic, fine to coarse-grained, moist, loose **(FILL)**
10			SW SM	Brown SAND with silt and gravel, fine to coarse-grained, moist, medium-dense -becomes medium-dense to dense, reduced silt content

* **Test Pit terminated at 7 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

GEOTECH CONSULTANTS, INC.

TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	4

DSD - 000858

TEST PIT 5

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
				Topsoil
			SM	Brown SAND with gravel, fine to coarse-grained, moist, loose to medium-dense
				-becomes medium-dense
5				
10				

* **Test Pit terminated at 4 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

TEST PIT 6

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
				Topsoil
			GW	Gray sandy GRAVEL, fine to coarse-grained, moist, medium-dense to dense
				-becomes medium-dense
5			SM	Gray silty SAND with gravel, fine to coarse-grained, moist, dense **(TILL)**
10				

* **Test Pit terminated at 6 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

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TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	5

DSD - 000859

TEST PIT 7

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
				Topsoil
			GW	Gray-brown sandy GRAVEL, fine to coarse-grained, moist, medium-dense to dense
5			SM	Brown silty SAND with gravel, fine to coarse-grained, moist, dense **(TILL)**
10				

* **Test Pit terminated at 5.5 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

TEST PIT 8

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
			FILL	Dark brown silty SAND with gravel, organics, branches, and pieces of steel and brick, fine to coarse-grained, moist, loose **(FILL)**
5			SM	Brown silty SAND with gravel, fine to coarse-grained, moist, loose to medium-dense -becomes medium-dense to dense and gray-brown **(TILL)**
10				

* **Test Pit terminated at 7 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

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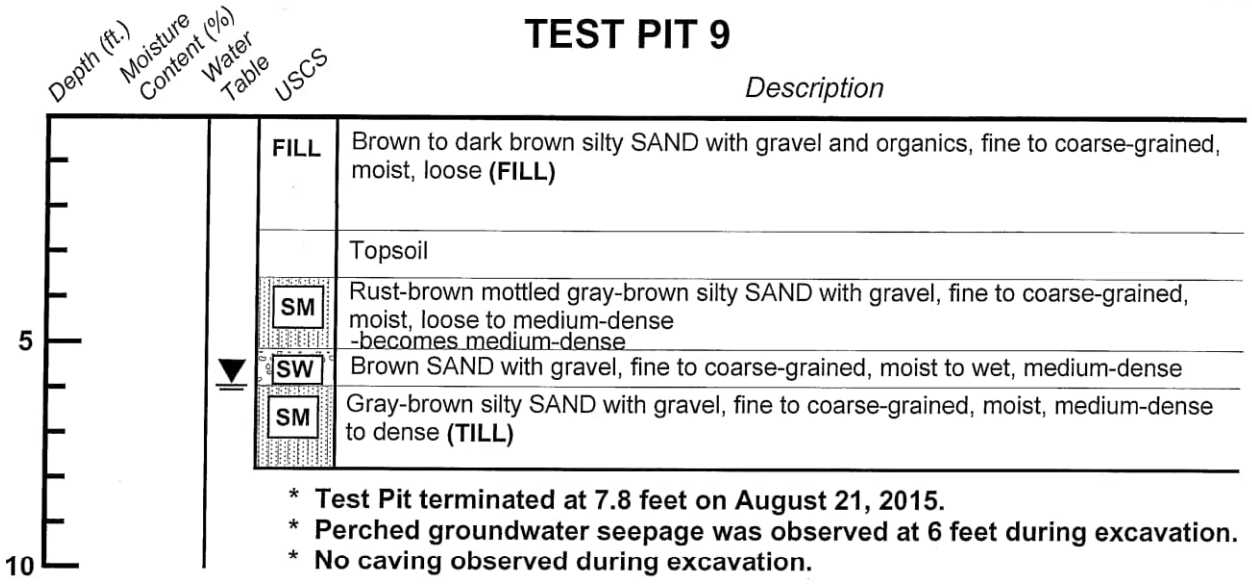
TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	6

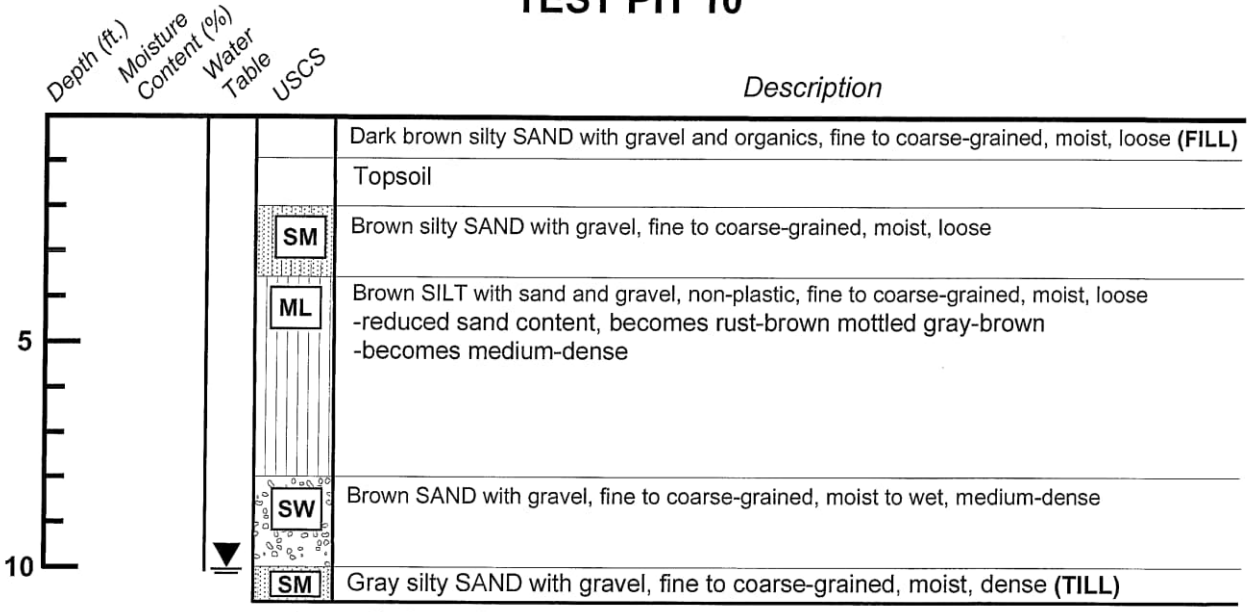
DSD - 000860

TEST PIT 9



* **Test Pit terminated at 7.8 feet on August 21, 2015.**
* **Perched groundwater seepage was observed at 6 feet during excavation.**
* **No caving observed during excavation.**

TEST PIT 10



* **Test Pit terminated at 11.5 feet on August 21, 2015.**
* **Perched groundwater seepage was observed at 10 feet during excavation.**
* **No caving observed during excavation.**

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TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	7

DSD - 000861

TEST PIT 11

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
				Topsoil
			SM	Brown silty SAND with gravel, fine to coarse-grained, moist, loose to medium-dense
				-becomes medium-dense
			ML	Rust-brown mottled gray SILT, non-plastic, moist, medium-dense
5				
10				

* **Test Pit terminated at 4 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

TEST PIT 12

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
				Topsoil
			SM	Brown silty SAND with gravel, fine to coarse-grained, moist, loose
			SW	Brown SAND with gravel and cobbles, fine to coarse-grained, moist, medium-dense to dense
5			SM	Gray-brown silty SAND with gravel, fine to coarse-grained, moist, medium-dense to dense
		▼		-reduced medium and coarse-grained sand, becomes gray
10				

* **Test Pit terminated at 9 feet on August 21, 2015.**
* **Perched groundwater seepage was observed at 7.5 feet during excavation.**
* **No caving observed during excavation.**

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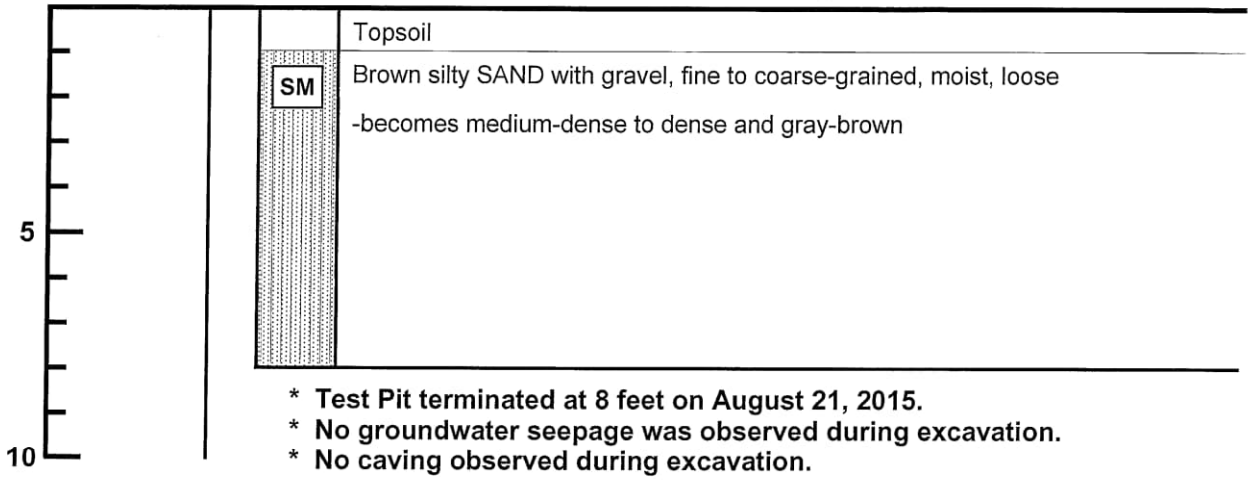
TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	8

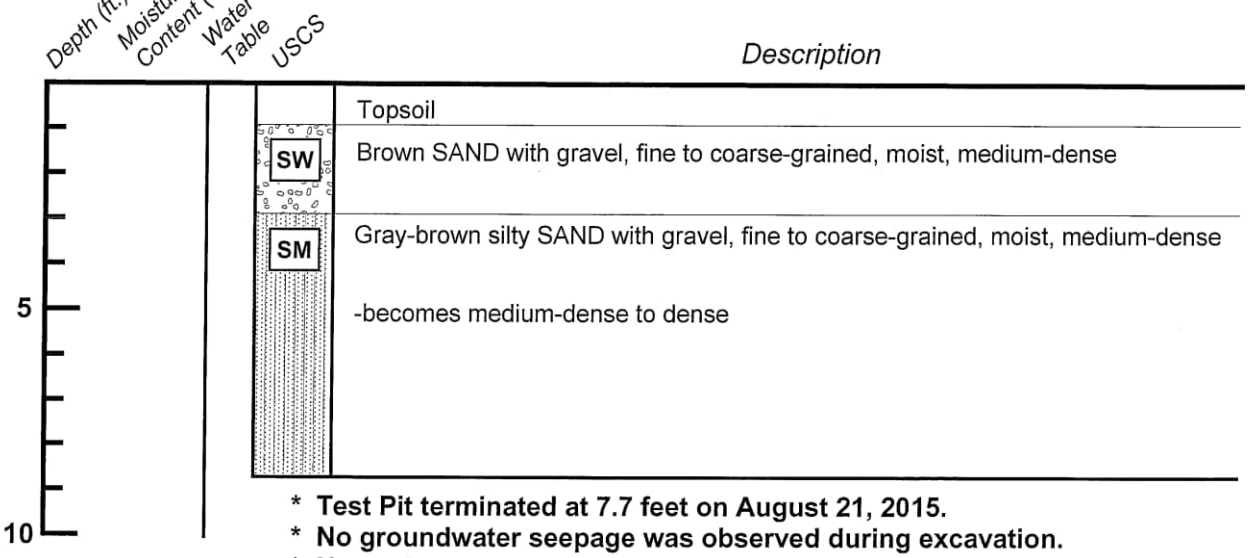
DSD - 000862

TEST PIT 13



* **Test Pit terminated at 8 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

TEST PIT 14



* **Test Pit terminated at 7.7 feet on August 21, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

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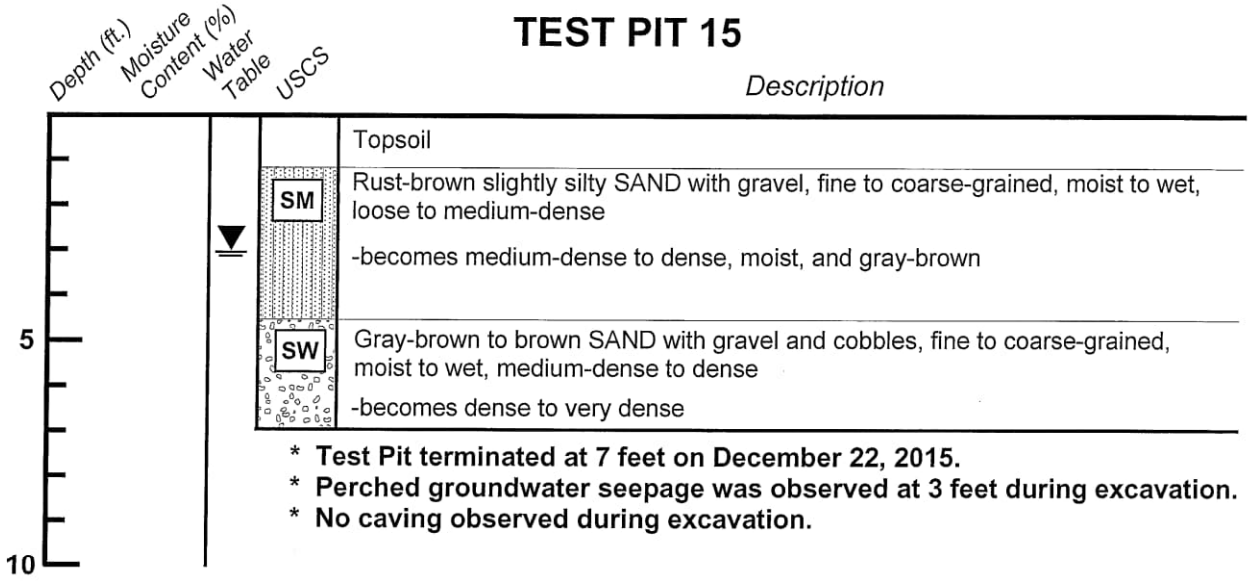
TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	9

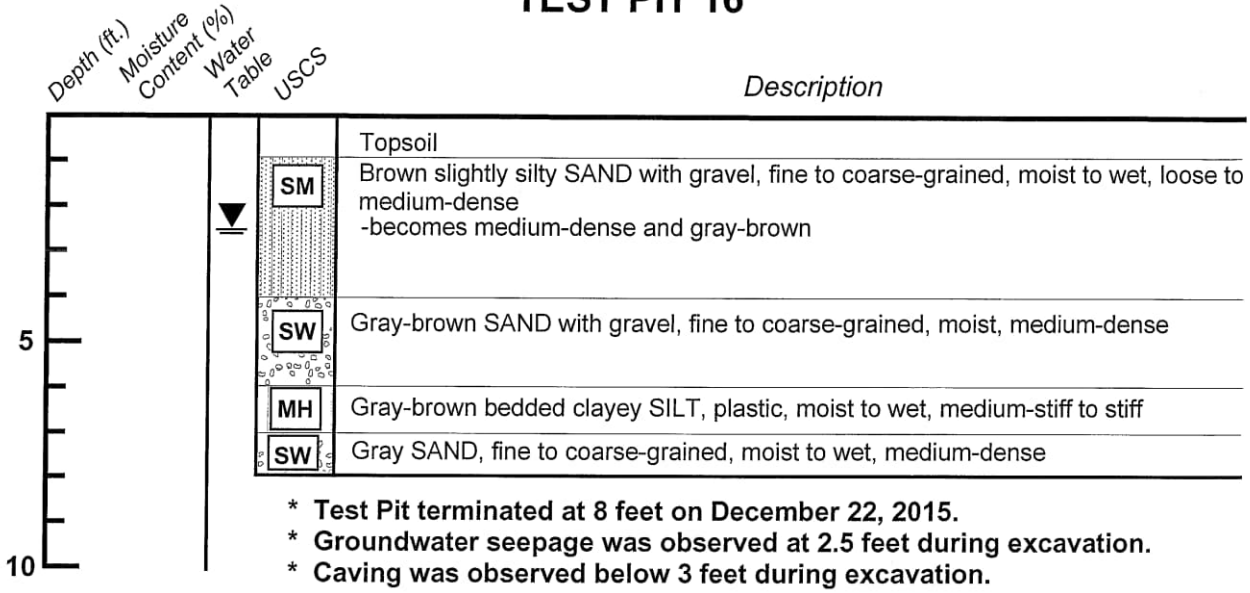
DSD - 000863

TEST PIT 15



* **Test Pit terminated at 7 feet on December 22, 2015.**
* **Perched groundwater seepage was observed at 3 feet during excavation.**
* **No caving observed during excavation.**

TEST PIT 16



* **Test Pit terminated at 8 feet on December 22, 2015.**
* **Groundwater seepage was observed at 2.5 feet during excavation.**
* **Caving was observed below 3 feet during excavation.**

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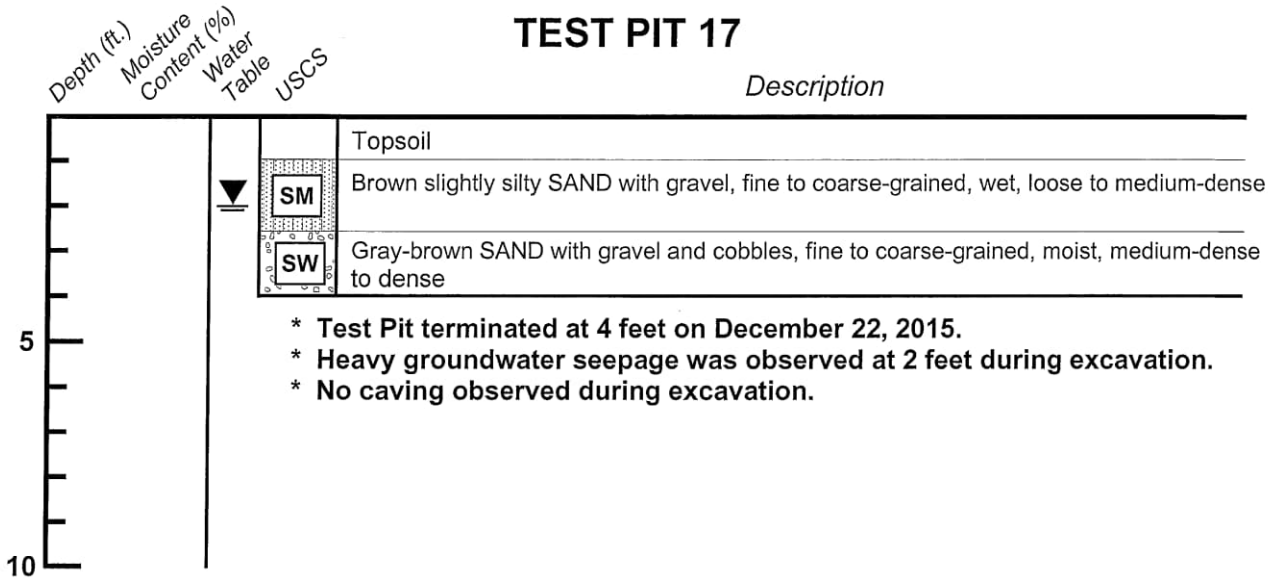
TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	10

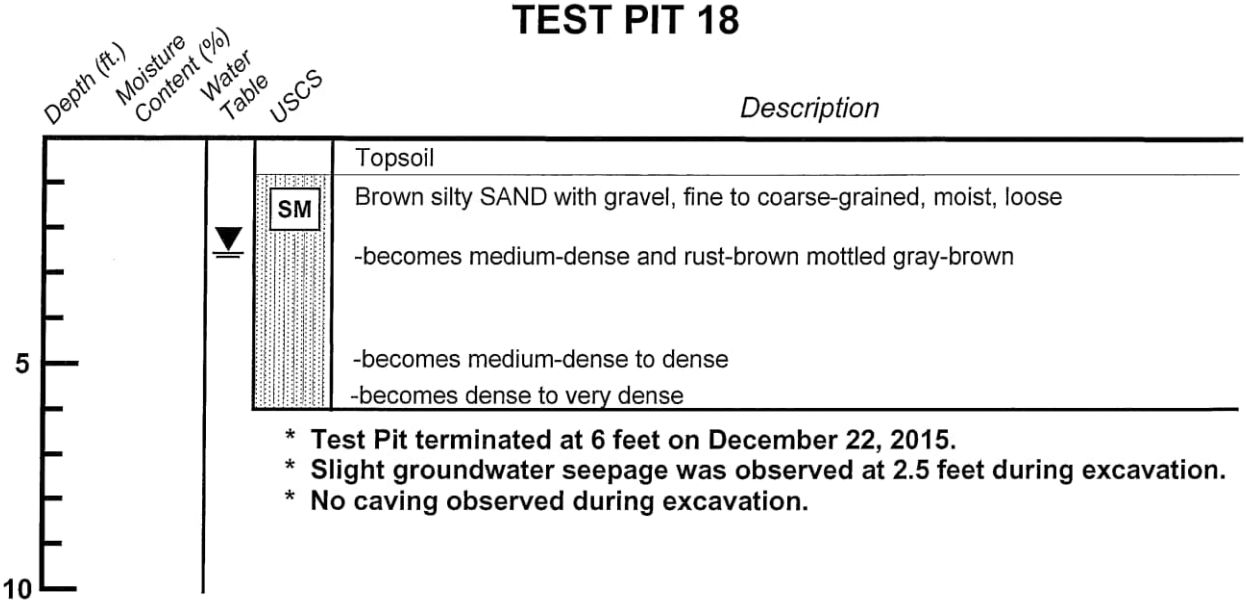
DSD - 000864

TEST PIT 17



* **Test Pit terminated at 4 feet on December 22, 2015.**
* **Heavy groundwater seepage was observed at 2 feet during excavation.**
* **No caving observed during excavation.**

TEST PIT 18



* **Test Pit terminated at 6 feet on December 22, 2015.**
* **Slight groundwater seepage was observed at 2.5 feet during excavation.**
* **No caving observed during excavation.**

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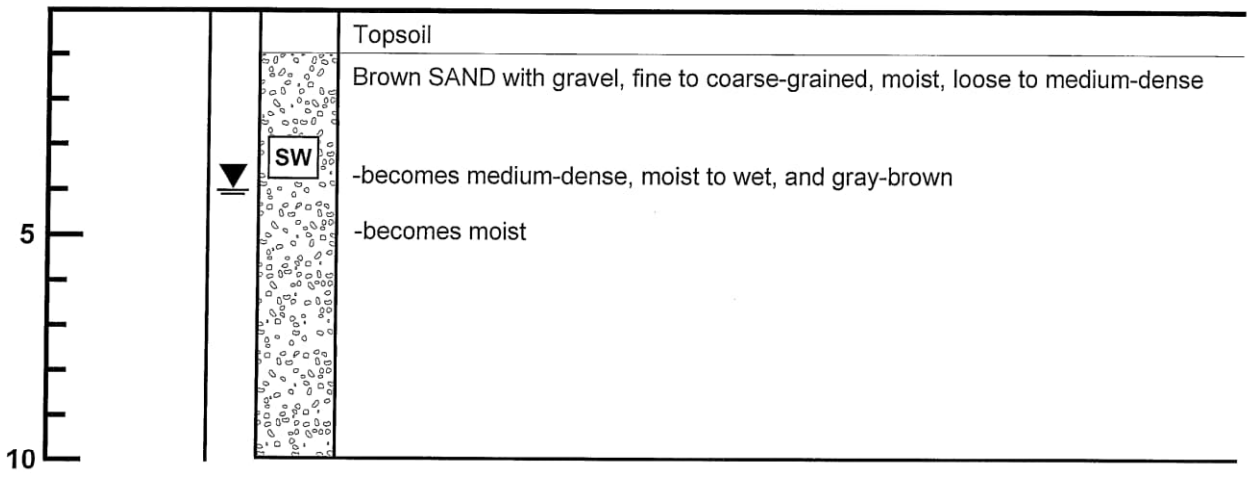
TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	11

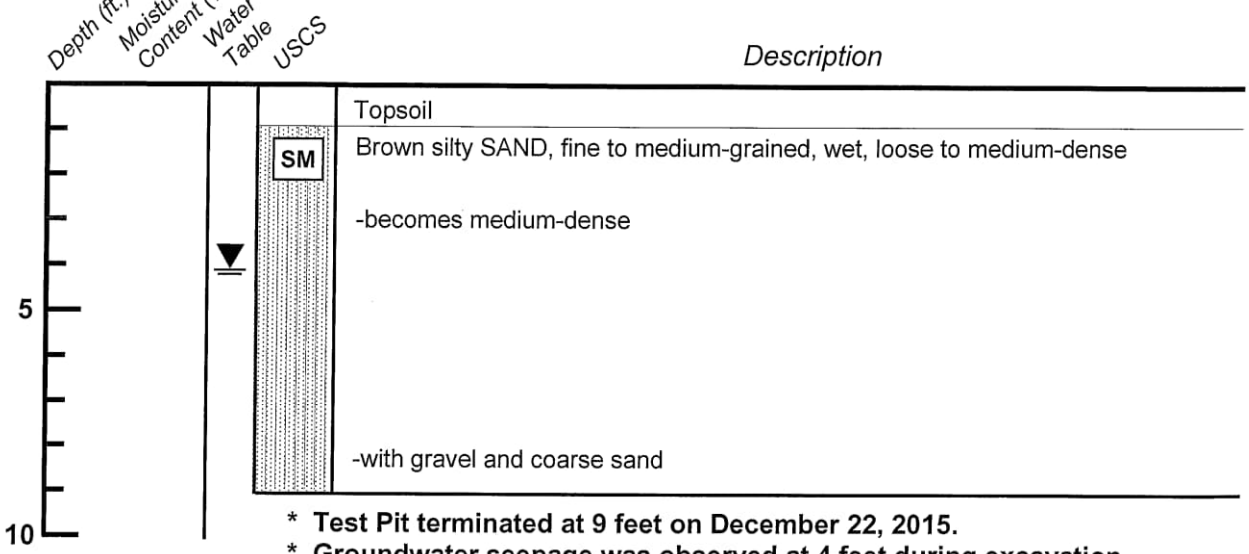
DSD - 000865

TEST PIT 19



* **Test Pit terminated at 10 feet on December 22, 2015.**
* **Groundwater seepage was observed at 4 feet during excavation.**
* **Caving was observed above 5 feet during excavation.**

TEST PIT 20



* **Test Pit terminated at 9 feet on December 22, 2015.**
* **Groundwater seepage was observed at 4 feet during excavation.**
* **Caving was observed below 0 feet during excavation.**

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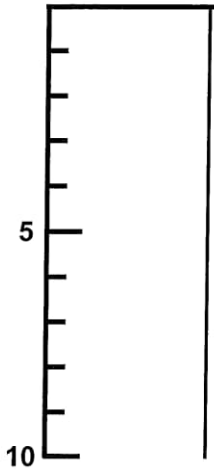
TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	12

DSD - 000866

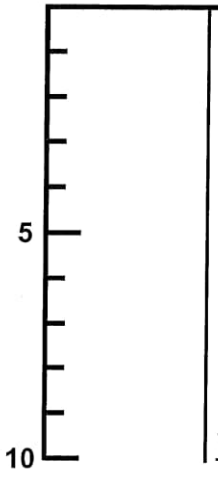
TEST PIT 21



USCS	Description
FILL	Dark brown silty SAND with organics, fine to coarse-grained, moist, loose **(FILL)**
	Topsoil
SM	Rust-brown mottled gray-brown silty SAND with gravel, fine to coarse-grained, moist, medium-dense -becomes medium-dense to dense **(TILL)** -becomes dense and gray-brown

* **Test Pit terminated at 5 feet on December 22, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

TEST PIT 22



USCS	Description
FILL	Dark brown to gray silty SAND with gravel and organics, fine to coarse-grained, moist, loose **(FILL)** -with a piece of steel pipe -stump or log

* **Test Pit terminated at 10.5 feet on December 22, 2015.**
* **Groundwater seepage was observed at 10 feet during excavation.**
* **Caving observed below 0 feet during excavation.**

GEOTECH CONSULTANTS, INC.

TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	13

DSD - 000867

TEST PIT 23

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
			FILL	Dark brown silty SAND with organics, fine to coarse-grained, moist, loose **(FILL)**
				Topsoil
		▼	SW SM	Rust-brown to gray-brown SAND with silt, gravel, and boulders, fine to coarse-grained, moist to wet, medium-dense
5				-becomes medium-dense to dense
10				

* **Test Pit terminated at 6 feet on December 22, 2015.**
* **Groundwater seepage was observed at 3 feet during excavation.**
* **Caving was observed above 3 feet during excavation.**

TEST PIT 24

Depth (ft.)	Moisture Content (%)	Water Table	USCS	Description
			FILL	Dark brown to gray-brown silty SAND with gravel and pieces of coal, fine to coarse-grained, moist, loose **(FILL)**
5				Topsoil
			SM	Gray-brown silty SAND with gravel, fine to coarse-grained, moist, loose to medium-dense
				-becomes medium-dense
10				-becomes medium-dense to dense

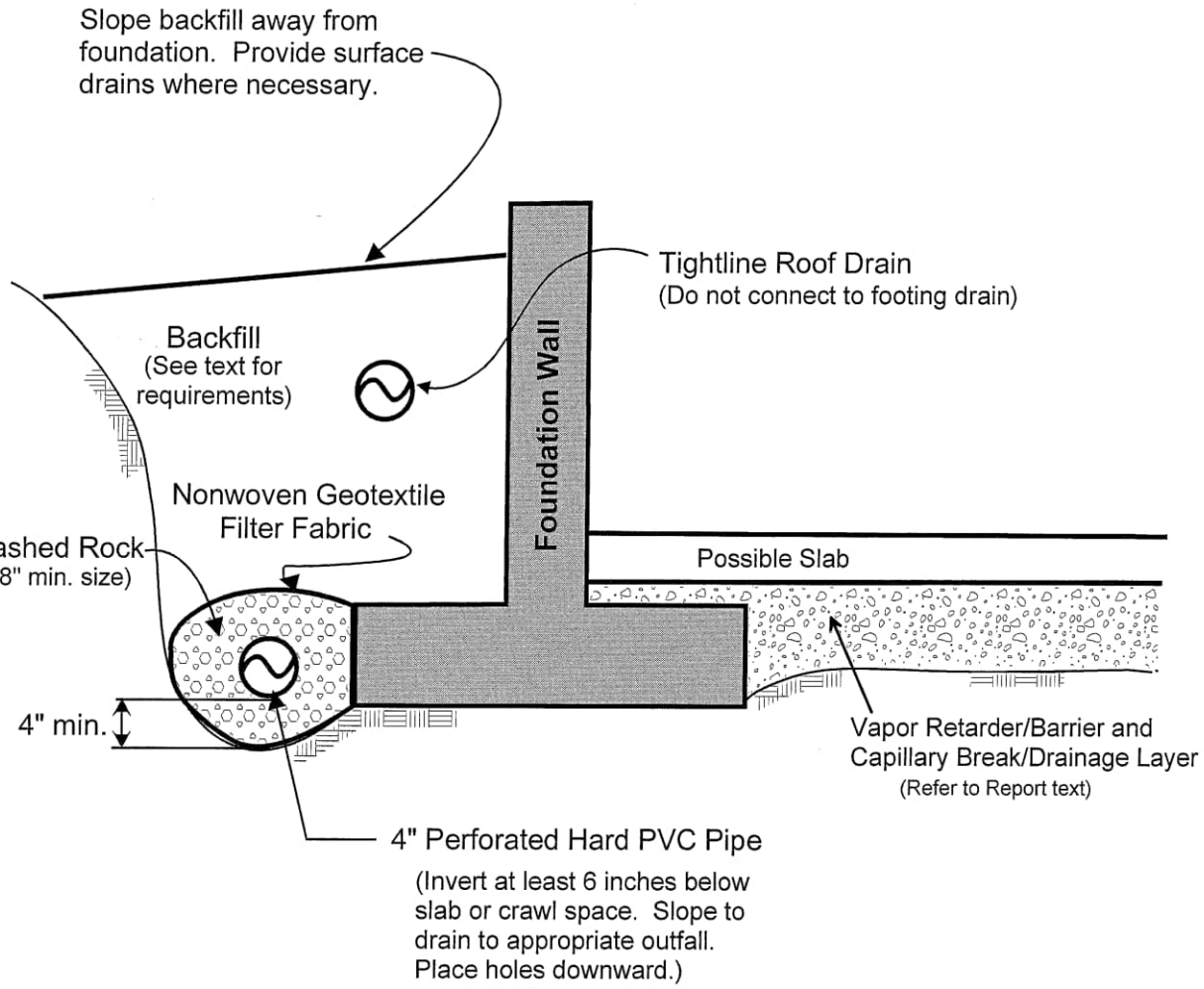
* **Test Pit terminated at 10.5 feet on December 22, 2015.**
* **No groundwater seepage was observed during excavation.**
* **No caving observed during excavation.**

GEOTECH CONSULTANTS, INC.

TEST PIT LOG

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job	Date:	Logged by:	Plate:
15349	Jan. 2016	TRC	14



NOTES:

(1) In crawl spaces, provide an outlet drain to prevent buildup of water that bypasses the perimeter footing drains.

(2) Refer to report text for additional drainage, waterproofing, and slab considerations.

GEOTECH CONSULTANTS, INC.

FOOTING DRAIN DETAIL

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Jan. 2016		15

DSD - 000869

GEOTECH
CONSULTANTS, INC.

2401 10th Ave E
Seattle, Washington 98102
(425) 747-5618 FAX (425) 747-8561

March 29, 2017

JN 15349

Isola Homes
1518 – 1st Avenue South, Suite 301
Seattle, Washington 98134

Attention: Alex Mason *via email: alex.mason@isolacm.com*

Subject: **Supplemental Letter**
Proposed Housing Development
7219 and 7331 Lakemont Boulevard Southeast
Bellevue, Washington

Dear Mr. Mason:

We have prepared this letter to address geotechnical portions of City of Bellevue Review Comments dated February 3, 2017. We previously prepared a geotechnical engineering study for the site dated January 5, 2016. This letter should be considered a supplement to that study.

The steep northern and eastern slopes are considered Steep Slope Geologic Hazard Areas by the City of Bellevue due to their height and inclination. We understand that the City of Bellevue has requested a numerical analysis of the stability of the steep slopes following construction at the site. The City has also requested that we show locations of seepage on a site plan.

We have observed groundwater seepage at a few locations within the property. Those locations are shown on the Site Exploration Plan, Plate 1. The seepage areas are primarily located in areas that have been designated critical slope that are outside the proposed development area. In our opinion the seepage will not impact the proposed development. One area of seepage has been observed near the south edge of the site, in a proposed roadway. This area is only gently sloping, and the seepage will not affect slope stability at that location or in the surrounding area. We believe that seepage will be intercepted by the proposed pavements and underground utility trenches, and that it will not be present after the site has been developed.

We completed a slope stability analysis of three cross sections across the northern and western slopes using the computer program SLOPE/W. The cross section locations are shown on the Site Exploration Plan, Plate 1. The cross sections were developed using the topographic information provided to us.

Soil parameters were needed for the analysis, with the most significant being the defining strength parameters of the site soils, including angles of internal friction. The soils near the tops of the northern and western slopes have been generalized as up to about 10 feet of fill and loose native soil on the surface of the slope, underlain by medium-dense to dense silty sand to sand. The soil at Lot 13 consisted of medium-dense sand with gravel. Some rock spall fill will be needed in footing locations where fill is present. Based on our experience with similar soils, we used the following parameters in our slope stability analyses:

DSD - 000870

	Loose Fill And Near Surface Soil	*Medium-Dense Silty Sand Soil*	*Medium-Dense Sand Soil*	*Rock Spall Fill*
Angle of Internal Friction	28 degrees	32 degrees	36 degrees	45 degrees
Cohesion	0 psf	50 psf	0 psf	0 psf
Soil Density	115 pcf	125 pcf	125 pcf	120 pcf

The slopes were analyzed in static and dynamic (seismic) conditions. For the dynamic analysis, a seismic coefficient of 0.18 (equal to half of the potential peak horizontal ground acceleration of 0.36g) was included to represent a 475-year return period seismic event.

Based on the analyses, potential deep-seated slope failure surfaces for both the existing and post-development conditions have factors of safety greater than 1.5 under static conditions and 1.15 under seismic conditions. We believe these safety factors are very appropriate for the proposed development. The output sections of the stability analyses are included with this letter. Based on our analysis, the post-construction stability of the steep slopes satisfies the City of Bellevue standards.

Provided that the foundation, grading, and retaining recommended in our previous report are observed in the proposed development of the property, it is our opinion that modification of the critical area or critical area buffer will have no adverse impacts on stability of any adjacent slopes, and will not impact stability of any existing structures.

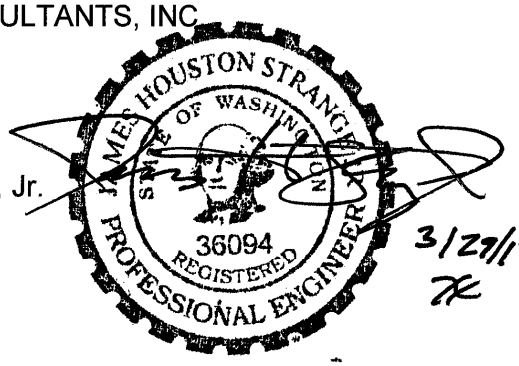
The following plates are attached to complete this report:

Plate 1	Site Exploration Plan
Plates 2 - 7	Slope Stability Analyses

We appreciate the opportunity to be of service on this project. Please contact us if you have any questions, or if we can be of further assistance.

Respectfully submitted,

GEOTECH CONSULTANTS, INC.



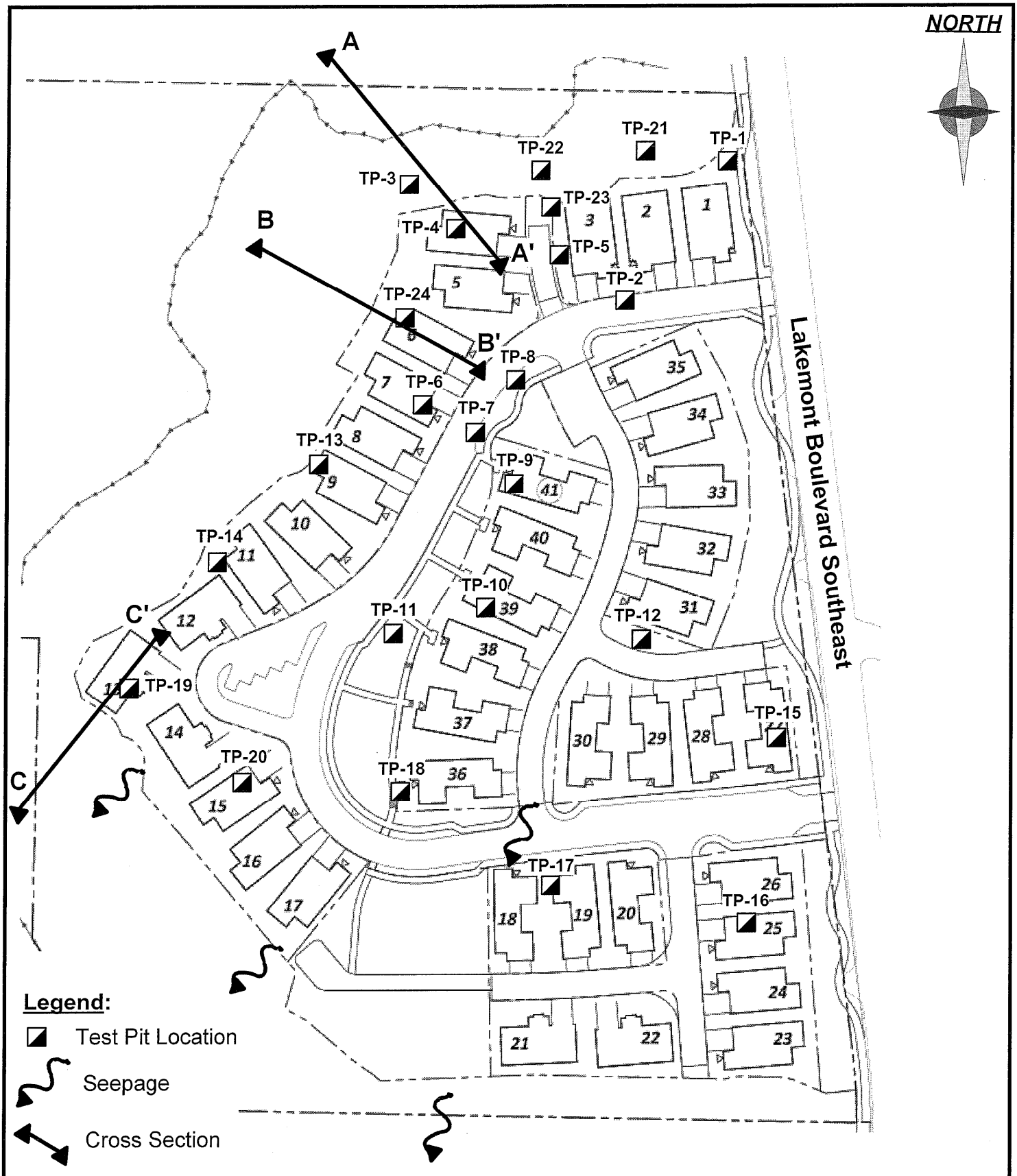
James H. Strange, Jr.
Associate

3/29/17

cc: **PACE Engineers** – Steve Calhoon
via email: stevec@paceengrs.com

TRC/JHS:mw

DSD - 000871



GEOTECH CONSULTANTS, INC.

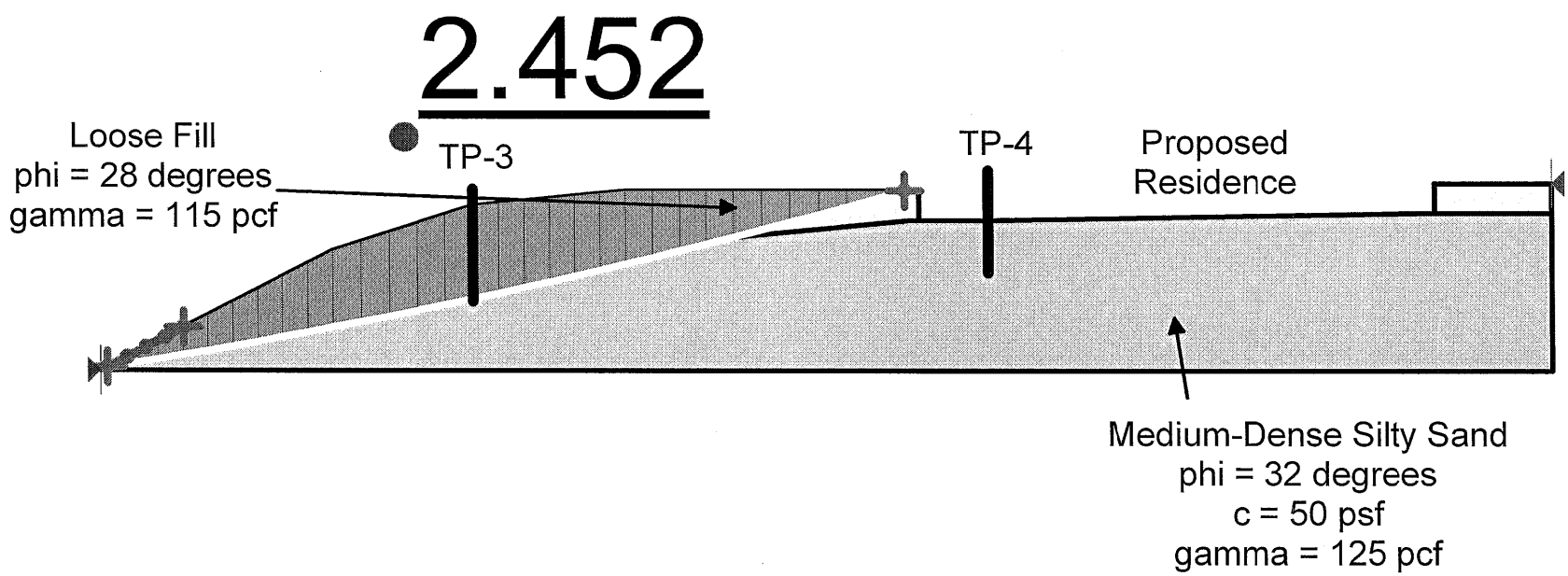
SITE EXPLORATION PLAN

7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017	No Scale	1

DSD - 000872

Section A - A'



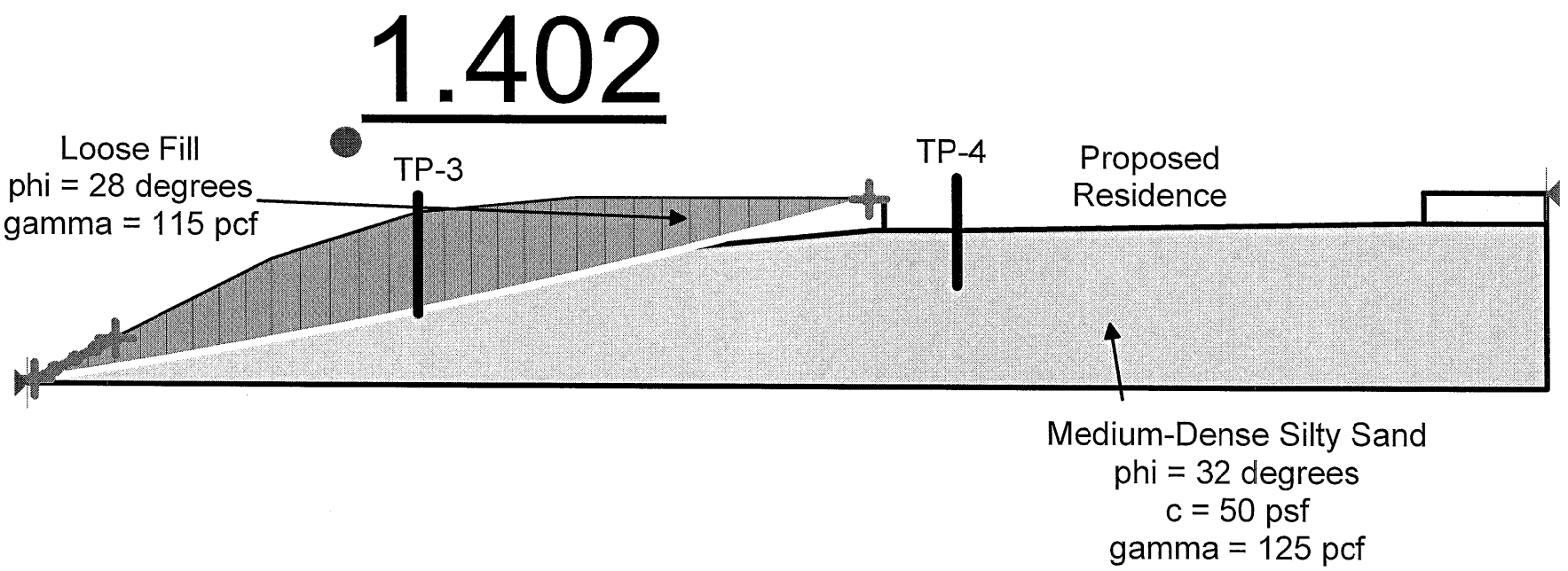
GEOTECH
CONSULTANTS, INC.

Static Slope Stability - Lot 4
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017		2

DSD - 000873

Section A - A'



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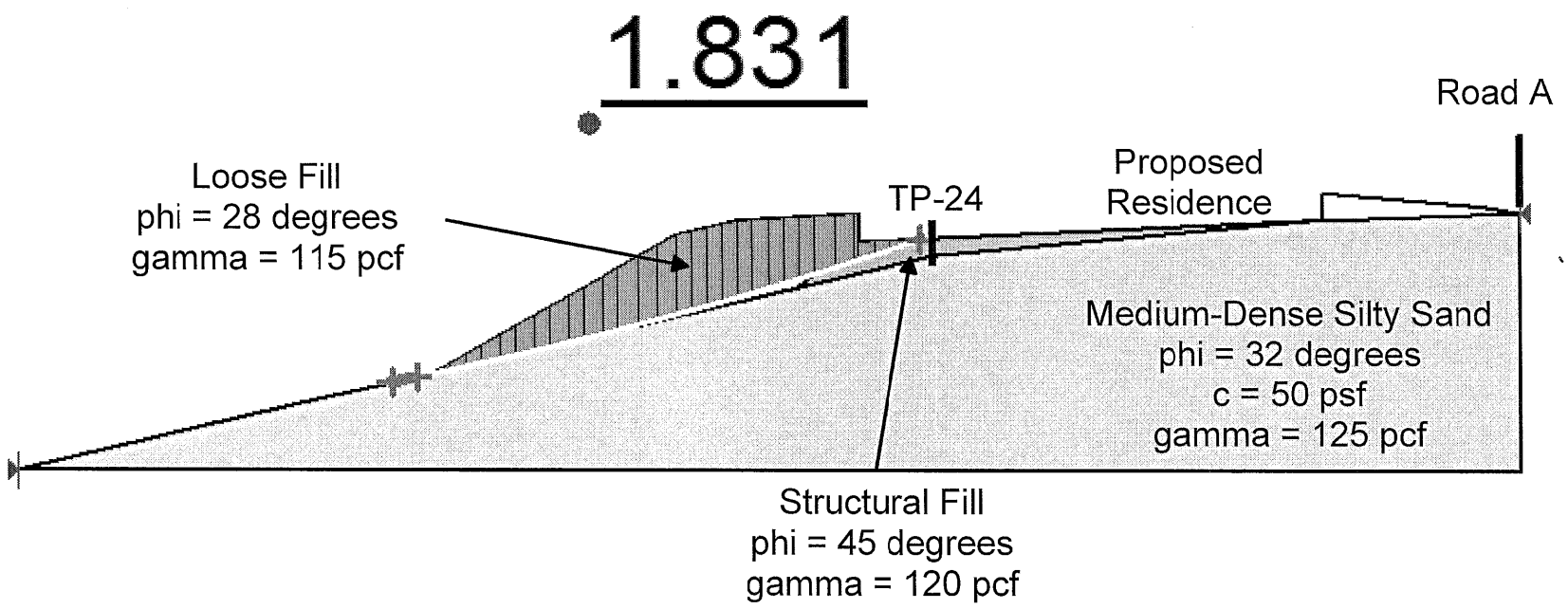
Seismic Slope Stability - Lot 4
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017		3

DSD - 000874

Section B - B'



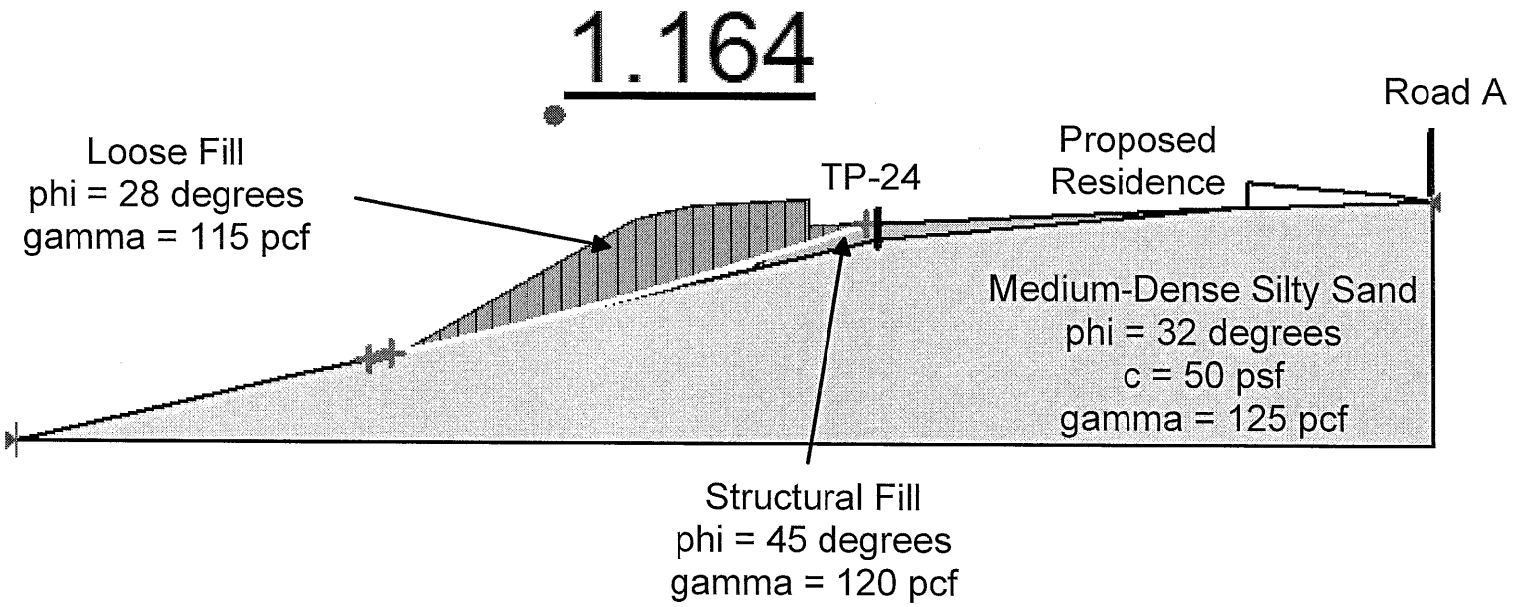
GEOTECH
CONSULTANTS, INC.

Static Slope Stability - Lot 6
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017		4

DSD - 000875

Section B - B'



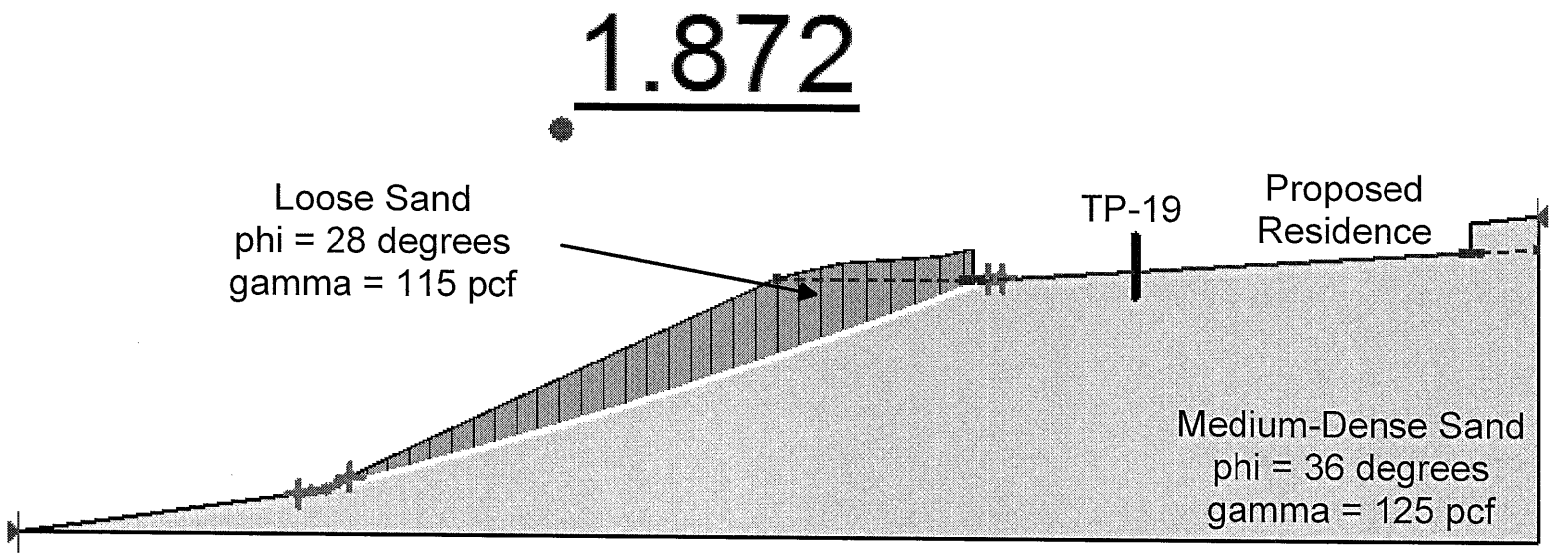
GEOTECH
CONSULTANTS, INC.

Seismic Slope Stability - Lot 6
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017		5

DSD - 0008876

Section C - C'



GEOTECH
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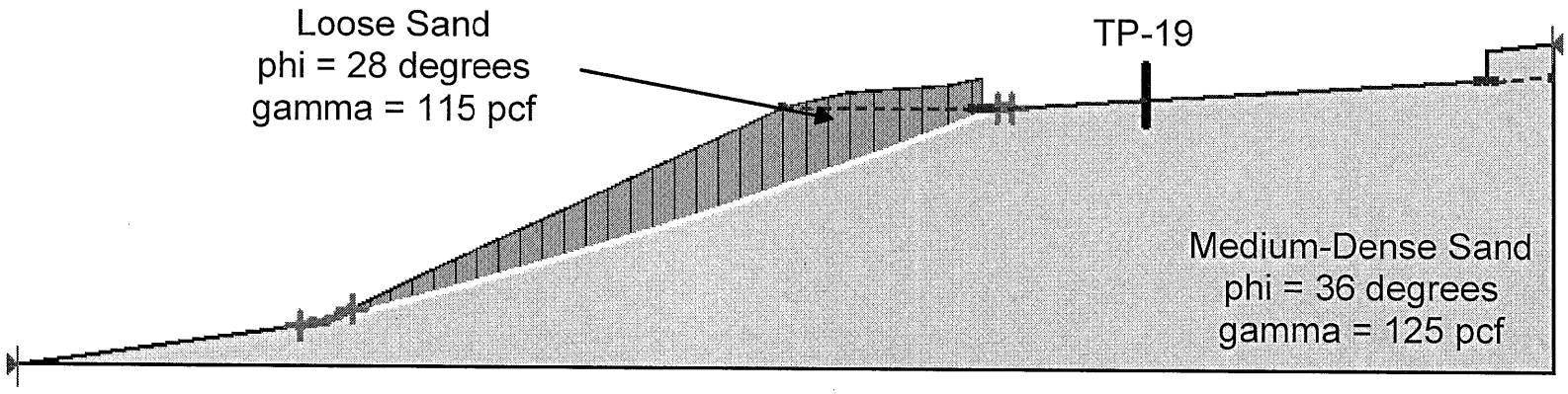
Static Slope Stability - Lot 13
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017		6

DSD - 000877

Section C - C'

1.184



GEOTECH
CONSULTANTS, INC.

Seismic Slope Stability - Lot 13
7219 and 7331 Lakemont Boulevard SE
Bellevue, Washington

Job No:	Date:		Plate:
15349	Mar. 2017		7

DSD - 000878

WWHM2012

PROJECT REPORT

DSD - 000879

General Model Information

Project Name:	Full Site Detention
Site Name:	7219 Lakemont Blvd SE
Site Address:	7219 Lakemont Blvd SE
City:	Bellevue
Report Date:	9/1/2022
Gage:	Seatac
Data Start:	1948/10/01
Data End:	2009/09/30
Timestep:	15 Minute
Precip Scale:	1.167
Version Date:	2021/08/18
Version:	4.2.18

POC Thresholds

Low Flow Threshold for POC1:	50 Percent of the 2 Year
High Flow Threshold for POC1:	50 Year

DSD - 000880

Landuse Basin Data

Predeveloped Land Use

Basin 1

Bypass:	No
GroundWater:	No
Pervious Land Use	acre
C, Forest, Mod	6.288
Pervious Total	6.288
Impervious Land Use	acre
Impervious Total	0
Basin Total	6.288

Element Flows To:

Surface	Interflow	Groundwater

DSD - 000881

Mitigated Land Use

Basin 1

Bypass:	No
GroundWater:	No

Pervious Land Use	acre
C, Pasture, Mod	2.744
Pervious Total	2.744

Impervious Land Use	acre
ROADS MOD	3.496
Impervious Total	3.496
Basin Total	6.24

Element Flows To:

Surface	Interflow	Groundwater
Vault 1	Vault 1	

DSD - 000882

Basin 2

Bypass:	Yes
GroundWater:	No
Pervious Land Use	acre
C, Pasture, Flat	0.047
Pervious Total	0.047
Impervious Land Use	acre
Impervious Total	0
Basin Total	0.047

Element Flows To:

Surface	Interflow	Groundwater

DSD - 000883

Routing Elements

Predeveloped Routing

DSD - 000884

Mitigated Routing

Vault 1

Width: 63 ft.
Length: 120 ft.
Depth: 12 ft.
Discharge Structure
Riser Height: 9.9 ft.
Riser Diameter: 18 in.
Orifice 1 Diameter: 1.40625 in Elevation:0 ft.
Orifice 2 Diameter: 1.5625 in Elevation:5.1 ft.
Orifice 3 Diameter: 2.1875 in Elevation:8.2 ft.
Element Flows To:
Outlet 1 Outlet 2

Vault Hydraulic Table

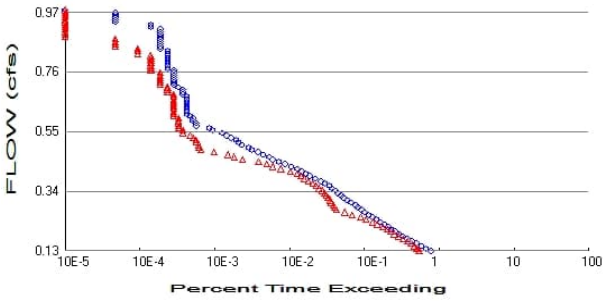
Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.173	0.000	0.000	0.000
0.1333	0.173	0.023	0.019	0.000
0.2667	0.173	0.046	0.027	0.000
0.4000	0.173	0.069	0.033	0.000
0.5333	0.173	0.092	0.039	0.000
0.6667	0.173	0.115	0.043	0.000
0.8000	0.173	0.138	0.048	0.000
0.9333	0.173	0.162	0.051	0.000
1.0667	0.173	0.185	0.055	0.000
1.2000	0.173	0.208	0.058	0.000
1.3333	0.173	0.231	0.062	0.000
1.4667	0.173	0.254	0.065	0.000
1.6000	0.173	0.277	0.067	0.000
1.7333	0.173	0.300	0.070	0.000
1.8667	0.173	0.324	0.073	0.000
2.0000	0.173	0.347	0.075	0.000
2.1333	0.173	0.370	0.078	0.000
2.2667	0.173	0.393	0.080	0.000
2.4000	0.173	0.416	0.083	0.000
2.5333	0.173	0.439	0.085	0.000
2.6667	0.173	0.462	0.087	0.000
2.8000	0.173	0.486	0.089	0.000
2.9333	0.173	0.509	0.091	0.000
3.0667	0.173	0.532	0.094	0.000
3.2000	0.173	0.555	0.096	0.000
3.3333	0.173	0.578	0.098	0.000
3.4667	0.173	0.601	0.099	0.000
3.6000	0.173	0.624	0.101	0.000
3.7333	0.173	0.647	0.103	0.000
3.8667	0.173	0.671	0.105	0.000
4.0000	0.173	0.694	0.107	0.000
4.1333	0.173	0.717	0.109	0.000
4.2667	0.173	0.740	0.110	0.000
4.4000	0.173	0.763	0.112	0.000
4.5333	0.173	0.786	0.114	0.000
4.6667	0.173	0.809	0.115	0.000
4.8000	0.173	0.833	0.117	0.000
4.9333	0.173	0.856	0.119	0.000

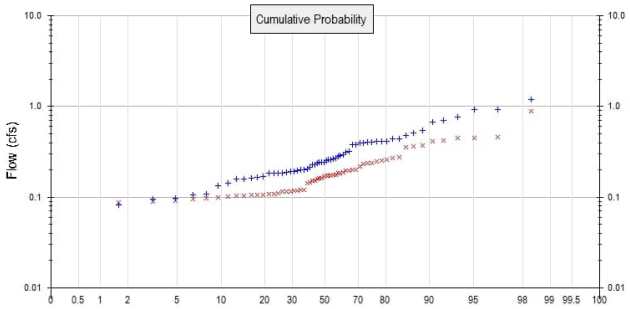
DSD - 000885

5.0667	0.173	0.879	0.120	0.000
5.2000	0.173	0.902	0.143	0.000
5.3333	0.173	0.925	0.155	0.000
5.4667	0.173	0.948	0.165	0.000
5.6000	0.173	0.971	0.173	0.000
5.7333	0.173	0.995	0.181	0.000
5.8667	0.173	1.018	0.188	0.000
6.0000	0.173	1.041	0.194	0.000
6.1333	0.173	1.064	0.200	0.000
6.2667	0.173	1.087	0.205	0.000
6.4000	0.173	1.110	0.211	0.000
6.5333	0.173	1.133	0.216	0.000
6.6667	0.173	1.157	0.221	0.000
6.8000	0.173	1.180	0.226	0.000
6.9333	0.173	1.203	0.231	0.000
7.0667	0.173	1.226	0.235	0.000
7.2000	0.173	1.249	0.240	0.000
7.3333	0.173	1.272	0.244	0.000
7.4667	0.173	1.295	0.248	0.000
7.6000	0.173	1.319	0.252	0.000
7.7333	0.173	1.342	0.256	0.000
7.8667	0.173	1.365	0.260	0.000
8.0000	0.173	1.388	0.264	0.000
8.1333	0.173	1.411	0.268	0.000
8.2667	0.173	1.434	0.305	0.000
8.4000	0.173	1.457	0.334	0.000
8.5333	0.173	1.481	0.354	0.000
8.6667	0.173	1.504	0.371	0.000
8.8000	0.173	1.527	0.387	0.000
8.9333	0.173	1.550	0.401	0.000
9.0667	0.173	1.573	0.414	0.000
9.2000	0.173	1.596	0.426	0.000
9.3333	0.173	1.619	0.438	0.000
9.4667	0.173	1.643	0.449	0.000
9.6000	0.173	1.666	0.460	0.000
9.7333	0.173	1.689	0.470	0.000
9.8667	0.173	1.712	0.480	0.000
10.000	0.173	1.735	0.992	0.000
10.133	0.173	1.758	2.256	0.000
10.267	0.173	1.781	3.770	0.000
10.400	0.173	1.805	5.157	0.000
10.533	0.173	1.828	6.119	0.000
10.667	0.173	1.851	6.740	0.000
10.800	0.173	1.874	7.266	0.000
10.933	0.173	1.897	7.756	0.000
11.067	0.173	1.920	8.214	0.000
11.200	0.173	1.943	8.648	0.000
11.333	0.173	1.966	9.060	0.000
11.467	0.173	1.990	9.453	0.000
11.600	0.173	2.013	9.831	0.000
11.733	0.173	2.036	10.19	0.000
11.867	0.173	2.059	10.54	0.000
12.000	0.173	2.082	10.88	0.000
12.133	0.173	2.105	11.21	0.000
12.267	0.000	0.000	11.52	0.000

Analysis Results

POC 1





\+ Predeveloped x Mitigated

Predeveloped Landuse Totals for POC #1
Total Pervious Area: 6.288
Total Impervious Area: 0

Mitigated Landuse Totals for POC #1
Total Pervious Area: 2.791
Total Impervious Area: 3.496

Flow Frequency Method: Log Pearson Type III 17B

Flow Frequency Return Periods for Predeveloped. POC #1

Return Period	Flow(cfs)
2 year	0.259158
5 year	0.44047
10 year	0.584645
25 year	0.794294
50 year	0.970578
100 year	1.164278

Flow Frequency Return Periods for Mitigated. POC #1

Return Period	Flow(cfs)
2 year	0.164583
5 year	0.261882
10 year	0.3442
25 year	0.471841
50 year	0.586301
100 year	0.719355

Annual Peaks

Annual Peaks for Predeveloped and Mitigated. POC #1

Year	Predeveloped	Mitigated
1949	0.377	0.106
1950	0.404	0.199
1951	0.508	0.449
1952	0.169	0.094
1953	0.143	0.115
1954	0.206	0.153
1955	0.318	0.153
1956	0.294	0.216
1957	0.258	0.145
1958	0.238	0.174

DSD - 000887

1959	0.202	0.111
1960	0.406	0.363
1961	0.196	0.182
1962	0.133	0.088
1963	0.192	0.144
1964	0.265	0.121
1965	0.200	0.201
1966	0.159	0.114
1967	0.441	0.170
1968	0.244	0.117
1969	0.229	0.109
1970	0.184	0.115
1971	0.245	0.171
1972	0.398	0.253
1973	0.182	0.194
1974	0.241	0.177
1975	0.312	0.121
1976	0.227	0.162
1977	0.095	0.098
1978	0.184	0.183
1979	0.109	0.092
1980	0.708	0.273
1981	0.160	0.117
1982	0.414	0.250
1983	0.271	0.162
1984	0.165	0.103
1985	0.097	0.102
1986	0.412	0.231
1987	0.383	0.269
1988	0.162	0.104
1989	0.105	0.099
1990	1.197	0.375
1991	0.547	0.356
1992	0.215	0.175
1993	0.191	0.105
1994	0.082	0.088
1995	0.255	0.188
1996	0.674	0.447
1997	0.482	0.414
1998	0.187	0.107
1999	0.769	0.260
2000	0.182	0.159
2001	0.048	0.088
2002	0.257	0.239
2003	0.441	0.109
2004	0.415	0.423
2005	0.285	0.173
2006	0.280	0.194
2007	0.917	0.885
2008	0.932	0.456
2009	0.396	0.236

Ranked Annual Peaks

Ranked Annual Peaks for Predeveloped and Mitigated. POC #1

Rank	Predeveloped	Mitigated
1	1.1970	0.8847
2	0.9319	0.4557
3	0.9174	0.4493

DSD - 000888

4	0.7686	0.4474
5	0.7076	0.4229
6	0.6744	0.4143
7	0.5467	0.3747
8	0.5085	0.3626
9	0.4824	0.3558
10	0.4414	0.2732
11	0.4411	0.2691
12	0.4148	0.2604
13	0.4135	0.2530
14	0.4116	0.2502
15	0.4060	0.2387
16	0.4040	0.2356
17	0.3985	0.2314
18	0.3959	0.2158
19	0.3834	0.2014
20	0.3775	0.1988
21	0.3185	0.1945
22	0.3119	0.1944
23	0.2937	0.1884
24	0.2852	0.1828
25	0.2804	0.1820
26	0.2706	0.1771
27	0.2645	0.1749
28	0.2580	0.1743
29	0.2573	0.1725
30	0.2550	0.1715
31	0.2446	0.1699
32	0.2437	0.1625
33	0.2407	0.1623
34	0.2379	0.1593
35	0.2291	0.1531
36	0.2267	0.1526
37	0.2151	0.1449
38	0.2065	0.1435
39	0.2021	0.1211
40	0.2003	0.1206
41	0.1959	0.1174
42	0.1917	0.1172
43	0.1911	0.1154
44	0.1871	0.1149
45	0.1844	0.1145
46	0.1841	0.1107
47	0.1825	0.1091
48	0.1821	0.1091
49	0.1690	0.1066
50	0.1655	0.1058
51	0.1622	0.1054
52	0.1601	0.1042
53	0.1590	0.1030
54	0.1426	0.1021
55	0.1329	0.0985
56	0.1088	0.0978
57	0.1047	0.0943
58	0.0969	0.0915
59	0.0951	0.0883
60	0.0821	0.0881
61	0.0476	0.0877

DSD - 000889

Duration Flows

The Facility PASSED

Flow(cfs)	Predev	Mit	Percentage	Pass/Fail
0.1296	16399	11518	70	Pass
0.1381	14132	10729	75	Pass
0.1466	12320	9995	81	Pass
0.1551	10519	8988	85	Pass
0.1636	9240	8036	86	Pass
0.1721	7967	7007	87	Pass
0.1805	7028	6100	86	Pass
0.1890	6145	5371	87	Pass
0.1975	5476	4823	88	Pass
0.2060	4864	4293	88	Pass
0.2145	4398	3743	85	Pass
0.2230	3918	3213	82	Pass
0.2315	3503	2770	79	Pass
0.2400	3084	2248	72	Pass
0.2485	2746	1901	69	Pass
0.2570	2415	1471	60	Pass
0.2655	2171	1180	54	Pass
0.2740	1957	903	46	Pass
0.2825	1768	854	48	Pass
0.2910	1619	818	50	Pass
0.2995	1409	775	55	Pass
0.3080	1261	739	58	Pass
0.3165	1127	698	61	Pass
0.3250	1039	659	63	Pass
0.3335	946	624	65	Pass
0.3420	879	581	66	Pass
0.3504	794	534	67	Pass
0.3589	721	485	67	Pass
0.3674	634	438	69	Pass
0.3759	555	382	68	Pass
0.3844	466	335	71	Pass
0.3929	394	303	76	Pass
0.4014	351	268	76	Pass
0.4099	311	219	70	Pass
0.4184	268	165	61	Pass
0.4269	224	127	56	Pass
0.4354	184	106	57	Pass
0.4439	154	82	53	Pass
0.4524	128	50	39	Pass
0.4609	114	39	34	Pass
0.4694	94	32	34	Pass
0.4779	80	21	26	Pass
0.4864	67	14	20	Pass
0.4949	60	13	21	Pass
0.5034	49	13	26	Pass
0.5119	44	12	27	Pass
0.5203	41	12	29	Pass
0.5288	35	11	31	Pass
0.5373	31	10	32	Pass
0.5458	27	8	29	Pass
0.5543	20	8	40	Pass
0.5628	18	7	38	Pass
0.5713	12	7	58	Pass

DSD - 000891

0.5798	12	7	58	Pass
0.5883	11	7	63	Pass
0.5968	11	7	63	Pass
0.6053	10	6	60	Pass
0.6138	9	6	66	Pass
0.6223	9	6	66	Pass
0.6308	9	6	66	Pass
0.6393	9	6	66	Pass
0.6478	9	6	66	Pass
0.6563	9	6	66	Pass
0.6648	9	6	66	Pass
0.6733	9	6	66	Pass
0.6818	8	6	75	Pass
0.6902	8	5	62	Pass
0.6987	8	5	62	Pass
0.7072	7	5	71	Pass
0.7157	6	4	66	Pass
0.7242	6	4	66	Pass
0.7327	6	4	66	Pass
0.7412	6	4	66	Pass
0.7497	6	4	66	Pass
0.7582	6	4	66	Pass
0.7667	6	3	50	Pass
0.7752	5	3	60	Pass
0.7837	5	3	60	Pass
0.7922	5	3	60	Pass
0.8007	5	3	60	Pass
0.8092	5	3	60	Pass
0.8177	5	3	60	Pass
0.8262	5	2	40	Pass
0.8347	5	2	40	Pass
0.8432	4	2	50	Pass
0.8516	4	1	25	Pass
0.8601	4	1	25	Pass
0.8686	4	1	25	Pass
0.8771	4	1	25	Pass
0.8856	4	0	0	Pass
0.8941	4	0	0	Pass
0.9026	4	0	0	Pass
0.9111	4	0	0	Pass
0.9196	3	0	0	Pass
0.9281	3	0	0	Pass
0.9366	1	0	0	Pass
0.9451	1	0	0	Pass
0.9536	1	0	0	Pass
0.9621	1	0	0	Pass
0.9706	1	0	0	Pass

DSD - 000892

Water Quality

Water Quality BMP Flow and Volume for POC #1

On-line facility volume:	0 acre-feet
On-line facility target flow:	0 cfs.
Adjusted for 15 min:	0 cfs.
Off-line facility target flow:	0 cfs.
Adjusted for 15 min:	0 cfs.

LID Report

LID Technique	Used for Treatment ?	Total Volume Needs Treatment (ac-ft)	Volume Through Facility (ac-ft)	Infiltration Volume (ac-ft)	Cumulative Volume Infiltration Credit	Percent Volume Infiltrated	Water Quality	Percent Water Quality Treated	Comment
Vault 1 POC	☐	794.27			☐	0.00			
Total Volume Infiltrated		794.27	0.00	0.00		0.00	0.00	0%	No Treat. Credit
Compliance with LID Standard 8% of 2-yr to 50% of 2-yr									Duration Analysis Result = Failed

DSD - 000894

POC 2

POC #2 was not reported because POC must exist in both scenarios and both scenarios must have been run.

DSD - 000895

Model Default Modifications

Total of 0 changes have been made.

PERLND Changes

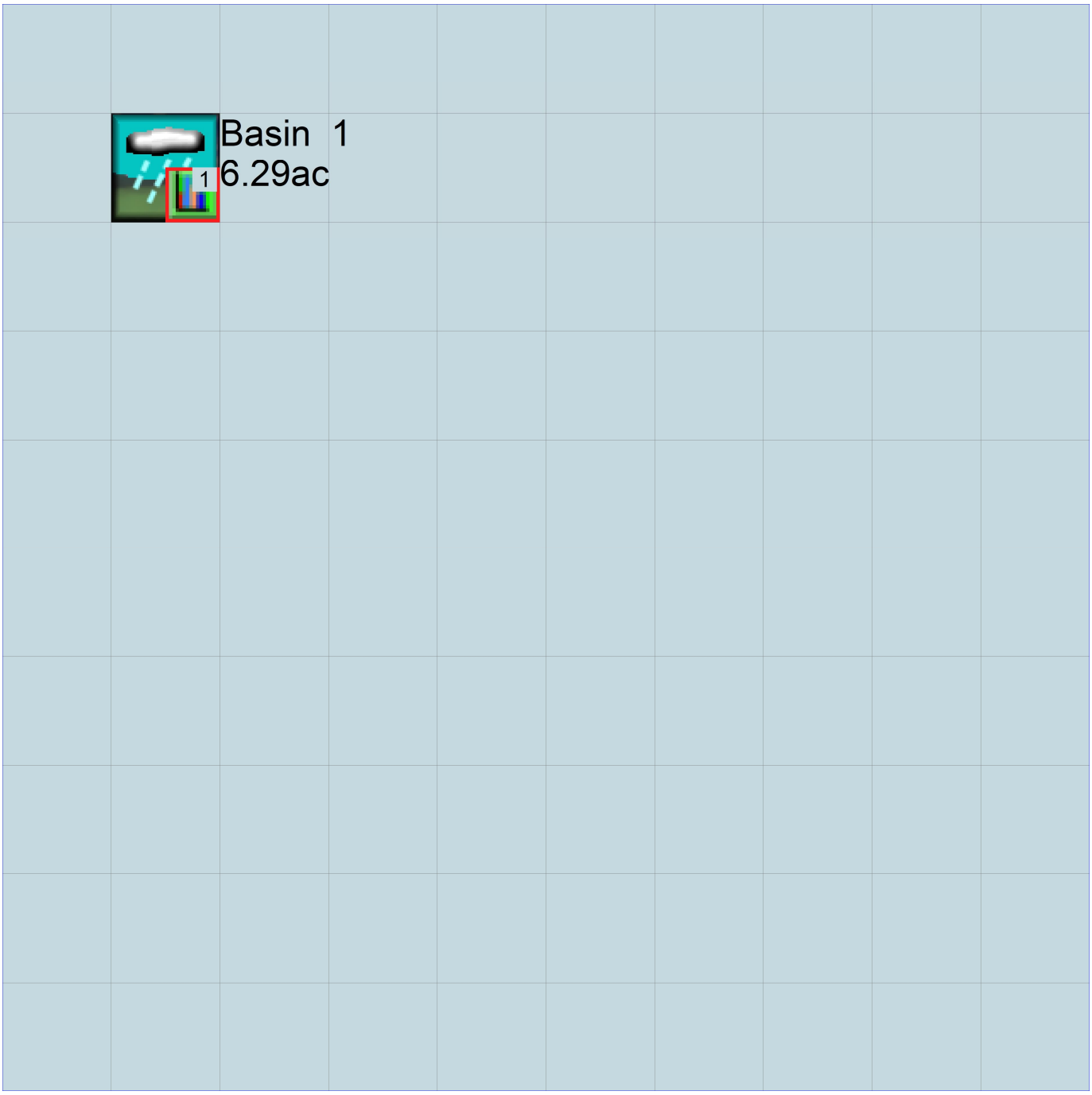
No PERLND changes have been made.

IMPLND Changes

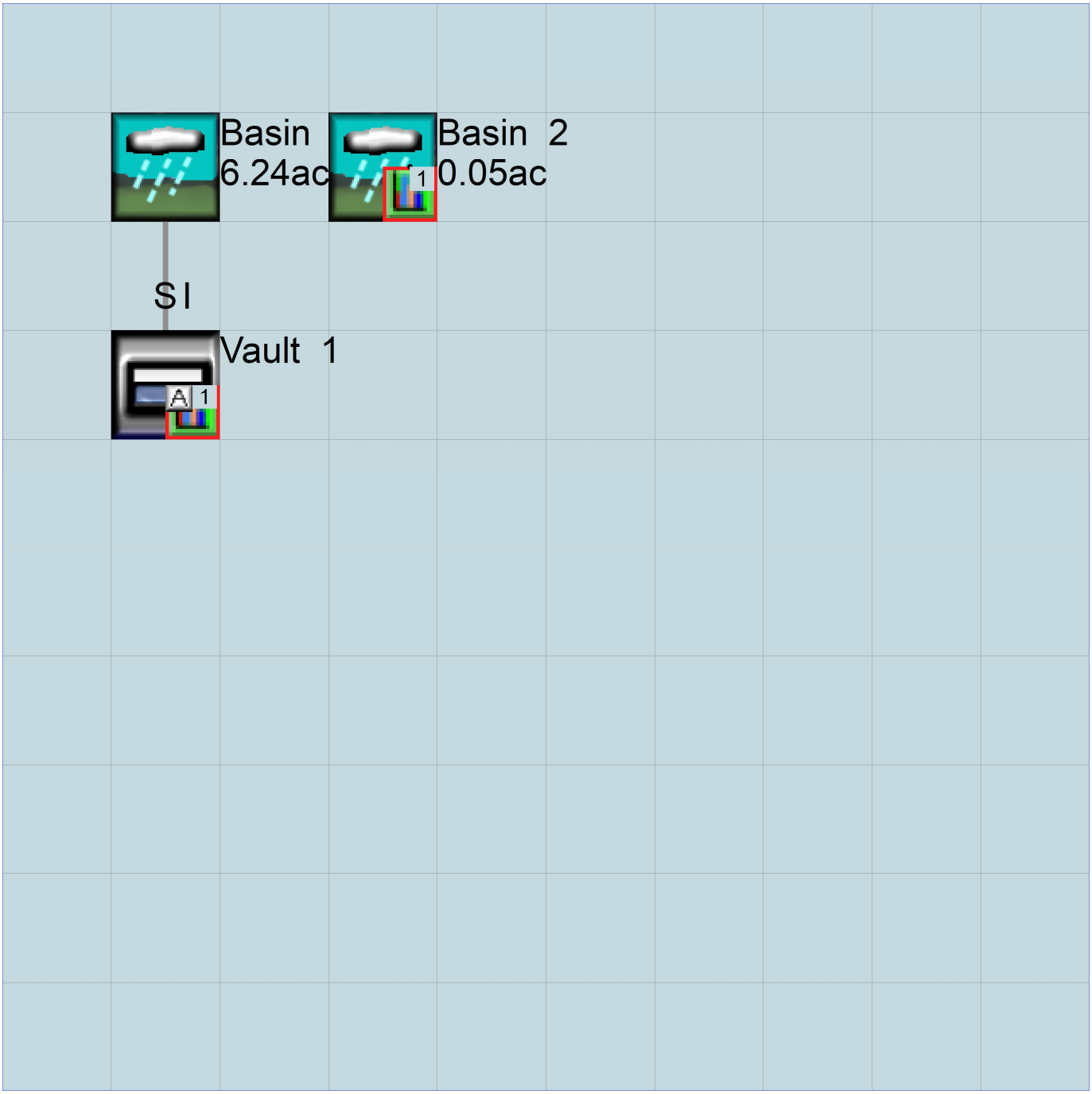
No IMPLND changes have been made.

Appendix

Predeveloped Schematic



Mitigated Schematic



Predeveloped UCI File

```
RUN

GLOBAL
  WWHM4 model simulation
  START       1948 10 01         END    2009 09 30
  RUN INTERP OUTPUT LEVEL    3    0
  RESUME     0 RUN     1                    UNIT SYSTEM     1
END GLOBAL

FILES
<File>  <Un#>   <-----------File Name------------------------------>***
<-ID->                                                              ***
WDM         26   Full Site Detention.wdm
MESSU       25   PreFull Site Detention.MES
            27   PreFull Site Detention.L61
            28   PreFull Site Detention.L62
            30   POCFull Site Detention1.dat
END FILES

OPN SEQUENCE
    INGRP               INDELT 00:15
      PERLND      11
      COPY       501
      DISPLY       1
    END INGRP
END OPN SEQUENCE
DISPLY
  DISPLY-INFO1
    # -   #<----------Title----------->***TRAN PIVL DIG1 FIL1  PYR DIG2 FIL2 YRND
    1         Basin  1                    MAX                    1    2   30    9
  END DISPLY-INFO1
END DISPLY
COPY
  TIMESERIES
    # -   #  NPT  NMN ***
    1          1    1
  501          1    1
  END TIMESERIES
END COPY
GENER
  OPCODE
    #    # OPCD ***
  END OPCODE
  PARM
    #    #         K ***
  END PARM
END GENER
PERLND
  GEN-INFO
    <PLS ><-------Name------->NBLKS   Unit-systems   Printer ***
    # -   #                          User  t-series Engl Metr ***
                                       in  out           ***
   11     C, Forest, Mod          1    1    1    1   27    0
  END GEN-INFO
  *** Section PWATER***

  ACTIVITY
    <PLS > ************* Active Sections ******************************
    # -   # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC ***
   11         0    0    1    0    0    0    0    0    0    0    0    0
  END ACTIVITY

  PRINT-INFO
    <PLS > ***************** Print-flags ***************************** PIVL  PYR
    # -   # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC  *********
   11         0    0    4    0    0    0    0    0    0    0    0    0    1    9
  END PRINT-INFO
```

DSD - 000899

```
  PWAT-PARM1
    <PLS >  PWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP UZFG  VCS  VUZ  VNN VIFW VIRC  VLE INFC  HWT ***
   11         0    0    0    0    0    0    0    0    0    0
  END PWAT-PARM1

  PWAT-PARM2
    <PLS >      PWATER input info: Part 2          ***
    # -  # ***FOREST      LZSN    INFILT      LSUR     SLSUR     KVARY     AGWRC
   11              0       4.5      0.08       400       0.1       0.5     0.996
  END PWAT-PARM2

  PWAT-PARM3
    <PLS >      PWATER input info: Part 3          ***
    # -  # ***PETMAX    PETMIN    INFEXP    INFILD    DEEPFR    BASETP    AGWETP
   11             0         0         2         2         0         0         0
  END PWAT-PARM3
  PWAT-PARM4
    <PLS >     PWATER input info: Part 4                                 ***
    # -  #     CEPSC      UZSN      NSUR     INTFW       IRC     LZETP ***
   11            0.2       0.5      0.35         6       0.5       0.7
  END PWAT-PARM4

  PWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
               ran from 1990 to end of 1992 (pat 1-11-95) RUN 21 ***
    # -  # ***  CEPS      SURS       UZS       IFWS       LZS       AGWS       GWVS
   11             0         0         0          0       2.5          1          0
  END PWAT-STATE1

END PERLND

IMPLND
  GEN-INFO
    <PLS ><-------Name------->   Unit-systems   Printer ***
    # -  #                     User  t-series Engl Metr ***
                                    in  out           ***
  END GEN-INFO
  *** Section IWATER***

  ACTIVITY
    <PLS > ************* Active Sections ******************************
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL   ***
  END ACTIVITY

  PRINT-INFO
    <ILS > ******** Print-flags ******** PIVL  PYR
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL    *********
  END PRINT-INFO

  IWAT-PARM1
    <PLS >  IWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP  VRS  VNN RTLI     ***
  END IWAT-PARM1

  IWAT-PARM2
    <PLS >      IWATER input info: Part 2          ***
    # -  # ***  LSUR     SLSUR      NSUR     RETSC
  END IWAT-PARM2

  IWAT-PARM3
    <PLS >      IWATER input info: Part 3          ***
    # -  # ***PETMAX    PETMIN
  END IWAT-PARM3

  IWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
    # -  # ***  RETS      SURS
  END IWAT-STATE1
```

```
END IMPLND

SCHEMATIC
<-Source->                  <--Area-->     <-Target->   MBLK    ***
<Name>   #                  <-factor->     <Name>   #   Tbl#    ***
Basin  1***
PERLND  11                       6.288     COPY   501     12
PERLND  11                       6.288     COPY   501     13

******Routing******
END SCHEMATIC

NETWORK
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
COPY   501 OUTPUT MEAN   1 1   48.4        DISPLY   1     INPUT  TIMSER 1



<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
END NETWORK

RCHRES
  GEN-INFO
    RCHRES       Name        Nexits   Unit Systems   Printer                ***
    # -  #<------------------><---> User T-series  Engl Metr LKFG           ***
                                       in  out                              ***
  END GEN-INFO
  *** Section RCHRES***

  ACTIVITY
    <PLS > ************* Active Sections ****************************
    # -  # HYFG ADFG CNFG HTFG SDFG GQFG OXFG NUFG PKFG PHFG ***
  END ACTIVITY

  PRINT-INFO
    <PLS > ***************** Print-flags ******************** PIVL  PYR
    # -  # HYDR ADCA CONS HEAT  SED  GQL OXRX NUTR PLNK PHCB PIVL  PYR  *********
  END PRINT-INFO

  HYDR-PARM1
    RCHRES  Flags for each HYDR Section                                  ***
    # -  #  VC A1 A2 A3  ODFVFG for each *** ODGTFG for each     FUNCT  for each
            FG FG FG FG  possible  exit  *** possible  exit      possible  exit
             *  *  *  *    *  *  *  *  *       *  *  *  *  *         ***
  END HYDR-PARM1

  HYDR-PARM2
    # -  #    FTABNO       LEN     DELTH     STCOR        KS      DB50       ***
  <------><--------><--------><--------><--------><--------><-------->       ***
  END HYDR-PARM2
  HYDR-INIT
    RCHRES  Initial conditions for each HYDR section                     ***
    # -  # ***   VOL     Initial  value  of COLIND     Initial  value  of OUTDGT
          *** ac-ft     for each possible exit        for each possible exit
  <------><-------->     <---><---><---><---><---> *** <---><---><---><---><--->
  END HYDR-INIT
END RCHRES

SPEC-ACTIONS
END SPEC-ACTIONS
FTABLES
END FTABLES

EXT SOURCES
<-Volume-> <Member> SsysSgap<--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   # <Name> # tem strg<-factor->strg <Name>   #   #        <Name> # #  ***
WDM      2 PREC     ENGL    1.167          PERLND   1 999 EXTNL  PREC
WDM      2 PREC     ENGL    1.167          IMPLND   1 999 EXTNL  PREC
```

DSD - 000901

```
WDM      1 EVAP     ENGL    0.76           PERLND   1 999 EXTNL  PETINP
WDM      1 EVAP     ENGL    0.76           IMPLND   1 999 EXTNL  PETINP

END EXT SOURCES

EXT TARGETS
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Volume-> <Member> Tsys Tgap Amd ***
<Name>   #        <Name> # #<-factor->strg <Name>   # <Name>    tem strg strg***
COPY   501 OUTPUT MEAN   1 1     48.4      WDM    501 FLOW     ENGL      REPL
END EXT TARGETS

MASS-LINK
<Volume>   <-Grp> <-Member-><--Mult-->     <Target>       <-Grp> <-Member->***
<Name>            <Name> # #<-factor->     <Name>                <Name> # #***
  MASS-LINK       12
PERLND     PWATER SURO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   12

  MASS-LINK       13
PERLND     PWATER IFWO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   13


END MASS-LINK

END RUN
```

Mitigated UCI File

```
RUN

GLOBAL
  WWHM4 model simulation
  START       1948 10 01         END    2009 09 30
  RUN INTERP OUTPUT LEVEL    3    0
  RESUME     0 RUN     1                    UNIT SYSTEM     1
END GLOBAL

FILES
<File>  <Un#>   <-----------File Name------------------------------>***
<-ID->                                                              ***
WDM         26   Full Site Detention.wdm
MESSU       25   MitFull Site Detention.MES
            27   MitFull Site Detention.L61
            28   MitFull Site Detention.L62
            30   POCFull Site Detention1.dat
END FILES

OPN SEQUENCE
    INGRP               INDELT 00:15
      PERLND      14
      IMPLND       2
      PERLND      13
      RCHRES       1
      COPY         1
      COPY       501
      COPY       601
      DISPLY       1
    END INGRP
END OPN SEQUENCE
DISPLY
  DISPLY-INFO1
    # -   #<----------Title----------->***TRAN PIVL DIG1 FIL1  PYR DIG2 FIL2 YRND
    1         Vault   1                   MAX                    1    2   30    9
  END DISPLY-INFO1
END DISPLY
COPY
  TIMESERIES
    # -   #  NPT  NMN ***
    1          1    1
  501          1    1
  601          1    1
  END TIMESERIES
END COPY
GENER
  OPCODE
    #    # OPCD ***
  END OPCODE
  PARM
    #    #          K ***
  END PARM
END GENER
PERLND
  GEN-INFO
    <PLS ><-------Name------->NBLKS   Unit-systems   Printer ***
    # -   #                          User  t-series Engl Metr ***
                                          in  out           ***
   14     C, Pasture, Mod          1    1    1    1   27    0
   13     C, Pasture, Flat         1    1    1    1   27    0
  END GEN-INFO
  *** Section PWATER***

  ACTIVITY
    <PLS > ************* Active Sections ******************************
    # -   # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC ***
   14          0    0    1    0    0    0    0    0    0    0    0    0
   13          0    0    1    0    0    0    0    0    0    0    0    0
```

DSD - 000903

```
  END ACTIVITY

  PRINT-INFO
    <PLS > ****************** Print-flags ***************************** PIVL  PYR
    # -   # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC  *********
   14         0    0    4    0    0    0    0    0    0    0    0    0    1    9
   13         0    0    4    0    0    0    0    0    0    0    0    0    1    9
  END PRINT-INFO

  PWAT-PARM1
    <PLS >  PWATER variable monthly parameter value flags  ***
    # -   # CSNO RTOP UZFG  VCS  VUZ  VNN VIFW VIRC  VLE INFC  HWT ***
   14         0    0    0    0    0    0    0    0    0    0    0
   13         0    0    0    0    0    0    0    0    0    0    0
  END PWAT-PARM1

  PWAT-PARM2
    <PLS >      PWATER input info: Part 2          ***
    # -   # ***FOREST      LZSN    INFILT      LSUR     SLSUR     KVARY     AGWRC
   14              0       4.5      0.06       400       0.1       0.5     0.996
   13              0       4.5      0.06       400      0.05       0.5     0.996
  END PWAT-PARM2

  PWAT-PARM3
    <PLS >      PWATER input info: Part 3          ***
    # -   # ***PETMAX    PETMIN    INFEXP    INFILD    DEEPFR    BASETP    AGWETP
   14              0         0         2         2         0         0         0
   13              0         0         2         2         0         0         0
  END PWAT-PARM3
  PWAT-PARM4
    <PLS >     PWATER input info: Part 4                              ***
    # -   #     CEPSC      UZSN      NSUR     INTFW       IRC     LZETP ***
   14          0.15       0.4       0.3         6       0.5       0.4
   13          0.15       0.4       0.3         6       0.5       0.4
  END PWAT-PARM4

  PWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
               ran from 1990 to end of 1992 (pat 1-11-95) RUN 21 ***
    # -   # ***  CEPS      SURS       UZS      IFWS       LZS      AGWS      GWVS
   14              0         0         0         0       2.5         1         0
   13              0         0         0         0       2.5         1         0
  END PWAT-STATE1

END PERLND

IMPLND
  GEN-INFO
    <PLS ><-------Name------->   Unit-systems   Printer ***
    # -   #                     User  t-series Engl Metr ***
                                      in  out           ***
    2      ROADS/MOD              1    1    1   27    0
  END GEN-INFO
  *** Section IWATER***

  ACTIVITY
    <PLS > ************* Active Sections ****************************
    # -   # ATMP SNOW IWAT  SLD  IWG IQAL   ***
    2         0    0    1    0    0    0
  END ACTIVITY

  PRINT-INFO
    <ILS > ******** Print-flags ******** PIVL  PYR
    # -   # ATMP SNOW IWAT  SLD  IWG IQAL    *********
    2         0    0    4    0    0    0    1    9
  END PRINT-INFO

  IWAT-PARM1
    <PLS >  IWATER variable monthly parameter value flags  ***
    # -   # CSNO RTOP  VRS  VNN RTLI     ***
```

DSD - 000904

```
    2         0    0    0    0    0
  END IWAT-PARM1

  IWAT-PARM2
    <PLS >       IWATER input info: Part 2          ***
    # -  # ***  LSUR     SLSUR      NSUR      RETSC
    2            400      0.05       0.1       0.08
  END IWAT-PARM2

  IWAT-PARM3
    <PLS >       IWATER input info: Part 3          ***
    # -  # ***PETMAX    PETMIN
    2              0         0
  END IWAT-PARM3

  IWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
    # -  # ***  RETS      SURS
    2              0         0
  END IWAT-STATE1

END IMPLND

SCHEMATIC
<-Source->                  <--Area-->     <-Target->   MBLK    ***
<Name>   #                  <-factor->     <Name>   #   Tbl#    ***
Basin  1***
PERLND  14                       2.744     RCHRES   1      2
PERLND  14                       2.744     RCHRES   1      3
IMPLND   2                       3.496     RCHRES   1      5
Basin  2***
PERLND  13                       0.047     COPY   501     12
PERLND  13                       0.047     COPY   601     12
PERLND  13                       0.047     COPY   501     13
PERLND  13                       0.047     COPY   601     13

******Routing******
PERLND  14                       2.744     COPY     1     12
IMPLND   2                       3.496     COPY     1     15
PERLND  14                       2.744     COPY     1     13
RCHRES   1                           1     COPY   501     16
END SCHEMATIC

NETWORK
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
COPY   501 OUTPUT MEAN   1 1   48.4        DISPLY   1     INPUT  TIMSER 1



<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
END NETWORK

RCHRES
  GEN-INFO
    RCHRES       Name        Nexits   Unit Systems   Printer                ***
    # -  #<------------------><---> User T-series  Engl Metr LKFG           ***
                                        in  out                             ***
    1     Vault  1                1    1    1    1   28    0    1
  END GEN-INFO
  *** Section RCHRES***

  ACTIVITY
    <PLS > ************ Active Sections ****************************
    # -  # HYFG ADFG CNFG HTFG SDFG GQFG OXFG NUFG PKFG PHFG ***
    1         1    0    0    0    0    0    0    0    0    0
  END ACTIVITY

  PRINT-INFO
```

DSD - 000905

```
    <PLS > ****************** Print-flags ******************** PIVL  PYR
    # -   # HYDR ADCA CONS HEAT  SED  GQL OXRX NUTR PLNK PHCB PIVL  PYR  *********
    1         4    0    0    0    0    0    0    0    0    0    1    9
  END PRINT-INFO

  HYDR-PARM1
    RCHRES  Flags for each HYDR Section                                      ***
    # -   #  VC A1 A2 A3  ODFVFG for each *** ODGTFG for each     FUNCT  for each
           FG FG FG FG  possible  exit  *** possible  exit       possible  exit
            *  *  *  *    *  *  *  *  *       *  *  *  *  *         ***
    1       0  1  0  0    4  0  0  0  0       0  0  0  0  0         2  2  2  2  2
  END HYDR-PARM1

  HYDR-PARM2
    # -   #    FTABNO       LEN      DELTH     STCOR        KS       DB50       ***
  <------><--------><--------><--------><--------><--------><--------><--------> ***
    1               1      0.02        0.0       0.0       0.5        0.0
  END HYDR-PARM2
  HYDR-INIT
    RCHRES  Initial conditions for each HYDR section                         ***
    # -   # ***   VOL     Initial  value  of COLIND     Initial  value  of OUTDGT
          *** ac-ft     for each possible exit        for each possible exit
  <------><-------->     <---><---><---><---><---> *** <---><---><---><---><--->
    1             0        4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
  END HYDR-INIT
END RCHRES

SPEC-ACTIONS
END SPEC-ACTIONS
FTABLES
  FTABLE      1
   92    4
     Depth      Area    Volume  Outflow1 Velocity  Travel Time***
      (ft)    (acres) (acre-ft)    (cfs)   (ft/sec)    (Minutes)***
  0.000000  0.173554  0.000000  0.000000
  0.133333  0.173554  0.023140  0.019595
  0.266667  0.173554  0.046281  0.027712
  0.400000  0.173554  0.069421  0.033940
  0.533333  0.173554  0.092562  0.039191
  0.666667  0.173554  0.115702  0.043817
  0.800000  0.173554  0.138843  0.047999
  0.933333  0.173554  0.161983  0.051844
  1.066667  0.173554  0.185124  0.055424
  1.200000  0.173554  0.208264  0.058786
  1.333333  0.173554  0.231405  0.061966
  1.466667  0.173554  0.254545  0.064990
  1.600000  0.173554  0.277686  0.067880
  1.733333  0.173554  0.300826  0.070652
  1.866667  0.173554  0.323967  0.073319
  2.000000  0.173554  0.347107  0.075892
  2.133333  0.173554  0.370248  0.078381
  2.266667  0.173554  0.393388  0.080794
  2.400000  0.173554  0.416529  0.083136
  2.533333  0.173554  0.439669  0.085414
  2.666667  0.173554  0.462810  0.087633
  2.800000  0.173554  0.485950  0.089797
  2.933333  0.173554  0.509091  0.091910
  3.066667  0.173554  0.532231  0.093976
  3.200000  0.173554  0.555372  0.095997
  3.333333  0.173554  0.578512  0.097977
  3.466667  0.173554  0.601653  0.099917
  3.600000  0.173554  0.624793  0.101820
  3.733333  0.173554  0.647934  0.103689
  3.866667  0.173554  0.671074  0.105524
  4.000000  0.173554  0.694215  0.107328
  4.133333  0.173554  0.717355  0.109102
  4.266667  0.173554  0.740496  0.110848
  4.400000  0.173554  0.763636  0.112567
  4.533333  0.173554  0.786777  0.114260
  4.666667  0.173554  0.809917  0.115928
```

DSD - 000906

```
  4.800000  0.173554  0.833058  0.117572
  4.933333  0.173554  0.856198  0.119194
  5.066667  0.173554  0.879339  0.120794
  5.200000  0.173554  0.902479  0.143324
  5.333333  0.173554  0.925620  0.155935
  5.466667  0.173554  0.948760  0.165589
  5.600000  0.173554  0.971901  0.173840
  5.733333  0.173554  0.995041  0.181220
  5.866667  0.173554  1.018182  0.187991
  6.000000  0.173554  1.041322  0.194302
  6.133333  0.173554  1.064463  0.200249
  6.266667  0.173554  1.087603  0.205899
  6.400000  0.173554  1.110744  0.211299
  6.533333  0.173554  1.133884  0.216486
  6.666667  0.173554  1.157025  0.221485
  6.800000  0.173554  1.180165  0.226321
  6.933333  0.173554  1.203306  0.231010
  7.066667  0.173554  1.226446  0.235567
  7.200000  0.173554  1.249587  0.240004
  7.333333  0.173554  1.272727  0.244332
  7.466667  0.173554  1.295868  0.248560
  7.600000  0.173554  1.319008  0.252695
  7.733333  0.173554  1.342149  0.256744
  7.866667  0.173554  1.365289  0.260714
  8.000000  0.173554  1.388430  0.264608
  8.133333  0.173554  1.411570  0.268432
  8.266667  0.173554  1.434711  0.305718
  8.400000  0.173554  1.457851  0.333958
  8.533333  0.173554  1.480992  0.354494
  8.666667  0.173554  1.504132  0.371811
  8.800000  0.173554  1.527273  0.387216
  8.933333  0.173554  1.550413  0.401309
  9.066667  0.173554  1.573554  0.414425
  9.200000  0.173554  1.596694  0.426775
  9.333333  0.173554  1.619835  0.438500
  9.466667  0.173554  1.642975  0.449703
  9.600000  0.173554  1.666116  0.460459
  9.733333  0.173554  1.689256  0.470827
  9.866667  0.173554  1.712397  0.480852
  10.00000  0.173554  1.735537  0.992751
  10.13333  0.173554  1.758678  2.256269
  10.26667  0.173554  1.781818  3.770723
  10.40000  0.173554  1.804959  5.157281
  10.53333  0.173554  1.828099  6.119289
  10.66667  0.173554  1.851240  6.740574
  10.80000  0.173554  1.874380  7.266919
  10.93333  0.173554  1.897521  7.755952
  11.06667  0.173554  1.920661  8.214689
  11.20000  0.173554  1.943802  8.648182
  11.33333  0.173554  1.966942  9.060219
  11.46667  0.173554  1.990083  9.453723
  11.60000  0.173554  2.013223  9.831006
  11.73333  0.173554  2.036364  10.19394
  11.86667  0.173554  2.059504  10.54405
  12.00000  0.173554  2.082645  10.88262
  12.13333  0.173554  2.105785  11.21072
  END FTABLE  1
END FTABLES

EXT SOURCES
<-Volume-> <Member> SsysSgap<--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   # <Name> # tem strg<-factor->strg <Name>   #    #        <Name> # #  ***
WDM      2 PREC     ENGL    1.167          PERLND   1 999 EXTNL  PREC
WDM      2 PREC     ENGL    1.167          IMPLND   1 999 EXTNL  PREC
WDM      1 EVAP     ENGL    0.76           PERLND   1 999 EXTNL  PETINP
WDM      1 EVAP     ENGL    0.76           IMPLND   1 999 EXTNL  PETINP

END EXT SOURCES

EXT TARGETS
```

DSD - 000907

```
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Volume-> <Member> Tsys Tgap Amd ***
<Name>   #        <Name> # #<-factor->strg <Name>   # <Name>    tem strg strg***
RCHRES   1 HYDR   RO     1 1         1      WDM   1000 FLOW     ENGL       REPL
RCHRES   1 HYDR   STAGE  1 1         1      WDM   1001 STAG     ENGL       REPL
COPY     1 OUTPUT MEAN   1 1      48.4      WDM    701 FLOW     ENGL       REPL
COPY   501 OUTPUT MEAN   1 1      48.4      WDM    801 FLOW     ENGL       REPL
COPY   601 OUTPUT MEAN   1 1      48.4      WDM    901 FLOW     ENGL       REPL
END EXT TARGETS

MASS-LINK
<Volume>   <-Grp> <-Member-><--Mult-->     <Target>       <-Grp> <-Member->***
<Name>             <Name> # #<-factor->     <Name>                <Name> # #***
  MASS-LINK         2
PERLND     PWATER SURO       0.083333      RCHRES         INFLOW IVOL
  END MASS-LINK     2

  MASS-LINK         3
PERLND     PWATER IFWO       0.083333      RCHRES         INFLOW IVOL
  END MASS-LINK     3

  MASS-LINK         5
IMPLND     IWATER SURO       0.083333      RCHRES         INFLOW IVOL
  END MASS-LINK     5

  MASS-LINK        12
PERLND     PWATER SURO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK    12

  MASS-LINK        13
PERLND     PWATER IFWO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK    13

  MASS-LINK        15
IMPLND     IWATER SURO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK    15

  MASS-LINK        16
RCHRES     ROFLOW                          COPY           INPUT  MEAN
  END MASS-LINK    16


END MASS-LINK

END RUN
```

Predeveloped HSPF Message File

DSD - 000909

Mitigated HSPF Message File

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Local (360)943-0304

www.clearcreeksolutions.com

DSD - 000911

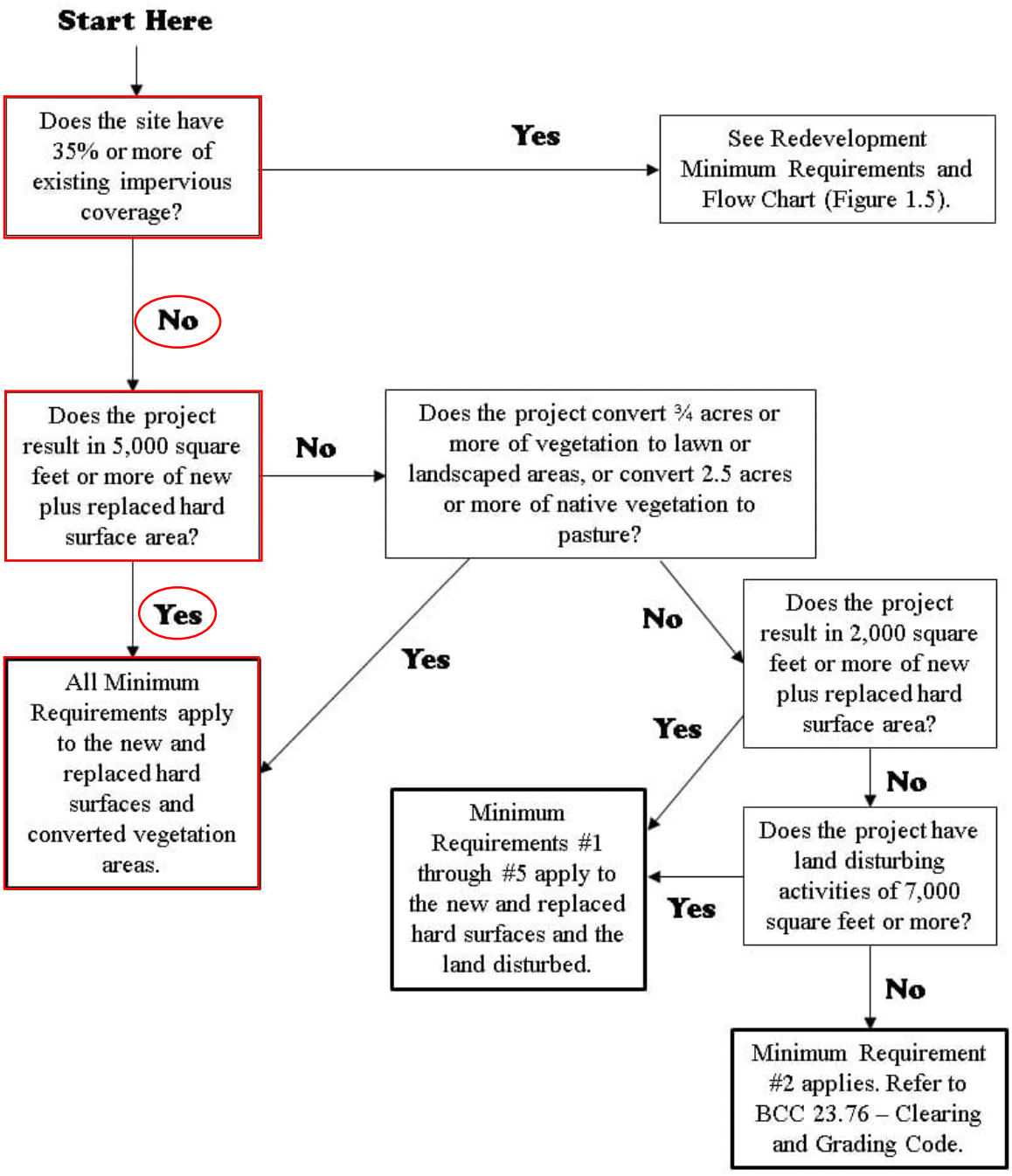

Figure 1.4 – Flow Chart for Determining Minimum Requirements for New Development Projects

Source: Adapted from Figure 2.4.1 of Volume I of the DOE Manual.

National Flood Hazard Layer FIRMette

DSD-000912

FEMA

122°8'5"W 47°32'24"N

Feet 1:6,000

0 250 500 1,000 1,500 2,000

122°7'28"W 47°31'59"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/2/2022 at 6:04 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

James Reynes

From: Dave Teesdale <dteesdale@talasaea.com>
Sent: Friday, June 3, 2022 11:25 AM
To: James Reynes; Nick Alexander
Cc: Bill Shiels; Alex Liebman
Subject: RE: Park Pointe PUD | Wetland Recharge Design (TAL-1543)

My apologies. This one got buried under a series of reports with short fuses.

We have looked at the issue and the drawing you provided. A way to address the potential loss of hydrology for Wetland B is to bleed off some of the water going from the vault to the discharge point and direct it to Wetland B. I understand that suggesting is easy enough and that engineering is a whole other issue. It seems to me that modifying the currently proposed stormwater discharge might be easier than a wholesale revision of the project's stormwater management system.

The wetland located at the confluence of Streams 1 and 2 is a riverine wetland. This means that it receives hydrology from the stream through overbank flooding at least once every two years. The wetland may receive some hydrology from the steep slope. However, my intuition suggests that the contribution to hydrology from the slope is minuscule compared with the hydrology from the two streams.

David R. Teesdale, PWS
Senior Ecologist
15020 Bear Creek Road, NE | Woodinville, WA 98077
Office : (425) 861-7550
dteesdale@talasaea.com

From: James Reynes <james@dcgengr.com>
Sent: Friday, June 03, 2022 10:04 AM
To: Dave Teesdale <dteesdale@talasaea.com>; Nick Alexander <nick@dcgengr.com>
Cc: Bill Shiels <bshiels@talasaea.com>; Alex Liebman <aliebman@talasaea.com>
Subject: RE: Park Pointe PUD | Wetland Recharge Design (TAL-1543)

Hi Dave,

I hope you are doing well! I'm following up on the below email thread with regards to the two wetlands located adjacent to the Park Pointe PUD project. Have you had a chance to look into this yet? If you could give us a rough estimate on when we can expect this information to come back to us, that would be awesome to assist us in workload scheduling.

Thanks,

James Reynes (He/Him)
Engineer III
Davido Consulting Group, Inc.

T 206.523.0024 x143
E james@dcgengr.com

Seattle | Mount Vernon | Whidbey Island | Federal Way | Spokane

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From: Dave Teesdale <dteesdale@talasaea.com>
Sent: Thursday, May 19, 2022 2:02 PM
To: Nick Alexander <nick@dcgengr.com>; James Reynes <james@dcgengr.com>
Cc: Bill Shiels <bshiels@talasaea.com>; Alex Liebman <aliebman@talasaea.com>
Subject: RE: Park Pointe PUD | Wetland Recharge Design (TAL-1543)

I can squeeze that in. Thank you!

David R. Teesdale, PWS
Senior Ecologist
15020 Bear Creek Road, NE | Woodinville, WA 98077
Office : (425) 861-7550
dteesdale@talasaea.com

From: Nick Alexander <nick@dcgengr.com>
Sent: Thursday, May 19, 2022 1:09 PM
To: Dave Teesdale <dteesdale@talasaea.com>; James Reynes <james@dcgengr.com>
Cc: Bill Shiels <bshiels@talasaea.com>; Alex Liebman <aliebman@talasaea.com>
Subject: RE: Park Pointe PUD | Wetland Recharge Design (TAL-1543)

Dave,

We're shooting to have a document for principal review internally on June 1, if that works for you? We likely can quickly incorporate any recommendations and comments.

Thanks,

Nick

Nick Alexander, PE (He/His)
Senior Civil Engineer
Davido Consulting Group, Inc.

T 206.523.0024 x128
E nick@dcgengr.com

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From: Dave Teesdale <dteesdale@talasaea.com>
Sent: Thursday, May 19, 2022 12:16 PM
To: James Reynes <james@dcgengr.com>
Cc: Nick Alexander <nick@dcgengr.com>; Bill Shiels <bshiels@talasaea.com>; Alex Liebman <aliebman@talasaea.com>
Subject: RE: Park Pointe PUD | Wetland Recharge Design (TAL-1543)

I received the email. Thank you. I will take a look at what you have prepared. I do need to know what your timeline for submittal is. That will help me prioritize what is currently on my desk.

David R. Teesdale, PWS
Senior Ecologist
15020 Bear Creek Road, NE | Woodinville, WA 98077
Office : (425) 861-7550
dteesdale@talasaea.com

From: James Reynes <james@dcgengr.com>
Sent: Thursday, May 19, 2022 12:09 PM
To: Dave Teesdale <dteesdale@talasaea.com>
Cc: Nick Alexander <nick@dcgengr.com>
Subject: Park Pointe PUD | Wetland Recharge Design

Hi Dave,

It was great talking with you about this project. We are currently advancing the final engineering design for a project located at 7219 Lakemont Blvd. SE in Bellevue (also known as the Park Pointe PUD). We are preparing the storm drainage report and hydraulic calculations and are reviewing the requirements to recharge the wetlands located downstream from the project site. Please see the attached Wetland Hydrology Exhibits. In summary, we are required to recharge two wetlands downstream of the project site, however, discharging to these wetlands would require discharge to steep slopes via overland dispersion, and this brings some concerns to us especially with some of the large tributary areas in the existing conditions.

For Wetland A, we are able to match peak flows from the existing to the proposed condition pretty closely through bypassing some backyard areas and homes 3 & 4. We are required to meet Method 2: Site Discharge Modeling, but it is proving challenging to hit mean daily volumes and mean monthly volumes and we are hoping you can provide us with a preliminary approval with our design from peak flows or provide some general guidance with how we can hit these discharge volumes efficiently.

For Wetland B (a total of ~40SF of wetland), we have to provide the same level of protection and ensure that we recharge this wetland properly due to it being defined as a Category IV with a habitat score of 11 per the Talasaea report previously provided. Please see the Wetland Hydrology Exhibit – EC attached. However, this small wetland has a significantly larger tributary area based on the existing topography. The area flowing to this wetland (drawn per contours) totals to approximately 2.78 ac (121,117 SF). This produces a flow of approximately 0.9651 CFS, which we do not feel comfortable collecting and discharging down a steep slope to recharge Wetland B. Additionally, this tributary basin is so large, we are concerned about additional stormwater requirements that will stack on-top of this basin prior to the flowrates required to recharge this wetland. We would feel comfortable bypassing a few homes and backyards to this wetland and were wondering if you could assist us in finding a way forward that can both protect the wetland, but also provide safe stormwater conveyance to serve the project site.

Please let me know if you need any additional information from me. If a phone call/meeting works better, please let me know when works best for you all.

Thanks,

James Reynes (He/Him)
Engineer III
Davido Consulting Group, Inc.

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DSD - 000917

WETLAND HYDROLOGY EXHIBIT - EXISTING CONDITIONS

WETLAND AA PER
TALASAEA
CONSULTANTS

WETLAND A TRIBUTARY AREA
13,270 SF (0.305 AC)

WETLAND B TRIBUTARY AREA
121,117 SF (2.78 AC)

WETLAND B PER
TALASAEA
CONSULTANTS

N

40 20 0 40 80
SCALE IN FEET

EXISTING FEATURES LEGEND:

No.	DATE	BY	REVISION

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F: 206.523.1012
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CALL 811
2 BUSINESS DAYS
BEFORE YOU DIG
(UNDERGROUND UTILITY LOCATIONS ARE APPROX.)

TIMOTHY W. GABELEIN
STATE OF WASHINGTON
47852
REGISTERED
PROFESSIONAL ENGINEER

BASE MAP/TOPOGRAPHY PROVIDED BY OTHERS. DCG CANNOT BE HELD LIABLE FOR ACCURACY. CONTRACTOR SHALL FIELD VERIFY GRADES, UTILITIES, & ALL OTHER EX FEATURES & CONDITIONS. IF CONDITIONS ARE NOT AS SHOWN &/OR PLANS CANNOT BE CONSTRUCTED AS SHOWN, CONTACT DCG PRIOR TO CONSTRUCTION.

OWNER:
SHELTER HOMES
10700 NORTHUP WAY, #110
BELLEVUE, WA 98004

PROJECT:
PARK POINTE PUD
7219 LAKEMONT BLVD SE, BELLEVUE, WA
EXISTING CONDITIONS MAP

PROJ. MANAGER:	TG
DESIGNED BY:	NA/CB/GR
DRAWN BY:	GR
CHECKED BY:	ED
SCALE:	AS SHOWN
DATE: 5/2/22	REV. A
	SHEET 1 OF 1

SHEET NUMBER
E1.0

CAD FILE NUMBER: P:\CLIENTS-CIVIL\SHELTER HOMES\7219 LAKEMONT BLVD SE BELLEVUE\PKHOE\SHEETS\DRAINAGE REPORT EXHIBITS.DWG
LAST MODIFIED BY: MIKE - SAVE DATE: 5/2/2022 8:11 AM - SHEET SET: XXXX - ORIGINAL SHEET SIZE: ANSI FULL BLEED D (24.00 X 22.00 INCHES)
AUTOCAD VERSION: CIVIL 3D 2013

DSD - 000918

PROPOSED CONDITIONS MAP

WETLAND A PER TALASAEA CONSULTANTS

ON-SITE DRAINAGE BYPASS BASIN 0.140 - Pervious (Pasture)

WETLAND AA PER TALASAEA CONSULTANTS

PROJECT BASIN DELINEATION BOUNDARIES (TYP)

WETLAND B PER TALASAEA CONSULTANTS

ON-SITE DRAINAGE BYPASS BASIN 0.152 - Pervious (Pasture)

PARCEL Z

N

SCALE IN FEET 40 20 0 40 80

PROPOSED SURFACE LEGEND:

- CONCRETE
- ASPHALT
- CONCRETE DRIVE
- GRAVEL
- WOOD CHIPS (TRAIL)
- ROOF

No.	DATE	BY	REVISION

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OWNER: SHELTER HOMES
10700 NORTHUP WAY, #110
BELLEVUE, WA 98004

PROJECT: PARK POINTE PUD
7219 LAKEMONT BLVD SE, BELLEVUE, WA
PROPOSED SURFACES

PROJ. MANAGER:	TG
DESIGNED BY:	NA/CB/GR
DRAWN BY:	GR
CHECKED BY:	ED
SCALE:	AS SHOWN
DATE: 5/2/22	REV. A
	SHEET 1 OF 1

SHEET NUMBER
E1.1

CAD FILE NUMBER: P:\CLIENTS\CIVIL\SHELTER HOMES\7219 LAKEMONT BLVD SE BELLEVUE\DWG\EXHIBITS\DRAINAGE REPORT EXHIBITS.DWG
LAST MODIFIED BY: MIKE - SAVE DATE: 5/2/2022 8:49 AM - SHEET SET: XXXX - ORIGINAL SHEET SIZE: ANSI FULL BLEED D (34.00 X 22.00 INCHES)
AUTOCAD VERSION: CIVIL 3D 2013

DSD - 000919

WWHM2012

PROJECT REPORT

DSD - 000920

General Model Information

Project Name:	Wetland A
Site Name:	7219 Lakemont Blvd SE
Site Address:	7219 Lakemont Blvd SE
City:	Bellevue
Report Date:	9/1/2022
Gage:	Seatac
Data Start:	1948/10/01
Data End:	2009/09/30
Timestep:	15 Minute
Precip Scale:	1.167
Version Date:	2021/08/18
Version:	4.2.18

POC Thresholds

Low Flow Threshold for POC1:	50 Percent of the 2 Year
High Flow Threshold for POC1:	50 Year

DSD - 000921

Landuse Basin Data

Predeveloped Land Use

Basin 1

Bypass:	No
GroundWater:	No
Pervious Land Use	acre
C, Pasture, Flat	0.305
Pervious Total	0.305
Impervious Land Use	acre
Impervious Total	0
Basin Total	0.305

Element Flows To:

Surface	Interflow	Groundwater

DSD - 000922

Mitigated Land Use

Basin 1

Bypass:	No
GroundWater:	No
Pervious Land Use	acre
C, Pasture, Flat	0.14
Pervious Total	0.14
Impervious Land Use	acre
Impervious Total	0
Basin Total	0.14

Element Flows To:

Surface	Interflow	Groundwater

DSD - 000923

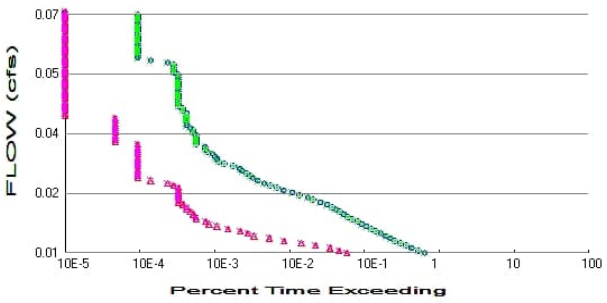
Routing Elements
Predeveloped Routing

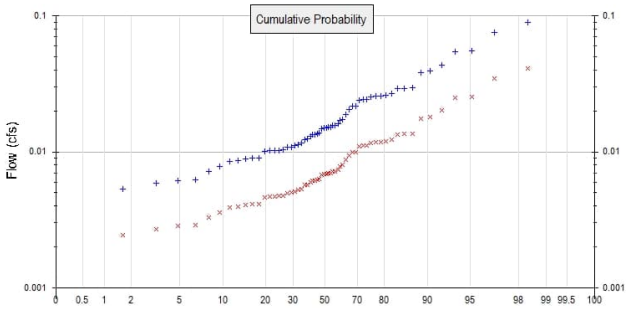
DSD - 000924

Mitigated Routing

Analysis Results

POC 1





\+ Predeveloped x Mitigated

Predeveloped Landuse Totals for POC #1
Total Pervious Area: 0.305
Total Impervious Area: 0

Mitigated Landuse Totals for POC #1
Total Pervious Area: 0.14
Total Impervious Area: 0

Flow Frequency Method: Log Pearson Type III 17B

Flow Frequency Return Periods for Predeveloped. POC #1

Return Period	Flow(cfs)
2 year	0.015306
5 year	0.027034
10 year	0.037086
25 year	0.052715
50 year	0.066696
100 year	0.082865

Flow Frequency Return Periods for Mitigated. POC #1

Return Period	Flow(cfs)
2 year	0.007026
5 year	0.012409
10 year	0.017023
25 year	0.024197
50 year	0.030615
100 year	0.038036

Annual Peaks

Annual Peaks for Predeveloped and Mitigated. POC #1

Year	Predeveloped	Mitigated
1949	0.025	0.012
1950	0.029	0.013
1951	0.026	0.012
1952	0.009	0.004
1953	0.008	0.004
1954	0.011	0.005
1955	0.017	0.008
1956	0.017	0.008
1957	0.015	0.007
1958	0.013	0.006

DSD - 000926

1959	0.010	0.005
1960	0.024	0.011
1961	0.012	0.005
1962	0.007	0.003
1963	0.011	0.005
1964	0.015	0.007
1965	0.015	0.007
1966	0.009	0.004
1967	0.030	0.014
1968	0.013	0.006
1969	0.013	0.006
1970	0.011	0.005
1971	0.016	0.007
1972	0.024	0.011
1973	0.010	0.005
1974	0.015	0.007
1975	0.019	0.009
1976	0.013	0.006
1977	0.009	0.004
1978	0.010	0.005
1979	0.006	0.003
1980	0.044	0.020
1981	0.010	0.005
1982	0.029	0.013
1983	0.015	0.007
1984	0.009	0.004
1985	0.006	0.003
1986	0.022	0.010
1987	0.022	0.010
1988	0.009	0.004
1989	0.006	0.003
1990	0.090	0.041
1991	0.038	0.018
1992	0.012	0.006
1993	0.010	0.005
1994	0.005	0.002
1995	0.014	0.006
1996	0.039	0.018
1997	0.026	0.012
1998	0.014	0.006
1999	0.055	0.025
2000	0.011	0.005
2001	0.003	0.002
2002	0.020	0.009
2003	0.027	0.012
2004	0.026	0.012
2005	0.016	0.007
2006	0.016	0.007
2007	0.076	0.035
2008	0.054	0.025
2009	0.024	0.011

Ranked Annual Peaks

Ranked Annual Peaks for Predeveloped and Mitigated. POC #1

Rank	Predeveloped	Mitigated
1	0.0898	0.0412
2	0.0758	0.0348
3	0.0552	0.0253

DSD - 000927

4	0.0543	0.0249
5	0.0437	0.0201
6	0.0391	0.0180
7	0.0382	0.0175
8	0.0297	0.0136
9	0.0294	0.0135
10	0.0292	0.0134
11	0.0269	0.0124
12	0.0261	0.0120
13	0.0257	0.0118
14	0.0256	0.0118
15	0.0254	0.0117
16	0.0242	0.0111
17	0.0241	0.0111
18	0.0239	0.0110
19	0.0217	0.0100
20	0.0216	0.0099
21	0.0204	0.0094
22	0.0189	0.0087
23	0.0174	0.0080
24	0.0170	0.0078
25	0.0160	0.0073
26	0.0157	0.0072
27	0.0157	0.0072
28	0.0152	0.0070
29	0.0152	0.0070
30	0.0150	0.0069
31	0.0150	0.0069
32	0.0148	0.0068
33	0.0137	0.0063
34	0.0135	0.0062
35	0.0134	0.0061
36	0.0134	0.0061
37	0.0130	0.0060
38	0.0125	0.0057
39	0.0124	0.0057
40	0.0116	0.0053
41	0.0114	0.0052
42	0.0111	0.0051
43	0.0109	0.0050
44	0.0108	0.0050
45	0.0103	0.0047
46	0.0103	0.0047
47	0.0103	0.0047
48	0.0102	0.0047
49	0.0101	0.0046
50	0.0090	0.0041
51	0.0089	0.0041
52	0.0089	0.0041
53	0.0086	0.0039
54	0.0085	0.0039
55	0.0078	0.0036
56	0.0072	0.0033
57	0.0063	0.0029
58	0.0062	0.0028
59	0.0059	0.0027
60	0.0053	0.0024
61	0.0033	0.0015

DSD - 000928

DSD - 000929

Duration Flows

The Facility PASSED

Flow(cfs)	Predev	Mit	Percentage	Pass/Fail
0.0077	13670	1252	9	Pass
0.0082	11186	973	8	Pass
0.0088	9212	745	8	Pass
0.0094	7732	476	6	Pass
0.0100	6515	306	4	Pass
0.0106	5484	180	3	Pass
0.0112	4731	115	2	Pass
0.0118	4117	72	1	Pass
0.0124	3544	59	1	Pass
0.0130	3044	47	1	Pass
0.0136	2627	32	1	Pass
0.0142	2267	23	1	Pass
0.0148	1982	18	0	Pass
0.0154	1738	16	0	Pass
0.0160	1478	12	0	Pass
0.0166	1271	12	0	Pass
0.0172	1136	11	0	Pass
0.0178	1010	10	0	Pass
0.0184	895	9	1	Pass
0.0190	790	9	1	Pass
0.0196	680	8	1	Pass
0.0202	550	7	1	Pass
0.0208	439	7	1	Pass
0.0214	376	7	1	Pass
0.0220	293	7	2	Pass
0.0226	231	7	3	Pass
0.0232	181	7	3	Pass
0.0238	145	7	4	Pass
0.0244	118	6	5	Pass
0.0249	98	5	5	Pass
0.0255	80	3	3	Pass
0.0261	69	2	2	Pass
0.0267	63	2	3	Pass
0.0273	57	2	3	Pass
0.0279	50	2	4	Pass
0.0285	46	2	4	Pass
0.0291	38	2	5	Pass
0.0297	29	2	6	Pass
0.0303	24	2	8	Pass
0.0309	23	2	8	Pass
0.0315	22	2	9	Pass
0.0321	20	2	10	Pass
0.0327	17	2	11	Pass
0.0333	16	2	12	Pass
0.0339	16	2	12	Pass
0.0345	12	2	16	Pass
0.0351	12	1	8	Pass
0.0357	12	1	8	Pass
0.0363	12	1	8	Pass
0.0369	12	1	8	Pass
0.0375	11	1	9	Pass
0.0381	11	1	9	Pass
0.0387	10	1	10	Pass

DSD - 000930

0.0393	9	1	11	Pass
0.0399	9	1	11	Pass
0.0405	9	1	11	Pass
0.0411	9	1	11	Pass
0.0416	9	0	0	Pass
0.0422	9	0	0	Pass
0.0428	8	0	0	Pass
0.0434	8	0	0	Pass
0.0440	7	0	0	Pass
0.0446	7	0	0	Pass
0.0452	7	0	0	Pass
0.0458	7	0	0	Pass
0.0464	7	0	0	Pass
0.0470	7	0	0	Pass
0.0476	7	0	0	Pass
0.0482	7	0	0	Pass
0.0488	7	0	0	Pass
0.0494	7	0	0	Pass
0.0500	7	0	0	Pass
0.0506	7	0	0	Pass
0.0512	7	0	0	Pass
0.0518	7	0	0	Pass
0.0524	6	0	0	Pass
0.0530	6	0	0	Pass
0.0536	6	0	0	Pass
0.0542	6	0	0	Pass
0.0548	5	0	0	Pass
0.0554	3	0	0	Pass
0.0560	2	0	0	Pass
0.0566	2	0	0	Pass
0.0572	2	0	0	Pass
0.0578	2	0	0	Pass
0.0583	2	0	0	Pass
0.0589	2	0	0	Pass
0.0595	2	0	0	Pass
0.0601	2	0	0	Pass
0.0607	2	0	0	Pass
0.0613	2	0	0	Pass
0.0619	2	0	0	Pass
0.0625	2	0	0	Pass
0.0631	2	0	0	Pass
0.0637	2	0	0	Pass
0.0643	2	0	0	Pass
0.0649	2	0	0	Pass
0.0655	2	0	0	Pass
0.0661	2	0	0	Pass
0.0667	2	0	0	Pass

DSD - 000931

Water Quality

Water Quality BMP Flow and Volume for POC #1

On-line facility volume:	0 acre-feet
On-line facility target flow:	0 cfs.
Adjusted for 15 min:	0 cfs.
Off-line facility target flow:	0 cfs.
Adjusted for 15 min:	0 cfs.

DSD - 000932

LID Report

LID Technique	Used for Treatment ?	Total Volume Needs Treatment (ac-ft)	Volume Through Facility (ac-ft)	Infiltration Volume (ac-ft)	Cumulative Volume Infiltration Credit	Percent Volume Infiltrated	Water Quality	Percent Water Quality Treated	Comment
Total Volume Infiltrated		0.00	0.00	0.00		0.00	0.00	0%	No Treat. Credit
Compliance with LID Standard 8% of 2-yr to 50% of 2-yr									Duration Analysis Result = Passed

DSD - 000933

POC 2

POC #2 was not reported because POC must exist in both scenarios and both scenarios must have been run.

DSD - 000934

Model Default Modifications

Total of 0 changes have been made.

PERLND Changes

No PERLND changes have been made.

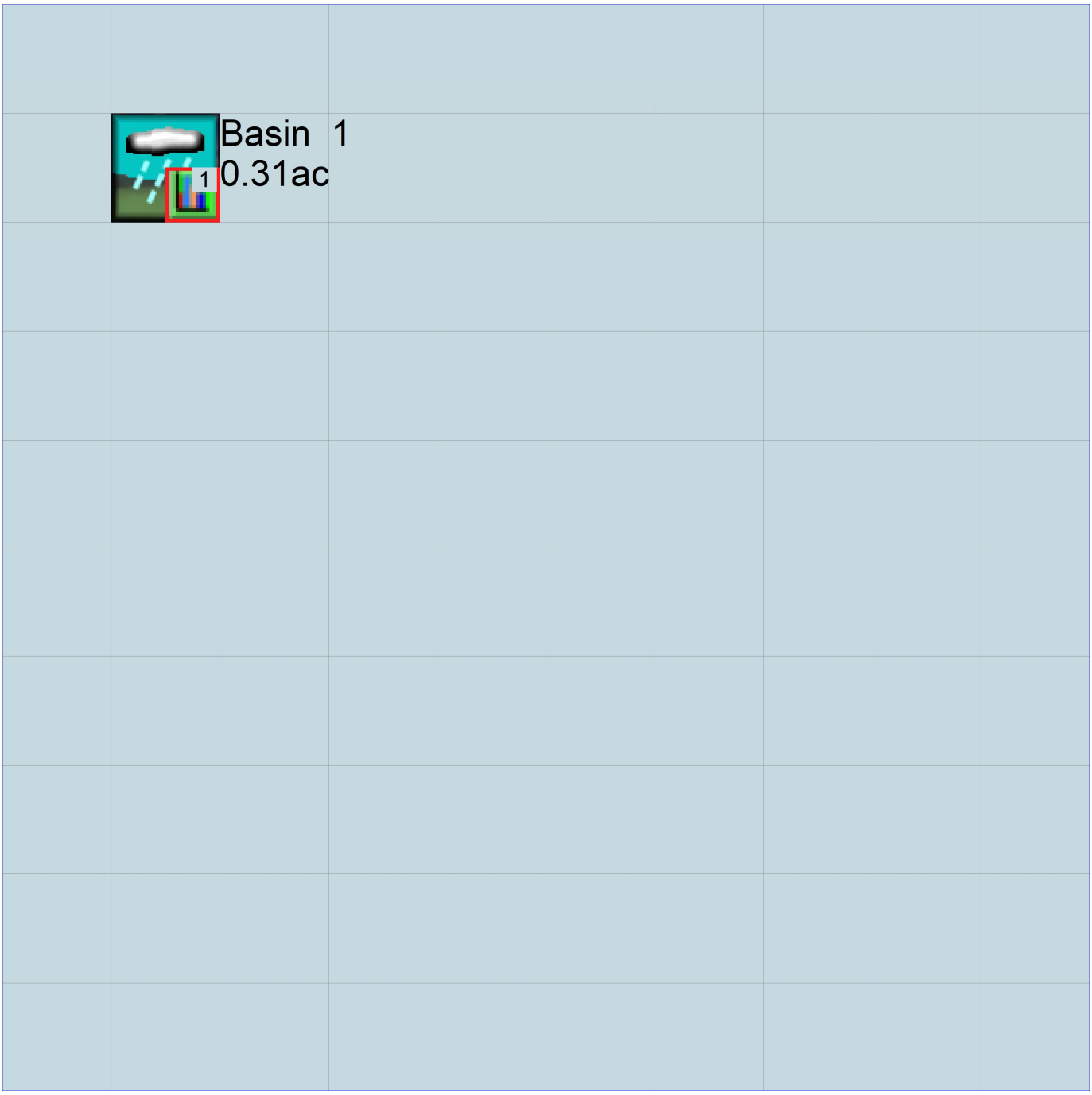
IMPLND Changes

No IMPLND changes have been made.

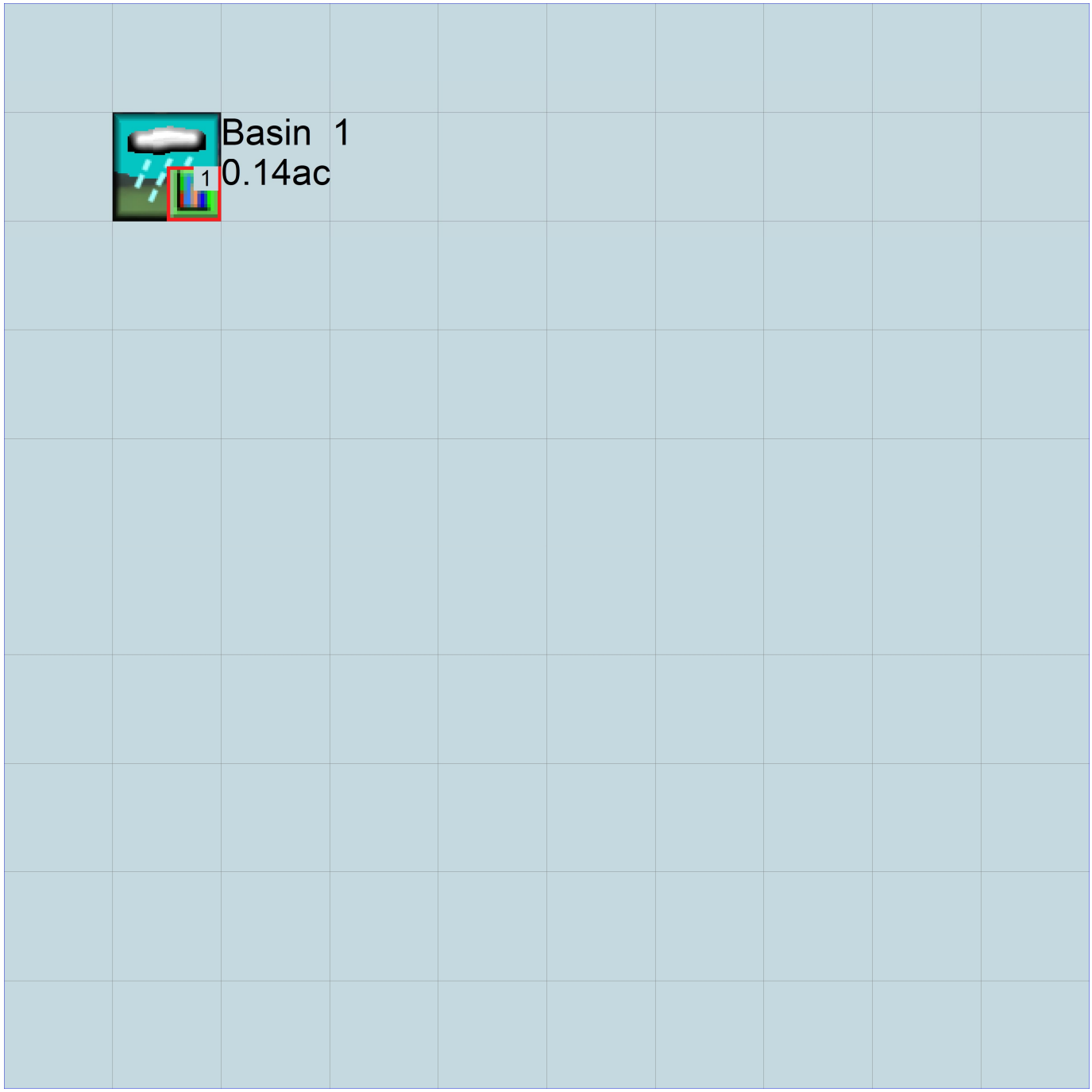
DSD - 000935

Appendix

Predeveloped Schematic



Mitigated Schematic



Predeveloped UCI File

```
RUN

GLOBAL
  WWHM4 model simulation
  START       1948 10 01         END    2009 09 30
  RUN INTERP OUTPUT LEVEL    3    0
  RESUME     0 RUN     1                    UNIT SYSTEM     1
END GLOBAL

FILES
<File>  <Un#>   <-----------File Name------------------------------>***
<-ID->                                                              ***
WDM         26   Wetland A.wdm
MESSU       25   PreWetland A.MES
            27   PreWetland A.L61
            28   PreWetland A.L62
            30   POCWetland A1.dat
END FILES

OPN SEQUENCE
    INGRP               INDELT 00:15
      PERLND      13
      COPY       501
      DISPLY       1
    END INGRP
END OPN SEQUENCE
DISPLY
  DISPLY-INFO1
    # -   #<----------Title----------->***TRAN PIVL DIG1 FIL1  PYR DIG2 FIL2 YRND
    1         Basin  1                    MAX                    1    2   30    9
  END DISPLY-INFO1
END DISPLY
COPY
  TIMESERIES
    # -   #  NPT  NMN ***
    1          1    1
  501          1    1
  END TIMESERIES
END COPY
GENER
  OPCODE
    #    # OPCD ***
  END OPCODE
  PARM
    #    #          K ***
  END PARM
END GENER
PERLND
  GEN-INFO
    <PLS ><-------Name------->NBLKS   Unit-systems   Printer ***
    # -   #                         User  t-series Engl Metr ***
                                      in  out           ***
   13     C, Pasture, Flat        1    1    1    1   27    0
  END GEN-INFO
  *** Section PWATER***

  ACTIVITY
    <PLS > ************* Active Sections ******************************
    # -   # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC ***
   13         0    0    1    0    0    0    0    0    0    0    0    0
  END ACTIVITY

  PRINT-INFO
    <PLS > ***************** Print-flags ***************************** PIVL  PYR
    # -   # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC  *********
   13         0    0    4    0    0    0    0    0    0    0    0    0    1    9
  END PRINT-INFO
```

DSD - 000938

```
  PWAT-PARM1
    <PLS >  PWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP UZFG  VCS  VUZ  VNN VIFW VIRC  VLE INFC  HWT ***
   13         0    0    0    0    0    0    0    0    0    0
  END PWAT-PARM1

  PWAT-PARM2
    <PLS >      PWATER input info: Part 2          ***
    # -  # ***FOREST      LZSN    INFILT      LSUR     SLSUR     KVARY     AGWRC
   13              0       4.5      0.06       400      0.05       0.5     0.996
  END PWAT-PARM2

  PWAT-PARM3
    <PLS >      PWATER input info: Part 3          ***
    # -  # ***PETMAX    PETMIN    INFEXP    INFILD    DEEPFR    BASETP    AGWETP
   13             0         0         2         2         0         0         0
  END PWAT-PARM3
  PWAT-PARM4
    <PLS >     PWATER input info: Part 4                                 ***
    # -  #     CEPSC      UZSN      NSUR     INTFW       IRC     LZETP ***
   13           0.15       0.4       0.3         6       0.5       0.4
  END PWAT-PARM4

  PWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
               ran from 1990 to end of 1992 (pat 1-11-95) RUN 21 ***
    # -  # ***  CEPS      SURS       UZS       IFWS       LZS       AGWS       GWVS
   13             0         0         0          0       2.5          1          0
  END PWAT-STATE1

END PERLND

IMPLND
  GEN-INFO
    <PLS ><-------Name------->   Unit-systems   Printer ***
    # -  #                     User  t-series Engl Metr ***
                                  in  out           ***
  END GEN-INFO
  *** Section IWATER***

  ACTIVITY
    <PLS > ************* Active Sections ******************************
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL   ***
  END ACTIVITY

  PRINT-INFO
    <ILS > ******** Print-flags ******** PIVL  PYR
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL    *********
  END PRINT-INFO

  IWAT-PARM1
    <PLS >  IWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP  VRS  VNN RTLI     ***
  END IWAT-PARM1

  IWAT-PARM2
    <PLS >      IWATER input info: Part 2          ***
    # -  # ***  LSUR     SLSUR      NSUR     RETSC
  END IWAT-PARM2

  IWAT-PARM3
    <PLS >      IWATER input info: Part 3          ***
    # -  # ***PETMAX    PETMIN
  END IWAT-PARM3

  IWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
    # -  # ***  RETS      SURS
  END IWAT-STATE1
```

DSD - 000939

```
END IMPLND

SCHEMATIC
<-Source->                  <--Area-->     <-Target->   MBLK    ***
<Name>   #                  <-factor->     <Name>   #   Tbl#    ***
Basin  1***
PERLND  13                       0.305     COPY   501     12
PERLND  13                       0.305     COPY   501     13

******Routing******
END SCHEMATIC

NETWORK
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
COPY   501 OUTPUT MEAN   1 1   48.4        DISPLY   1     INPUT  TIMSER 1



<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
END NETWORK

RCHRES
  GEN-INFO
    RCHRES       Name        Nexits   Unit Systems   Printer                ***
    # -  #<------------------><---> User T-series  Engl Metr LKFG           ***
                                       in  out                              ***
  END GEN-INFO
  *** Section RCHRES***

  ACTIVITY
    <PLS > ************* Active Sections ****************************
    # -  # HYFG ADFG CNFG HTFG SDFG GQFG OXFG NUFG PKFG PHFG ***
  END ACTIVITY

  PRINT-INFO
    <PLS > ***************** Print-flags ******************** PIVL  PYR
    # -  # HYDR ADCA CONS HEAT  SED  GQL OXRX NUTR PLNK PHCB PIVL  PYR  *********
  END PRINT-INFO

  HYDR-PARM1
    RCHRES  Flags for each HYDR Section                                  ***
    # -  #  VC A1 A2 A3  ODFVFG for each *** ODGTFG for each     FUNCT  for each
            FG FG FG FG  possible  exit  *** possible  exit      possible  exit
             *  *  *  *    *  *  *  *  *       *  *  *  *  *         ***
  END HYDR-PARM1

  HYDR-PARM2
    # -  #    FTABNO       LEN     DELTH     STCOR        KS      DB50       ***
  <------><--------><--------><--------><--------><--------><-------->       ***
  END HYDR-PARM2
  HYDR-INIT
    RCHRES  Initial conditions for each HYDR section                     ***
    # -  # ***   VOL     Initial  value  of COLIND     Initial  value  of OUTDGT
          *** ac-ft     for each possible exit        for each possible exit
  <------><-------->     <---><---><---><---><---> *** <---><---><---><---><--->
  END HYDR-INIT
END RCHRES

SPEC-ACTIONS
END SPEC-ACTIONS
FTABLES
END FTABLES

EXT SOURCES
<-Volume-> <Member> SsysSgap<--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   # <Name> # tem strg<-factor->strg <Name>   #   #        <Name> # #  ***
WDM      2 PREC     ENGL    1.167          PERLND   1 999 EXTNL  PREC
WDM      2 PREC     ENGL    1.167          IMPLND   1 999 EXTNL  PREC
```

DSD - 000940

```
WDM      1 EVAP     ENGL    0.76           PERLND   1 999 EXTNL  PETINP
WDM      1 EVAP     ENGL    0.76           IMPLND   1 999 EXTNL  PETINP

END EXT SOURCES

EXT TARGETS
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Volume-> <Member> Tsys Tgap Amd ***
<Name>   #        <Name> # #<-factor->strg <Name>   # <Name>    tem strg strg***
COPY   501 OUTPUT MEAN   1 1     48.4      WDM    501 FLOW     ENGL      REPL
END EXT TARGETS

MASS-LINK
<Volume>   <-Grp> <-Member-><--Mult-->     <Target>       <-Grp> <-Member->***
<Name>            <Name> # #<-factor->     <Name>                <Name> # #***
  MASS-LINK       12
PERLND     PWATER SURO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   12

  MASS-LINK       13
PERLND     PWATER IFWO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   13


END MASS-LINK

END RUN
```

Mitigated UCI File

```
RUN

GLOBAL
  WWHM4 model simulation
  START       1948 10 01         END    2009 09 30
  RUN INTERP OUTPUT LEVEL    3    0
  RESUME     0 RUN     1                    UNIT SYSTEM     1
END GLOBAL

FILES
<File>  <Un#>   <-----------File Name------------------------------>***
<-ID->                                                              ***
WDM         26   Wetland A.wdm
MESSU       25   MitWetland A.MES
            27   MitWetland A.L61
            28   MitWetland A.L62
            30   POCWetland A1.dat
END FILES

OPN SEQUENCE
    INGRP               INDELT 00:15
      PERLND      13
      COPY       501
      DISPLY       1
    END INGRP
END OPN SEQUENCE
DISPLY
  DISPLY-INFO1
    # -   #<----------Title----------->***TRAN PIVL DIG1 FIL1  PYR DIG2 FIL2 YRND
    1         Basin  1                    MAX                    1    2   30    9
  END DISPLY-INFO1
END DISPLY
COPY
  TIMESERIES
    # -   #  NPT  NMN ***
    1          1    1
  501          1    1
  END TIMESERIES
END COPY
GENER
  OPCODE
    #    # OPCD ***
  END OPCODE
  PARM
    #    #          K ***
  END PARM
END GENER
PERLND
  GEN-INFO
    <PLS ><-------Name------->NBLKS   Unit-systems   Printer ***
    # -   #                        User  t-series Engl Metr ***
                                     in  out           ***
   13     C, Pasture, Flat        1    1    1    1   27    0
  END GEN-INFO
  *** Section PWATER***

  ACTIVITY
    <PLS > ************* Active Sections ******************************
    # -   # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC ***
   13         0    0    1    0    0    0    0    0    0    0    0    0
  END ACTIVITY

  PRINT-INFO
    <PLS > ***************** Print-flags ***************************** PIVL  PYR
    # -   # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC  *********
   13         0    0    4    0    0    0    0    0    0    0    0    0    1    9
  END PRINT-INFO
```

DSD - 000942

```
  PWAT-PARM1
    <PLS >  PWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP UZFG  VCS  VUZ  VNN VIFW VIRC  VLE INFC  HWT ***
   13         0    0    0    0    0    0    0    0    0    0
  END PWAT-PARM1

  PWAT-PARM2
    <PLS >      PWATER input info: Part 2         ***
    # -  # ***FOREST      LZSN    INFILT      LSUR     SLSUR     KVARY     AGWRC
   13             0       4.5      0.06       400      0.05       0.5     0.996
  END PWAT-PARM2

  PWAT-PARM3
    <PLS >      PWATER input info: Part 3         ***
    # -  # ***PETMAX    PETMIN    INFEXP    INFILD    DEEPFR    BASETP    AGWETP
   13             0         0         2         2         0         0         0
  END PWAT-PARM3
  PWAT-PARM4
    <PLS >     PWATER input info: Part 4                              ***
    # -  #     CEPSC      UZSN      NSUR     INTFW       IRC     LZETP ***
   13         0.15       0.4       0.3         6       0.5       0.4
  END PWAT-PARM4

  PWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
               ran from 1990 to end of 1992 (pat 1-11-95) RUN 21 ***
    # -  # ***  CEPS      SURS       UZS      IFWS       LZS      AGWS       GWVS
   13             0         0         0         0       2.5         1          0
  END PWAT-STATE1

END PERLND

IMPLND
  GEN-INFO
    <PLS ><-------Name------->   Unit-systems   Printer ***
    # -  #                     User  t-series Engl Metr ***
                                  in  out           ***
  END GEN-INFO
  *** Section IWATER***

  ACTIVITY
    <PLS > ************* Active Sections ******************************
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL   ***
  END ACTIVITY

  PRINT-INFO
    <ILS > ******** Print-flags ******** PIVL  PYR
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL    *********
  END PRINT-INFO

  IWAT-PARM1
    <PLS >  IWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP  VRS  VNN RTLI     ***
  END IWAT-PARM1

  IWAT-PARM2
    <PLS >      IWATER input info: Part 2         ***
    # -  # ***  LSUR     SLSUR      NSUR     RETSC
  END IWAT-PARM2

  IWAT-PARM3
    <PLS >      IWATER input info: Part 3         ***
    # -  # ***PETMAX    PETMIN
  END IWAT-PARM3

  IWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
    # -  # ***  RETS      SURS
  END IWAT-STATE1
```

DSD - 000943

```
END IMPLND

SCHEMATIC
<-Source->                  <--Area-->     <-Target->   MBLK    ***
<Name>   #                  <-factor->     <Name>   #   Tbl#    ***
Basin  1***
PERLND  13                       0.14     COPY   501     12
PERLND  13                       0.14     COPY   501     13

******Routing******
END SCHEMATIC

NETWORK
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
COPY   501 OUTPUT MEAN   1 1   48.4        DISPLY   1     INPUT  TIMSER 1



<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
END NETWORK

RCHRES
  GEN-INFO
    RCHRES       Name        Nexits   Unit Systems   Printer                ***
    # -  #<------------------><---> User T-series  Engl Metr LKFG           ***
                                       in  out                              ***
  END GEN-INFO
  *** Section RCHRES***

  ACTIVITY
    <PLS > ************* Active Sections ****************************
    # -  # HYFG ADFG CNFG HTFG SDFG GQFG OXFG NUFG PKFG PHFG ***
  END ACTIVITY

  PRINT-INFO
    <PLS > ***************** Print-flags ******************** PIVL  PYR
    # -  # HYDR ADCA CONS HEAT  SED  GQL OXRX NUTR PLNK PHCB PIVL  PYR  *********
  END PRINT-INFO

  HYDR-PARM1
    RCHRES  Flags for each HYDR Section                                  ***
    # -  #  VC A1 A2 A3  ODFVFG for each *** ODGTFG for each     FUNCT  for each
            FG FG FG FG  possible  exit  *** possible  exit      possible  exit
             *  *  *  *    *  *  *  *  *       *  *  *  *  *         ***
  END HYDR-PARM1

  HYDR-PARM2
    # -  #    FTABNO       LEN     DELTH     STCOR        KS      DB50       ***
  <------><--------><--------><--------><--------><--------><-------->       ***
  END HYDR-PARM2
  HYDR-INIT
    RCHRES  Initial conditions for each HYDR section                     ***
    # -  # ***   VOL     Initial  value  of COLIND     Initial  value  of OUTDGT
          *** ac-ft     for each possible exit        for each possible exit
  <------><-------->     <---><---><---><---><---> *** <---><---><---><---><--->
  END HYDR-INIT
END RCHRES

SPEC-ACTIONS
END SPEC-ACTIONS
FTABLES
END FTABLES

EXT SOURCES
<-Volume-> <Member> SsysSgap<--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   # <Name> # tem strg<-factor->strg <Name>   #   #        <Name> # #  ***
WDM      2 PREC     ENGL    1.167          PERLND   1 999 EXTNL  PREC
WDM      2 PREC     ENGL    1.167          IMPLND   1 999 EXTNL  PREC
```

DSD - 000944

```
WDM      1 EVAP     ENGL    0.76           PERLND   1 999 EXTNL  PETINP
WDM      1 EVAP     ENGL    0.76           IMPLND   1 999 EXTNL  PETINP

END EXT SOURCES

EXT TARGETS
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Volume-> <Member> Tsys Tgap Amd ***
<Name>   #        <Name> # #<-factor->strg <Name>   # <Name>    tem strg strg***
COPY     1 OUTPUT MEAN   1 1     48.4      WDM    701 FLOW     ENGL       REPL
COPY   501 OUTPUT MEAN   1 1     48.4      WDM    801 FLOW     ENGL       REPL
END EXT TARGETS

MASS-LINK
<Volume>   <-Grp> <-Member-><--Mult-->     <Target>       <-Grp> <-Member->***
<Name>            <Name> # #<-factor->     <Name>                <Name> # #***
  MASS-LINK       12
PERLND     PWATER SURO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   12

  MASS-LINK       13
PERLND     PWATER IFWO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   13


END MASS-LINK

END RUN
```

DSD - 000945

Predeveloped HSPF Message File

DSD - 000946

Mitigated HSPF Message File

Disclaimer

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DSD - 000948

WWHM2012

PROJECT REPORT

DSD - 000949

General Model Information

Project Name:	Wetland B
Site Name:	7219 Lakemont Blvd SE
Site Address:	7219 Lakemont Blvd SE
City:	Bellevue
Report Date:	9/1/2022
Gage:	Seatac
Data Start:	1948/10/01
Data End:	2009/09/30
Timestep:	15 Minute
Precip Scale:	1.167
Version Date:	2021/08/18
Version:	4.2.18

POC Thresholds

Low Flow Threshold for POC1:	50 Percent of the 2 Year
High Flow Threshold for POC1:	50 Year

DSD - 000950

Landuse Basin Data

Predeveloped Land Use

Basin 1

Bypass:	No
GroundWater:	No

Pervious Land Use	acre
C, Pasture, Flat	2.4
Pervious Total	2.4

Impervious Land Use	acre
ROADS FLAT	0.383
Impervious Total	0.383
Basin Total	2.783

Element Flows To:

Surface	Interflow	Groundwater

DSD - 000951

Mitigated Land Use

Basin 1

Bypass:	No
GroundWater:	No
Pervious Land Use	acre
C, Pasture, Flat	0.152
Pervious Total	0.152
Impervious Land Use	acre
Impervious Total	0
Basin Total	0.152

Element Flows To:

Surface	Interflow	Groundwater

DSD - 000952

Routing Elements

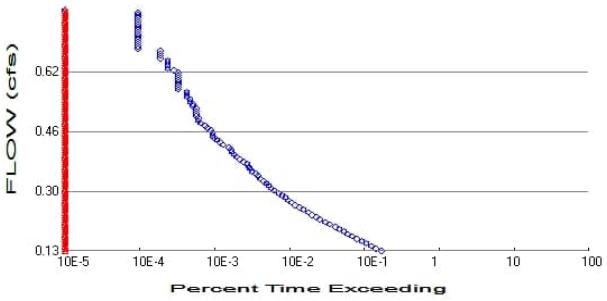
Predeveloped Routing

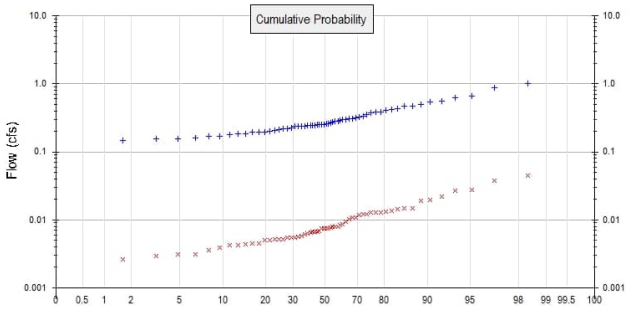
DSD - 000953

Mitigated Routing

Analysis Results

POC 1





\+ Predeveloped x Mitigated

Predeveloped Landuse Totals for POC #1
Total Pervious Area: 2.4
Total Impervious Area: 0.383

Mitigated Landuse Totals for POC #1
Total Pervious Area: 0.152
Total Impervious Area: 0

Flow Frequency Method: Log Pearson Type III 17B

Flow Frequency Return Periods for Predeveloped. POC #1

Return Period	Flow(cfs)
2 year	0.269069
5 year	0.396862
10 year	0.498837
25 year	0.64949
50 year	0.778919
100 year	0.924292

Flow Frequency Return Periods for Mitigated. POC #1

Return Period	Flow(cfs)
2 year	0.007628
5 year	0.013473
10 year	0.018482
25 year	0.026271
50 year	0.033239
100 year	0.041297

Annual Peaks

Annual Peaks for Predeveloped and Mitigated. POC #1

Year	Predeveloped	Mitigated
1949	0.426	0.013
1950	0.403	0.015
1951	0.294	0.013
1952	0.180	0.004
1953	0.155	0.004
1954	0.216	0.006
1955	0.242	0.008
1956	0.238	0.009
1957	0.297	0.008
1958	0.193	0.006

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1959	0.169	0.005
1960	0.336	0.012
1961	0.239	0.006
1962	0.161	0.004
1963	0.235	0.005
1964	0.222	0.007
1965	0.299	0.007
1966	0.186	0.004
1967	0.419	0.015
1968	0.286	0.007
1969	0.255	0.006
1970	0.252	0.006
1971	0.282	0.008
1972	0.388	0.012
1973	0.171	0.005
1974	0.275	0.008
1975	0.327	0.009
1976	0.243	0.007
1977	0.194	0.004
1978	0.237	0.005
1979	0.252	0.003
1980	0.565	0.022
1981	0.260	0.005
1982	0.472	0.015
1983	0.244	0.007
1984	0.182	0.004
1985	0.209	0.003
1986	0.304	0.011
1987	0.305	0.011
1988	0.147	0.004
1989	0.199	0.003
1990	1.013	0.045
1991	0.548	0.019
1992	0.215	0.006
1993	0.153	0.005
1994	0.128	0.003
1995	0.219	0.007
1996	0.465	0.020
1997	0.317	0.013
1998	0.245	0.007
1999	0.652	0.028
2000	0.256	0.005
2001	0.193	0.002
2002	0.377	0.010
2003	0.389	0.013
2004	0.495	0.013
2005	0.270	0.008
2006	0.253	0.008
2007	0.869	0.038
2008	0.619	0.027
2009	0.356	0.012

Ranked Annual Peaks

Ranked Annual Peaks for Predeveloped and Mitigated. POC #1

Rank	Predeveloped	Mitigated
1	1.0130	0.0448
2	0.8693	0.0378
3	0.6521	0.0275

DSD - 000956

4	0.6190	0.0271
5	0.5650	0.0218
6	0.5481	0.0195
7	0.4955	0.0190
8	0.4721	0.0148
9	0.4648	0.0146
10	0.4260	0.0145
11	0.4191	0.0134
12	0.4032	0.0130
13	0.3886	0.0128
14	0.3878	0.0128
15	0.3769	0.0127
16	0.3561	0.0121
17	0.3357	0.0120
18	0.3266	0.0119
19	0.3170	0.0108
20	0.3053	0.0108
21	0.3042	0.0102
22	0.2991	0.0094
23	0.2967	0.0087
24	0.2937	0.0084
25	0.2859	0.0080
26	0.2819	0.0078
27	0.2746	0.0078
28	0.2700	0.0076
29	0.2600	0.0076
30	0.2562	0.0075
31	0.2548	0.0075
32	0.2534	0.0074
33	0.2520	0.0068
34	0.2518	0.0067
35	0.2453	0.0067
36	0.2443	0.0067
37	0.2432	0.0065
38	0.2425	0.0062
39	0.2390	0.0062
40	0.2381	0.0058
41	0.2367	0.0057
42	0.2352	0.0055
43	0.2222	0.0054
44	0.2188	0.0054
45	0.2160	0.0052
46	0.2149	0.0051
47	0.2090	0.0051
48	0.1990	0.0051
49	0.1936	0.0050
50	0.1934	0.0045
51	0.1933	0.0045
52	0.1856	0.0044
53	0.1818	0.0043
54	0.1801	0.0043
55	0.1711	0.0039
56	0.1692	0.0036
57	0.1606	0.0031
58	0.1549	0.0031
59	0.1534	0.0029
60	0.1472	0.0026
61	0.1277	0.0017

DSD - 000957

Duration Flows

The Facility PASSED

Flow(cfs)	Predev	Mit	Percentage	Pass/Fail
0.1345	3630	0	0	Pass
0.1410	3065	0	0	Pass
0.1476	2644	0	0	Pass
0.1541	2265	0	0	Pass
0.1606	1982	0	0	Pass
0.1671	1694	0	0	Pass
0.1736	1487	0	0	Pass
0.1801	1275	0	0	Pass
0.1866	1133	0	0	Pass
0.1931	993	0	0	Pass
0.1996	880	0	0	Pass
0.2061	745	0	0	Pass
0.2126	644	0	0	Pass
0.2192	542	0	0	Pass
0.2257	490	0	0	Pass
0.2322	426	0	0	Pass
0.2387	380	0	0	Pass
0.2452	327	0	0	Pass
0.2517	293	0	0	Pass
0.2582	253	0	0	Pass
0.2647	230	0	0	Pass
0.2712	205	0	0	Pass
0.2777	188	0	0	Pass
0.2842	169	0	0	Pass
0.2907	154	0	0	Pass
0.2973	134	0	0	Pass
0.3038	123	0	0	Pass
0.3103	112	0	0	Pass
0.3168	105	0	0	Pass
0.3233	96	0	0	Pass
0.3298	87	0	0	Pass
0.3363	80	0	0	Pass
0.3428	75	0	0	Pass
0.3493	67	0	0	Pass
0.3558	64	0	0	Pass
0.3623	62	0	0	Pass
0.3689	58	0	0	Pass
0.3754	52	0	0	Pass
0.3819	47	0	0	Pass
0.3884	42	0	0	Pass
0.3949	39	0	0	Pass
0.4014	36	0	0	Pass
0.4079	35	0	0	Pass
0.4144	33	0	0	Pass
0.4209	28	0	0	Pass
0.4274	25	0	0	Pass
0.4339	23	0	0	Pass
0.4405	21	0	0	Pass
0.4470	20	0	0	Pass
0.4535	20	0	0	Pass
0.4600	19	0	0	Pass
0.4665	17	0	0	Pass
0.4730	16	0	0	Pass

DSD - 000959

0.4795	14	0	0	Pass
0.4860	13	0	0	Pass
0.4925	13	0	0	Pass
0.4990	12	0	0	Pass
0.5055	12	0	0	Pass
0.5121	12	0	0	Pass
0.5186	12	0	0	Pass
0.5251	11	0	0	Pass
0.5316	11	0	0	Pass
0.5381	10	0	0	Pass
0.5446	10	0	0	Pass
0.5511	9	0	0	Pass
0.5576	9	0	0	Pass
0.5641	9	0	0	Pass
0.5706	7	0	0	Pass
0.5771	7	0	0	Pass
0.5837	7	0	0	Pass
0.5902	7	0	0	Pass
0.5967	7	0	0	Pass
0.6032	7	0	0	Pass
0.6097	7	0	0	Pass
0.6162	7	0	0	Pass
0.6227	6	0	0	Pass
0.6292	5	0	0	Pass
0.6357	5	0	0	Pass
0.6422	5	0	0	Pass
0.6487	5	0	0	Pass
0.6552	4	0	0	Pass
0.6618	4	0	0	Pass
0.6683	4	0	0	Pass
0.6748	4	0	0	Pass
0.6813	2	0	0	Pass
0.6878	2	0	0	Pass
0.6943	2	0	0	Pass
0.7008	2	0	0	Pass
0.7073	2	0	0	Pass
0.7138	2	0	0	Pass
0.7203	2	0	0	Pass
0.7268	2	0	0	Pass
0.7334	2	0	0	Pass
0.7399	2	0	0	Pass
0.7464	2	0	0	Pass
0.7529	2	0	0	Pass
0.7594	2	0	0	Pass
0.7659	2	0	0	Pass
0.7724	2	0	0	Pass
0.7789	2	0	0	Pass

DSD - 000960

Water Quality

Water Quality BMP Flow and Volume for POC #1

On-line facility volume:	0 acre-feet
On-line facility target flow:	0 cfs.
Adjusted for 15 min:	0 cfs.
Off-line facility target flow:	0 cfs.
Adjusted for 15 min:	0 cfs.

DSD - 000961

LID Report

LID Technique	Used for Treatment ?	Total Volume Needs Treatment (ac-ft)	Volume Through Facility (ac-ft)	Infiltration Volume (ac-ft)	Cumulative Volume Infiltration Credit	Percent Volume Infiltrated	Water Quality	Percent Water Quality Treated	Comment
Total Volume Infiltrated		0.00	0.00	0.00		0.00	0.00	0%	No Treat. Credit
Compliance with LID Standard 8% of 2-yr to 50% of 2-yr									Duration Analysis Result = Passed

DSD - 000962

POC 2

POC #2 was not reported because POC must exist in both scenarios and both scenarios must have been run.

DSD - 000963

Model Default Modifications

Total of 0 changes have been made.

PERLND Changes

No PERLND changes have been made.

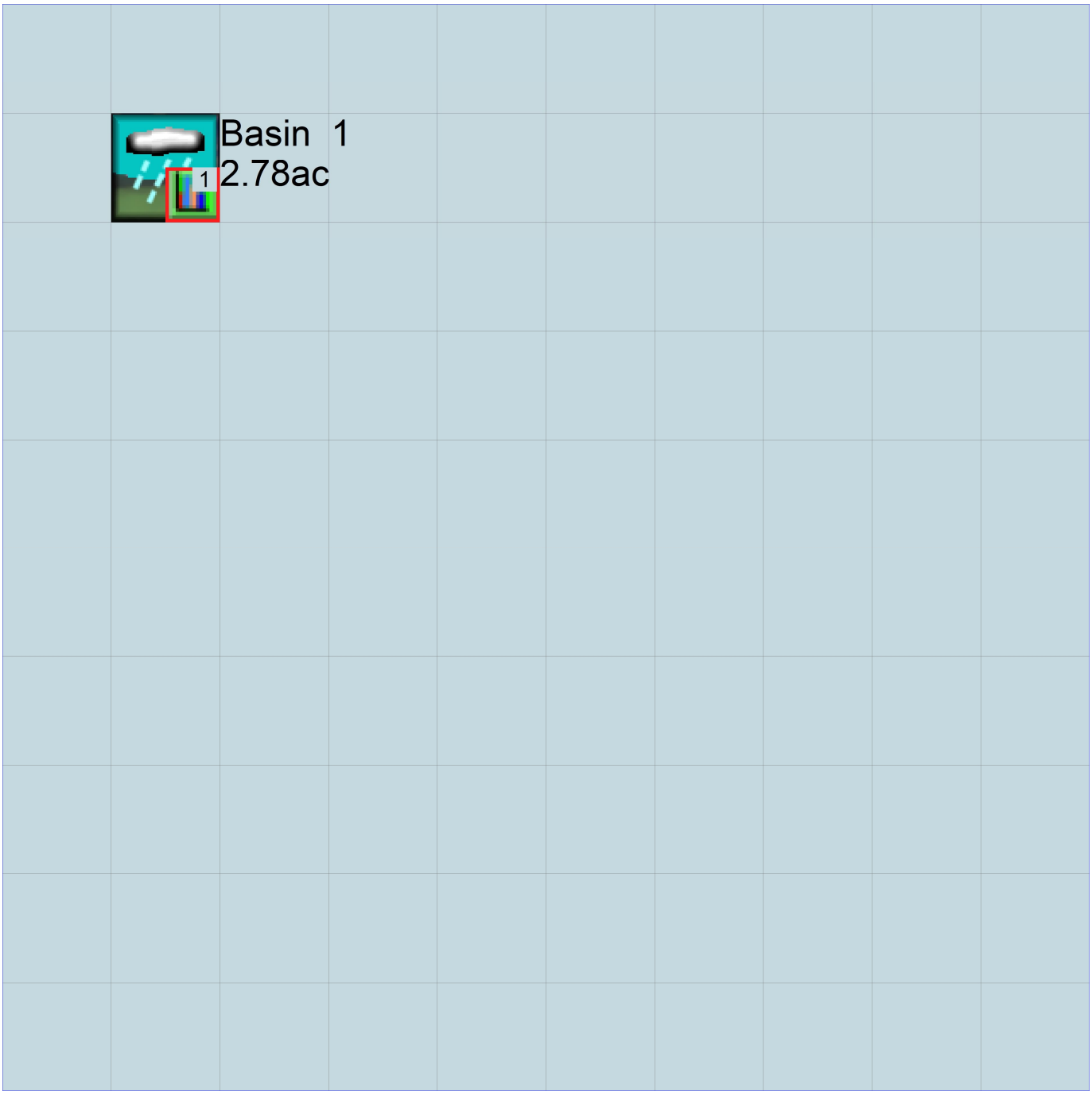
IMPLND Changes

No IMPLND changes have been made.

DSD - 000964

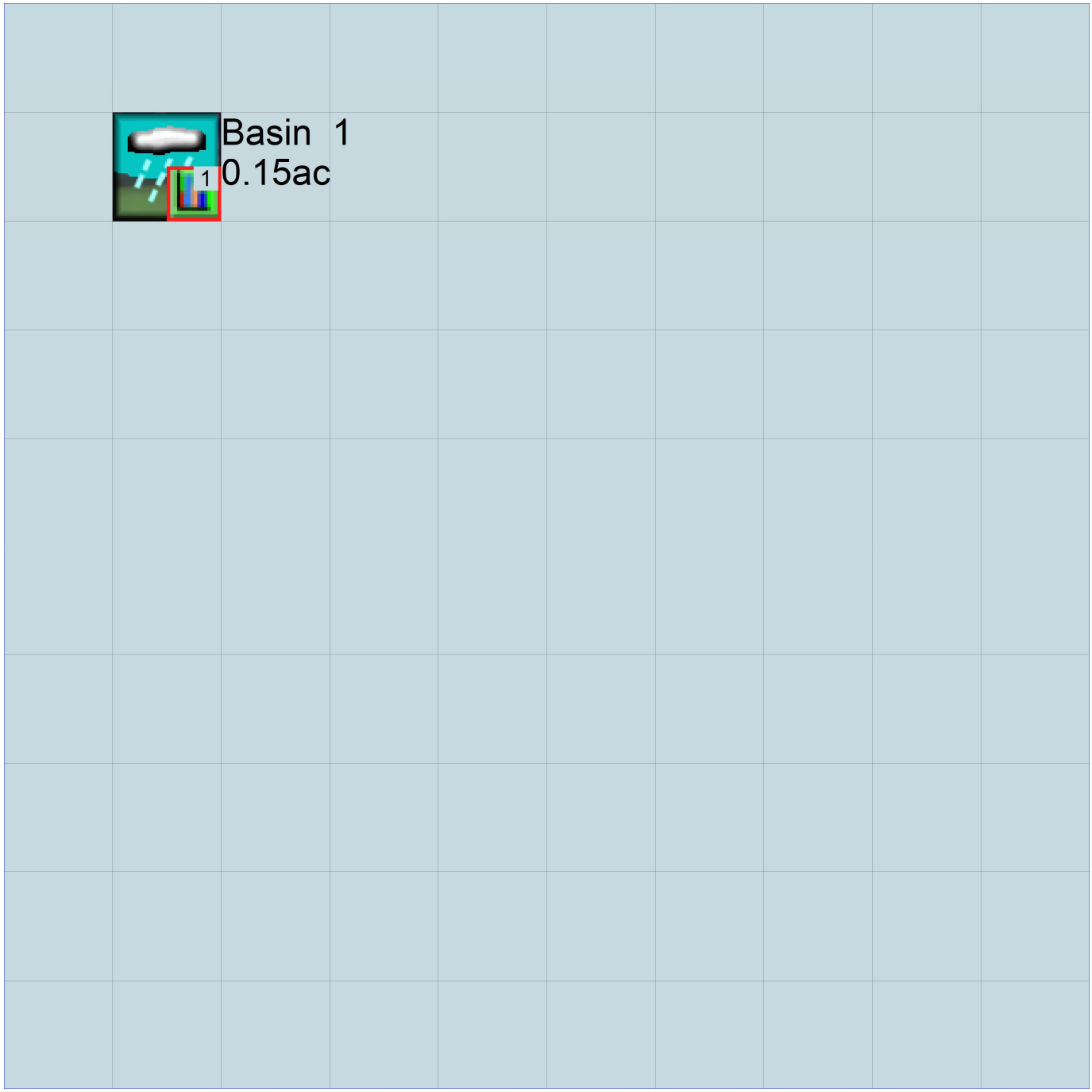
Appendix

Predeveloped Schematic



DSD - 000965

Mitigated Schematic



Predeveloped UCI File

```
RUN

GLOBAL
  WWHM4 model simulation
  START       1948 10 01         END    2009 09 30
  RUN INTERP OUTPUT LEVEL    3    0
  RESUME     0 RUN     1                    UNIT SYSTEM     1
END GLOBAL

FILES
<File>  <Un#>   <-----------File Name------------------------------>***
<-ID->                                                              ***
WDM         26   Wetland B.wdm
MESSU       25   PreWetland B.MES
            27   PreWetland B.L61
            28   PreWetland B.L62
            30   POCWetland B1.dat
END FILES

OPN SEQUENCE
    INGRP               INDELT 00:15
      PERLND      13
      IMPLND       1
      COPY       501
      DISPLY       1
    END INGRP
END OPN SEQUENCE
DISPLY
  DISPLY-INFO1
    # -  #<----------Title----------->***TRAN PIVL DIG1 FIL1  PYR DIG2 FIL2 YRND
    1        Basin  1                   MAX                    1    2   30    9
  END DISPLY-INFO1
END DISPLY
COPY
  TIMESERIES
    # -  #  NPT  NMN ***
    1         1    1
  501         1    1
  END TIMESERIES
END COPY
GENER
  OPCODE
    #    # OPCD ***
  END OPCODE
  PARM
    #    #         K ***
  END PARM
END GENER
PERLND
  GEN-INFO
    <PLS ><-------Name------->NBLKS   Unit-systems   Printer ***
    # -  #                          User  t-series Engl Metr ***
                                       in  out           ***
   13     C, Pasture, Flat        1    1    1    1   27    0
  END GEN-INFO
  *** Section PWATER***

  ACTIVITY
    <PLS > ************* Active Sections ******************************
    # -  # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC ***
   13         0    0    1    0    0    0    0    0    0    0    0    0
  END ACTIVITY

  PRINT-INFO
    <PLS > ***************** Print-flags ***************************** PIVL  PYR
    # -  # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC  *********
   13         0    0    4    0    0    0    0    0    0    0    0    0    1    9
  END PRINT-INFO
```

DSD - 000967

```
  PWAT-PARM1
    <PLS >  PWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP UZFG  VCS  VUZ  VNN VIFW VIRC  VLE INFC  HWT ***
   13         0    0    0    0    0    0    0    0    0    0
  END PWAT-PARM1

  PWAT-PARM2
    <PLS >      PWATER input info: Part 2         ***
    # -  # ***FOREST      LZSN    INFILT      LSUR     SLSUR      KVARY      AGWRC
   13             0       4.5      0.06       400      0.05        0.5      0.996
  END PWAT-PARM2

  PWAT-PARM3
    <PLS >      PWATER input info: Part 3         ***
    # -  # ***PETMAX    PETMIN    INFEXP    INFILD    DEEPFR    BASETP    AGWETP
   13             0         0         2         2         0         0         0
  END PWAT-PARM3
  PWAT-PARM4
    <PLS >     PWATER input info: Part 4                              ***
    # -  #     CEPSC      UZSN      NSUR     INTFW       IRC     LZETP ***
   13          0.15       0.4       0.3         6       0.5       0.4
  END PWAT-PARM4

  PWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
               ran from 1990 to end of 1992 (pat 1-11-95) RUN 21 ***
    # -  # ***  CEPS      SURS       UZS       IFWS       LZS       AGWS       GWVS
   13             0         0         0          0       2.5          1          0
  END PWAT-STATE1

END PERLND

IMPLND
  GEN-INFO
    <PLS ><-------Name------->   Unit-systems   Printer ***
    # -  #                     User  t-series Engl Metr ***
                                  in  out           ***
    1      ROADS/FLAT             1    1    1   27    0
  END GEN-INFO
  *** Section IWATER***

  ACTIVITY
    <PLS > ************* Active Sections ******************************
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL   ***
    1         0    0    1    0    0    0
  END ACTIVITY

  PRINT-INFO
    <ILS > ******** Print-flags ******** PIVL  PYR
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL    *********
    1         0    0    4    0    0    0    1    9
  END PRINT-INFO

  IWAT-PARM1
    <PLS >  IWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP  VRS  VNN RTLI     ***
    1         0    0    0    0    0
  END IWAT-PARM1

  IWAT-PARM2
    <PLS >      IWATER input info: Part 2         ***
    # -  # ***  LSUR     SLSUR      NSUR     RETSC
    1          400      0.01       0.1       0.1
  END IWAT-PARM2

  IWAT-PARM3
    <PLS >      IWATER input info: Part 3         ***
    # -  # ***PETMAX    PETMIN
    1             0         0
```

DSD - 000968

```
  END IWAT-PARM3

  IWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
    # -  # ***  RETS      SURS
    1             0         0
  END IWAT-STATE1

END IMPLND

SCHEMATIC
<-Source->                  <--Area-->     <-Target->   MBLK   ***
<Name>   #                  <-factor->     <Name>   #   Tbl#   ***
Basin  1***
PERLND  13                        2.4     COPY   501     12
PERLND  13                        2.4     COPY   501     13
IMPLND   1                      0.383     COPY   501     15

******Routing******
END SCHEMATIC

NETWORK
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
COPY   501 OUTPUT MEAN   1 1   48.4        DISPLY   1     INPUT  TIMSER 1



<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
END NETWORK

RCHRES
  GEN-INFO
    RCHRES       Name        Nexits   Unit Systems   Printer                ***
    # -  #<------------------><---> User T-series  Engl Metr LKFG           ***
                                       in  out                              ***
  END GEN-INFO
  *** Section RCHRES***

  ACTIVITY
    <PLS > ************* Active Sections ****************************
    # -  # HYFG ADFG CNFG HTFG SDFG GQFG OXFG NUFG PKFG PHFG ***
  END ACTIVITY

  PRINT-INFO
    <PLS > ****************** Print-flags ******************* PIVL  PYR
    # -  # HYDR ADCA CONS HEAT  SED  GQL OXRX NUTR PLNK PHCB PIVL  PYR  *********
  END PRINT-INFO

  HYDR-PARM1
    RCHRES  Flags for each HYDR Section                                  ***
    # -  #  VC A1 A2 A3  ODFVFG for each *** ODGTFG for each     FUNCT  for each
            FG FG FG FG  possible  exit  *** possible  exit      possible  exit
             *  *  *  *    *  *  *  *  *       *  *  *  *  *        ***
  END HYDR-PARM1

  HYDR-PARM2
    # -  #    FTABNO       LEN      DELTH     STCOR        KS      DB50       ***
  <------><--------><--------><--------><--------><--------><--------->       ***
  END HYDR-PARM2
  HYDR-INIT
    RCHRES  Initial conditions for each HYDR section                     ***
    # -  # ***   VOL     Initial  value  of COLIND     Initial  value  of OUTDGT
          *** ac-ft     for each possible exit        for each possible exit
  <------><-------->     <---><---><---><---><---> *** <---><---><---><---><--->
  END HYDR-INIT
END RCHRES

SPEC-ACTIONS
```

DSD - 000969

```
END SPEC-ACTIONS
FTABLES
END FTABLES

EXT SOURCES
<-Volume-> <Member> SsysSgap<--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   # <Name> # tem strg<-factor->strg <Name>   #   #        <Name> # #  ***
WDM      2 PREC     ENGL    1.167          PERLND   1 999 EXTNL  PREC
WDM      2 PREC     ENGL    1.167          IMPLND   1 999 EXTNL  PREC
WDM      1 EVAP     ENGL    0.76           PERLND   1 999 EXTNL  PETINP
WDM      1 EVAP     ENGL    0.76           IMPLND   1 999 EXTNL  PETINP

END EXT SOURCES

EXT TARGETS
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Volume-> <Member> Tsys Tgap Amd ***
<Name>   #        <Name> # #<-factor->strg <Name>   # <Name>    tem strg strg***
COPY   501 OUTPUT MEAN   1 1     48.4      WDM    501 FLOW     ENGL      REPL
END EXT TARGETS

MASS-LINK
<Volume>   <-Grp> <-Member-><--Mult-->     <Target>       <-Grp> <-Member->***
<Name>            <Name> # #<-factor->     <Name>                <Name> # #***
  MASS-LINK       12
PERLND     PWATER SURO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   12

  MASS-LINK       13
PERLND     PWATER IFWO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   13

  MASS-LINK       15
IMPLND     IWATER SURO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   15


END MASS-LINK

END RUN
```

Mitigated UCI File

```
RUN

GLOBAL
  WWHM4 model simulation
  START       1948 10 01         END    2009 09 30
  RUN INTERP OUTPUT LEVEL    3    0
  RESUME     0 RUN     1                    UNIT SYSTEM     1
END GLOBAL

FILES
<File>  <Un#>   <-----------File Name------------------------------>***
<-ID->                                                              ***
WDM         26   Wetland B.wdm
MESSU       25   MitWetland B.MES
            27   MitWetland B.L61
            28   MitWetland B.L62
            30   POCWetland B1.dat
END FILES

OPN SEQUENCE
    INGRP               INDELT 00:15
      PERLND      13
      COPY       501
      DISPLY       1
    END INGRP
END OPN SEQUENCE
DISPLY
  DISPLY-INFO1
    # -   #<----------Title----------->***TRAN PIVL DIG1 FIL1  PYR DIG2 FIL2 YRND
    1         Basin  1                    MAX                    1    2   30    9
  END DISPLY-INFO1
END DISPLY
COPY
  TIMESERIES
    # -   #  NPT  NMN ***
    1          1    1
  501          1    1
  END TIMESERIES
END COPY
GENER
  OPCODE
    #    # OPCD ***
  END OPCODE
  PARM
    #    #          K ***
  END PARM
END GENER
PERLND
  GEN-INFO
    <PLS ><-------Name------->NBLKS   Unit-systems   Printer ***
    # -   #                        User  t-series Engl Metr ***
                                     in  out           ***
   13     C, Pasture, Flat        1    1    1    1   27    0
  END GEN-INFO
  *** Section PWATER***

  ACTIVITY
    <PLS > ************* Active Sections ******************************
    # -   # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC ***
   13         0    0    1    0    0    0    0    0    0    0    0    0
  END ACTIVITY

  PRINT-INFO
    <PLS > ***************** Print-flags ***************************** PIVL  PYR
    # -   # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC  *********
   13         0    0    4    0    0    0    0    0    0    0    0    0    1    9
  END PRINT-INFO
```

DSD - 000971

```
  PWAT-PARM1
    <PLS >  PWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP UZFG  VCS  VUZ  VNN VIFW VIRC  VLE INFC  HWT ***
   13         0    0    0    0    0    0    0    0    0    0
  END PWAT-PARM1

  PWAT-PARM2
    <PLS >      PWATER input info: Part 2          ***
    # -  # ***FOREST      LZSN    INFILT      LSUR     SLSUR     KVARY     AGWRC
   13              0       4.5      0.06       400      0.05       0.5     0.996
  END PWAT-PARM2

  PWAT-PARM3
    <PLS >      PWATER input info: Part 3          ***
    # -  # ***PETMAX    PETMIN    INFEXP    INFILD    DEEPFR    BASETP    AGWETP
   13             0         0         2         2         0         0         0
  END PWAT-PARM3
  PWAT-PARM4
    <PLS >     PWATER input info: Part 4                                 ***
    # -  #     CEPSC      UZSN      NSUR     INTFW       IRC     LZETP ***
   13           0.15       0.4       0.3         6       0.5       0.4
  END PWAT-PARM4

  PWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
               ran from 1990 to end of 1992 (pat 1-11-95) RUN 21 ***
    # -  # ***  CEPS      SURS       UZS       IFWS       LZS       AGWS       GWVS
   13             0         0         0          0       2.5          1          0
  END PWAT-STATE1

END PERLND

IMPLND
  GEN-INFO
    <PLS ><-------Name------->   Unit-systems   Printer ***
    # -  #                     User  t-series Engl Metr ***
                                    in  out           ***
  END GEN-INFO
  *** Section IWATER***

  ACTIVITY
    <PLS > ************* Active Sections ******************************
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL   ***
  END ACTIVITY

  PRINT-INFO
    <ILS > ******** Print-flags ******** PIVL  PYR
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL    *********
  END PRINT-INFO

  IWAT-PARM1
    <PLS >  IWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP  VRS  VNN RTLI     ***
  END IWAT-PARM1

  IWAT-PARM2
    <PLS >      IWATER input info: Part 2          ***
    # -  # ***  LSUR     SLSUR      NSUR     RETSC
  END IWAT-PARM2

  IWAT-PARM3
    <PLS >      IWATER input info: Part 3          ***
    # -  # ***PETMAX    PETMIN
  END IWAT-PARM3

  IWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
    # -  # ***  RETS      SURS
  END IWAT-STATE1
```

DSD - 000972

```
END IMPLND

SCHEMATIC
<-Source->                  <--Area-->     <-Target->   MBLK    ***
<Name>   #                  <-factor->     <Name>   #   Tbl#    ***
Basin  1***
PERLND  13                       0.152     COPY   501     12
PERLND  13                       0.152     COPY   501     13

******Routing******
END SCHEMATIC

NETWORK
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
COPY   501 OUTPUT MEAN   1 1   48.4        DISPLY   1     INPUT  TIMSER 1



<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
END NETWORK

RCHRES
  GEN-INFO
    RCHRES       Name        Nexits   Unit Systems   Printer                ***
    # -  #<------------------><---> User T-series  Engl Metr LKFG           ***
                                       in  out                              ***
  END GEN-INFO
  *** Section RCHRES***

  ACTIVITY
    <PLS > ************* Active Sections ****************************
    # -  # HYFG ADFG CNFG HTFG SDFG GQFG OXFG NUFG PKFG PHFG ***
  END ACTIVITY

  PRINT-INFO
    <PLS > ***************** Print-flags ******************** PIVL  PYR
    # -  # HYDR ADCA CONS HEAT  SED  GQL OXRX NUTR PLNK PHCB PIVL  PYR  *********
  END PRINT-INFO

  HYDR-PARM1
    RCHRES  Flags for each HYDR Section                                  ***
    # -  #  VC A1 A2 A3  ODFVFG for each *** ODGTFG for each     FUNCT  for each
            FG FG FG FG  possible  exit  *** possible  exit      possible  exit
             *  *  *  *    *  *  *  *  *       *  *  *  *  *         ***
  END HYDR-PARM1

  HYDR-PARM2
    # -  #    FTABNO       LEN     DELTH     STCOR        KS      DB50       ***
  <------><--------><--------><--------><--------><--------><-------->       ***
  END HYDR-PARM2
  HYDR-INIT
    RCHRES  Initial conditions for each HYDR section                     ***
    # -  # ***   VOL     Initial  value  of COLIND     Initial  value  of OUTDGT
          *** ac-ft     for each possible exit        for each possible exit
  <------><-------->     <---><---><---><---><---> *** <---><---><---><---><--->
  END HYDR-INIT
END RCHRES

SPEC-ACTIONS
END SPEC-ACTIONS
FTABLES
END FTABLES

EXT SOURCES
<-Volume-> <Member> SsysSgap<--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   # <Name> # tem strg<-factor->strg <Name>   #   #        <Name> # #  ***
WDM      2 PREC     ENGL    1.167          PERLND   1 999 EXTNL  PREC
WDM      2 PREC     ENGL    1.167          IMPLND   1 999 EXTNL  PREC
```

DSD - 000973

```
WDM      1 EVAP     ENGL    0.76           PERLND   1 999 EXTNL  PETINP
WDM      1 EVAP     ENGL    0.76           IMPLND   1 999 EXTNL  PETINP

END EXT SOURCES

EXT TARGETS
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Volume-> <Member> Tsys Tgap Amd ***
<Name>   #        <Name> # #<-factor->strg <Name>   # <Name>    tem strg strg***
COPY     1 OUTPUT MEAN   1 1     48.4      WDM    701 FLOW     ENGL       REPL
COPY   501 OUTPUT MEAN   1 1     48.4      WDM    801 FLOW     ENGL       REPL
END EXT TARGETS

MASS-LINK
<Volume>   <-Grp> <-Member-><--Mult-->     <Target>       <-Grp> <-Member->***
<Name>            <Name> # #<-factor->     <Name>                <Name> # #***
  MASS-LINK       12
PERLND     PWATER SURO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   12

  MASS-LINK       13
PERLND     PWATER IFWO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   13


END MASS-LINK

END RUN
```

DSD - 000974

Predeveloped HSPF Message File

DSD - 000975

Mitigated HSPF Message File

Disclaimer

Legal Notice

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Local (360)943-0304

www.clearcreeksolutions.com

DSD - 000977

SECTION 3: OFFSITE ANALYSIS

Downstream Resource Review:
The following resources were reviewed in preparation of this report.

- Site Survey
- *FEMA – Flood Insurance Rate Map (FIRM #53033C0667 F)*
- FEMA Flood Insurance Rate (FIRM) Map 53033C0667 F, dated May 16, 1995, was reviewed. The project site is located within Zone X, with no flood areas identified on the site. See FIRM map included at the end of this section.
- *Geotechnical Report* by Geotech Consultants, Inc. January 19, 2016
- *Coal Mine Hazard Assessment and Ground Proofing Program* by Icicle Creek Engineers, Inc. August 2, 2016.

Downstream Investigation:

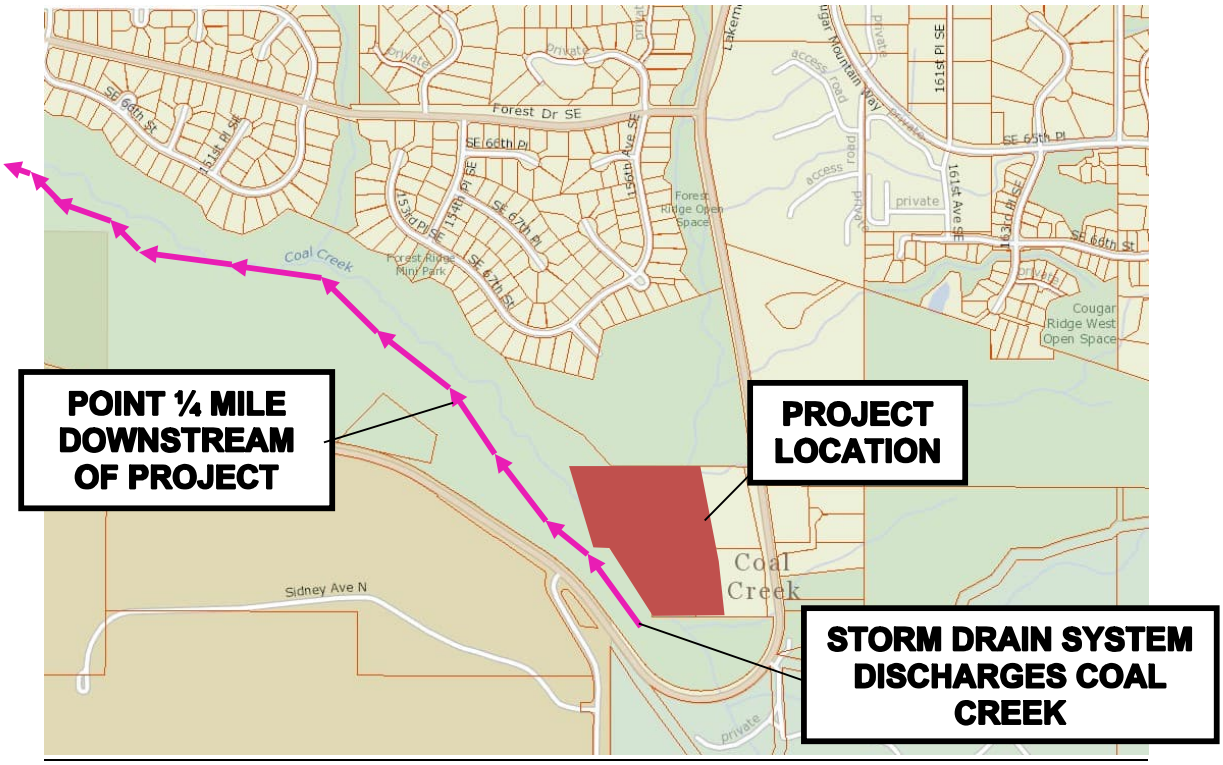

Figure 3-1: Downstream Map

The site lies within the Coal Creek Drainage Basin, and proposes to route stormwater to a vault on-site before controlled discharge to Coal Creek. Coal Creek discharges into Lake Washington approximate 4.25 miles downstream of the site.

Field Inspection:
The field investigation was conducted on September 26, 2016. The weather was mostly sunny with a temperature of 68 degrees under dry conditions. The existing site generally slopes from the northeast to the southwest. Storm drainage sheet flows southwesterly

DSD - 000978

through grass and forested land before entering Coal Creek and flowing northwest towards Lake Washington.

The proposed site development will not produce backwater effects upstream of the site and therefore the upstream area has been excluded from this analysis.

The existing site was not observed to have a piped conveyance system. Storm runoff generated from the site appears to sheet flow towards the nearby stream. Runoff is collected along the side of the trail and flows through piped culverts that discharge into the stream. No signs of erosion were observed on-site or between the site and the stream. The stream was observed for approximately ¼ mile downstream. The stream was dry during the field inspection and water was only encountered after the waterfall from another stream. Due to signs of erosion in the stream bed, outfall protection will be utilized where the pipe from the vault connects to the stream.

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Transportation

Certificate of Concurrency

Date: 1/26/2023

Project Name: Park Pointe PUD

Project Address: 7219 Lakemont Boulevard SE

Permit Number: 16-143970 LK

Mobility Units Allocated: 32

This decision is subject to appeal as set forth in BCC 14.10.040.D. This reservation will become invalid one year from the date above unless a complete building permit application is filed prior to that date. If this is a phased project, the concurrency certificate will remain valid for up to six years if continuous permitting activity is maintained (BCC 14.10.040.C).

Director
City of Bellevue Transportation Department

Certificate Number: 155

DSD - 000980

GTC Gibson Traffic Consultants, Inc.
Transportation Planners and Traffic Engineers

MEMORANDUM

To: Abdy Farid, City of Bellevue
From: Matthew Palmer MJP
Subject: 7219 Lakemont Blvd SE
Date: May 20, 2016
Project: GTC #16-132

Gibson Traffic Consultants, Inc. (GTC) has been retained to provide a preliminary trip generation for the concurrency evaluation of a 42 single-family lot development located at 7219 Lakemont Blvd SE. The purpose of this memorandum is to document the preliminary trip generation so that the City of Bellevue can run a concurrency test.

PROPOSED SITE DEVELOPMENT

The site is located at 7219 Lakemont Blvd SE, Bellevue, WA. The site is proposing two full access points to Lakemont Blvd SE. There are 3 existing houses on the two parcels which will be removed; these units would be credited towards the developments trip generation. With credit for the 3 houses the 39 new single-family units will generate 39 new PM peak-hour trips (25 Inbound/14 Outbound). This is the number of trips that concurrency should be calculated based on credit being given for 2 houses on one parcel and one house on the other parcel.

TRIP GENERATION

Traffic generation for the development is based on national research data contained in the Institute of Transportation Engineers (ITE) *Trip Generation, 9th Edition* (2012). ITE Land Use Code 210, single-family, and the average rates were utilized for all of the calculations.

Table 1: Trip Generation Summary

39 New Single-Family Residential Units	Average Daily Trips			AM Peak-Hour Trips			PM Peak-Hour Trips		
	Inbound	Outbound	Total	Inbound	Outbound	Total	Inbound	Outbound	Total
Generation Rate	9.52 trips per unit			0.75 trips per unit			1.00 trips per unit		
Splits	50%	50%	100%	25%	75%	100%	63%	37%	100%
Trips	186	185	371	7	22	29	25	14	39

Attachments (A – Site Plan, B – Parcel Data)

DSD - 000981

Site Plan

DSD - 000982

DATE	REVISION	SYM

PACE
Civil | Structural | Planning | Survey
11255 Kirkland Way, Suite 300
Kirkland, WA 98033
p. 425.827.2014 | f. 425.827.5043
paceengrs.com

CHRISTOPHER S. CROSSON
STATE OF WASHINGTON
16186
REGISTERED PROFESSIONAL ENGINEER

ISOLA HOMES
1518 1ST AVE S. SUITE 301
SEATTLE, WA 98134
206.737.9700

LAKEMONT
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE WASHINGTON

CONCEPTUAL SITE PLAN

SCALE:	DATE:
AS NOTED	4/27/2016
DESIGNED BY:	CHECKED BY:
SC	JA

JOB NUMBER 15436

DWG NAME: F15436_SITEPLAN2

SHEET 1 OF 1

FILE NAME: P:\2015\15436_LAKEMONT PROPERTY_FEASIBILITY\CAD\ENGINEERING\FIGURES\SHEETS\CONCEPTUAL SITE PLAN\F15436_SITEPLAN2.dwg
XREF FILES: X15436_BASE.dwg X15436_SITE.dwg X15436_SHATCH.dwg X15436_SD.dwg X15436_SITEPLAN.dwg X15436_SS.dwg X15436_STRP_SC.dwg X15436_BDR.dwg X15436_STRP.dwg

DSD - 000983

Parcel Data

King County iMap

DSD - 0000984

The information included on this map has been compiled by King County staff from a variety of sources and is subject to change without notice. King County makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a survey product. King County shall not be liable for any general, special, indirect, incidental, or consequential damages including, but not limited to, lost revenues or lost profits resulting from the use or misuse of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of King County.

Date: 5/20/2016 Notes:

N

King County
GIS Center

DSD - 000985

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PARCEL DATA

Parcel	262405-9022
Name	JENTRY DAVID G
Site Address	7219 LAKEMONT BLVD SE 98006
Residential Area	065-001 (SE Appraisal District)
Property Name	

Jurisdiction	BELLEVUE
Levy Code	0391
Property Type	R
Plat Block / Building Number	
Plat Lot / Unit Number	
Quarter-Section-Township-Range	SE-26-24-5

Legal Description

POR OF N 324 FT OF NW 1/4 OF SE 1/4 TGW POR OF S 100 FT OF SW 1/4 OF NE 1/4 LY W OF EDWARD LEIFHELM RD LESS C/M RGTS LESS POR OF SE 1/4 & NE 1/4 OF SEC 26 DAF - BEG AT CTR OF SEC TH N 1-04-35 E ALG N-S C/L OF SD SEC 100 FT TO TPOB TH S 16-27-31 E 445.05 FT TH N 88-46-03 W PLT E-W C/L OF SEC 134.09 FT TO SD N-S C/L TH N 1-04-35 E 424 FT ALG SD N-S C/L TO TPOB ELY LN OF ABOVE DESC TR AKA THREAD OF UNAMED CREEK
PLat Block:
Plat Lot:

LAND DATA

Highest & Best Use As If Vacant	SINGLE FAMILY
Highest & Best Use As Improved	PRESENT USE
Present Use	Single Family(Res Use/Zone)
Land SqFt	284,011
Acres	6.52

Percentage Unusable	0
Unbuildable	NO
Restrictive Size Shape	NO
Zoning	R-3.5
Water	PRIVATE
Sewer/Septic	PRIVATE
Road Access	PUBLIC
Parking	
Street Surface	PAVED

Views

Rainier	
Territorial	
Olympics	
Cascades	
Seattle Skyline	
Puget Sound	
Lake Washington	
Lake Sammamish	
Lake/River/Creek	
Other View	

Waterfront

Waterfront Location	
Waterfront Footage	0
Lot Depth Factor	0
Waterfront Bank	
Tide/Shore	
Waterfront Restricted Access	
Waterfront Access Rights	NO
Poor Quality	NO
Proximity Influence	NO

Designations

Historic Site	
Current Use	(none)
Nbr Bldg Sites	
Adjacent to Golf Fairway	NO
Adjacent to Greenbelt	NO
Other Designation	NO
Deed Restrictions	NO
Development Rights Purchased	NO
Easements	NO
Native Growth Protection Easement	NO
DNR Lease	NO

Nuisances

Topography	
Traffic Noise	HIGH
Airport Noise	
Power Lines	NO
Other Nuisances	NO

Problems

Water Problems	NO
Transportation Concurrency	NO
Other Problems	NO

Environmental

Environmental	YES

Environmental Type	Information Source	Delineation study	Percentage Affected
Wetland	JURISDICTION	N	20

BUILDING

1 2

Click the camera to see more pictures.

Building Number	1
Year Built	1964

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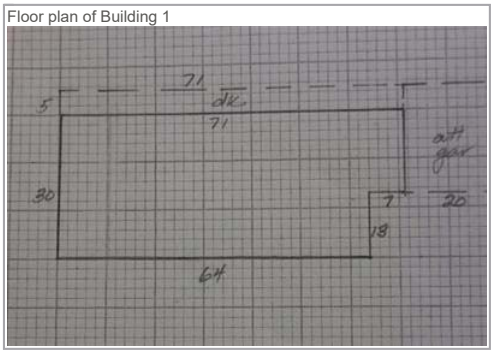
Year Renovated	0
Stories	1
Living Units	1
Grade	7 Average
Grade Variant	0
Condition	Good
Basement Grade	6 Low Average
1st Floor	2,040
1/2 Floor	0
2nd Floor	0
Upper Floor	0
Finished Basement	1,500
Total Finished Area	3,540
Total Basement	2,040
Basement Garage	0
Unfinished 1/2	0
Unfinished Full	0
AGLA	2,040
Attached Garage	440
Bedrooms	3
Full Baths	1
3/4 Baths	1
1/2 Baths	1
Heat Source	Oil
Heat System	Forced Air
Deck Area SqFt	350
Open Porch SqFt	0
Enclosed Porch SqFt	0
Brick/Stone	95
Fireplace Single Story	0
Fireplace Muilti Story	1
Fireplace Free Standing	0
Fireplace Additional	1
AddnlCost	0
Obsolescence	0
Net Condition	0
Percentage Complete	0
Daylight Basement	YES
View Utilization	

1 2

Picture of Building 1

Click the camera to see more floor plans.

Floor plan of Building 1



TAX ROLL HISTORY

Account	Valued Year	Tax Year	Omit Year	Levy Code	Appraised Land Value ($)	Appraised Imps Value ($)	Appraised Total Value ($)	New Dollars ($)	Taxable Land Value ($)	Taxable Imps Value ($)	Taxable Total Value ($)	Tax Value Reason
262405902202	2015	2016		0391	676,000	403,000	1,079,000	0	676,000	403,000	1,079,000	
262405902202	2014	2015		0391	612,000	367,000	979,000	0	612,000	367,000	979,000	
262405902202	2013	2014		0391	557,000	289,000	846,000	0	557,000	289,000	846,000	
262405902202	2012	2013		0391	507,000	252,000	759,000	0	507,000	252,000	759,000	
262405902202	2011	2012		0391	507,000	243,000	750,000	0	507,000	243,000	750,000	
262405902202	2010	2011		0385	535,000	262,000	797,000	0	535,000	262,000	797,000	
262405902202	2009	2010		0385	531,000	228,000	759,000	0	531,000	228,000	759,000	
262405902202	2008	2009		6981	590,000	371,000	961,000	0	590,000	371,000	961,000	
262405902202	2007	2008		6981	532,000	346,000	878,000	0	532,000	346,000	878,000	
262405902202	2006	2007		6981	463,000	313,000	776,000	0	463,000	313,000	776,000	
262405902202	2005	2006		6981	429,000	308,000	737,000	0	429,000	308,000	737,000	
262405902202	2004	2005		6981	405,000	294,000	699,000	0	405,000	294,000	699,000	
262405902202	2003	2004		6981	405,000	294,000	699,000	0	405,000	294,000	699,000	
262405902202	2002	2003		6981	467,000	322,000	789,000	0	467,000	322,000	789,000	
262405902202	2001	2002		6981	441,000	308,000	749,000	0	441,000	308,000	749,000	
262405902202	2000	2001		6981	401,000	297,000	698,000	0	401,000	297,000	698,000	
262405902202	1999	2000		6981	349,000	239,000	588,000	0	349,000	239,000	588,000	
262405902202	1998	1999		6981	304,000	192,000	496,000	0	304,000	192,000	496,000	
262405902202	1997	1998		6760	0	0	0	0	290,000	180,000	470,000	
262405902202	1996	1997		6760	0	0	0	0	293,400	1,000	294,400	

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PARCEL DATA

Parcel	262405-9022
Name	JENTRY DAVID G
Site Address	7219 LAKEMONT BLVD SE 98006
Residential Area	065-001 (SE Appraisal District)
Property Name	

Jurisdiction	BELLEVUE
Levy Code	0391
Property Type	R
Plat Block / Building Number	
Plat Lot / Unit Number	
Quarter-Section-Township-Range	SE-26-24-5

Legal Description

POR OF N 324 FT OF NW 1/4 OF SE 1/4 TGW POR OF S 100 FT OF SW 1/4 OF NE 1/4 LY W OF EDWARD LEIFHELM RD LESS C/M RGTS LESS POR OF SE 1/4 & NE 1/4 OF SEC 26 DAF - BEG AT CTR OF SEC TH N 1-04-35 E ALG N-S C/L OF SD SEC 100 FT TO TPOB TH S 16-27-31 E 445.05 FT TH N 88-46-03 W PLT E-W C/L OF SEC 134.09 FT TO SD N-S C/L TH N 1-04-35 E 424 FT ALG SD N-S C/L TO TPOB ELY LN OF ABOVE DESC TR AKA THREAD OF UNAMED CREEK
PLat Block:
Plat Lot:

LAND DATA

Highest & Best Use As If Vacant	SINGLE FAMILY
Highest & Best Use As Improved	PRESENT USE
Present Use	Single Family(Res Use/Zone)
Land SqFt	284,011
Acres	6.52

Percentage Unusable	0
Unbuildable	NO
Restrictive Size Shape	NO
Zoning	R-3.5
Water	PRIVATE
Sewer/Septic	PRIVATE
Road Access	PUBLIC
Parking	
Street Surface	PAVED

Views

Rainier	
Territorial	
Olympics	
Cascades	
Seattle Skyline	
Puget Sound	
Lake Washington	
Lake Sammamish	
Lake/River/Creek	
Other View	

Waterfront

Waterfront Location	
Waterfront Footage	0
Lot Depth Factor	0
Waterfront Bank	
Tide/Shore	
Waterfront Restricted Access	
Waterfront Access Rights	NO
Poor Quality	NO
Proximity Influence	NO

Designations

Historic Site	
Current Use	(none)
Nbr Bldg Sites	
Adjacent to Golf Fairway	NO
Adjacent to Greenbelt	NO
Other Designation	NO
Deed Restrictions	NO
Development Rights Purchased	NO
Easements	NO
Native Growth Protection Easement	NO
DNR Lease	NO

Nuisances

Topography	
Traffic Noise	HIGH
Airport Noise	
Power Lines	NO
Other Nuisances	NO

Problems

Water Problems	NO
Transportation Concurrency	NO
Other Problems	NO

Environmental

Environmental	YES

Environmental Type	Information Source	Delineation study	Percentage Affected
Wetland	JURISDICTION	N	20

BUILDING

1 2	
Building Number	2
Year Built	1949

Click the camera to see more floor plans.

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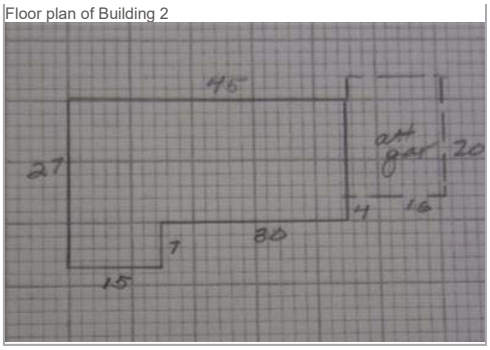
Year Renovated	0
Stories	1
Living Units	1
Grade	6 Low Average
Grade Variant	0
Condition	Good
Basement Grade	
1st Floor	1,000
1/2 Floor	0
2nd Floor	0
Upper Floor	0
Finished Basement	0
Total Finished Area	1,000
Total Basement	0
Basement Garage	0
Unfinished 1/2	0
Unfinished Full	0
AGLA	1,000
Attached Garage	320
Bedrooms	1
Full Baths	1
3/4 Baths	0
1/2 Baths	0
Heat Source	Oil
Heat System	Forced Air
Deck Area SqFt	0
Open Porch SqFt	0
Enclosed Porch SqFt	0
Brick/Stone	0
Fireplace Single Story	1
Fireplace Muilti Story	0
Fireplace Free Standing	0
Fireplace Additional	0
AddnlCost	0
Obsolescence	0
Net Condition	0
Percentage Complete	0
Daylight Basement	
View Utilization	

1 2

Floor plan of Building 2



TAX ROLL HISTORY

Account	Valued Year	Tax Year	Omit Year	Levy Code	Appraised Land Value ($)	Appraised Imps Value ($)	Appraised Total Value ($)	New Dollars ($)	Taxable Land Value ($)	Taxable Imps Value ($)	Taxable Total Value ($)	Tax Value Reason
262405902202	2015	2016		0391	676,000	403,000	1,079,000	0	676,000	403,000	1,079,000	
262405902202	2014	2015		0391	612,000	367,000	979,000	0	612,000	367,000	979,000	
262405902202	2013	2014		0391	557,000	289,000	846,000	0	557,000	289,000	846,000	
262405902202	2012	2013		0391	507,000	252,000	759,000	0	507,000	252,000	759,000	
262405902202	2011	2012		0391	507,000	243,000	750,000	0	507,000	243,000	750,000	
262405902202	2010	2011		0385	535,000	262,000	797,000	0	535,000	262,000	797,000	
262405902202	2009	2010		0385	531,000	228,000	759,000	0	531,000	228,000	759,000	
262405902202	2008	2009		6981	590,000	371,000	961,000	0	590,000	371,000	961,000	
262405902202	2007	2008		6981	532,000	346,000	878,000	0	532,000	346,000	878,000	
262405902202	2006	2007		6981	463,000	313,000	776,000	0	463,000	313,000	776,000	
262405902202	2005	2006		6981	429,000	308,000	737,000	0	429,000	308,000	737,000	
262405902202	2004	2005		6981	405,000	294,000	699,000	0	405,000	294,000	699,000	
262405902202	2003	2004		6981	405,000	294,000	699,000	0	405,000	294,000	699,000	
262405902202	2002	2003		6981	467,000	322,000	789,000	0	467,000	322,000	789,000	
262405902202	2001	2002		6981	441,000	308,000	749,000	0	441,000	308,000	749,000	
262405902202	2000	2001		6981	401,000	297,000	698,000	0	401,000	297,000	698,000	
262405902202	1999	2000		6981	349,000	239,000	588,000	0	349,000	239,000	588,000	
262405902202	1998	1999		6981	304,000	192,000	496,000	0	304,000	192,000	496,000	
262405902202	1997	1998		6760	0	0	0	0	290,000	180,000	470,000	
262405902202	1996	1997		6760	0	0	0	0	293,400	1,000	294,400	

DSD - 000989

ADVERTISEMENT

PARCEL DATA

Parcel	262405-9019
Name	MORTON LORRAINE
Site Address	7331 LAKEMONT BLVD SE 98006
Residential Area	065-001 (SE Appraisal District)
Property Name	

Jurisdiction	BELLEVUE
Levy Code	0391
Property Type	R
Plat Block / Building Number	
Plat Lot / Unit Number	
Quarter-Section-Township-Range	SE-26-24-5

Legal Description

S 356 FT OF N 680 FT OF NW 1/4 OF SE 1/4 LY W OF EDWARD LEIFHELM RD LESS W 215 FT LESS C/M RGTS LESS POR OF SEC 26 DAF - BEG AT CTR OF SEC TH S 1-04-35 W ALG N/S C/L OF SEC 324 FT TH S 88-46-03 E PLW E-W C/L OF SEC 215 FT TO TPOB TH S 32-02-50 E 425.85 FT TH N 88-46-03 W PLT E-W C/L 232.72 FT TH N 1-04-35 E 356 FT TO TPOB ELY LN OF ABOVE DESC TR AKA THREAD OF UNAMED CREEK
PLat Block:
Plat Lot:

LAND DATA

Highest & Best Use As If Vacant	SINGLE FAMILY
Highest & Best Use As Improved	PRESENT USE
Present Use	Single Family(Res Use/Zone)
Land SqFt	168,577
Acres	3.87

Percentage Unusable	0
Unbuildable	NO
Restrictive Size Shape	NO
Zoning	R-3.5
Water	PRIVATE
Sewer/Septic	PRIVATE
Road Access	PUBLIC
Parking	
Street Surface	PAVED

Views

Rainier	
Territorial	
Olympics	
Cascades	
Seattle Skyline	
Puget Sound	
Lake Washington	
Lake Sammamish	
Lake/River/Creek	
Other View	

Waterfront

Waterfront Location	
Waterfront Footage	0
Lot Depth Factor	0
Waterfront Bank	
Tide/Shore	
Waterfront Restricted Access	
Waterfront Access Rights	NO
Poor Quality	NO
Proximity Influence	NO

Designations

Historic Site	
Current Use	(none)
Nbr Bldg Sites	
Adjacent to Golf Fairway	NO
Adjacent to Greenbelt	NO
Other Designation	NO
Deed Restrictions	NO
Development Rights Purchased	NO
Easements	NO
Native Growth Protection Easement	NO
DNR Lease	NO

Nuisances

Topography	
Traffic Noise	HIGH
Airport Noise	
Power Lines	NO
Other Nuisances	NO

Problems

Water Problems	NO
Transportation Concurrency	NO
Other Problems	NO

Environmental

Environmental	NO

BUILDING

Building Number	1
Year Built	1918
Year Renovated	0
Stories	1
Living Units	1
Grade	6 Low Average
Grade Variant	0

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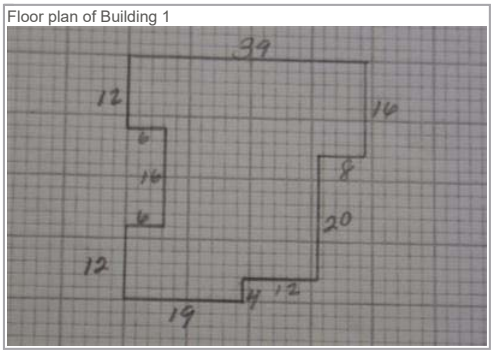
Condition	Good
Basement Grade	5 Fair
1st Floor	1,220
1/2 Floor	0
2nd Floor	0
Upper Floor	0
Finished Basement	650
Total Finished Area	1,870
Total Basement	900
Basement Garage	0
Unfinished 1/2	0
Unfinished Full	0
AGLA	1,220
Attached Garage	0
Bedrooms	3
Full Baths	1
3/4 Baths	0
1/2 Baths	0
Heat Source	Oil
Heat System	Forced Air
Deck Area SqFt	0
Open Porch SqFt	0
Enclosed Porch SqFt	0
Brick/Stone	0
Fireplace Single Story	0
Fireplace Muilti Story	0
Fireplace Free Standing	0
Fireplace Additional	0
AddnlCost	0
Obsolescence	0
Net Condition	0
Percentage Complete	0
Daylight Basement	YES
View Utilization	

Picture of Building 1

Floor plan of Building 1



Accessory Of Building Number: 1

Accessory Type	Picture	Description	SqFt	Grade	Eff Year	%	Value	Date Valued
PRK:DET GAR			360	5 Fair	1936			
MISC IMP		20x50 Barn					8000	
MISC IMP		20x15 Outbldg					2000	
MISC IMP		10x25 Outbldg					1000	

TAX ROLL HISTORY

Account	Valued Year	Tax Year	Omit Year	Levy Code	Appraised Land Value ($)	Appraised Imps Value ($)	Appraised Total Value ($)	New Dollars ($)	Taxable Land Value ($)	Taxable Imps Value ($)	Taxable Total Value ($)	Tax Value Reason
262405901907	2015	2016		0391	499,000	190,000	689,000	0	499,000	190,000	689,000	
262405901907	2014	2015		0391	452,000	173,000	625,000	0	452,000	173,000	625,000	
262405901907	2013	2014		0391	411,000	125,000	536,000	0	411,000	125,000	536,000	
262405901907	2012	2013		0391	374,000	107,000	481,000	0	374,000	107,000	481,000	
262405901907	2011	2012		0391	374,000	123,000	497,000	0	374,000	123,000	497,000	
262405901907	2010	2011		0385	395,000	125,000	520,000	0	395,000	125,000	520,000	
262405901907	2009	2010		0385	405,000	128,000	533,000	0	405,000	128,000	533,000	
262405901907	2008	2009		6981	451,000	222,000	673,000	0	451,000	222,000	673,000	
262405901907	2007	2008		6981	407,000	208,000	615,000	0	407,000	208,000	615,000	
262405901907	2006	2007		6981	354,000	190,000	544,000	0	354,000	190,000	544,000	
262405901907	2005	2006		6981	328,000	189,000	517,000	0	328,000	189,000	517,000	
262405901907	2004	2005		6981	310,000	180,000	490,000	0	310,000	180,000	490,000	
262405901907	2003	2004		6981	310,000	180,000	490,000	0	310,000	180,000	490,000	
262405901907	2002	2003		6981	279,000	212,000	491,000	0	279,000	212,000	491,000	
262405901907	2001	2002		6981	264,000	201,000	465,000	0	264,000	201,000	465,000	
262405901907	2000	2001		6981	240,000	193,000	433,000	0	240,000	193,000	433,000	
262405901907	1999	2000		6981	209,000	83,000	292,000	0	209,000	83,000	292,000	
262405901907	1998	1999		6981	182,000	64,000	246,000	0	182,000	64,000	246,000	
262405901907	1997	1998		6760	0	0	0	0	174,000	60,000	234,000	
262405901907	1996	1997		6760	0	0	0	0	174,000	1,000	175,000	
262405901907	1994	1995		6760	0	0	0	0	174,000	1,000	175,000	

DSD - 000991

GTC Gibson Traffic Consultants, Inc.
Transportation Planners and Traffic Engineers

MEMORANDUM

To: Ian Nisbet, Engineering Technician - City of Bellevue
From: Matthew Palmer, P.E. MJP
Subject: 7219 Lakemont Blvd SE
Date: May 15, 2018
Project: GTC #16-132

Gibson Traffic Consultants, Inc. (GTC) has been retained to provide a preliminary trip generation for the concurrency evaluation of a 35 single-family lot development located at 7219 Lakemont Blvd SE. The purpose of this memorandum is to document the preliminary trip generation so that the City of Bellevue can run a concurrency test.

PROPOSED SITE DEVELOPMENT

The site is located at 7219 Lakemont Blvd SE, Bellevue, WA. The site is proposing two full access points to Lakemont Blvd SE. There are 3 existing houses on the two parcels which will be removed; these units would be credited towards the developments trip generation. With credit for the 3 existing houses the 32 new single-family units will generate 32 new PM peak-hour trips (20 Inbound/12 Outbound). This is the number of trips that concurrency should be calculated based on credit being given for 2 houses on one parcel and one house on the other parcel.

TRIP GENERATION

Traffic generation for the development is based on trip generation rates located in the City of Bellevue's Transportation Mitigation Impact Fees & Trip Rates table and national research data contained in the Institute of Transportation Engineers (ITE) *Trip Generation, 9th Edition* (2012). ITE Land Use Code 210, single-family, and the average rates were utilized for all of the calculations.

Table 1: Trip Generation Summary

32 New Single-Family Residential Units	Average Daily Trips			AM Peak-Hour Trips			PM Peak-Hour Trips		
	Inbound	Outbound	Total	Inbound	Outbound	Total	Inbound	Outbound	Total
Generation Rate	9.52 trips per unit			0.75 trips per unit			1.00 trips per unit		
Splits	50%	50%	100%	25%	75%	100%	63%	37%	100%
Trips	152	152	304	6	18	24	20	12	32

Attachments (A – Site Plan, B – Parcel Data)

DSD - 000992

Site Plan

DSD - 000993

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50
100

DSD - 000994

Parcel Data

King County iMap

DSD - 000995

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Date: 5/20/2016 Notes:

N

King County
GIS Center

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PARCEL DATA

Parcel	262405-9022
Name	JENTRY DAVID G
Site Address	7219 LAKEMONT BLVD SE 98006
Residential Area	065-001 (SE Appraisal District)
Property Name	

Jurisdiction	BELLEVUE
Levy Code	0391
Property Type	R
Plat Block / Building Number	
Plat Lot / Unit Number	
Quarter-Section-Township-Range	SE-26-24-5

Legal Description

POR OF N 324 FT OF NW 1/4 OF SE 1/4 TGW POR OF S 100 FT OF SW 1/4 OF NE 1/4 LY W OF EDWARD LEIFHELM RD LESS C/M RGTS LESS POR OF SE 1/4 & NE 1/4 OF SEC 26 DAF - BEG AT CTR OF SEC TH N 1-04-35 E ALG N-S C/L OF SD SEC 100 FT TO TPOB TH S 16-27-31 E 445.05 FT TH N 88-46-03 W PLT E-W C/L OF SEC 134.09 FT TO SD N-S C/L TH N 1-04-35 E 424 FT ALG SD N-S C/L TO TPOB ELY LN OF ABOVE DESC TR AKA THREAD OF UNAMED CREEK
PLat Block:
Plat Lot:

LAND DATA

Highest & Best Use As If Vacant	SINGLE FAMILY
Highest & Best Use As Improved	PRESENT USE
Present Use	Single Family(Res Use/Zone)
Land SqFt	284,011
Acres	6.52

Percentage Unusable	0
Unbuildable	NO
Restrictive Size Shape	NO
Zoning	R-3.5
Water	PRIVATE
Sewer/Septic	PRIVATE
Road Access	PUBLIC
Parking	
Street Surface	PAVED

Views

Rainier	
Territorial	
Olympics	
Cascades	
Seattle Skyline	
Puget Sound	
Lake Washington	
Lake Sammamish	
Lake/River/Creek	
Other View	

Waterfront

Waterfront Location	
Waterfront Footage	0
Lot Depth Factor	0
Waterfront Bank	
Tide/Shore	
Waterfront Restricted Access	
Waterfront Access Rights	NO
Poor Quality	NO
Proximity Influence	NO

Designations

Historic Site	
Current Use	(none)
Nbr Bldg Sites	
Adjacent to Golf Fairway	NO
Adjacent to Greenbelt	NO
Other Designation	NO
Deed Restrictions	NO
Development Rights Purchased	NO
Easements	NO
Native Growth Protection Easement	NO
DNR Lease	NO

Nuisances

Topography	
Traffic Noise	HIGH
Airport Noise	
Power Lines	NO
Other Nuisances	NO

Problems

Water Problems	NO
Transportation Concurrency	NO
Other Problems	NO

Environmental

Environmental	YES

Environmental Type	Information Source	Delineation study	Percentage Affected
Wetland	JURISDICTION	N	20

BUILDING

1 2

Building Number	1
Year Built	1964

Click the camera to see more pictures.

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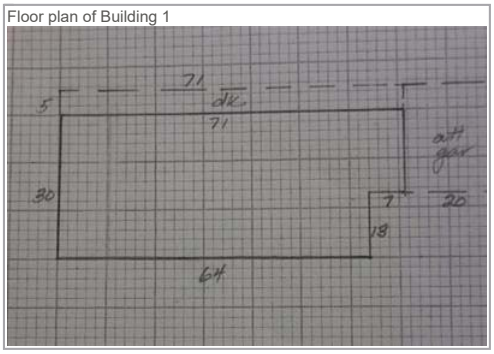
Year Renovated	0
Stories	1
Living Units	1
Grade	7 Average
Grade Variant	0
Condition	Good
Basement Grade	6 Low Average
1st Floor	2,040
1/2 Floor	0
2nd Floor	0
Upper Floor	0
Finished Basement	1,500
Total Finished Area	3,540
Total Basement	2,040
Basement Garage	0
Unfinished 1/2	0
Unfinished Full	0
AGLA	2,040
Attached Garage	440
Bedrooms	3
Full Baths	1
3/4 Baths	1
1/2 Baths	1
Heat Source	Oil
Heat System	Forced Air
Deck Area SqFt	350
Open Porch SqFt	0
Enclosed Porch SqFt	0
Brick/Stone	95
Fireplace Single Story	0
Fireplace Muilti Story	1
Fireplace Free Standing	0
Fireplace Additional	1
AddnlCost	0
Obsolescence	0
Net Condition	0
Percentage Complete	0
Daylight Basement	YES
View Utilization	

1 2

Picture of Building 1

Click the camera to see more floor plans.

Floor plan of Building 1



TAX ROLL HISTORY

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262405902202	1997	1998		6760	0	0	0	0	290,000	180,000	470,000	
262405902202	1996	1997		6760	0	0	0	0	293,400	1,000	294,400	

DSD - 000998

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PARCEL DATA

Parcel	262405-9022
Name	JENTRY DAVID G
Site Address	7219 LAKEMONT BLVD SE 98006
Residential Area	065-001 (SE Appraisal District)
Property Name	

Jurisdiction	BELLEVUE
Levy Code	0391
Property Type	R
Plat Block / Building Number	
Plat Lot / Unit Number	
Quarter-Section-Township-Range	SE-26-24-5

Legal Description

POR OF N 324 FT OF NW 1/4 OF SE 1/4 TGW POR OF S 100 FT OF SW 1/4 OF NE 1/4 LY W OF EDWARD LEIFHELM RD LESS C/M RGTS LESS POR OF SE 1/4 & NE 1/4 OF SEC 26 DAF - BEG AT CTR OF SEC TH N 1-04-35 E ALG N-S C/L OF SD SEC 100 FT TO TPOB TH S 16-27-31 E 445.05 FT TH N 88-46-03 W PLT E-W C/L OF SEC 134.09 FT TO SD N-S C/L TH N 1-04-35 E 424 FT ALG SD N-S C/L TO TPOB ELY LN OF ABOVE DESC TR AKA THREAD OF UNAMED CREEK
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Plat Lot:

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Zoning	R-3.5
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Road Access	PUBLIC
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Street Surface	PAVED

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Territorial	
Olympics	
Cascades	
Seattle Skyline	
Puget Sound	
Lake Washington	
Lake Sammamish	
Lake/River/Creek	
Other View	

Waterfront

Waterfront Location	
Waterfront Footage	0
Lot Depth Factor	0
Waterfront Bank	
Tide/Shore	
Waterfront Restricted Access	
Waterfront Access Rights	NO
Poor Quality	NO
Proximity Influence	NO

Designations

Historic Site	
Current Use	(none)
Nbr Bldg Sites	
Adjacent to Golf Fairway	NO
Adjacent to Greenbelt	NO
Other Designation	NO
Deed Restrictions	NO
Development Rights Purchased	NO
Easements	NO
Native Growth Protection Easement	NO
DNR Lease	NO

Nuisances

Topography	
Traffic Noise	HIGH
Airport Noise	
Power Lines	NO
Other Nuisances	NO

Problems

Water Problems	NO
Transportation Concurrency	NO
Other Problems	NO

Environmental

Environmental	YES

Environmental Type	Information Source	Delineation study	Percentage Affected
Wetland	JURISDICTION	N	20

BUILDING

1 2	
Building Number	2
Year Built	1949

Click the camera to see more floor plans.

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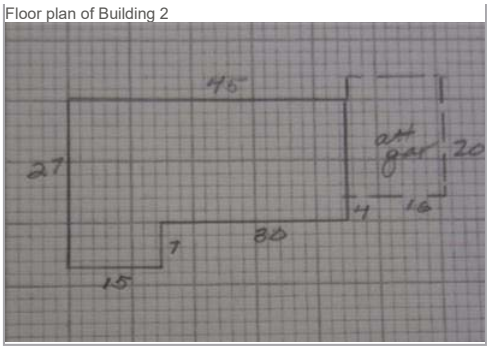
Year Renovated	0
Stories	1
Living Units	1
Grade	6 Low Average
Grade Variant	0
Condition	Good
Basement Grade	
1st Floor	1,000
1/2 Floor	0
2nd Floor	0
Upper Floor	0
Finished Basement	0
Total Finished Area	1,000
Total Basement	0
Basement Garage	0
Unfinished 1/2	0
Unfinished Full	0
AGLA	1,000
Attached Garage	320
Bedrooms	1
Full Baths	1
3/4 Baths	0
1/2 Baths	0
Heat Source	Oil
Heat System	Forced Air
Deck Area SqFt	0
Open Porch SqFt	0
Enclosed Porch SqFt	0
Brick/Stone	0
Fireplace Single Story	1
Fireplace Muilti Story	0
Fireplace Free Standing	0
Fireplace Additional	0
AddnlCost	0
Obsolescence	0
Net Condition	0
Percentage Complete	0
Daylight Basement	
View Utilization	

1 2

Floor plan of Building 2



TAX ROLL HISTORY

Account	Valued Year	Tax Year	Omit Year	Levy Code	Appraised Land Value ($)	Appraised Imps Value ($)	Appraised Total Value ($)	New Dollars ($)	Taxable Land Value ($)	Taxable Imps Value ($)	Taxable Total Value ($)	Tax Value Reason
262405902202	2015	2016		0391	676,000	403,000	1,079,000	0	676,000	403,000	1,079,000	
262405902202	2014	2015		0391	612,000	367,000	979,000	0	612,000	367,000	979,000	
262405902202	2013	2014		0391	557,000	289,000	846,000	0	557,000	289,000	846,000	
262405902202	2012	2013		0391	507,000	252,000	759,000	0	507,000	252,000	759,000	
262405902202	2011	2012		0391	507,000	243,000	750,000	0	507,000	243,000	750,000	
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262405902202	2008	2009		6981	590,000	371,000	961,000	0	590,000	371,000	961,000	
262405902202	2007	2008		6981	532,000	346,000	878,000	0	532,000	346,000	878,000	
262405902202	2006	2007		6981	463,000	313,000	776,000	0	463,000	313,000	776,000	
262405902202	2005	2006		6981	429,000	308,000	737,000	0	429,000	308,000	737,000	
262405902202	2004	2005		6981	405,000	294,000	699,000	0	405,000	294,000	699,000	
262405902202	2003	2004		6981	405,000	294,000	699,000	0	405,000	294,000	699,000	
262405902202	2002	2003		6981	467,000	322,000	789,000	0	467,000	322,000	789,000	
262405902202	2001	2002		6981	441,000	308,000	749,000	0	441,000	308,000	749,000	
262405902202	2000	2001		6981	401,000	297,000	698,000	0	401,000	297,000	698,000	
262405902202	1999	2000		6981	349,000	239,000	588,000	0	349,000	239,000	588,000	
262405902202	1998	1999		6981	304,000	192,000	496,000	0	304,000	192,000	496,000	
262405902202	1997	1998		6760	0	0	0	0	290,000	180,000	470,000	
262405902202	1996	1997		6760	0	0	0	0	293,400	1,000	294,400	

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PARCEL DATA

Parcel	262405-9019
Name	MORTON LORRAINE
Site Address	7331 LAKEMONT BLVD SE 98006
Residential Area	065-001 (SE Appraisal District)
Property Name	

Jurisdiction	BELLEVUE
Levy Code	0391
Property Type	R
Plat Block / Building Number	
Plat Lot / Unit Number	
Quarter-Section-Township-Range	SE-26-24-5

Legal Description

S 356 FT OF N 680 FT OF NW 1/4 OF SE 1/4 LY W OF EDWARD LEIFHELM RD LESS W 215 FT LESS C/M RGTS LESS POR OF SEC 26 DAF - BEG AT CTR OF SEC TH S 1-04-35 W ALG N/S C/L OF SEC 324 FT TH S 88-46-03 E PLW E-W C/L OF SEC 215 FT TO TPOB TH S 32-02-50 E 425.85 FT TH N 88-46-03 W PLT E-W C/L 232.72 FT TH N 1-04-35 E 356 FT TO TPOB ELY LN OF ABOVE DESC TR AKA THREAD OF UNAMED CREEK
PLat Block:
Plat Lot:

LAND DATA

Highest & Best Use As If Vacant	SINGLE FAMILY
Highest & Best Use As Improved	PRESENT USE
Present Use	Single Family(Res Use/Zone)
Land SqFt	168,577
Acres	3.87

Percentage Unusable	0
Unbuildable	NO
Restrictive Size Shape	NO
Zoning	R-3.5
Water	PRIVATE
Sewer/Septic	PRIVATE
Road Access	PUBLIC
Parking	
Street Surface	PAVED

Views

Rainier	
Territorial	
Olympics	
Cascades	
Seattle Skyline	
Puget Sound	
Lake Washington	
Lake Sammamish	
Lake/River/Creek	
Other View	

Waterfront

Waterfront Location	
Waterfront Footage	0
Lot Depth Factor	0
Waterfront Bank	
Tide/Shore	
Waterfront Restricted Access	
Waterfront Access Rights	NO
Poor Quality	NO
Proximity Influence	NO

Designations

Historic Site	
Current Use	(none)
Nbr Bldg Sites	
Adjacent to Golf Fairway	NO
Adjacent to Greenbelt	NO
Other Designation	NO
Deed Restrictions	NO
Development Rights Purchased	NO
Easements	NO
Native Growth Protection Easement	NO
DNR Lease	NO

Nuisances

Topography	
Traffic Noise	HIGH
Airport Noise	
Power Lines	NO
Other Nuisances	NO

Problems

Water Problems	NO
Transportation Concurrency	NO
Other Problems	NO

Environmental

Environmental	NO

BUILDING

Building Number	1
Year Built	1918
Year Renovated	0
Stories	1
Living Units	1
Grade	6 Low Average
Grade Variant	0

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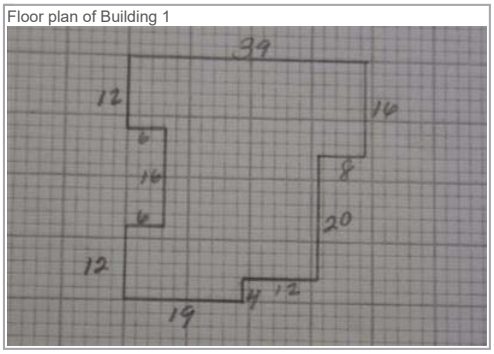
Condition	Good
Basement Grade	5 Fair
1st Floor	1,220
1/2 Floor	0
2nd Floor	0
Upper Floor	0
Finished Basement	650
Total Finished Area	1,870
Total Basement	900
Basement Garage	0
Unfinished 1/2	0
Unfinished Full	0
AGLA	1,220
Attached Garage	0
Bedrooms	3
Full Baths	1
3/4 Baths	0
1/2 Baths	0
Heat Source	Oil
Heat System	Forced Air
Deck Area SqFt	0
Open Porch SqFt	0
Enclosed Porch SqFt	0
Brick/Stone	0
Fireplace Single Story	0
Fireplace Muilti Story	0
Fireplace Free Standing	0
Fireplace Additional	0
AddnlCost	0
Obsolescence	0
Net Condition	0
Percentage Complete	0
Daylight Basement	YES
View Utilization	

Picture of Building 1

Floor plan of Building 1



Accessory Of Building Number: 1

Accessory Type	Picture	Description	SqFt	Grade	Eff Year	%	Value	Date Valued
PRK:DET GAR			360	5 Fair	1936			
MISC IMP		20x50 Barn					8000	
MISC IMP		20x15 Outbldg					2000	
MISC IMP		10x25 Outbldg					1000	

TAX ROLL HISTORY

Account	Valued Year	Tax Year	Omit Year	Levy Code	Appraised Land Value ($)	Appraised Imps Value ($)	Appraised Total Value ($)	New Dollars ($)	Taxable Land Value ($)	Taxable Imps Value ($)	Taxable Total Value ($)	Tax Value Reason
262405901907	2015	2016		0391	499,000	190,000	689,000	0	499,000	190,000	689,000	
262405901907	2014	2015		0391	452,000	173,000	625,000	0	452,000	173,000	625,000	
262405901907	2013	2014		0391	411,000	125,000	536,000	0	411,000	125,000	536,000	
262405901907	2012	2013		0391	374,000	107,000	481,000	0	374,000	107,000	481,000	
262405901907	2011	2012		0391	374,000	123,000	497,000	0	374,000	123,000	497,000	
262405901907	2010	2011		0385	395,000	125,000	520,000	0	395,000	125,000	520,000	
262405901907	2009	2010		0385	405,000	128,000	533,000	0	405,000	128,000	533,000	
262405901907	2008	2009		6981	451,000	222,000	673,000	0	451,000	222,000	673,000	
262405901907	2007	2008		6981	407,000	208,000	615,000	0	407,000	208,000	615,000	
262405901907	2006	2007		6981	354,000	190,000	544,000	0	354,000	190,000	544,000	
262405901907	2005	2006		6981	328,000	189,000	517,000	0	328,000	189,000	517,000	
262405901907	2004	2005		6981	310,000	180,000	490,000	0	310,000	180,000	490,000	
262405901907	2003	2004		6981	310,000	180,000	490,000	0	310,000	180,000	490,000	
262405901907	2002	2003		6981	279,000	212,000	491,000	0	279,000	212,000	491,000	
262405901907	2001	2002		6981	264,000	201,000	465,000	0	264,000	201,000	465,000	
262405901907	2000	2001		6981	240,000	193,000	433,000	0	240,000	193,000	433,000	
262405901907	1999	2000		6981	209,000	83,000	292,000	0	209,000	83,000	292,000	
262405901907	1998	1999		6981	182,000	64,000	246,000	0	182,000	64,000	246,000	
262405901907	1997	1998		6760	0	0	0	0	174,000	60,000	234,000	
262405901907	1996	1997		6760	0	0	0	0	174,000	1,000	175,000	
262405901907	1994	1995		6760	0	0	0	0	174,000	1,000	175,000	

DSD - 001002

GTC Gibson Traffic Consultants, Inc.
Transportation Planners and Traffic Engineers

MEMORANDUM

To: Ryan Miller, P.E. – COB Senior Transportation Engineer
From: Matthew Palmer, P.E.
Subject: 7219 Lakemont Blvd SE
Date: August 16, 2019
Project: GTC #16-132

Gibson Traffic Consultants, Inc. (GTC) has been retained to provide a preliminary trip generation for the concurrency evaluation of a 35 single-family lot development located at 7219 Lakemont Blvd SE. The purpose of this memorandum is to document the preliminary trip generation so that the City of Bellevue can run a concurrency test.

PROPOSED SITE DEVELOPMENT

The site is located at 7219 Lakemont Blvd SE, Bellevue, WA. The site is proposing two full access points to Lakemont Blvd SE. There are 3 existing houses on the two parcels which will be removed; these units would be credited towards the developments trip generation. With credit for the 3 existing houses the 32 new single-family units will generate 32 new PM peak-hour trips (20 Inbound/12 Outbound). This is the number of trips that concurrency should be calculated based on credit being given for 2 houses on one parcel and one house on the other parcel.

TRIP GENERATION

Traffic generation for the development is based on trip generation rates located in the City of Bellevue's Transportation Mitigation Impact Fees & Trip Rates table and national research data contained in the Institute of Transportation Engineers (ITE) *Trip Generation, 9th Edition* (2012). ITE Land Use Code 210, single-family, and the average rates were utilized for all of the calculations.

Table 1: Trip Generation Summary

32 New Single-Family Residential Units	Average Daily Trips			AM Peak-Hour Trips			PM Peak-Hour Trips		
	Inbound	Outbound	Total	Inbound	Outbound	Total	Inbound	Outbound	Total
Generation Rate	9.52 trips per unit			0.75 trips per unit			1.00 trips per unit		
Splits	50%	50%	100%	25%	75%	100%	63%	37%	100%
Trips	152	152	304	6	18	24	20	12	32

Attachments (A – Site Plan, B – Parcel Data)

DSD - 001003

Site Plan

DSD - 001004

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DSD - 001005

Parcel Data

King County iMap

DSD - 001006

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Date: 5/20/2016 Notes:

N

King County
GIS Center

DSD - 001007

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PARCEL DATA

Parcel	262405-9022
Name	JENTRY DAVID G
Site Address	7219 LAKEMONT BLVD SE 98006
Residential Area	065-001 (SE Appraisal District)
Property Name	

Jurisdiction	BELLEVUE
Levy Code	0391
Property Type	R
Plat Block / Building Number	
Plat Lot / Unit Number	
Quarter-Section-Township-Range	SE-26-24-5

Legal Description

POR OF N 324 FT OF NW 1/4 OF SE 1/4 TGW POR OF S 100 FT OF SW 1/4 OF NE 1/4 LY W OF EDWARD LEIFHELM RD LESS C/M RGTS LESS POR OF SE 1/4 & NE 1/4 OF SEC 26 DAF - BEG AT CTR OF SEC TH N 1-04-35 E ALG N-S C/L OF SD SEC 100 FT TO TPOB TH S 16-27-31 E 445.05 FT TH N 88-46-03 W PLT E-W C/L OF SEC 134.09 FT TO SD N-S C/L TH N 1-04-35 E 424 FT ALG SD N-S C/L TO TPOB ELY LN OF ABOVE DESC TR AKA THREAD OF UNAMED CREEK
PLat Block:
Plat Lot:

LAND DATA

Highest & Best Use As If Vacant	SINGLE FAMILY
Highest & Best Use As Improved	PRESENT USE
Present Use	Single Family(Res Use/Zone)
Land SqFt	284,011
Acres	6.52

Percentage Unusable	0
Unbuildable	NO
Restrictive Size Shape	NO
Zoning	R-3.5
Water	PRIVATE
Sewer/Septic	PRIVATE
Road Access	PUBLIC
Parking	
Street Surface	PAVED

Views

Rainier	
Territorial	
Olympics	
Cascades	
Seattle Skyline	
Puget Sound	
Lake Washington	
Lake Sammamish	
Lake/River/Creek	
Other View	

Waterfront

Waterfront Location	
Waterfront Footage	0
Lot Depth Factor	0
Waterfront Bank	
Tide/Shore	
Waterfront Restricted Access	
Waterfront Access Rights	NO
Poor Quality	NO
Proximity Influence	NO

Designations

Historic Site	
Current Use	(none)
Nbr Bldg Sites	
Adjacent to Golf Fairway	NO
Adjacent to Greenbelt	NO
Other Designation	NO
Deed Restrictions	NO
Development Rights Purchased	NO
Easements	NO
Native Growth Protection Easement	NO
DNR Lease	NO

Nuisances

Topography	
Traffic Noise	HIGH
Airport Noise	
Power Lines	NO
Other Nuisances	NO

Problems

Water Problems	NO
Transportation Concurrency	NO
Other Problems	NO

Environmental

Environmental	YES

Environmental Type	Information Source	Delineation study	Percentage Affected
Wetland	JURISDICTION	N	20

BUILDING

1 2

Building Number	1
Year Built	1964

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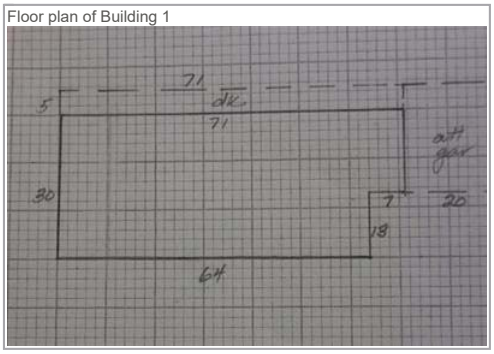
Year Renovated	0
Stories	1
Living Units	1
Grade	7 Average
Grade Variant	0
Condition	Good
Basement Grade	6 Low Average
1st Floor	2,040
1/2 Floor	0
2nd Floor	0
Upper Floor	0
Finished Basement	1,500
Total Finished Area	3,540
Total Basement	2,040
Basement Garage	0
Unfinished 1/2	0
Unfinished Full	0
AGLA	2,040
Attached Garage	440
Bedrooms	3
Full Baths	1
3/4 Baths	1
1/2 Baths	1
Heat Source	Oil
Heat System	Forced Air
Deck Area SqFt	350
Open Porch SqFt	0
Enclosed Porch SqFt	0
Brick/Stone	95
Fireplace Single Story	0
Fireplace Muilti Story	1
Fireplace Free Standing	0
Fireplace Additional	1
AddnlCost	0
Obsolescence	0
Net Condition	0
Percentage Complete	0
Daylight Basement	YES
View Utilization	

1 2

Picture of Building 1

Click the camera to see more floor plans.

Floor plan of Building 1



TAX ROLL HISTORY

Account	Valued Year	Tax Year	Omit Year	Levy Code	Appraised Land Value ($)	Appraised Imps Value ($)	Appraised Total Value ($)	New Dollars ($)	Taxable Land Value ($)	Taxable Imps Value ($)	Taxable Total Value ($)	Tax Value Reason
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262405902202	2009	2010		0385	531,000	228,000	759,000	0	531,000	228,000	759,000	
262405902202	2008	2009		6981	590,000	371,000	961,000	0	590,000	371,000	961,000	
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262405902202	1998	1999		6981	304,000	192,000	496,000	0	304,000	192,000	496,000	
262405902202	1997	1998		6760	0	0	0	0	290,000	180,000	470,000	
262405902202	1996	1997		6760	0	0	0	0	293,400	1,000	294,400	

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PARCEL DATA

Parcel	262405-9022
Name	JENTRY DAVID G
Site Address	7219 LAKEMONT BLVD SE 98006
Residential Area	065-001 (SE Appraisal District)
Property Name	

Jurisdiction	BELLEVUE
Levy Code	0391
Property Type	R
Plat Block / Building Number	
Plat Lot / Unit Number	
Quarter-Section-Township-Range	SE-26-24-5

Legal Description

POR OF N 324 FT OF NW 1/4 OF SE 1/4 TGW POR OF S 100 FT OF SW 1/4 OF NE 1/4 LY W OF EDWARD LEIFHELM RD LESS C/M RGTS LESS POR OF SE 1/4 & NE 1/4 OF SEC 26 DAF - BEG AT CTR OF SEC TH N 1-04-35 E ALG N-S C/L OF SD SEC 100 FT TO TPOB TH S 16-27-31 E 445.05 FT TH N 88-46-03 W PLT E-W C/L OF SEC 134.09 FT TO SD N-S C/L TH N 1-04-35 E 424 FT ALG SD N-S C/L TO TPOB ELY LN OF ABOVE DESC TR AKA THREAD OF UNAMED CREEK
PLat Block:
Plat Lot:

LAND DATA

Highest & Best Use As If Vacant	SINGLE FAMILY
Highest & Best Use As Improved	PRESENT USE
Present Use	Single Family(Res Use/Zone)
Land SqFt	284,011
Acres	6.52

Percentage Unusable	0
Unbuildable	NO
Restrictive Size Shape	NO
Zoning	R-3.5
Water	PRIVATE
Sewer/Septic	PRIVATE
Road Access	PUBLIC
Parking	
Street Surface	PAVED

Views

Rainier	
Territorial	
Olympics	
Cascades	
Seattle Skyline	
Puget Sound	
Lake Washington	
Lake Sammamish	
Lake/River/Creek	
Other View	

Waterfront

Waterfront Location	
Waterfront Footage	0
Lot Depth Factor	0
Waterfront Bank	
Tide/Shore	
Waterfront Restricted Access	
Waterfront Access Rights	NO
Poor Quality	NO
Proximity Influence	NO

Designations

Historic Site	
Current Use	(none)
Nbr Bldg Sites	
Adjacent to Golf Fairway	NO
Adjacent to Greenbelt	NO
Other Designation	NO
Deed Restrictions	NO
Development Rights Purchased	NO
Easements	NO
Native Growth Protection Easement	NO
DNR Lease	NO

Nuisances

Topography	
Traffic Noise	HIGH
Airport Noise	
Power Lines	NO
Other Nuisances	NO

Problems

Water Problems	NO
Transportation Concurrency	NO
Other Problems	NO

Environmental

Environmental	YES

Environmental Type	Information Source	Delineation study	Percentage Affected
Wetland	JURISDICTION	N	20

BUILDING

1 2	
Building Number	2
Year Built	1949

Click the camera to see more floor plans.

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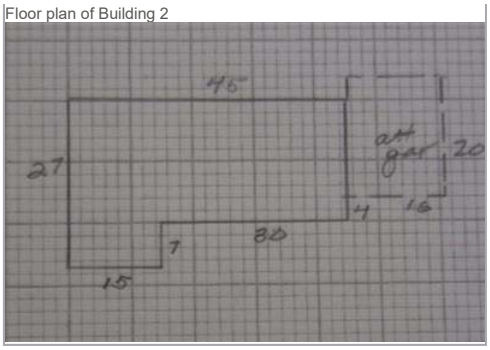
Year Renovated	0
Stories	1
Living Units	1
Grade	6 Low Average
Grade Variant	0
Condition	Good
Basement Grade	
1st Floor	1,000
1/2 Floor	0
2nd Floor	0
Upper Floor	0
Finished Basement	0
Total Finished Area	1,000
Total Basement	0
Basement Garage	0
Unfinished 1/2	0
Unfinished Full	0
AGLA	1,000
Attached Garage	320
Bedrooms	1
Full Baths	1
3/4 Baths	0
1/2 Baths	0
Heat Source	Oil
Heat System	Forced Air
Deck Area SqFt	0
Open Porch SqFt	0
Enclosed Porch SqFt	0
Brick/Stone	0
Fireplace Single Story	1
Fireplace Muilti Story	0
Fireplace Free Standing	0
Fireplace Additional	0
AddnlCost	0
Obsolescence	0
Net Condition	0
Percentage Complete	0
Daylight Basement	
View Utilization	

1 2

Floor plan of Building 2



TAX ROLL HISTORY

Account	Valued Year	Tax Year	Omit Year	Levy Code	Appraised Land Value ($)	Appraised Imps Value ($)	Appraised Total Value ($)	New Dollars ($)	Taxable Land Value ($)	Taxable Imps Value ($)	Taxable Total Value ($)	Tax Value Reason
262405902202	2015	2016		0391	676,000	403,000	1,079,000	0	676,000	403,000	1,079,000	
262405902202	2014	2015		0391	612,000	367,000	979,000	0	612,000	367,000	979,000	
262405902202	2013	2014		0391	557,000	289,000	846,000	0	557,000	289,000	846,000	
262405902202	2012	2013		0391	507,000	252,000	759,000	0	507,000	252,000	759,000	
262405902202	2011	2012		0391	507,000	243,000	750,000	0	507,000	243,000	750,000	
262405902202	2010	2011		0385	535,000	262,000	797,000	0	535,000	262,000	797,000	
262405902202	2009	2010		0385	531,000	228,000	759,000	0	531,000	228,000	759,000	
262405902202	2008	2009		6981	590,000	371,000	961,000	0	590,000	371,000	961,000	
262405902202	2007	2008		6981	532,000	346,000	878,000	0	532,000	346,000	878,000	
262405902202	2006	2007		6981	463,000	313,000	776,000	0	463,000	313,000	776,000	
262405902202	2005	2006		6981	429,000	308,000	737,000	0	429,000	308,000	737,000	
262405902202	2004	2005		6981	405,000	294,000	699,000	0	405,000	294,000	699,000	
262405902202	2003	2004		6981	405,000	294,000	699,000	0	405,000	294,000	699,000	
262405902202	2002	2003		6981	467,000	322,000	789,000	0	467,000	322,000	789,000	
262405902202	2001	2002		6981	441,000	308,000	749,000	0	441,000	308,000	749,000	
262405902202	2000	2001		6981	401,000	297,000	698,000	0	401,000	297,000	698,000	
262405902202	1999	2000		6981	349,000	239,000	588,000	0	349,000	239,000	588,000	
262405902202	1998	1999		6981	304,000	192,000	496,000	0	304,000	192,000	496,000	
262405902202	1997	1998		6760	0	0	0	0	290,000	180,000	470,000	
262405902202	1996	1997		6760	0	0	0	0	293,400	1,000	294,400	

DSD - 001011

TIME WARNER CABLE Business Class®

ADVERTISEMENT

PARCEL DATA

Parcel	262405-9019
Name	MORTON LORRAINE
Site Address	7331 LAKEMONT BLVD SE 98006
Residential Area	065-001 (SE Appraisal District)
Property Name	

Jurisdiction	BELLEVUE
Levy Code	0391
Property Type	R
Plat Block / Building Number	
Plat Lot / Unit Number	
Quarter-Section-Township-Range	SE-26-24-5

Legal Description

S 356 FT OF N 680 FT OF NW 1/4 OF SE 1/4 LY W OF EDWARD LEIFHELM RD LESS W 215 FT LESS C/M RGTS LESS POR OF SEC 26 DAF - BEG AT CTR OF SEC TH S 1-04-35 W ALG N/S C/L OF SEC 324 FT TH S 88-46-03 E PLW E-W C/L OF SEC 215 FT TO TPOB TH S 32-02-50 E 425.85 FT TH N 88-46-03 W PLT E-W C/L 232.72 FT TH N 1-04-35 E 356 FT TO TPOB ELY LN OF ABOVE DESC TR AKA THREAD OF UNAMED CREEK
PLat Block:
Plat Lot:

LAND DATA

Highest & Best Use As If Vacant	SINGLE FAMILY
Highest & Best Use As Improved	PRESENT USE
Present Use	Single Family(Res Use/Zone)
Land SqFt	168,577
Acres	3.87

Percentage Unusable	0
Unbuildable	NO
Restrictive Size Shape	NO
Zoning	R-3.5
Water	PRIVATE
Sewer/Septic	PRIVATE
Road Access	PUBLIC
Parking	
Street Surface	PAVED

Views

Rainier	
Territorial	
Olympics	
Cascades	
Seattle Skyline	
Puget Sound	
Lake Washington	
Lake Sammamish	
Lake/River/Creek	
Other View	

Waterfront

Waterfront Location	
Waterfront Footage	0
Lot Depth Factor	0
Waterfront Bank	
Tide/Shore	
Waterfront Restricted Access	
Waterfront Access Rights	NO
Poor Quality	NO
Proximity Influence	NO

Designations

Historic Site	
Current Use	(none)
Nbr Bldg Sites	
Adjacent to Golf Fairway	NO
Adjacent to Greenbelt	NO
Other Designation	NO
Deed Restrictions	NO
Development Rights Purchased	NO
Easements	NO
Native Growth Protection Easement	NO
DNR Lease	NO

Nuisances

Topography	
Traffic Noise	HIGH
Airport Noise	
Power Lines	NO
Other Nuisances	NO

Problems

Water Problems	NO
Transportation Concurrency	NO
Other Problems	NO

Environmental

Environmental	NO

BUILDING

Building Number	1
Year Built	1918
Year Renovated	0
Stories	1
Living Units	1
Grade	6 Low Average
Grade Variant	0

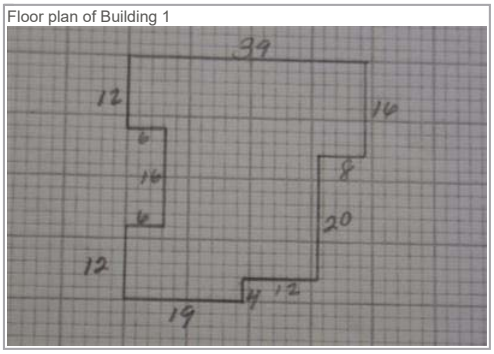
ADVERTIS

DSD - 001012

Condition	Good
Basement Grade	5 Fair
1st Floor	1,220
1/2 Floor	0
2nd Floor	0
Upper Floor	0
Finished Basement	650
Total Finished Area	1,870
Total Basement	900
Basement Garage	0
Unfinished 1/2	0
Unfinished Full	0
AGLA	1,220
Attached Garage	0
Bedrooms	3
Full Baths	1
3/4 Baths	0
1/2 Baths	0
Heat Source	Oil
Heat System	Forced Air
Deck Area SqFt	0
Open Porch SqFt	0
Enclosed Porch SqFt	0
Brick/Stone	0
Fireplace Single Story	0
Fireplace Muilti Story	0
Fireplace Free Standing	0
Fireplace Additional	0
AddnlCost	0
Obsolescence	0
Net Condition	0
Percentage Complete	0
Daylight Basement	YES
View Utilization	

Picture of Building 1

Floor plan of Building 1



Accessory Of Building Number: 1

Accessory Type	Picture	Description	SqFt	Grade	Eff Year	%	Value	Date Valued
PRK:DET GAR			360	5 Fair	1936			
MISC IMP		20x50 Barn					8000	
MISC IMP		20x15 Outbldg					2000	
MISC IMP		10x25 Outbldg					1000	

TAX ROLL HISTORY

Account	Valued Year	Tax Year	Omit Year	Levy Code	Appraised Land Value ($)	Appraised Imps Value ($)	Appraised Total Value ($)	New Dollars ($)	Taxable Land Value ($)	Taxable Imps Value ($)	Taxable Total Value ($)	Tax Value Reason
262405901907	2015	2016		0391	499,000	190,000	689,000	0	499,000	190,000	689,000	
262405901907	2014	2015		0391	452,000	173,000	625,000	0	452,000	173,000	625,000	
262405901907	2013	2014		0391	411,000	125,000	536,000	0	411,000	125,000	536,000	
262405901907	2012	2013		0391	374,000	107,000	481,000	0	374,000	107,000	481,000	
262405901907	2011	2012		0391	374,000	123,000	497,000	0	374,000	123,000	497,000	
262405901907	2010	2011		0385	395,000	125,000	520,000	0	395,000	125,000	520,000	
262405901907	2009	2010		0385	405,000	128,000	533,000	0	405,000	128,000	533,000	
262405901907	2008	2009		6981	451,000	222,000	673,000	0	451,000	222,000	673,000	
262405901907	2007	2008		6981	407,000	208,000	615,000	0	407,000	208,000	615,000	
262405901907	2006	2007		6981	354,000	190,000	544,000	0	354,000	190,000	544,000	
262405901907	2005	2006		6981	328,000	189,000	517,000	0	328,000	189,000	517,000	
262405901907	2004	2005		6981	310,000	180,000	490,000	0	310,000	180,000	490,000	
262405901907	2003	2004		6981	310,000	180,000	490,000	0	310,000	180,000	490,000	
262405901907	2002	2003		6981	279,000	212,000	491,000	0	279,000	212,000	491,000	
262405901907	2001	2002		6981	264,000	201,000	465,000	0	264,000	201,000	465,000	
262405901907	2000	2001		6981	240,000	193,000	433,000	0	240,000	193,000	433,000	
262405901907	1999	2000		6981	209,000	83,000	292,000	0	209,000	83,000	292,000	
262405901907	1998	1999		6981	182,000	64,000	246,000	0	182,000	64,000	246,000	
262405901907	1997	1998		6760	0	0	0	0	174,000	60,000	234,000	
262405901907	1996	1997		6760	0	0	0	0	174,000	1,000	175,000	
262405901907	1994	1995		6760	0	0	0	0	174,000	1,000	175,000	

Engineers | Planners | Surveyors

March 5, 2020

Mr. Peter Rosen
Senior Environmental Planner
City of Bellevue
PO Box 90012
Bellevue, Washington 98009-9912

Subject: ***Park Pointe PUD (16-143970-LK and 16-145946-LO)***
Deviation from Standards
PACE Project No. 15436

Dear Peter:

Thank you for reviewing the updated application materials supporting the Park Pointe Planned Unit Development (PUD) and Preliminary Subdivision (Plat) proposed by Isola Homes. PACE revised the original PUD to include a formal Plat and submitted the Plat application on August 21, 2019.

Your December 2, 2019 letter represented the first review of the Plat application and included staff review comments related to land use, utilities, transportation and fire prevention elements. The most significant comments were generated by the City's Transportation Department which indicated the project would require public streets within a right-of-way dedicated to the City of Bellevue.

Applying public street standards to the project will fundamentally alter the development layout. Given the significant impact, it makes little sense to address other comments (i.e. land use, fire, and utilities) without first resolving the question of road standards. As a result, this response to your December 2, 2019 letter is confined to the issue of street standards.

Response Framework

Your December 2, 2019 letter included comments from Ian Nisbet with the Transportation Department. He noted that Section 3.C of the City's transportation standards (Design Manual)[1] requires any street in a subdivision serving 10 or more lots must be public. Bellevue Municipal Code (BMC section 14.60.130.A.4.a) restates this requirement. As a clarification, we note that the code sections Mr. Nisbet cited in your comment letter do not refer to public or private streets but rather subdivision requirements.

As outlined in your comment letter, the public street mandated by the Design Manual includes:

- 24 feet of curb-to-curb roadway providing two 12-foot wide lanes,
- 12 inches of curb (6 inches either side),
- 10 feet of landscape (5-foot planter each side), and
- 12 feet of sidewalk (6-foot walk on each side of the street).

[1] City of Bellevue Transportation Department, *Design Manual*, January 3, 2017.

PACE Engineers, Inc.
11255 Kirkland Way | Suite 300
Kirkland, Washington 98033-6715
p 425.827.2014 | *f* 425.827.5043

www.paceengrs.com

Combined, these improvements indicate a 47-foot-wide right-of-way dedication is required. With the potential for a 28-foot street referenced in the comment letter, this expands to 51 feet. The 45-foot minimum right-of-way indicated in the comment letter is not adequate.

We understand from conversations with you that the Transportation Department will accept a formal variance request from the Design Manual requirements. Section 1.D of the Design Manual outlines the format for a deviation request and the decision-making criteria. ***This letter represents Isola Homes' formal request to deviate from the Design Manual's requirement for Public Streets.***

We note that this request does not alter any federally recognized design guidelines that would compel completing the City's Deviation/Exception Justification Form.

City Direction

In addition to the criteria identified in the Design Manual, the most compelling basis for allowing private streets within Park Pointe has been the direction provided by the City during the four years this project has been under consideration. Under the City's leadership, PACE and Isola developed a Planned Unit Development (PUD) responsive to City direction and requirements. Moreover, the City has clearly articulated a preference for private streets within a PUD through the following direction:

City Code

The Transportation Department interpretation of the BMC section 14.60.130.A.4.a is correct as far as it goes but ignores context and other explicit direction allowing private roads within a PUD. Namely, BMC 14.60.130.A.4. states that

> *Private roads… will be allowed when… at least one of the following conditions exists:*
>
> ***a. The private road would be part of a… residential planned unit development.***

This section of the code clearly states that a private road is permitted when any *one* of a number of different conditions are present; in this case, a residential PUD. The contrary opinion stated by Transportation Department – that the code disallows private roads in subdivisions over nine lots – is incorrect. The clause identifies one of several conditions where private roads are *allowed* (i.e. nine lot subdivisions), vs. where all private roads are prohibited.

Permitting History

This interpretation of the Code is consistent with prior applications within Bellevue. Figure 1 identifies four other PUDs within the City with the following characteristics:

- Formal subdivisions that created parcels of real property.
- More than nine lots total.
- Private streets located inside tracts vs. public rights-of-way.

These circumstances are identical to that proposed with Park Pointe. We note that the City adopted its PUD ordinance in 1994 and has consistently allowed platted PUDs to provide private roadways since adoption.

DSD - 001015

During initial project discussions with City staff, planners floated the concept of a PUD as an opportunity for this site. Staff provided a copy of the Lakemont Heights PUD (shown on Exhibit 1) as an example of a PUD.

Conclusion: For more than 25 years, Bellevue has (a) consistently allowed private roads within larger PUD subdivisions, and (b) recommended this approach to Isola Homes.

Staff Direction

In addition to Planning staff guiding us toward the current PUD configuration, PACE received input from Transportation Department staff assigned to project review. When Isola made the decision to incorporate a plat into the PUD, we asked staff how this decision might impact the PUD through a March 1, 2019 email. Subsequent email communication concluded with Ryan Miller stating on April 23, 2019 that "Transportation is fine with (a Plat) and will maintain the proposed private road." We can provide that email message if desired.

Ryan also provided specific design direction for the private roads, specifically the primary loop road through the site. In an email dated August 15, 2018, he instructed PACE to "Reduce the road width to 20- -feet and increase the sidewalk width to be 7 feet for all internal concrete sidewalks." While PACE updated all plan view drawings to reflect that direction, we failed to update the typical roadway sections with the last preliminary engineering plan submittal on August 21, 2019.

Conclusion: Transportation Department staff approved private roads within the Park Pointe PUD subdivision.

PUD Requirements

Bellevue establishes PUD requirements through BMC part 20.30D including 20.30D.150 which outlines the criteria for approval decisions. Over the course of three site layouts, PACE and the project environmental consultants collaborated with City staff and Isola Homes to achieve a general concept that planning staff viewed as consistent with code. The result is a dense layout that preserves half the site in its native condition.

The City's PUD standards reflect a series of objectives and principles that informed the overall design. PUD criteria design must demonstrate superior design through aesthetics, open space, low impact development strategies, conservation features and a reduction in hard surfaces. The integrated nature of PUD design makes it extremely difficult to ignore one project element without compromising the overall PUD design.

Nowhere is this more evident on Park Pointe than with the proposed road system. Figure 2 illustrates the impact of providing the minimum 47-foot-wide street improvements at Park Pointe. This would negatively impact the PUD proposal by:

- Reducing the landscaping buffer against Lakemont Boulevard. Triggered by relocation of six units (20, 26-30) away from larger street.
- Loss of perimeter setbacks to critical area buffers and open space. Triggered by need to move six units (1-3, 18-20) away from larger street.
- Loss of enhanced density. Units 31 to 35 likely removed from proposal.

DSD - 001016

- Loss of variation in both house design and home positioning. Current layout of units 5-12 not supported by wider road and would be replaced by conventional units with street-facing garages.
- More than 40% increase in pollution-generating impervious surfaces (includes street and sidewalks).
- Overall diminishment in unique character of the development.

We recognize that these considerations are not part of the Design Manual that informs the Transportation Department's review. In turn, we would ask Transportation staff to recognize that several of these elements are a direct result of planning staff feedback and are critical to achieve PUD approval.

Conclusion: Imposing the public street standards will disrupt three years of City-supported design revisions necessary to PUD approval.

Deviation Criteria

The final component to our request involves a discussion responding to the specific criteria listed in Section 1.D of the Design Manual. These elements are numbered consistent with the Design Manual:

Except where infill development is proposed, the deviation will achieve the intended result with a comparable or superior design.

This project does not involve infill. This criterion requires consideration of the "intended result," specifically producing a street that performs consistent with Local Street classification identified in the comment letter. This standard road section identified in the comment letter consists of four elements. The following describes how the proposed roadway compares favorably to each element:

- *Traveled Way* – Table 1 of the Design Manual mandates a 20-foot paved width to accommodate two 10-foot travel lanes. The proposed roadway does this, no additional changes are necessary.

- *Parking* – Table 1 indicates unmarked parallel parking is required on either one or both sides of the street. Any street serving more than 10 dwellings is expected to provide parking on at least one side. There is no trigger mandating two-side parking.

  As a PUD, this project did not adopt the prescriptive approach to providing on-street parking along a road's entire length. Instead, a section of designated parking is provided on Road A. The road width at the street parking location totals 27.5 wide, more than the minimum requirement of 24 feet listed in Table 1 of the Design Manual. On-street parking exceeds minimum requirements.

  Additional off-street parking is provided too. Reference the Environmental Checklist for a summary of the total parking supply.

DSD - 001017

- *Pedestrian Travel* – The purpose of the Local Street sidewalk is pedestrian access for residents. The conventional expectation is of a pedestrian leaving their house and following the sidewalk to their destination. The PUD provides the same functionality with more creatively designed pedestrian facilities including:
    - A 7-foot sidewalk on one side of Road A.
    - A Woonerf-type roadway for Road B that combines vehicle and pedestrian travel.
    - Conventional street-side walks along Lakemont Boulevard.
    - Soft surface trails that connect to sidewalks and the regional trail network in the adjacent parklands.

- *Landscape* – The proposed 5-foot landscape strip on each side of the street is intended to accommodate street trees and managed landscape outside of private property. The PUD is unique in that private property (i.e. the individual parcels) will also contain managed landscape. As a result, the overall developed segment of the project site provides more extensive and diverse public landscaping than that available through the conventional 5-foot street-side landscaping strips.

  Taken together, the four elements described above provide a superior product to the prescriptive Local Access street indicated by the Design Manual.

The deviation will not adversely affect safety or operation.

As indicated previously, the proposed traveled way identified above is consistent with the City standards, and passenger vehicle traffic is not expected to be part of this consideration. We instead expect the Transportation Department to be more concerned with access and circulation for fire trucks and trash collection trucks.

In response to this, we prepared an exhibit (Figure 3) showing two truck-turning simulations to model the driving behavior of both fire and trash collection trucks. Both vehicles are capable of driving through the site and remaining within the designated traveled way. Based on truck access and maneuverability constraints, the private roadway system provides an equivalent level of service to that achieved by a standard public street identified in the Design Manual.

The deviation will not adversely affect maintainability.

The proposed roadway will be privately maintained, and anticipated maintenance is expected to be minimal. Pavement has a finite life span indicating eventual replacement is expected. In that situation, staged road closures will be necessary. Pavement and sidewalk maintenance is typically a function of the thickness of a given road or sidewalk section. Because we are not proposing to deviate from minimum construction standards or pavement sections, the private road will not adversely impact the ability to maintain the road improvements.

The second facet of maintenance is overall life cycle. A private street will require complete replacement on a schedule similar to a public street. In fact, wear rates may be lower on a private road when compared to a public street because external traffic is generally lower. Nothing about the proposed road configuration or private designation would increase the need for maintenance, or negatively impact the ability to perform maintenance.

DSD - 001018

Conclusion

We believe the Transportation Department's direction requiring public streets within dedicated rights-of-way is not an appropriate response to the plat application. The City has historically supported private roads within platted PUDs as evidenced by approval of other projects, specific direction from Transportation Department staff, and the City's Land Use Code. In addition, Public street requirements will jeopardize a number of the site layout characteristics that are central to this project meeting PUD design criteria. Finally, the private street system, developed in collaboration with Transportation Department staff, delivers the same level of service and function as the public streets now being requested.

We look forward to your consideration of this material. We would welcome the opportunity to meet Transportation Department staff to provide details to further the overall understanding of our request and outline the project history that may be missing due to staff turnover.

Please let me know if you require any additional information to support this request.

Sincerely,

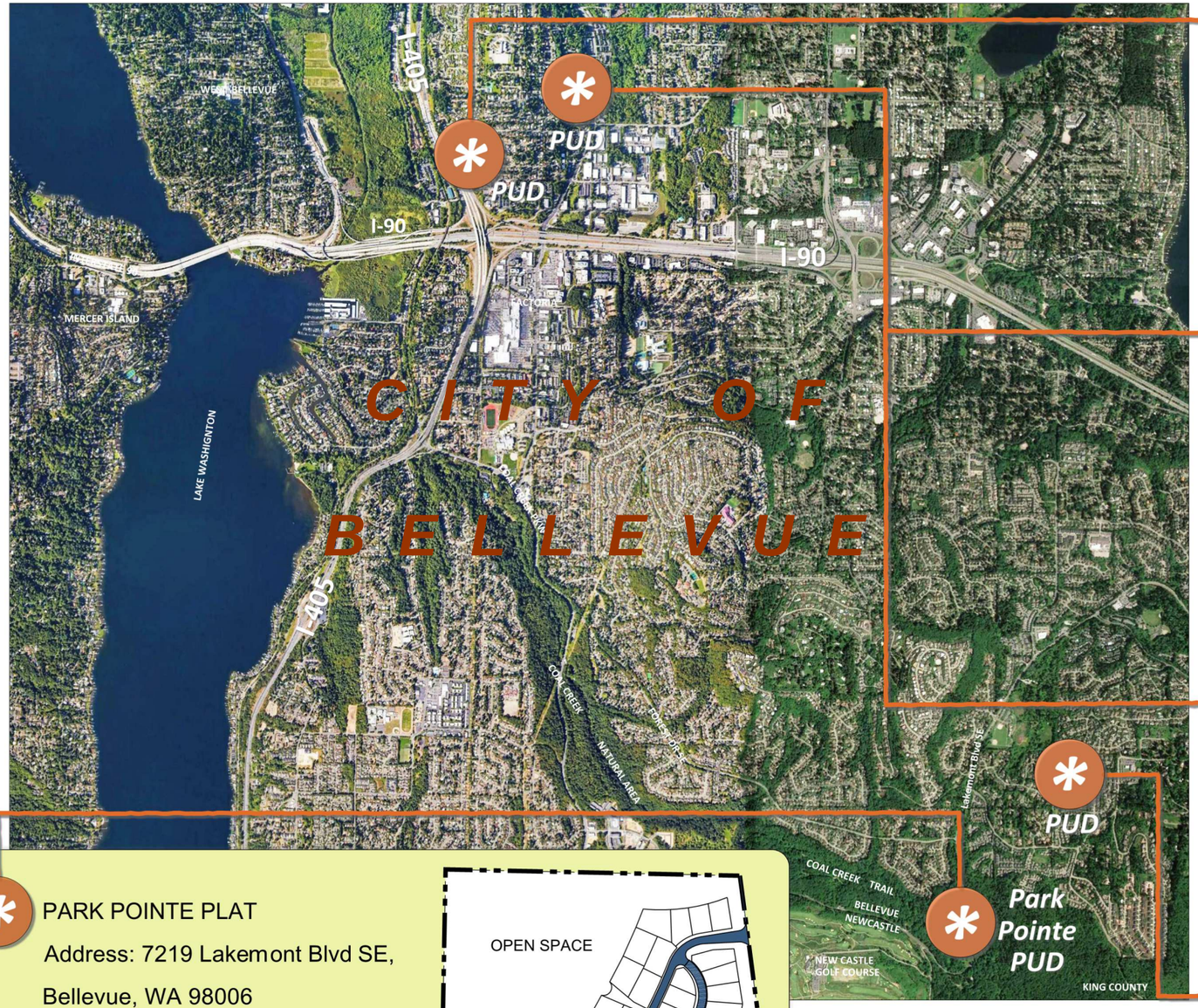
PACE Engineers, Inc.

Toby Coenen, PE
Project Manager

cc: Jeff Wegener, Isola Homes

Enclosures

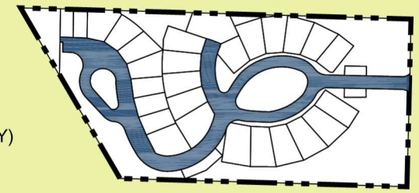
DSD - 001019



RENAISSANCE PLAT

Address: 2763 124TH AVE SE,
Bellevue, WA 98005

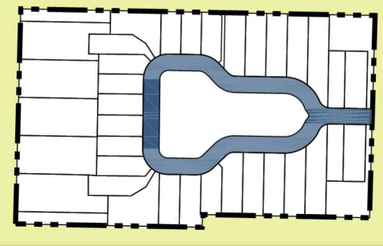
- # OF LOTS: 28
- PRIVATE ROADS (24' TRAVELED WAY)
- PUD / PLAT
- DATE OF RECORDING: 10/19/1994
- MAME AWARD WINNER FOR DESIGN



SARATOGA PLAT

Address: 2493 132ND AVE,
Bellevue, WA 98005

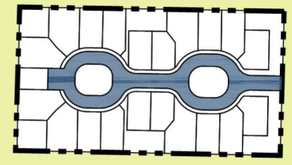
- # OF LOTS: 35
- PRIVATE ROADS (20' TRAVEL WAY)
- PUD / PLAT
- DATE OF RECORDING: 12/08/1999



SAVANNAH PLAT

Address: 2493 132ND A VE,
Bellevue, WA 98005

- # OF LOTS: 20
- PRIVATE ROADS (20' & 24' TRAVELED WAY)
- PUD / PLAT
- DATE OF RECORDING: 01/1999

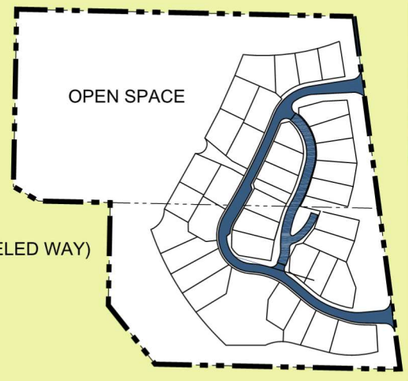


PARK POINTE PLAT

Address: 7219 Lakemont Blvd SE,

Bellevue, WA 98006

- # OF LOTS: 35
- PRIVATE ROADS PROPOSED (20' TRAVELED WAY)
- PUD / PLAT



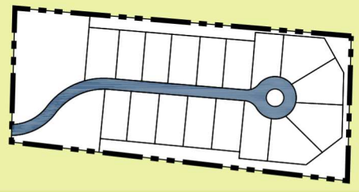
CITY OF BELLEVUE ADOPTED

PUD ORDINANCE IN1995

LAKEMONT HEIGHTS

Address: 16485 SE 61ST PL
Bellevue, WA 98006

- # OF LOTS: 17
- PRIVATE ROADS (24' TRAVELED WAY)
- PUD / PLAT
- DATE OF RECORDING: 04/22/2011



CITY FILES: 19-121109-LL
16-143970-LK
16-145146-LO

ISOLA HOMES

PACE
An Engineering Services Company

FIGURE 1
Platted PUD Examples

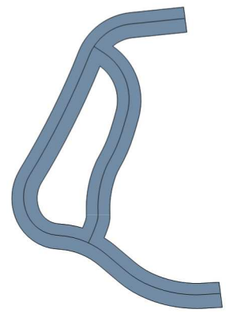
PARK POINTE
PLANNED UNIT DEVELOPMENT

March 4th 2020

PROJECT NO.
15436

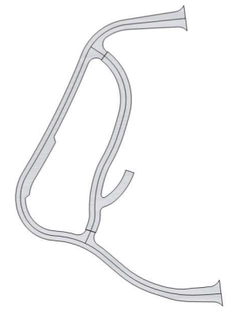
FILE NAME: P:\P15\15436 LAKEMONT PROPERTY FEASIBILITY\CAD\ENGINEERING\FIGURES\SHEETS\PUD EXHIBITS\F1 MAIN PUDCONTEXT.DWG

DSD - 001020



Public Streets

- 47 foot width total
  - Traveled way.....24
  - Curb width (2x 6").....1
  - Landscape(2x 5').....10
  - Sidewalk (2x 6').....12
- ABOVE SECTION IDENTIFIED AS THE MINIMUM ALLOWED PUBLIC STREET IN COMMENT LETTER DATED DECEMBER 12/2/2019.



Proposed Private Streets

- 28 foot width total
  - Traveled way.....20
  - Curb width (2x 6").....1
  - Sidewalk (1x 7').....7

Total Width Varies.....21-28

CITY FILES: 19-121109-LL
16-143970-LK
16-145146-LO

ISOLA HOMES

PACE
An Engineering Services Company

N

0 20 40 80
SCALE IN FEET

FIGURE 2
Street Requirements

PARK POINTE
PLANNED UNIT DEVELOPMENT

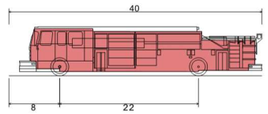
March 4th 2020

PROJECT NO.
15436

FILE NAME: P:\P15\15436 LAKEMONT PROPERTY FEASIBILITY\CAD\ENGINEERING\FIGURES\SHEETS\FIG EXHIBITS\F15436 PUD TRUCK - STREET REQ.DWG

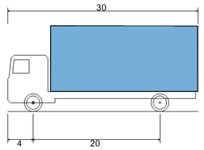
DSD - 001021

Fire Truck Access Route



Pumper Fire Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	7.745ft
Min Body Ground Clearance	0.656ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

Waste Collection Access Route



SU-30 - Single Unit Truck	
Overall Length	30.000ft
Overall Width	8.000ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.367ft
Track Width	8.000ft
Lock-to-lock time	5.00s
Max Steering Angle (Virtual)	31.80°

CITY FILES: 19-121109-LL
16-143970-LK
16-145146-LO

ISOLA HOMES

PACE
An Engineering Services Company

N

0 20 40 80
SCALE IN FEET

FILE NAME: P:\15154\R-LAKEMONT PROPERTY FEASIBILITY\CAD\ENGINEERING\FIGURES\SHEETS\FIG EXHIBITS\F15436 FIG TRUCK - STREET REQ.DWG

FIGURE 3
Truck Accessibility

PARK POINTE
PLANNED UNIT DEVELOPMENT

March 4th 2020

PROJECT NO.
15436

DSD - 001022

Gibson Traffic Consultants, Inc.
2813 Rockefeller Avenue
Suite B
Everett, WA 98201
425.339.8266

Park Pointe PUD
Traffic Impact Analysis

Jurisdiction: City of Bellevue

February 2021

GTC #20-297

DSD - 001023

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Count/Speed Data C
Level of Service ..... D
Collision Data ..... E
Concurrency Test Results ..... F
Site Plan & Sight Distance ..... G

DSD - 001024

1. DEVELOPMENT IDENTIFICATION

Gibson Traffic Consultants, Inc. (GTC) has been retained to provide a traffic impact analysis for the proposed Park Pointe PUD development to address the City of Bellevue Level One traffic impact analysis requirements. Matthew Palmer, responsible for this report and traffic analysis, is a licensed professional engineer (Civil) in the State of Washington and member of the Washington State section of ITE.

The development is located on the west side of Lakemont Blvd south of Forest Drive SE. The proposed development will consist of 35 single-family residences. There are 3 existing single-family residences on the site that will be removed. The site is proposed to have two accesses to Lakemont Blvd. A site vicinity map is included in Figure 1.

Speed and daily volumes were collected on Tuesday January 26th, 2021 by Traffic Data Gathering (TDG). Collision data from WSDOT was received that included all possible collisions from January 1, 2015 through June 30, 2020. The collision data showed five collisions (1 Rear-end and 4 Fixed Object/Ditch) over the 5 1/2-years along Lakemont Blvd; none involved bikes or pedestrians, and none resulted in fatalities.

Figure 1: Site Vicinity Map

Source: Google Earth

DSD - 001025

2. TRIP GENERATION

Trip generation calculations for the Park Pointe PUD development is based on trip generation rates located in the City of Bellevue's Transportation Mitigation Impact Fees & Trip Rates table and national research data published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition (2017)*. ITE Land Use Code 210, single-family residential is used for the trip generation calculations for the proposed use. The trip generation for the 32 new single-family residences in the development is summarized in Table 1.

Table 1: Trip Generation Summary

32 New Single-Family Residential Units	Average Daily Trips			AM Peak-Hour Trips			PM Peak-Hour Trips		
	Inbound	Outbound	Total	Inbound	Outbound	Total	Inbound	Outbound	Total
Generation Rate	9.44 trips per unit			0.74 trips per unit			1.00 trips per unit		
Splits	50%	50%	100%	25%	75%	100%	63%	37%	100%
Trips	152	152	304	6	18	24	20	12	32

The development is anticipated to generate 304 new average daily trips with 32 new PM peak-hour trip. As the development generates more than 30 new PM peak-hour trips the development is required to run a concurrency test. The concurrency test was completed for 35 PM peak-hour trips which included the existing single-family residences that were credited towards the development. The concurrency test concluded the project is eligible for a Certificate of Concurrency and no other study intersections besides the site access would be impacted by 30 PM peak-hour trips; therefore, only the site access was analyzed for level of service.

3. SITE ACCESS ANALYSIS

The Park Pointe PUD development is proposed to have two accesses to Lakemont Blvd along the east property line. The south access is proposed to be a right-in/right-out access that will also provide emergency access. The posted speed limit in the site vicinity is 40 mph. Speed data was collected along Lakemont Blvd along the site which showed the 85th percentile speed at 45.4 mph southbound and 44.2 mph northbound. The volume data showed 2,510 ADT with 309 AM trips (peak between 7-9 AM) and 516 PM trips (peak between 3-6 PM). The sight distance at the access has been analyzed using the City of Bellevue 2017 Design Manual.

The City of Bellevue guidelines for sight distance state that obstructions are not permitted above a line 2 feet above the street surface and below a line 7.5 feet above the street surface for minor streets. For the posted speed limit of 40 mph (maximum listed on Drawing RL-100-1); the standards require sight distance of 410 feet along the centerline of the travel way measured to a point 14 feet back of the traveled way along the center of the access. With a speed of 45 mph and extrapolating from Drawing RL-100-1; the sight distance required would be 470 feet.

DSD - 001026

The north access to Lakemont Blvd has over 470 feet of sight distance to the north and south of the access. The south access has limited sight distance to the south due to a retaining wall, existing vegetation, and the existing curve in the roadway. This limited sight distance is mitigated by restricting the access to right-in/right-out which can also serve as an emergency access. The sight distance figures are shown in the attachments.

Level of service analysis at the access was conducted using hourly data from the daily data collected along the site frontage with 324 southbound trips and 192 northbound trips during the PM peak-hour. Also, a COVID-19 increase factor of 32% was applied to normalize the existing volumes based on WSDOT data along I-90. The turning movements are included in the attachments including the development trips distributed with 80% to/from the north and 20% to/from the south based on the concurrency test which the development passed. The access will operate at LOS B with 14.5 seconds of delay in 2023 when all the development volume using a single access.

4. TRANSPORTATION MITIGATION

The development will result in a new single-family unit. The City of Bellevue assesses transportation impact fees at a rate of $7,060 per single family unit for 2021. The development will construct 35 single-family residences. There are 3 existing single-family residences on the site that will be removed; therefore, the mitigation fees would need to be paid for 32 residences. This results in traffic mitigation fees of $225,920.00.

The City of Bellevue is requiring a Rectangular Rapid Flashing Beacon (RRFB) and crosswalk be installed connecting Coal Creek Natural Area on the west side of Lakemont Blvd to the Cougar Mountain Regional Wildland Park parking lot on the east side of Lakemont Blvd. Where the City identified the location of the crosswalk, based on the 85th percentile speed of 45 mph, the stopping sight distance is 360 feet per AASHTO. Vegetation clearing within the City owned Coal Creek Natural Area should be done to make sure the stopping sight distance to the RRFB is met.

5. CONCULSION

The Park Pointe PUD development is proposed to consist of 35 single-family residences. There are 3 existing single-family residences on the site that will be removed. The development is anticipated to generate 304 new average daily trips with 32 new PM peak-hour trip; the concurrency test was passed and the level of service at the access will be acceptable LOS B. The south access should be restricted to right-in/right-out and vegetation in the Coal Creek Natural Area along the west side of Lakemont Blvd will need to be trimmed or removed to meet the sight distance requirements for the RRFB. The development results in City of Bellevue traffic mitigation fees of $225,920.00, based on the current transportation impact fees.

DSD - 001027

Trip Generation Calculations

Park Pointe PUD
GTC #20-297

Trip Generation for: **Weekday**
(a.k.a.): **Average Weekday Daily Trips (AWDT)**

									NET EXTERNAL TRIPS BY TYPE											
									IN BOTH DIRECTIONS						DIRECTIONAL ASSIGNMENTS					
			Gross Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Single-Family Detached	35 units	210	9.44	50%	50%	330	0%	0	330	0%	0	0%	0	330	0	0	0	0	165	165
Single-Family Detached (Removed)	-3 units	210	9.44	50%	50%	-28	0%	0	-28	0%	0	0%	0	-28	0	0	0	0	-14	-14
Totals						302		0	302		0		0	302	0	0	0	0	151	151

DSDP-001028

Park Pointe PUD
GTC #20-297

Trip Generation for: **Weekday, Peak Hour of Adjacent Street Traffic, One Hour between 7 and 9 AM**
(a.k.a.): **Weekday AM Peak Hour**

									NET EXTERNAL TRIPS BY TYPE											
									IN BOTH DIRECTIONS						DIRECTIONAL ASSIGNMENTS					
			Gross Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Single-Family Detached	35 units	210	0.74	25%	75%	26	0%	0	26	0%	0	0%	0	26	0	0	0	0	7	19
Single-Family Detached (Removed)	-3 units	210	0.74	25%	75%	-2	0%	0	-2	0%	0	0%	0	-2	0	0	0	0	-1	-1
Totals						24		0	24		0		0	24	0	0	0	0	6	18

DSDP-001029

Park Pointe PUD
GTC #20-297

Trip Generation for: **Weekday, Peak Hour of Adjacent Street Traffic, One Hour between 4 and 6 PM**
(a.k.a.): **Weekday PM Peak Hour**

									NET EXTERNAL TRIPS BY TYPE											
									IN BOTH DIRECTIONS						DIRECTIONAL ASSIGNMENTS					
			Gross Trips				Internal Crossover		TOTAL	PASS-BY		DIVERTED LINK		NEW	PASS-BY		DIVERTED LINK		NEW	
LAND USES	VARIABLE	ITE LU code	Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	In	Out	In	Out	In	Out
Single-Family Detached	35 units	COB	1.00	63%	37%	35	0%	0	35	0%	0	0%	0	35	0	0	0	0	22	13
Single-Family Detached (Removed)	-3 units	COB	1.00	63%	37%	-3	0%	0	-3	0%	0	0%	0	-3	0	0	0	0	-2	-1
Totals						32		0	32		0		0	32	0	0	0	0	20	12

DSDP-001030

DSD - 001031

Park Pointe PUD
GTC #20-297

AM Peak-Hour

%	New ADT	New AM Peak Hour Trips		
		In	Out	Total
100%	302	6	18	24.00
1%	3.02	0.06	0.18	0.24
2%	6.04	0.12	0.36	0.48
3%	9.06	0.18	0.54	0.72
4%	12.08	0.24	0.72	0.96
5%	**15.10**	**0.30**	**0.90**	**1.20**
6%	18.12	0.36	1.08	1.44
7%	21.14	0.42	1.26	1.68
8%	24.16	0.48	1.44	1.92
9%	27.18	0.54	1.62	2.16
10%	**30.20**	**0.60**	**1.80**	**2.40**
11%	33.22	0.66	1.98	2.64
12%	36.24	0.72	2.16	2.88
13%	39.26	0.78	2.34	3.12
14%	42.28	0.84	2.52	3.36
15%	**45.30**	**0.90**	**2.70**	**3.60**
16%	48.32	0.96	2.88	3.84
17%	51.34	1.02	3.06	4.08
18%	54.36	1.08	3.24	4.32
19%	57.38	1.14	3.42	4.56
20%	**60.40**	**1.20**	**3.60**	**4.80**
21%	63.42	1.26	3.78	5.04
22%	66.44	1.32	3.96	5.28
23%	69.46	1.38	4.14	5.52
24%	72.48	1.44	4.32	5.76
25%	**75.50**	**1.50**	**4.50**	**6.00**
26%	78.52	1.56	4.68	6.24
27%	81.54	1.62	4.86	6.48
28%	84.56	1.68	5.04	6.72
29%	87.58	1.74	5.22	6.96
30%	**90.60**	**1.80**	**5.40**	**7.20**
31%	93.62	1.86	5.58	7.44
32%	96.64	1.92	5.76	7.68
33%	99.66	1.98	5.94	7.92
34%	102.68	2.04	6.12	8.16
35%	**105.70**	**2.10**	**6.30**	**8.40**
36%	108.72	2.16	6.48	8.64
37%	111.74	2.22	6.66	8.88
38%	114.76	2.28	6.84	9.12
39%	117.78	2.34	7.02	9.36
40%	**120.80**	**2.40**	**7.20**	**9.60**
41%	123.82	2.46	7.38	9.84
42%	126.84	2.52	7.56	10.08
43%	129.86	2.58	7.74	10.32
44%	132.88	2.64	7.92	10.56
45%	**135.90**	**2.70**	**8.10**	**10.80**
46%	138.92	2.76	8.28	11.04
47%	141.94	2.82	8.46	11.28
48%	144.96	2.88	8.64	11.52
49%	147.98	2.94	8.82	11.76
50%	**151.00**	**3.00**	**9.00**	**12.00**

%	New ADT	New AM Peak Hour Trips		
		In	Out	Total
100%	302	6	18	24
51%	154.02	3.06	9.18	12.24
52%	157.04	3.12	9.36	12.48
53%	160.06	3.18	9.54	12.72
54%	163.08	3.24	9.72	12.96
55%	**166.10**	**3.30**	**9.90**	**13.20**
56%	169.12	3.36	10.08	13.44
57%	172.14	3.42	10.26	13.68
58%	175.16	3.48	10.44	13.92
59%	178.18	3.54	10.62	14.16
60%	**181.20**	**3.60**	**10.80**	**14.40**
61%	184.22	3.66	10.98	14.64
62%	187.24	3.72	11.16	14.88
63%	190.26	3.78	11.34	15.12
64%	193.28	3.84	11.52	15.36
65%	**196.30**	**3.90**	**11.70**	**15.60**
66%	199.32	3.96	11.88	15.84
67%	202.34	4.02	12.06	16.08
68%	205.36	4.08	12.24	16.32
69%	208.38	4.14	12.42	16.56
70%	**211.40**	**4.20**	**12.60**	**16.80**
71%	214.42	4.26	12.78	17.04
72%	217.44	4.32	12.96	17.28
73%	220.46	4.38	13.14	17.52
74%	223.48	4.44	13.32	17.76
75%	**226.50**	**4.50**	**13.50**	**18.00**
76%	229.52	4.56	13.68	18.24
77%	232.54	4.62	13.86	18.48
78%	235.56	4.68	14.04	18.72
79%	238.58	4.74	14.22	18.96
80%	**241.60**	**4.80**	**14.40**	**19.20**
81%	244.62	4.86	14.58	19.44
82%	247.64	4.92	14.76	19.68
83%	250.66	4.98	14.94	19.92
84%	253.68	5.04	15.12	20.16
85%	**256.70**	**5.10**	**15.30**	**20.40**
86%	259.72	5.16	15.48	20.64
87%	262.74	5.22	15.66	20.88
88%	265.76	5.28	15.84	21.12
89%	268.78	5.34	16.02	21.36
90%	**271.80**	**5.40**	**16.20**	**21.60**
91%	274.82	5.46	16.38	21.84
92%	277.84	5.52	16.56	22.08
93%	280.86	5.58	16.74	22.32
94%	283.88	5.64	16.92	22.56
95%	**286.90**	**5.70**	**17.10**	**22.80**
96%	289.92	5.76	17.28	23.04
97%	292.94	5.82	17.46	23.28
98%	295.96	5.88	17.64	23.52
99%	298.98	5.94	17.82	23.76
100%	**302.00**	**6.00**	**18.00**	**24.00**

DSD - 001032

Park Pointe PUD
GTC #20-297

PM Peak-Hour

%	New ADT	New PM Peak Hour Trips		
		In	Out	Total
100%	302	20	12	32.00
1%	3.02	0.20	0.12	0.32
2%	6.04	0.40	0.24	0.64
3%	9.06	0.60	0.36	0.96
4%	12.08	0.80	0.48	1.28
5%	**15.10**	**1.00**	**0.60**	**1.60**
6%	18.12	1.20	0.72	1.92
7%	21.14	1.40	0.84	2.24
8%	24.16	1.60	0.96	2.56
9%	27.18	1.80	1.08	2.88
10%	**30.20**	**2.00**	**1.20**	**3.20**
11%	33.22	2.20	1.32	3.52
12%	36.24	2.40	1.44	3.84
13%	39.26	2.60	1.56	4.16
14%	42.28	2.80	1.68	4.48
15%	**45.30**	**3.00**	**1.80**	**4.80**
16%	48.32	3.20	1.92	5.12
17%	51.34	3.40	2.04	5.44
18%	54.36	3.60	2.16	5.76
19%	57.38	3.80	2.28	6.08
20%	**60.40**	**4.00**	**2.40**	**6.40**
21%	63.42	4.20	2.52	6.72
22%	66.44	4.40	2.64	7.04
23%	69.46	4.60	2.76	7.36
24%	72.48	4.80	2.88	7.68
25%	**75.50**	**5.00**	**3.00**	**8.00**
26%	78.52	5.20	3.12	8.32
27%	81.54	5.40	3.24	8.64
28%	84.56	5.60	3.36	8.96
29%	87.58	5.80	3.48	9.28
30%	**90.60**	**6.00**	**3.60**	**9.60**
31%	93.62	6.20	3.72	9.92
32%	96.64	6.40	3.84	10.24
33%	99.66	6.60	3.96	10.56
34%	102.68	6.80	4.08	10.88
35%	**105.70**	**7.00**	**4.20**	**11.20**
36%	108.72	7.20	4.32	11.52
37%	111.74	7.40	4.44	11.84
38%	114.76	7.60	4.56	12.16
39%	117.78	7.80	4.68	12.48
40%	**120.80**	**8.00**	**4.80**	**12.80**
41%	123.82	8.20	4.92	13.12
42%	126.84	8.40	5.04	13.44
43%	129.86	8.60	5.16	13.76
44%	132.88	8.80	5.28	14.08
45%	**135.90**	**9.00**	**5.40**	**14.40**
46%	138.92	9.20	5.52	14.72
47%	141.94	9.40	5.64	15.04
48%	144.96	9.60	5.76	15.36
49%	147.98	9.80	5.88	15.68
50%	**151.00**	**10.00**	**6.00**	**16.00**

%	New ADT	New PM Peak Hour Trips		
		In	Out	Total
100%	302	20	12	32
51%	154.02	10.20	6.12	16.32
52%	157.04	10.40	6.24	16.64
53%	160.06	10.60	6.36	16.96
54%	163.08	10.80	6.48	17.28
55%	**166.10**	**11.00**	**6.60**	**17.60**
56%	169.12	11.20	6.72	17.92
57%	172.14	11.40	6.84	18.24
58%	175.16	11.60	6.96	18.56
59%	178.18	11.80	7.08	18.88
60%	**181.20**	**12.00**	**7.20**	**19.20**
61%	184.22	12.20	7.32	19.52
62%	187.24	12.40	7.44	19.84
63%	190.26	12.60	7.56	20.16
64%	193.28	12.80	7.68	20.48
65%	**196.30**	**13.00**	**7.80**	**20.80**
66%	199.32	13.20	7.92	21.12
67%	202.34	13.40	8.04	21.44
68%	205.36	13.60	8.16	21.76
69%	208.38	13.80	8.28	22.08
70%	**211.40**	**14.00**	**8.40**	**22.40**
71%	214.42	14.20	8.52	22.72
72%	217.44	14.40	8.64	23.04
73%	220.46	14.60	8.76	23.36
74%	223.48	14.80	8.88	23.68
75%	**226.50**	**15.00**	**9.00**	**24.00**
76%	229.52	15.20	9.12	24.32
77%	232.54	15.40	9.24	24.64
78%	235.56	15.60	9.36	24.96
79%	238.58	15.80	9.48	25.28
80%	**241.60**	**16.00**	**9.60**	**25.60**
81%	244.62	16.20	9.72	25.92
82%	247.64	16.40	9.84	26.24
83%	250.66	16.60	9.96	26.56
84%	253.68	16.80	10.08	26.88
85%	**256.70**	**17.00**	**10.20**	**27.20**
86%	259.72	17.20	10.32	27.52
87%	262.74	17.40	10.44	27.84
88%	265.76	17.60	10.56	28.16
89%	268.78	17.80	10.68	28.48
90%	**271.80**	**18.00**	**10.80**	**28.80**
91%	274.82	18.20	10.92	29.12
92%	277.84	18.40	11.04	29.44
93%	280.86	18.60	11.16	29.76
94%	283.88	18.80	11.28	30.08
95%	**286.90**	**19.00**	**11.40**	**30.40**
96%	289.92	19.20	11.52	30.72
97%	292.94	19.40	11.64	31.04
98%	295.96	19.60	11.76	31.36
99%	298.98	19.80	11.88	31.68
100%	**302.00**	**20.00**	**12.00**	**32.00**

DSD - 001033

Turning Movements

DSD - 001034

1 Access @ Lakemont Blvd

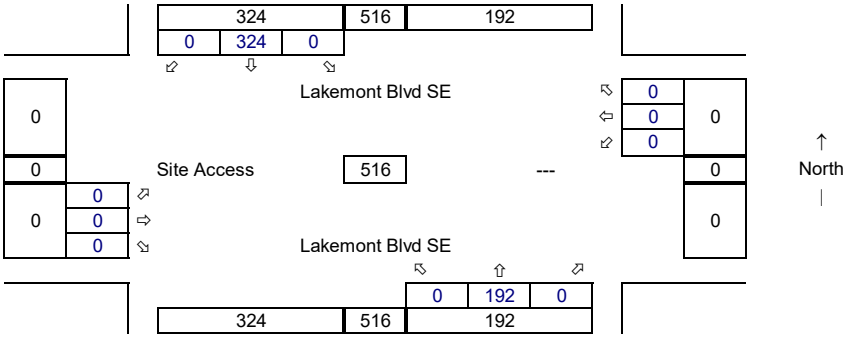
Synchro ID: 1

Existing
Average Weekday
PM Peak Hour

Year: **1/26/21**

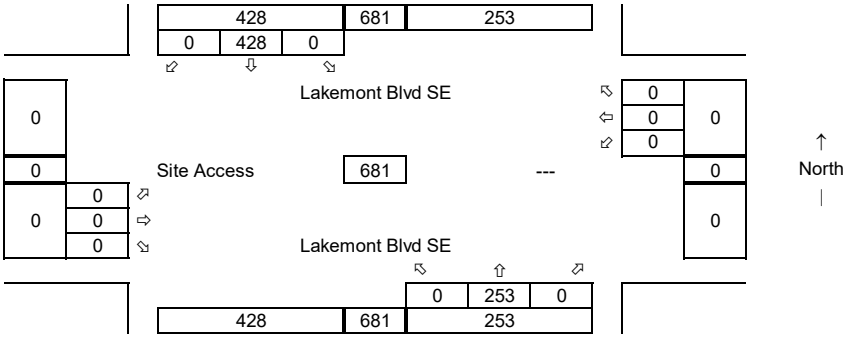
Data Source: TDG

From ADT collected along Lakemont Blvd SE along Site Frontage.



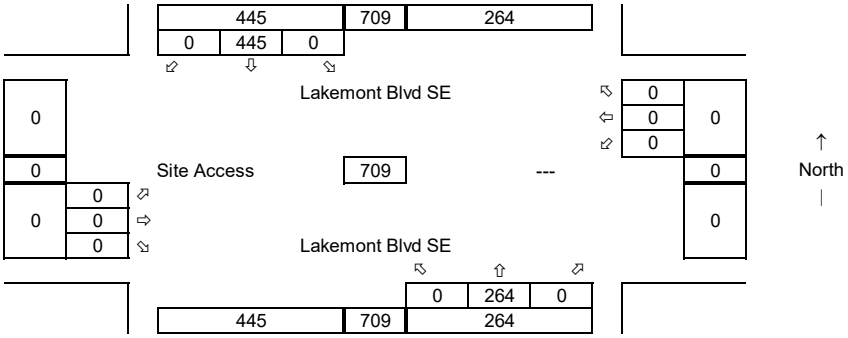
Normalized Existing (COVID-19 Factor)
Average Weekday
PM Peak Hour

Percent Change: 32.0%

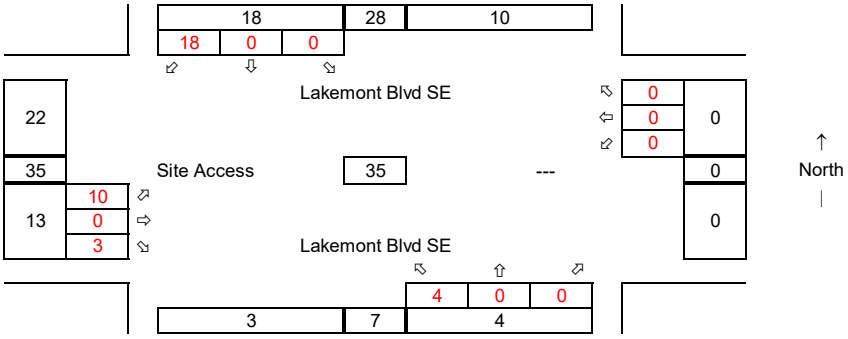


Future without Project
Average Weekday
PM Peak Hour

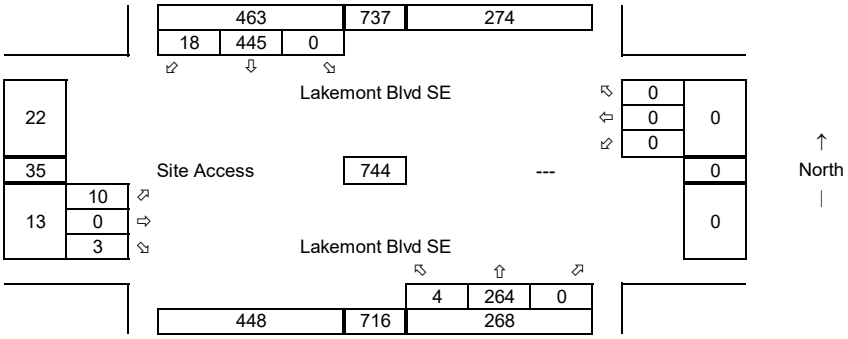
Year: 2023
Growth Rate = 2.0%
Years of Growth = 2
Total Growth = 1.0404



Total Project Trips
Average Weekday
PM Peak Hour



Future with Project
Average Weekday
PM Peak Hour



DSD - 001035

Count/Speed Data

TRAFFIC DATA GATHERING
LAKE STEVENS, WA 98258 (425) 334-3348
EMAIL: Carlan@Trafficdatagathering.com

Location : Near 7242 Lakemont Blvd SE
City, State : Bellevue, WA
Counter # : NT-2800

Site: Loc 01
1/26/2021
Tuesday

Daily Speed

SB

mph	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	Avg.
12:00 AM	2	0	0	0	0	0	1	1	0	0	0	0	0	0	40.8
1:00 AM	7	0	0	0	0	2	3	0	2	0	0	0	0	0	40.3
2:00 AM	2	0	0	0	0	1	0	0	0	1	0	0	0	0	42.0
3:00 AM	3	0	0	0	0	0	1	1	1	0	0	0	0	0	44.1
4:00 AM	13	0	0	0	1	1	1	3	3	3	1	0	0	0	45.5
5:00 AM	52	0	0	0	0	6	21	10	11	3	1	0	0	0	41.3
6:00 AM	74	0	0	0	1	7	33	18	9	6	0	0	0	0	40.5
7:00 AM	122	1	6	1	1	7	42	45	15	2	2	0	0	0	39.5
8:00 AM	126	0	1	0	0	11	43	51	16	3	1	0	0	0	40.5
9:00 AM	146	0	0	1	1	13	54	54	15	2	6	0	0	0	40.9
10:00 AM	134	0	1	1	1	7	47	58	17	2	0	0	0	0	40.5
11:00 AM	173	1	0	0	2	16	64	70	18	2	0	0	0	0	40.2
12:00 PM	190	0	1	3	0	19	71	73	19	3	1	0	0	0	39.9
1:00 PM	208	1	0	0	1	18	75	90	22	1	0	0	0	0	40.1
2:00 PM	300	1	4	0	1	20	96	133	37	7	0	0	0	1	40.8
3:00 PM	324	0	1	1	3	16	89	155	48	10	1	0	0	0	41.3
4:00 PM	273	1	2	0	0	17	84	122	40	5	2	0	0	0	41.1
5:00 PM	170	2	1	0	0	2	40	77	44	4	0	0	0	0	42.1
6:00 PM	77	0	0	0	0	2	21	40	13	1	0	0	0	0	42.1
7:00 PM	54	0	0	0	0	1	17	20	11	5	0	0	0	0	42.9
8:00 PM	23	0	0	0	0	2	5	8	5	2	1	0	0	0	43.2
9:00 PM	22	0	0	0	0	1	7	6	6	2	0	0	0	0	42.6
10:00 PM	12	0	0	0	0	2	2	5	2	1	0	0	0	0	41.2
11:00 PM	3	0	0	0	0	1	0	1	1	0	0	0	0	0	38.9
Total	2510	7	17	7	12	172	817	1041	355	65	16	0	0	1	40.9
%		0.3	0.7	0.3	0.5	6.9	32.5	41.5	14.1	2.6	0.6	0.0	0.0	0.0	

Average (Mean) 40.9 mph **Minimum** 10.4 mph **Maximum** 82.8 mph **Pace Range** 36.1 - 46.1 mph 1918 vehicles (76.4%)

Percentile Speeds	10%	15%	50%	85%	90%
(mph)	35.4	36.6	40.9	45.4	46.7

Speeds Exceeded	25 mph	35 mph	45 mph	55 mph	65 mph	75 mph
	98.8% (2479)	91.1% (2286)	17.2% (432)	0.7% (17)	0.0% (1)	0.0% (1)

DSD - 001036

Location : Near 7242 Lakemont Blvd SE
City, State : Bellevue, WA
Counter # : NT-2800

Site: Loc 01
1/26/2021
Tuesday

Daily Speed

NB

mph	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	Avg.
12:00 AM	4	0	0	0	0	0	1	3	0	0	0	0	0	0	40.9
1:00 AM	2	0	0	0	0	1	1	0	0	0	0	0	0	0	36.0
2:00 AM	1	0	0	0	0	0	0	1	0	0	0	0	0	0	44.4
3:00 AM	2	0	0	1	0	0	1	0	0	0	0	0	0	0	32.2
4:00 AM	10	0	0	0	0	1	5	4	0	0	0	0	0	0	38.5
5:00 AM	47	0	0	0	0	5	23	14	4	1	0	0	0	0	39.3
6:00 AM	138	1	0	2	7	25	64	32	6	0	1	0	0	0	37.5
7:00 AM	187	1	0	2	0	30	87	58	6	2	0	0	0	1	38.7
8:00 AM	131	0	1	0	4	22	46	45	11	1	0	0	0	1	39.1
9:00 AM	121	1	0	0	0	5	33	57	22	3	0	0	0	0	41.5
10:00 AM	124	1	1	1	0	6	44	50	19	2	0	0	0	0	40.6
11:00 AM	146	2	0	2	4	9	43	64	20	2	0	0	0	0	40.2
12:00 PM	160	1	0	1	1	15	53	69	18	1	1	0	0	0	40.3
1:00 PM	177	0	0	3	1	11	68	74	16	2	0	0	0	2	40.5
2:00 PM	201	1	1	0	0	20	80	78	15	1	3	1	1	0	40.3
3:00 PM	192	1	0	1	1	32	50	83	19	3	1	0	0	1	40.1
4:00 PM	182	0	0	1	6	22	83	57	12	1	0	0	0	0	38.6
5:00 PM	126	0	1	1	0	18	44	44	16	1	1	0	0	0	39.9
6:00 PM	62	0	0	0	0	12	19	25	6	0	0	0	0	0	39.6
7:00 PM	42	0	0	0	1	5	20	5	9	1	1	0	0	0	40.4
8:00 PM	14	0	0	0	1	0	6	4	2	0	1	0	0	0	41.3
9:00 PM	10	0	1	0	1	1	4	2	1	0	0	0	0	0	36.4
10:00 PM	8	0	0	0	0	1	3	4	0	0	0	0	0	0	39.6
11:00 PM	6	0	0	0	0	0	4	1	0	0	0	1	0	0	42.5
Total	2093	9	5	15	27	241	782	774	202	21	9	2	1	5	39.7
%		0.4	0.2	0.7	1.3	11.5	37.4	37.0	9.7	1.0	0.4	0.1	0.0	0.2	

Average (Mean) 39.7 mph **Minimum** 10.4 mph **Maximum** 83.4 mph **Pace Range** 34.5 - 44.5 mph 1573 vehicles (75.2%)

Percentile Speeds	10%	15%	50%	85%	90%
(mph)	33.9	35.2	39.8	44.2	45.3

Speeds Exceeded	25 mph	35 mph	45 mph	55 mph	65 mph	75 mph
	98.6% (2064)	85.4% (1788)	11.2% (234)	0.8% (17)	0.3% (6)	0.2% (5)

DSD - 001037

DSD - 001038

TRAFFIC DATA GATHERING
LAKE STEVENS, WA 98258 (425) 334-3348
EMAIL: Carlan@Trafficdatagathering.com

Location : Near 7242 Lakemont Blvd SE
City, State : Bellevue, WA
Counter # : NT-2800

Site: Loc 01
1/26/2021
Tuesday

Daily Volume

Interval Start	SB		NB		Combined		Interval Start	SB		NB		Combined	
12:00 AM	0	2	2	4	2	6	12:00 PM	43	190	50	160	93	350
12:15 AM	0		0		0		12:15 PM	44		30		74	
12:30 AM	1		1		2		12:30 PM	49		44		93	
12:45 AM	1		1		2		12:45 PM	54		36		90	
1:00 AM	3	7	0	2	3	9	1:00 PM	47	208	44	177	91	385
1:15 AM	2		1		3		1:15 PM	46		42		88	
1:30 AM	1		0		1		1:30 PM	52		47		99	
1:45 AM	1		1		2		1:45 PM	63		44		107	
2:00 AM	1	2	0	1	1	3	2:00 PM	62	300	60	201	122	501
2:15 AM	0		0		0		2:15 PM	80		50		130	
2:30 AM	1		0		1		2:30 PM	92		44		136	
2:45 AM	0		1		1		2:45 PM	66		47		113	
3:00 AM	0	3	0	2	0	5	3:00 PM	85	324	50	192	135	516
3:15 AM	0		0		0		3:15 PM	89		39		128	
3:30 AM	2		0		2		3:30 PM	76		53		129	
3:45 AM	1		2		3		3:45 PM	74		50		124	
4:00 AM	0	13	3	10	3	23	4:00 PM	66	273	63	182	129	455
4:15 AM	6		3		9		4:15 PM	63		43		106	
4:30 AM	4		3		7		4:30 PM	75		43		118	
4:45 AM	3		1		4		4:45 PM	69		33		102	
5:00 AM	8	52	4	47	12	99	5:00 PM	53	170	30	126	83	296
5:15 AM	8		9		17		5:15 PM	42		34		76	
5:30 AM	16		15		31		5:30 PM	42		30		72	
5:45 AM	20		19		39		5:45 PM	33		32		65	
6:00 AM	18	74	24	138	42	212	6:00 PM	24	77	18	62	42	139
6:15 AM	15		27		42		6:15 PM	25		13		38	
6:30 AM	19		50		69		6:30 PM	15		20		35	
6:45 AM	22		37		59		6:45 PM	13		11		24	
7:00 AM	27	122	53	187	80	309	7:00 PM	14	54	8	42	22	96
7:15 AM	34		39		73		7:15 PM	12		10		22	
7:30 AM	27		51		78		7:30 PM	15		12		27	
7:45 AM	34		44		78		7:45 PM	13		12		25	
8:00 AM	35	126	36	131	71	257	8:00 PM	10	23	4	14	14	37
8:15 AM	20		39		59		8:15 PM	8		0		8	
8:30 AM	36		31		67		8:30 PM	1		6		7	
8:45 AM	35		25		60		8:45 PM	4		4		8	
9:00 AM	43	146	33	121	76	267	9:00 PM	9	22	5	10	14	32
9:15 AM	38		22		60		9:15 PM	4		3		7	
9:30 AM	33		34		67		9:30 PM	5		2		7	
9:45 AM	32		32		64		9:45 PM	4		0		4	
10:00 AM	27	134	32	124	59	258	10:00 PM	5	12	2	8	7	20
10:15 AM	28		30		58		10:15 PM	3		2		5	
10:30 AM	37		33		70		10:30 PM	3		2		5	
10:45 AM	42		29		71		10:45 PM	1		2		3	
11:00 AM	38	173	33	146	71	319	11:00 PM	0	3	2	6	2	9
11:15 AM	50		45		95		11:15 PM	1		3		4	
11:30 AM	41		39		80		11:30 PM	1		1		2	
11:45 AM	44		29		73		11:45 PM	1		0		1	

Volume Totals

	SB	NB	Combined
12:00 AM - 12:00 PM	854 (48.3%)	913 (51.7%)	1767
12:00 PM - 12:00 AM	1656 (58.4%)	1180 (41.6%)	2836
24 Hours	2510 (54.5%)	2093 (45.5%)	4603

Peak Hours

	SB	NB	Combined
12:00 AM - 12:00 PM	11:00 AM	7:00 AM	11:00 AM
Volume	173	187	319
Factor	0.87	0.88	0.84
12:00 PM - 12:00 AM	2:30 PM	3:30 PM	3:00 PM
Volume	332	209	516
Factor	0.90	0.83	0.96

DSD - 001039

Level of Service

DSD - 001040

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	3	4	264	445	18
Future Vol, veh/h	10	3	4	264	445	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	11	3	4	287	484	20

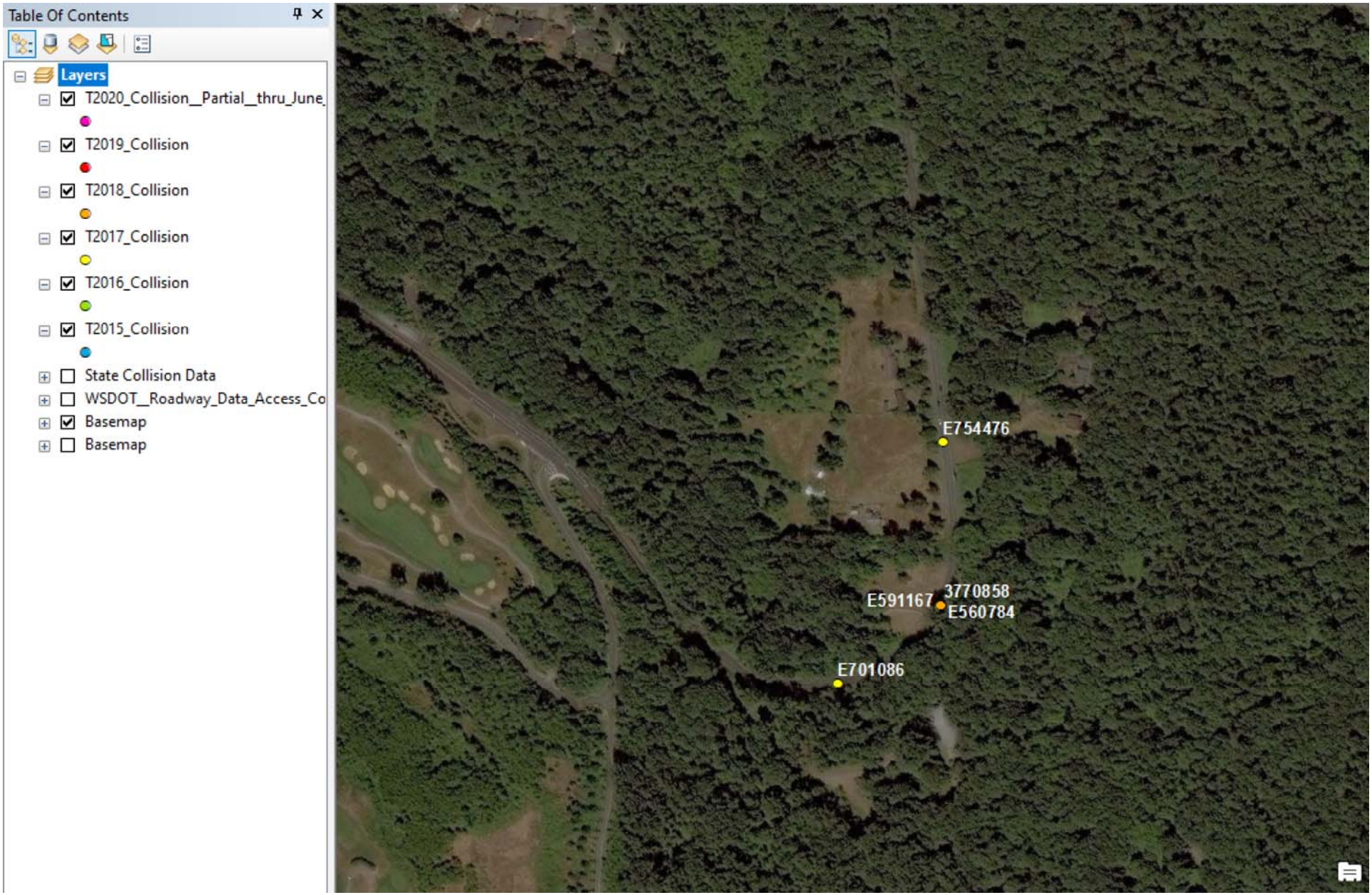
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	789	494	504	0	-	0
Stage 1	494	-	-	-	-	-
Stage 2	295	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	361	577	1066	-	-	-
Stage 1	615	-	-	-	-	-
Stage 2	758	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	360	577	1066	-	-	-
Mov Cap-2 Maneuver	360	-	-	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	758	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1066	-	394	-	-
HCM Lane V/C Ratio	0.004	-	0.036	-	-
HCM Control Delay (s)	8.4	0	14.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

DSD - 001041

Collision Data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Layers
T2020_Collision__Partial__thru_June_
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T2015_Collision
State Collision Data
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Basemap
Basemap
E754476
E591167
3770858
E560784
E701086

DSD - 001042

CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY/ REFERENCE POINT NAME	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE
Bellevue	LAKEMONT BLVD SE	7400	NEWCASTLE GOLF CLUB RD	0				E591167	2016-09-28	16:52	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb
Bellevue	NEWCASTLE GOLF CLUB RD	0	LAKEMONT BLVD SE	0				E560784	2016-06-30	12:31	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	
Bellevue	LAKEMONT BLVD SE	7300		456	F	N	NEWCASTLE GOLF CLUB RD	E754476	2017-12-30	22:06	Unknown	0	0	1	0	0	Passenger Car	
Bellevue	NEWCASTLE GOLF CLUB RD	6200		227	F	E	LAKEMONT BLVD SE	E701086	2017-08-10	17:37	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	
Bellevue	LAKEMONT BLVD SE	0	RED TOWN TRAILHEAD	0				3770858	2018-12-23	3:45	No Apparent Injury	0	0	1	0	0	Passenger Car	

DSD - 001043

JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO
At Driveway	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped in Roadway	North	South
At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Other Objects	Making Right Turn		East	North
Not at Intersection and Not Related	Clear or Partly Cloudy	Wet	Dark-Street Lights On	Tree or Stump (stationary)	Going Straight Ahead		South	North
Not at Intersection and Not Related	Clear or Partly Cloudy	Dry	Daylight	Guardrail - Face	Going Straight Ahead		West	East
Not at Intersection and Not Related	Raining	Wet	Dark-Street Lights On	Culvert and/or other Appurtenance in Ditch	Going Straight Ahead		North	South

DSD - 001044

VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD
North	Vehicle Stopped	Inattention	Lane of Primary Trafficway	1238070.12	807322.42
		Inattention	Past the Outside Shoulder of Primary Trafficway	1238070.12	807322.42
		Under Influence of Alcohol	Past the Outside Shoulder of Primary Trafficway	1238077.25	807780
		Apparently Asleep	Outside Shoulder of Primary Trafficway	1237781.99	807101.81
		Exceeding Reas. Safe Speed	Past the Outside Shoulder of Primary Trafficway	1238070.12	807322.44

DSD - 001045

DSD - 001046

Concurrency Test Results

DSD - 001047

City of Bellevue, Transportation
Forecasting and Modeling Services
Prepared for Site Review Section

December 17, 2020

Site Review: ***16-1439700 LK***

Proposed Park Pointe PUD Development

Project Description

The Proposed Park Pointe PUD Development is a planned single-family residential development located at 7219 Lakemont Blvd SE, Bellevue. See attached application for landuse details. The development is estimated to generate 35 net new PM peak hour vehicle trips (22 in and 13 out).

Transportation Assumptions

- Background: Concurrency Model Platform BKR-1-19-C25, as of August 2020, including 2019-2025 CIP capacity projects. Please refer to the "Concurrency Update Report – Performance Snapshot December 31, 2019" for CIP project details.
- Project Condition: Scenario 5009 network was coded to reflect site access to the arterial road network. See attached application for network access details.

Land Use Assumptions

The land use estimates used in this analysis include existing on-the-ground land use (as of December 2019) in the BKRCast modeling area (King, Pierce, Kitsap and Snohomish Counties) plus any land development applications with valid design approval or building permit issued by the City of Bellevue as of 12/31/2019.

Traffic Forecasts

The Background (Concurrency) and Project intersection turning movement volumes were forecast from the BKRCast EMME Travel Demand Model and then post-processed (adjusted) using the most recent available traffic counts to account for model validation errors.

Traffic Analysis

The latest intersection critical volume method found in the 2010 Highway Capacity Manual (HCM) was used in the analysis per the Traffic Standard Code (TSC Chapter 14.10, revised June 2009).

Conclusion: This project is eligible for a Certificate of Concurrency per the requirements of B.C.C. 14.10.

Exhibits

- Exhibit 1: Proposed Park Pointe PUD Development application and Model run request
- Exhibit 2: Scenario 5009 Project Auto Trip Plot – Proposed Park Pointe PUD Development PM peak hour auto trip assignment to nearby streets
- Exhibit 3: Scenario 5009 Project Auto Turns: Proposed Park Pointe PUD Development PM peak hour auto trips assigned to the City's intersections
- Exhibit 4: Intersection LOS Comparisons: 2025 Background (Concurrency) vs. 2025 Background + Proposed Park Pointe PUD Development PM peak 2-hour average intersection LOS analysis results by MMA

CITY OF BELLEVUE
Transportation Department
Modeling Group

DSD - 001048

REQUEST FOR (EMME-2 MODEL RUN)
ZONE ASSIGNMENT / TRIP DISTRIBUTION
CONCURRENCY TEST

Date Requested 11/30/2020 Date Needed _____ Priority: Super High / (High) / Medium

Review Engineer Ian Nisbet Phone Number 425 452-4851

Development Park Pointe PUD __ Permit # 16-1439700-LK AMANDA Row _____

Address of Proposal 7219 Lakemont Blvd SE Land Use Type Single-family Residential

Square Footage _____ # of Units 35 Trip Rate 1.00 In 20 Out 12 Total PM Trips 32

Zone# _____ Trip Table & Platform _____ Date Modeled _____ Scenario # _____

Modeled By _____ (LOS Methodology: HCM 209/2-hours)

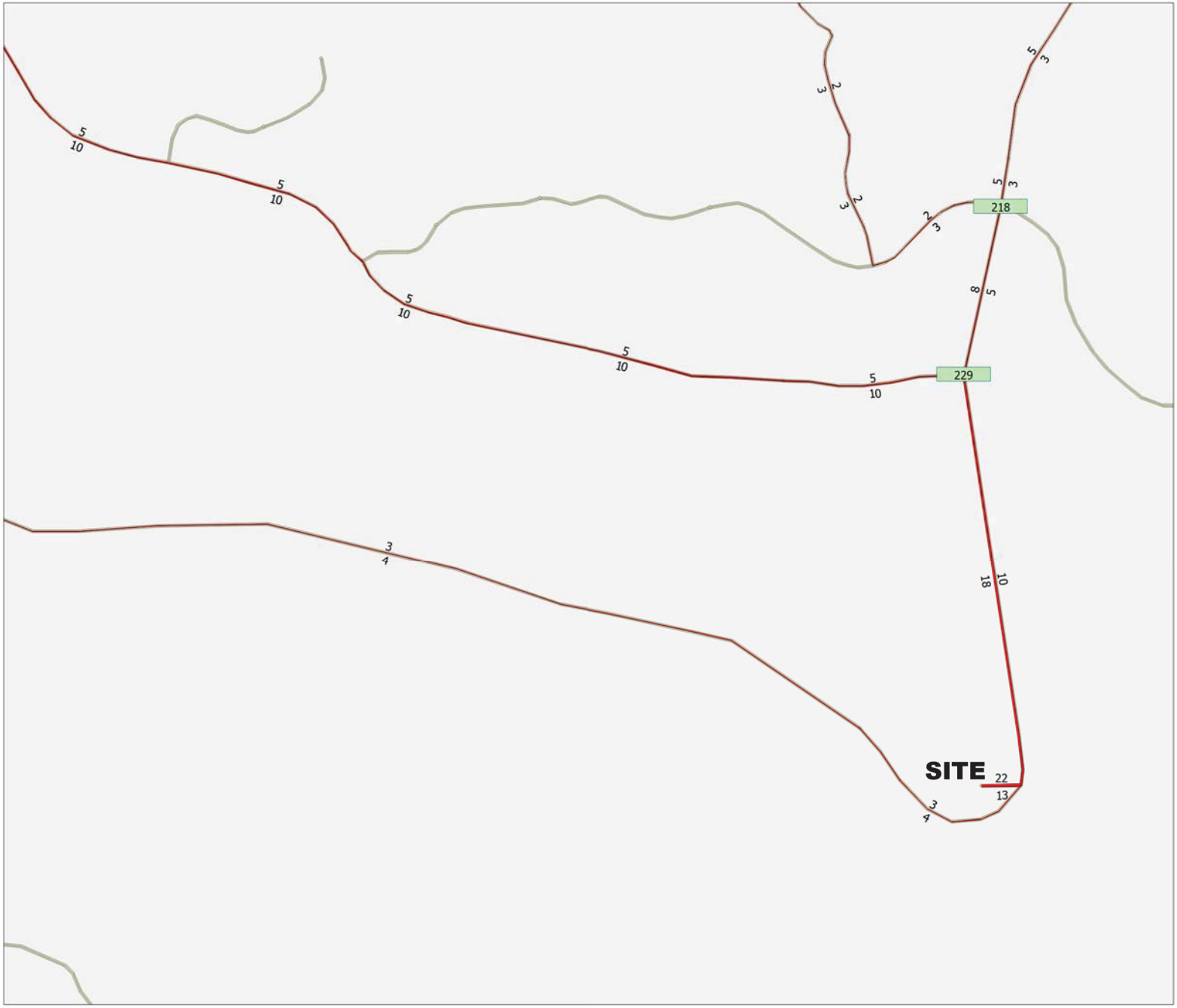
The trip generation includes credit for the existing 3 single-family homes to be removed. To be conservative the analysis could be conducted for 22 In/13 Out for a total of 35 PM Trips. The City of Bellevue Rates were utilized for the trip generation calculations. The site will have two full access points to Lakemont Blvd SE south of Forest Dr SE.

VICINITY MAP

(1) Attach a vicinity map and mark with an "X" where the proposed development is to be located.
(2) In the box below provide a sketch map of the proposed site and include the following details:
- (i) All streets surrounding the site (label them).
- (ii) Show all connections (driveways) to street system.
- (iii) Indicate any turn prohibitions relating to ingress and egress.
- (iv) Note any comments or special circumstances relating to this development.

FORM NO. 0633

Exhibit 2 - PMPK Total Site Traffic Volumes



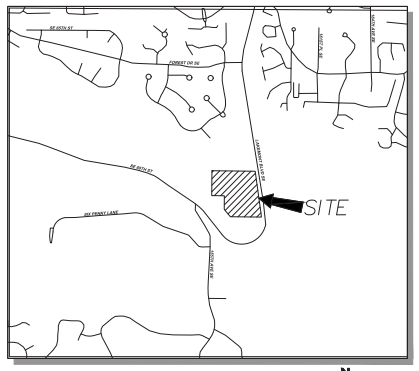
1530to1830
Scenario 5009: DEVREV_BKR-1-19-C25_5009_Park Pointe PUD_PMPK
2020-12-17 15:02
Transportation Department
Modeling and Analysis Group

DSD - 001049

DSD - 001050

Site Plan & Sight Distance

DSD - 001051



VICINITY MAP
SCALE= 1"=1000'

SIGHT DISTANCE ANALYSIS NOTE

SEE GIBSON TRAFFIC CONSULTANTS, INC. SIGHT DISTANCE ANALYSIS FOR SIGHT DISTANCE TRIANGLES. SIGHT DISTANCE TRIANGLES SHOWN ON THIS SHEET AND THE LANDSCAPE SHEETS IN THIS PLANSET ARE SHOWN IN CONCEPT. REFER TO GIBSON TRAFFIC CONSULTANTS, INC. SIGHT DISTANCE ANALYSIS FOR ACCURATE SIGHT DISTANCE TRIANGLES.

LEGAL DESCRIPTION

PARCEL #262405-9019
PER OLD REPUBLIC NATIONAL TITLE INSURANCE CO. ORDER NO. 5207131706, DATED AUGUST 31, 2015.

THE SOUTHERLY 356 FEET OF THE NORTHERLY 680 FEET OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 26, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M. LYING WEST OF EDWARD LEIFHELM ROAD;
EXCEPT THE WESTERLY 215 FEET THEREOF;
EXCEPT ANY PORTION THEREOF LYING WESTERLY OF THE THREAD OF AN UNNAMED CREEK, AS CONVEYED TO KING COUNTY BY INSTRUMENT RECORDED MAY 29, 1987 UNDER RECORDING NO. 8602270567.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

SPECIAL EXCEPTIONS:
RECORDING NUMBER 3254208
"NOT PLOTTED – BLANKET IN NATURE"
RECORDING NUMBER 5494713
AFFECTS : PORTION ADJOINING THE ROAD
"NOT PLOTTED – BLANKET IN NATURE"
RECORDING NUMBER 20050519001622
"NOT PLOTTED – BLANKET IN NATURE"

PARCEL #262405-9022
PER OLD REPUBLIC NATIONAL TITLE INSURANCE CO. ORDER NO. 5216013607, DATED APRIL 8, 2015.

THAT PORTION OF SECTION 26, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

THE NORTH 324 FEET OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER LYING WEST OF THE EDWARD LEIFHELM ROAD SURVEY #1344 BEING BOUND ON THE SOUTH BY NORTH LINE OF TRACT OF LAND CONVEYED BY PACIFIC COAST COAL CO. TO ERNEST SWANSON BY DEED DATED JULY 15, 1942 AND RECORDED IN VOLUME 2066 OF DEEDS, PAGES 475 AND 476, AND THE EXTENSION OF SAID NORTH LINE OF THE ERNEST SWANSON PROPERTY EXTENDED WEST; ALSO THE SOUTH 100 FEET OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER LYING WEST OF THE EDWARD LEIFHELM CO. ROAD SURVEY #1344;

EXCEPT ANY PORTION LYING WESTERLY OF THE THREAD OF AN UNNAMED STREAM, TO-WIT

BEGINNING AT THE CENTER OF SECTION 26, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON; THENCE NORTH 01°04'35"EAST ALONG THE NORTH-SOUTH CENTERLINE OF SAID SECTION 26, A DISTANCE OF 100 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 16°27'31" EAST 445.05 FEET; THENCE NORTH 88°46'03" WEST, PARALLEL TO THE EAST-WEST CENTERLINE OF SAID SECTION, 134.09 FEET TO SAID NORTH-SOUTH CENTERLINE; THENCE NORTH 01°04'35" EAST 424.00 FEET, ALONG SAID NORTH-SOUTH CENTERLINE, TO THE TRUE POINT OF BEGINNING, AS CONVEYED TO KING COUNTY BY DEED RECORDED UNDER KING COUNTY RECORDING NO. 8602270565.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

SPECIAL EXCEPTIONS:
RECORDING NUMBER 3070389
"NOT PLOTTED – AS CONSTRUCTED"
RECORDING NUMBER 3913538
RECORDING NUMBER 20050419000925.
UNDER RECORDING NUMBER 20050519001620.
"NOT PLOTTED – BLANKET IN NATURE"
RECORDING NUMBER 5481732
"NOT PLOTTED – BLANKET IN NATURE"
RECORDING NUMBER 8602270568
"PLOTTED"
RECORDING NUMBER 20051212000275
"NOT SURVEY RELATED"
RECORDING NUMBER 20060831002323
"NOT SURVEY RELATED"

Development Services

Statistical Information

Land Use Zone: R-1 and R-3.5

Site area in square feet and acres: 335,522 square feet and 12.09 acres

Site Data Summary

	Required/Allowed	Proposed
Number of dwelling units per acre	3.5 (per zoning)	2.85
Total number of dwelling units	40 (PUD)	35
Area of each proposed structure:		
Net	N/A	N/A
Net leasable (Shopping Center)	N/A	N/A
Gross	N/A	N/A
Floor Area Ratio (F.A.R.)	N/A	N/A
Area of proposed building by use:		
Net	74,720 s/f	74,720 s/f
Gross	N/A	TBD
Percentage of lot coverage	35%	26% s/f
Amount of impervious area (sq. ft.)	267,791 (50%)	147,130 (27%)
Cut/fill (cubic yards)	33,154 cut 8,283 fill	
Building height	N/A	N/A
Shoreline & Transition Areas: measured from avg. existing grade		
All other areas: measured from average finished grade		

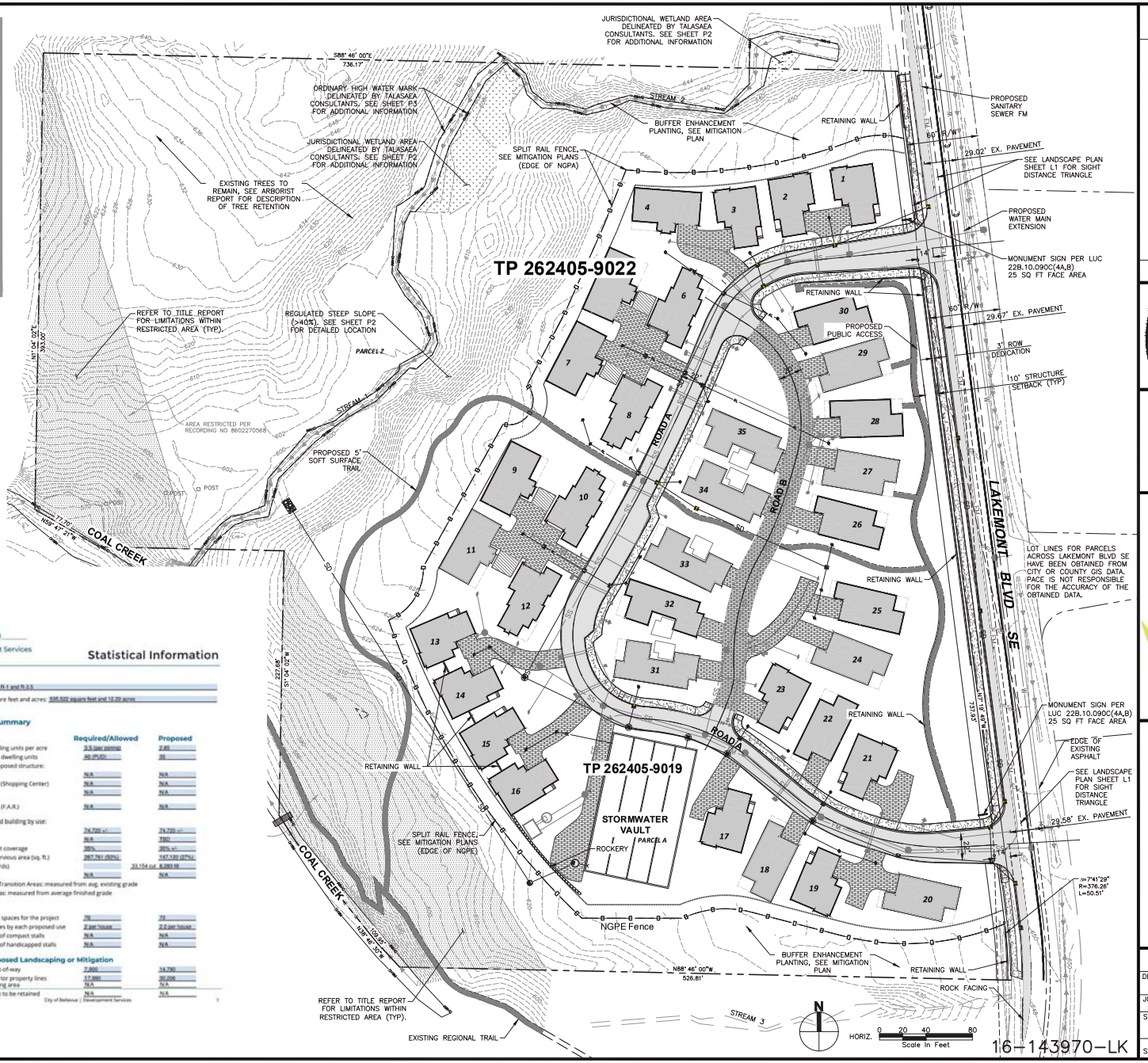
Parking

Total number of spaces for the project	70	70
Number of spaces by each proposed use	2 per house	2.0 per house
The percentage of compact stalls	N/A	N/A
The percentage of handicapped stalls	N/A	N/A

Area of Proposed Landscaping or Mitigation

Adjacent to right-of-way	7,800	14,790
Adjacent to interior property lines	17,890	30,206
Within the parking area	N/A	N/A
Significant Trees to be retained	N/A	N/A

April 29, 2019 — City of Bellevue | Development Services



REVISION	DATE
RESPOND TO CITY REVIEW COMMENTS	6/6/18
ADDITION OF PRELIMINARY PLAT	8/16/19
RESPOND TO CITY COMMENTS/REMOVE PRELIMINARY PLAT	11/30/20

SXM

PACE
Engineering | Surveying | Planning
11255 Kirkland Way, Suite 300
Kirkland, WA 98033
p: 425.827.2014 | f: 425.827.5043
Civil | Structural | Planning | Survey
pacengrs.com

SCOTT A. SIBERSON
STATE OF WASHINGTON
20808
REGISTERED PROFESSIONAL ENGINEER

ISOLA HOMES
13555 SE 36TH ST SUITE 320
BELLEVUE, WA 98006
206.582.7900

PARK POINTE PUD
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE WASHINGTON

SITE PLAN B

SCALE:	DATE:
AS NOTED	11/30/20
DESIGNED BY: SS	CHECKED BY: JA
JOB NUMBER 15436	
SHEET: P5	
SHEET 5 OF 18	

16-143970-LK

FILE NAME: P:\PLAN\15436_LAKEMONT_PROPERTY_FEASIBILITY\CAD\ENGINEERING\SHEETS\PARK POINT PUD\P15436-SITE PLAN-B.DWG
XREF FILES: X15436_BASE.dwg X15436_GRADING.dwg X15436_UTILITY.dwg X15436_SS.dwg X15436_SD.dwg X15436_HATCH.dwg X15436_TOPO.dwg X15436_CONTOUR.dwg D15436_COR.dwg D15436_PLAN.dwg

DSD - 001052

FILE NAME: P:\P15\15436 LAKEMONT PROPERTY FEASIBILITY\CAD\ENGINEERING\FIGURES\SHEETS\F15436-SIGHT DISTANCE EXH.DWG
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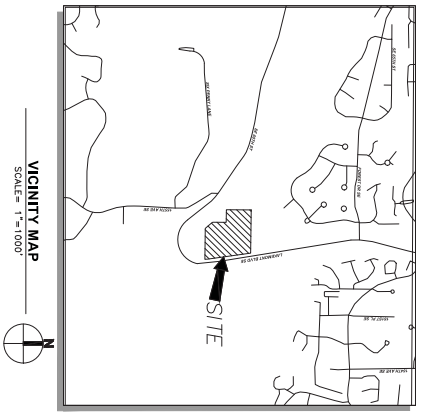
SIGHT DISTANCE ANALYSIS

1. SIGHT TRIANGLES PER CITY OF BELLEVUE DETAIL No. 100-1
   - NORTH ROAD INTERSECTION: SIGHT DISTANCE REQUIRED TRAVELING SOUTH (LOOKING NORTH): 410 FT (40 MPH SPEED LIMIT)
   - SOUTH DRIVEWAY INTERSECTION: SIGHT DISTANCE REQUIRED TRAVELING NORTH (LOOKING SOUTH): 300 FT (30 MPH SPEED LIMIT)
2. SIGHT TRIANGLES BASED ON 85TH PERCENTILE SPEED STUDY (44 MPH)
   - NORTH ROAD INTERSECTION: SIGHT DISTANCE REQUIRED TRAVELING SOUTH (LOOKING NORTH): 470 FT
   - SOUTH DRIVEWAY INTERSECTION: SIGHT DISTANCE REQUIRED TRAVELING NORTH (LOOKING SOUTH): 470 FT

MIN. STOPPING SIGHT DISTANCE: 360 FT

VICINITY MAP

SCALE= 1"=1000'



16-14370-LK

PARK POINTE PUD 7219 & 7331 LAKEMONT BLVD SE BELLEVUE WASHINGTON	ISOLA HOMES 13555 SE 36TH ST SUITE 320 BELLEVUE, WA 98006 206.582.7900
SIGHT DISTANCE 85TH PERCENTILE SPEED STUDY	PACE Engineering Services Company 11255 Kirkland Way, Suite 300 Kirkland, WA 98033 p. 425.827.2014 | f. 425.827.5043 Civil | Structural | Planning | Survey paceengrs.com

SCALE:	DATE:
AS NOTED	2/11/2021
DESIGNED BY: SS	CHECKED BY: JA
JOB NUMBER: 15436	
SHEET: EXH	SHEET 1 OF 2

SYM	REVISION	DATE
	RESPOND TO CITY COMMENTS/REMOVE PRELIMINARY PLAT	11/30/20
	ADDITION OF PRELIMINARY PLAT	8/16/19
	RESPOND TO CITY REVIEW COMMENTS	6/6/18

DSD - 001053

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   SIGHT DISTANCE REQUIRED
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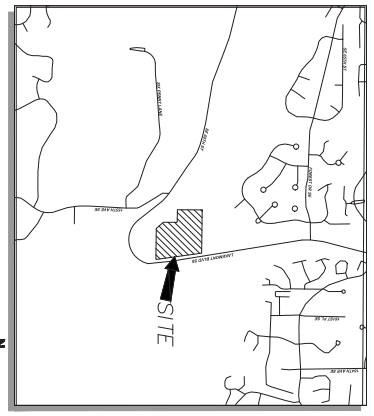
   MIN. STOPPING SIGHT DISTANCE: 360 FT

VICINITY MAP
SCALE= 1"=1000'



LEGEND

360 FOOT SIGHT DISTANCE TRIANGLE

HORIZ. Scale in Feet 0 40 80 160

16-14370-LK

PARK POINTE PUD
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE WASHINGTON

SIGHT DISTANCE
MIN. SSD TRIANGLE

SCALE: AS NOTED
DATE: 2/11/2021
DESIGNED BY: SS
CHECKED BY: JA
JOB NUMBER 15436
SHEET: EXH
SHEET 2 OF 2

ISOLA HOMES
13555 SE 36TH ST SUITE 320
BELLEVUE, WA 98006
206.582.7900

PACE
An Engineering Services Company
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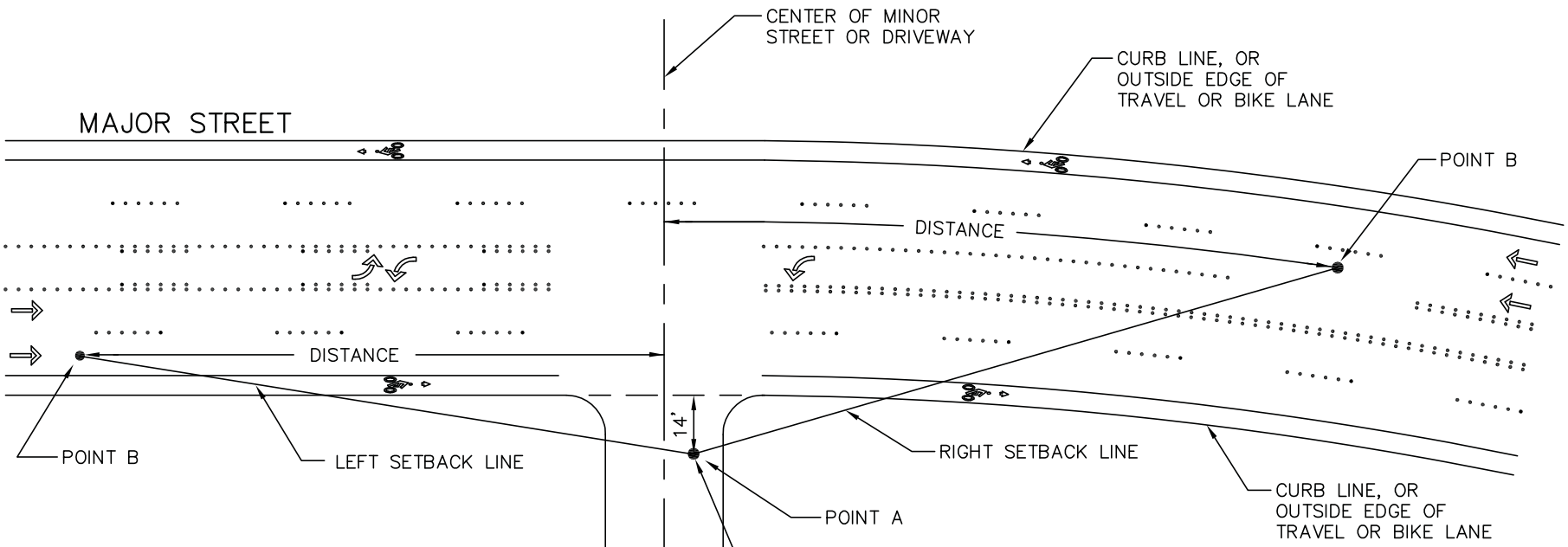
p. 425.827.2014 | f. 425.827.5043
Civil | Structural | Planning | Survey
paceengrs.com

SYM	REVISION	DATE
	RESPOND TO CITY COMMENTS/REMOVE PRELIMINARY PLAT	11/30/20
	ADDITION OF PRELIMINARY PLAT	8/16/19
	RESPOND TO CITY REVIEW COMMENTS	6/6/18



SIGNALIZED INTERSECTION WITH RIGHT ON RED PERMITTED

SPEED LIMIT	DISTANCE (LEFT APPROACH ONLY)
40 MPH	325 FEET
35 MPH	250 FEET
30 MPH	200 FEET
25 MPH	150 FEET

MINOR STREET, PRIVATE ROAD, COMMERCIAL AND RESIDENTIAL DRIVEWAYS

MINOR STREETS, PRIVATE ROADS, AND COMMERCIAL DRIVEWAYS

SPEED LIMIT	DISTANCE
40 MPH	410 FEET
35 MPH	360 FEET
30 MPH	300 FEET
25 MPH	250 FEET

RESIDENTIAL DRIVEWAYS

SPEED LIMIT	DISTANCE
40 MPH	325 FEET
35 MPH	250 FEET
30 MPH	200 FEET
25 MPH	150 FEET

NOTES:

1. SEE DESIGN MANUAL STANDARD 21 (SIGHT DISTANCE – VEHICLES).
2. FOR RESIDENTIAL DRIVEWAYS, DISTANCE OF POINT A FROM EDGE OF TRAVEL LANE IS TEN FEET.

City of Bellevue

SIGHT DISTANCE SETBACK LINES

DRAWING NUMBER	RL–100–1
SCALE	NONE
REVISION DATE	012/15
DEPARTMENT	TRANS

DSD - 001054

DSD - 001055

PACE
An Engineering Services Company

April 21, 2021

Mr. Reilly Pittman, Senior Planner
City of Bellevue
PO Box 90012
Bellevue, WA 98009-9912

Subject: *Park Pointe PUD (16-143970-LK and 16-145946-LO)*
PACE Project No. 15436

Dear Mr. Pittman:

The attachments have been prepared in response to the April 19, 2021 email from Mr. Ian Nisbet.

Please let us know of any further questions or additional needs to complete this request.

Sincerely,

PACE Engineers, Inc.

Brian Way, PLA, ASLA
Landscape Architect

cc: Jeff Wegener
Scott Sherrow

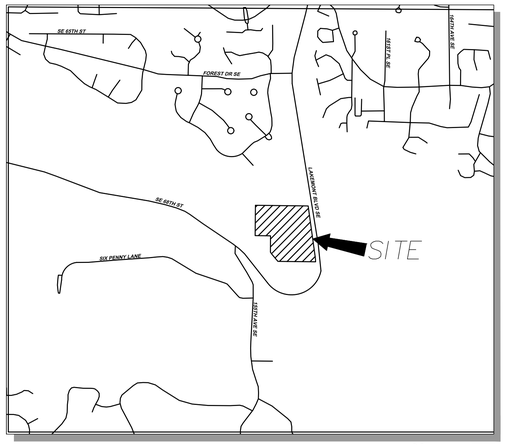
Attachments: Exhibit A and Exhibit B

PACE Engineers, Inc.
11255 Kirkland Way | Suite 300
Kirkland, Washington 98033-3417
p 425.827.2014 | *f* 425.827.5043

www.paceengrs.com

DSD - 001056

EXHIBIT 'A'



VICINITY MAP
SCALE= 1"=1000'

N

SIGHT DISTANCE ANALYSIS NOTE

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PER OLD REPUBLIC NATIONAL TITLE INSURANCE CO. ORDER NO. 5207131706, DATED AUGUST 31, 2015.

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EXCEPT THE WESTERLY 215 FEET THEREOF;
EXCEPT ANY PORTION THEREOF LYING WESTERLY OF THE THREAD OF AN UNNAMED CREEK, AS CONVEYED TO KING COUNTY BY INSTRUMENT RECORDED MAY 29, 1987 UNDER RECORDING NO. 8602270567.

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AFFECTS : PORTION ADJOINING THE ROAD
"NOT PLOTTED – BLANKET IN NATURE"
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"NOT PLOTTED – BLANKET IN NATURE"

PARCEL #262405-9022
PER OLD REPUBLIC NATIONAL TITLE INSURANCE CO. ORDER NO. 5216013607, DATED APRIL 8, 2015.

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EXCEPT ANY PORTION LYING WESTERLY OF THE THREAD OF AN UNNAMED STREAM, TO–WIT

BEGINNING AT THE CENTER OF SECTION 26, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON; THENCE NORTH 01°04'35"EAST ALONG THE NORTH–SOUTH CENTERLINE OF SAID SECTION 26, A DISTANCE OF 100 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 16°27'31" EAST 445.05 FEET; THENCE NORTH 88°46'03" WEST, PARALLEL TO THE EAST–WEST CENTERLINE OF SAID SECTION, 134.09 FEET TO SAID NORTH–SOUTH CENTERLINE; THENCE NORTH 01°04'35" EAST 424.00 FEET, ALONG SAID NORTH–SOUTH CENTERLINE, TO THE TRUE POINT OF BEGINNING, AS CONVEYED TO KING COUNTY BY DEED RECORDED UNDER KING COUNTY RECORDING NO. 8602270565.

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"NOT PLOTTED – BLANKET IN NATURE"
RECORDING NUMBER 8602270568
"PLOTTED"
RECORDING NUMBER 20051212000275
"NOT SURVEY RELATED"
RECORDING NUMBER 20060831002323
"NOT SURVEY RELATED"

Development Services

Statistical Information

Land Use Zone: R-1 and R-3.5

Site area in square feet and acres: 535,522 square feet and 12.29 acres

Site Data Summary

	Required/Allowed	Proposed
Number of dwelling units per acre	3.5 (per zoning)	2.85
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Area of each proposed structure:		
Net	N/A	N/A
Net leasable (Shopping Center)	N/A	N/A
Gross	N/A	N/A
Floor Area Ratio (F.A.R.)	N/A	N/A
Area of proposed building by use:		
Net	74,720 +/-	74,720 +/-
Gross	N/A	TBD
Percentage of lot coverage	35%	35% +/-
Amount of impervious area (sq. ft.)	267,761 (50%)	147,120 (27%)
Cut/fill (cubic yards)		33,154 cut 8,283 fill
Building height	N/A	N/A
Shoreline & Transition Areas: measured from avg. existing grade		
All other areas: measured from average finished grade		

Parking

Total number of spaces for the project	70	70
Number of spaces by each proposed use	2 per house	2.0 per house
The percentage of compact stalls	N/A	N/A
The percentage of handicapped stalls	N/A	N/A

Area of Proposed Landscaping or Mitigation

Adjacent to right-of-way	7,900	14,790
Adjacent to interior property lines Within the parking area	17,990 N/A	30,206 N/A
Significant Trees to be retained	N/A	N/A

JURISDICTIONAL WETLAND AREA DELINEATED BY TALASAEA CONSULTANTS. SEE SHEET P2 FOR ADDITIONAL INFORMATION
S88° 46' 00"E 736.17'
ORDINARY HIGH WATER MARK DELINEATED BY TALASAEA CONSULTANTS. SEE SHEET P3 FOR ADDITIONAL INFORMATION
JURISDICTIONAL WETLAND AREA DELINEATED BY TALASAEA CONSULTANTS. SEE SHEET P2 FOR ADDITIONAL INFORMATION
EXISTING TREES TO REMAIN, SEE ARBORIST REPORT FOR DESCRIPTION OF TREE RETENTION
REFER TO TITLE REPORT FOR LIMITATIONS WITHIN RESTRICTED AREA (TYP).
REGULATED STEEP SLOPE (>40%). SEE SHEET P2 FOR DETAILED LOCATION
PARCEL Z
STREAM 1
STREAM 2
STREAM 3
AREA RESTRICTED PER RECORDING NO 8602270568
PROPOSED 5' SOFT SURFACE TRAIL
N1° 04' 02"E 393.00'
N59° 47' 21"W 77.70'
COAL CREEK
N1° 04' 02"E 227.68'
N58° 49' 30"W 109.85'
EXISTING REGIONAL TRAIL
REFER TO TITLE REPORT FOR LIMITATIONS WITHIN RESTRICTED AREA (TYP).
SPLIT RAIL FENCE, SEE MITIGATION PLANS (EDGE OF NGPA)
BUFFER ENHANCEMENT PLANTING, SEE MITIGATION PLAN
RETAINING WALL
PROPOSED SANITARY SEWER FM
60' R/W
29.02' EX. PAVEMENT
SEE LANDSCAPE PLAN SHEET L1 FOR SIGHT DISTANCE TRIANGLE
PROPOSED WATER MAIN EXTENSION
MONUMENT SIGN PER LUC 22B.10.090C(4A,B) 25 SQ FT FACE AREA
TP 262405-9022
PROPOSED PUBLIC ACCESS
29.67' EX. PAVEMENT
3' ROW DEDICATION
10' STRUCTURE SETBACK (TYP)
ROAD A
ROAD B
LAKEMONT BLVD SE
TP 262405-9019
STORMWATER VAULT
PARCEL A
ROCKERY
NGPE Fence
N88° 46' 00"W 526.81'
BUFFER ENHANCEMENT PLANTING, SEE MITIGATION PLAN
ROCK FACING
LOT LINES FOR PARCELS ACROSS LAKEMONT BLVD SE HAVE BEEN OBTAINED FROM CITY OR COUNTY GIS DATA. PACE IS NOT RESPONSIBLE FOR THE ACCURACY OF THE OBTAINED DATA.
MONUMENT SIGN PER LUC 22B.10.090C(4A,B) 25 SQ FT FACE AREA
EDGE OF EXISTING ASPHALT
SEE LANDSCAPE PLAN SHEET L1 FOR SIGHT DISTANCE TRIANGLE
29.58' EX. PAVEMENT
Δ=7°41'29" R=376.26' L=50.51'
N14° 49' 37"W 73.93'
HORIZ. 0 20 40 80 Scale In Feet

DATE	REVISION	BY
6/6/18	RESPOND TO CITY REVIEW COMMENTS	SYM
8/16/19	ADDITION OF PRELIMINARY PLAT	
11/30/20	RESPOND TO CITY COMMENTS/REMOVE PRELIMINARY PLAT	
2/23/21	REVISED PER CITY OF BELLEVUE TRAFFIC COMMENTS	
4/2/21	REVISED PER CITY OF BELLEVUE UTILITY COMMENTS	

PACE
An Engineering Services Company
11255 Kirkland Way, Suite 300
Kirkland, WA 98033
p. 425.827.2014 | f. 425.827.5043
Civil | Structural | Planning | Survey
pacaengrs.com

SCOTT A. SHERERTON
STATE OF WASHINGTON
25808
REGISTERED
PROFESSIONAL ENGINEER

ISOLA HOMES
13555 SE 36TH ST SUITE 320
BELLEVUE, WA 98006
206.582.7900

PARK POINTE PUD
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE WASHINGTON

SITE PLAN B

SCALE: AS NOTED	DATE: 4/2/21
DESIGNED BY: SS	CHECKED BY: JA
JOB NUMBER 15436	
SHEET: P5	
SHEET 5 OF 17	

16-143970-LK

FILE NAME: P:\PHS\15436_LAKEMONT PROPERTY-FEASIBILITY\CAD\ENGINEERING\SHEETS\P_PARK_POINT PUD\P15436-SITEPLAN-B.DWG
PLOTTED: 4/2/2021 - 2:24 PM
USER NAME: SSchmidt
XREF FILES: X15436_BASE.dwg X15436_24x36-BRDR.dwg X15436_HATCH.dwg X15436_SD.dwg X15436_SS.dwg X15436_WA.dwg X15436_SITE.dwg D15436_AL.dwg D15436_COR.dwg X15436_LP.dwg X15436_ARBORIST NUMBERS.dwg X15436_FG.dwg

Engineers | Planners | Surveyors

PACE
An Engineering Services Company

EXHIBIT "B"

Transportation Design Manual - Private Roads

The TDM states:

Paragraph 4B. "*Private roads in commercial planned unit developments or in single-family or multifamily planned unit developments containing three or more lots or dwelling units must have a minimum pavement width of 24 feet, with a minimum six-foot wide sidewalk on at least one side and sufficient off-street parking. The 24-foot minimum pavement width in a planned unit development is to accommodate the more intense activity generated by higher density. A public easement encompassing the nonmotorized facility may be required.*"

(1) *Except where infill development is proposed, the deviation will achieve the intended result with a comparable or superior design;* ***Response: Yes, the result of the requested deviation will result in comparable vehicular circulation condition whereas if the pavement width was 24 feet. This PUD proposes a relative low density of homes per acre compared to a multi-family PUD. Additionally, the development proposal will provide two entries and exits, thereby functioning similar to 2 clusters with about 18 homes per entry. A superior design with less paved surfaces will result that is more environmentally responsive. A reduction of pavement surfaces will directly result in a reduction of the stormwater management facility and volume of water detained and released. Therefore, more water will infiltrate into the landscape areas and support the groundwater systems and hydrology of the property.***

(2) *The deviation will not adversely affect safety or operation;* ***Response: Safety is a mutual priority for this development. This deviation will not adversely affect or impact the safety and operation of our residents or guests as pedestrians or in vehicles traveling within the PUD. Pedestrians will be walking on separated sidewalks. The narrow pavement will cause vehicles to travel at slow speeds. Additionally, the project provides 7-foot-wide sidewalks, 1 foot wider than required, allowing greater use of the sidewalk on the single side and increased separation from traffic, if desired.***

(3) *The deviation will not adversely affect maintainability.* ***Response: Yes, the deviation will not adversely impact the upkeep of the streets within the PUD. Stormwater will continue to be collected at curb inlets / catch basins and conveyed to the stormwater vault, to be released at the prescribed rate. Street cleaning and catch basin maintenance will continue to be performed on a routine basis.***

Additionally, we believe that numerous provisions of the PUD Decision criteria support the request for the "Road Width Deviation." Specifically, these are described within the City Code as detailed herein.

PACE Engineers, Inc.
11255 Kirkland Way | Suite 300
Kirkland, Washington 98033-3417
p 425.827.2014 | *f* 425.827.5043

www.paceengrs.com

City Code 20.30D.150 reads, The *City may approve or approve with modifications a Planned Unit Development plan if:*

B. The Planned Unit Development accomplishes, by the use of permitted flexibility and variation in design, a development that is better than that resulting from traditional *development. Net benefit to the City may be demonstrated by one or more of the following:*

5. Conservation of natural features, vegetation and on-site soils; ***Response: Yes, reduction of the roadway footprint will reduce the square footage of impervious surfaces allowing more rainwater to naturally infiltrate back to the ground water system. Additionally, cleaning the water from pollution-generating surfaces will ensure cleaner water is released back to the environment, drainage system and streams.***

6. Reduction in hard surfaces; ***Response: Agreed, reduction of hard surfaces will reduce the size of the stormwater vault and thereby reduce the volume and duration of the water released back to the environment from the point discharge.***

7. Conservation of critical areas and *critical area buffers beyond that required under Part 20.25H LUC;* ***Response: Yes, valued critical environmental areas will benefit from LID efforts to reduce pervious surfaces, thereby reducing the volume of treated and cleaned stormwater then released.***

9. Energy efficient site design or building features, ***Response: Yes, the site design is improved with reduction of pollution-generating impervious surfaces, thereby allowing for more land to be dedicated as landscape areas.***

10. Use of low impact development techniques; ***Response: Yes, the application of LID, rain gardens and pavement reduction and alternative pavement treatment features are desirable within urban development projects.***

DSD - 001059

CITY OF BELLEVUE TRANSPORTATION DEPARTMENT
DESIGN JUSTIFICATION FORM

☒ **Deviation** is when a new facility is not being designed / constructed to approved standards.

☐ **Exception** is when an existing non-compliant facility is being improved, but not to full standard.

☐ **MEF** (Maximum Extent Feasible) is when an ADA facility cannot be made fully compliant.

- Complete this form when an element of your project does not meet identified standards as defined in the City of Bellevue's Transportation Design Manual, the Local Agency Guidelines, AASHTO, Public Right of Way Accessibility Guidelines, Land Use Code, or other industry standard.
- Use a separate form for each type of deviation or exception on your project (i.e. one for roadway grade and one for vertical alignment). More than one location may be included on a single form if the standard in question for a deviation or exception is the same.
- MEF documentation may include multiple types of non-compliance for one or more ADA facilities.

Project Name Park Pointe PUD	
Project/CIP Number 16-143970	**Date of Request** 6/21/2021
Project Manager Reilly Pittman	**Phone Number(s)**
Person Completing the Form Scott Sherrow	**Phone Number(s)** 425.827.2014
Provide a brief summary of the project scope The proposed residential development of 35 single-family homes will be located on a 12.29-acre site. Development will occupy the easterly 5.9 acres of the property, with the remaining 6.3 acres of the site to be retained as open space. The development proposal will provide two private ingress/egress points off Lakemont Blvd., thereby functioning similar to two clusters with about 18 homes per entry. The main access road off Lakemont Blvd. supports a single sidewalk along its length and forms a loop around the site. An interior low-volume access road serves 13 residential units and gains access of the main entry road at two locations. Access roads provide required turning movements for Fire, EMS and delivery service as well as general use access. This proposal seeks approval of a proposed Planned Unit Development (PUD).	
Subject Location(s) Park Pointe PUD	**Functional Classification(s)** Local / Private Street

Provide a brief summary of the conditions, features, and constraints of each location

On-site access street corridors provide ingress and egress to 35 residential units. Road A, the main access road, is 20 feet wide along a majority of its length and is wider at its intersection with Lakemont Blvd. Road A supports a single sidewalk on one side of its section. Road B, a 20-foot-wide interior road, gains access off Road A and provides access to 13 residential units with the balance of the residential units being served off Road A.

Each roadway corridor is contained within the proposed development and subject to limited local residential vehicular traffic.

What is the design standard at issue?

Pavement with a requirement of 24 feet. The proposed pavement width street section of 20 feet for the PUD interior roads does not meet the requirements of:

TDM Section 4, Paragraph B - Street width requirements of 24 feet wide.

What is the proposed deviation/exception/MEF?

Requesting a street width reduction from 24 feet to 20 feet except localized at ingress/egress points off Lakemont Blvd.

Why is the deviation/exception/MEF needed? (Explain in context of conditions, project scope, etc.)

The deviation is needed to reduce pavement coverage to achieve a reduction in the site's overall impervious coverage required by PUD regulations which require the applicant to evaluate and employ Low Impact Development Best Management Practices where possible.

Benefits:

- Reducing pollution-generating surface within the project.
- Decreasing the possibility of increasing runoff flow rates within offsite surface waters and riparian corridors.
- Decreased pavement area requiring maintenance.
- Decreasing street corridor impacts and increasing open space and landscape area within the project for public visual and physical enjoyment.

What alternatives were considered? Discuss the benefits and costs (financial, operational, schedule, user experience, safety, etc.) of each alternative.

Other alternatives considered were:

1) Utilizing City of Bellevue Street Standards for roadway corridors.

Pros:

- Would meet City of Bellevue's published street standard.
- Right-of-way street improvements would remain in City of Bellevue ownership.

Cons:

- Street corridors would not be utilized to meet PUD and LID goals.
- Greater pollution-generating surface is within project.
- Possible increase of runoff flow rates to offsite surface waters and riparian corridors.
- Increased pavement area requiring maintenance.
- Increased street corridor impacts reducing open space and landscape area within the project.
- Reduced open space for public visual and physical enjoyment.

Why is the proposed solution the best/most appropriate option?

(1) *Except where infill development is proposed, the deviation will achieve the intended result with a comparable or superior design;*
The outcome of the requested deviation will result in a comparable vehicular circulation condition as if the pavement width was 24 feet. A superior design with less paved surfaces will result and is more environmentally responsive. A reduction of pavement surfaces will directly result in a reduction of the stormwater management facility and volume of water detained and released. Therefore, more water will infiltrate into the landscape areas and support the groundwater systems and hydrology of the property. Supports the project proponent in seeking a PUD Development approval by limiting the area of disturbance and improving the site utilizing Low Impact Development Best Management Practices.

Each roadway corridor requesting a reduced pavement width reduction is contained within the proposed development and is subject to limited local residential vehicular traffic.

(2) *The deviation will not adversely affect safety or operation; Response: **
The minimum of 20 feet of pavement provides sufficient width for fire and safety services where, if there is a vehicle blocking one lane of traffic, emergency vehicles can maneuver around the blocking vehicle. According to current AASHTO standards in *A Policy on Geometric Design of Highways and Streets,* 20 feet of roadway width for a design speed of 25 mph is sufficient to handle up to 400 vehicles a day. This roadway width is the sum of the traveled way and the shoulder widths; when the 2-foot shoulder is removed on either side, the total effective lane width is 16 feet. Road A, with a maximum ADT of 350 vehicles in any one section, will have sufficient width and a sidewalk on one side to support all users of the roadway.

* Response per Gibson traffic, See attached memo.

(3) *The deviation will not adversely affect maintainability.*
The deviation will not adversely impact the upkeep of the streets maintained by the City of Bellevue. All on-site streets will be maintained by the Homeowners Association.

Additionally, we believe that numerous provisions of the PUD Decision criteria support the request for the “Road Width Deviation.” Specifically, these are described within the City Code as detailed herein.

City Code 20.30D.150 reads, The *City may approve or approve with modifications a Planned Unit Development plan if:*

B. The Planned Unit Development accomplishes, by the use of permitted flexibility and variation in design, a development that is better than that resulting from traditional *development. Net benefit to the City may be demonstrated by one or more of the following:*

5. Conservation of natural features, vegetation and on-site soils; ***Response: Yes, reduction of the roadway footprint will reduce the square footage of impervious surfaces allowing more rainwater to naturally infiltrate back to the groundwater system. Additionally, cleaning the water from pollution-generating surfaces will ensure cleaner water is released back to the environment, drainage system and streams.***

6. Reduction in hard surfaces; ***Response: Agreed, reduction of hard surfaces will reduce the size of the stormwater vault and thereby reduce the volume and duration of the water released back to the environment from the point discharge.***

7. Conservation of critical areas and critical area buffers beyond that required under Part 20.25H LUC; ***Response: Yes, valued critical environmental areas will benefit from LID efforts to reduce pervious surfaces, thereby reducing the volume of treated and cleaned stormwater then released.***

9. Energy efficient site design or building features, ***Response: Yes, the site design is improved with reduction of pollution-generating impervious surfaces, thereby allowing for more land to be dedicated as landscape areas.***

10. Use of low impact development techniques; ***Response: Yes, the application of LID, rain gardens and pavement reduction and alternative pavement treatment features are desirable within urban development projects.***

DOCUMENTATION (Indicate appropriate level of documentation for your project. If not sure, contact Hillary Stibbard at 425-452-4357):

☐ Form completed as Summary to Attached Report (PE stamp required on attached document)

☒ Form completed as Final Documentation (PE stamp required below) with supporting documents (plans, photos, cost estimates, etc.) attached.

This deviation/exception is hereby submitted for review and approval.	*Approved by:*
	_____ Transportation Director (or Designee)
Scott A. Sherrow, Sr. Principal Name and Title	_____ Date

DSD - 001063

CITY OF BELLEVUE TRANSPORTATION DEPARTMENT
DESIGN JUSTIFICATION FORM

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☐ **MEF** (Maximum Extent Feasible) is when an ADA facility cannot be made fully compliant.

- Complete this form when an element of your project does not meet identified standards as defined in the City of Bellevue's Transportation Design Manual, the Local Agency Guidelines, AASHTO, Public Right of Way Accessibility Guidelines, Land Use Code, or other industry standard.
- Use a separate form for each type of deviation or exception on your project (i.e. one for roadway grade and one for vertical alignment). More than one location may be included on a single form if the standard in question for a deviation or exception is the same.
- MEF documentation may include multiple types of non-compliance for one or more ADA facilities.

Project Name Park Pointe PUD	
Project/CIP Number 16-143970	**Date of Request** 6/21/2021
Project Manager Reilly Pittman	**Phone Number(s)**
Person Completing the Form Scott Sherrow	**Phone Number(s)** 425.827.2014
Provide a brief summary of the project scope The proposed residential development of 35 single-family homes will be located on a 12.29-acre site. Development will occupy the easterly 5.9 acres of the property, with the remaining 6.3 acres of the site to be retained as open space. The development proposal will provide two private ingress/egress points off Lakemont Blvd., thereby functioning similar to two clusters with about 18 homes per entry. The main access road off Lakemont Blvd. supports a single sidewalk along its length and forms a loop around the site. An interior low-volume access road serves 13 residential units and gains access of the main entry road at two locations. Access roads provide required turning movements for Fire, EMS and delivery service as well as general use access. This proposal seeks approval of a proposed Planned Unit Development (PUD).	
Subject Location(s) Park Pointe PUD	**Functional Classification(s)** Local / Private Street

Provide a brief summary of the conditions, features, and constraints of each location

On-site access street corridors provide ingress and egress to 35 residential units. Road A, the main access road, is 20 foot wide along a majority of its length and is wider at its intersection with Lakemont Blvd. Road A supports a single sidewalk on one side of its section. Road B, a 20 foot wide interior road gains access off Road A and provides access to 13 residential units with the balance of the residential units being served off Road A.

Each roadway corridor is contained within the proposed development and subject to limited local residential vehicular traffic.

What is the design standard at issue?

Requirement of sidewalk along Road B.

TDM Section 4, Paragraph B - Street width requirements of 24 feet wide with walk.

What is the proposed deviation/exception/MEF?

Requesting that a sidewalk not be required along Road B.

Why is the deviation/exception/MEF needed? (Explain in context of conditions, project scope, etc.)

The deviation is needed to reduce impervious coverage to achieve a reduction in the site's overall impervious coverage required by PUD regulations which require the applicant to evaluate and employ Low Impact Development Best Management Practices where possible.

Benefits:

- Decreasing the possibility of increasing runoff flow rates within offsite surface waters and riparian corridors.
- Decreased sidewalk area requiring maintenance.
- Decreasing street corridor impacts and increasing open space and landscape area within the project.
- Increasing open space for public visual and physical enjoyment.

What alternatives were considered? Discuss the benefits and costs (financial, operational, schedule, user experience, safety, etc.) of each alternative.

Other alternatives considered were:

1) Utilizing City of Bellevue Street Standards for roadway corridors.

Pros:

- Would meet City of Bellevue's published street standard.
- Right-of-way street improvements would remain in City of Bellevue ownership.

Cons:

- Street corridors would not be utilized to meet PUD an LID goals.
- Possible increase of runoff flow rates to offsite surface waters and riparian corridors.
- Increased sidewalk area requiring maintenance.
- Increase street corridor impacts reducing open space and landscape area within the project.
- Reduced open space for public visual and physical enjoyment.

Why is the proposed solution the best/most appropriate option?

(1) *Except where infill development is proposed, the deviation will achieve the intended result with a comparable or superior design;*
The outcome of the requested deviation will result in comparable design and less impervious surfaces and is more environmentally responsive. A reduction of sidewalk surfaces will directly result in a reduction of the stormwater management facility and volume of water detained and released. Therefore, more water will infiltrate into the landscape areas and support the groundwater systems and hydrology of the property. Supports the project proponent in seeking a PUD Development approval by limiting the area of disturbance and improving the site utilizing Low Impact Development Best Management Practices.

Each roadway corridor requesting a reduced impervious area reduction is contained within the proposed development and subject to limited local residential vehicular traffic.

(2) *The deviation will not adversely affect safety or operation, Response: **
Road B is only anticipated to serve 13 single-family residences with driveway access typical of an alley. It is anticipated during the PM peak-hour, 13 vehicles would utilize Road B with eight inbound and five outbound vehicles. There is sufficient roadway width for two vehicles to pass without having to share a lane. The probability of vehicles crossing in the PM peak-hour is 1.11% (8 vehicles/60 minutes x 5 vehicles/60 minutes). Road B will also be used by pedestrians of these same 13 residences to access the sidewalks and trail system. Assuming a worst-case of 13 individual groups of pedestrians during the PM peak-hour, the probability of interaction with two vehicles passing and a pedestrian would be 0.24% (8 vehicles/60 minutes x 5 vehicles/60 minutes x 13 pedestrians/60 minutes). With the low speeds, familiar drivers, closed roadway system, there would be sufficient roadway width to support all the users of the roadway.

* Response per Gibson traffic, See attached memo.

(3) *The deviation will not adversely affect maintainability.*
The deviation will not adversely impact the upkeep of the streets maintained by the City of Bellevue. All on-site streets will be maintained by the Homeowners Association.

Additionally, we believe that numerous provisions of the PUD Decision criteria support the request for the "Road Width Deviation." Specifically, these are described within the City Code as detailed herein.

City Code 20.30D.150 reads, The *City may approve or approve with modifications a Planned Unit Development plan if:*

B. The Planned Unit Development accomplishes, by the use of permitted flexibility and variation in design, a development that is better than that resulting from traditional *development. Net benefit to the City may be demonstrated by one or more of the following:*

5. Conservation of natural features, vegetation and on-site soils; ***Response: Yes, reduction of the roadway footprint will reduce the square footage of impervious surfaces allowing more rainwater to naturally infiltrate back to the groundwater system. Additionally, cleaning the water from pollution-generating surfaces will ensure cleaner water is released back to the environment, drainage system and streams.***

6. Reduction in hard surfaces; ***Response: Agreed, reduction of hard surfaces will reduce the size of the stormwater vault and thereby reduce the volume and duration of the water released back to the environment from the point discharge.***

7. Conservation of critical areas and critical area buffers beyond that required under Part 20.25H LUC; ***Response: Yes, valued critical environmental areas will benefit from LID efforts to reduce pervious surfaces, thereby reducing the volume of treated and cleaned stormwater then released.***

9. Energy efficient site design or building features, ***Response: Yes, the site design is improved with reduction of pollution-generating impervious surfaces, thereby allowing for more land to be dedicated as landscape areas.***

10. Use of low impact development techniques; ***Response: Yes, the application of LID, rain gardens and pavement reduction and alternative pavement treatment features are desirable within urban development projects.***

DOCUMENTATION (Indicate appropriate level of documentation for your project. If not sure, contact Hillary Stibbard at 425-452-4357):

☐ Form completed as Summary to Attached Report (PE stamp required on attached document)

☒ Form completed as Final Documentation (PE stamp required below) with supporting documents (plans, photos, cost estimates, etc.) attached.

This deviation/exception is hereby submitted for review and approval.	*Approved by:*
	_____ Transportation Director (or Designee)
Scott A. Sherrow, Sr. Principal Name and Title	_____ Date

DSD - 001067

SALMON-SAFE CERTIFICATION

Salmon-Safe does hereby certify that an independent evaluation has been conducted at the site listed below and that this site meets all of the necessary qualifications to be certified Salmon-Safe for the conservation of urban habitat and water quality.

Park Pointe

Salmon-Safe Certification
Registration Number SS-C-506
7219 & 7331 Lakemont Blvd SE
Bellevue, WA 98006

SALMON SAFE

Signed _____ **Dated** July 5, 2022

Salmon-Safe Inc.
1001 SE Water Ave, Suite 450 | Portland, Oregon 97214 | www.salmonsafe.org

DSD - 001068

SALMON-SAFE INC.

REPORT OF THE SCIENCE TEAM REGARDING SALMON-SAFE CERTIFICATION OF THE PARK POINTE PLANNED UNIT DEVELOPMENT BELLEVUE, WASHINGTON

October 8, 2018

Salmon-Safe Inc.
1001 SE Water Ave, Suite 450
Portland, Oregon 97214
503.232.3750
info@salmonsafe.org

www.salmonsafe.org

DSD - 001069

RECOMMENDATION SUMMARY

The Salmon-Safe Science Team is pleased to recommend that the Park Pointe Planned Unit Development (PUD) in Bellevue, Washington, be certified Salmon-Safe, subject to the conditions detailed in this report. Isola Homes, the Park Pointe developer, has prepared a design for a residential community that will result in a net improvement in the ecological functions provided by this environmentally sensitive property that is immediately adjacent to the Coal Creek Natural Area.

Background

In 2000, Salmon-Safe expanded beyond agricultural land certification to apply the Salmon-Safe assessment and certification process to land and water management within the urban realm. This initiative significantly advanced restoration efforts in urbanized watersheds by developing urban aquatic protection guidelines and a citizen education campaign throughout the Pacific Northwest.

Working closely with independent scientists and technical experts, Salmon-Safe developed a comprehensive certification framework oriented towards reducing impacts on water quality and fish habitat from urban land and water management practices. Since 2005, more than 40 urban sites have transitioned to Salmon-Safe certification in Oregon and Washington, including Nike World Headquarters, Toyota at the Port of Portland, University of Washington Seattle and Bothell Campuses, Oregon Convention Center, and other institutional, corporate, and residential development sites.

In 2014, Salmon-Safe developed certification standards for highly urbanized sites, which revised and updated the Campus Standards completed in 2005. These Urban Certification Standards (https://www.salmonsafe.org/getcertified/development) are applicable across a variety of urban development landscapes, ranging from high-density urban infill to corporate campuses. While the standards are designed as a stand-alone program, they can also complement other leading certification standards, such as LEED, Sustainable Sites, Envision and Earth Advantage, providing a water quality and habitat-focused bioregional overlay.

DSD - 001070

PROJECT OVERVIEW

The Park Pointe PUD proposed by Isola Homes consists of 35 single-family detached homes on two existing lots totaling 12.29 acres at 7219 and 7331 Lakemont Boulevard in Bellevue, Washington. The residential development will occupy 5.90 acres of the property, with the remaining 6.39 acres of the site being retained as open space. This open space is adjacent to the City of Bellevue's Coal Creek Natural Area, which surrounds Coal Creek and contains several miles of walking trails. The final project design is subject to change as Isola Homes and the City of Bellevue continue to discuss specific project elements as part of the PUD permitting process.

The land in the vicinity of the project was historically part of a larger active coal mining operation from circa 1879 to 1930. After mining operations were suspended, the land use in the eastern part of the property closest to Lakemont Boulevard changed to farming and horse pasture and several residences were constructed. The proposed development is generally clustered in this area, which is largely pasture. All existing structures are proposed for removal.

The site contains critical areas including steep slopes, wetlands, streams, and coal mine hazards. The project proposes a combination of several different mitigation measures intended to compensate for buffer functions and values lost through reduced buffer widths, temporary disturbance, and dedication to trails or right-of-way. Mitigation activities will occur on 3.00 acres of the property as outlined in Figure 1 and below:

- Forested sub-canopy enhancement
  remove invasive species, enhance with shrubs, plant 20 trees (0.28 acres)
- Undisturbed forested buffer enhancement
  remove invasive species, stabilize disturbed soils, enhance with shrubs, plant 100 trees (0.70 acres)
- Disturbed forested buffer enhancement
  remove invasive species, install habitat features, stabilize disturbed soils, enhance with shrubs, plant 150 trees (0.96 acres)
- Re-establishment of forested buffer
  remove debris, remove invasive species, restore/stabilize disturbed soils, enhance with shrubs and native ground-cover, plant 300 trees (1.06 acres)

DSD - 001071

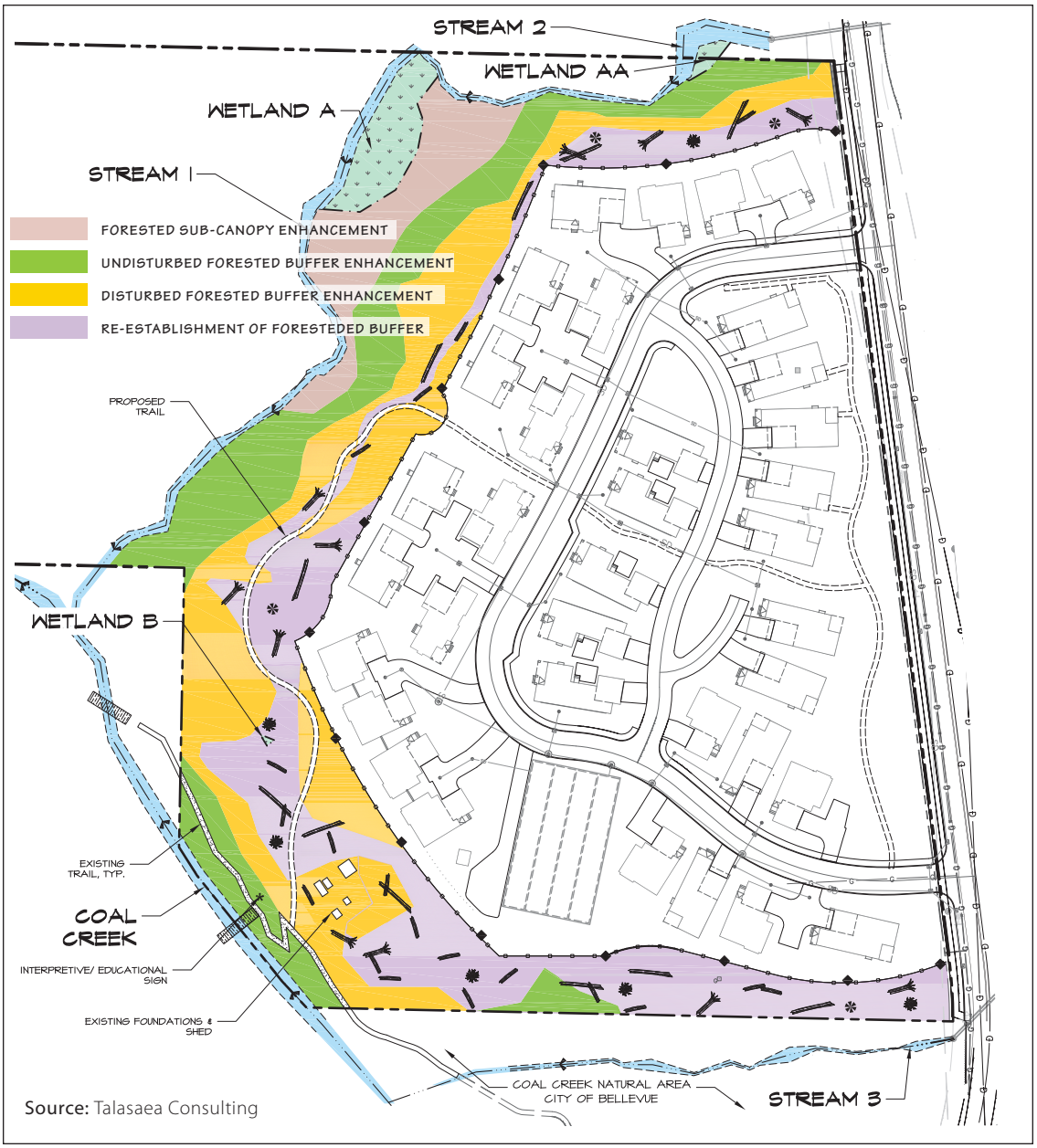

Figure 1. Conceptual mitigation plan

The proposed mitigation will result in a net gain in critical area functions and values compared to existing conditions. The total mitigation proposed represents a 4.6:1 mitigation-to-impact ratio.

The project area does not currently have a piped stormwater conveyance system. Under proposed conditions, runoff will be collected in an underground detention vault at the southern edge of the property. The runoff will then be routed through Contech StormFilters® located downstream of the detention vault before being released to a storm sewer that discharges to the stream at the southern edge

DSD - 001072

of the property. Additional stormwater management will be provided by minimizing impervious surfaces through site design, bioretention swales with underdrains, pervious pavement, a below-grade cistern, and roof-downspout dispersion to wetland buffers.

ASSESSMENT PROCESS

The Salmon-Safe assessment process consisted of a drawing review and a field review, culminating in a certification report (this document). These tasks were conducted by Salmon-Safe staff and an interdisciplinary team of scientists (the Science Team) with expertise in aquatic ecosystems, innovative stormwater management, land management, and integrated pest management (IPM), as summarized below.

Science Team

The Science Team for this project was composed of Tad Deshler, Dr. Richard Horner, and José Carrasquero. Team advisor, Carrie Foss, assisted the Science Team with the evaluation of landscape management practices through a review of project materials.

Tad Deshler: *Environmental Scientist, Coho Environmental*

Mr. Deshler's practice focuses on environmental assessment and impact analysis, with particular focus on the interaction between built and natural environments. Much of his project work has centered around aquatic sites, or at the interface between aquatic sites and the adjacent upland environments, where understanding the transport mechanisms that connect upland and in-water environments is paramount. Tad earned a BA degree in Aquatic Biology from the University of California at Santa Barbara and an MS degree in Animal Science from the University of California at Davis. Tad also has specialized expertise in sediment assessment and management, risk assessment, and chemical transport and fate studies.

Dr. Richard Horner: *Stormwater Management Expert, University of Washington*

Dr. Horner received engineering BS and MS degrees from the University of Pennsylvania and a PhD in civil and environmental engineering from the University of Washington in 1978. Following 13 years of college teaching and professional practice, he joined the University of Washington research faculty in 1981, where he held appointments in Civil and Environmental Engineering, Landscape Architecture, and the Center for Urban Horticulture. His principal research interests involve analyzing the effects of human activities, especially in urban

DSD - 001073

areas, on freshwater ecosystems and solutions that protect these resources. Dr. Horner founded the Center for Urban Water Resources Management in 1990 to advance applied research and education in these areas. He is now emeritus research associate professor and splits his time between private practice and some continuing university research.

José Carrasquero: *Fisheries and Marine Biologist, BA & MS – University of Washington*

Mr. Carrasquero brings 27 years of experience to his work. He performs feasibility assessments for instream, riparian, and floodplain salmon habitat projects. He reviews construction projects to assess whether they comply with local, state, and federal laws. Through these project reviews, he evaluates construction plans and recommends best management practices and mitigation measures. As a technical expert, José has participated in the development of guidance documents supporting planning and regulation under the Growth Management and Shoreline Management Acts. For the Puget Sound Partnership, José reviews and scores projects submitted for funding through the Puget Sound Acquisition and Restoration program, and the Recovery Funding Board. He also provides feedback on local Chinook recovery planning and adaptive management through review of watershed's work plans and project lists.

Carrie Foss: *Urban IPM Director, WSU Puyallup*

Ms. Foss manages the WSU IPM Certification Program and the Pesticide Safety Education Program in western Washington. Landscape maintenance personnel are trained in plant problem diagnosis, integrated pest management, personal safety, and environmental protection through lectures and workshops. Carrie earned a BS degree in botany from the University of Washington and an MS degree in plant pathology from the University of Hawaii. Her background includes plant problem diagnosis, research on beneficial microorganisms, and management strategies for turf and ornamental diseases.

Left to right
Tad Deshler, José Carrasquero, Jennifer Marriott, Ann Olsen, and Rich Horner observe the riparian buffer, which will be enhanced as part of the project's design.

DSD - 001074

Field Review

Tad Deshler and Rich Horner (center, Salmon Safe Science Team) view drawings that show where the Park Pointe PUD project's site mitigation area meets lands to be developed.

The field review was conducted on September 13, 2018. Isola Homes' project team from PACE Engineering and Talasaea Consulting assembled documentation that was reviewed by the Science Team prior to, during, and after the field inspection phase of the assessment process. The Science Team met with the project team at the project site, toured the site, and had an opportunity to discuss specific site attributes. At the end of the day, the Science Team, supported by Salmon-Safe staff, met to review the certification criteria against notes taken during the process. On October 5, 2018, the team and Salmon-Safe staff finalized conditions for certification and reached a final unanimous decision on certification.

Ann Olsen (left, Talasaea Consultants) describes the number and types of plantings that will be included in the project's mitigation plan.

DSD - 001075

GENERAL OBSERVATIONS

In the judgment of the Science Team, the Park Pointe development includes many elements that are consistent with Salmon-Safe standards.

The Critical Areas report provides a thorough inventory and mapping of existing conditions related to wetlands, waterways, forest, and habitat. Although some encroachment on riparian and wetland buffers is anticipated, the proposed mitigation should replace, restore, or enhance the remaining buffer, resulting in a net increase in ecological function. All mitigation areas will be monitored and maintained for at least five years to ensure all goals, objectives, and performance standards are met.

Several design features will result in the minimization of the use of potable water. The plant and tree palette planned for on-site landscaping is biased toward native and drought-tolerant species, thereby minimizing the need for extensive irrigation, while also enhancing ecological function. Water from the cistern that will capture rainwater from several roofs will be used to irrigate common areas at the southern edge of the property.

The stormwater management plan is centered on a traditional underground detention vault with associated water quality treatment via media-filled cartridges, but it also includes several low-impact development design features that should reduce the amount of stormwater that ultimately leaves the project area. Additional analyses of the impacts from discharged stormwater are warranted, as discussed below in the Conditions section.

The Science Team took note of a strong organizational motivation and enthusiasm for completing this project in an environmentally sustainable manner. The Science Team is enthusiastic about providing guidance to Isola Homes and the project team to inform the construction of the Park Pointe PUD and its long-term maintenance.

DSD - 001076

CERTIFICATION CONDITIONS AND RECOMMENDATIONS

Certification Recommendation: The Science Team recommends that the Park Pointe PUD be certified as Salmon-Safe subject to two pre-conditions and seven conditions listed below. All conditions are subject to annual verification by Salmon-Safe. Timelines for accomplishing objectives are measured from the official date of this Salmon-Safe conditional certification.

Pre-Condition 1: *Ensure environmental regulatory compliance*

Isola Homes shall provide Salmon-Safe a signed statement indicating that construction or operation of the development is not in violation of national, state, or local environmental laws, or associated administrative rules or requirements as determined by a regulatory agency in an enforcement action, per General Standard 1.

TIMELINE

Compliance is a pre-condition of certification, then subject to annual verification by Salmon Safe.

Pre-Condition 2: *Commitment to adhere to Salmon-Safe construction management guidelines*

Isola Homes shall provide Salmon-Safe a signed letter committing to adhere to Salmon-Safe's construction management guidelines during the construction of the Park Pointe PUD. Achieving zero sediment runoff is one of the goals stated in the guidelines that is particularly important in this watershed. The guidelines may be found at *salmonsafe.org/certification/construction-management/.*

TIMELINE

Compliance is a pre-condition of certification, then subject to annual verification by Salmon Safe.

DSD - 001077

Condition 1: *Compare pre-development and post-development stormwater quality and quantity*

Salmon-Safe offers *Model Stormwater Management Guidelines* (see Appendix A) to assist site planners in maintaining or restoring, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the water quality, rate, volume, and duration of flow. Isola Homes shall conduct an analysis that compares pre-development (prior to mining) and post-development stormwater quality and quantity to document how the primary goal of maintaining or restoring the predevelopment hydrology within the project area will be achieved. If full compliance with this objective cannot be accomplished because of site constraints, site data, calculations, modeling results, or qualitative reasoning shall be provided to document the technical infeasibility of achieving the objective.

TIMELINE

A report documenting the analyses described above shall be prepared and submitted to Salmon-Safe for review within 60 days of the 60% design stage for the Park Pointe project, thereby providing Salmon-Safe the opportunity to provide feedback which could meaningfully impact the final designs for this development.

Condition 2: *Provide SWPPP and TESC documents for review*

The *Stormwater Pollution Prevention Plan* (SWPPP) and the *Temporary Erosion and Sediment Control* (TESC) documents that will be prepared once the project design is finalized will describe best management practices for complying with Salmon-Safe standards U.1.9, U.3.3, and U.3.4.

TIMELINE

The SWPPP and TESC documents shall be submitted to Salmon-Safe for review as soon as they are completed and before groundbreaking occurs.

DSD - 001078

Condition 3: *Develop water use reduction strategy and plan*

Isola Homes shall formally document the strategy for minimizing water use during construction and operation of the Park Pointe development. A report shall be prepared that describes the existing site water infrastructure inventory (Standard U.2.1) and evaluates the feasibility of various water use reduction strategies (Standard U.2.2). Isola Homes should consider developing a numeric water use goal so that water use reduction strategies can be measured against a baseline. One or more of these or other strategies should be implemented to the extent operationally feasible and as permissible by building codes and other regulations.

TIMELINE

A water use plan that includes both construction and operation phases shall be submitted to Salmon-Safe for review within three months of the completion of 60% design documents.

Condition 4: *Remove tailings in an environmentally protective manner*

The current project design calls for removal of tailings from historical mining operations within the development area. Mine tailings are known to contain heavy metals at concentrations that may be toxic to wildlife and aquatic organisms. Isola Homes shall prepare a contaminated soil removal plan that ensures that these tailings are removed in such a manner as to not introduce any contamination to the sensitive riparian zone downgradient from the tailings. The contractor responsible for removing the contaminated soil from the mine tailing areas shall be appropriately trained in hazardous waste operations.

TIMELINE

A contaminated soil removal plan shall be prepared and submitted to Salmon-Safe for review at least three months before the anticipated contaminated soil removal.

DSD - 001079

Condition 5: *Provide final planting schedule for review*

The preliminary planting schedule provided to the Science Team includes a suitable array of native and adapted species that is consistent with Salmon-Safe standards. Since this planting schedule is subject to change as the project design is finalized, Isola Homes shall provide the final planting schedule for Salmon-Safe review.

TIMELINE

The final planting schedule shall be submitted to Salmon-Safe for review within 30 days of completion of 90% design documents.

Condition 6: *Prepare owner's manual for landscape maintenance*

Isola Homes shall prepare an owner's manual for the Park Pointe development that summarizes landscape maintenance practices related to IPM and fertilizer use. This manual would ensure that best management practices are applied across common areas and private lots. IPM and fertilizer practices shall be consistent with Appendix D of the Urban Certification Standards. The fertilizer management strategy shall emphasize using the minimum amount of fertilizer necessary following a zoned management approach. Alternatives to fertilizers, such as compost and mulch, shall also be emphasized. Isola Homes shall maintain records to document fertilizer usage consistent with Salmon-Safe standards.

TIMELINE

The owner's manual shall be submitted to Salmon-Safe for review within one year of certification.

DSD - 001080

Condition 7: *Incorporate owner's manual for landscape maintenance into Homeowner Association (HOA) Covenants, Conditions & Restrictions (CC&R's)*

The owner's manual for landscape maintenance described in Condition 6 shall be incorporated into the Covenants, Conditions & Restrictions of the Park Pointe Homeowners Association.

TIMELINE

Draft CC&R's that include reference to the owner's manual for landscape maintenance shall be submitted to Salmon-Safe for review at least 90 days before any homes within the Park Pointe development are offered for sale.

Recommendations

In addition to the conditions for certification listed above, Salmon-Safe offers the following continuing improvement recommendation, adoption of which is not mandatory to achieve certification, but is considered Salmon-Safe best practice:

- Create educational signage
  We recommend creating educational signage to foster environmental stewardship among residents and visitors. Such signage could be placed along the trail to be constructed within the Park Pointe development that will connect with trails in the Coal Creek Natural Area. The signs could summarize the environmentally sustainable and protective elements of the Park Pointe development that led to Salmon-Safe certification. Salmon-Safe can assist Isola Homes by providing examples of appropriate signage.

DSD - 001081

CONCLUSIONS

Salmon-Safe and the Science Team commend Isola Homes for its commitment to implement the conditions listed in this report, and to manage the Park Pointe PUD to continue to improve water quality and urban habitat over the next five years. We extend appreciation and congratulations to the Isola Homes team for their work in preparing for the certification assessment and assisting the Science Team in its assessment.

DSD - 001082

APPENDIX A

Model Stormwater Management Guidelines
for Ultra-Urban Redevelopment

May 2018

DSD - 001083

SALMON-SAFE INC.

MODEL STORMWATER MANAGEMENT GUIDELINES FOR ULTRA-URBAN REDEVELOPMENT

MAY 2018

Introduction

Polluted stormwater is the largest threat to the health of the Pacific Northwest's urban watersheds. Pollutants targeted by Salmon-Safe's urban initiative such as heavy metals, petroleum products, pesticide runoff and construction sediment have an adverse impact on the watershed and severely compromise downstream marine health. With the goal of inspiring design that has a positive impact in our watersheds, Salmon-Safe offers stormwater design guidance for ultra-urban areas, which we define as typically those densely developed "downtown" locations mostly covered by structures and pavement. Generally first developed long ago, many such areas are brownfields now undergoing redevelopment, mostly for commercial and residential purposes.

The very extensive impervious surfaces in ultra-urban spaces create a hydrologic environment dominated by surface runoff, with little of the soil infiltration and evapotranspiration predominating in a natural landscape. Vehicle traffic drawn to such areas and the activities occurring there deposit contaminants like heavy metals, oils and other petroleum derivatives, pesticides and fertilizers (nutrients). These pollutants wash off of the surfaces with the stormwater runoff and drain into the piping typically installed to convey water away rapidly. If the piping network is a combined sanitary-storm sewer system, the large stormwater runoff volumes draining from an ultra-urban area exceed the capacity of the wastewater treatment plant at the end of the line in some storms, resulting in releases of untreated, mixed sewage and stormwater to a water body. If the piping network is a separated storm sewer system, the runoff and the pollutants it carries enter a receiving water body without treatment, to the detriment of water quality and the aquatic life there. Although salmon-spawning and rearing streams are rarely present in an ultra-urban location, if they are, the elevated runoff quantity itself is damaging to the downstream habitat that salmon and their food sources rely on and directly to the fish themselves.

Many of the pollutants conveyed by stormwater runoff are toxic to salmon and their invertebrate food sources. The toxicity of heavy metals like copper and zinc to aquatic life has been well studied. However, salmon face many more potentially toxic pollutants in both their freshwater and saltwater life stages. These contaminants include other heavy metals; petroleum products; combustion by-products; and industrial, commercial, and household chemicals. Emerging science from NOAA Fisheries shows that these agents collectively create both lethal and non-lethal impacts, the latter negatively affecting salmon life-sustaining functions to the detriment of their migration, reproduction, feeding, growth and avoidance of predators.

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DSD - 001084

Despite these challenges, an array of options exists to reduce, or even in the utmost application, eliminate the negative impacts of ultra-urban development stemming from the large quantities of contaminated stormwater runoff potentially generated there. This management category addresses practices to control ultra-urban stormwater runoff to reduce both water quantity and water quality impacts with the following goal.

Goal

Any development or redevelopment project with a footprint that exceeds 5,000 square feet shall use low-impact site planning, design, and operational strategies[1] for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the water quality, rate, volume, and duration of flow.

Objectives

1. Prime objective

   Implement low-impact practices, especially runoff retention[2] practices,addressing both water quantity and water quality control to the maximum extent technically feasible in redeveloping ultra-urban parcels to achieve the stated goal of restoring the predevelopment hydrology. Provide documentation of how the objective will be achieved. If full achievement of the goal is technically infeasible, assemble documentation demonstrating why it is not and proceed to consider Objective 2A and/or 2B, as appropriate to the site.

2. Alternative objectives

   Assess if achieving Objective 1 is documented to be technically infeasible.

   2A **Alternative water quantity control objective when the site discharges to a combined sanitary-storm sewer or a stream**—Start with the low-impact practices identified in the assessment pursuant to Objective 1. To the extent that they cannot prevent the generation of stormwater runoff peak flow rates and volumes greater than in the predeveloped condition[3,4], implement effective alternative measures to diminish and/or slow the release of runoff to the maximum extent technically feasible, with the minimum objective of reducing the quantity discharged to comply with any applicable water quantity control requirement[5] and, in any case, below the amount released in the preceding developed condition.[6]

---

[1] Collectively termed "low-impact practices" in the following points.

[2] Retention means keeping runoff from flowing off the site on the surface by preventing its generation in the first place, capturing it for a water supply purpose, releasing it via infiltration to the soil or evapotranspiration to the atmosphere, or some combination of these mechanisms.

[3] A predeveloped condition is the natural state of the site as it typically would be for the area prior to any modification of vegetation or soil.

[4] As determined through hydrologic modeling of the previously developed and modified conditions.

[5] Specified for discharges to combined sewers by the municipal jurisdiction; specified for discharges to Western Washington streams by the Washington Department of Ecology's Stormwater Management Manual for Western Washington, Minimum Technical Requirement #7.

[6] As determined through hydrologic modeling of the previously developed and modified conditions.

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2B **Alternative water quality control objective when the site discharges to a water body or a separate storm sewer leading to a water body**—Start with the low-impact practices identified in the assessment pursuant to Objective 1. To the extent that they cannot prevent the generation of stormwater runoff containing pollutants, implement alternative effective measures to reduce contaminants in stormwater to the maximum extent technically feasible, with the minimum objective of complying with the regulatory requirements for water quality control applying to the location.[7]

Plan Elements

1. **Inventory and analysis**—Narrative, mapping, data, and quantitative results that summarize: (1) site land uses and land covers in the redeveloped and preceding developed conditions; (2) results of hydrologic modeling of the undeveloped, previously developed and modified conditions, as the basis for pursuing quantity control objectives; and (3) stormwater drainage sub-basins, conveyance routes, and locations of receiving stormwater drains and natural water bodies in the redeveloped state.

2. **Low-impact practices—**Low-impact practices are systematic methods intended to reduce the quantity of stormwater runoff produced and improve the quality of the remaining runoff by controlling pollutants at their sources, collecting precipitation and putting it to a beneficial use, and utilizing or mimicking the hydrologic functioning of natural vegetation and soil in designing drainage systems.

   The following low-impact practices are particularly relevant to ultra-urban sites:

   - source control practices
     - √ minimizing pollutant introduction by building materials (especially zinc- and copper-bearing) and activities conducted on the site
     - √ isolating pollutants from contact with rainfall or runoff by segregating, covering, containing, and/or enclosing pollutant-generating materials, wastes and activities
     - √ conserving water to reduce non-stormwater discharges
   - constructing vehicle travel ways, sidewalks and uncovered parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised
   - harvesting precipitation and putting it to a use such as irrigation, toilet flushing, vehicle or surface washing, or cooling system make-up water
   - constructing low-traffic areas with permeable surfaces, such as porous asphalt, open-graded Portland cement concrete, coarse granular materials, concrete or plastic unit pavers, and plastic grid systems (Areas particularly suited for permeable surfaces

[7] In Western Washington, specified by the Washington Department of Ecology's Stormwater Management Manual for Western Washington, Minimum Technical Requirement #6, which is equivalent to the City of Seattle's SMC, Section 22.805.090.B.1.a.

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are driveways, walkways and sidewalks, alleys, and overflow or otherwise lightly-used uncovered parking lots not subject to much leaf fall or other deposition.)

- draining runoff from roofs, pavements, other impervious surfaces, and landscaped areas into one or more of the following green stormwater infrastructure (GSI) systems:

  √ bioretention area* (also known as a rain garden)[8]

  √ planter box*, tree pit* (bioretention areas on a relatively small scale)

  √ vegetated swale[9] *

  √ vegetated filter strip*

  √ infiltration trench

  √ green roof

  * *signifies compost-amended soils as needed to maximize soil storage and infiltration*

The following low-impact practices are of limited applicability to ultra-urban sites but may contribute to meeting objectives in some circumstances:

- conserving natural areas including existing trees, other vegetation and soils
- minimizing soil excavation and compaction and vegetation disturbance
- minimizing impervious rooftops and building footprints
- designing drainage paths to increase the time before runoff leaves the site by emphasizing sheet instead of concentrated flow, increasing the number and lengths of flow paths, maximizing non-hardened drainage conveyances and maximizing vegetation in areas that generate and convey runoff

3. Alternatives—When on-site low-impact practices alone cannot achieve Objectives 2A and/or 2B, implement one or more of the following strategies to meet at least the minimum water quantity and quality control objectives stated above:

   - For runoff quantity and/or quality control—

     √ contribute materially to a neighborhood project using low-impact practices and serving the stormwater control needs of multiple properties in the same receiving water drainage basin, with the contribution commensurate with the shortfall in meeting objectives on the site itself.

     √ implement low-impact practices on-site to manage the quantity and quality of stormwater generated in a location off the redevelopment site but in the same receiving water drainage basin, with the scope of the project commensurate with the shortfall in meeting objectives using practices applied to stormwater generated by the site itself.

[8,9] Preferably with an open bottom for the fullest infiltration, but with a liner and underdrain if the opportunity for deep infiltration is highly limited or prohibited for some specific reason, e.g., bedrock or seasonal high-water table near the surface, very restrictive soil (e.g., clay, silty clay) that cannot be adequately amended to permit effective infiltration, non-remediable contamination below ground in the percolating water pathway.

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- **For runoff quantity control**—install a vault or tank[10] to store water for delayed release after storms to help avoid combined sewer overflows or high flows damaging to a stream.
- **For runoff quality control**—install an advanced engineered treatment system suitable for an ultra-urban site.[11]

Considerations for Salmon-Safe Certification

Fulfilling the stormwater component of the Salmon-Safe certification process requires submission of documentation of how Objective 1 will be achieved based on the inventory and analysis conducted for the site. On the other hand, if Objective 1 has been judged to be unachievable, pursuing certification requires documentation establishing the technical infeasibility of doing so. Relevant documentation includes, but is not necessarily limited to, site data, calculations, modeling results, and qualitative reasoning. If achieving Objective 1 is demonstrably technically infeasible, the certification process then requires similar documentation of how Objectives 2A and/or 2B, as appropriate to the site, will be achieved.

Prepared for Salmon-Safe Inc. by Dr. Richard Horner, et. al.

[10] While useful for runoff quantity control, passive vaults and tanks provide very little water quality benefit.

[11] The most effective candidate treatment systems now available are chitosan-enhanced sand filtration and advanced media filtration coupled with ion exchange and/or carbon adsorption. Basic sand filtration is another option suitable to an ultra-urban site but is less effective than the more advanced alternatives.

DSD - 001088

Representatives from PACE Engineers and Talasaea Consultants brief the Salmon-Safe Science Team on the Park Pointe project site and its design.

Additional Credits

Report design & production : ***Jay Tracy Studios***
Project Site Map (cover inset) : ***PACE Engineers***
Conceptual Mitigation Plan Diagram (page 3) : ***Talasaea Consulting***
Science Team field photos © ***Salmon-Safe 2018***

DSD - 001089

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Tierra Right of Way
A LAND SERVICES COMPANY

Cultural Resources Assessment for the Park Pointe Project, King County, Washington

Contains Confidential Information—Not for Public Distribution

Prepared by:
Mark F. Steinkraus, M.S.

Tierra Archaeological Report No. 2017-017
April 19, 2017

DSD - 001091

CULTURAL RESOURCES REPORT COVER SHEET

Author: Mark F. Steinkraus

Title of Report: Cultural Resources Assessment for the Park Pointe Project, King County, Washington

Date of Report: April 19, 2017

County(ies): King Section: 26 Township: 24 Range: 5 E
Quad: Bellevue South Acres: 6.3

PDF of report submitted (REQUIRED) ☒ Yes

Historic Property Inventory Forms to be Approved Online? ☒ Yes ☐ No

Archaeological Site(s)/Isolate(s) Found or Amended? ☒ Yes ☐ No

TCP(s) found? ☐ Yes ☒ No

Replace a draft? ☐ Yes ☒ No

Satisfy a DAHP Archaeological Excavation Permit requirement? ☐ Yes # ☒ No

Were Human Remains Found? ☐ Yes DAHP Case # ☒ No

DAHP Archaeological Site #:
Site 1
Site 2
Site 3
Site 4
Isolate 1

- Submission of PDFs is required.
- Please be sure that any PDF submitted to DAHP has its cover sheet, figures, graphics, appendices, attachments, correspondence, etc., compiled into one single PDF file.
- Please check that the PDF displays correctly when opened.

DSD - 001092

Cultural Resources Assessment Park Pointe Project, King County, Washington

Contains Confidential Information—Not for Public Distribution

Prepared by:
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Tierra Archaeological Report No. 2017-017
April 19, 2017

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EXECUTIVE SUMMARY

Tierra Right of Way Services, Ltd. (Tierra), was contracted by ISOLA Homes to conduct a cultural resources assessment for the proposed construction of 40 single-family detached homes in Bellevue, Washington. Three cultural resources assessments have been conducted within 1.6 km (1.0 mile) of the project area. One archaeological site (45KI00758) and ten Historic Property Inventory (HPI) forms have been documented and submitted to the Washington State Department of Archaeology and Historic Preservation (DAHP) within 1.6 km (1.0 mile) of the project area. Tierra's cultural resources assessment consisted of background review, field investigation, and production of this report. Background review determined the project area to be located in an area with a high probability for historic properties. Field investigation included visual reconnaissance, pedestrian survey, and subsurface testing. Four historic era archaeological sites were recorded, one historic era archaeological isolate, and six historic property forms were completed during this project. Two of the sites located contained archaeological resources that are potentially eligible for local historical registers or the National Register of Historic Places (NRHP); the eligibility of these components is dependent on the DAHP's view regarding the eligibility of the larger surrounding complexes (e.g., a historic mine and towns). If these historical complexes are eligible for local historical registers or the NRHP, then these smaller sites will require protection and further evaluation in relation to the nearby historical complexes. If the DAHP determines that the larger complexes are ineligible for any historical registers, then Tierra recommends a finding of No Impact for these sites.

None of the standing structures on the property are eligible for any local, State, or Federal historical registers. Soil disturbance for this project will extend below what is possible to inspect using traditional archaeological testing. Tierra recommends archaeological monitoring of any ground-disturbing activities within the project area for 0.6 m (2.0 feet) into glacial till or until the on-site archaeologist determines the soils to be below human occupation, as this project area is very likely to yieldhistorical archaeological materials and features. Because the area has a high potential for yielding precontact and historic archaeological materials, Tierra also recommends brief training on archaeological laws, how to identify archaeological materials, and how to appropriately report incidental finds for all workers on-site.

DSD - 001096

INTRODUCTION

Tierra was contracted by ISOLA Homes to conduct a cultural resources assessment and archaeological subsurface testing for the Park Pointe Project (the project) in Bellevue, in King County, Washington. The project area is located in Section 26, Township 24 North, Range 5 East, Willamette Meridian (WM), as indicated on the Mercer, Washington, 7.5-minute U.S. Geological Survey (USGS) quadrangle (Figure 1).

Project Description

The proposed project is located on two parcels (Parcel Nos. 262405-9022 and 262405-9019) totaling 2.5 ha (6.3 acres) located in the City of Bellevue, just east of Newcastle, Washington; both of these lots are currently occupied. The project proposes to construct 41 traditional, single-family detached homes. This includes the construction of private roadways, stormwater improvements, and landscaping areas (Figure 2). The project area highlighted in blue in Figure 2 represents the property that Isola Homes owns, and the area highlighted in orange represents the 2.5-ha (6.3-acre) survey area that contains the development footprint. There are wetlands and three streams located near the project area (including Coal Creek).

REGULATORY CONTEXT

State Environmental Policy Act

This project requires review under the State Environmental Policy Act (SEPA). Mirroring the National Environmental Policy Act (NEPA), SEPA requires that all major actions sponsored, funded, permitted, or approved by State and/or local agencies provide consideration of the impacts of the planned action on the environment, which includes properties of historical, archaeological, scientific, or cultural importance (Washington Administrative Code [WAC] 197-11-960).

The Washington State Department of Archaeology and Historic Preservation (DAHP) is recognized as the agency with the technical expertise to consider the effects of a proposed action on cultural resources and to provide formal recommendations to local governments and other State agencies for appropriate treatments or actions.

Within Washington State, it is illegal to knowingly disturb archaeological sites or certain archaeological materials on State and private lands. Laws protecting these resources include the Archaeological Sites and Resources Law (Revised Code of Washington [RCW] 27.53), Indian Graves and Records Law (RCW 27.44), Human Remains Law (RCW 68.50), and Abandoned and Historic Cemeteries and Historic Graves Law (RCW 68.60).

ENVIRONMENTAL CONTEXT

Literature review for this project included a review of environmental data on the project area illustrated in geologic and soils maps and reports of recent geological and geomorphological investigations that describe subsurface conditions and the post-depositional processes likely to affect any cultural deposits in the study area.

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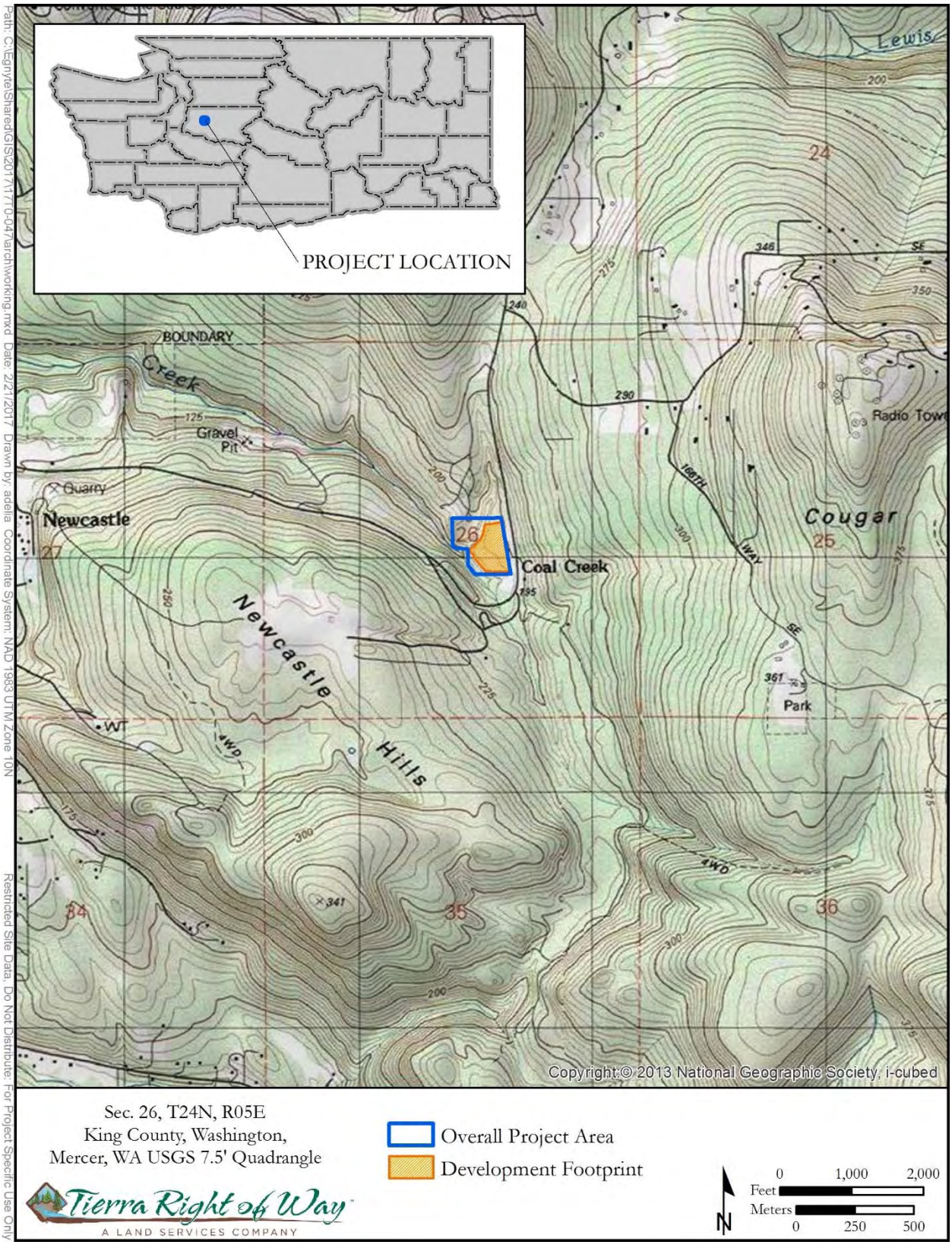
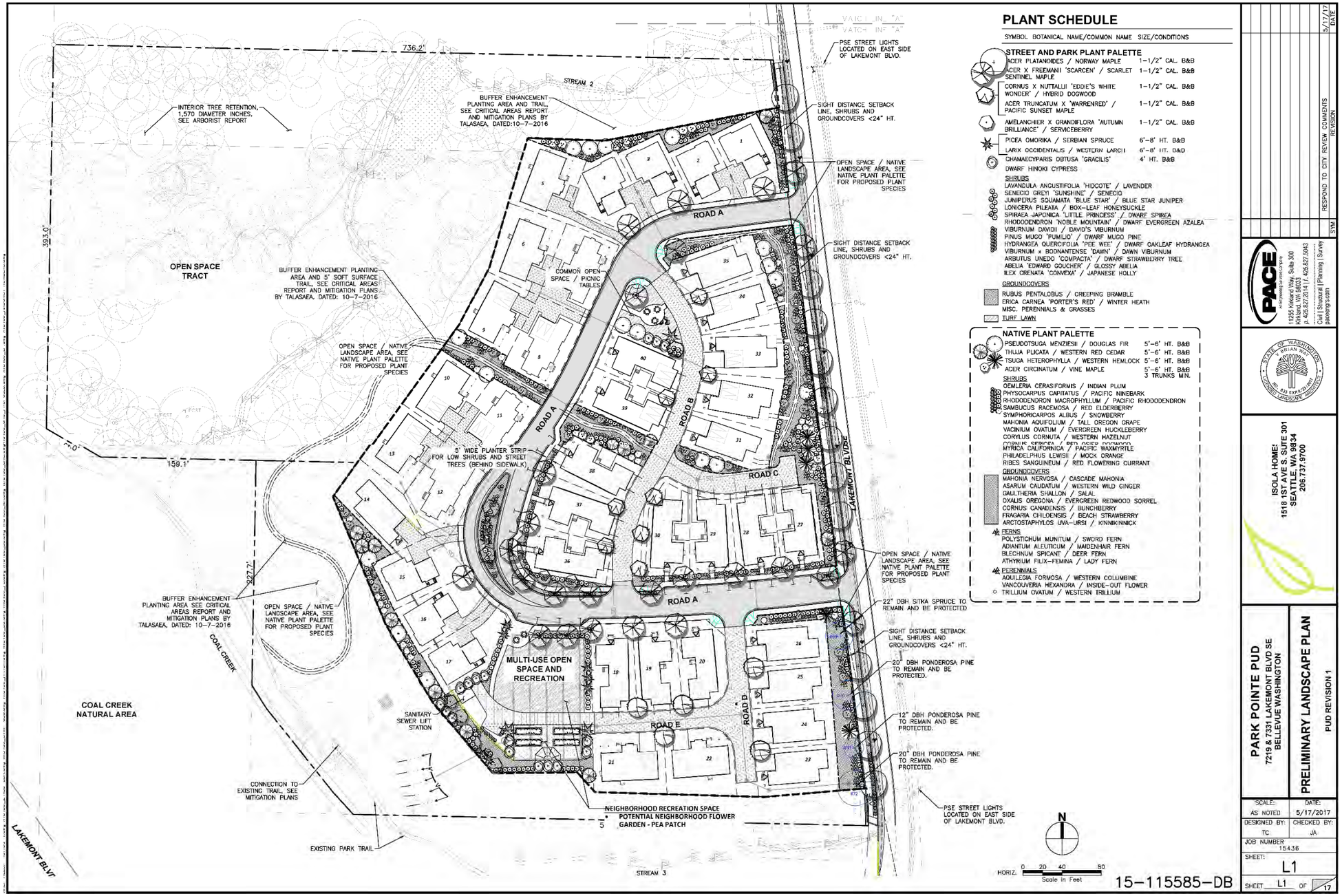


Figure 1. Project location map.

DSD - 001098



PLANT SCHEDULE

SYMBOL	BOTANICAL NAME/COMMON NAME	SIZE/CONDITIONS
STREET AND PARK PLANT PALETTE		
	ACER PLATANOIDES / NORWAY MAPLE	1-1/2" CAL. B&B
	ACER X FREEMANII 'SCARCEN' / SCARLET SENTINEL MAPLE	1-1/2" CAL. B&B
	CORNUS X NUTTALLII 'EDDIE'S WHITE WONDER' / HYBRID DOGWOOD	1-1/2" CAL. B&B
	ACER TRUNCATUM X 'WARRENRED' / PACIFIC SUNSET MAPLE	1-1/2" CAL. B&B
	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE' / SERVICEBERRY	1-1/2" CAL. B&B
	PICEA OMORIKA / SERBIAN SPRUCE	6'-8' HT. B&B
	LARIX OCCIDENTALIS / WESTERN LARCH	6'-8' HT. O&D
	CHAMAECYPARIS OBTUSA 'GRACILIS' DWARF HINOKI CYPRESS	4' HT. B&B
	SHRUBS	
	LAVANDULA ANGUSTIFOLIA 'HIDCOTE' / LAVENDER	
	SENECIO GREYI 'SUNSHINE' / SENECIO	
	JUNIPERUS SQUAMATA 'BLUE STAR' / BLUE STAR JUNIPER	
	LONICERA PILEATA / BOX-LEAF HONEYSUCKLE	
	SPIRAEA JAPONICA 'LITTLE PRINCESS' / DWARF SPIREA	
	RHODODENDRON 'NOBLE MOUNTAIN' / DWARF EVERGREEN AZALEA	
	VIBURNUM DAVIDII / DAVID'S VIBURNUM	
	PINUS MUGO 'PUMILIO' / DWARF MUGO PINE	
	HYDRANGEA QUERCIFOLIA 'PEE WEE' / DWARF OAKLEAF HYDRANGEA	
	VIBURNUM x BODNANTENSE 'DAWN' / DAWN VIBURNUM	
	ARBUTUS UNEDO 'COMPACTA' / DWARF STRAWBERRY TREE	
	ABELIA 'EDWARD GOUCHER' / GLOSSY ABELIA	
	ILEX CRENATA 'CONVEXA' / JAPANESE HOLLY	
	GROUNDCOVERS	
	RUBUS PENTALOBUS / CREEPING BRAMBLE	
	ERICA CARNEA 'PORTER'S RED' / WINTER HEATH	
	MISC. PERENNIALS & GRASSES	
	TURF LAWN	
NATIVE PLANT PALETTE		
	PSEUDOTSUGA MENZIESII / DOUGLAS FIR	5'-6' HT. B&B
	THUJA PLICATA / WESTERN RED CEDAR	5'-6' HT. B&B
	TSUGA HETEROPHYLLA / WESTERN HEMLOCK	5'-6' HT. B&B
	ACER CIRCINATUM / VINE MAPLE	5'-6' HT. B&B 3 TRUNKS MIN.
	SHRUBS	
	OEMLERIA CERASIFORMIS / INDIAN PLUM	
	PHYSOCARPUS CAPITATUS / PACIFIC NINEBARK	
	RHODODENDRON MACROPHYLLUM / PACIFIC RHODODENDRON	
	SAMBUCUS RACEMOSA / RED ELDERBERRY	
	SYMPHORICARPOS ALBUS / SNOWBERRY	
	MAHONIA AQUIFOLIUM / TALL OREGON GRAPE	
	VACINIUM OVATUM / EVERGREEN HUCKLEBERRY	
	CORYLUS CORNUTA / WESTERN HAZELNUT	
	[illegible]	
	MYRICA CALIFORNICA / PACIFIC WAXMYRTLE	
	PHILADELPHUS LEWISII / MOCK ORANGE	
	RIBES SANGUINEUM / RED FLOWERING CURRANT	
	GROUNDCOVERS	
	MAHONIA NERVOSA / CASCADE MAHONIA	
	ASARUM CAUDATUM / WESTERN WILD GINGER	
	GAULTHERIA SHALLON / SALAL	
	OXALIS OREGONA / EVERGREEN REDWOOD SORREL	
	CORNUS CANADENSIS / BUNCHBERRY	
	FRAGARIA CHILOENSIS / BEACH STRAWBERRY	
	ARCTOSTAPHYLOS UVA-URSI / KINNIKINNICK	
	FERNS	
	POLYSTICHUM MUNITUM / SWORD FERN	
	ADIANTUM ALEUTICUM / MAIDENHAIR FERN	
	BLECHNUM SPICANT / DEER FERN	
	ATHYRIUM FILIX-FEMINA / LADY FERN	
	PERENNIALS	
	AQUILEGIA FORMOSA / WESTERN COLUMBINE	
	VANCOUVERIA HEXANDRA / INSIDE-OUT FLOWER	
	TRILLIUM OVATUM / WESTERN TRILLIUM	

DATE	REVISION	SYM
5/17/17	RESPOND TO CITY REVIEW COMMENTS	

PACE
11255 Kirkland Way, Suite 300
Kirkland, WA 98033
p 425.827.2014 f 425.827.5043
Civil | Structural | Planning | Survey
pacengr.com

STATE OF WASHINGTON BRIAN WATT 833 EXPIRATION DATE LANDSCAPE ARCHITECT

ISOLA HOMES
1518 1ST AVE S. SUITE 301
SEATTLE, WA 98134
206.737.9700

PARK POINTE PUD
7219 & 7331 LAKEMONT BLVD SE
BELLEVUE WASHINGTON

PRELIMINARY LANDSCAPE PLAN
PUD REVISION 1

SCALE:	DATE:
AS NOTED	5/17/2017
DESIGNED BY: TC	CHECKED BY: JA
JOB NUMBER: 15436	
SHEET: L1	
SHEET L1 OF 17	

Figure 2. Park Pointe PUD, courtesy of ISOLA Homes.

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Physiographic Province

The APE is located within the western hemlock *(Tsuga heterophylla)* vegetation zone of the Puget-Willamette Lowland physiographic province (Franklin and Dyrness 1988). Native vegetation would have included western red cedar *(Thuja plicata)*, western hemlock, and Douglas-fir *(Pseudotsuga menziesii)*. The project area was originally domestic housing associated with extensive mining activity during the late nineteenth and early twentieth centuries,

Geomorphology

The project area is located in the southeastern Puget Lowland along the northwest boundary of Cougar Mountain Regional Wildland Park, 5.1 km (3.2 miles) east of Lake Washington and approximately 4.5 km (2.8 miles) south-southwest of Lake Sammamish. Coal Creek runs along the western edge of the project area. The Puget Lowland is a geological and physiographic province that was shaped by at least four periods of extensive glaciation during the Pleistocene epoch (Easterbrook 2003; Lasmanis 1991). The bedrock was depressed and deeply scoured by glaciers, and sediments were deposited and often reworked as the glaciers advanced and retreated. A mantle of glacial drift and outwash deposits were left across much of the region at the end of the last of these glacial periods, the Fraser Glaciation (Easterbrook 2003). The Vashon Stade of the Fraser Glaciation began around 18,000 B.P. with an advance of the Cordilleran Ice Sheet into the lowlands (Porter and Swanson 1998). The Puget Lobe of the ice sheet flowed down into the Puget Lowland and reached its terminus, just south of Olympia, between 14,500–14,000 B.P. (Clague and James 2002; Easterbrook 2003; Waitt and Thorson 1983). The Puget Lobe was thicker towards the north and thinned towards its terminus in the south. The Puget Lobe began to retreat shortly after reaching its terminus, allowing marine waters to enter the lowlands. The Puget Lowland, having been recently scoured by the Puget Lobe, filled readily. The remaining ice was lifted and rapidly melted as berg ice (Easterbrook 2003).

Soil Survey

Mapped soils in the area consist primarily of Beausite gravelly sandy loam (BeC and BeD on the map) and a small area of very steep Alderwood and Kitsap soils (AkE on the map) (NRCS 2016).

The Beausite series consists of moderately deep, well-drained soils formed in sandstone and conglomerate. Beausite soils are on glaciated mountains and foothills at elevations of near sea level to about 457 m (1,500 feet) above mean sea level (AMSL). They formed in glacial till and colluvium and slope alluvium from sandstone and conglomerate (NRCS 2016).

The Alderwood and Kitsap soils series is described as moderately deep to a densic contact, moderately well-drained soils that are strongly to slightly acidic. These soils are formed in glacial drift and outwash over dense glaciomarine deposits and are located on glacially modified hills and ridges on glacial drift plains (NRCS 2016).

In addition, the project area is located in a historic coal-mining region, and it is likely that mining activities have disturbed or buried intact soil horizons.

CULTURAL CONTEXT

Consulted sources included project files; local geologic data to better understand the depositional environment; archaeological, historical, and ethnographic records made available through the

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Washington Information System for Architectural and Archaeological Records Data (WISAARD); and selected published local historic records. Research conducted for this assessment included a review of environmental and cultural contexts from a variety of sources such as the DAHP, WISAARD, the United States Surveyor General (USSG) General Land Office (GLO) survey records database, HistoryLink.org, and Historic Map Works.

Precontact and Ethnographic Period

Precontact Cultural Context

The project area is located along Coal Creek, which flows from Cougar Mountain down to Lake Washington. The project area is 61 m (200 feet) north of the trailhead for Coal Creek Trail and 2.6 km (1.6 miles) east of Lake Boren. The project area is listed on the DAHP predictive model as being of a moderate to moderately low probability for cultural materials. However, given the property's location along Coal Creek and its associated wetlands, as well as its close proximity to Cougar Mountain, Lake Washington, and Lake Sammamish, this area may have been used as a travel corridor or for temporary habitation sites for groups of people gathering resources in the area.

The project's area of potential effect (APE) lies near Coal Creek and Cougar Mountain. This area was traditionally utilized by members of the Duwamish (Long 2006; Robbins et al. 1996; Ruby and Brown 1992; Suttles and Lane 1990). The Duwamish are Southern Coast Salish whose traditional languages are dialects of the Southern Lushootseed language (Ruby and Brown 1992; Suttles and Lane 1990). Other nearby Salish groups who also may have accessed resources in this area include the Snoqualmie and groups that are now part of the Muckleshoot Tribe (Long 2006; Robbins et al. 1996; Suttles and Lane 1990).

All of these groups utilized primary winter villages located along rivers and relied heavily upon salmon for subsistence. Groups would frequently leave the villages in order to procure game (including marine and freshwater fish/shellfish) and plants for food, medicinal, and utilitarian purposes (Duwamish Tribe 2008; Gunther 1981). Native American groups in the Northwest were interwoven. Due to the need to travel to different areas in order to gather resources, members of different language and cultural groups commonly socialized and intermarried, and individuals typically had relatives living in multiple groups. People could live in multiple villages during their lifetime, and it was not unusual to have speakers of several languages in one village. Due to this intricate social structure, it is possible for an area to have been utilized by the ancestors of multiple modern Tribal groups.

Many Duwamish primary winter villages were located along the Cedar, Duwamish, Black, and White/Green Rivers and along Elliott Bay. The current project area is less than 8 km (5 miles) northeast of a group of Duwamish villages that were located on what was once the Black River, which used to run between the Duwamish and Cedar Rivers, where the city of Renton is now. One of the villages along the Black River was known as *Tuxʷudidúʔ* (Waterman's *Tuˣʷudidúʔ* [235a]), which translates to "Little Cedar River," and the residents of *Tuxʷudidúʔ* were called the *ʔDuábč*. The anglicized version of this name, Duwamish, was applied to all native people living in the greater Seattle area (Waterman 1922, 2001).

The project area is near the Cedar River, an important fishing location for the Duwamish and other groups that used this area seasonally (most likely with the permission of Duwamish relations or friends) (Robbins et al. 1996). Salmon were gathered in the spring, summer, and fall along rivers and

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smaller streams using weirs, traps, and/or spears. The salmon were then processed in the immediate vicinity of the fishing area in temporary habitation areas. Salmon was either smoked and dried in smokehouses constructed as they were needed or cooked on sticks over open fires for immediate consumption. Freshwater fish were also taken opportunistically in these areas.

Plant resources for food (roots, berries, wapato, etc.), daily use items (such as materials for baskets and clothing), and medicine were gathered and maintained in areas where they grew. Deer and elk were hunted in upland areas and along the rivers.

Thousands of years of human occupation in the Puget Sound area have been summarized in a number of archaeological, ethnographic, and historical investigations conducted over the past several decades that can provide regional contexts for evaluating the project area (Blukis Onat 1987; Carlson 1990; Greengo 1983; Larson and Lewarch 1995; Matson and Copeland 1995; Meltzer and Dunnell 1987; Nelson 1990). Six time periods can be separated for the precontact period of this region (Table 1) (adapted from Chatters et al. 2011 and Cooper et. al 2014). Human use of the area is generally oriented toward natural resources available in local environments, including fresh water, forests, and other suitable terrain.

Table 1. Regional Cultural Chronology[a]

Period	Date Range	Characteristics
Early	15,000–5,000 B.P.	Occupation sites located on uplands or upper river terraces, lithic workshops, and temporary hunting sites. Artifact assemblages include a wide variety of flaked stone tools, such as fluted projectile points, laurel-leaf-shaped bifaces, and cobble tool industries suggestive of large game hunting, butchering and processing supplemented by riverine and marine fish and invertebrates.
Middle	5,000–1,000 B.P	Occupation sites represented by living floors, evidence of structural supports and hearths are more common during this period, representing specialized seasonal spring and summer fishing and root-gathering sites and winter village locations, typically located adjacent to, or near, river or marine transportation routes. Large occupation sites often associated with fish weirs and other permanent constructions Evidence of task-specific, year-round activities including salmon and clam processing, woodworking, basket and tool manufacture. Shell middens appear in the archaeological record. Artifact assemblages became diversified, with some regional variation. Tools were manufactured from ground stone, antler, and bone. Smaller triangular projectile points and notched stone projectile were common.
Late	1,000–250 B.P.	Ethnographically described occupation sites consisting of large, plank houses established and persisted into the historic period. Similar economic and occupational trends persisted throughout the Puget Sound region until the arrival of European explorers. Subsistence shift to riverine and marine is complete, supplemented by terrestrial hunting and plant resources. Activities are represented by organic materials (basketry, wood and foodstuffs) preserved in submerged, anaerobic sites, and sealed storage pits. Artifact assemblages consist of a range of hunting, fishing and food processing tools, bone and shell implements and midden deposits, as well as exotic trade goods

[a] Adapted from Chatters et al. 2011 and Cooper et. al 2014.

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Ethnographic Period

Prior to the arrival of Europeans, the Northwest coast was one of the most densely populated nonagricultural areas in the world. Between 1770 and 1870, numerous outbreaks of infectious diseases, including small pox and measles, among the people of the Northwest coast decimated population numbers (Boyd 1990). Even so, when the first settlers arrived at Alki Point, "the *Dkhw'Duw'Absh* occupied at least 17 villages, living in over 90 longhouses along Elliott Bay, the Duwamish River, the Cedar River, the Black River (which no longer exists), Lake Washington, Lake Union, and Lake Sammamish" (Duwamish Tribe 2008).

The history of the mid-nineteeth century in the Northwest is dominated by the U.S. government's attempts to establish treaties with Tribal groups in order to solidify the United States' claim on what is now Washington State over that of British-held Canada. After the signing of the 1855 Point Elliott Treaty, most Duwamish peoples were supposed to move to the Port Madison Reservation in Kitsap County (Ruby and Brown 1992). The Snoqualmie were relocated to the Tulalip Reservation (previously called the Snohomish Reservation) along with many other local groups, which all now comprise the Tulalip Tribes (Ruby and Brown 1992; Swanton 1978; Tulalip Tribes 2014). The Snoqualmie lost Federal recognition in 1953 but regained recognition through the Bureau of Indian Affairs (BIA) in 1999 (Snoqualmie Tribe 2012).

In the mid-to-late 1850s, after the signing of the treaties but before the ratification of these documents by the U.S. government, there was a period of unrest throughout the state that was created by an influx of Euroamericans looking to settle or mine in areas in the region that were not yet legally owned by the United States and for which none of the goods and/or services offered in trade for the land had been provided to Native peoples. This period also brought many issues regarding the terms of the agreements made with the United States in the treaties to light, as well as misunderstandings by U.S. Officials as to appropriate representation for some Native American groups. Some of the results of this unrest were hostilities breaking out, including near modern-day Kent on October 27, 1855, when nine settlers were killed by a small group of Native Americans, and the one-day-long "Battle of Seattle" on January 26, 1856. The Muckleshoot Reservation (King County's only reservation) was established during later negotiations as a direct result of these conflicts. This reservation is located between the White and Green Rivers (Muckleshoot Indian Tribe 2017; Robbins et al. 1996).

Many Duwamish and Snoqualmie did not relocate to the reservations once they were established and instead stayed near their ancestral lands. The Duwamish, who refrained from moving to the Port Madison Reservation, either maintained their locations off-reservation or eventually relocated to the Muckleshoot Reservation because of their traditional ties to the White and Green Rivers (Duwamish Tribe 2008; Ruby and Brown 1992). Individuals of Native American descent living off-reservation in the Puget Sound region often purchased land privately or, occasionally, received an off-reservation allotment in their ancestral lands. As with all Native Americans in the post-treaty era, they augmented their traditional subsistence practices with Euroamerican pursuits such as agriculture, logging, industrial labor, and other work (Duwamish 2008; Huggins 1984; Ruby and Brown 1992:72–23, 140).

Ethographic Places in the Vicinity of the APE

Four traditional place names were found for locations near the proposed project area. The closest of these is *Sqə'bəqsəd* (Waterman's *SqE'bEqs1d* [114]), which is the traditional name for Coal Creek. The proposed project area is located less than 91 m (300 feet) east of Coal Creek (Waterman 2001).

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The next two locations are less than 8 km (5 miles) from the proposed project area. These are Waterman's *ƛ̓ʔutsaʔlus* (Waterman's *Tl3utsa3lus* [113]) which translates to "tying a mesh." This is a promontory west of Mercer Slough and *Sa'tsakaɬ* (Waterman's *Sa'tsakaL* [115]), which translates to "water at head of a bay." This area acted as the staging place for the Native attack on Seattle in January 1856 (Waterman 2001).

The fourth nearby place is *Cbalʔtu* (Waterman's *Cbal3tu* [116]) which translates to "a place where things are dried for May Creek." This is an important fishing area near the mouth of May Creek, where a great quantity of red fish (sockeye salmon) was caught and processed (Waterman 2001).

Historic Period

Following the arrival of non-Native settlers in the Northwest, by the mid-1850s, many Native village/habitation sites were subsequently homesteaded or platted as towns; most areas that were previously inhabited by Native Americans were generally as desirable to non-Native settlers as they were to the area's original inhabitants. This was especially true for locations near water, at river confluences, or along traditionally utilized travel corridors/trails, many of which saw continued use into the Historic period, if not into modern times. Extensive logging and mining activity took place throughout the region from the mid-1800s to the present, and the construction and expansion of transportation corridors associated with railroads and roadways had a profound effect on the landscape in this area (Marino 1990).

History of King County

King County is the most populous county in Washington State, extending from the Cascade Mountains to Puget Sound. It contains the city of Seattle and is a major international commercial hub, with public and private enterprises including Boeing, Costco, Group Health Cooperative, Washington Mutual, Starbucks Coffee, Amazon, the University of Washington, Microsoft, PACCAR Inc., Weyerhaeuser, Seattle City Light, the Port of Seattle (which operates the nation's eighth-largest port), and Sea-Tac International Airport. King County is also home to some 1,500 farms, most of which are under 20.2 ha (50.0 acres) (Long 2006).

The first Euroamerican explorers in the area were Colonel Isaac Ebey and, later. John Holgate. European settlement of the modern-day King County area started in 1852, with lumber, hops, coal, and fish constituting the areas first industries (Long 2006). The primary law governing the original patenting of most land within Washington State was the Homestead Act of 1862. This act allowed the transfer of one-quarter section of unoccupied public land to a homesteader after five years of residence on said land. There was no cost for the land aside from only a small application fee if these requirements were met (Kramer 2011).

King County was formed on December 22, 1852, by the Oregon Territorial Legislature; less than three months later in 1853, the Washington Territory was created, and King County became part of the new Washington Territory. King County was originally named for William Rufus DeVane King, a senator from Alabama who was elected U.S. vice president in 1853 and died shortly after. In 1986, the County officially changed to honor the Rev. Dr. Martin Luther King, Jr. (Long 2006).

The first settlers of King County were a group of farmers led by Luther Collins, who claimed land up the Duwamish River on September 14, 1851. This settlement was later called Georgetown. A week after the Collins party claimed their land, the initial vanguard of the Denny Party (the group credited

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with the founding of Seattle) arrived on Alki Point (near what is now West Seattle). The rest of the Denny Party arrived on November 13, 1851 (Long 2006).

In the spring of 1852, most of the Denny Party moved from Alki Point to the shore of the well-sheltered harbor of Elliott Bay. The group settled on what is now Pioneer Square in downtown Seattle. "Doc" Maynard, a later settler, persuaded the settlers to name the town Seattle after a chief of the local people (Long 2006).

In 1881, Seattle surpassed Walla Walla as the largest town in Washington Territory. The Great Seattle Fire which took place on June 6, 1889, destroyed the entire downtown. No one was killed, and the local population took this opportunity to undertake major earthworks to flatten the hills on which the city was built and manipulate the Cedar River watershed, on which most of Seattle still relies for water.

A national economic depression in the 1890s affected the region but was quickly turned around by the 1897 Klondike Gold Rush, during which Seattle and King County merchants provided supplies to those headed north. Seattle grew through annexing surrounding towns. It doubled in size in 1891 and doubled again in 1907 (Long 2006).

The Great Depression, starting in 1929, brought shantytowns, hardship, and, in 1934, the great west coast waterfront strike. This time, economic growth was stimulated by America's entrance into World War II, which included the wartime production of airplanes and battleships in factories throughout King County and the Puget Sound region in general (Long 2006).

Local Industry

In the 1870s, hop-growing, logging, and coal mining developed in eastern King County. Logging, fishing, and trade were major industries in areas along the Puget Sound. After the Great Northern Railroad chose Tacoma as its terminus over Seattle and other cities in the area, Seattleites constructed the Seattle and Walla Walla Rail Line, which hauled coal from Newcastle to the Seattle waterfront. By 1875, coal took the place of lumber as King County's main industry, and, by 1907, King County was second in the state (after Kittitas County) in coal production. Issaquah, Ravensdale, Black Diamond, Newcastle, and Renton were the principal coal production towns in the county (Long 2006).

Despite losing its place as the most profitable industry in King County, the lumber business remained strong. By the 1880s, sawmills and shingle mills were main industries in towns including Bothell, Duvall, Monohon (later Sammamish), Ballard, Enumclaw, and Seattle (Long 2006).

Throughout the 1880s, hops were a major King County crop, until hop lice infestations, beginning in 1889, prompted growers to turn to dairy farming, orchards, and other crops. Native Americans provided much of the labor for harvests in King County. Another large-scale industry was fishing and canning. Canneries and fishing fleets have been common in the Puget Sound region throughout its history (Long 2006).

In 1917, King County's aerospace industry began, when William Boeing founded his first airplane manufacturing company. Later, the Boeing Airplane Co. pioneered international airmail, produced aircraft during World War I, and founded United Airlines (Long 2006).

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Transportation

Transportation in King County started with boats due to the numerous waterways and the dense forests found on land. Originally, all goods and people in the region were hauled in canoes, then moving on to steamships called the Mosquito Fleet. Eventually, roads were built. In 1860, Military Road traveled south from Seattle to Pierce County through what would later be Des Moines and Federal Way. In the late 1800s, railroads were built throughout the area, increasing local transportation and commerce and allowing goods and people to easily reach larger markets and the ports. In 1893, with the completion of the Great Northern Railway to Seattle, King County residents and businesses could readily access the rest of the country (Long 2006).

In 1902, the Interurban rail line began carrying passengers between Seattle, Renton, and Tacoma. Streetcars increased public transportation in Seattle when they were introduced in the 1880s. In 1917, the Lake Washington Ship Canal was completed, opening Seattle's lakes (and the many towns located along their shores) to oceangoing commerce (Long 2006).

During the 1920s, automobiles replaced horses, and the need for reliable roads became important to residents. The Pacific Highway (now known as State Route 99) ran from Canada to Mexico through King County. The highway brought an influx of drivers, which created economic development in the towns along its path. The 1940 Lake Washington Floating Bridge increased accessibility between towns closer to the Puget Sound and Eastside towns like Bellevue and Kirkland (Long 2006).

Interstate 5 cut a huge north-south swath through King County starting in the 1950s. The highway sped up transportation but destroyed many neighborhoods. By the end of the 1960s, protests had effectively halted highway-building in the region (Long 2016).

Newcastle Coal Mining Complex

Both Newcastle and Coal Creek were historic mining towns in the area that date back as early as the 1860s. Nestled near Cougar Mountain, Newcastle appeared on survey maps in the early 1860s, when coal was discovered in the densely wooded area east of Lake Washington. Newcastle's first major mine opened in 1869, and by 1883, coal production reached a record 218,742 tons. The coal reached Seattle by way of railroad and barge and had to be handled 11 times before it reached Seattle's waterfront (Overland 1994).

Not much is left of what once was the bustling town of Newcastle. In its heyday, it boasted a company store, small sawmill, blacksmith, church, two schools, a hospital, saloon, and some 140 homes. There was a baseball club and five lodges, including Masons, Oddfellows, Knights of Pythias, Good Templars, and United Workmen. Today, much of the land that once was Newcastle has returned to its former forested state, but remnants of concrete foundations, railroad grades, and fruit and other ornamental trees still stand. In the late 1800s, a mine a few miles east of Lee's Newcastle was also producing coal. The second town was known originally as Coal Creek, but was given the new name "Newcastle" when the post office moved there in 1918. The first Newcastle then became "Old Newcastle" (McDonald and McDonald 1987; Overland 1994).

In 1897, the Pacific Coast Coal Company bought the Newcastle mines and associated railroad. The largest of their operations was the Ford Slope Mine, which descended 448 m (1,740 feet) to 61 m (200 feet) below sea level. The Ford Slope mine, located near the old town of Newcastle, operated from 1905 to 1926. The old town of Newcastle, which was often referred to as Red Town because so many

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of its houses (small, prebuilt homes that were shipped in) were painted red and other bright colors favored by the ethnic groups that worked the mines. Pacific Coast Coal Company maintained operations in Newcastle until 1929. At one time, the mines at Newcastle contributed to 20 percent of the coal consumed on the Pacific Coast. By then, oil was taking over as the primary fuel, Montana coal was cheaper, and the Great Depression had crippled the country. After Pacific Coast Coal closed in the late 1920s, independent miners continued to work the land around Newcastle until the 1960s (McDonald and McDonald 1987 and Overland 1994).

History of the APE

The 1865 Government Land Office map shows an "Unfinished Wagon Road" ending to the south of the project area, and the name P. H. Lewis is noted in the SE ¼ of Section 26, Township 24 North, Range 5 East, WM (Figure 3) (BLM 2017).

The NW ¼ of the SE ¼ of Section 26, Township 24 North, Range 5 East, WM, was originally purchased by Philip H. Lewis on May 19, 1868, and the SW ¼ of the SE ¼ of the same section was originally purchased by Clarence B. Bagley on May 15, 1869 (GLO 2017).

A 1912 Kroll map shows that the entire parcel was owned at the time by the Pacific Coast Coal Company. The map also shows the terminus of a branch of the Columbia/Puget Sound Railway ending to the west of the project area. The roadway surrounding the general project area is in its current configuration at this time, with an additional road (likely the "old military road") trending to the east. A school is located along the eastern section line, east of the project area. A town called "Coal Creek" is noted immediately south of the project area (Figure 4).

Just south and east of the project area is the Red Town Trailhead, which is the start of the Coal Creek Interpretive Trail. This trail was installed by the County, City, and local historical groups and highlights the remnants of the Cinder Mine, including the location of historic towns and associated mining structures (Figure 5). An overlay of the APE was placed on the map from the trailhead, which shows numerous structures, including a concentration of buildings named Finn Town, within the APE (Figure 6). There is very little information in print or digitally obtainable regarding this area. The local library and the State Archives were both contacted but neither has any information on the mining complex. Attempts to contact the Eastside Heritage Center and the Newcastle Historical Society to access the information used to create the interpretive signage along the trail were generally unsuccessful.

Google Earth's historical imagery only goes back to 1990 for this area. All standing buildings are present within the project area in 1990.

LITERATURE REVIEW

Three cultural resources assessments have been conducted within 1.6 km (1.0 mile) of the project area (Table 2). One archaeological site (45KI00758) and ten Historic Property Inventory (HPI) forms have been documented and submitted to the DAHP within 1.6 km (1.0 mile) of the project area (Tables 3 and 4). No additional cultural resources have been recorded within 1.6 km (1.0 mile) of the project area.

DSD - 001107

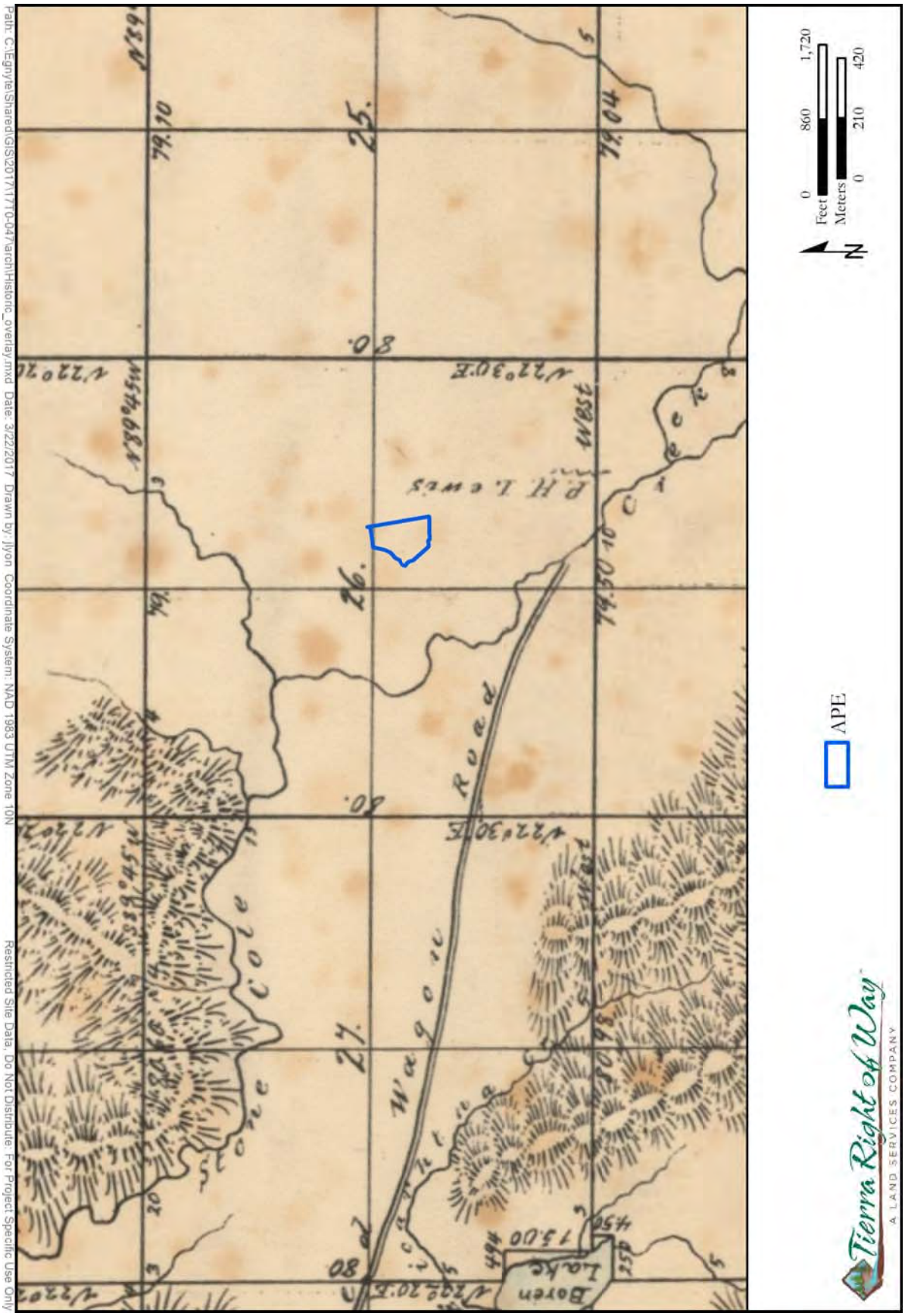

Figure 3. 1865 GLO map.

DSD - 001108

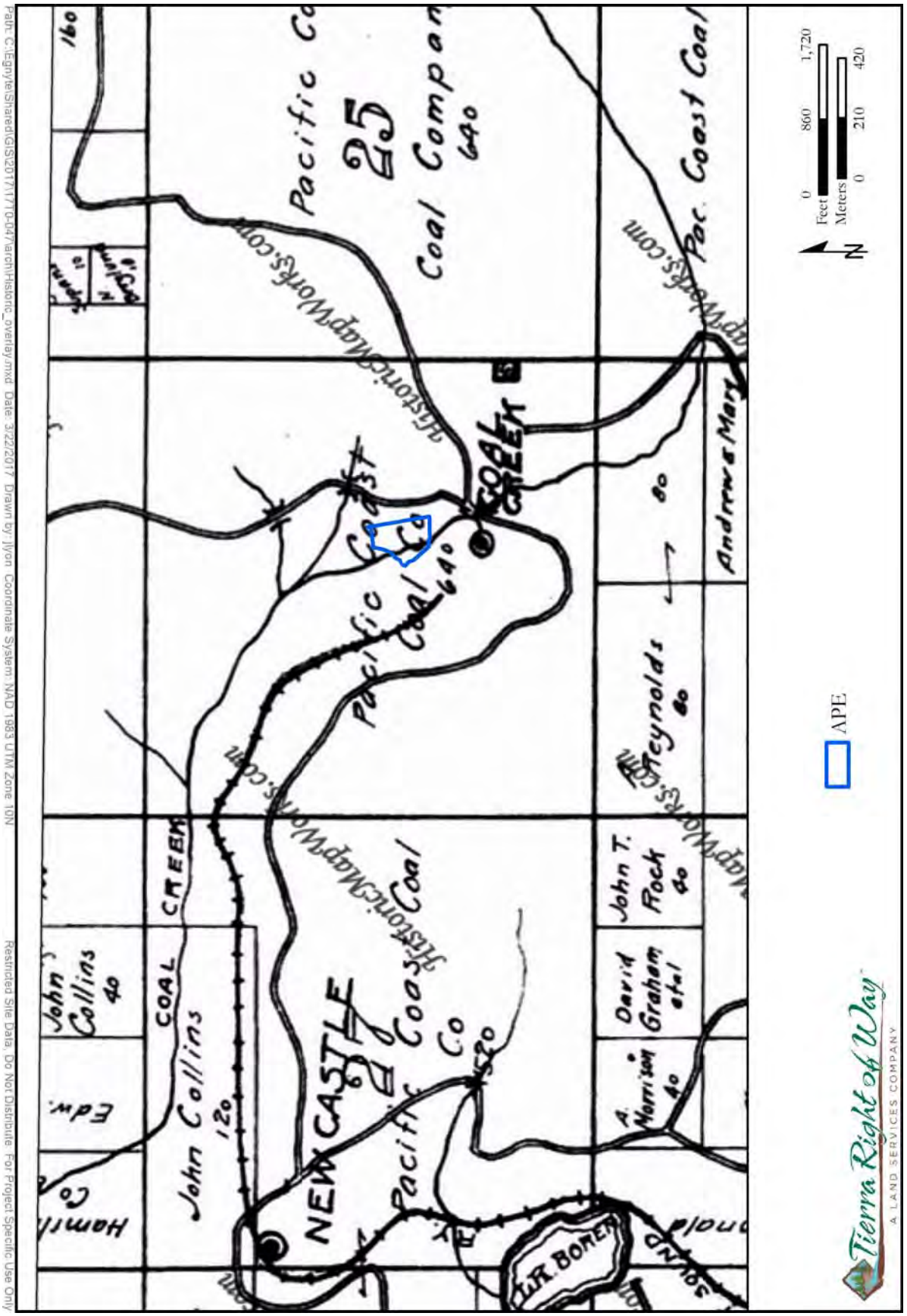

Figure 4. 1912 Kroll Map.

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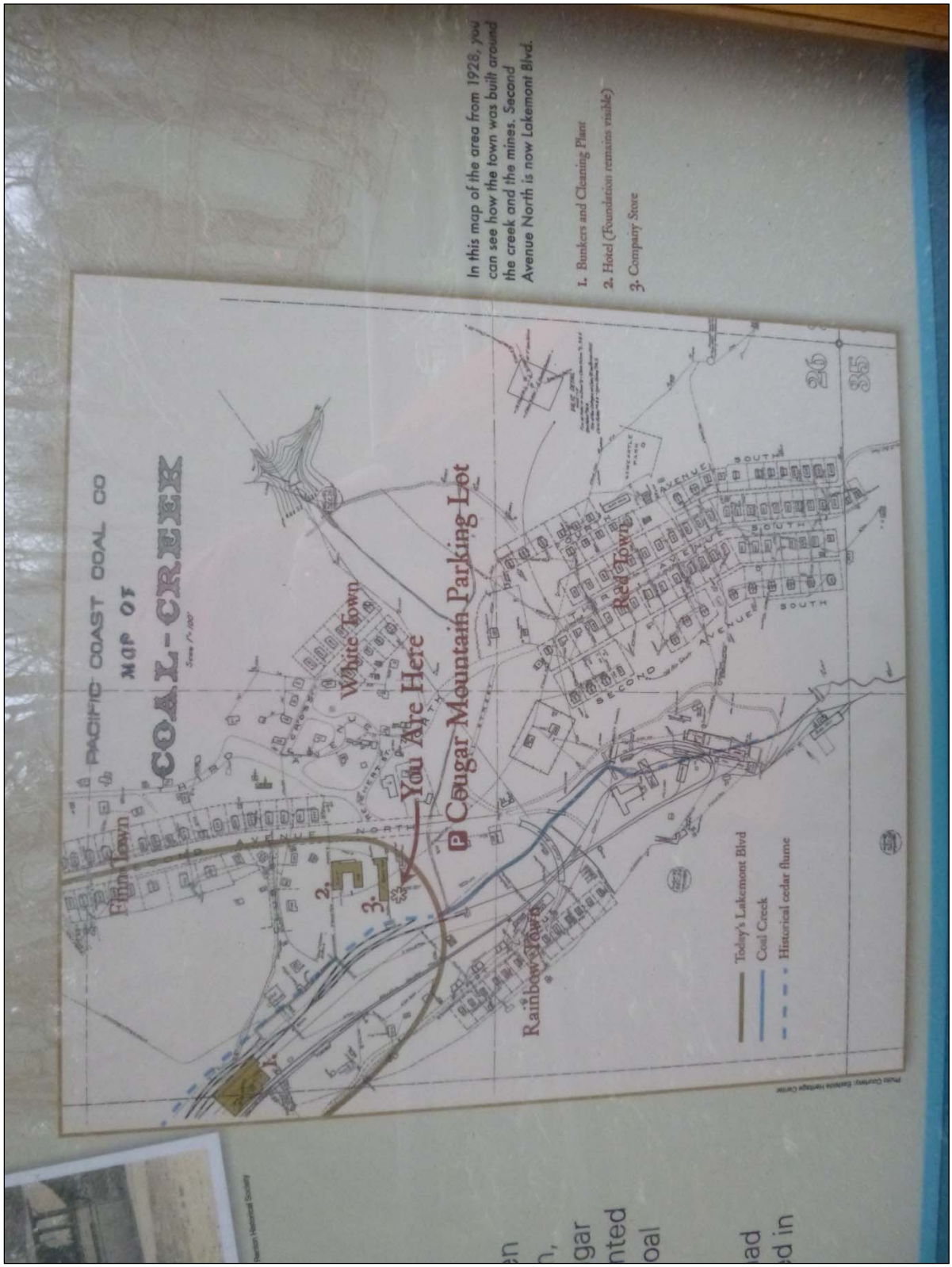

Figure 5. Red Town Trailhead interpretive sign showing a 1928 map of Coal Creek.

DSD - 001110

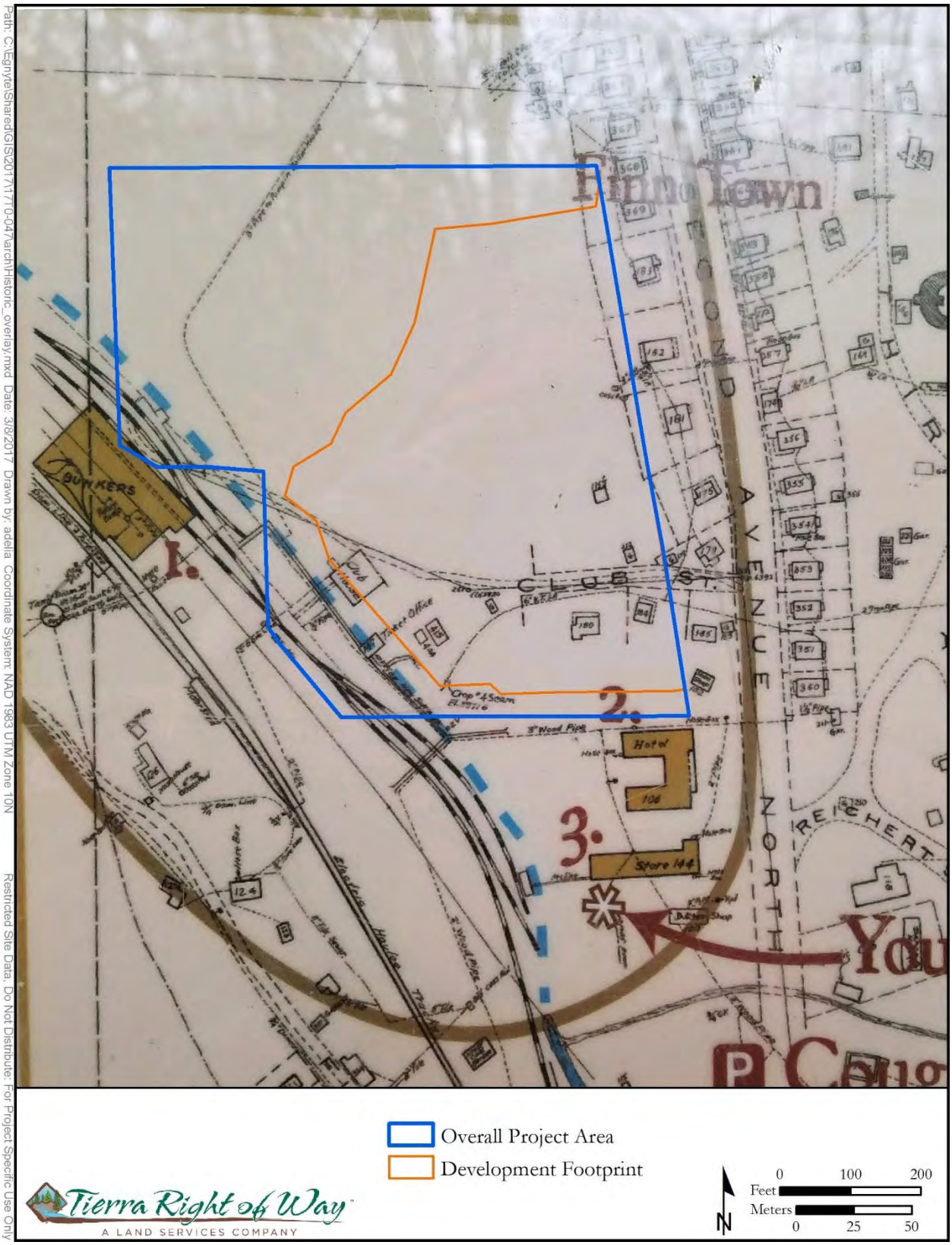

Figure 6. Historic map of Coal Creek showing Finn Town within the project area.

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Table 2. Previously Conducted Cultural Resources Surveys within 1.6 km (1.0 Mile) of the APE

Author	Date	Report Name	Distance to APE	Results	NADB
Stipe, Frank	2007	Coal Creek Stabilization and Grade Control Project	0.8 km (0.5 miles)	n/a	1349431
Stipe, Frank	2012	Newcastle Golf Club Road Stabilization Project	0.11 km (0.07 miles)	n/a	1682953
Goodwin, Matt	–	Archaeological Survey for Proposed SD2366 Cougar Mountain Drive Telecommunications Facility	1.6 km (1.0 mile)	no cultural materials located	1685567

Table 3. Cultural Resources Recorded within 1.6 km (1.0 Mile) of the APE[a]

Site No.	Date Recorded	Site Type	Listing Status	Township	Range	Section
KI00758	3/21/2007	historic mining property	potentially Eligible	24 North	5 East	26

[a] Township, Range, and Section refer to the Willamette Meridian.

Table 4. Historic Property Inventories within 1.6 km (1.0 Mile) of the APE[a]

Property No.	Date Built	Eligibility	Township	Range	Section	Address
292108	1962	not determined	24 North	5 East	25	6724 166th Way SE, Bellevue, WA
332762	1962	not determined	24 North	5 East	25	6907 169th Ave SE, WA
338110	1940	not determined	24 North	5 East	24	Bellevue, WA
342592	1960	not determined	24 North	5 East	25	6525 173rd Ave SE, WA
347380	1949	not determined	24 North	5 East	26	7219 Lakemont Boulevard SE, WA
367961	1936	not determined	24 North	5 East	24	17207 SE 60th Street, Bellevue, WA
376579	1950	not determined	24 North	5 East	34	8440 144th Place SE, Newcastle, WA
418376	1968	not determined	24 North	5 East	24	6300 164th Avenue SE, Bellevue, WA
446609	1959	not determined	24 North	5 East	25	6816 166th Way SE, Bellevue, WA
451585	1937	not determined	24 North	5 East	24	6114 164th Avenue SE, Bellevue, WA

RESEARCH DESIGN

Land Use Patterns

The DAHP predictive model map overlay indicates that the project area lies within an area with a moderate to moderately low risk for locating archaeological materials. High-risk areas are generally associated with proximity to rivers and bodies of water. Model probabilities are calculated using information from two general sources—data derived from archaeological surveys conducted prior to model development and a consideration of the relationship between these recorded sites and various environmental factors (Kauhi 2009).

DSD - 001112

The approach to modeling settlement systems used by the DAHP presumes that the distribution of archaeological sites on the landscape is non-random and that there is a statistically significant relationship between physical landscape features (e.g., elevation, distance to water, soils, and landform type) and site location. Any predictive model can only be as accurate as the information derived from the set of previously recorded sites used to create it, which means any site identification biases represented in research will also be present in the model. Additionally, because this type of model uses an inductive approach, it is also limited in its ability to characterize the type of site that might be encountered in a particular setting. By design, the causal relationship between identified archaeological sites and particular geographic settings is not considered. More simply put, the predictive model "recognizes" that a given number of archaeological sites have been recorded within a specific distance from a given geographic features, and so it may rate a project undertaken on a specific landscape as having a high risk to encounter archaeological deposits without providing distinction between historic and precontact sites or between archaeological isolates and village sites. This should be viewed as a function of the model rather than a failing. As noted on the Minnesota Department of Transportation's (MnDOT) Archaeological Predictive Model webpage:

> The dependability of these models is a function of their performance. This can be examined and tested by comparing a predictive model to archaeological field survey results. By comparing known archaeological site locations to the model's predictions, it is possible to determine, with specifiable confidence, how accurately a model performs. It is, in fact, this very approach that gives us confidence in a model and allows us to use it as a predictive tool. Field-testing a model is an essential component of demonstrating its reliability (MnDOT 2013).

In this report, the author presents a project assessment that considers the implications of the predictive model, as well as a context in which it can be field tested. Model testing is informed by an understanding of the geomorphological context, local settlement patterns, and post-depositional processes derived from a review of available environmental documentation and reports of nearby cultural resources surveys. This deductive approach is designed to not only more accurately characterize the potential for a given project to encounter archaeological deposits but also to identify the types and conditions of archaeological materials that may be encountered.

Archaeological Expectations

Geomorphological Context

Given the presence of mapped soils derived from glacial till and colluvium that are well drained and strongly to slightly acidic, the probability of locating certain classes of intact artifacts is low. High acid and low moisture environments decrease the likelihood of subsurface preservation. However, inorganic materials, such as flaked stone, if present, would be expected to be at or near the surface and may be difficult to recognize due to acid erosion from the soil.

Land Use Patterns

The DAHP predictive model indicates that there is a moderate to moderately low risk of locating cultural materials within the project area. There is evidence of likely use of the project area in the precontact era, including nearby place names, as well as evidence that the landscape was utilized by Native and non-Native peoples in the Settlement and post-Settlement periods. Due to the close proximity of Coal Creek and Cougar Mountain, and a wetland within the project area, this area may

DSD - 001113

have been utilized for seasonal resource gathering and/or processing. The history of Settlement and post-Settlement land use in the study area indicates that the surface and near-surface environment within the project area is likely to have been affected by historical mining, logging, agriculture, and road construction. When all of this information is considered, the likelihood of locating precontact or historic era sites within the project area is fairly high.

FIELD INVESTIGATIONS

Archaeological subsurface testing was conducted by project archaeologist Mark F. Steinkraus, M.S., on March 7 and 8, 2017, in cold weather and a mix of snow and rain. The Snoqualmie Department of Archaeology and Historic Preservation aided fieldwork with two technicians, Aaron Webster and Stephen Wymer. Mr. Steinkraus meets the U.S. Secretary of Interior's Standards for Archaeologists and was present throughout the entire project.

Surface Survey

Tierra's archaeologist conducted a 100 percent pedestrian survey of the project area. Surveyed areas were in residential yards consisting of open fields and areas of agricultural structures (barn, houses, outbuildings, fences, etc.). There was a small section of forested land along the western boundary of the APE. Vegetation included Douglas-fir, alder (*Alnus* sp.), big leaf maple *(Acer macrophyllum)*, blackberry (*Rubus* sp.), multiple moss and lichen species, and grass.

Four historic era archaeological sites were documented during the survey (see discussion below).

Subsurface Testing

Tierra archaeologists tested a total of 20 shovel test probe (STPs 1–20) locations on March 7, 8, and 30, 2017 (Figure 7; Table 5). The APE was gridded at 40-m (131-foot) intervals, with 5.0-m (16.4-foot) radials off of positive STPs. Historic era debris (brick, metal, glass, and ceramics) was recovered in 10 of the 20 STPs. These artifacts were recovered in disturbed fill, which made up the top stratum of the stratigraphy throughout the project area. Nonsterile, historic era fill covers the property from 0.6 to 3.0 m (2.0 to 10.0 feet) or more below the surface (Strange 2016) and was used to create a flat terrace in an undulating environment prior to the construction of the existing structures on the property.

Archaeological Sites

Four new archaeological sites and one historic isolate were recorded during the survey of this property (see Appendix A for Archaeological Site Forms).

Site 1

This site is comprised of two main components. The first is farm equipment consisting of a steel trailer and a tow-behind drum rotary sieve, both with rubber tires (Photo 1). The trailer had wooden decking, which is in poor condition. Due to the state of the decking and the style of the tires, this appears to date to earlier than 1967. Currently, the steel is very rusted. The tow-behind drum rotary sieve is in much better condition (Photo 2). There were no observable maker's marks on the tires to give a date range, but they appear to be older than 50 years.

DSD - 001114

Figure 7. Results map showing the shovel test probes, documented sites, and historical structures in the project area.

DSD - 001115

Table 5. Results of Shovel Testing in the Park Pointe Project Area

Shovel Test No.	Depth at Termination (cmbs)	Positive/ Negative	Vegetation	Soil Description	Excavators	Date
1	60	positive	manicured lawn	0–50 cmbs 10YR2/1 dark silty loam with lots of small rounded gravels; 50–60 cmbs 10YR2/3 sandy loam with coarse large sand grains; ceramic cup fragment came out of top strat	Mark Steinkraus, Aaron Webster, and Stephen Wymer	3/7/2017
2	70	positive	manicured lawn	0–35 cmbs 10YR2/1 silty loam with lots of historic debris consisting primarily of shards of glass and a large animal bone is in the side wall at 10 cmbs; 35–70 cmbs 10YR3/3 brown red silty loam; terminated due to large cobbles	Mark Steinkraus, Aaron Webster, and Stephen Wymer	3/7/2017
3	75	negative	manicured lawn	0–35 cmbs 10YR2/1 dark silty loam; 35–75 cmbs 10YR3/3 brown red sandy loam; no cultural materials observed	Mark Steinkraus, Aaron Webster, and Stephen Wymer	3/7/2017
4	80	negative	manicured lawn	0–40 cmbs dark silty loam; 40–80 cmbs ashy sandy loam, 10% small rounded gravels	Mark Steinkraus, Aaron Webster, and Stephen Wymer	3/7/2017
5	80	negative	manicured lawn	0–25 cmbs silty loam with some rounded to subrounded gravels; 25–80 cmbs sandy loam	Mark Steinkraus, Aaron Webster, and Stephen Wymer	3/7/2017
6	50	positive	manicured lawn	0–37 cmbs dark silty loam, historic era ceramic and glass recovered in top strat; 37–50 sandy loam with lots of gravels; terminated due to gravels.	Mark Steinkraus, Aaron Webster, and Stephen Wymer	3/7/2017
7	50	positive	manicured lawn	0–40 cmbs dark silty loam, fragments of plastic bags were recovered in the top 15 cmbs and glass shards and a brick was recovered at 40 cmbs; 40–50 cmbs orange gravelly loam	Mark Steinkraus, Aaron Webster, and Stephen Wymer	3/7/2017

DSD - 001116

Shovel Test No.	Depth at Termination (cmbs)	Positive/ Negative	Vegetation	Soil Description	Excavators	Date
8	40	negative	manicured lawn	0–40 cmbs silty loam fill with lots of gravels and cobbles, 70% very compact; terminated due to gravels and compaction	Mark Steinkraus	3/8/2017
9	65	negative	ground shrubs, base of tailings pile	0–40 cmbs loosely mixed silty loam and sandy loam with few gravels; 40–65 cmbs large rounded to subangular cobbles in a gray brown sandy loam	Mark Steinkraus	3/8/2017
10	60	negative	alder trees and blackberry bushes.	0–20 cmbs dark silty loam; 20–60 cmbs red brown sandy loam with a massive boulder in side wall 20–45 cm	Mark Steinkraus	3/8/2017
11	80	negative	manicured lawn	0–15 cmbs dark silty loam; 15–80 cmbs orange brown sandy loam with few gravels and small cobbles	Mark Steinkraus, Aaron Webster, and Stephen Wymer	3/8/2017
12	60	negative	manicured lawn	0–25 cmbs dark silty loam; 25–60 cmbs orange brown sandy loam with 4 medium-sized cobbles; water table was encountered at 55 cmbs.	Mark Steinkraus, Aaron Webster, and Stephen Wymer	3/8/2017
13	60	negative	manicured lawn	0–20 cmbs dark silty loam; 20–60 cmbs, 85% coarse sand and gravels possibly glacial till	Mark Steinkraus, Aaron Webster, and Stephen Wymer	3/8/2017
14	50	positive	manicured lawn	0–50 cmbs dark loamy silt with 40% small-to-medium rounded cobbles, a small lens of charcoal and ash was observed ay 20 cmbs; STP terminated at water table; observed artifacts consisted of glass and nails	Mark Steinkraus and Sarah Steinkraus	3/30/2017
15	40	negative	manicured lawn	0–40 cmbs dark silty loam with 30% small-to-medium-sized cobbles; water table was observed at 35 cmbs	Mark Steinkraus and Sarah Steinkraus	3/30/2017
16	70	positive	manicured lawn	0–70 cmbs dark brown silty loam with 30% cobbles; terminated at horizon boundary/water table; artifacts include glass and a broken handle to a hand tool	Mark Steinkraus and Sarah Steinkraus	3/30/2017

DSD - 001117

Shovel Test No.	Depth at Termination (cmbs)	Positive/ Negative	Vegetation	Soil Description	Excavators	Date
17	70	positive	manicured lawn	0–25 cmbs dark brown silty loam with 10% gravels; 25–70 cmbs orange sandy loam with coal flex and 5% small rounded gravels; 1 nail was observed	Mark Steinkraus and Sarah Steinkraus	3/30/2017
18	80	positive	manicured lawn	0–30 cmbs dark brown silty loam with 10% gravels; 30–80 cmbs orange sandy loam with coal flex and 5% gravels; some tiny fragments of brick were observed	Mark Steinkraus and Sarah Steinkraus	3/30/2017
19	90	positive	manicured lawn	0–50 cmbs dark brown silty loam, an extensive burn feature with a high concentration of artifacts was observed at 10–70 cmbs; 70–90 cmbs ashy sandy loam, artifacts consist of glass shards and a wide array of nails including square and wire	Mark Steinkraus and Sarah Steinkraus	3/30/2017
20	60	positive	manicured lawn	0–40 cmbs dark brown silty loam; 40–60 cmbs orange brown sandy loam; artifacts consist of a nail found directly under sod cap and porcelain	Mark Steinkraus and Sarah Steinkraus	3/30/2017

Key: cmbs = centimeters below surface.

Photo 1. Overview of trailer and tow-behind rotary sieve, facing east.

DSD - 001118

Photo 2. Overview of tow-behind rotary sieve facing north.

The second component is a boulder pile located at the base of a road grade used to access the hay loft of the nearby barn. The boulder pile stands at least 6 courses tall and is comprised of large granite boulders (Photo 3). The boulder pile is partially covered by sediment and duff, making its dimensions hard to calculate; however, from what was observable, the boulder piles footprint covers a 4-by-4-m (13-by-13-foot) area.

Site 2

This site is a historic scatter of wooden railway ties, fence posts, stackable concrete blocks, a historic power/telegraph line, insulators, tires, oil cans, barrel drums, sanitary cans, wire, and other miscellaneous metal. North of the main concentration, there is an east-west-running power/telegraph line consisting of eight poles with insulators, four of which have new poles with recycled insulators (Photo 8). There is also modern debris including all-terrain vehicle wheels, beer cans, television fragments, and large metal boxes mixed in with the historic component of this scatter (Photos 4–8). Some of the scatter has recently been burned in a bonfire; evidence of this can be seen in a charcoal ring with miscellaneous metal scraps and wire. During background review, this concentration was visible in aerial photography dating from 1990.

DSD - 001119

Photo 3. Overview of the boulder pile, facing northeast.

Photo 4. Site overview facing northeast.

DSD - 001120

Photo 5. Overview of historic scatter facing north.

Photo 6. Evidence of recent bonfire with wire and metal debris, facing north.

DSD - 001121

Photo 7. Close-up of white insulator found in debris pile.

Photo 8. Overview of Power/telegraph line facing east northeast.

DSD - 001122

Site 3

This site consists of historic metal, rubber, bone, glass, and ceramic artifacts. It was not visible on the surface and was identified during subsurface testing. The site boundary was drawn around the location of eight positive STPs (Photo 9). An extensive burn feature containing a high concentration of burnt wood, glass, and nails was observed in STP 19 and is at least 60 cm thick; the horizontal dimensions are unknown (Photo 10). The artifacts include 3 porcelain sherds, one of which is part of a teacup with gold luster paint; 2 chunks of large animal bone; 3 brick fragments; 1 rubber handle fragment likely from a screw driver or similar hand tool; 13 bent wire nails; 20 straight wire nails of varying size; 1 square nail; 1 terracotta pot sherd; 1 thick decorative cut glass shard; 4 pieces of aqua glass; 32 clear glass shards, both bottle and window pane; 1 clear glass shard with letters "…OULD…" embossed onto the glass; and 1 partial clear glass bottle base with embossed maker's marks reading "5 …HISTL…." and the letters "P" and "C" within trapezoids (Photo 11). The bottle base was made by the Pacific Coast Bottling Company, which operated from 1925 to 1930 (Toulouse 1971).

The location of Site 3 corresponds well with the location of historical Finn Town (see Figure 6). It is likely that Finn Town was razed, and the remnant debris makes up the historical component found within the fill throughout the site. The majority of the artifacts appear to be concentrated in the northern portion of the site, especially near the large burn feature observed in STP 19 (see Photo 10).

Photo 9. Overview of STP 1 facing southwest.

DSD - 001123

Photo 10. Plan view of STP 19 with large burn feature extending from 10 to 70 cmbs.

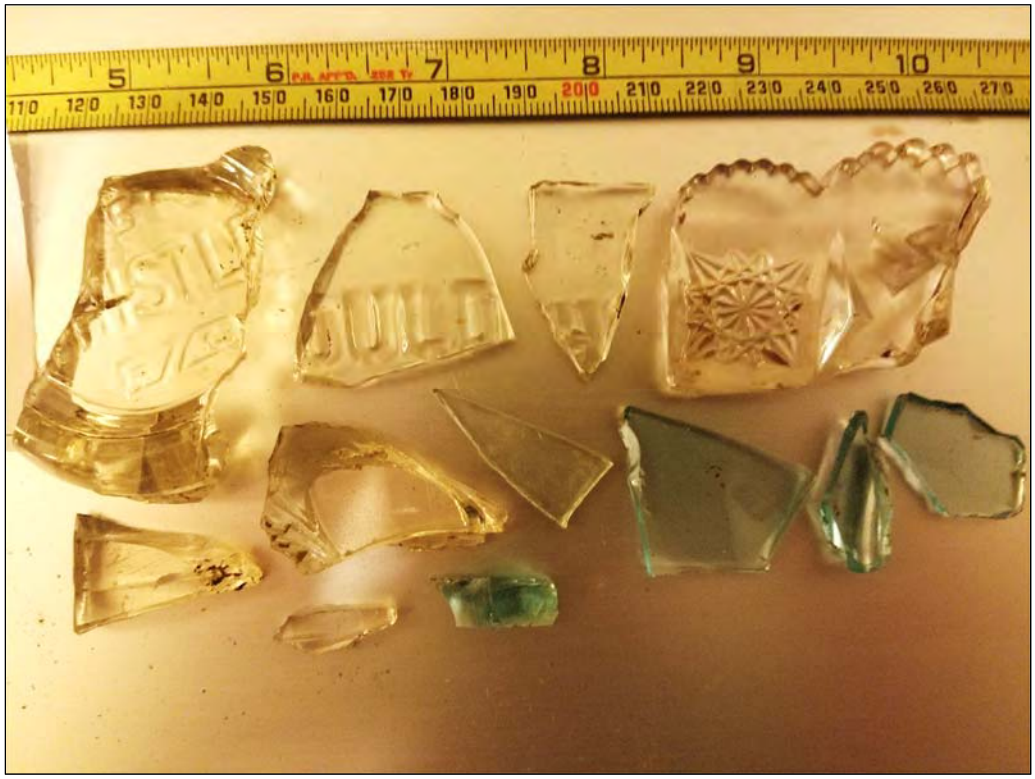


Photo 11. Glass shards from STP 2.

DSD - 001124

Site 4

This site consists of a large tailings pile, historic trailer, metal pipe, and subsurface historic artifacts. The tailings pile is built up along the edge of a slope, possibly over an already naturally undulating surface overlooking Coal Creek, and is covered with young alder and blackberry bushes (Photo 12). There is a very long and narrow trailer (dimensions 7.0 by 1.2 m [23.0 by 4.0 feet]) with only two tires located on the top of the tailings pile (Photo 13 and 14). To the west of the tailings pile, along the crest of the slope into Coal Creek, there is a 5-cm-diameter (2-inch-diameter) metal pipe protruding from the hillside. Two out of four STPs excavated in the vicinity contained artifacts, including two window pane glass shards, one curved bottle glass shard, one piece of whiteware ceramic, and a brick within the top stratum, which was composed primarily of fill. The brick was found at 40.0 cm (15.7 inches) below the surface at the horizon between Stratum 1 and Stratum 2 (Photo 15).

Isolate 1

This isolate consists of a single power/telegraph pole that connects power between two garages. The power pole is heavily weathered and its antiquity may date to a power plant that once existed 60 m (197 feet) to the west (Photo 16). The power pole has three white ceramic insulators and a light at the top (Photo 17).

Photo 12. Overview of tailings pile facing west.

DSD - 001125

Photo 13. Overview metal trailer found atop tailings pile, facing west.

Photo 14. Overview metal trailer found atop tailings pile, facing north.

DSD - 001126

Photo 15. Plan view of STP 7 with brick at 40 cmbs.

Photo 16. Overview of power/telegraph pole.

DSD - 001127

Photo 17. Close-up of power/telegraph pole.

Historic Properties Recorded

Six new HPI forms were completed for this project and submitted to the DAHP. These forms were completed by Sarah M. H. Steinkraus, M.Sc., and reviewed by Lauren Walton, M.S., who meets the U.S. Secretary of Interior's Standards for Architectural Historians. Six HPI forms were completed for nine structures located within the project area. These include three houses (Photos 18–20), one barn, and five outbuildings located on two tax parcels. None of these properties are eligible for the National Register of Historic Places (NRHP) (for more detailed information, see Appendix B).

CONCLUSIONS AND RECOMMENDATIONS

Tierra's cultural resources assessment consisted of background review, field investigation, and production of this report. Background review determined the project to be located in an area of high probability for historic properties. Field investigation included visual reconnaissance, pedestrian survey, and subsurface testing. The project area and surrounding properties are part of a major historical mining complex that includes multiple historic towns that are no longer present on the landscape. As of the date of this report, there is no documentation of the historic mines, buildings, or associated towns on record with the DAHP. Very little information regarding historic mining in this region is available, and, while beyond the scope of this project, the DAHP, King County Preservation Program, and City of Bellevue should encourage the documentation of the history of this region, as further development of this area is likely to occur. Access to this information would greatly assist researchers in determining the significance of individual properties and cultural sites. The historic mining activity of this area played an important role in the history of Washington, and King County and should be recorded on the WISAARD.

DSD - 001128

Photo 18. Overview of house HPI #709112, facing west.

Photo 19. Overview of house HPI #709114, facing south.

DSD - 001129

Photo 20. Overview of house HPI #709115, facing southwest.

Four historical archaeological sites, one historical archaeological isolate, and nine historical structures were recorded during this project. Sites 1 and 2 and Isolate 1 are recommended as Not Eligible for any local, State, or Federal historic registers, but are collectively associated with an extensive history of mining activity. The subsurface component of Site 3 and the tailings pile in Site 4 could be potentially eligible for a historic register. Eligibility is dependent on the DAHP's view regarding eligibility for the larger surrounding complexes. If these historical complexes (e.g., the mine and towns) are eligible for local or national historic registers, then these smaller sites will require protection and further evaluation in relation to the nearby historical complexes. If the DAHP determines that the larger complexes are ineligible, then Tierra recommends a finding of No Impact for these sites. None of the standing structures on the property are eligible for local, State, or Federal historic registers. Soil disturbance for this project will extend below what is possible to inspect using traditional archaeological testing. Tierra recommends archaeological monitoring of ground-disturbing activities within the project area 0.6 m (2.0 feet) into glacial till or until the on-site archaeologist determines the soils to be below the possibility of human occupation, as this area is very likely to continue yielding historical archaeological materials and features. Since this area has a high potential for yielding precontact and historic era archaeological materials, Tierra also recommends a brief training session for all workers in archaeological laws, how to identify archaeological materials, and how to appropriately report incidental finds.

In the likely event that archaeological materials are encountered during the project, an archaeologist should immediately be notified and work should be halted in the vicinity of the find until the materials

DSD - 001130

can be inspected and assessed. At that time, the appropriate persons are to be notified of the exact nature and extent of the resource so that measures can be taken to secure them.

In the event of inadvertently discovered human remains or indeterminate bones, pursuant to RCW 68.50.645, all work must stop immediately, and law enforcement should be contacted. Any remains should be covered and secured against further disturbance, and communication should be established with local police, the DAHP, and any concerned Tribal agencies.

DSD - 001131

REFERENCES

Boyd, Robert
1990 Demographic History, 1774–1874. In *Northwest Coast*, edited by W. Suttles, pp. 135–148. Handbook of North American Indians, Vol. 7, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Blukis Onat, Astrida
1987 *Resource Protection Planning Process: Identification of Prehistoric Archaeological Resources in the Northern Puget Sound Study Unit.* On file at the Department of Archaeology and Historic Preservations, Olympia.

Carlson, R. L.
1990 Cultural Antecedents. In *Northwest Coast*, edited by W. P. Suttles, pp. 60–69. Handbook of North American Indians, Vol. 7, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Clague, John J., and Thomas S. James
2002 History and Isostatic Effects of the Last Ice Sheet in Southern British Columbia. *Quaternary Science Reviews* 21:71–87.

Chatters, James C., Jason B. Cooper, Philippe D. LeTourneau, and Lara C. Rooke
2011 *Understanding Olcott: Data Recovery at 45SN28 and 45SN303, Snohomish County, Washington.* AMEC Earth & Environmental, LLC, Bothell, Washington.

Cooper, Jason B., Tim Gerrish, Tyler McWilliams, and Jillian Hahnlen
2014 *Sunset Fish Passage and Energy Project (FERC No. 14295)—Study Plan 10: Final Historic Properties Study Technical Report, Snohomish County, Washington.* AMEC Environment & Infrastructure, Inc., Seattle.

Duwamish Tribe
2008 Culture and History. Available at: http://www.duwamishtribe.org/culture.html. Accessed on January 18, 2016.

Easterbrook, Don J.
2003 Cordilleran Ice Sheet Glaciation of the Puget Lowland and Columbia Plateau and Alpine Glaciation of the North Cascade Range, Washington. In *Western Cordillera and Adjacent Areas*, edited by T. W. Swanson, pp. 137–157. Geological Society of America, Boulder, Colorado.

Franklin, Jerry, and C.T. Dyrness
1988 *Natural Vegetation of Oregon and Washington.* General Technical Report PNW-8. USDA Forest Service, Portland, Oregon.

DSD - 001132

GLO (Government Land Office)
2017 Land Patent Search. Available at: https://www.glorecords.blm.govaccessed. Accessed on March 13, 2017.

Greengo, R. E. (editor)
1983 *Prehistoric Places on the Southern Northwest Coast.* Thomas Burke Memorial Washington State Museum, University of Washington, Seattle.

Gunther, Erna
1981 Ethnobotany of Western Washington. Reprinted. University of Washington, Seattle. Originally published 1945, University of Washington Publications in Anthropology No. 1.

Huggins, E.
1984 *Journal of Occurrences at Muck Station (1858 to 1859): A Farm of the Puget's Sound Agricultural Company in Pierce County, Washington Territory.* Journal kept by Edward Huggins and others, transcribed by Gary Fuller Reese. On file at the Tacoma Public Library, Tacoma, Washington.

Kauhi, T. C.
2009 *Washington Statewide Archaeology Predictive Model.* GeoEngineers, Inc., Seattle.

Kramer, Nathan
2011 Homestead Act of 1862. Settlement Family History—Bethane Colorado—German Russian Settlement. Available at: http://www.nathankramer.com/settle/article/homestead.htm. Accessed on October 24, 2011.

Larson, L. L., and D. E. Lewarch (editors)
1990 *Cultural Resources Assessment of the Cedar River Watershed Sockeye Spawning Channel/Fish Hatchery, King County, Washington.* Technical Report No 90-4. Larson Anthropological and Archaeological Services, Gig Harbor, Washington.

1995 *The Archaeology of West Point, Seattle, Washington: 4,000 Years of Hunter-Fisher-Gatherer Land Use in Southern Puget Sound.* Larson Anthropological and Archaeological Services, Gig Harbor, Washington.

Lasmanis, Raymond
1991 The Geology of Washington. *Rocks and Minerals* 66:262–277.

Long, Priscilla
2006 King County—Thumbnail History. Available at: http://www.historylink.org/File/7905. Accessed on January 11, 2017.

Marino, C.
1990 History of Western Washington since1846. In *Northwest Coast*, edited by W. Suttles, pp.169–179. Handbook of North American Indians, Vol. 7, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

DSD - 001133

Matson, D. G., and G. Copeland
1995 *Prehistory of the Northwest Coast*. California Academic Press, San Diego.

McDonald, Richard K., and Lucile McDonald
1987 *The Coals of Newcastle: A Hundred Years of Hidden History*. Issaquah Alps Trail Club, Issaquah, Washington.

Meltzer, D. J., and R. C. Dunnell
1987 Fluted Points from the Pacific Northwest. *Current Research in the Pleistocene* 4:64–66.

MnDOT (Minnesota Department of Transportation)
2013 About Mn/Model. Available at: www.dot.state.mn.us/mnmodel. Accessed on May 20, 2013. Accessed on April 2, 2017.

Muckleshoot Indian Tribe
2017 History of the Muckleshoot Indian Tribe and its Reservation. Available at: http://www.muckleshoot.nsn.us/about-us/overview.aspx. Accessed on January 11, 2017.

Nelson, C. M.
1990 Prehistory of the Puget Sound Region. In *Northwest Coast*, edited by Wayne P. Suttles, pp. 481–484. Handbook of North American Indians, Vol. 7, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

NRCS (Natural Resources Conservation Service)
2017 Web Soil Survey. Available at: www.websoilsurvey.nrcs.usda.gov. Accessed on March 3, 2017.

Overland, Nathalie
1994 New Town Rises Where Coal was King. Available at: https://blackdiamondhistory.wordpress.com/2014/09/14/new-town-rises-where-coal-was-king/. Accessed on March 21, 2017.

Porter, S. C., and T. W. Swanson
1998 Radiocarbon Age Constraints on Rates of Advance and Retreat of the Puget Lobe of the Cordilleran Ice Sheet During the Last Glaciation. *Quaternary Research* 50:205–213.

Robbins, Jeffrey R., Dennis E. Lewarch, Leonard A. Forsman, and Lynn L. Larson
1996 Cultural resources assessment Cedar Hills Regional Landfill King County, Washington. Prepared for Herrera Environmental Consultants. Prepared by Larson Anthropological/Archaeological Services, Seattle, Washington.

Ruby, Robert H., and John A. Brown
1992 *A Guide to the Indian Tribes of the Pacific Northwest*. University of Oklahoma Press, Norman.

DSD - 001134

Strange, James H.
2016 *Geotechnical Engineering Study*. Geotech Consultants, Inc. Bellevue, Washington.

Suttles, Wayne, and Barbara Lane
1990 Southern Coast Salish. In *Northwest Coast,* edited by W. Suttles, pp. 485–502. Handbook of North American Indians, Vol. 7, William C. Sturtevant, general editor. Smithsonian Institution, Washington D.C.

Swanton, John R.
1978 *Indian Tribes of Washington, Oregon, and Idaho*. Reprinted. Ye Galleon Press, Fairfield, Washington. Originally published in 1952 as Bulletin 145 of the Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.

Toulouse, Julian Harrison
1971 *Bottle Makers and their Marks*. Thomas Nelson, Inc., Camden, New Jersey.

Tulalip Tribes
2014 Tulalip Tribes Website. Available at https://www.tulaliptribes-nsn.gov/. Accessed on January 13, 2017.

Waitt, Richard B. Jr., and Robert M. Thorson
1983 The Cordilleran Ice Sheet in Washington, Idaho, and Montana. In *The Late Pleistocene*, edited by Stephen Porter, pp. 53–70. Late Quaternary Environments of the United States, Vol. 1, H. E. Wright, Jr., general editor. University of Minnesota Press, Minneapolis.

Waterman, T. T.
1922 The Geographical Names Used by the Indians of the Pacific Coast. *The Geographical Review* 12:175–194.

2001 *sda?da? gweł dibeł lešucid ?acaciłtalbixw Puget Sound Geography*. Vi Hilbert, Jay Miller, and Zalmai Zahir, contributing editors. Lushootseed Press, Federal Way, Washington.

DSD - 001135

APPENDIX A. ARCHAEOLOGICAL SITE FORMS

(NOTE: Forms are in process; awaiting DAHP review)

DSD - 001136

APPENDIX B. HISTORIC PROPERTY INVENTORY FORMS

DSD - 001137

Historic Property Report

Historic Name: 7331 Lakemont Blvd, Bellevue

Property ID: 709112

Location

Address: 7331 Lakemont Blvd SE, Bellevue 98006

GeographicAreas: King,King County,T24R05E26,MERCER ISLAND Quadrangle

Information

Construction Dates:

Construction Type	Year	Circa
Built Date	1918	☑

Number of stories: N/A

Historic Use:

Category	Subcategory
Domestic	Domestic - Single Family House

Historic Context:

DSD - 001138

Architect/Engineer:

Category	Name or Company

Historic Property Report

Project History

Project Number, Organization, Project Name	Resource Inventory	SHPO Determination	SHPO Determined By, Determined Date
2017-03-01601, , Park Pointe Planned Unit Development, Bellevue	3/7/2017		

Historic Property Report

Photos

Historic Photo of House

Side/Rear of Property

Rear of Property

Rear of Property

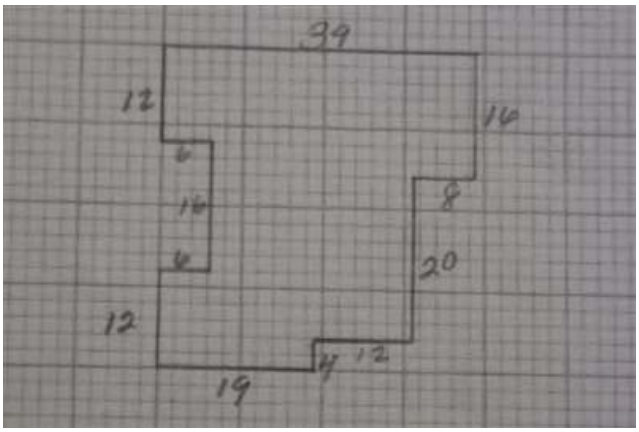
West Side

Front

Historic Property Report

Northeast side of property

Overview of Property



House Plan View

Front of House

Historic Property Report

Inventory Details - 3/7/2017

Common name:

Date recorded: 3/7/2017

Field Recorder: Mark Steinkraus

Field Site number:

SHPO Determination

Detail Information

Characteristics:

Category	Item
Plan	Irregular
Foundation	Concrete - Poured
Form Type	Single Dwelling - Gable Front and Wing
Roof Type	Varied Roof Lines
Roof Material	Asphalt/Composition
Cladding	Fiber Cement Board

Surveyor Opinion

Property appears to meet criteria for the National Register of Historic Places: No

Property is located in a potential historic district (National and/or local): No

Property potentially contributes to a historic district (National and/or local): No

Significance narrative: King County Historic Landmark Criteria:
A. Historicity: The property is over 40 years old; thus, it meets the age criterion for nomination as a King County Historic Landmark.
B. Significance: In addition to being historical and possessing integrity, the property must meet at least one of four criteria of significance (associated with historically significant events or people, or architecturally or archaeologically significant):
1. The early history of King County is defined partly by coal mining, particularly in the area encompassing Black Diamond, Finn Town, Issaquah, and Newcastle. Finn Town grew around the operation of the Cinder Mine. The property of interest was built at an unknown date (sometime between 1918 and 1936) west of Lakemont Boulevard (formerly a major road of Finn Town) in an area once owned by the Pacific Coast Coal Company, which operated the nearby Cinder Mine. An undated historical map of the company-owned area shows buildings and structures throughout the area, but does not show the property of interest. Given the placement of company-owned houses in the

historical map in relation to the current location of the property of interest, it is likely that the property of interest was not built or owned by the coal company. The property is not associated with mining events that made a significant contribution to the broad patterns of western Washington State history.
2. This property is not associated with the lives of persons significant in national, state, or local history.
3. This property does not embody distinctive characteristics of a type, period, or method of construction; it does not represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components lack individual distinction.
4. This property has not yielded, and is unlikely to yield, information important in history.
C. Criteria Considerations: Some exceptional circumstances may make the property eligible or ineligible for landmark designation; however, such considerations are not applicable to the property in question.
D. Integrity: The property has retained the integrity of its location, setting, workmanship, and association. However, changes to the windows have compromised the integrity of the original materials, design, and feeling.
E. Community Landmark Identity: The property is not recognized as a special place in the local community, nor is it an easily identifiable visual feature in the region.
Although the property is historical, and much of its integrity is intact, the property does not meet any of the criteria for significance, nor any of the exceptional criteria considerations. As such, Tierra Right of Way recommends the property individually ineligible for listing as a King County Landmark.

National Register of Historic Places
The early history of King County is defined partly by coal mining, particularly in the area encompassing Black Diamond, Finn Town, Issaquah, and Newcastle. Finn Town grew around the operation of the Cinder Mine. At an unknown date (between 1918 and 1936), the property of interest was built just west of Lakemont Boulevard (formerly a major road of Finn Town).
A. Despite the property's position in an area once owned by the Pacific Coast Coal Company that operated the Cinder Mine, the property appears to be unrelated to the mining activities that took place in the area. The property is not associated with events that have made a significant contribution to the broad patterns of our history (Criterion A).
B. This property is not associated with the lives of persons significant in national, state, or local history (Criterion B).
C. This property does not embody distinctive characteristics of a type, period, or method of construction; it does not represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components lack individual distinction (Criterion C).
D. This property has not yielded, and is unlikely to yield, information important in history (Criterion D).
The property is historical (i.e. at least 50 years old). The property appears to have retained the integrity of its location, setting, workmanship, and association; however, changes to the windows have compromised the integrity of the original materials, design, and feeling.
Although the property meets the criterion of historicity, its integrity has been compromised and it does not meet the criteria for significance. As such, Tierra Right of Way recommends this property individually ineligible for nomination to the National

DSD - 001144

Register of Historic Places. The property does not contribute significance to a collection of resources (e.g. representative of a coal mining community during the boom years of mining operations, representative of an unusual or new architectural style, etc.). For this reason, Tierra Right of Way recommends this property ineligible as a contributing resource to an historic district.

Historic Property Report

Physical description:

According to the King County Assessor's website, the property was built in 1918; however, some characteristics of the house suggest a build date in the late 1930s.
The property is a single-family domestic dwelling that has no style (apart from an attempt at Craftsman detailing with the addition of knee brackets under the eaves). The form of the property holds characteristics typical of the Minimal Tradition house (popular ca. 1925 – 1950), exhibiting a somewhat compact massing, medium-pitched gable roof, single-hung windows (some wrapping corners), a door with an upper light, an asymmetrical design with the front entrance set off-center, mixed cladding, a small covered front porch, minimal ornamentation, and a detached garage.
The property has a detached unit massing, an irregular plan (comprising a gablefront and wing with a southeast corner wing), one story, and a partially finished basement. The first story and basement each are 2,120 ft², with 650 ft² of the basement unfinished (this area is unusually large for a pre-1950 home, as most Minimal Traditional homes were~800 ft², and the average U.S. home size in 1950 was only 983 ft² and did not increase past 2,000 ft² until 1990 [National Association of Home Builders]). Interior wall construction was not determined during survey. The cladding is mixed, composed of what appears to be coursed mineral fiber shingles (popular ca. 1930s – 1950s) made to resemble shake shingles, with T 1 – 11 paneling in the gables (most likely a post-WWII replacement of the original vertical planking). An undated black and white photograph of the property shows similar cladding. The cladding of the garage (built 1936) matches that of the property, except that it is wood rather than mineral fiber. The foundation is poured concrete.
The roof has a medium pitch and composition asphalt shingles. Of the various intersecting rooflines, the main massing has the tallest ridge, running east-to-west (expressed as a gablet on the west pitch of the gablefront roof). The roof of the gablefront runs north-to-south through that of the main massing, and its southern gable end projects southward from the main massing at an equal distance as the southeast corner wing. The southeast corner wing wraps around the main massing such that its east pitch cuts across the southern half of the main massing's east face in a shed form. The eaves and verges project, with rafters visible, but not wholly exposed. Knee brackets were added to the roof after the undated black and white photograph was taken. An interior chimney of common bond brick with a corbeled cap is situated on the west pitch of the southeast corner wing roof.
The main entrance is an east off-center, single leaf, beveled, multi-panel door with a flat structural opening and plain surround, and a metal and glass screen door, recessed within an umbrage. Concrete steps with metal treillage railing lead up to the stoop of the main entrance. From the front steps, there is a narrow concrete path. A side entrance is located within an enclosed porch on the north face of the southeast corner wing. The side entrance has an upper light and a flat structural opening. At ground level, at the south edge of the east face of the southeast corner wing, there is a half door of flush wood that has a flat structural opening and a plaie surround. A similar door with a diamond face-window is off-center right on the west face. An open rail wooden deck was added recently (i.e. late 20th or early 21st century) to the east face of the corner wing, with stairs leading down the south face of the corner wing.
Window types vary, and many appear to have been replaced. Typical picture windows are single or 12-light and fixed. Some windows are casement, 1/1 or 1/2 single-hung. Typical basement windows are single or paired 3/3 hopper or awning windows, and triple 2-light awning (possible folding-sash). All windows have a flat structural opening with a slip sill and plain trim.

Historic Property Report

Historic Name: Outbuildings- 7331 Lakemont Blvd SE, Bellevue

Property ID: 709113

Location

Address: 7331 Lakemont Blvd SE, Bellevue 98006

Location Comments: Outbuilding associated with 7331 Lakemont Blvd SE.

GeographicAreas: King,King County,T24R05E26,MERCER ISLAND Quadrangle

Information

Construction Dates:

Construction Type	Year	Circa
Built Date	1936	☐

Number of stories: N/A

Historic Use:

Category	Subcategory
Domestic	

Historic Context:

DSD - 001147

Architect/Engineer:

Category	Name or Company

DSD - 001148

Historic Property Report

Project History

Project Number, Organization, Project Name	Resource Inventory	SHPO Determination	SHPO Determined By, Determined Date
2017-03-01601, , Park Pointe Planned Unit Development, Bellevue	3/7/2017		

Historic Property Report

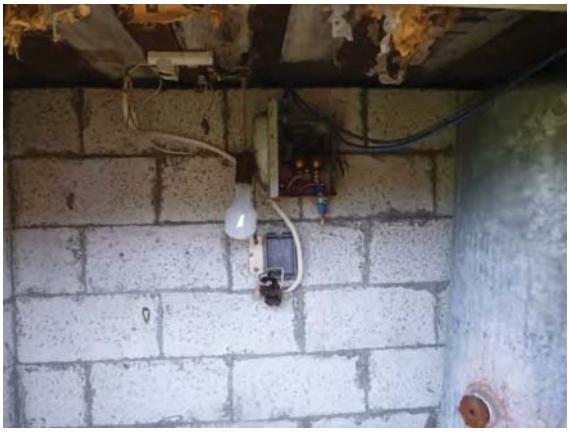
Photos

Detached Garage, North Side

Results Map

Pumphouse, South Side

Pumphouse, Interior



Pumphouse, Interior

Pumphouse, Back with barns in the distance

Historic Property Report

20x50 Barn

20x50 Barn, West Side

20x50 Barn, Side of the Structure

20x50 Barn, Overview of North Side

Overview of West Side of 20x50 Barn in relation to other Barn

20x50 Barn, South Side

20x50 Barn, South Side

Overview 20x50 Barn South Side

20x50 Barn East Side

20x50 Barn, East side

Detached Garage, Rear

Detached Garage, Rear

20x15 Outbuilding, Entryway

20x15 Outbuilding, South Side

20x15 Outbuilding Foundation

20x15 Outbuilding, South Side

20x15 Outbuilding, West Side

20x15 Outbuilding North Side

Detached Garage West Side

Historic Property Report

Inventory Details - 3/7/2017

Common name:

Date recorded: 3/7/2017

Field Recorder: Mark Steinkraus

Field Site number:

SHPO Determination

Detail Information

Characteristics:

Category	Item
Foundation	Concrete - Poured
Form Type	Utilitarian
Roof Type	Flat with Parapet
Roof Material	Asphalt/Composition
Cladding	Fiber Cement Board
Plan	Rectangle

Surveyor Opinion

Property appears to meet criteria for the National Register of Historic Places: No

Property is located in a potential historic district (National and/or local): No

Property potentially contributes to a historic district (National and/or local): No

Significance narrative: King County Historic Landmark Criteria:
A. Historicity: The properties appear to be over 40 years old (built ca. 1936); thus, they meet the age criterion for nomination as a King County Historic Landmark.
B. Significance: The properties must meet at least one of four criteria of significance (associated with historically significant events or people, or architecturally or archaeologically significant):
1. The early history of King County is defined partly by coal mining, particularly in the area encompassing Black Diamond, Finn Town, Issaquah, and Newcastle. Finn Town grew around the operation of the Cinder Mine. The properties are associated with a house (7331 Lakemont Blvd. SE; Bellevue, WA 98006) that was built at an unknown date (sometime between 1918 and 1936) west of Lakemont Boulevard (formerly a major road of Finn Town) in an area once owned by the Pacific Coast Coal Company, which operated the nearby Cinder Mine. An undated historical map of the company-owned area shows buildings and structures throughout the area, but does not show the property of interest.

Given the placement of company-owned houses in the historical map in relation to the current location of the properties of interest, it is likely that the properties of interest were not built or owned by the coal company. The properties are not associated with mining events that made a significant contribution to the broad patterns of western Washington State history.
2. The properties are not associated with the lives of persons significant in national, state, or local history.
3. The properties do not embody distinctive characteristics of a type, period, or method of construction; it does not represent the work of a master, or possess high artistic values, or represent significant and distinguishable entities whose components lack individual distinction.
4. The properties have not yielded, and are unlikely to yield, information important in history.
C. Criteria Considerations: Some exceptional circumstances may make the property eligible or ineligible for landmark designation; however, such considerations are not applicable to the properties in question.
D. Integrity: The properties appear to have retained the integrity of their location, setting, and association. However, they may have undergone some changes, such as additions and recladding that may have compromised the integrity of the original materials, workmanship, design, and feeling.
E. Community Landmark Identity: The properties are not recognized as special places in the local community, nor are they easily identifiable visual features in the region.
Although the properties are historical, they do not meet any of the criteria for significance, nor any of the exceptional criteria considerations. As such, Tierra Right of Way recommends the properties individually ineligible for listing as a King County Landmark.

National Register of Historic Places
The early history of King County is defined partly by coal mining, particularly in the area encompassing Black Diamond, Finn Town, Issaquah, and Newcastle. Finn Town grew around the operation of the Cinder Mine. The garage was built in 1936, and the barn and pumphouse were built at unknown dates. They were built west of Lakemont Boulevard (formerly a major road of Finn Town).
A. Despite the properties' positions in an area once owned by the Pacific Coast Coal Company that operated the Cinder Mine, they appear to be unrelated to the mining activities that took place in the area. The properties are not associated with events that have made a significant contribution to the broad patterns of our history (Criterion A).
B. The properties are not associated with the lives of persons significant in national, state, or local history (Criterion B).
C. The properties do not embody distinctive characteristics of a type, period, or method of construction; they do not represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components lack individual distinction (Criterion C).
D. The properties have not yielded, and are unlikely to yield, information important in history (Criterion D).
The properties are historical (i.e. at least 50 years old). The properties appear to have retained the integrity of their location, setting, and association (to the house at 7331 Lakemont Blvd; Bellevue, WA); however, possible changes to the cladding changes to the windows have compromised the integrity of the original materials, design, and feeling. Although the property meets the criterion of historicity, its integrity has been

compromised and it does not meet the criteria for significance. As such, Tierra Right of Way recommends this property individually ineligible for nomination to the National Register of Historic Places. The property does not contribute significance to a collection of resources (e.g. representative of a coal mining community during the boom years of mining operations, representative of an unusual or new architectural style, etc.). For this reason, Tierra Right of Way recommends this property ineligible as a contributing resource to an historic district.

Physical description: During the survey four outbuildings were recorded on this parcel. The names for these buildings/structures from the County Assessor's Office were used whenever possible to avoid confusion.

Detached Garage
According to the King County Assessor's records, the Detached Garage was built in 1936. The property has a single, detached unit massing, one story, the capacity for two vehicles, and a rectangular plan that is 360 ft². The foundation is poured concrete with a small wingwall at the northwest corner of the property. The interior wall construction was not visible during survey. The cladding is composed of coursed wooden shingles (which resemble the cladding of the house with which the property is associated [7331 Lakemont Blvd.; Bellevue, WA]). The roof is flat with stepped front and side parapets (Boomtown style), is covered with corrugated sheet metal, and has a narrow wooden frieze and flashing. The vehicle entrance is an up-swinging, single leaf, vertical plain-style metal door with a flat structural opening and plain trim. A modern security light was added to the front center of the garage. Typical windows are 6-light casement with a slip sill and plain surround. There is a single leaf, flush wood door with a flat structural opening and plain surround on the south face. There is a winding, poured concrete footpath around the east and south sides of the property, leading from the 20 x 15 outbuilding and from the house.

20x15 Outbuilding
A 20' x 15' outbuilding is located near the garage. The property has one story and a double, attached unit massing that is composed of two small, gable front buildings. The smallest of the two parts (at the east end of the property) appears to be original, while the larger of the two parts appears to have been remodeled or entirely rebuilt sometime during the early 1950s. The smaller of the two parts of the property is supported by horizontal wooden beams, while the larger of the two parts of the property is on cinderblock stilts. There is a corrugated Fiberglas skirt around the foundation, and a poured concrete walkway wraps around the southeast corner of the smaller part of the property, and there is a concrete step to the entrance of the larger part of the property. The roof is a tiered gable front of composite asphalt shingles with exposed rafters in the eaves of the larger part of the property, and exposed beams in the raking of the smaller part of the property. Both parts of the property have a frieze in the raking, metal gutters on the eaves, and a flush south pitch.
The smaller of the two parts has a vertical plank interior wall construction, and was originally clad with coursed wood shingles; however, much of the entire property is now clad in board and batten, and there are fabricated shingles in the east gable end of the larger of the two parts of the property. The smaller of the two parts of the property has a flat structural opening with plain trim for a single leaf door and a window (window and door are absent) on its east face, and a 4-light casement window with a slip sill and plain

trim on the west face. The larger of the two parts of the property has a fixed pair of horizontal windows with a flat structural opening, plain trim, a continuous header and sill, and a wide mullion on its south face. The entrance to the larger of the two parts of the property is a single leaf, hollow door (recently added) with a flat structural opening and plain trim on its east face. On the north face of the larger part of the property, there is a single leaf, vertical plank door with a flat structural opening and no trim or surround. Located near the northwest corner above the foundation on the west face of the larger part of the property, there is a long, awning trapdoor on hinges.

20x50 Barn

According to the King County Assessor's website, the property is a 20' x 50' barn. The property has a double, attached, irregular unit massing. The main massing is a barn with one story and a rectangular plan oriented east-to-west. An addition was made to the rear (east) end of the barn at an unknown date. The barn portion of the property has board-and-batten cladding (both saw-cut wood and plywood), a panel of which is missing from the upper story of the west façade. The plywood across the upper story on the west facade of the barn portion suggests a post-WWII re-cladding. There is a vent with a metal mesh screen, flat structural opening, and plain trim centered in the peak of the barn portion's west gable under the raking. The barn portion of the property has a low gable roof of corrugated sheet metal with plywood soffits, a frieze along the gable sides, and oversailing eaves that have exposed rafters and knee brackets (the central bracket connects with the interior frame through the afore mentioned vent). The roofing material of the original portion of the barn and the east addition is discontiguous, despite the roofs being flushly aligned and the roofing material of each portion being identical. Also, there is no frieze under the eave of the barn addition. The windows of the original portion of the barn are square, 6- and 9-light casements with plain wooden casings, a thin backband across the heads, and a slip sill (or continuous sill, in the case of the north windows). On the south face of the barn addition has a ribbon of four, 6-light windows that have a flat structural opening, a contiguous sill, and no surround or trim. An exterior chimney of either poured concrete or stacked cinder blocks is at the west corner of the south face of the original portion of the barn. The chimney is clad in common bond brick with weeping mortar. The mortar of the chimney, as well as the window ribbon and simplicity of the barn addition, suggest that the addition was made in the late 1940s or early 1950s.

The secondary massing is a garage with one story and a rectangular plan oriented north-south. The garage portion of the property has a vertical plank and brace interior wall construction and saw-cut board-and-batten cladding. The garage portion has a low gable roof of corrugated metal with slightly projecting eaves (the rafters are visible in the gable ends). A cylindrical metal stove pipe with a cap projects from the west pitch of the roof of the garage portion near the southern end. On the west façade of the garage portion of the property, there is a single window similar to that of the barn portion, except with no backband. North of the window of the garage portion, there was once a single leaf door with a flat structural opening and no trim. The northern half of the garage portion of the property has two open stalls. The poured concrete foundation appears not to extend into the stalls.

Pumphouse

The property is not listed on the King County Assessor's website. The property is a pumphouse that has a single, detached unit massing, a rectangular plan, and a ½-story.

The foundation of the pumphouse is a subterranean box containing some of the pumping mechanisms. The foundation is larger than the above-ground structure of the pumphouse. The walls of the box are board-formed, poured concrete (with evidence of repairing) capped with a precast concrete slab that has a raised steel trapdoor. The walls of the above-ground portion of the pumphouse are composed of common bond cinderblocks bonded with cement. The roof is a medium gable with projecting eaves, exposed rafters, composition asphalt shingles in the gable ends, and layered pre-fabricated corrugated composition asphalt made to resemble Spanish Colonial roof tiles. The entrance is a single leaf, flush plywood door with a flat structural opening and plain trim.

Historic Property Report

Historic Name: House 1- 7219 Lakemont Blvd SE, Bellevue

Property ID: 709114

Location

Address: 7219 Lakemont Blvd SE, Bellevue 98006

Location Comments: "House 1" for this address with the King County Assessor's Office

GeographicAreas: King,King County,T24R05E26,MERCER ISLAND Quadrangle

Information

Construction Dates:

Construction Type	Year	Circa
Built Date	1964	☐

Number of stories: N/A

Historic Use:

Category	Subcategory
Domestic	Domestic - Single Family House

Historic Context:

DSD - 001160

Architect/Engineer:

Category	Name or Company

DSD - 001161

Historic Property Report

Project History

Project Number, Organization, Project Name	Resource Inventory	SHPO Determination	SHPO Determined By, Determined Date
2017-03-01601, , Park Pointe Planned Unit Development, Bellevue	3/7/2017		

Historic Property Report

Photos

Front of House

Front of House

Front of House

South Side of House

South side of house

Rear of House

Historic Property Report

Rear of House

Rear of House

Rear of house

Rear of house

Northwest corner

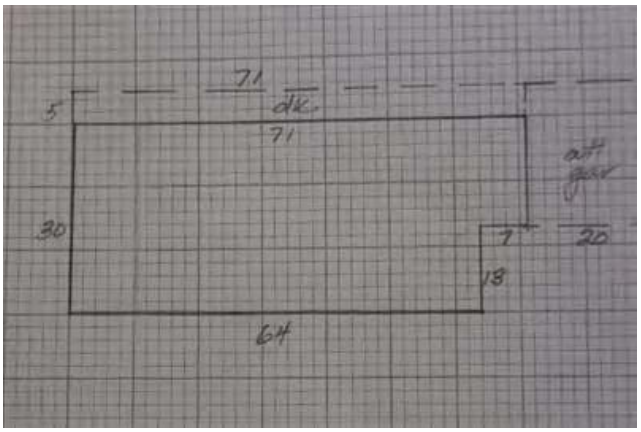
Stairs on north side of property

Historic Property Report

Northwest Corner

North side of property

Proximity to second house and outbuiding



Plan map of house

Front of House

DSD - 001165

Historic Property Report

Inventory Details - 3/7/2017

Common name:

Date recorded: 3/7/2017

Field Recorder: Mark Steinkraus

Field Site number:

SHPO Determination

Detail Information

Characteristics:

Category	Item
Foundation	Concrete - Poured
Form Type	Single Dwelling - Ranch
Roof Type	Gable - Side
Roof Material	Asphalt/Composition
Cladding	Brick - Common Bond
Plan	Rectangle
Cladding	Wood - T 1-11
Cladding	Wood - Clapboard

Surveyor Opinion

Property appears to meet criteria for the National Register of Historic Places: No

Property is located in a potential historic district (National and/or local): No

Property potentially contributes to a historic district (National and/or local): No

Significance narrative: King County Historic Landmark Criteria:
A. Historicity: The property was built in 1964; thus, it meets the age criterion (i.e. at least 40 years old) for nomination as a King County Historic Landmark.
B. Significance: The property must meet at least one of four criteria of significance:
1. The early history of King County is defined partly by coal mining, particularly in the area encompassing Black Diamond, Finn Town, Issaquah, and Newcastle. Finn Town grew around the operation of the Cinder Mine. The property of interest was built in 1964 west of Lakemont Boulevard (formerly a major road of Finn Town) in an area once owned by the Pacific Coast Coal Company, which operated the nearby Cinder Mine. The property of interest was not built or owned by the coal company and is not associated with mining events that made a significant contribution to the broad patterns of western Washington State history.

2. This property is not associated with the lives of persons significant in national, state, or local history.
3. This property embodies distinctive characteristics of the ubiquitous ranch house type, which was popular between the late 1950s and mid-1970s; however, the property is not exemplary of the type, period, or method of construction. The property does not represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components lack individual distinction.
4. This property has not yielded, and is unlikely to yield, information important in history.
C. Criteria Considerations: Some exceptional circumstances may make the property eligible or ineligible for landmark designation; however, such considerations are not applicable to the property in question.
D. Integrity: The property has retained the integrity of its location, setting, workmanship, design, feeling, and association. However, vinyl window replacements have compromised the integrity of the original materials.
E. Community Landmark Identity: The property is not recognized as a special place in the local community, nor is it an easily identifiable visual feature in the region.
Although the property is historical, the integrity of the property has been compromised and the property does not meet any of the criteria for significance, nor any of the exceptional criteria considerations. As such, Tierra Right of Way recommends the property individually ineligible for listing as a King County Landmark.

National Register of Historic Places
The early history of King County is defined partly by coal mining, particularly in the area encompassing Black Diamond, Finn Town, Issaquah, and Newcastle. Finn Town grew around the operation of the Cinder Mine. In 1964, the property of interest was built just west of Lakemont Boulevard (formerly a major road of Finn Town).
A. Despite the property's position in an area once owned by the Pacific Coast Coal Company that operated the Cinder Mine, the property is unrelated to the mining activities that took place in the area. The property is not associated with events that have made a significant contribution to the broad patterns of our history (Criterion A).
B. This property is not associated with the lives of persons significant in national, state, or local history (Criterion B).
C. This property embodies distinctive characteristics of the ubiquitous ranch house type, which was popular between the late 1950s and mid-1970s; however, the property is not exemplary of the type, period, or method of construction. The property does not represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components lack individual distinction (Criterion C).
D. This property has not yielded, and is unlikely to yield, information important in history (Criterion D).
The property is historical (i.e. at least 50 years old). The property appears to have retained the integrity of its location, setting, workmanship, design, feeling, and association; however, vinyl window replacements have compromised the integrity of the original materials.
Although the property meets the criterion of historicity, its integrity has been compromised and it does not meet the criteria for significance. As such, Tierra Right of Way recommends this property individually ineligible for nomination to the National Register of Historic Places. The property does not contribute significance to a collection of resources (e.g. representative of a coal mining community during the boom years of mining operations, representative of an unusual or new architectural style, etc.). For this reason, Tierra Right of Way recommends this property ineligible as a contributing

resource to an historic district.

Physical description: The property is a ranch house with a single, detached unit massing; a rectangular plan; one story; a partially finished basement (exposed on the rear [west] face); broad, rambling façades; an attached, two-car, corner garage (offset from the northwest corner of the house), and a poured concrete foundation. According to the King County Assessor's website (2017), the first floor and basement each are 2,040 sq. ft., with only 1,500 sq. ft. of the basement finished. The garage is 440 sq. ft. and the rear deck is 350 sq. ft.

The interior wall construction was not visible during survey. The exterior wall is composed primarily of common bond brick with a header course at the base of the first story. There is vertical T 1 – 11 paneling on the front façade, and clapboard (possibly wood or vinyl) under the peaks of the gable ends. The west face of the lower level of the garage is exposed concrete, from which a concrete planter extends. The east face of the garage is T 1 -11 paneling similar to the paneling between the windows on the east face of the house.

The roof is a medium to low side gable of composition asphalt shingles that faces east and has a moderate to wide eave overhang with soffits, and plain projecting verges. The west pitch of the garage is flush with that of the main house, but projects beyond the main west eave. The east pitch of the garage is set back slightly and tiers below the main roofline on the north face of the house. There is a wide, gable end chimney of common bond brick with at least two circular chimney pots that is positioned on the west pitch of the north end of the roof.

Typical windows are sliding with a flat structural opening and no trim. Upper story windows meet the roofline in lieu of a header, and windows on the front façade have decorative shutters. All windows have a header brick slip sill, with the exception of the two central windows of the front (east) façade, which share a continuous sill. There is a fixed picture window with a sliding sidelight on the front façade near the main entrance. Bathroom windows on the upper story of the rear façade are single hung. Original windows were metal cased; many have been replaced with vinyl models (some in-kind, and some with 8-light sliding sashes).

The main entrance is a single leaf door with a flat structural opening (details were not visible during survey), off-center east on the north face of the house near the garage. Concrete steps lead up to the main entrance. The rear entrance of the upper level of the house is off-center south, single leaf, cross-buck with 9 lights; meets the roofline in lieu of a head; and has a flat structural opening and no trim (appears to be a replacement). There are two doors on the lower level of the rear of the house, each is single leaf with a slat structural opening, no trim, and a flush rowlock header. Of the two lower level rear doors, the left door is a 9-panel door with a diamond-pattern face window (appears to be original); and the right door is a multi-panel solid door (appears to be a replacement). The garage door appeared to be a rolling door with multiple square panels and a flat structural opening.

Across the west face of the house, there is a projecting wooden balcony with a metal treillage handrail. Across the north face of the garage, treated wood steps follow the declining topography between the upper level of the east face and the lower level of the west face.

DSD - 001168

Historic Property Report

Historic Name: House 2, 7219 Lakemont Blvd SE, Bellevue

Property ID: 709115

Location

Address: 7219 Lakemont Blvd SE, Bellevue 98006

Location Comments: "House 2" with the King County Assessor's Office for this property.

GeographicAreas: King,King County,T24R05E26,MERCER ISLAND Quadrangle

Information

Construction Dates:

Construction Type	Year	Circa
Built Date	1949	☐

Number of stories: N/A

Historic Use:

Category	Subcategory
Domestic	Domestic - Single Family House

Historic Context:

DSD - 001169

Architect/Engineer:

Category	Name or Company

Historic Property Report

Project History

Project Number, Organization, Project Name	Resource Inventory	SHPO Determination	SHPO Determined By, Determined Date
2017-03-01601, , Park Pointe Planned Unit Development, Bellevue	3/7/2017		

Historic Property Report

Photos

Front of Property

Front of Property

Front of Property

Front of Property- Garage

North Side of Property

North Side of Property

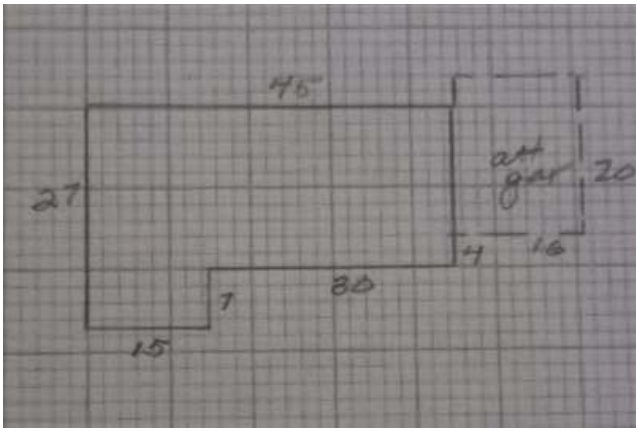
Historic Property Report

Foundation

Rear of Property

Location in relation to Outbuilding

Location in Relation to Other House and Outbuilding



Plan Map of House

Front of House

Historic Property Report

Inventory Details - 3/7/2017

Common name:

Date recorded: 3/7/2017

Field Recorder: Mark Steinkraus

Field Site number:

SHPO Determination

Detail Information

Characteristics:

Category	Item
Foundation	Concrete - Poured
Form Type	Single Dwelling - Ranch
Roof Type	Gable - Cross
Roof Material	Asphalt/Composition
Cladding	Wood - Clapboard
Plan	L-Shape
Cladding	Wood - T 1-11

Surveyor Opinion

Property appears to meet criteria for the National Register of Historic Places: No

Property is located in a potential historic district (National and/or local): No

Property potentially contributes to a historic district (National and/or local): No

Significance narrative: King County Historic Landmark Criteria:
A. Historicity: The property was built in 1949; thus, it meets the age criterion (i.e. at least 40 years old) for nomination as a King County Historic Landmark.
B. Significance: The property must meet at least one of four criteria of significance:
1. The early history of King County is defined partly by coal mining, particularly in the area encompassing Black Diamond, Finn Town, Issaquah, and Newcastle. Finn Town grew around the operation of the Cinder Mine. The property of interest was built in 1949 west of Lakemont Boulevard (formerly a major road of Finn Town) in an area once owned by the Pacific Coast Coal Company, which operated the nearby Cinder Mine. The property of interest was not built or owned by the coal company and is not associated with mining events that made a significant contribution to the broad patterns of western Washington State history.
2. This property is not associated with the lives of persons significant in national, state, or

local history.
3. This property possesses early characteristics of the ubiquitous ranch house type, which became popular between the 1950s and mid-1970s; however, the property is not exemplary of the type, period, or method of construction. The property does not represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components lack individual distinction.
4. This property has not yielded, and is unlikely to yield, information important in history.
C. Criteria Considerations: Some exceptional circumstances may make the property eligible or ineligible for landmark designation; however, such considerations are not applicable to the property in question.
D. Integrity: The property has retained the integrity of its location, setting, workmanship, design, and association. However, vinyl window replacements have compromised the integrity of the original materials and feeling.
E. Community Landmark Identity: The property is not recognized as a special place in the local community, nor is it an easily identifiable visual feature in the region.
Although the property is historical, the integrity of the property's materials and feeling has been compromised and the property does not meet any of the criteria for significance, nor any of the exceptional criteria considerations. As such, Tierra Right of Way recommends the property individually ineligible for listing as a King County Landmark.

National Register of Historic Places
The early history of King County is defined partly by coal mining, particularly in the area encompassing Black Diamond, Finn Town, Issaquah, and Newcastle. Finn Town grew around the operation of the Cinder Mine. In 1949, the property of interest was built just west of Lakemont Boulevard (formerly a major road of Finn Town).
A. Despite the property's position in an area once owned by the Pacific Coast Coal Company that operated the Cinder Mine, the property is unrelated to the mining activities that took place in the area. The property is not associated with events that have made a significant contribution to the broad patterns of our history (Criterion A).
B. This property is not associated with the lives of persons significant in national, state, or local history (Criterion B).
C. This property possesses characteristics typical of the ubiquitous ranch type houses built between ca. 1935 and the mid-1970s (most popular between the 1950s and 1970s); however, the property is not exemplary of the ranch type. The property does not represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components lack individual distinction (Criterion C).
D. This property has not yielded, and is unlikely to yield, information important in history (Criterion D).
The property was built in 1949; thus, it is historical (i.e. at least 50 years old). The property appears to have retained the integrity of its location, setting, workmanship, design, and association; however, vinyl window replacements have compromised the integrity of the original materials and feeling.
Although the property meets the criterion of historicity, the integrity of its materials and feeling has been compromised, and the property does not meet the criteria for significance. As such, Tierra Right of Way recommends this property individually ineligible for nomination to the National Register of Historic Places. The property does not contribute significance to a collection of resources (e.g. representative of a coal mining community during the boom years of mining operations, representative of an unusual or new architectural style, etc.). For this reason, Tierra Right of Way

Historic Property Report

recommends this property ineligible as a contributing resource to an historic district.

Physical description:

The property is an early ranch type house with a single, detached unit massing, one story, and an L-shape plan (gablefront and wing) of 1,000 sq. ft. The 320-sq. ft. garage is attached to the north end of the house and is offset westward such that the west face of the garage projects beyond the west face of the house and the east face of the garage is set back from the east face of the house. The foundation is poured concrete. The interior wall construction was not visible during survey. The exterior wall is wide wood clapboard with narrow endboards and a horizontal band of T 1 – 11 paneling.
The roof is a medium to low side gable, facing east with an offset gable front crossing at the south end. The roof has composition asphalt shingles, projecting eaves with exposed rafters and a concealing fascia; and plain, close verges with a fascia. The garage roof is tiered below the main roof. The front (east) and side (south) entrances are sheltered by flat wood roofs. The front shelter is supported by wooden piers, and the side shelter is supported by metal pipe supports. The interior chimney is wide, common bond brick, has two chimney pots, and is positioned on the peak of the garage roof where the garage joins the house.

Typical windows are either fixed, sliding, or fixed with sliding sidelights, and have a flat structural opening, either plain or no trim, either no or rounded apron, no sill, and no surround. The main entrance is a single-leaf, beveled, 6-panel door with a flat structural opening and plain surround. The rear entrance was not clearly visible during survey, but it appeared to be a single leaf door with plain trim and shoulder sidelights with slip sills. The garage door is a 16-panel plywood, up-swinging door that meets the roofline and has no trim.

DSD - 001176

Historic Property Report

Historic Name: Barn- 7331 Lakemont Blvd SE, Bellevue

Property ID: 709116

Location

Address: 7331 Lakemont Blvd SE, Bellevue 98006

Location Comments: Barn associated with the property.

GeographicAreas: King,King County,T24R05E26,MERCER ISLAND Quadrangle

Information

Construction Dates:

Construction Type	Year	Circa

Number of stories: N/A

Historic Use:

Category	Subcategory
Agriculture/Subsistence	Agriculture/Subsistence - Agricultural Outbuilding

Historic Context:

DSD - 001177

Architect/Engineer:

Category	Name or Company

DSD - 001178

Historic Property Report

Project History

Project Number, Organization, Project Name	Resource Inventory	SHPO Determination	SHPO Determined By, Determined Date
2017-03-01601, , Park Pointe Planned Unit Development, Bellevue	3/7/2017		

Historic Property Report

Photos

Location of Barn in relation to 20x50 Barn

North Side

North Side Overview

Interior

Interior

Interior of Stable Addition

Historic Property Report

Overview West Side

South Side

Historic Property Report

Inventory Details - 3/7/2017

Common name:

Date recorded: 3/7/2017

Field Recorder: Mark Steinkraus

Field Site number:

SHPO Determination

Detail Information

Characteristics:

Category	Item
Foundation	Concrete - Poured
Form Type	Barn - English Gambrel
Roof Type	Gambrel - Side
Roof Material	Metal - Corrugated
Cladding	Wood - Board & Batten
Plan	Irregular

Surveyor Opinion

Property appears to meet criteria for the National Register of Historic Places: No

Property is located in a potential historic district (National and/or local): No

Property potentially contributes to a historic district (National and/or local): No

Significance narrative: King County Historic Landmark Criteria:
A. Historicity: The property appears to be over 40 years old; thus, it meets the age criterion for nomination as a King County Historic Landmark.
B. Significance: The property must meet at least one of four criteria of significance (associated with historically significant events or people, or architecturally or archaeologically significant):
1. The early history of King County is defined partly by coal mining, particularly in the area encompassing Black Diamond, Finn Town, Issaquah, and Newcastle. Finn Town grew around the operation of the Cinder Mine. The property of interest was built at an unknown date (circa post-WWII) west of Lakemont Boulevard (formerly a major road of Finn Town) in an area once owned by the Pacific Coast Coal Company, which operated the nearby Cinder Mine. An undated historical map of the company-owned area shows buildings and structures throughout the area, but does not show the property of interest. Given the placement of company-owned houses in the historical map in relation to the

current location of the property of interest, it is likely that the property of interest was not built or owned by the coal company. The property is not associated with mining events that made a significant contribution to the broad patterns of western Washington State history.
2. This property is not associated with the lives of persons significant in national, state, or local history.
3. This property does not embody distinctive characteristics of a type, period, or method of construction; it does not represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components lack individual distinction.
4. This property has not yielded, and is unlikely to yield, information important in history.
C. Criteria Considerations: Some exceptional circumstances may make the property eligible or ineligible for landmark designation; however, such considerations are not applicable to the property in question.
D. Integrity: The property has retained the integrity of its location, setting, workmanship, feeling, materials, and association. However, an addition has compromised the integrity of the original design.
E. Community Landmark Identity: The property is not recognized as a special place in the local community, nor is it an easily identifiable visual feature in the region.
Although the property is historical, and much of its integrity is intact, the property does not meet any of the criteria for significance, nor any of the exceptional criteria considerations. As such, Tierra Right of Way recommends the property individually ineligible for listing as a King County Landmark.

National Register of Historic Places
The early history of King County is defined partly by coal mining, particularly in the area encompassing Black Diamond, Finn Town, Issaquah, and Newcastle. Finn Town grew around the operation of the Cinder Mine. At an unknown date (post-WWII), the property of interest was built just west of Lakemont Boulevard (formerly a major road of Finn Town).
A. Despite the property's position in an area once owned by the Pacific Coast Coal Company that operated the Cinder Mine, the property appears to be unrelated to the mining activities that took place in the area. The property is not associated with events that have made a significant contribution to the broad patterns of our history (Criterion A).
B. This property is not associated with the lives of persons significant in national, state, or local history (Criterion B).
C. This property does not embody distinctive characteristics of a type, period, or method of construction; it does not represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components lack individual distinction (Criterion C).
D. This property has not yielded, and is unlikely to yield, information important in history (Criterion D).
The property appears to be historical (i.e. at least 50 years old). The property appears to have retained the integrity of its location, setting, materials, workmanship, feeling, and association; however, an addition has compromised the integrity of the design.
Although the property meets the criterion of historicity, and much of its integrity is intact, it does not meet the criteria for NRHP significance. As such, Tierra Right of Way recommends this property individually ineligible for nomination to the National Register of Historic Places. The property does not contribute significance to a collection of

resources (e.g. representative of a coal mining community during the boom years of mining operations, representative of an unusual or new architectural style, etc.). For this reason, Tierra Right of Way recommends this property ineligible as a contributing resource to an historic district.

Physical description:

The property is a barn oriented approximately southwest-northeast. The property has a double, attached, irregular unit massing composed of the original barn (main massing) and an added stable-like shelter. The property has one story (possibly with a mezzanine). The main massing has a rectangular plan that is 10 by 25 feet, and the addition has a shorter and narrower rectangular plan. The foundation of the main massing and addition is poured concrete. The interior wall construction of the main massing is a nailed frame, and that of the addition is a combination of a nailed frame, poured concrete and common bond cinder blocks bonded with cement. The exterior wall material of the entire property is board and batten (it appears that the board may be plywood paneling; it also appears that the battens were replaced, such that some battens cover original elements [e.g. hinge plates, window trim heads, etc.]). In the peak of the south face, the cladding is slightly raised from the main exterior wall and is finished with octagonal ends. The southern half of the west façade of the addition is open with a swinging, open-slatted half-door.

The roof of the main massing is a gambrel of corrugated sheet metal with close eaves (the fascia and frieze are nearly flush) and gutters. The roof of the addition is similar, except that it is a slightly dropped, medium shed form, and the sheet metal corrugation resembles standing seam.

The windows of the addition are horizontally rectangular, fixed, and have a flat structural opening and a plain wood surround. The windows of the main massing are typically square, single sash or 4-light casements with plain wood trim, narrow head surrounds, and slip sills. The entrance on the west face of the main massing is a Dutch door with a diamond face window, a flat structural opening, and plain trim. On the east face of the main massing, there is a flush, single leaf slab door with an upper light; and a 4-panel, single leaf door; each with a flat structural opening, plain trim, and a plain head surround. On the north face of the main massing, there is a double leaf, swinging door with a flat structural opening, board and batten exterior, and no trim.

DSD - 001184

Historic Property Report

Historic Name: 7219 Lakemont Blvd SE- Outbuilding

Property ID: 709312

Location

Address: 7219 Lakemont Blvd SE, Bellevue, Washington, USA

GeographicAreas: King,King County,T24R05E26,MERCER ISLAND Quadrangle

Information

Construction Dates:

Construction Type	Year	Circa

Number of stories: N/A

Historic Use:

Category	Subcategory
Domestic	

Historic Context:

DSD - 001185

Architect/Engineer:

Category	Name or Company

DSD - 001186

Historic Property Report

Project History

Project Number, Organization, Project Name	Resource Inventory	SHPO Determination	SHPO Determined By, Determined Date
2017-03-01601, , Park Pointe Planned Unit Development, Bellevue	3/7/2017		

Historic Property Report

Photos

Front

Interior

Door in east side

East side

East Side

West Side

Historic Property Report

Overview of property in relation to HPI

Historic Property Report

Inventory Details - 3/7/2017

Common name:

Date recorded: 3/7/2017

Field Recorder: Mark Steinkraus

Field Site number:

SHPO Determination

Detail Information

Characteristics:

Category	Item
Foundation	Concrete - Poured
Form Type	Utilitarian
Roof Type	Gable - Front
Roof Material	Asphalt/Composition
Cladding	Wood - Clapboard
Plan	Rectangle

Surveyor Opinion

Property appears to meet criteria for the National Register of Historic Places: No

Property is located in a potential historic district (National and/or local): No

Property potentially contributes to a historic district (National and/or local): No

Significance narrative: King County Historic Landmark Criteria:
A. Historicity: The build date of the property is currently unknown. However, the presence of a brick chimney, and the property's compact massing; inset square wooden casement window (on the west face); tall, paired, single-hung windows (on the east face); and medium gable with close eaves collectively suggest that the property was built sometime between the 1900s and 1920s. Thus, the property is almost certainly over 40 years old and meets the age criterion for nomination as a King County Historic Landmark.
B. Significance: The property must meet at least one of four criteria of significance:
1. The early history of King County is defined partly by coal mining, particularly in the area encompassing Black Diamond, Finn Town, Issaquah, and Newcastle. Finn Town grew around the operation of the Cinder Mine. The property of interest was built at an unknown date (presumably sometime between the 1900s and 1920s) west of Lakemont Boulevard (formerly a major road of Finn Town) in an area once owned by the Pacific Coast Coal Company, which operated the nearby Cinder Mine. An undated historical map

of the company-owned area shows buildings and structures throughout the area, with a small building located approximately where the property of interest is currently located. The building of the historical map is interiorly labeled “4” and exteriorly labeled “212.” The numbers appear to be designations assigned by the coal company; therefore, it is possible that the property of interest was built and/or owned by the Pacific Coast Coal Company during the operation of the Cinder Mine. If this is the case, then the property would be one of the few extant buildings remaining of the old Finn Town mining community. The property is not individually significant, but it may represent a component of a mining community that represented a broad pattern of turn-of-the-twentieth-century coal mining that was significant in western Washington State history.
2. This property is not associated with the lives of persons significant in national, state, or local history.
3. This property does not exemplify distinctive characteristics of a type, period, or method of construction; it does not represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components lack individual distinction.
4. This property has not yielded, and is unlikely to yield, information important in history.
C. Criteria Considerations: Some exceptional circumstances may make the property eligible or ineligible for landmark designation; however, such considerations are not applicable to the property in question.
D. Integrity: The property appears to have retained the integrity of its location, workmanship, design, materials, and feeling. However, the razing of nearly all the Finn Town properties owned by the Pacific Coast Coal Company has compromised the integrity of the setting and association of the property.
E. Community Landmark Identity: The property is not recognized as a special place in the local community, nor is it an easily identifiable visual feature in the region.
Although the property is historical, and much of its integrity is intact, the property does not meet any of the criteria for significance, nor any of the exceptional criteria considerations. As such, Tierra Right of Way recommends the property individually ineligible for listing as a King County Landmark.

National Register of Historic Places
The early history of King County is defined partly by coal mining, particularly in the area encompassing Black Diamond, Finn Town, Issaquah, and Newcastle. Finn Town grew around the operation of the Cinder Mine. At an unknown date (presumably between 1900s and 1920s), the property of interest was built just west of Lakemont Boulevard (formerly a major road of Finn Town).
A. The early history of King County is defined partly by coal mining, particularly in the area encompassing Black Diamond, Finn Town, Issaquah, and Newcastle. Finn Town grew around the operation of the Cinder Mine. The property of interest was built at an unknown date (presumably sometime between the 1900s and 1920s) west of Lakemont Boulevard (formerly a major road of Finn Town) in an area once owned by the Pacific Coast Coal Company, which operated the nearby Cinder Mine. An undated historical map of the company-owned area shows buildings and structures throughout the area, with a small building located approximately where the property of interest is currently located. On the historical map, the building that is in the current location of the property of interest is interiorly labeled “4” and exteriorly labeled “212.” The numbers appear to be designations assigned by the coal company; therefore, it is possible that the property of interest was built and/or owned by the Pacific Coast Coal Company during the operation of the Cinder Mine. If this is the case, then the property would be one of the few extant

DSD - 001191

buildings remaining of the old Finn Town mining community. While the property is not individually significant to the broad pattern of turn-of-the-twentieth-century coal mining significant in western Washington State history, it is likely associated with that history. (Criterion A).
B. This property is not associated with the lives of persons significant in national, state, or local history (Criterion B).
C. This property does not embody distinctive characteristics of a type, period, or method of construction; it does not represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components lack individual distinction (Criterion C).
D. This property has not yielded, and is unlikely to yield, information important in history (Criterion D).
The property is likely historical (i.e. at least 50 years old). The property appears to have retained the integrity of its location, workmanship, design, materials, and feeling. However, the razing of nearly all the Finn Town properties owned by the Pacific Coast Coal Company has compromised the integrity of the setting and association of the property.
Although the property meets the criterion of historicity and its integrity is largely intact, the property does not meet the criteria for significance. As such, Tierra Right of Way recommends this property individually ineligible for nomination to the National Register of Historic Places. Although the property likely was once a component of a coal mining community during the boom years of mining operations at the beginning of the twentieth century, the property has lost its association to that history by means of the razing of most of the coal company properties; thus, the property does not contribute significance to a collection of resources. For this reason, Tierra Right of Way recommends this property ineligible as a contributing resource to an historic district.

Physical description:

The property is immediately west of House 2 at 7219 Lakemont Blvd SE, Bellevue, WA. The property has one story; a single, detached unit massing; a rectangular plan, oriented northwest to southeast; and a foundation of poured concrete. The interior wall construction was not observed during survey. The exterior wall has a cladding of wooden clapboard with endboards.
The roof is a medium front gable, facing north, with composition asphalt shingles (patched with tar in some places), close eaves, and a narrow frieze in the raking. The main entrance is a single-leaf, panel-and-light door (the upper light may have been broken, as it is now covered by a board) with a flat structural opening and plain wood surround. Near the south end of the property, on the east face, there was an off-center, single leaf door with a flat structural opening and plain surround (the door is now absent). There is a gable-end chimney of common bond brick on the ridge of the roof at the north end of the property. Centered in the peak of the north gable end is a slatted vent with a plain wooden trim. On the west face of the property, there is a single square casement window with wooden casing, a slip sill, and plain surround. On the east face of the property, there is a pair of tall, double-hung windows with wooden casings and trim. The pair of windows share a flat structural opening and continuous sill, and are separated by a mullion.

DSD - 001192

Allyson Brooks Ph.D., Director
State Historic Preservation Officer

April 12, 2018

Ms. Jennifer Hushour
Project Manager, Cultural Resources Division
Tierra Right of Way Services

444 NE Ravenna Blvd Suite 103
Seattle WA 98115

Dear Ms. Hushour:

I have reviewed the application you submitted for archaeological excavations at 45KI1325. It is my intention to grant the permit application for excavations at 45KI1325. Please take note of the Special Conditions on the permit.

If you feel aggrieved by this decision you may request an administrative hearing within twenty-one days after receipt of this notice. Your request should be sent to the address listed below. Director Department of Archaeology and Historic Preservation PO Box 48343 Olympia, WA 98504-8343

Sincerely,

Lance Wollwage, Ph.D.
Assistant State Archaeologist
(360) 586-3536
Email: lance.wollwage@dahp.wa.gov

Enclosure

DSD - 001193

Allyson Brooks Ph.D., Director
State Historic Preservation Officer

ARCHAEOLOGICAL EXCAVATION
PERMIT NO: 2018-12

Archaeological sites:	45KI1325
Individual Responsible for carrying out the terms and conditions of the permit:	Marc Boettcher The Bond Apartments, LLC
Individual responsible for field investigations:	Jennifer Hushour Tierra Right of Way Services
Nature of work:	Testing
Repository in which collected records and data shall be deposited:	Burke
Date fieldwork to begin:	Upon receipt, but notify parties of start
Date fieldwork shall end:	May 31st 2018
Period of analysis:	Concurrent through June 30th, 2018
Date final report due:	June 30th, 2018

Special Conditions:

1. Follow protocols stated in permit application of February 2018
2. Notify Tribes and DAHP of start date and time
3. Allow for on-site visits from DAHP and Tribal representatives
4. Provide PDF copy of draft and final reports & updated site form to consulted parties, Tribes, & DAHP
5. Report must meet DAHP's Survey & Inventory Standards; include maps drawn to scale, catalog and DAHP permit number
6. If human remains are encountered, stop work, secure the area, notify the county medical examiner, police, DAHP, & affected Tribes per RCW 27.44.055

Issued this 12th day of April 2018

Lance Wollwage
Assistant State Archaeologist

DSD - 001194

APPENDIX B. 45KI1325 SITE FORM

DSD - 001195

STATE OF WASHINGTON
ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45KI01325
County: King

Date: 11/12/2020 **Human Remains?** ☐ **DAHP Case No.:**

Compiled By: Jennifer Hushour Tierra Right of Way Services

Archaeological Sites are exempt from public disclosure per RCW 42.56.300

SITE DESIGNATION

Site Name:

Field/Temporary ID:

Site Type: Historic Debris Scatter/Concentration

Historic Residential Structures

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this request for determination of eligibility meet the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the site

☑ meets ☐ does not meet the National Register Criteria.

I recommend that this property be considered significant at the following level(s) of significance:

Criteria A,D

Statement of Significance

Site 45KI1325 is related to the historic themes of coal mining, railroad expansion, the development of King County, Seattle, the State of Washington, and immigrant communities in turn-of-the-century mining towns. Results of testing and archival research indicate that site 45KI1325 has yielded (and could continue to yield) important information regarding Finn Town and the Coal Creek Mining Complex. Historical records, features, and artifact analysis determined that housing was present from at least 1905 through 1936, and that this area of Finn Town was razed. Families of immigrants from Finland established a thriving community here and were part of a larger multinational community. This site represents a unique domestic and industrial snapshot of the coal-mining industry that shaped the development of Seattle, King County, and Washington State.

Integrity

The site is within what was formerly an immigrant mining community. Though site now largely consists of deposits from razed structures, some intact subsurface features remain. The coal storage/bunker feature, for example, retains integrity of location, design, association, workmanship, and materials. It is likely that additional features such as privies and foundations are present within or near the site boundaries though none were identified during eligibility and extent testing.

SHPO Determination

Eligibility Survey/Inventory **Determined On**

Determined By

SHPO Comments

SITE LOCATION

USGS Quad Map Name(s): MERCER ISLAND

T: 24 **R:** 05 **E/W:** E **Section:** 26

UTM: Zone: 10 **Easting:** 565542 **Northing:** 5265181

DSD - 001196

ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45KI01325

Latitude: 47.537 **Longitude:** -122.129 **Elevation (ft/m):**

Drainage, Major: Lake Washington **Drainage, Minor:** Coal Creek **River Mile**

Aspect 180 **Slope** 1

Location Description (General to Specific):

The site is located on the western foothills of Cougar Mountain, on a finger ridge above Coal Creek. The site is just north of Coal Creek Trail head. The address of the house on the southern edge of the site is 7331 Lakemont Blvd SE, Bellevue, WA.

Directions (For Relocation Purposes):

From I-90 take exit 13 Lakemont Blvd SE. Travel south for 3.3 miles and turn right onto private driveway. Park and proceed on foot to GPS coordinates.

SITE DESCRIPTION

Narrative Description (Overall Site Observations)**:**

This site is what remains of part of a turn of the century company mining town known as Finn Town. Historic maps suggest several residential structures were present at the site location. The site initially consisted of a subsurface burn feature along with historic metal, rubber, bone, glass, and ceramic artifacts. It was not visible on the surface and was identified during subsurface testing. The site boundary was drawn around the location of 8 positive shovel test probes. Subsequently, 3 test units and 10 additional STPs resulted in identification of 2 more features (a historic domestic coal storage/bunker and an industrial work surface) and hundreds of historic artifacts. Site boundaries were expanded to include additional positive STP locations.

Site Dimensions (Overall Site Dimensions)**:**

Length: 80 meters **Direction:** NW/SE **Width:** 50 meters **Direction:** SW/NE

Method of Horizontal Measurement: Tape and compass, GPS

Depth: 80 cmbs **Method of Vertical Measurement:** Tape

Vegetation (On Site)**:**

Local: **Regional:**

Landforms (On Site)**:**

Local: **Regional:**

Water Resources (Type)**:** **Distance:** **Permanence:**

CULTURAL MATERIALS AND FEATURES

Narrative Description (Specific Inventory Details)**:**

Features include a possible demolished/burned remains of residence and associated artifacts; a feature consisting of burned milled wood lying horizontally on top of a ferrous metal mesh which was attached to conglomerate concrete and appears to be an industrial work surface; and a wooden post-lined domestic coal bunker adjacent to former home site which was still full of coal. Several hundred artifacts were recovered including high concentrations of burnt wood, glass, and nails; processed faunal bone, ceramics, brick fragments, bottles; and a diecast toy horse manufactured in Germany from the 1880s to the 1920s.

Method of Collection:

All artifacts from test unit excavation and additional STPs were collected and labeled by provenience.

Location of Artifacts (Temporary/Permanent)**:**

Tierra ROW lab, Everett WA

SITE AGE

DSD - 001197

Component Type	Historic
Dates	ca 1890-1930
Dating Method	historic research, artifact dates, historic maps
Phase	
Basis for Phase Designation	

SITE RECORDERS

Observed By	**Address**
Sherri Middleton	444 NE Ravenna Blvd., Seattle, WA 98115

Date Recorded: 5/22/2018

Recorded by (Professional Archaeologist)**:** Sherri Middleton

Organization:	Tierra Right of Way Services	**Phone Number:**	425-220-6919
Address:	444 NE Ravenna Blvd., Seattle, WA 98115	**Email:**	smiddleton@tierra-row.com

SITE HISTORY

Previous Archaeological Work:

Survey and site recording by Tierra in 2017 (Steinkraus 2017)

LAND OWNERSHIP

Owner	**Address**	**Parcel**

RESEARCH REFERENCES

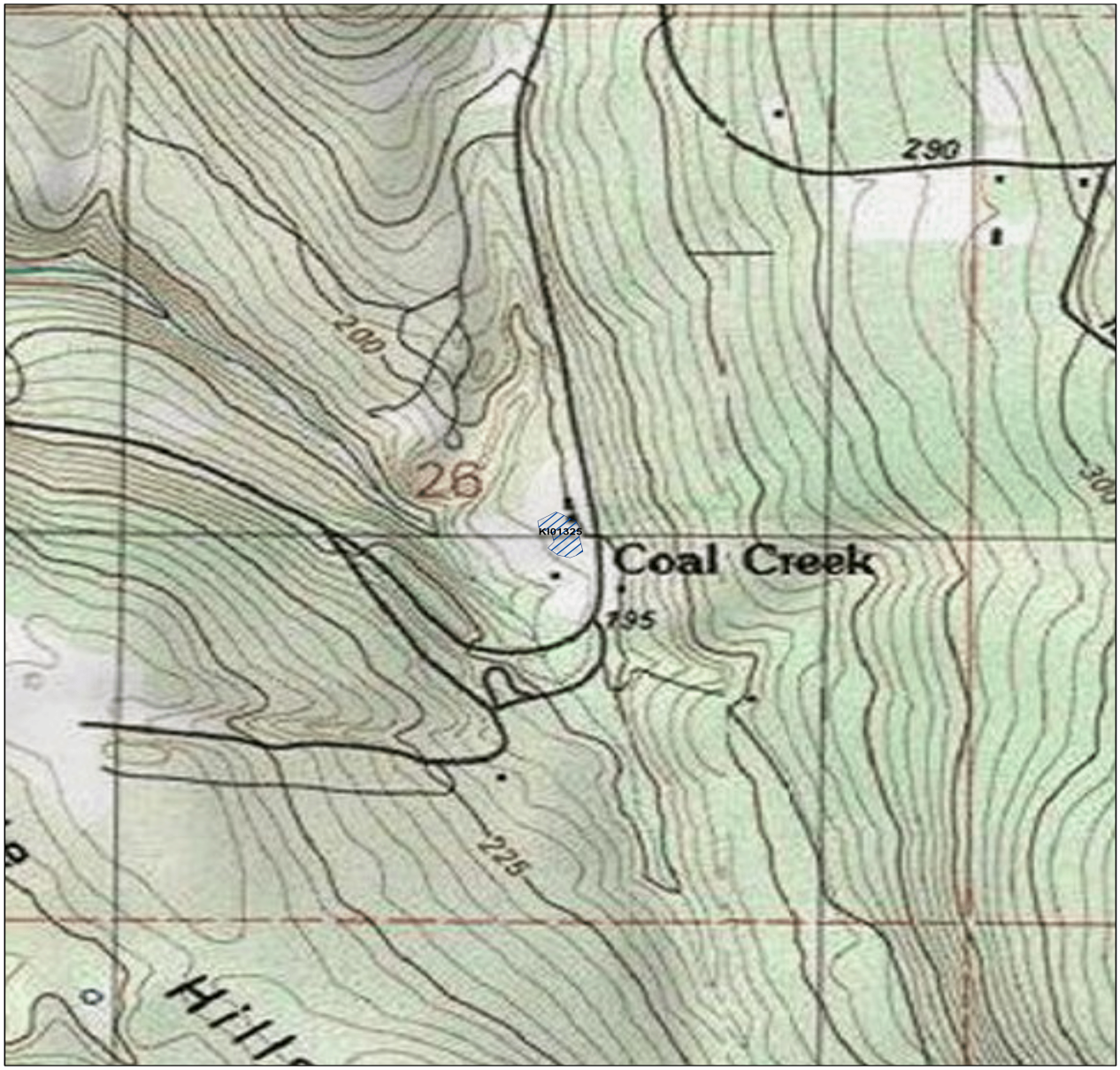
Items/Documents Used in Research:

Toulouse, Julian Harrison
1971 Bottle Makers and their Marks. Thomas Nelson Inc. Camden.

Steinkraus, Mark F.
2017 Cultural Resources Assessment for the Park Pointe Project, King County, Washington. On file with the Department of Archaeology and Historic Preservation, Olympia

DSD - 001198

USGS MAP



November 12, 2020

1:8,314

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Copyright:© 2013 National Geographic Society, i-cubed

DSD - 001199

ARCHAEOLOGICAL SITE INVENTORY FORM

SKETCH MAPS

Source Information

DSD - 001200

Photographs, Tables and Additional Information

Photo ID	327377
Title	stp2
Year Taken	
Is Circa?	☐
Notes	bone and ceramic can be seen in side wall
Type	image/jpeg
Photo View	plan
Source	
Copyright	☐

DSD - 001201

Photo ID	499352
Title	Photo 18. Unit 2 Level 5. 10 wooden posts. facing east.JPG
Year Taken	
Is Circa?	☐
Notes	
Type	image/jpeg
Photo View	
Source	
Copyright	☐

DSD - 001202

Photo ID	499351
Title	Photo 20. Ceramic sherd from Feature 1.JPG
Year Taken	
Is Circa?	☐
Notes	
Type	image/jpeg
Photo View	
Source	
Copyright	☐

DSD - 001203

Photo ID	499350
Title	Photo 21. miniature diecast horse. Penny Toy 1880s-1920s.JPG
Year Taken	
Is Circa?	☐
Notes	
Type	image/jpeg
Photo View	
Source	
Copyright	☐

DSD - 001204

Photo ID	499349
Title	Photo 24. Coal recovered from Feature 3.JPG
Year Taken	
Is Circa?	☐
Notes	
Type	image/jpeg
Photo View	
Source	
Copyright	☐

DSD - 001205

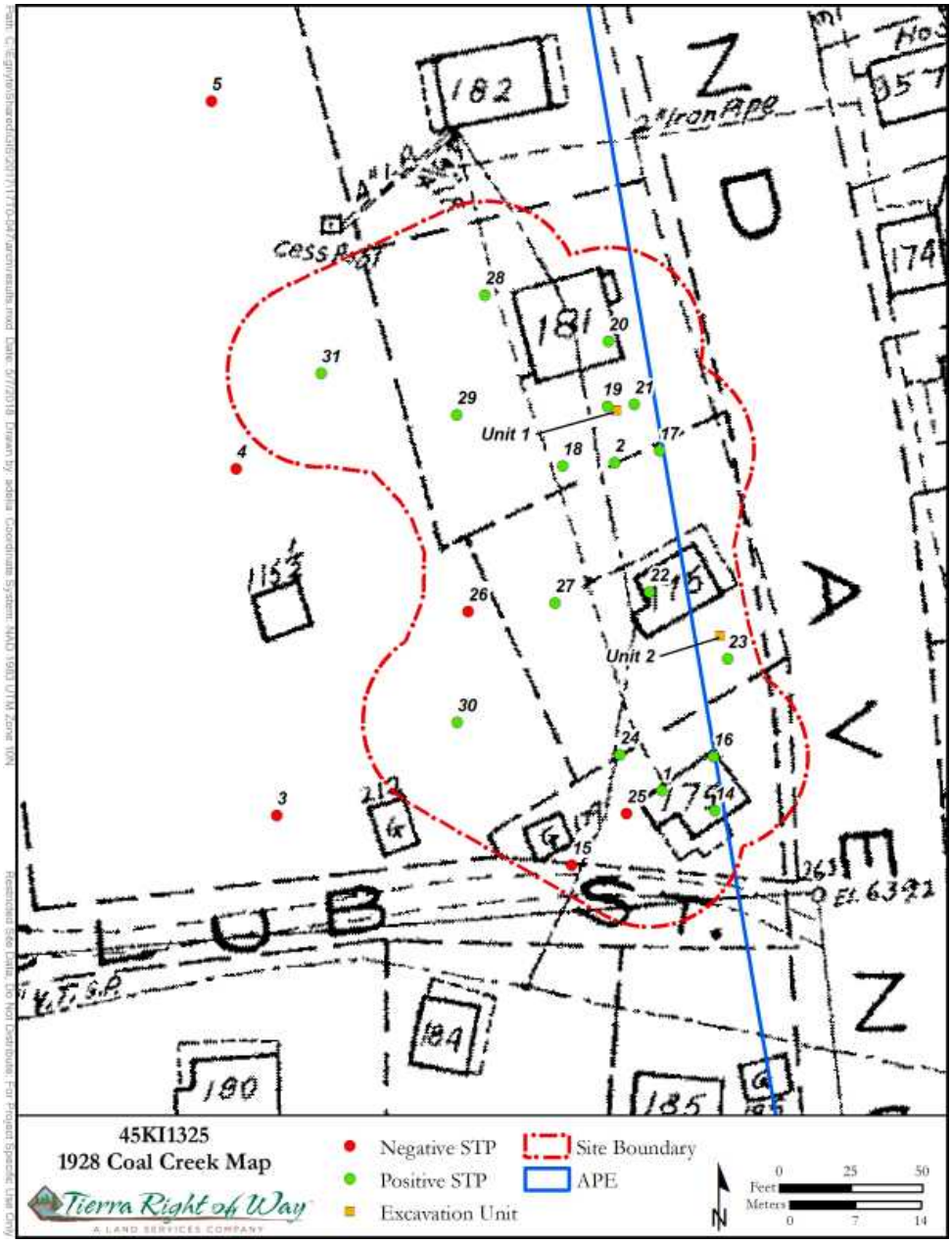


Photo ID	499348
Title	Figure 15. 1928 Coal Creek Map with Results (Courtesy of Eastside Historical Society).png
Year Taken	
Is Circa?	☐
Notes	
Type	image/png
Photo View	
Source	
Copyright	☐

DSD - 001206

ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45KI01325

Photo ID	499347
Title	Figure 6. Results of Site testing at 45KI1325.png
Year Taken	
Is Circa?	☐
Notes	
Type	image/png
Photo View	
Source	
Copyright	☐

DSD - 001207

Photo ID	327376
Title	Site Overview
Year Taken	2017
Is Circa?	☐
Notes	stp 1
Type	image/jpeg
Photo View	
Source	
Copyright	☐

DSD - 001208

ARCHAEOLOGICAL SITE INVENTORY FORM

Photo ID	327375
Title	bone fragment
Year Taken	2017
Is Circa?	☐
Notes	stp 2, large animal bone fragment rest of it is in side wall 10 cmbs.
Type	image/jpeg
Photo View	
Source	
Copyright	☐

DSD - 001209

ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45KI01325

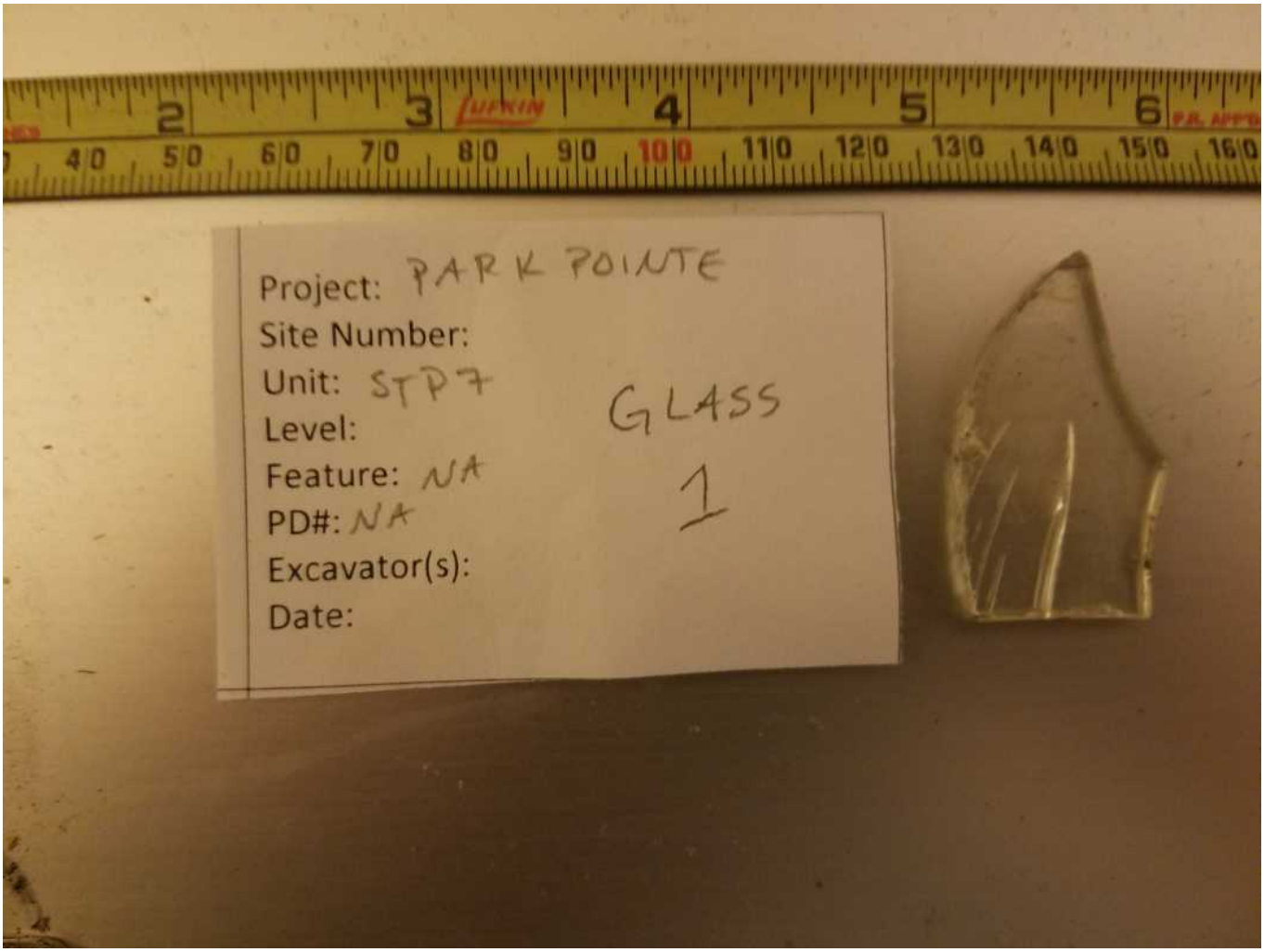


Photo ID	327374
Title	window pane shard
Year Taken	2017
Is Circa?	☐
Notes	stp 1
Type	image/jpeg
Photo View	
Source	
Copyright	☐

DSD - 001210

Photo ID	327373
Title	glass shards
Year Taken	2017
Is Circa?	☐
Notes	stp 2
Type	image/jpeg
Photo View	
Source	
Copyright	☐

DSD - 001211

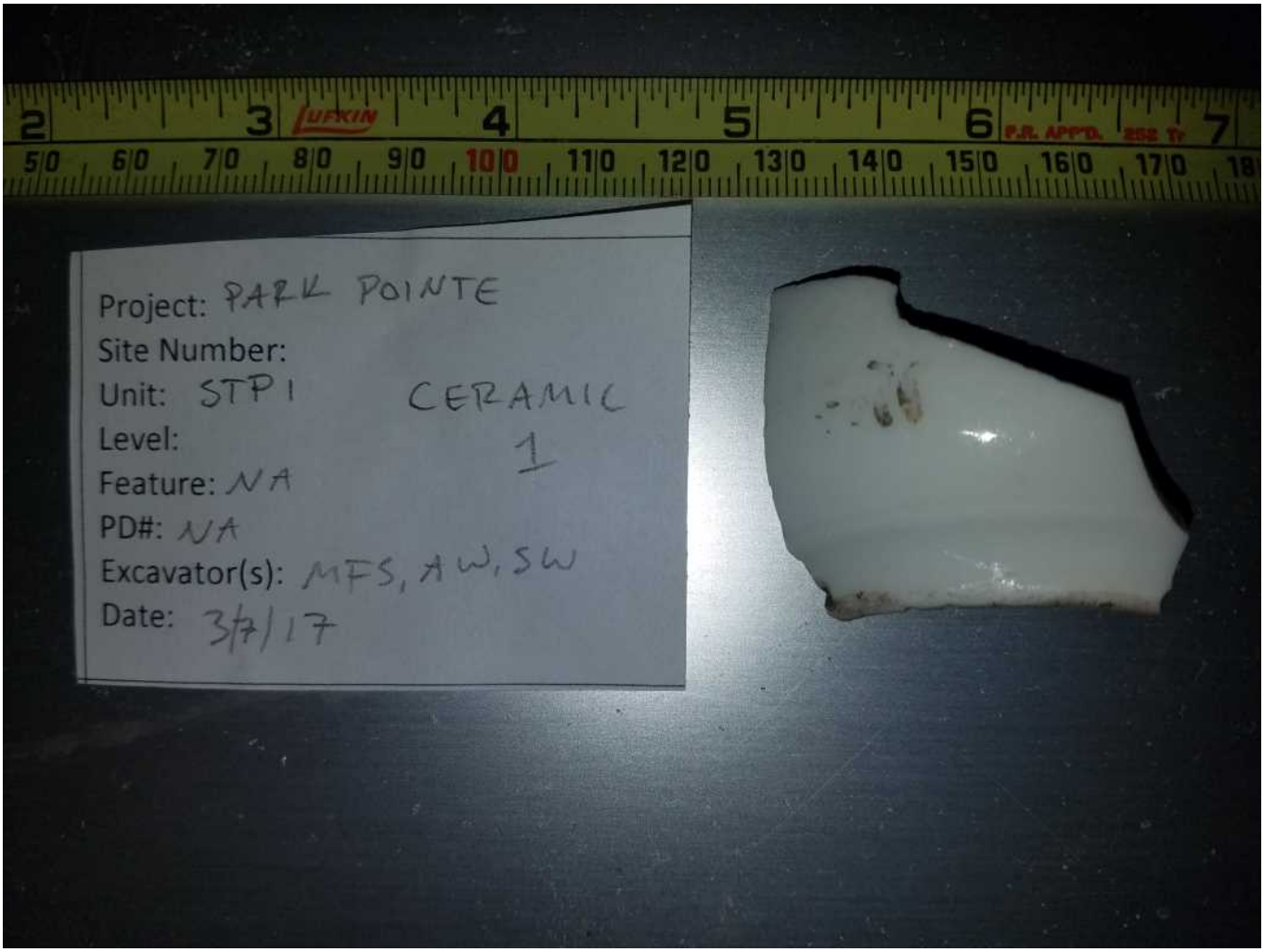


Photo ID	327372
Title	porcelain tea cup
Year Taken	2017
Is Circa?	☐
Notes	stp 1
Type	image/jpeg
Photo View	
Source	
Copyright	☐

DSD - 001212

STATE OF WASHINGTON
ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45KI01325
County: King

Date: 3/7/2017 **Human Remains?** ☐ **DAHP Case No.:**

Compiled By: Mark Steinkraus Tierra Right of Way Services

Archaeological Sites are exempt from public disclosure per RCW 42.56.300

SITE DESIGNATION

Site Name:

Field/Temporary ID: Site 3

Site Type: Historic Debris Scatter/Concentration

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this request for determination of eligibility meet the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the site
☐ meets ☐ does not meet the National Register Criteria.

I recommend that this property be considered significant at the following level(s) of significance:

Criteria

Statement of Significance

Potentially Elligible

Integrity

Site consists of the subsurface remains of historic Finn Town, which no longer exists. Shovel testing found evidence that structures from Finn Town may have been razed (primarily a 70 cm deep burn feature identified in STP 19), and culturally rich deposits may be buried beneath fill. Literature review found very little information recorded on the people who occupied FInn Town and further assessment of the surrounding mining Complex is required.

SHPO Determination

Eligibility Potentially Eligible **Determined On** 5/18/2017

Determined By

SHPO Comments

SITE LOCATION

USGS Quad Map Name(s): MERCER ISLAND

T: 24 **R:** 05 **E/W:** E **Section:** 26

UTM: Zone: 10 **Easting:** 565542 **Northing:** 5265181

Latitude: 47.537 **Longitude:** -122.129 **Elevation (ft/m):**

Drainage, Major: Lake Washington **Drainage, Minor:** Coal Creek **River Mile**

Aspect 180 **Slope** 1

Location Description (General to Specific):

The site is located on the western foothills of Cougar Mountain, on a finger ridge above Coal Creek. The site is just north of Coal Creek Trail head.

DSD - 001213

ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45KI01325

Directions (For Relocation Purposes):

From I-90 take exit 13 Lakemont Blvd SE. Travel south for 3.3 miles and turn right onto private driveway. Park and proceed on foot to GPS coordinates.

SITE DESCRIPTION

Narrative Description (Overall Site Observations)**:**

This site consists of a subsurface burn feature along with historic metal, rubber, bone, glass, and ceramic artifacts. It was not visible on the surface and was identified during subsurface testing. The site boundary was drawn around the location of 8 positive shovel test probes.

Site Dimensions (Overall Site Dimensions)**:**

Length: 50 meters **Direction:** n/s **Width:** 10 meters **Direction:** e/w

Method of Horizontal Measurement: shovel test probes

Depth: 0-50 cmbs **Method of Vertical Measurement:** shovel test probes

Vegetation (On Site)**:**

Local: grass, douglas-fir **Regional:** red cedar, douglas-fir, and big leaf maple

Landforms (On Site)**:**

Local: finger ridge **Regional:** base of cougar mountain

Water Resources (Type)**:** Coal Creek **Distance:** 50 meters **Permanence:** perennial

CULTURAL MATERIALS AND FEATURES

Narrative Description (Specific Inventory Details)**:**

An extensive burn feature containing a high concentration of burnt wood, glass, and nails was observed in STP 19 and is at least 60 cm thick, the horizontal dimensions are unknown. The artifacts recovered from the site include 3 porcelain sherds with one of them being part of a teacup with gold luster paint, two chunks of large animal bone, 3 brick fragments, 1 rubber handle fragment likely from a screw driver or similar hand tool, 13 bent wire nails, 20 straight wire nails of varying size, 1 square nail, 1 terracotta pot sherd, 1 thick decorative cut glass shard, 4 pieces of aqua glass, 32 clear glass shards both bottle and window pane, 1 clear glass shard with letters "…OULD…" embossed onto the glass, and 1 partial clear glass bottle base with embossed makers marks reading "5 …HISTL…. and the letters P and C within trapezoids." The bottle base was made by the Pacific Coast Bottling Company, which operated during 1925-1930 (Toulouse 1971).

Method of Collection:

all subsurface artifacts were collected

Location of Artifacts (Temporary/Permanent)**:**

Tierra Right of Way, office in Seattle. Temporary

SITE AGE

Component Type	Historic
Dates	1925-1930
Dating Method	makers mark on bottle
Phase	

DSD - 001214

ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45KI01325

Basis for Phase Designation

SITE RECORDERS

Observed By	Address
Mark Steinkraus	2611 NE 125th Street, Ste 202, Seattle, WA 98125

Date Recorded: 3/24/2017

Recorded by (Professional Archaeologist)**:** Sarah Huntington Steinkraus

Organization:	Tierra Right of Way Services	**Phone Number:**	360-620-5840
Address:	2611 NE 125th Street, Ste 202, Seattle, WA 98125	**Email:**	steinkraus.sarah@gmail.com

SITE HISTORY

Previous Archaeological Work:

none

LAND OWNERSHIP

Owner	Address	Parcel
COAL CREEK HOLDINGS LLC	7331 LAKEMONT BLVD SE , Bellevue, WA - 98006	2624059019

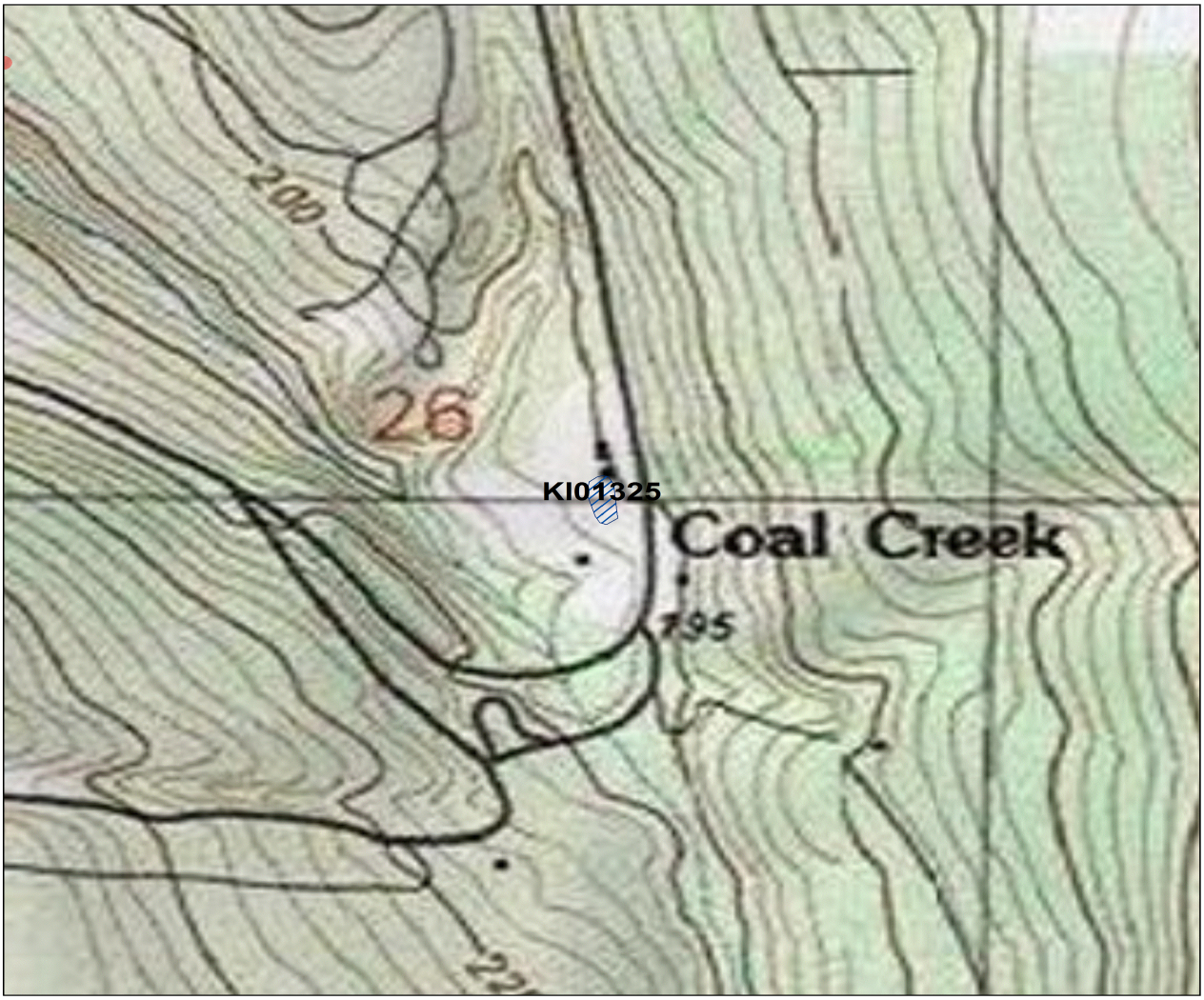
RESEARCH REFERENCES

Items/Documents Used in Research:

Toulouse, Julian Harrison
1971 Bottle Makers and their Marks. Thomas Nelson Inc. Camden

DSD - 001215

USGS MAP



May 18, 2017

1:5,924

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Copyright:© 2013 National Geographic Society, i-cubed

DSD - 001216

ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45KI01325

SKETCH MAPS

Source Information

DSD - 001217

PHOTOGRAPHS

Photo ID	327377
Title	stp2
Year Taken	
Is Circa?	☐
Notes	bone and ceramic can be seen in side wall
Type	image/jpeg
Photo View	plan
Source	
Copyright	☐

DSD - 001218

Photo ID	327376
Title	Site Overview
Year Taken	2017
Is Circa?	☐
Notes	stp 1
Type	image/jpeg
Photo View	
Source	
Copyright	☐

DSD - 001219

Photo ID	327375
Title	bone fragment
Year Taken	2017
Is Circa?	☐
Notes	stp 2, large animal bone fragment rest of it is in side wall 10 cmbs.
Type	image/jpeg
Photo View	
Source	
Copyright	☐

DSD - 001220

ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45KI01325

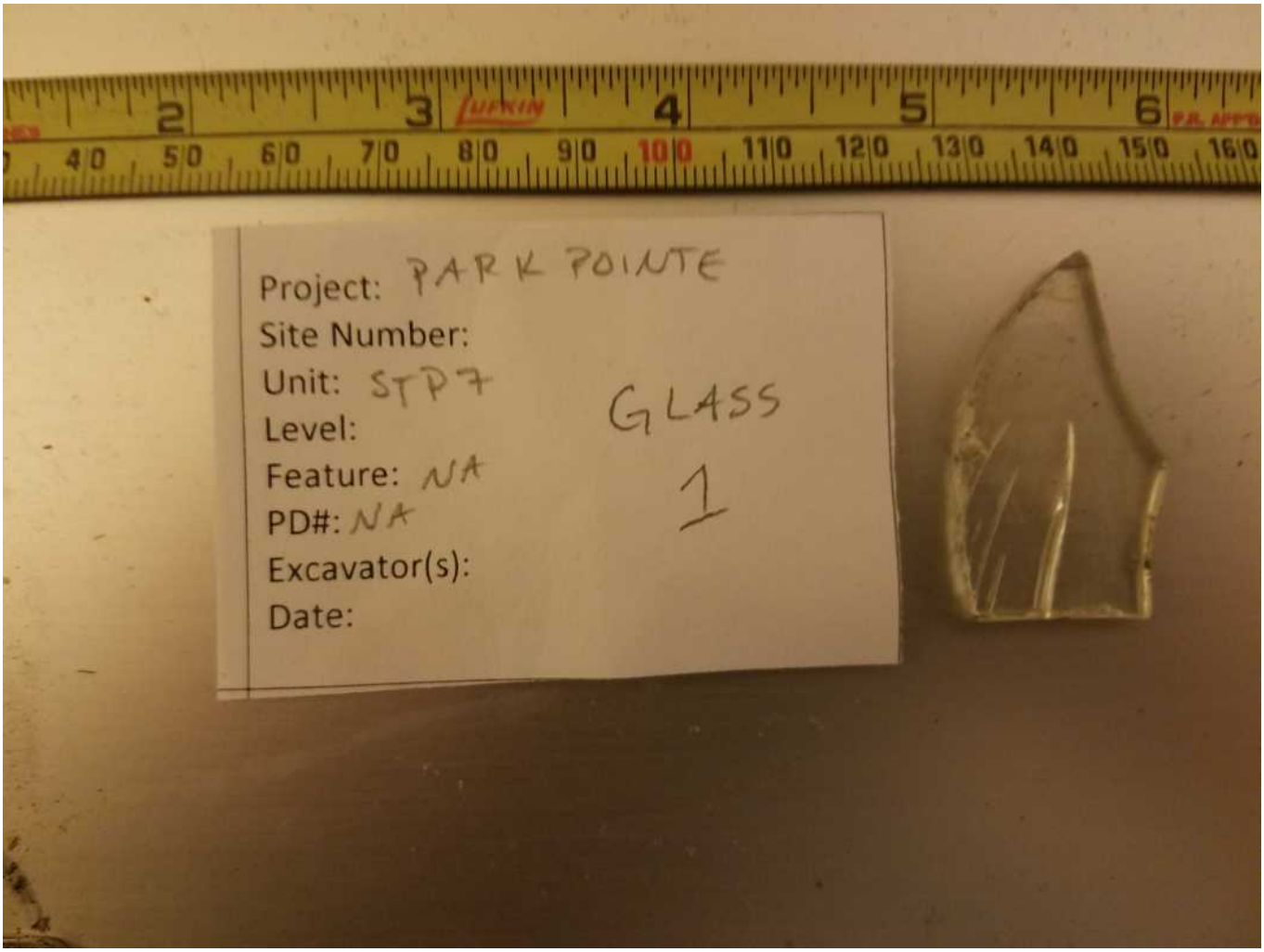


Photo ID	327374
Title	window pane shard
Year Taken	2017
Is Circa?	☐
Notes	stp 1
Type	image/jpeg
Photo View	
Source	
Copyright	☐

DSD - 001221

Photo ID	327373
Title	glass shards
Year Taken	2017
Is Circa?	☐
Notes	stp 2
Type	image/jpeg
Photo View	
Source	
Copyright	☐

DSD - 001222

ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45KI01325

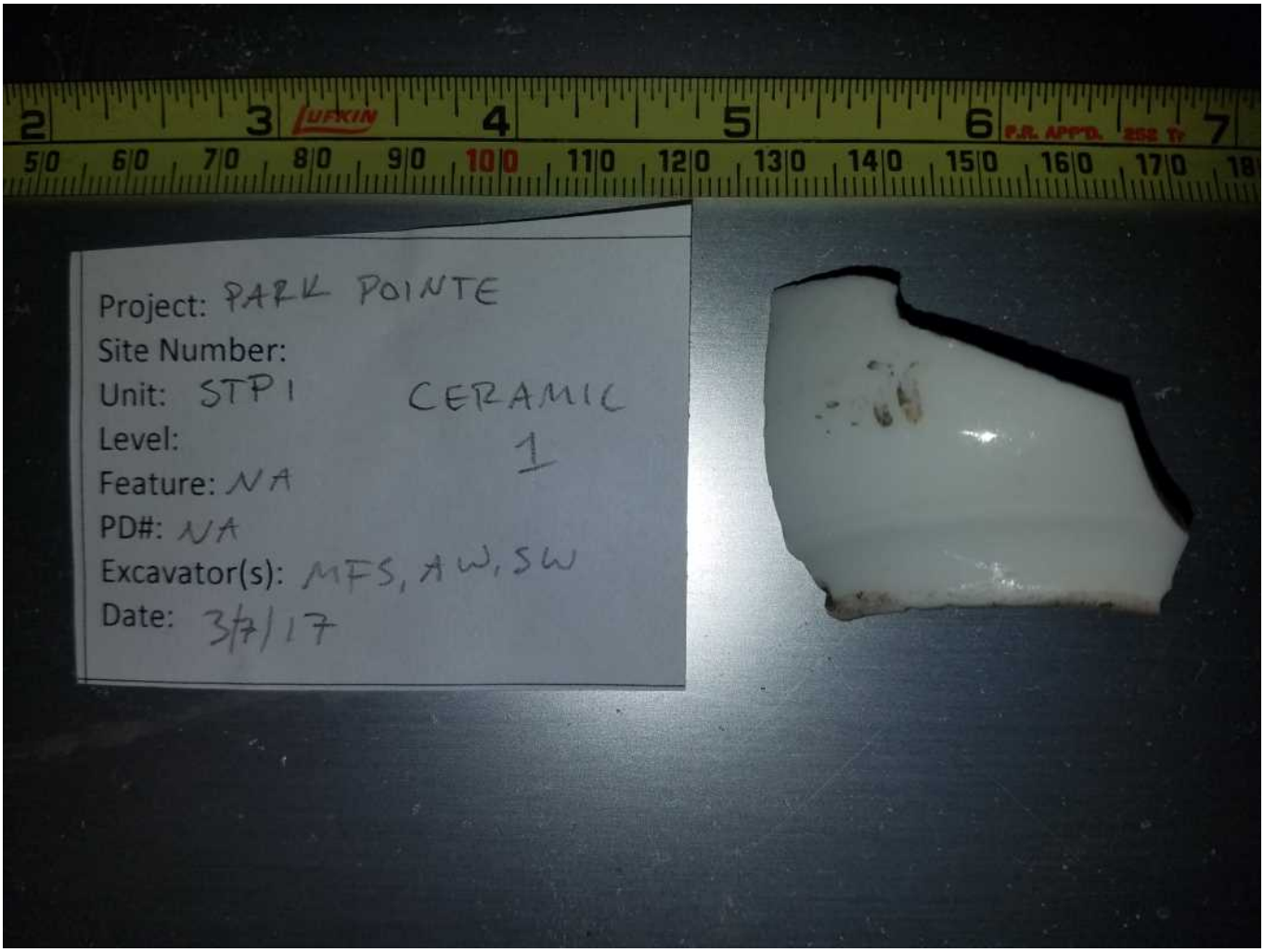


Photo ID	327372
Title	porcelain tea cup
Year Taken	2017
Is Circa?	☐
Notes	stp 1
Type	image/jpeg
Photo View	
Source	
Copyright	☐

DSD - 001223

APPENDIX C. HISTORIC LABORATORY ANALYSIS

DSD - 001224

Historic Artifact Laboratory Analysis Manual

DSD - 001225

BOLTS, NUTS, SCREWS, WASHERS

Description (See Next Page):

- Bolt
- Carriage Bolt
- Cotter Bolt
- Eye Bolt
- Lag Bolt
- "U" Bolt
- Nut
- Hexagonal Nut
- Square Nut
- Wing Nut
- Screw
- Phillips Screw
- Machine Screw
- Eye Screw
- Screw Hook
- Wood Screw
- Washer
- Flat Washer
- Lock Washer
- Spring Washer

Material:

- Brass
- Copper
- Ferrous Metal
- Iron
- Steel

Size: Length of bolts, screws (in inches); Inside diameter of nuts, washers (in inches)

Condition:

- Complete (C)
- Fragment (F)
- Reconstructable (R)

Count: Number of items

Carriage Bolt | Cotter Bolt | Eye Bolt | Lag Bolt | "U" Bolt

Hexagonal Nut | Square Nut | Wing Nut

Philips Screw | Eye Screw | Screw Hook | Wood Screw

Flat Washer | Lock Washer | Spring Washer

Comments: Any surface modifications or other information not captured in other fields.

DSD - 001227

BRICK

Type:

Standard Brick (*red /orange in color*)
Face Brick (*has polished/glazed side*)
Fire Brick (*yellow in color*)

Shape: ONLY FOR COMPLETE OR 2/3 COMPLETE BRICKS. Use categories below:

Manufacturing Technique: ONLY FOR COMPLETE OR 2/3 COMPLETE BRICKS (See handout in folder)

Soft-Mud Handmade, Sand-struck (SMH, SS)
Soft-Mud Handmade, Water-struck (SMH, WS)
Stiff-Mud, Side Cut
Stiff-Mud, End Cut
Machine Made, Blade-Trimmed (MM, BT)

Condition:

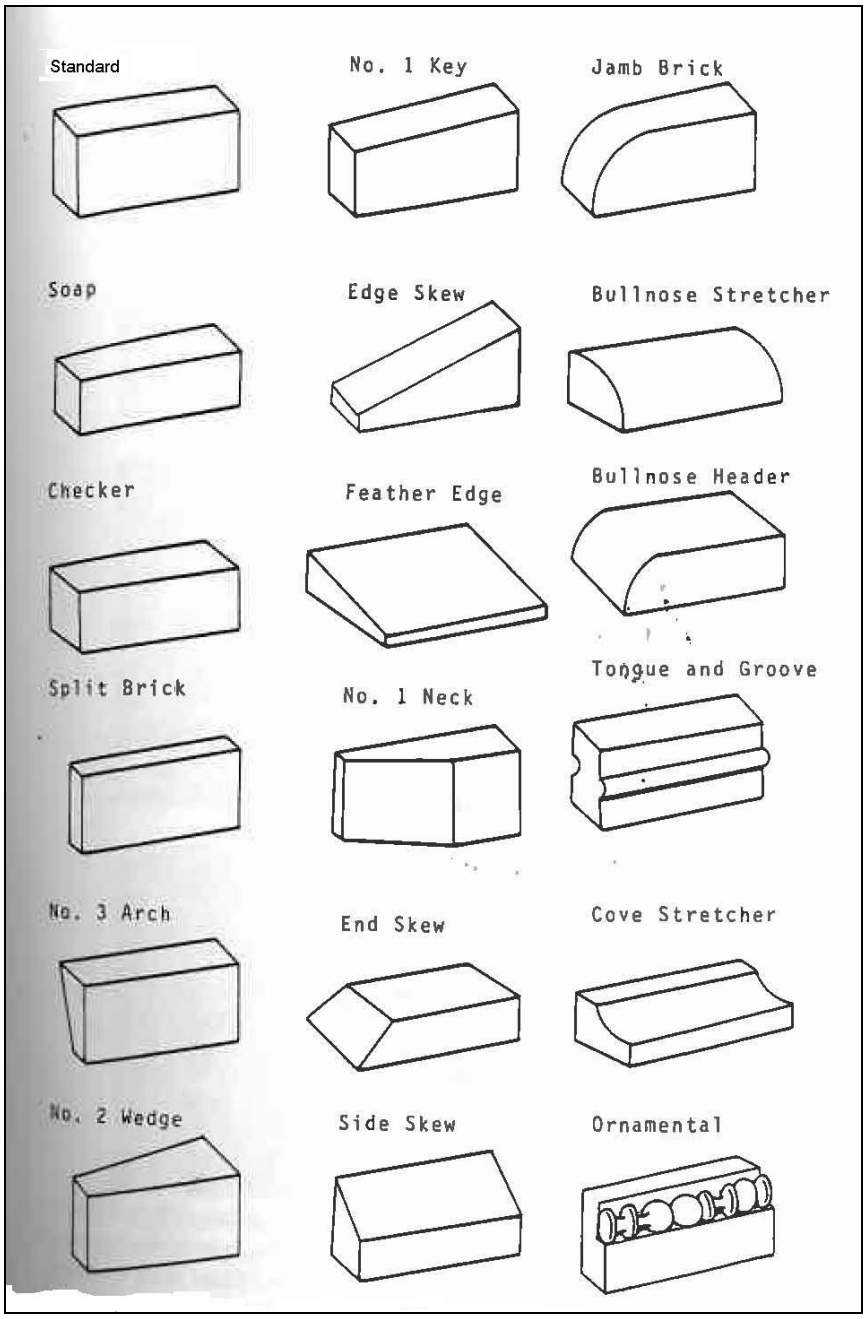
Complete (C)
Fragment (F)
Reconstructable (R)

Count: Number of items/fragments

Dimensions (in): ONLY FOR COMPLETE OR 2/3 COMPLETE BRICKS, record length, width, and height in inches. If fragment write NA.

Trademark/Comments: Write 2/3 if brick is 2/3 or more complete. Record any trademarks imprinted in brick. If any material is attached to brick record here.

DSD - 001228



Brick Shape (*From* Gurcke 1987)

DSD - 001229

BUCKLES AND BUTTONS

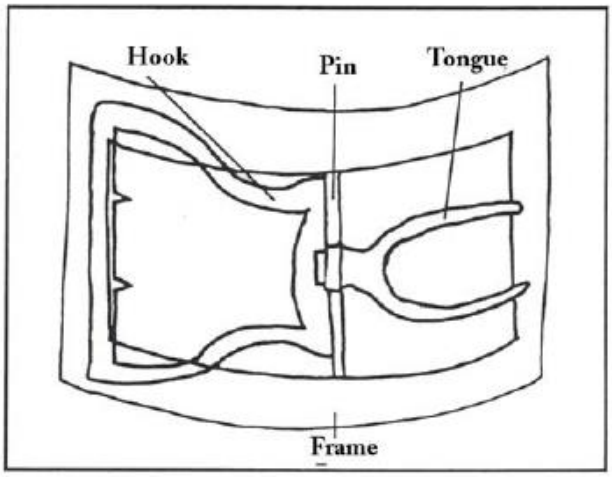
Type:
- Buckle
- Button

Material:
- Bone
- Glass, (plus color)
- Iron/Ferrous
- Plastic, (plus color)
- Rubber
- Shell
- Stone
- White Metal
- Yellow Metal

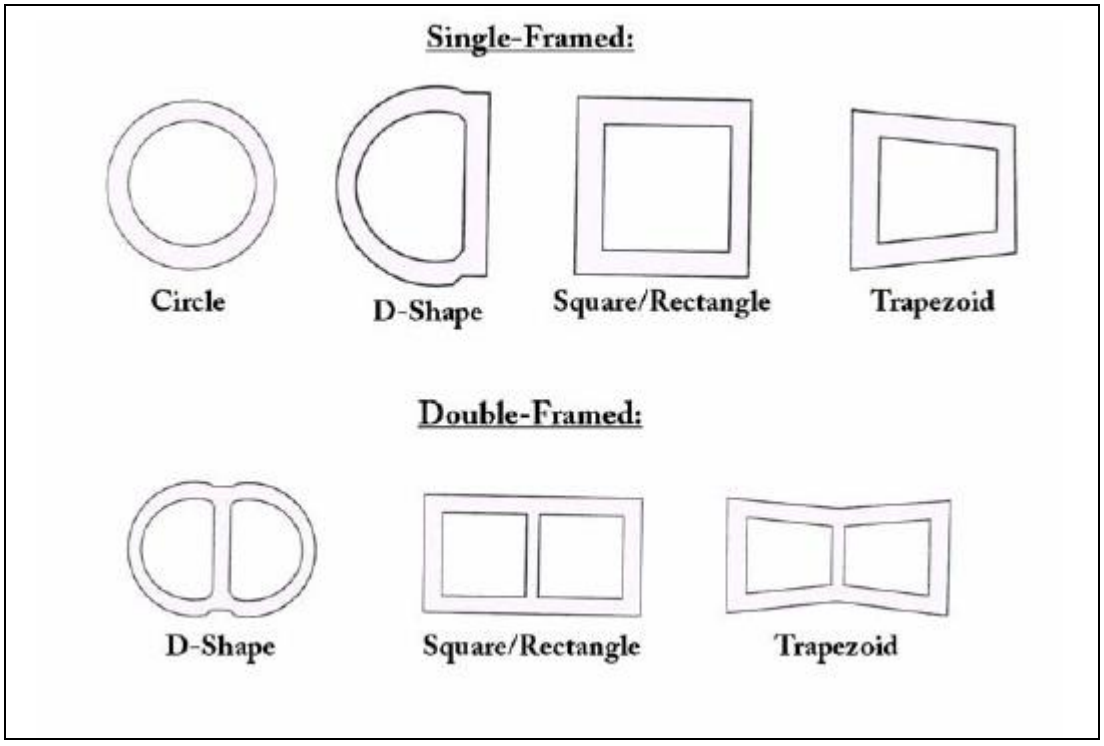
Style:
- Button
  - 2 Hole
  - 3 Hole
  - 4 Hole
  - Ball
  - Military
  - Molded
  - Tombac
- Buckle
  - Single Framed (Circle, D-Shape, Square/Rectangle, Trapezoid)
  - Double-Framed (D-Shape, Square/Rectangle/ Trapezoid)

Condition:
- Complete (C)
- Fragment (F)
- Reconstructable (R)

Count: Number of items/fragments



Buckle Parts



Buckle Types

Comments: Other information not captured in other fields.

CANS

Type:

Unidentifiable

Unidentifiable Food
Cone Top Beverage Can
Pull Tab Beverage Can
Pop Top Beverage Can
Tin Box
Spice (Sprinkler Plate)
Baking Powder
Snuff/Tobacco Tin
Canned Meat
Fish/Sardines
Evaporated/Condensed Milk
Coffee
Mable Syrup (Log Cabin)

Unidentifiable Industrial Use Can
Paint Can
Shoe Polish Tin
Aerosol Can
Oil Can

Material:

Tin
Aluminum

Manufacturer Method (See Below)**:**

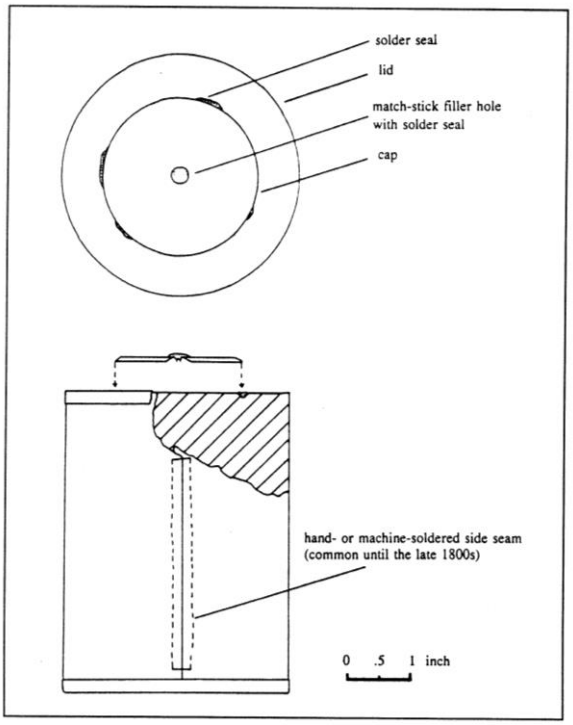
Hole in Cap
Soldered
Sanitary
Vent Hole

Condition:

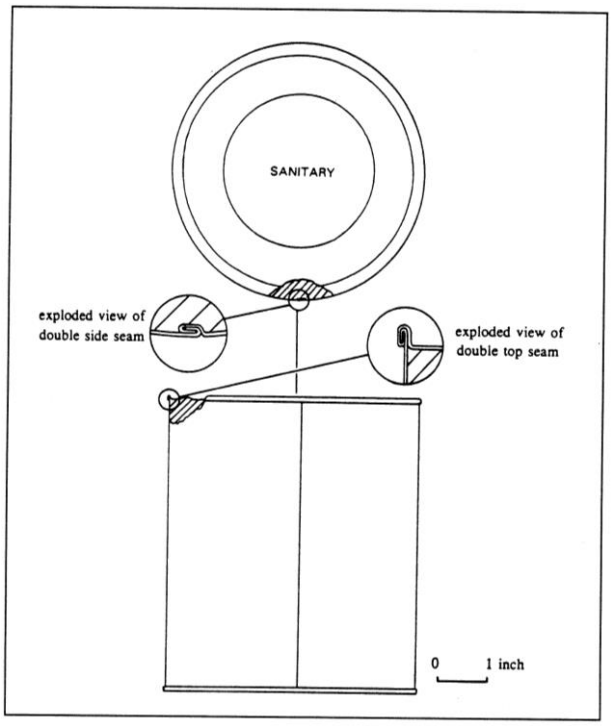
Complete (C)
Fragment (F)
Reconstructable (R)

Count: Number of items/fragments
MNI: Minimum Number of Items (when applicable)

DSD - 001232



Hole in Cap (*from* IMACS**)**



Sanitary (*from* IMACS)

Dimensions: Diameter and Height in inches of complete cans/portions

Comments: Other information not captured in other fields, such as specific labeling or numbering, keys.

DSD - 001233

CERAMICS

Ceramic Paste Type:

Terra Cotta
Earthenware
Yelloware
Redware
Refined Earthenware
Stoneware
Porcelain
(OR etc. ceramic paste type as needed)

Part:

Body
Base
Heel
Rim
Handle
Lid
(OR etc. more specific part as needed).

Form:

Insulator (Specific Type if Possible)
Flatwear
Hollowwear
Mug
Cup
Bowl
Plate
(OR etc. more specific type as possible).

Decoration:

Undecorated
Glazed (and color/type)
Handpainted (and description of design)
Sponge
Transferprint (and description of pattern)
Decal (and description of pattern)
Molded Relief (and description of design)
Sponge (and description of design)

Condition:

Complete (C)
Fragment (F)
Reconstructable (R)

Rim Diameter: If enough rim is present use rim template to determine diameter.

Count: Number of items/fragments
MNI: Minimum Number of Items (when applicable)

Comments: Other information not captured in other fields, such as maker marks.

DSD - 001235

COAL, COKE, CLINKER/SLAG

Description:

Coal
Coke
Clinker/Slag

Count: Number of fragments

Weight: Weight in grams for all fragments of same description

Comments: Other information not captured in other fields.

FABRIC AND FIBERS

Type:

- Scrap (Unknown Use/Function)
- Clothing
- Other Function (If identifiable)

Material:

- Flax
- Cotton
- Wool
- Silk
- Rayon
- Nylon
- Acrylic
- Polyester
- Spandex
- Microfiber
- Unknown man-made Fiber

Condition:

- Complete
- Fragment
- Reconstructable

Count: Number of fragments or items

Size: Use size target (cm)

Comments: Other information not captured in other fields, such as manufacturer method or type of garment.

DSD - 001237

FLAT GLASS

Type:

Window Glass
Mirror Glass

Window vs. Mirror: Mirror glass can be distinguished from window glass by a silver film on one side of the glass.

Color:

Colorless
Aqua

Condition:

Complete (C)
Fragment (F)
Reconstructable (R)

Count: Number of fragments

Thickness: Thickness using calipers in inches.

Comments: Other information not captured in other fields.

DSD - 001238

LEATHER

Description:
Scrap (Indefinite Function/Use)
Glove
Boot
Shoe

Condition:
Complete (C)
Fragment (F)
Reconstructable (R)

Count: Number of fragments
MNI: Minimum Number of Items (when applicable)

Material:
Leather

Length of Shoe (in): Length of shoe/boot (when applicable)

Comments: Additional information about item (eg. Women's vs. Men's shoe; laces or buckles, etc).

DSD - 001239

METAL FRAGMENTS *(Amorphous Metal)*

Description:

Amorphous = Rusted/corroded so that is not indefinable.
Fragment =Part of an object, but not indefinable to function.

Material:

Aluminum
Brass
Bronze
Copper
Cupreous
Ferrous
Iron
Lead
Tin
White Metal
Unknown Metal

Count: Number of fragments.

Comments: Other information not captured in other fields.

DSD - 001240

METAL OBJECTS

Description:
Name of item or description of function.

Material:
Aluminum
Brass
Bronze
Copper
Cupreous
Ferrous
Iron
Lead
Tin
White Metal
Unknown Metal

Condition:
Complete (C)
Fragment (F)
Reconstructable (R)

Count: Number of items
MNI: Minimum Number of Items (when applicable)

Dimensions: Dimensions in cm (indicate what taken)

Comments: Additional information about item (eg. Trademarks, etc).

DSD - 001241

MISC. ARCHITECTURAL RELATED
(Includes: Linoleum, Paint, Plaster, Mortar, Tar Paper, Slate Roofing)

Description:

Linoleum
Paint
Water/Sewer Piping
Plaster
Mortar
Tar Paper
Slate Roofing

Material:

Linoleum = Composite, [Color]
Paint= Paint, [Color]
Piping = Ceramic
Plaster= Plaster
Mortar= Lime Mortar or Concrete Mortar
Tar Paper= Composite
Slate Roofing= Slate

Condition:

Complete (C)
Fragment (F)
Reconstructable (R)

Count: Number of intact items
MNI: Minimum Number of Items (when applicable)

Comments: Additional information about item (eg. Pattern).

DSD - 001242

MISC. SMALL FINDS
(Includes items not included under other categories, for example: chalk, cigarette butt, composite artifacts, foil, paper, pencil/pens, plastics, etc.)

Description:
Name of item

Material: Be specific as possible, (ei. Type of plastic if known).

Condition:
Complete (C)
Fragment (F)
Reconstructable (R)

Count: Number of items
MNI: Minimum Number of Items (when applicable)

Weight: Weight of whole items or fragments in grams.

Comments: Additional information about item (eg.Trademarks, Color). If has dimensions that may provide useful diagnostic information, provide them here.

DSD - 001243

MUNITIONS

Description:

- Blank
- Bullet
- Cartridge
- Minie Ball
- Musket Ball
- Primer Cap
- Rifle Cartridge
- Shell Casing
- Shot
- Shotgun Shell

Condition:

- Complete (C)
- Fragment (F)
- Reconstructable (R)

Material:

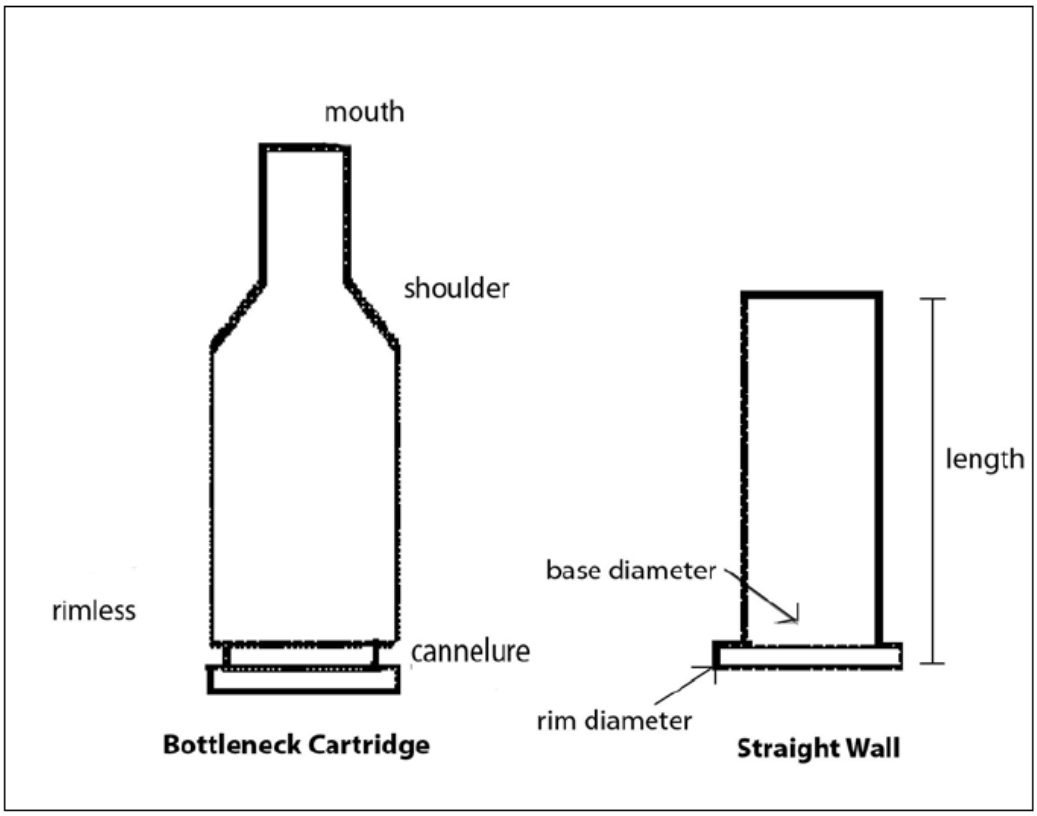
- Brass
- Copper
- Cupreous Metal
- Iron
- Ferrous Metal
- Lead

Size (in): For musket balls, bullets, or shot give diameter. For cartridges give length, rim diameter, and base diameter. Both measurements are taken in inches.

Caliber: Provide this for cartridges.

Whole Count: Number of items
MNI: Minimum Number of Items (when applicable)

DSD - 001244



Cartridge Parts

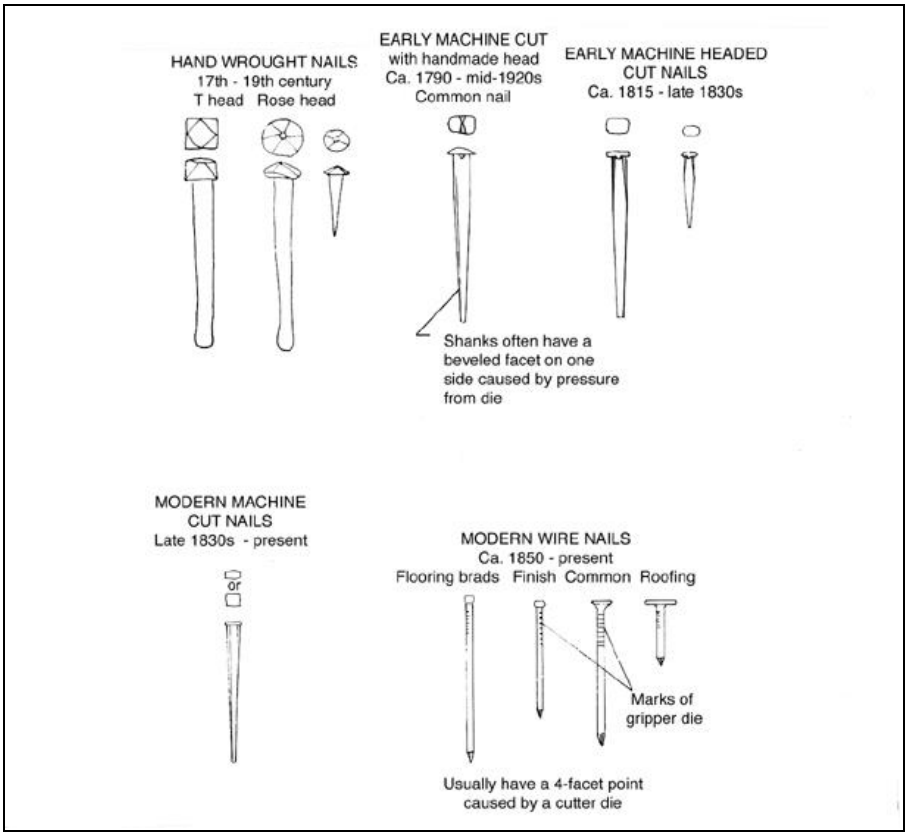
Trademark/Comments: Provide any headstamp information, other maker marks, rifling marks, or serial numbers, etc

DSD - 001245

NAILS

Description:

Tack
Machine Cut Nail
Machine Cut Spike
Cut Tack
Finishing Nail
Railroad Spike
Roofing Tack
Spike
Wire Nail
Wrought Nail
Horseshoe Nail



Nail Types (*from* IMACS)
(Also see binder with historic artifacts for more types)

Condition:

Complete (C)
Fragment (F)
Reconstructable (R)

DSD - 001246

Size (in or d): Record the penny size (see below and handout) for complete wire nails and leave this field blank for fragmentary nails. For all other nail types, record the length in inches.

American Penny Nail Sizes

Penny Size	Inches	Penny Size	Inches
2d	1”	10d	3”
3d	1 ¼”	12d	3 ¼”
4d	1 ½”	16d	3 ½”
5d	1 ¾”	20d	4”
6d	2”	30d	4 ½”
7d	2 ¼”	40d	5”
8d	2 ½”	50d	5 ½”
9d	2 ¾”	60d	6”

Alteration:

Unaltered
Clinched (angle of 90 degrees or more)
Bent (angle less than 90 degrees)
Broken
Twisted
Annealed (not rusted)

Count: Number of items

Comments: Other information that is not captured in the fields above.

DSD - 001247

SEEDS AND BOTANICALS

Description:

Peanut Shell
Apricot
Peach/Nectarine
Plum
Apple
Pumpkin
Sunflower
Any other known type
Unidentifiable

Condition:

Complete (C)
Fragment (F)
Reconstructable (R)

Count: Number of items
MNI: Minimum Number of Items (when applicable)

Comments: Other information that is not captured in the fields above

DSD - 001248

VESSEL GLASS

Type:

Bottle (type if known)
Jar (type if known)
Glassware (type if known)
Chimney Lamp Glass
Lightbulb Glass
Vessel Glass (when vessel type cannot be determined).

Part:

Base
Body
Finish
Foot
Heel
Lip
Mamelon
Neck
Push Up
Pontil Mark
Rim
Shoulder
String Rim

Color:

Amber
Amethyst
Aqua
Cobalt
Colorless
Dark Olive
Green
Olive
Milk (Opaque White)

Manufacturer Method:

Blown
Blown into Mold
Free Blown
Machine Made
Turn Molded
Unknown

Embossing:

Any maker marks or labels

DSD - 001249

Condition:

Complete (C)
Fragment (F)
Reconstructable (R)

Vessel #:

Unique number assigned to each vessel (MNI).

Comments: Any additional information including finish type and finish method, or glass modifications.

DSD - 001250

WOOD OBJECTS

Description:

Object Type
Board
Unidentifiable

Condition:

Complete (C)
Fragment (F)
Reconstructable (R)

Count: Number of items
MNI: Minimum Number of Items (when applicable)

Comments: General dimensions in inches and species of tree if disceranable.

DSD - 001251

APPENDIX D. ARTIFACT ANALYSIS FOR PARK POINTE 45KI1325

DSD - 001252

Table D.1. Nuts, Bolts, Etc.

Catalog No.	Unit	Level	Bisection	Description	Material	Size	Condition	Count	Comments
2018–KI1325–117	1	2	NW/SW	carriage bolt w/flat washer and nut	steel	4.0 inches long/0.5 inches	C	1	Bolt is rusted and burned
2018–KI1325–118	1	2	NW/SW	Phillips screw	steel	1.0 inch	C	1	Screw is rusted and burned

Key: C = complete.

Table D.2. Brick

Catalog No.	Unit	Level	Bisection	Type	Shape	Manufacturing Technique	Condition	Count	Dimensions	Trademarks /Comments
2018–KI1325–244	STP 7	–	–	standard brick	standard	unknown	F	1	4.11 inches wide	Brick has some burning. Mold seam down middle of brick
2018–KI1325–197	2	1	–	standard brick	unknown	unknown	F	1	n/a	–
2018–KI1325–194	1	3	NW/SW	standard brick	unknown	unknown	F	2	n/a	Brick is burned
2018–KI1325–193	1	1	NW/SW	standard brick	unknown	unknown	F	3	n/a	–
2018–KI1325–192	1	4	NE/SE	standard brick	unknown	unknown	F	1	n/a	Brick is burned
2018–KI1325–115	1	1	NW/SW	standard brick	unknown	unknown	F	1	n/a	–

Key: F = fragmented.

DSD - 001253

Table D.3. Ceramics

Catalog No.	Unit	Level	Bisection	Ceramic Type	Part	Form	Decoration	Condition	Count	Weight (kg)	Rim/Base Diameter	Vessel #	Comments
2018–KI1325–107	1	1	NW	stoneware	base	plate	glazed/ivory	F	2	1.7	–	1	Maker's mark "K.T.&K."/CHINA" maker is Knowles, Taylor and Knowles 1890–c.1905. Lotus Ware.
2018–KI1325–108	1	1	NE/SE	porcelain	lid	hollowware	glazed/white	F	1	0.1	–	–	Hole in ceramic suggesting lid
2018–KI1325–109	1	1	NE/SE	redware	rim	plate	glazed/brown mottled	R	2	0.2	8 cm	–	
2018–KI1325–110	1	1	NE/SE	stoneware	unknown	unknown	glazed/cream	F	2	0	–	–	Small fragments
2018–KI1325–111	1	1	NE/SE	refined earthenware	rim	cup	glazed/cream	F	1	0	16 cm	–	–
2018–KI1325–112	1	1	wall clean	terra cotta	unknown	unknown	undecorated	F	1	0	–	–	–
2018–KI1325–130	1	2	NW/SW	refined earthenware	body	plate	glazed/cream	F	1	0.5	–	–	16-cm inner rim
2018–KI1325–131	1	2	NW/SW	stoneware	body	unknown	transfer print/green leaf	F	1	0.1	–	–	–
2018–KI1325–132	1	2	NW/SW	porcelain	rim	cup	transfer print/grey line	F	1	0	8 cm	–	–
2018–KI1325–190	1	2	NE/SE	stoneware	base	plate	glazed/ivory	F	1	1.1	–	1	Could be a portion of 107
2018–KI1325–191	1	2	NE/SE	earthenware	unknown	unknown	glazed/ivory	F	1	0.1	–	–	–
2018–KI1325–240	STP 2	–	–	porcelain	base/body	cup	handpainted with gold luster paint	F	1	0.3	–	–	–
2018–KI1325–179	STP 21	0–20	–	stoneware	rim	plate	transfer print/ brown-red line with vine in "S" formation wrapping around	F	3	4	24 cm	–	2 small frags with piece
2018–KI1325–210	STP 23	0–20	–	terra cotta	unknown	unknown	undecorated	–	1	0	–	–	–
2018–KI1325–209	STP 27	0–20	–	unknown	unknown	unknown	undecorated	F	18	0.2	–	–	Fragments of various types of burned ceramic
2018–KI1325–220	STP 27	20–40	–	earthenware	rim	cup	glazed/ivory	–	1	0.1	8 cm	–	–
2018–KI1325–241	STP 6	–	–	earthenware	unknown	unknown	glazed/ivory	–	2	0.1	–	–	–

Key: F = fragmented; R = reconstructible.

Table D.4. Coal, Coke, Clinker, Slag

Catalog No.	Unit	Level	Bisection	Type	Count	Weight	Comments
2018–KI1325–195	1	3	NE/SE	slag	4	0.1 g	–
2018–KI1325–199	2	5	NW/SW	coal	4	1 g	–
2018–KI1325–200	2	4	NE/SE	coal	5	5.0 lbs.	Feature 3 raw coal from bunker
2018–KI1325–221	STP 27	0–20	–	coal	1	0.1 g	–

Table D.5. Fabrics and Fibers

Catalog No.	Unit	Level	Bisection	Type	Material	Condition	Count	Comments
2018–KI1325–116	1	1	NW/SW	scrap	unknown/composite	F	1	
2018–KI1325–201	STP 21	0–20	–	scrap	unknown	F	10	0.6 oz weight
2018–KI1325–202	STP 21	20–40	–	scrap	unknown	F	6	0.2 oz weight

Key: F = fragmented.

DSD - 001254

Table D.6. Fauna

Catalog No.	Unit	Level	Bisection	Order	Species	Common Name	Element	Side	Complete?	Count	MNI	Comments
2018–KI1325–233	STP 2	–	–	–	–	cow	–	–	–	–	–	Butcher marks on the facet

Table D.7. Flat Glass

Catalog No.	Unit	Level	Bisection	Type	Color	Count	Thickness (inches)
2018–KI1325–97	1	1	NE/SE	window glass	clear	8	0.7
2018–KI1325–98	1	1	NE/SE	window glass	aqua	30	0.7
2018–KI1325–99	1	1	NE/SE	window glass	aqua	1	0.11
2018–KI1325–102	1	1	NW/SW	window glass	clear	3	0.7
2018–KI1325–103	1	1	NW/SW	window glass	aqua	29	0.7
2018–KI1325–119	1	2	NW/SW	window glass	aqua	1	0.5
2018–KI1325–120	1	2	NW/SW	window glass	aqua	31	0.7
2018–KI1325–121	1	2	NW/SW	window glass	clear	10	0.7
2018–KI1325–125	1	2	NE/SE	window glass	aqua	25	0.7
2018–KI1325–126	1	2	NE/SE	window glass	clear	2	0.7
2018–KI1325–140	1	3	NW/SW	window glass	clear	1	0.7
2018–KI1325–141	1	3	NW/SW	window glass	aqua	4	0.7
2018–KI1325–156	1	4	NE/SE	window glass	aqua	1	0.8
2018–KI1325–157	1	4	NE/SE	window glass	clear	3	0.7
2018–KI1325–158	1	4	wall clean	window glass	aqua	2	0.7
2018–KI1325–170	STP 21	0–20	–	window glass	clear	1	0.12
2018–KI1325–171	STP 21	0–20	–	window glass	clear	1	0.1
2018–KI1325–172	STP 21	0–20	–	window glass	aqua	1	0.12
2018–KI1325–173	STP 21	0–20	–	window glass	aqua	7	0.1
2018–KI1325–174	STP 21	0–20	–	window glass	aqua	6	0.7

DSD - 001255

Catalog No.	Unit	Level	Bisection	Type	Color	Count	Thickness (inches)
2018–KI1325–177	STP 21	20–40	–	window glass	aqua	1	0.12
2018–KI1325–178	STP 21	20–40	–	window glass	aqua	1	0.7
2018–KI1325–185	STP 22	0–20	–	window glass	aqua	1	0.7
2018–KI1325–239	STP 2	0–35	–	window glass	aqua	1	0.7
2018–KI1325–243	STP 7	–	–	window glass	clear	1	0.9

Table D.8. Metal Fragments

Catalog No.	Unit	Level	Bisection	Description	Material	Count	Weight (kg)	Comments	Culled (Y/N)
2018–KI1325–27	1	1	NE/SE	amorphous	unknown metal	3	0.2	Burned and rusted metal fragments	–
2018–KI1325–113	1	1	NW/SW	amorphous	unknown metal	4	0.8	–	Y
2018–KI1325–198	2	4	NW/SW	amorphous	unknown metal	5	0.5	–	–
2018–KI1325–208	STP 27	0–20	–	amorphous	unknown metal	7	0.3	–	–

DSD - 001256

Table D.9. Metal Objects

Catalog No.	Unit	Level	Bisection	Description	Material	Condition	Count	MNI	Weight	Dimensions	Comments	Culled (Y/N)
2018–KI1325–162	2	3	NW/SW	bailing wire	ferrous	C	2		1.6 kg	7.0 inches long, 3.0 inches wide	Wires are wrapped together	–
2018–KI1325–187	STP 23	20–40	–	miniature lead diecast toy horse	lead	C	1		0.1 kg	0.91 inches tall, 1.13 inches long, 0.27 inches thick	Mini horse is in good condition. Possible 1930s earlier.	–
2018–KI1325–204	STP 23	70–80	–	wire mesh with concrete and wood	ferrous	F	6		5 lbs.	–	Feature 2 wire mesh imbedded in concrete and wood	–
2018–KI1325–205	STP 23	70–80	–	wire mesh with concrete and wood	ferrous	F	17		3 lbs.	–	Feature 2 wire mesh imbedded in concrete and wood	–

Table D.10. Miscellaneous Architecture

Catalog No.	Unit	Level	Bisection	Description	Material	Condition	Count	Culled (Y/N)
2018–KI1325–160	2	3	–	linoleum	composite/white	F	1	Y

Table D.11. Miscellaneous Small Finds

Catalog No.	Unit	Level	Bisection	Description	Material	Condition	Count	Weight (kg)	MNI	Comments
2018–KI1325–114	1	1	NW/SW	nut with wires	metal	C	1	0.2	–	Item is a small hex nut with 2 wires going through; item is very rusted
2018–KI1325–159	2	2	NW/SW	glass marble	Glass	C	1	0.2	–	Glass cat's eye marble introduced 1951 (Randall and Webb 1988:45)
2018–KI1325–161	2	3	–	rubber strip	rubber	F	1	0	–	Black strip of rubber, 0.29 inches wide, 9 inches long

Table D.12. Nails

Catalog No.	Unit	Level	Bisection	Description	Condition	Size	Alteration	Count	Weight (kg)	Comments
2018–KI1325–1	1	1	NE/SE	wire nail	C	4.5 inches	clinched	1	0.3	Nail is rusted burned. Modern common nail
2018–KI1325–2	1	1	NE/SE	wire nail	C	3.5 inches	bent	1	0.3	Burned and rusted. Common modern wire nail.
2018–KI1325–3	1	1	NE/SE	wire nail	F	3.5 inches	bent	1	0.2	Rusted and burned. Tip is broken off. Common modern wire nail.
2018–KI1325–4	1	1	NE/SE	wire nail	C	3.5 inches	unaltered	2	0.7	Rusted and burned. Modern wire nail.
2018–KI1325–5	1	1	NE/SE	wire nail	F	3.0 inches	unaltered	1	0.2	Rusted and burned. Modern wire nail.
2018–KI1325–6	1	1	NE/SE	wire nail	C	2.5 inches	annealed	1	0.1	Common modern wire nail
2018–KI1325–7	1	1	NE/SE	wire nail	C	2.5 inches	unaltered	2	0.3	Rusted and burned. Common modern wire nail

DSD - 001257

Catalog No.	Unit	Level	Bisection	Description	Condition	Size	Alteration	Count	Weight (kg)	Comments
2018–KI1325–8	1	1	NE/SE	wire nail	C	2.5 inches	twisted	1	0.2	Burned and rusted. Common modern wire nail.
2018–KI1325–9	1	1	NE/SE	wire nail	C	2.5 inches	bent	2	0.3	Rusted and burned. Common modern wire nail
2018–KI1325–10	1	1	NE/SE	wire nail	C	2.5 inches	bent	1	0.1	Common modern wire nail
2018–KI1325–11	1	1	NE/SE	wire nail	R	2.5 inches	bent	1	0.1	Rusted and burned. Common modern wire nail. Head of nail is missing.
2018–KI1325–12	1	1	NE/SE	wire nail	C	2.0 inches	unaltered	3	0.2	Rusted and burned. Common modern wire nail.
2018–KI1325–13	1	1	NE/SE	wire nail	C	2.0 inches	bent	2	0.1	Rusted and burned. Common modern wire nail
2018–KI1325–14	1	1	NE/SE	finishing nail	C	2.0 inches	unaltered	1	0.1	Rusted and burned. Finish modern wire nail
2018–KI1325–15	1	1	NE/SE	wire nail	C	2.25 inches	unaltered	2	0.2	Rusted and burned. Common modern wire nail
2018–KI1325–16	1	1	NE/SE	wire nail	C	2.25 inches	bent	1	0.2	Common modern wire nail
2018–KI1325–17	1	1	NE/SE	wire nail	C	2.25 inches	bent	1	0.1	Rusted Common modern wire nail
2018–KI1325–18	1	1	NE/SE	machine cut nail	C	2.25 inches	bent	1	0.1	Rusted Modern machine cut nail, rectangle head
2018–KI1325–19	1	1	NE/SE	finishing nail	C	1.75 inches	unaltered	1	0.1	Rusted and burned Finish Modern wire nail
2018–KI1325–20	1	1	NE/SE	wire nail	C	1.5 inches	bent	1	0.1	Rusted and burned Common modern wire nail
2018–KI1325–21	1	1	NE/SE	wire nail	C	1.0 inches	unaltered	1	0.1	Lightly rusted Common modern wire nail
2018–KI1325–22	1	1	NE/SE	wire nail	C	1.0 inches	unaltered	3	0.1	Very rusted and burned. Common modern wire nail
2018–KI1325–23	1	1	NE/SE	wire nail	R	0.69	unaltered	1	0.1	Rusted and very tip is missing. Common modern wire nail
2018–KI1325–24	1	1	NE/SE	wrought nail	F	0	broken	1	0.1	Rusted and burned. Rose head hand wrought nail
2018–KI1325–25	1	1	NE/SE	machine cut nail	F	0	broken	3	0.3	Rusted and burned. Modern machine cut nails. 2 proximal ends of nail. 1 distal end of nail.
2018–KI1325–26	1	1	NE/SE	nail fragments	F	0	broken	11	0.5	Nail fragments are rusted and burned. Unable to identify types of nails.
2018–KI1325–28	1	1	SW quadrant	machine cut spike	C	6 inches	unaltered	1	3.6	Spike is rusted and burned
2018–KI1325–29	1	2	NE/SE	wire nail	C	0.75 inches	unaltered	1	0.1	Nail is rusted
2018–KI1325–30	1	2	NE/SE	wire nail	C	1.0 inches	unaltered	3	0.2	Nails are rusted and burned. Common Wire Nail
2018–KI1325–31	1	2	NE/SE	wire nail	C	1.25 inches	unaltered	2	0.2	Nails are rusted and burned. Common Wire Nail
2018–KI1325–32	1	2	NE/SE	wire nail	C	2.0 inches	unaltered	2	0.3	2 nails are rusted and burned. Common wire nails
2018–KI1325–33	1	2	NE/SE	wire nail	C	2.0 inches	annealed	1	0.1	Common modern wire nail

DSD - 001258

Catalog No.	Unit	Level	Bisection	Description	Condition	Size	Alteration	Count	Weight (kg)	Comments
2018–KI1325–34	1	2	NE/SE	wire nail	C	2.25 inches	bent	3	0.4	Nails are rusted and burned. Common Wire Nail
2018–KI1325–35	1	2	NE/SE	wire nail	R	2.25 inches	broken	1	0.1	Nail slightly rusted with the tip broken off. Common wire nail
2018–KI1325–36	1	2	NE/SE	wire nail	C	2.50 inches	unaltered	3	0.5	Nails are rusted and burned. Common Wire Nail
2018–KI1325–37	1	2	NE/SE	wire nail	R	2.50 inches	clinched	2	0.3	Nails are rusted and burned. Tips are broken off. Common Wire Nail
2018–KI1325–38	1	2	NE/SE	wire nail	C	2.50 inches	bent	1	0.1	Nail is slightly rusted. Common wire nail
2018–KI1325–39	1	2	NE/SE	wire nail	C	2.50 inches	twisted	1	0.1	Nail is slightly rusted. Common wire nail
2018–KI1325–40	1	2	NE/SE	wire nail	C	3.0 inches	bent	1	0.1	Nail is rusted. Common wire nail.
2018–KI1325–41	1	2	NE/SE	wire nail	R	3.0 inches	unaltered	1	0.1	Nail is rusted and burned. Head is missing. Common Wire nail
2018–KI1325–42	1	2	NE/SE	wire nail	C	3.25 inches	unaltered	1	0.1	Nail is rusted. Common wire nail.
2018–KI1325–43	1	2	NE/SE	wire nail	C	3.25 inches	bent	1	0.1	Nail is rusted. Common wire nail.
2018–KI1325–44	1	2	NE/SE	wire nail	C	3.50 inches	clinched	2	0.7	Nails are rusted and burned. Common Wire Nail
2018–KI1325–45	1	2	NE/SE	wire nail	C	3.50 inches	unaltered	2	0.5	Nails are rusted and burned. Common Wire Nail
2018–KI1325–46	1	2	NE/SE	wire nail	C	3.50 inches	bent	7	2.5	Nails are rusted and burned. Common Wire Nail
2018–KI1325–47	1	2	NE/SE	wire nail	C	4.0 inches	bent	3	1.5	Nails are rusted and burned. Common wire nail
2018–KI1325–48	1	2	NE/SE	wire nail	C	5.0 inches	bent	1	0.8	Nail is rusted and burned. Common wire nail.
2018–KI1325–49	1	2	NE/SE	wire nail	C	6.0 inches	unaltered	1	1.6	Nail is rusted and burned. Common wire nail.
2018–KI1325–50	1	2	NE/SE	machine cut nail	F	0	broken	1	0.1	Nail is rusted. Modern machine cut nail
2018–KI1325–51	1	2	NE/SE	machine cut spike	C	3.25 inches	unaltered	2	2	Spikes are rusted and burned. Appear to have rose heads.
2018–KI1325–52	1	2	NE/SE	unknown	F	0	broken	15	1.7	Unidentifiable nail fragments. All are rusted and boned.
2018–KI1325–53	1	1	NW/SW	wire nail	C	1.0 inches	unaltered	4	0.2	Nails are rusted and burned. Common Wire Nail
2018–KI1325–54	1	1	NW/SW	finishing nail	C	1.0 inches	bent	1	0	Nail is rusted and burned. Finish wire nail
2018–KI1325–55	1	1	NW/SW	wire nail	C	1.5 inches	bent	1	0	Nail is rusted and burned. Common wire nail.
2018–KI1325–56	1	1	NW/SW	wire nail	C	2.0 inches	bent	2	0.1	Nails are rusted and burned. Common Wire Nail
2018–KI1325–57	1	1	NW/SW	finishing nail	C	2.0 inches	bent	2	0.1	Nails are rusted and burned. Finish wire nail.
2018–KI1325–58	1	1	NW/SW	wire nail	C	2.25 inches	twisted	1	0.1	Nail is rusted and burned. Common wire nail.

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Catalog No.	Unit	Level	Bisection	Description	Condition	Size	Alteration	Count	Weight (kg)	Comments
2018–KI1325–59	1	1	NW/SW	wire nail	C	2.50 inches	unaltered	3	0.5	Nails are rusted and burned. Common wire nail.
2018–KI1325–60	1	1	NW/SW	wire nail	C	2.50 inches	bent	2	0.4	Nails are rusted and burned. Common wire nail.
2018–KI1325–61	1	1	NW/SW	wire nail	C	2.50 inches	twisted	1	0.1	Nails are rusted and burned. Common wire nail.
2018–KI1325–62	1	1	NW/SW	wire nail	C	3.0 inches	bent	1	0.2	Nails are rusted and burned. Common wire nail.
2018–KI1325–63	1	1	NW/SW	wire nail	C	3.5 inches	bent	9	2.7	Nails are rusted and burned. Common wire nail.
2018–KI1325–64	1	1	NW/SW	wire nail	C	3.5 inches	unaltered	1	0.3	Nails are rusted and burned. Common wire nail.
2018–KI1325–65	1	1	NW/SW	wire nail	R	3.5 inches	clinched	1	0.3	Nails are rusted and burned. Common wire nail.
2018–KI1325–66	1	1	NW/SW	wire nail	C	3.5 inches	twisted	1	0.3	Nails are rusted and burned. Common wire nail.
2018–KI1325–67	1	1	NW/SW	wire nail	C	4.0 inches	bent	1	0.5	Nails are rusted and burned. Common wire nail.
2018–KI1325–68	1	1	NW/SW	wire nail	C	5.0 inches	bent	1	0.9	Nails are rusted and burned. Common wire nail.
2018–KI1325–69	1	1	NW/SW	machine cut nail	F	0	broken	1	0.1	Nail has some rust. Modern machine cut nail
2018–KI1325–70	1	1	NW/SW	wire nail	C	2.0 inches	unaltered	1	0.1	Nail is rusted and burned. Common wire nail.
2018–KI1325–71	1	1	NW/SW	unknown	F	0	broken	20	1.9	Unidentifiable nail fragments. All are rusted and burned.
2018–KI1325–72	1	2	NW/SW	wire nail	C	1.0 inches	unaltered	1	0.1	Nail is rusted and burned. Common wire nail.
2018–KI1325–73	1	2	NW/SW	wire nail	C	1.25 inches	unaltered	2	0.1	Nail is rusted and burned. Common wire nail.
2018–KI1325–74	1	2	NW/SW	wire nail	C	1.25 inches	unaltered	1	0.1	Nail is rusted and burned. Common wire nail.
2018–KI1325–75	1	2	NW/SW	wire nail	C	2.0 inches	unaltered	3	0.2	Nail is rusted and burned. Common wire nail.
2018–KI1325–76	1	2	NW/SW	wire nail	C	2.0 inches	bent	2	0.2	Nail is rusted and burned. Common wire nail.
2018–KI1325–77	1	2	NW/SW	finishing nail	C	2.0 inches	bent	2	0.2	Nail is rusted and burned. Modern wire finish nail
2018–KI1325–78	1	2	NW/SW	wire nail	C	2.5 inches	bent	5	0.9	Nails are rusted and burned. Common wire nail
2018–KI1325–79	1	2	NW/SW	wire nail	C	2.5 inches	twisted	1	0.2	Nails are rusted and burned. Common wire nail
2018–KI1325–80	1	2	NW/SW	wire nail	C	3.0 inches	bent	2	0.3	Nails are rusted and burned. Common wire nail
2018–KI1325–81	1	2	NW/SW	wire nail	C	3.25 inches	bent	1	0.3	Nails are rusted and burned. Common wire nail
2018–KI1325–82	1	2	NW/SW	wire nail	C	3.25 inches	clinched	1	0.3	Nails are rusted and burned. Common wire nail

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Catalog No.	Unit	Level	Bisection	Description	Condition	Size	Alteration	Count	Weight (kg)	Comments
2018–KI1325–83	1	2	NW/SW	wire nail	C	3.5 inches	clinched	2	0.7	Nails are rusted. Common wire nail
2018–KI1325–84	1	2	NW/SW	wire nail	C	3.5 inches	bent	4	1.1	Nails are rusted. Common wire nail
2018–KI1325–85	1	2	NW/SW	wire nail	C	3.5 inches	annealed, bent	1	0.5	Common modern wire nail
2018–KI1325–86	1	2	NW/SW	wire nail	C	3.5 inches	unaltered	2	0.9	Nails are rusted and burned. Common wire nail
2018–KI1325–87	1	2	NW/SW	wire nail	C	4.0 inches	bent	2	0.7	Nails are rusted and burned. Common wire nail
2018–KI1325–88	1	2	NW/SW	wire nail	C	5.0 inches	bent	1	0.7	Nails are rusted and burned. Common wire nail
2018–KI1325–89	1	2	NW/SW	wire nail	C	6.0 inches	bent	1	1.4	Nails are rusted and burned. Common wire nail
2018–KI1325–90	1	2	NW/SW	wire nail	F	0	broken	10	1.1	Nails are rusted and burned. Size of nail is unidentifiable common wire nail
2018–KI1325–91	1	2	NW/SW	unknown	F	0	broken	10	0.6	Unidentifiable nail fragments. All are rusted and burned.
2018–KI1325–92	1	1	wall clean	wire nail	C	3.0 inches	unaltered	1	0.4	Nail is rusted and burned. Common wire nail.
2018–KI1325–93	1	1	wall clean	wire nail	C	2.0 inches	bent	1	0.1	Nail is rusted and burned. Common wire nail.
2018–KI1325–94	1	1	wall clean	wire nail	C	1.25 inches	bent	3	0.2	Nail is rusted and burned. Common wire nail.
2018–KI1325–95	1	1	wall clean	wire nail	C	1.0 inches	unaltered	1	0.1	Nail is rusted and burned. Common wire nail.
2018–KI1325–96	1	1	wall clean	wire nail	F	0	broken	1	0.1	Nail is rusted and burned. Common wire nail.
2018–KI1325–133	1	3	NW/SW	wire nail	C	3.0 inches	unaltered	1	0.3	Nail is rusted and burned. Common wire nail.
2018–KI1325–134	1	3	NW/SW	wire nail	F	0	bent	1	0.2	Nail is rusted and burned. Common wire nail.
2018–KI1325–135	1	3	NW/SW	finishing nail	C	2.0 inches	unaltered	1	0.1	Nail is rusted and burned. Modern finish nail.
2018–KI1325–136	1	3	NW/SW	wire nail	F	0	broken	1	0.1	Nail is rusted and burned. Common wire nail.
2018–KI1325–137	1	3	NW/SW	wire nail	C	1.0 inches	bent	1	0.1	Nail is rusted and burned. Common wire nail.
2018–KI1325–138	1	3	NW/SW	wire nail	C	2.25 inches	bent	1	0.1	Nail is rusted and burned. Common wire nail.
2018–KI1325–139	1	3	NW/SW	machine cut nail	C	2.0 inches	bent	1	0.1	Nail is partially rusted. Modern machine cut nail
2018–KI1325–149	1	4	NE/SE	wire nail	C	1.0 inches	unaltered	1	0.1	Nail is rusted and burned. Common wire nail.
2018–KI1325–150	1	4	NE/SE	wire nail	F	0	broken	1	0	Nail is rusted and burned. Common wire nail.
2018–KI1325–151	1	4	NW/SW	wire nail	F	0	broken	2	0.3	Nail is rusted and burned. Common wire nail.
2018–KI1325–152	1	4	wall clean	wire nail	C	4.0 inches	clinched	1	0.3	Nail is slightly rusted. Common wire nail

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Catalog No.	Unit	Level	Bisection	Description	Condition	Size	Alteration	Count	Weight (kg)	Comments
2018–KI1325–153	1	4	wall clean	wire nail	C	2.0 inches	unaltered	2	0.2	Nail is rusted and burned. Common wire nail.
2018–KI1325–154	1	4	wall clean	wire nail	C	2.5 inches	bent	1	0.2	Nail is rusted and burned. Common wire nail.
2018–KI1325–155	1	4	wall clean	wire nail	F	0	broken	1	0.1	Nail is rusted and burned. Common wire nail.
2018–KI1325–196	2	2	NE/SE	wire nail	C	3.0 inches	unaltered	1	0.2	Nail is rusted. Common wire nail.
2018–KI1325–163	STP 21	0–20	–	wire nail	C	3.5 inches	bent	1	0.3	Nail is rusted and burned. Common wire nail.
2018–KI1325–164	STP 21	0–20	–	wire nail	C	2.5 inches	bent	1	0.2	Nail is rusted and burned. Common wire nail.
2018–KI1325–165	STP 21	0–20	–	wire nail	C	2.0 inches	bent	1	0.1	Nail is rusted and burned. Common wire nail.
2018–KI1325–166	STP 21	0–20	–	wire nail	C	1.75 inches	unaltered	1	0.1	Nail is rusted and burned. Common wire nail.
2018–KI1325–167	STP 21	0–20	–	wire nail	C	1.0 inches	unaltered	1	0	Nail is rusted and burned. Common wire nail.
2018–KI1325–168	STP 21	0–20	–	machine cut nail	F	0	broken	1	0.1	Nail is rusted and burned. Modern machine cut nail
2018–KI1325–169	STP 21	0–20	–	“U”–nail	R	3.0 inches	unaltered	1	1.8	U–nail is 80mm long x 10mm diameter. Rusted and burned.
2018–KI1325–180	STP 22	0–20	–	wire nail	F	0	broken	3	0.9	Nails are rusted and burned. Common wire nail.
2018–KI1325–181	STP 22	0–20	–	wire nail	C	4.0 inches	clinched	1	0.3	Nail is rusted. Common wire nail.
2018–KI1325–182	STP 22	0–20	–	wire nail	C	2.25 inches	unaltered	1	0.1	Nail is rusted and burned. Common wire nail.
2018–KI1325–183	STP 22	0–20	–	wire nail	C	1.0 inches	bent	1	0.1	Nail is rusted and burned. Common wire nail.
2018–KI1325–184	STP 22	20–40	–	wire nail	C	2.5 inches	bent	2	0.2	Nail is rusted and burned. Common wire nail.
2018–KI1325–189	STP 24	0–20	–	wire nail	C	4.5 inches	clinched	1	0.4	Nail is rusted and burned. Common wire nail.
2018–KI1325–211	STP 26	0–20	–	wire nail	C	3.5 inches	bent	1	0.3	Nail is rusted and burned. Common wire nail.
2018–KI1325–212	STP 26	0–20	–	wire nail	F	0	broken	2	0.4	Nail is rusted and burned. Common wire nail.
2018–KI1325–206	STP 27	0–20	–	wire nail	C	3.5 inches	bent	1	0.4	Nail is rusted and burned. Common wire nail.
2018–KI1325–207	STP 27	0–20	–	wire nail	F	0	broken	1	0.3	Nail is rusted and burned. Common wire nail.
2018–KI1325–213	STP 27	20–40	–	wire nail	C	2.0 inches	bent	1	0.1	Nail is rusted and burned. Common wire nail.
2018–KI1325–222	STP 28	20–40	–	wire nail	C	3.5 inches	clinched	2	0.7	Nail is rusted and burned. Common wire nail.
2018–KI1325–223	STP 28	20–40	–	wire nail	F	0	broken	1	0.1	Nail is rusted and burned. Common wire nail.
2018–KI1325–225	STP 29	0–20	–	wire nail	C	4.0 inches	unaltered	1	0.6	Nail is rusted and burned. Common wire nail.

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Catalog No.	Unit	Level	Bisection	Description	Condition	Size	Alteration	Count	Weight (kg)	Comments
2018–KI1325–226	STP 29	0–20	–	wire nail	C	2.25 inches	unaltered	1	0.1	Nail is rusted and burned. Common wire nail.
2018–KI1325–227	STP 29	40–60	–	wire nail	C	3.5 inches	bent	1	0.3	Nail is rusted and burned. Common wire nail.
2018–KI1325–229	STP 31	0–20	–	wire nail	F	0	twisted	1	0.2	Nail is rusted and burned. Common wire nail.
2018–KI1325–230	STP 31	20–40	–	wire nail	C	3.5 inches	unaltered	1	0.3	Nail is rusted and burned. Common wire nail.

Key: C = complete; F = fragmented; R = reconstructible.

Table D.13. Vessels

Catalog No.	Unit	Level	Bisection	Type	Part	Color	Manufacturing Method	Embossing	Condition	Count	Weight (kg)	Vessel No.	Comments
2018–KI1325–100	1	1	NE/SE	lightbulb glass	body	clear	machine made	–	F	4	0.1	1	–
2018–KI1325–101	1	1	NE/SE	vessel glass	unknown	clear	unknown	–	F	5	0.3	–	1 Glass fragment is melted. Unable to determine type of part.
2018–KI1325–104	1	1	NW/SW	lightbulb glass	body	clear	machine made	–	F	1	0	–	–
2018–KI1325–105	1	1	NW/SW	bottle/beer	body	amber	unknown	–	F	1	0.2	–	Probable beer bottle
2018–KI1325–106	1	1	NW/SW	vessel glass	unknown	clear	unknown	–	F	2	0.1	–	–
2018–KI1325–122	1	2	NW/SW	bottle/beer	body	amber	unknown	–	F	3	0.2	–	Beer bottle
2018–KI1325–123	1	2	NW/SW	vessel glass	unknown	clear	unknown	–	F	4	0.3	–	–
2018–KI1325–124	1	2	NW/SW	lightbulb glass	body	clear	machine made	–	F	1	0	–	–
2018–KI1325–127	1	2	NE/SE	lightbulb glass	body	clear	machine made	–	F	1	0	–	–
2018–KI1325–128	1	2	NE/SE	vessel glass	unknown	clear	unknown	–	F	3	0.3	–	–
2018–KI1325–129	1	2	NE/SE	vessel glass	body	amber	unknown	–	F	2	0.2	–	–
2018–KI1325–148	1	3	NW/SW	vessel glass	unknown	unknown	unknown	–	F	1	1.7	–	Bottle base is burned and melted
2018–KI1325–234	STP 2	0–35	–	vessel glass	body	clear	machine made	"HOULD"	R	2	0.2	2	Embossing is "HOULD"
2018–KI1325–235	STP 2	0–35	–	vessel glass	base	clear	machine made	"HISTL"/"P" and "C" within trapezoids	F	1	0.8	3	Pacific Coast Company 1925–1930
2018–KI1325–236	STP 2	0–35	–	glassware	rim	clear	machine made	–	F	1	0.8	4	Decorative glass
2018–KI1325–237	STP 2	0–35	–	vessel glass	unknown	clear	machine made	–	F	3	0.4	–	–
2018–KI1325–238	STP 2	0–35	–	vessel glass	unknown	aqua	machine made	–	F	4	0.3	–	–
2018–KI1325–175	STP 21	0–20	–	vessel glass	unknown	clear	unknown	–	F	1	0.1	–	1 Glass fragment is melted.
2018–KI1325–176	STP 21	20–40	–	vessel glass	body	amber	machine made	–	F	1	0.1	–	–
2018–KI1325–186	STP 22	0–20	–	vessel glass	unknown	clear	unknown	–	F	1	0.1	–	–
2018–KI1325–188	STP 23	60–80	–	vessel glass	unknown	clear	unknown	–	F	1	0.1	–	–
2018–KI1325–214	STP 27	0–20	–	vessel glass	body	aqua	machine made	–	F	9	1.5	–	–
2018–KI1325–215	STP 27	0–20	–	vessel glass	base	aqua	machine made	–	F	3	0.3	–	–
2018–KI1325–216	STP 27	0–20	–	vessel glass	body	clear	machine made	–	F	2	0.2	–	–
2018–KI1325–217	STP 27	0–20	–	vessel glass	base	clear	machine made	–	F	1	0.2	–	–

DSD - 001263

Catalog No.	Unit	Level	Bisection	Type	Part	Color	Manufacturing Method	Embossing	Condition	Count	Weight (kg)	Vessel No.	Comments
2018–KI1325–218	STP 27	0–20	–	glassware	lid	milk	machine made	"GENUINE BOYD CAP"/"O_MASON JARS"	R	5	0.8	–	https://www.glassbottlemarks.com/boyds–genuine–porcelain–lined–cap/ lids date from 1869 to 1950s
2018–KI1325–219	STP 27	20–40	–	glassware	lid	milk	machine made	"2" backwards	C	1	1.2	–	https://www.glassbottlemarks.com/boyds–genuine–porcelain–lined–cap/ lids date from 1869 to 1950s
2018–KI1325–224	STP 28	20–40	–	vessel glass	rim	clear	machine made	–	F	1	0.1	–	–
2018–KI1325–228	STP 29	0–20	–	vessel glass	unknown	clear	machine made	–	F	1	0.1	–	–
2018–KI1325–231	STP 31	0–20	–	vessel glass	body	green	machine made	–	F	1	0.4	–	–
2018–KI1325–232	STP 31	0–20	–	vessel glass	unknown	cobalt	unknown	–	F	1	0.1	–	–
2018–KI1325–242	STP 6	–	–	vessel glass	unknown	clear	machine made	–	F	2	0.1	–	–

Key: C = complete; F = fragmented; R = reconstructible.

Table D.14. Wood Objects

Catalog No.	Unit	Level	Bisection	Description	Condition	Count	MNI	Comments
2018–KI1325–203	STP 23	60–80		wood fragments from Feature 2	F	17		Wood fragments from Feature 2, on top of wire mesh

Key: F = fragmented.

DSD - 001264

Tierra Right of Way
A LAND SERVICES COMPANY

May 24, 2018

John Jackels
ISOLA Homes
1521 1st Avenue S, #301
Seattle, Washington 98134

Re: Park Pointe Project Cultural Resources Assessment Addendum

Dear John,

At the request of ISOLA Homes, Tierra Right of Way Services, Ltd. (Tierra), conducted a cultural resources investigation of the Park Pointe Project (the project) located in King County, Washington. The resulting survey report (Steinkraus 2017) was submitted to ISOLA Homes in April of 2017. Per your request, Tierra conducted an additional cultural resources assessment of an area to the southwest of the original proposed disturbance area (Figure 1). This report has been prepared to aid the proponent in project planning for the new area in question. Please consider this letter an addendum to the original report of the project under the same regulatory requirements as the original report.

Project Description
The original proposed project is located on two parcels (Parcel Nos. 262405405-9022 and 262405-9019) in Section 26, Township 24 North, Range 5 East, Willamette Meridian, totaling 2.5 ha (6.3 acres). The project proposes to construct 41 traditional, single-family detached homes. This includes the constructions of private roadways, stormwater improvements, and landscaping areas. The new extended project area is located on the southwestern portion of Parcel No. 262405-9019.

Cultural and Environmental Context
General information about the environmental history, geomorphology, and soils in the vicinity of the project area are discussed in the original cultural resources assessment report for the project (Steinkraus [2017]). A complete discussion of the cultural context for the project area can be found in Steinkraus (2017).

Previous Archaeological Studies within the Area of Potential Effect
The project area was previously surveyed by Tierra in 2017 (Steinkraus 2017). Tierra's investigations consisted of background research (including the full environmental and cultural history of the area), pedestrian survey, visual reconnaissance, and subsurface investigations. Pedestrian survey and subsurface investigations resulted in recording new four historic-era archaeological sites, one historic isolate, and six new Historic Property Inventory (HPI) forms. With the exception of 45KI1325, all of the archaeological sites, the historic isolate, and the HPI properties were recommended as Not Eligible for any local, State, or Federal historic registers. The Washington State Department of Archaeology and Historic Preservation (DAHP) concurred with these recommendations. Site 45KI1325 was recommended as potentially Eligible and Tierra recommended further testing for site eligibility. Tierra applied for and received a DAHP permit for the testing, and fieldwork was conducted from April 25 through May 2, 2018; the report for site testing is currently in process.

Randye K. Ferrick, President & Broker
444 NE Ravenna Boulevard, Suite 103 • Seattle, Washington 98115 • Phone: 206.363.1556
Right of Way • Cultural Resources • Environmental Planning
Federal, State, and Local Permitting • GIS/CAD Mapping
Toll Free: 800.887.0847 • www.tierra-row.com

DSD - 001265

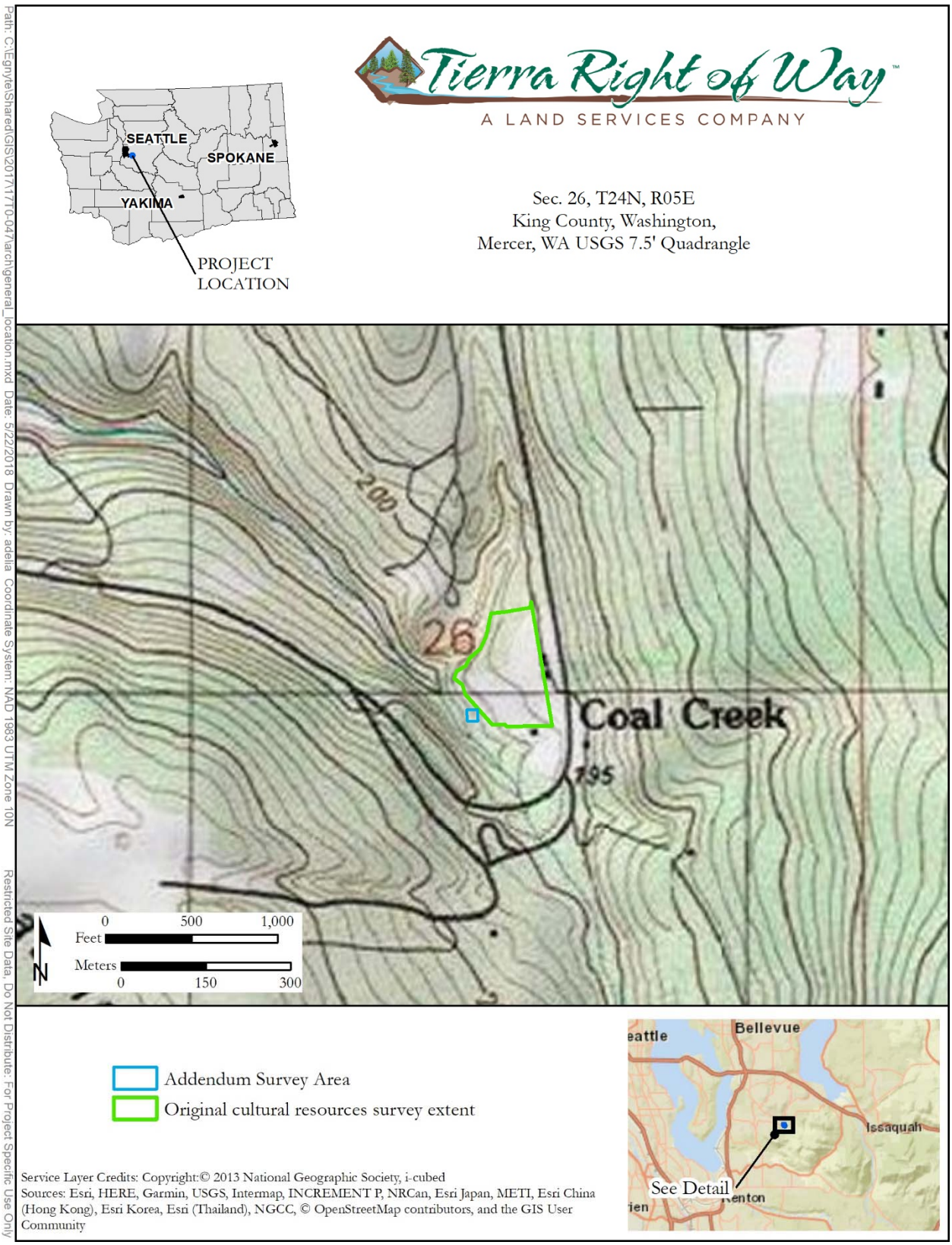


Figure 1. Additional Survey for stormwater vault.

DSD - 001266

Field Investigations and Results

Archaeological surface investigation for the additional project area was conducted by Project Archaeologist Sherri M. Middleton, M.S., with Project Archaeologist Sarah Steinkraus, M.Sc., and Field Technician Mike Shong on May 2, 2018. The conditions were sunny and warm. The requested Scope of Work was to assess the surface structures only. Therefore, no subsurface testing was conducted, and no recommendations regarding subsurface deposits in the additional area of potential effect (APE) are made in this document.

Surface investigations resulted in the recording of one historic mining property archaeological site (six historic foundations) and recording of one historic property (Figure 2); the archaeological site form is attached as Appendix A, and the HPI form as Appendix B. The site is located in a wooded area on what appears to be a manmade terrace, mid-sloped on the hill on the drainage for Coal Creek. The site area is fenced on private property. Vegetation at the site was dense tall grasses, ferns, and blackberry bushes, lending poor visibility to the ground's surface. The vegetation was overgrown covering all the foundations, except for the foundation with the wooden structure. There are six foundations, two of which are poured concrete and four are made from brick. On top of Foundation No. 5 is a wooden structure (Photos 1–3). The site number for the foundations is currently pending, and the Property ID for the historic structure is 715713.

Photo 1. Site from interpretive trail, facing north.

DSD - 001267

Figure 2. Survey results.

DSD - 001268

Photo 2. Overview of site, facing south.

Photo 3. Overview of site, facing north.

DSD - 001269

Conclusion and Recommendations

Tierra's cultural resources assessment consisted of background review, field investigation, and production of this report addendum. Field investigations included pedestrian survey. The project area and surrounding properties are a part of a major historical mining complex. The structure and the six foundations are over 50 years old, and the foundation underneath the structure appears to be older than the current wooden structure itself. The recorded historic property and the archaeological site are part of the Coal Creek Mining Complex. The foundations maintain their original placement on the landscape and appear to be tied to the production of electricity for the historic-era mining operation. The structure has been in its current location since at least 1956 and is constructed in a style matching buildings that would have been located in this area in the early 1900s. Both are currently being utilized as part of an interpretive trail to educate the public about this local historic-era resource. The foundations are contributing features to a potential Historic District that could be created for the Coal Creek Mining Complex. There are very few written records regarding this complex, making the archaeological materials still present in this location the primary source of data regarding this district.

Tierra recommends that the recorded archaeological site meets Criteria A and D of the National Register of Historic Places (see discussion in Appendix A). The recorded historic property (ID 715713) is recommended as Eligible under the same criteria. The wooden structure itself is essentially a stylistic reproduction likely made of recycled materials from the original mine buildings and therefore does not meet any of the criteria for eligibility. However, the foundation on which it sits is recommended as Eligible as it meets the Criteria A and D. Therefore, the HPI form recommends that, as a whole, the structure is Eligible (see discussion in Appendix B). Tierra recommends that any type of ground-disturbing or construction activity in the additional project area will have adverse impacts to these cultural resources. Under RCW 27.53, any such activity would require an archaeological site excavation/alteration permit from DAHP.

Please contact me if you have any questions or comments.

Sincerely,

Sherri Middleton M.S.
Project Archaeologist
Tierra Right of Way Services
444 NE Ravenna Boulevard, Suite 103
Seattle, Washington 98115
Office: (206) 363-1556
Cell: (425) 220-6919

DSD - 001270

REFERENCES

Steinkraus, Mark F.
2017 *Cultural Resources Assessment for the Park Pointe Project, King County, Washington*. Tierra Archaeological Report No. 2017-017. Tierra Right of Way Services, Ltd., Seattle.

DSD - 001271

APPENDIX A. SITE FORM

DSD - 001272

STATE OF WASHINGTON
ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45

County: King

Date: 5/16/2018 **Human Remains?** ☐ **DAHP Case No.:**

Compiled By: Sherri Middleton Tierra Right of Way Services

Archaeological Sites are exempt from public disclosure per RCW 42.56.300

SITE DESIGNATION

Site Name: Foundations/Coal Creek Mine

Field/Temporary ID:

Site Type: Historic Mining Properties

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this request for determination of eligibility meet the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the site

☑ meets ☐ does not meet the National Register Criteria.

I recommend that this property be considered significant at the following level(s) of significance:

Criteria A,D

DSD - 001273

Statement of Significance

Criterion A. The foundations are related to historic themes of Coal Mining, Railroad Expansion, Development of King County, Seattle, and the State of Washington.
The Newcastle and Coal Creek coal beds were discovered in the 1860s. The use of there areas for coal production was originally promoted by G.F. Whitworth and Daniel Bagley. Both men were Seattle's early ministers and Whitworth was also a geologist and engineer. By the early 1870s, utilizing the Coal Creek and Newcastle coal was hampered due to transportation issues. It was when James M. Colman constructed the Seattle to Walla Walla Rail Line, which gave access for a line from Renton to Newcastle for the shipment of coal for a fraction of the previous costs. By 1881, King County was supplying half of all the coal in Washington State and 22% of the coal produced on the Pacific Coast. The Seattle to Walla Walla Rail Line never made it passed Newcastle and was still the most profitable railroad in the United States during the 1880s (Speidel 1967). Little remains of the original structures related to this event in local and regional history and those still present should be recorded and protected when possible. The foundations appear to be a part of the power generation system for the mine at some point. They may be part of the Club House at one point which would have been part of the social structure and possibly the conducting of business for the mines (Figure 2).

Criterion D- The study of the foundations may yield data regarding the changing needs of the community/mining operation and possibly the generation of power in turn-of-the-century coal mining operations.

Research Questions could include:
1. When were the two components of the foundations and structure (foundation and wooden structure) constructed?

2. What uses did the foundations have?
a. Did these uses change over time and how so?
b. What can the change in use tell us about how mining operation needs or proxemics/land use changed over time in this location?

3. How was power generated at this coal mine?
a. Does this method of power production differ from other coal mines in the region/country at this time?

4. What portions of the power generator or foundations were left in place and what parts were removed?
a. Is there an explanation for why these portions were left behind?
b. How well have these features been preserved?
c. Can we expect similar preservation of large-scale historic features like these in the surrounding area/similar environments?

The overall complex may yield data on early King County Coal mining culture and proxemics within a coal town. This complex includes multiple townsites associated with coal mining, features related directly to mining (mine shafts, addits, and vent holes), and features related to the maintenance and operation of the mines as well as the transportation of the coal (power generation, railroads, flumes, office buildings, etc.). Most of these features are located on Public Lands (King County or City of Bellevue). This complex is a domestic and industrial snapshot of the coal mining industry that shaped the development of Seattle, King County, and Washington State.

Integrity

The six foundations are over 50 years old. The foundations maintain their original placement on the landscape and appears to be tied to the production of electricity for the historic-era mining operation which shaped the history of this immediate area. This site is currently being utilized as part of an interpretive trail used to educate the public about this important local historic-era resource. The foundations meet Criteria A and D of the National Register of Historic Places. The foundations are a contributing feature to a potential historic district that could be created for the Coal Creek Mining complex. There are very few written records regarding this complex making the archaeological materials still present in this location the primary source of data regarding this district.

SHPO Determination

Eligibility Survey/Inventory **Determined On**

DSD - 001274

ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45

Determined By

SHPO Comments

SITE LOCATION

USGS Quad Map Name(s): MERCER ISLAND

T: 24 **R:** 05 **E/W:** E **Section:** 26

UTM: Zone: 10 **Easting:** 565416 **Northing:** 5265147

Latitude: 47.536 **Longitude:** -122.131 **Elevation (ft/m):**

Drainage, Major: Lake Washington **Drainage, Minor:** Coal Creek **River Mile** .25

Aspect SW **Slope** 1

Location Description (General to Specific):

The site is located on the western foothills of Cougar Mountain, on a finger ridge above Coal Creek. The site is east of Coal Creek and adjacent to the Coal Creek Trailhead.

Directions (For Relocation Purposes):

From I90, take exit 13 Lakemont Blvd SE. Travel south for 3.3 miles and turn right onto private driveway. Park and proceed on foot to GPS coordinates.

SITE DESCRIPTION

Narrative Description (Overall Site Observations)**:**

The site is located on a wooded area, what appears to be a man-made terrace, mid-sloped on the hill on the drainage for Coal Creek (Figure 1). The site area is fenced on private property. To the west, the site is adjacent and in full view to the Coal Creek Historical Interpretive Trail which runs along Coal Creek (Photo 1). There are six foundations, two of which are poured concrete and four are made from brick. On top of Foundation No. 5, there is a wooden structure (Photo 2). This structure does not appear to be the original structure for the foundation. This structure was recorded as HPI Property ID: 715713 and is recommended as not eligible for the NRHP.

Site Dimensions (Overall Site Dimensions)**:**

Length: 40ft **Direction:** N/S **Width:** 32ft **Direction:** E/W

Method of Horizontal Measurement: tape

Depth: surface **Method of Vertical Measurement:** na

Vegetation (On Site)**:**

Local: grass, blackberry, douglas-fir **Regional:** red cedar, douglas-fir, and big leaf maple

Landforms (On Site)**:**

Local: finger terrace **Regional:** foot hill

Water Resources (Type)**:** Coal Creek **Distance:** .02miles **Permanence:** perennial

CULTURAL MATERIALS AND FEATURES

Narrative Description (Specific Inventory Details)**:**

There are a total of six foundations in ruins. Foundations 1-4 are made of brick and foundations 5 and 6 are made from poured concrete (Sketch map 1).
Foundation 1- Is 14.5-feet-long X 6.5-feet-wide at the base and is tiered to 9-feet-long X 4-feet-wide at the top. The foundation has 12 tiers of brick giving a height of 3-feet (Photos 3-5). There is a 6-inches long bolt with coiled looped wire on top of foundation (Photo 6).

DSD - 001275

Foundation 2- Is 9-feet-long X 4.5-feet-wide at the base and is tiered to 7-feet-long X 3-feet-wide at the top. The foundation has 9 tiers of brick giving a height of 2.5-feet (Photos 7-9). There is a slate plate lying on top of the foundation (Photo 10).
Foundation 3- Is 8-feet-long X 6.5-feet wide at the base and is tiered to 7-feet-long X 5-feet-wide at the top. The foundation has 15 tiers of brick giving a height of 3-feet (Photos 11-13).
Foundation 4- Is 5.5-feet-long X 4.5-feet-wide at the base and is tiered to 4.5-feet-long X 3.5-feet-wide at the top. The foundation has 10 tiers of brick giving a height of 2.5-feet (Photos 14-16).
Foundation 5- Is 10.5-feet-long X 7-feet-wide with a 4-foot X 4-foot inverted corner at the northwest corner of the foundation. The foundation is concrete poured medium aggregate formed using wooden boards. The foundation is 20-inches tall and has spaces measuring 10-inch-tall by 2.5-inch-wide for vertical slats to be placed into the foundation on both the north and south sides of the structure. There are two remnant boards, one charred, in the slots now. The vertical slots are spaced roughly 16-16.5-inches apart (Photos 17-20). There is also a wooden structure on top of the foundation which does not appear to be the original structure. This historic structure is older that 50 years and has been recorded as HPI Property ID: 715713 and is recommended as not eligible for the NRHP.

Foundation 6- Is 7.5-feet-long X 4.5-feet-wide. The make of the foundation is the same as foundation #5 but is more deteriorated. This foundation is concrete poured medium aggregate formed using wooden boards. The foundation is 20-inches-tall and has spaces measuring 10-inch-tall by 2.5-inch-wide for vertical slats. On top of the foundation in the northwest and southeast corner are 1-inch bent steel loops for some type of securements (Photos 21-23).

Method of Collection:

Artifacts not collected

Location of Artifacts (Temporary/Permanent)**:**

n/a

SITE AGE

SITE RECORDERS

Observed By	**Address**
Sherri Middleton	444 NE Ravenna Blvd., Seattle, WA 98115
Sarah Huntington Steinkraus	444 NE Ravenna Blvd., Seattle, WA 98115

Date Recorded: 5/2/2018

Recorded by (Professional Archaeologist)**:** Sherri Middleton

Organization:	Tierra Right of Way Services	**Phone Number:**	425-220-6919
Address:	444 NE Ravenna Blvd., Seattle, WA 98115	**Email:**	smiddleton@tierra-row.com

Recorded by (Professional Archaeologist)**:** Sarah Huntington Steinkraus

Organization:	Tierra Right of Way Services	**Phone Number:**	360-620-5840
Address:	444 NE Ravenna Blvd., Seattle, WA 98115	**Email:**	steinkraus.sarah@gmail.com

SITE HISTORY

Previous Archaeological Work:

No previous archaeological work has been done at this location.

DSD - 001276

ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45

LAND OWNERSHIP

Owner	Address	Parcel
Coal Creek Holdings LLC	7331 Lakemont Blvd SE, Bellevue, WA - 98006	2624059019

RESEARCH REFERENCES

Items/Documents Used in Research:

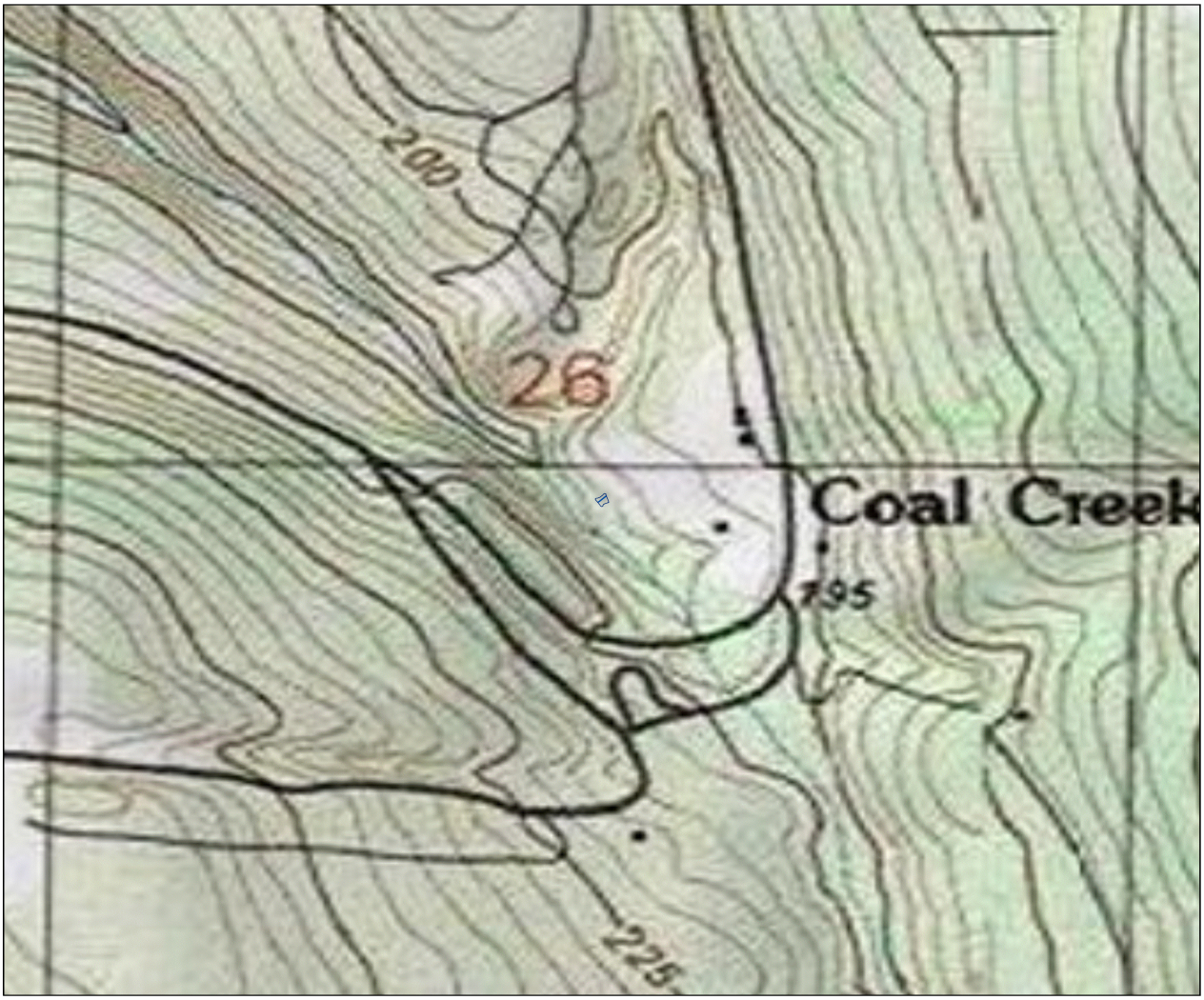
Speidel, William C.
1967 Sons of the Profits. Nettle Creek Publishing Company. Seattle, Washington.

DSD - 001277

ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45

USGS MAP



May 18, 2018

1:5,844

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Copyright:© 2013 National Geographic Society, i-cubed

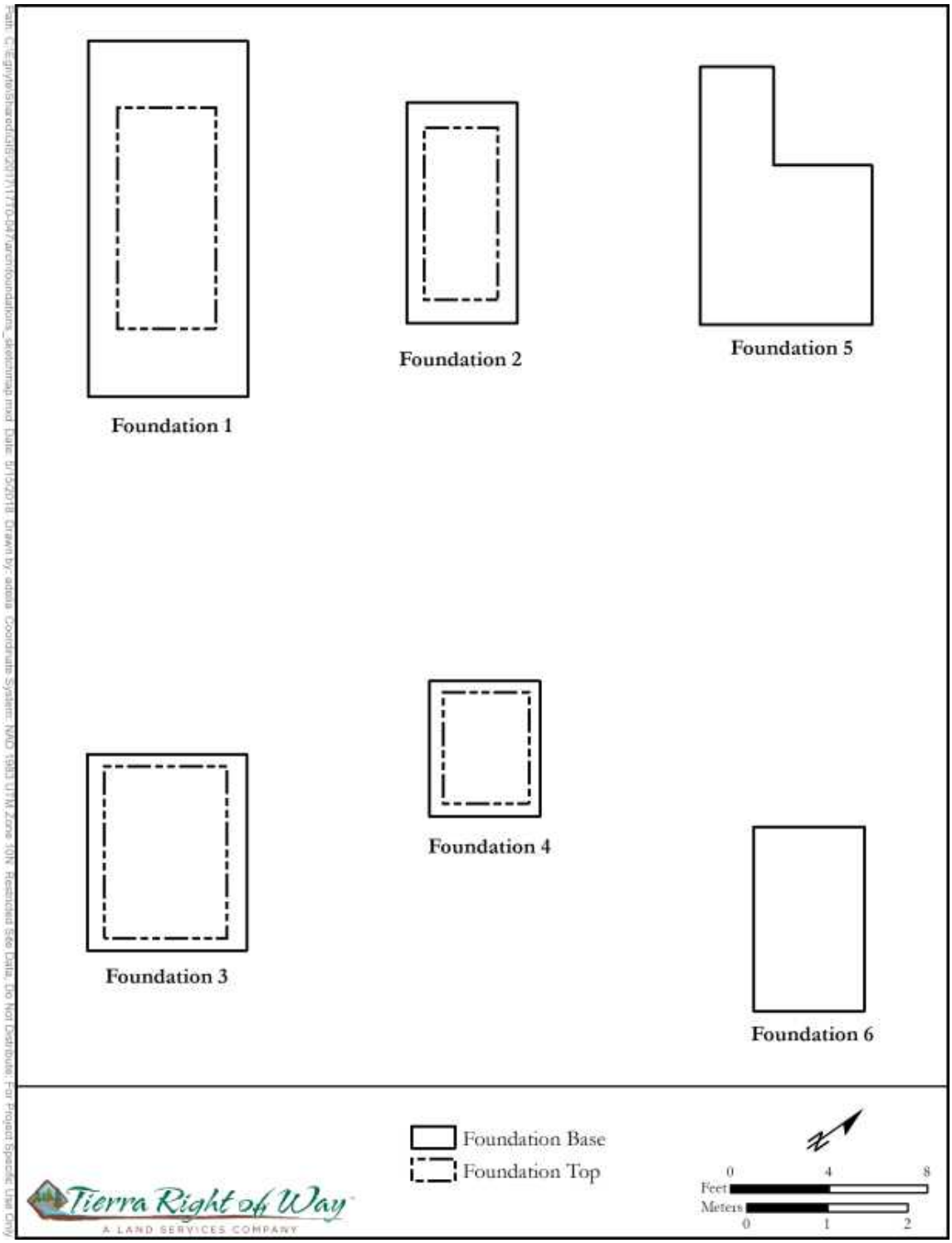
DSD - 001278

ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45

SKETCH MAPS

Source Information



DSD - 001279

Photographs, Tables and Additional Information

Photo ID	382715
Title	Photo 2. Site overview. facing south.JPG
Year Taken	2018
Is Circa?	☐
Notes	Overview of foundations and structure
Type	image/jpeg
Photo View	South
Source	
Copyright	☐

DSD - 001280

ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45

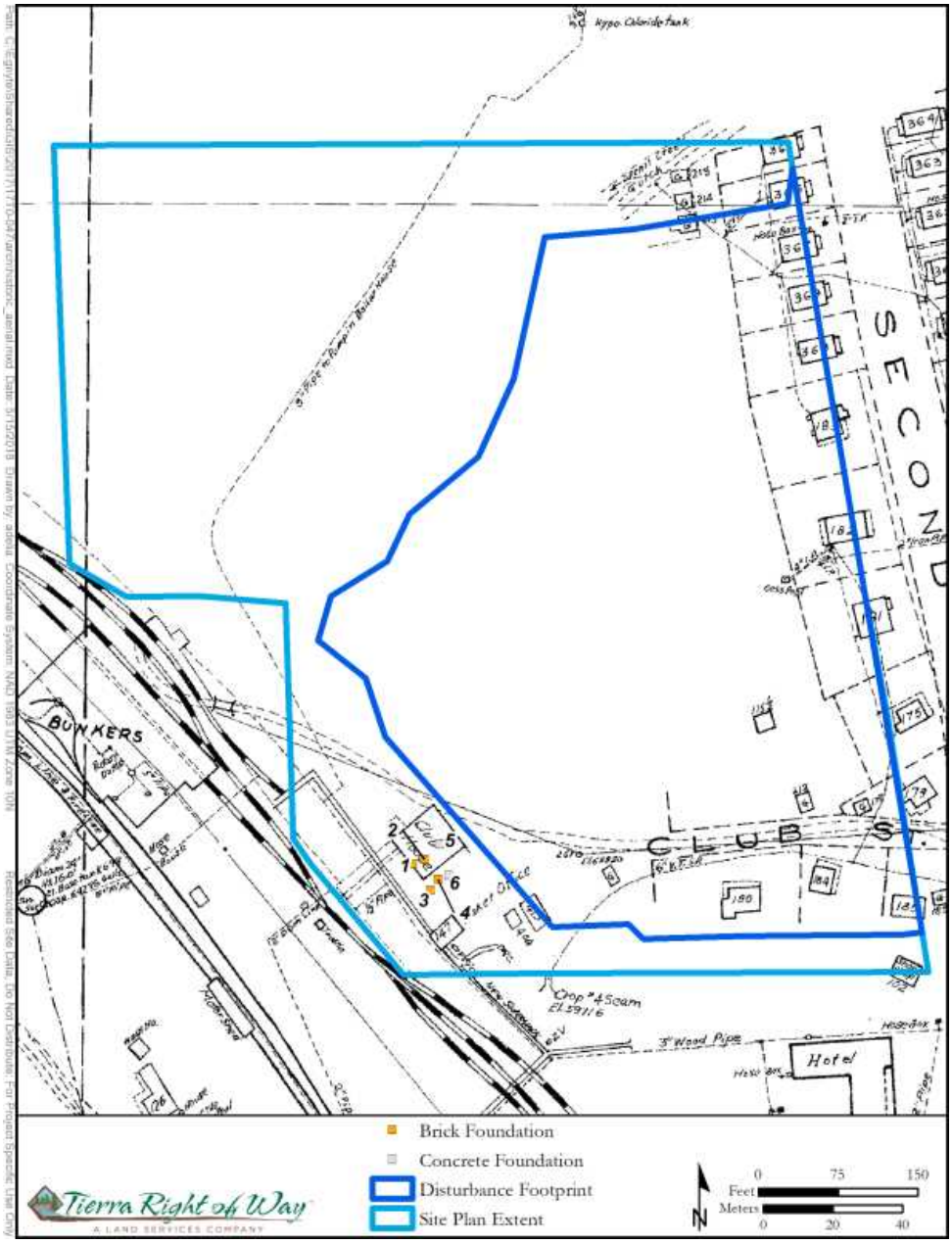


Photo ID	382740
Title	Figure 2. Location of foundations on 1929 Coal Creek Map.png
Year Taken	2018
Is Circa?	☐
Notes	1929 Coal Creek Map with locations of Foundations
Type	image/png
Photo View	
Source	
Copyright	☐

DSD - 001281

Photo ID	382739
Title	Photo 23. Foundation 6. facing south.JPG
Year Taken	2018
Is Circa?	☐
Notes	Foundation 6
Type	image/jpeg
Photo View	south
Source	
Copyright	☐

DSD - 001282

Photo ID	382738
Title	Photo 22. Foundation 6. facing n-northeast.JPG
Year Taken	2018
Is Circa?	☐
Notes	Foundation 6
Type	image/jpeg
Photo View	north/northeast
Source	
Copyright	☐

DSD - 001283

Photo ID	382737
Title	Photo 21. Foundation 6. facing s-southeast.JPG
Year Taken	2018
Is Circa?	☐
Notes	Foundation 6
Type	image/jpeg
Photo View	south/southwest
Source	
Copyright	☐

DSD - 001284

Photo ID	382736
Title	Photo 20. Foundation 5. facing w-northwest.JPG
Year Taken	2018
Is Circa?	☐
Notes	Foundation 5
Type	image/jpeg
Photo View	west/northwest
Source	
Copyright	☐

ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45

Photo ID	382735
Title	Photo 19. Foundation 5. facing northeast.JPG
Year Taken	2018
Is Circa?	☐
Notes	Foundation 5
Type	image/jpeg
Photo View	northeast
Source	
Copyright	☐

DSD - 001286

Photo ID	382734
Title	Photo 18. Foundation 6. facing east.JPG
Year Taken	2018
Is Circa?	☐
Notes	4 ft x 4 ft inset in the northeast corner of Foundation 5
Type	image/jpeg
Photo View	east
Source	
Copyright	☐

ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45

Photo ID	382733
Title	Photo 17. Foundation 5. facing southeast.JPG
Year Taken	2018
Is Circa?	☐
Notes	Foundation 5
Type	image/jpeg
Photo View	southeast
Source	
Copyright	☐

DSD - 001288

Photo ID	382732
Title	Photo 16. Foundation 4. facing s-southwest.JPG
Year Taken	2018
Is Circa?	☐
Notes	Foundation 4
Type	image/jpeg
Photo View	south/southwest
Source	
Copyright	☐

DSD - 001289

Photo ID	382731
Title	Photo 15. Foundation 4. facing n-northwest.JPG
Year Taken	2018
Is Circa?	☐
Notes	Foundation 4
Type	image/jpeg
Photo View	north/northwest
Source	
Copyright	☐

DSD - 001290

Photo ID	382730
Title	Photo 14. Foundation 4. facing north.JPG
Year Taken	2018
Is Circa?	☐
Notes	Foundation 4
Type	image/jpeg
Photo View	north
Source	
Copyright	☐

DSD - 001291

Photo ID	382729
Title	Photo 13. Foundation 3. facing south.JPG
Year Taken	2018
Is Circa?	☐
Notes	Foundation 3
Type	image/jpeg
Photo View	south
Source	
Copyright	☐

DSD - 001292

Photo ID	382728
Title	Photo 12. Foundation 3. facing n-northwest.JPG
Year Taken	2018
Is Circa?	☐
Notes	Foundation 3
Type	image/jpeg
Photo View	north/northwest
Source	
Copyright	☐

DSD - 001293

Photo ID	382727
Title	Photo 11. Foundation 3. facing s-southeast.JPG
Year Taken	2018
Is Circa?	☐
Notes	Foundation 3
Type	image/jpeg
Photo View	south/southwest
Source	
Copyright	☐

DSD - 001294

Photo ID	382726
Title	Photo 10. Slate panel on Foundation 2. plan view.JPG
Year Taken	2018
Is Circa?	☐
Notes	Slate plate used with generators on Foundation 2
Type	image/jpeg
Photo View	plan view
Source	
Copyright	☐

DSD - 001295

Photo ID	382725
Title	Photo 9. Foundation 2. facing south.JPG
Year Taken	
Is Circa?	☐
Notes	
Type	image/jpeg
Photo View	
Source	
Copyright	☐

DSD - 001296

Photo ID	382724
Title	Photo 8. Foundation 2. facing n-northwest.JPG
Year Taken	2018
Is Circa?	☐
Notes	Foundation 2
Type	image/jpeg
Photo View	north/northwest
Source	
Copyright	☐

DSD - 001297

Photo ID	382723
Title	Photo 7. Foundation 2. facing s-southwest.JPG
Year Taken	2018
Is Circa?	☐
Notes	Foundation 2
Type	image/jpeg
Photo View	south/southwest
Source	
Copyright	☐

DSD - 001298

Photo ID	382722
Title	Photo 6. 6inch bolt with coiled looped wire on Foundation 1. plan view.JPG
Year Taken	2018
Is Circa?	☐
Notes	Bolt and coiled wire on Foundation 1
Type	image/jpeg
Photo View	Plan view
Source	
Copyright	☐

DSD - 001299

Photo ID	382721
Title	Photo 5. Foundation 1. facing n-northwest.JPG
Year Taken	2018
Is Circa?	☐
Notes	Foundation 1
Type	image/jpeg
Photo View	north/northwest
Source	
Copyright	☐

ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45

Photo ID	382720
Title	Photo 4. Foundation 1. facing north.JPG
Year Taken	2018
Is Circa?	☐
Notes	Foundation 1
Type	image/jpeg
Photo View	North
Source	
Copyright	☐

DSD - 001301

Photo ID	382719
Title	Photo 3. Foundation 1. facing south.JPG
Year Taken	2018
Is Circa?	☐
Notes	Foundation 1
Type	image/jpeg
Photo View	South
Source	
Copyright	☐

DSD - 001302

ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45

Photo ID	382713
Title	Photo 1. Site overview from interpretative trail. facing north.JPG
Year Taken	2018
Is Circa?	☐
Notes	Overview of foundations and structure from the Coal Creek Historical Interpretive Trail
Type	image/jpeg
Photo View	North
Source	
Copyright	☐

DSD - 001303

ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45

Photo ID	382712
Title	USGS Map.png
Year Taken	2018
Is Circa?	☐
Notes	
Type	image/png
Photo View	
Source	
Copyright	☐

DSD - 001304

ARCHAEOLOGICAL SITE INVENTORY FORM

Smithsonian Number: 45

Photo ID	382710
Title	Figure 1. Location of Foundations.png
Year Taken	2018
Is Circa?	☐
Notes	Locations of Foundations
Type	image/png
Photo View	
Source	
Copyright	☐

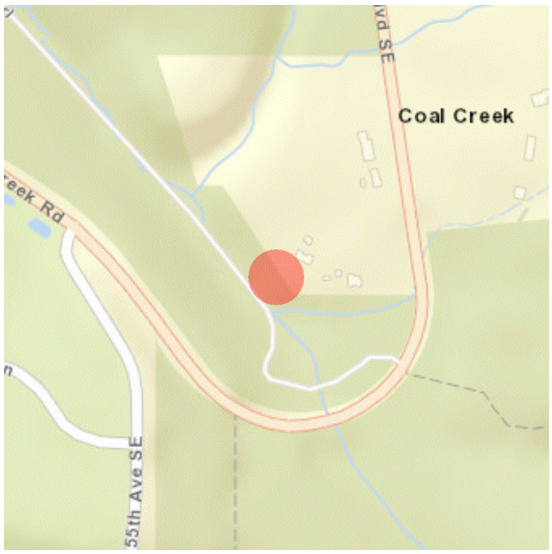
DSD - 001305

APPENDIX B. HISTORIC PROPERTY INVENTORY FORM

Historic Property Report

Resource Name: Coal Creek Interpretive Loop Structure Property ID: 715713

Location



Address: 7331 Lakemont Blvd SE, Bellevue, WA, 98006, USA

Geographic Areas: King Certified Local Government, Newcastle Certified Local Government, King County, T24R05E26, MERCER ISLAND Quadrangle

Information

Number of stories: 1.00

Construction Dates:

Construction Type	Year	Circa

Historic Use:

Category	Subcategory
Industry/Processing/Extraction	
Industry/Processing/Extraction	

Historic Context:

Category
Industry/Manufacturing

Architect/Engineer:

Category	Name or Company

Historic Property Report

Resource Name: Coal Creek Interpretive Loop Structure Property ID: 715713

Thematics:

Local Registers and Districts

Name	Date Listed	Notes

Project History

Project Number, Organization, Project Name	Resource Inventory	SHPO Determination	SHPO Determined By, Determined Date
2017-03-01601, , Park Pointe Planned Unit Development, Bellevue	5/15/2018		

Historic Property Report

Resource Name: Coal Creek Interpretive Loop Structure Property ID: 715713

Photos

Structure from Interpretive Trail

Structure and brick foundations

Structure from trail

Structure, trail, Coal Creek

Generator foundation and mechanics downhill

Interpretive sign about generator

Historic Property Report

Resource Name: Coal Creek Interpretive Loop Structure Property ID: 715713

Interpretive sign about generator

Westernmost view from trail

Structure just visible from bridge

Closeup of electric generator building in interpretive sign.

Structure from interpretive trail

First view of structure from east trailhead

Historic Property Report

Resource Name: Coal Creek Interpretive Loop Structure Property ID: 715713

Closeup of cut in eaves with hardware

Closeup of cut in eaves on south side

Photo of door

Roof

Roof

Overview of opening in back

Historic Property Report

Resource Name: Coal Creek Interpretive Loop Structure Property ID: 715713

Interior ceiling

Added wooden battens

Eaves

Front door

Hardware

Slot in foundation

Historic Property Report

Resource Name: Coal Creek Interpretive Loop Structure Property ID: 715713

Charred wood in slot

Groove in foundation

Back wall foundation

Side Foundation

Inverted corner foundation

Inverted foundation corner

Historic Property Report

Resource Name: Coal Creek Interpretive Loop Structure Property ID: 715713

Front Foundation

Side of Structure

"North" side of structure

Corner

Back of structure

Corner

Historic Property Report

Resource Name: Coal Creek Interpretive Loop Structure Property ID: 715713

"South" side

"South" side

Corner

Front of structure

Interior nails in roof

Interior ceiling

Historic Property Report

Resource Name: Coal Creek Interpretive Loop Structure Property ID: 715713

Interior north wall

Interior south wall

Interior northeast corner

Interior southwest

Interior east wall

Interior southeast corner

Historic Property Report

Resource Name: Coal Creek Interpretive Loop Structure Property ID: 715713

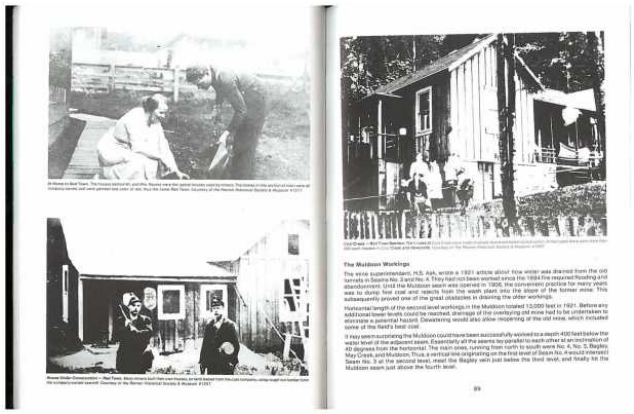
Interior south wall

Front Door

1965 Historic Aerial Map

1954 Historic Aerial Map

1937 Historic Aerial Map

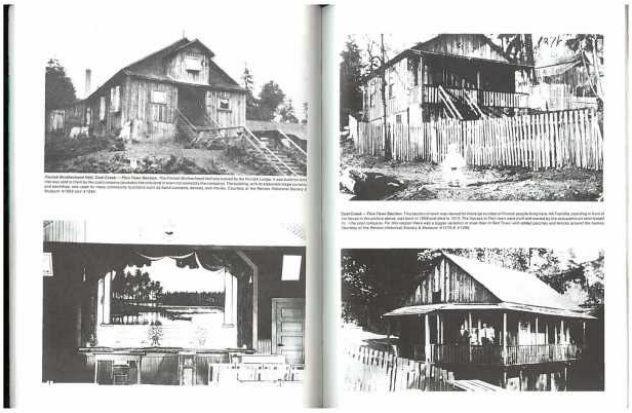


Red Town Houses

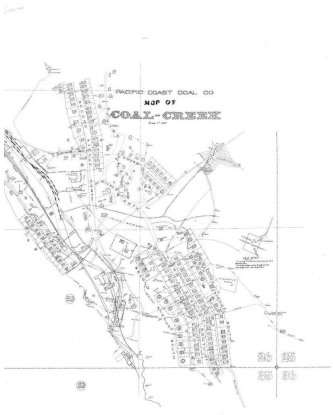
Historic Property Report

Resource Name: Coal Creek Interpretive Loop Structure Property ID: 715713

1937 Historic Aerial Map



Finn Town Houses



1929 Coal Creek Map

1929 Coal Creek Map

DSD - 001318

Historic Property Report

Resource Name: Coal Creek Interpretive Loop Structure Property ID: 715713

Inventory Details - 5/15/2018

Common name:

Date recorded: 5/15/2018

Field Recorder: Sarah Huntington Steinkraus

Field Site number:

SHPO Determination

Detail Information

Characteristics:

Category	Item
Foundation	Concrete - Poured
Form Type	Utilitarian
Roof Type	Gable - Front
Roof Material	Metal - Corrugated
Cladding	Wood - Board & Batten
Plan	Rectangle
Structural System	Wood - Platform Frame

Surveyor Opinion

Property appears to meet criteria for the National Register of Historic Places: Yes

Property is located in a potential historic district (National and/or local): Yes

Property potentially contributes to a historic district (National and/or local): Yes

Significance narrative: It does not appear that the current wooden structure is the original structure for this foundation. The current structure does not utilize the slots in the sides of the foundation for either floor boards or balloon frame studs and does not match the floor plan of the foundation. The foundation is also quite substantial for such a small, light structure. This foundation lines up with remnant equipment foundations immediately downhill/next to Coal Creek that are marked on the City of Bellevue's Coal Creek Historical Interpretive Loop Trail as the generator buildings. The robusticity of the foundation would align with usage of the original building for housing heavy equipment or machinery.

The structure is visible in a 1965 as well as a 1956 aerial photograph, making the wooden structure itself 62 years old (King County Road Services Map Vault 2018). The wooden structure is a wooden platform framed structure. This type of framing was used starting in the 1940s.
An aerial photograph from 1937 is also available but is poor quality. There is a discernable cleared area that is roughly square around where the structure and the brick foundations associated with it would be located. Similar clearings are noted throughout the map where mining equipment and buildings are known to have been located (see 1929 mining map and 1937 aerial). However, the fact that there is a clearing is the most detail discernable in the 1937 aerial. A Pacific Coast Coal Mining map dating to 1929 shows a square building labeled "Club House" located roughly where the

DSD - 001319

structure/foundations are.

The structure's setting does not appear to have changed much since 1956. It is a wooded area located on what appears to be a man-made terrace mid-slope on the hill of the drainage for Coal Creek and along what was Club Street and now is the driveway for the property. The amount of mine related materials located along Coal Creek is substantial. This assists in the general feeling in the area related to past industrial activities and mining. A vent shaft for a mine is located just around the creek bend from the structure and immediately downhill are a number of concrete foundations and large machinery remnants for the mine's generator. These generator foundations are likely directly associated with the substantial foundations in the vicinity of the structure, including the one on which the structure is located.

The design of the wooden structure is fairly simple. It is a wooden platform framed building. Aside from that, the overall design, materials, and workmanship of this structure is consistent with those seen in historic photographs of Finn and Red Towns (the historic Coal Mining communities in which the structure is located and northwest of respectively) dating to the early 1900s (see photos; McDonald and McDonald 1987). The materials are consistent with use throughout the 20th century. Repairs have been conducted over time with materials that are consistent with the original materials.

Multiple sizes of nails are used. All of these are wire nails (post 1890s; IMACS 1992). Some waffle-like patterning or pitting was noted on some nails (see photo). Waffle-patterning on the head of a nail is indicative of a framing nail which were not in use until the 1950s after the invention of the framing hammer (Dueitt 2016). However, this was not distinct due to weathering and may have just been pitting of the nail heads or these nails may have been used for repairs to the structure.
The foundation for this structure is substantial and complex. It shows a great amount of craftsmanship and forethought. The foundation at least of this structure is directly associated with the largely unrecorded Coal Creek Mining Complex which is located on the subject property and the surrounding landforms. Substantial structural features are still clearly visible on the landscape surrounding this feature.

This structure is highly visible throughout the Coal Creek Historical Interpretive Loop Trail (see photos). It is the only structure associated with the foundations, features, and artifacts visible on the trail/landscape that once housed the historic-era mines which occupied the immediate region surrounding it. It is not clear when this structure was placed or built on this foundation but it appears likely that it was after the 1940s but before 1956. This structure may have been constructed of recycled materials left by the mining company. The style of the structure matches the barns upslope (previously recorded in HPI #709113 and HPI #709116) however, dimensional lumber as opposed to chip board or plywood are used in this structure and the dimensions of the lumber appear to match those used in the historic structures of Finn and Red Towns (McDonald and McDonald 1987).

Criterion A- The foundation is related to historic themes of Coal Mining, Railroad Expansion, Development of King County, Seattle, and the State of Washington.

The Newcastle and Coal Creek coal beds were discovered in the 1860s. These seams had higher quality coal than Seattle's previous coal source in Bellingham. The use of these areas for coal production was originally promoted by G.F. Whitworth and Daniel Bagley, two of Seattle's early ministers (Whitworth was also a geologist and engineer). The early

efforts to utilize Coal Creek and Newcastle coal were hampered by transportation issues and then a substantial drop in the use of imported coal by San Franciscans during the early 1870s (Speidel 1967).

When James M. Colman constructed the Seattle to Walla Walla Rail Line (almost all of which was produced and manufactured through Seattle labor, providing jobs during the lumber industries slump in the late 1870s) it included a dock with facilities that could handle four coaling ships at any given time and a line from Renton to Newcastle to move both Newcastle and Renton coal for shipment at a fraction of the previous cost. After completion of the line to Newcastle, the amount of Newcastle coal sold to San Francisco increased from 9,000 tons to 128,582 tons between 1878 to 1879. By 1881 King County was supplying half of all the coal in Washington State and 22% of the coal produced on the Pacific Coast. This made Seattle the main coaling port on the west coast and helped propel Seattle into becoming a major city. The Seattle to Walla Walla Rail Line never made it past Newcastle. Despite this, it was the most profitable railroad in the United States in the 1880s (Speidel 1967). Very little remains of the original structures related to this major event in local and regional history and those still present should be recorded and protected when possible. The foundation appears to have been part of the power generation system for the mine at some point. It may also have been part of the Club House at one point which would have been part of the social structure and possibly the conducting of business for the mines.

Criterion B- This structure is primarily associated with the Swanson Family who were miners and citizens of Newcastle from the 1880s until present. The family lived in the current residence on Parcel 2624059019 (Company House No. 180 on the 1929 map and HPI #709112) starting in 1923. The family purchased the house from the mining company in 1930. Milt Swanson owned the house from 1986 until 2016. Milt was a miner for one of the last active Coal Mines in Newcastle. He and his brother John collected mining era artifacts which were frequently used for events commemorating the history of Newcastle such as the Return to Newcastle History Days. If the structure was built on the foundation after 1930 this would have been done by the Swanson family. No notable historic figures are associated with this property.

Criterion C- This structure matches the vertical board and batten style that was typical of both Finn Town and Red Town during this area's use as a mine and associated mining communities. Materials and craftsmanship appear to be in line with the structures shown in historic photos of these communities (see attached). This is the only standing structure of its kind remaining on this landform and is the only remaining representation of the type of construction that was used in this area. The construction date of this wooden structure, however, appears to be after the 1940s based on the style of framing used. This means that the wooden structure is not directly associated with the mining communities (which were demolished in the late 1920s/ early 1930s).

Criterion D- The study of the foundation associated in this structure may yield data regarding the changing needs of the community/mining operation and possibly the generation of power in turn-of-the-century coal mining operations.

Research Questions could include:
1. When were the two components of this structure (foundation and wooden structure) constructed?

2. What uses did the original structure have?

a. Did these uses change over time and how so?
b. What can the change in use tell us about how mining operation needs or proxemics/land use changed over time in this location?

3. How was power generated at this coal mine?
a. Does this method of power production differ from other coal mines in the region/country at this time?

4. What portions of the power generator or similar structures were left in place and what parts were removed?
a. Is there an explanation for why these portions were left behind?
b. How well have these features been preserved?
c. Can we expect similar preservation of large-scale historic features like these in the surrounding area/similar environments?

The overall complex may yield data on early King County Coal mining culture and proxemics within a coal town. This complex includes multiple townsites associated with coal mining, features related directly to mining (mine shafts, addits, and vent holes), and features related to the maintenance and operation of the mines as well as the transportation of the coal (power generation, railroads, flumes, office buildings, etc.). Most of these features are located on Public Lands (King County or City of Bellevue). This complex is a domestic and industrial snapshot of the coal mining industry that shaped the development of Seattle, King County, and Washington State.

Research questions could include:
1. Where did workers of different ethnicities live?

2. Were there any differences in what products these populations used? This question is particularly interesting given the fairly remote nature of these residences at the time, making the comparison more likely to yield information on cultural preference or socio-economic status than physical access to goods as the types of goods accessible in this area were probably fairly uniform (e.g. from a company store).

3. What are the most prevalent use-dates of domestic areas?

4. Were the occupants of these dwelling primarily men?
a. What percentage appear to have been couples or families?

5. How was the mining operation set up?
a. Does this differ from other mines in the region at this time?
b. Are any variances explained by local topography, geology, or economic interests at the time?

The structure and its foundation are both over 50 years old, the foundation appears to be older than the current wooden structure. The foundation maintains its original placement on the landscape and appears to be tied to the production of electricity for the historic-era mining operation which shaped the history of this immediate area. The structure has been in its current location since at least 1956 and is constructed in a style matching buildings that would have been located in this area in the early 1900s. Both are currently being utilized as part of an interpretive trail used to educate the public about this important local historic-era resource. The foundation meets Criteria A and D of the National Register of Historic Places while the wooden structure does not meet any, it is

essentially a stylistic reproduction likely made of recycled materials from the original mine buildings. The foundation is a contributing feature to a potential historic district that could be created for the Coal Creek Mining Complex. There are very few written records regarding this complex making the archaeological materials still present in this location the primary source of data regarding this district.

Physical description:

The structure is a front gable structure with rectangular plan. It has a poured concrete foundation; corrugated metal roof; and wooden, vertical board and batten siding with plain battens. It has a central rectangular opening for a door in the front (roughly west) façade. It is a wooden platform framed structure that has framing for three windows on the north side of the structure. This framework has been covered with a large rectangular piece of board and batten siding nailed in place. Hardware for the structure is variously sized round nails. The side of the structure is roughly aligned parallel with Coal Creek.

The overall foundation does not have a rectangular floor plan. It measures 10.5 feet by 7 feet with a four foot by four-foot inverted corner at the northwest corner of the foundation. The rest of the foundation is just slightly inset from the structure. The foundation is poured medium aggregate concrete formed using wooden boards. The foundation is 20 inches tall and has spaces measuring 10-inch-tall by 2.5-inch-wide for vertical slats (for floorboards or balloon frame studs most likely) to be placed into the foundation on both the north and south sides of the structure. Only two remnant boards, one charred, are in these slots now. The vertical slots are spaced roughly 16-16.5 inches apart.

The wooden structure itself has a rectangular floor plan and measures 119 inches wide on the east and west sides and is eight feet tall from the bottom of the wooden structure to the eaves and 11 feet 6 inches from the base of the wooden structure to the gable. The original, vertical board and batten siding is composed of wooden dimensional lumber measuring 30 inches wide by 1-inch thick boards with the battens measuring 9 inches wide and one inch thick. There are some noticeable replacement batten boards, especially on the south side of the structure.

The opening for the door measures 6-foot one inch tall and is currently 31.5 inches wide. The original opening looks to have been about double that width but has since been covered with newer board and batten siding. A four-panel wooden door with an upper panel for glass that would fit in the smaller opening is located within the structure. A hole has been cut into the back of the structure.

DSD - 001323

Bibliography:

Dueitt, Heather
2016 A 3 Million Year History of Construction Technology. NoteVault: Document Everything. Accessed at http://www.notevault.com/blog/3-millon-years-of-construction-technology. Accessed on May 7, 2018.

IMACS (Intermountain Antiquities Computer System)
1992 Nails, IMACS Guide. Accessed at https://anthro.utah.edu/labs/imacs.php. Accessed on May 9, 2018.

King County Road Services Map Vault
2018 Road Services- Map Vault. Accessed at http://info.kingcounty.gov/transportation/kcdot/roads/mapandrecordscenter/mapvault/default.aspx. Accessed on May 5, 2018.

McDonald, Richard K. and Lucile McDonald
1987 The Coals of Newcastle: a Hundred Years of Hidden History. Dove Graphics and Litho, Seattle, WA.

Speidel, William C.
1967 Sons of the Profits. Nettle Creek Publishing Company. Seattle, Washington.

DSD - 001324

CULTURAL RESOURCES REPORT COVER SHEET

DAHP Project Number: 2017-03-01601 (Please contact the lead agency for the project number. If associated to SEPA, please contact SEPA@dahp.wa.gov to obtain the project number before creating a new project.)

Author: Sherri Middleton, M.S., and Jennifer Hushour M.S.

Title of Report: Archaeological Extent and Eligibility Testing for Site 45KI01325, King County, Washington

Date of Report: August 31, 2018

County(ies): King Section: 26 Township: 24N Range: 05E

Quad: Mercer Island Acres: <1

PDF of report submitted (REQUIRED) ☒ Yes

Historic Property Inventory Forms to be Approved Online? ☐ Yes ☒ No

Archaeological Site(s)/Isolate(s) Found or Amended? ☒ Yes ☐ No

TCP(s) found? ☐ Yes ☒ No

Replace a draft? ☐ Yes ☒ No

Satisfy a DAHP Archaeological Excavation Permit requirement? ☒ Yes # 2018-12 ☐ No

Were Human Remains Found? ☐ Yes DAHP Case # ☒ No

DAHP Archaeological Site #:
45KI13325

- Submission of PDFs is required.
- Please be sure that any PDF submitted to DAHP has its cover sheet, figures, graphics, appendices, attachments, correspondence, etc., compiled into one single PDF file.
- Please check that the PDF displays correctly when opened.

DSD - 001325

Tierra Right of Way
A LAND SERVICES COMPANY

Archaeological Extent and Eligibility Testing for Site 45KI01325, King County, Washington

Contains Confidential Information—Not for Public Distribution

Prepared by:
Sherri M. Middleton, M.S.
Jennifer Hushour, M.Sc., RPA

Tierra Archaeological Report No. 2018-165
August 31, 2018

DSD - 001326

Archaeological Extent and Eligibility Testing for Site 45KI01325, King County, Washington

Contains Confidential Information—Not for Public Distribution

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Tierra Archaeological Report No. 2018-165
August 31, 2018

DSD - 001327

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DSD - 001330

ABSTRACT

PROJECT TITLE:	Archaeological Extent and Eligibility Testing for Site 45KI01325, King County, Washington
LAND STATUS:	Privately Owned
AGENCY:	Washington State Department of Archaeology and Historic Preservation (DAHP)
TIERRA PROJECT NO.:	17T0-047
TIERRA REPORT NO.:	2018-165
FIELDWORK DATES:	April 25–May 2, 2018
LOCATION:	Parcel No. 2624059019, 7331 Lakemont Boulevard SE, Bellevue, Washington (Section 26, Township 24 North, Range 5 East, Willamette Meridian).
SITE NUMBER:	45KI01325
MANAGEMENT RECOMMENDATIONS:	Tierra recommends that site 45KI1325 is eligible for the National Register of Historic Places under Criterion A and Criterion D. Any ground disturbance within the site boundary, including equipment staging or filling, will require a site alteration and excavation permit from the DAHP, pursuant to Revised Code of Washington 25-48.

DSD - 001331

INTRODUCTION

This document presents the results of archaeological extent and eligibility testing for site 45KI1325 within an approximately 6.3-acre area of potential effect (APE) on privately owned land on Parcel No. 2624059019 at 7331 Lakemont Boulevard SE, Bellevue, Washington (Figure 1). The work was carried out at the request of ISOLA Homes and the Washington State Department of Archaeology and Historic Preservation (DAHP) under Permit No. 2018-12 (Appendix A).

As part of the Washington State Environmental Policy Act (SEPA) permitting process, Tierra Right of Way Services, Ltd. (Tierra), conducted a cultural resources assessment for the Park Point residential development project (Steinkraus 2017). The project proposed to construct 41 traditional single-family homes on 6.3 acres.

Field investigations resulted in the recording of nine historic properties, four historic archaeological sites, and one historic isolate. None of the standing structures were recommended eligible for National Register of Historic Places (NRHP) inclusion. One of these houses is believed to be Company House 180, an original mining town home, but has been so heavily modified that it is no longer eligible for NRHP inclusion. Three of the four sites were recommended not eligible for NRHP inclusion. The fourth site, 45KI1325 (historic debris scatter/concentration), was recorded as potentially eligible for NRHP conclusion due to the potential association with historic mining complexes in the area (Steinkraus 2017:34).

Site 45KI1325 consists of concentrations of historic metal, rubber, faunal bone, glass, and ceramic artifacts. It was not visible on the surface and was identified during subsurface testing. The site boundary was drawn around the location of eight positive shovel test probes (STPs). The site form is attached as Appendix B. An extensive burn feature containing a high concentration of burnt wood, glass, and nails was observed in STP 19 and is at least 60 cm (24 inches) thick; the horizontal dimensions are unknown.

The initial artifacts include 3 porcelain sherds, one of which is part of a teacup with gold luster paint; 2 chunks of large animal bone; 3 brick fragments; 1 rubber handle fragment, likely from a screwdriver or similar hand tool; 13 bent wire nails; 20 straight wire nails of varying size; 1 square nail; 1 terracotta pot sherd; 1 thick, decorative cut glass shard; 4 pieces of aqua glass; 32 clear glass shards, both bottle and window pane; 1 clear glass shard with letters "…OULD…" embossed onto the glass; and 1 partial clear glass bottle base with embossed maker's marks reading "5…HISTL…." and the letters "P" and "C" within trapezoids. The bottle base was made by the Pacific Coast Bottling Company, which operated from 1925 to 1930 (Toulouse 1971).

The location of 45KI1325 corresponds well with the location of the historical coal mining area known as Finn Town (Steinkraus 2017 pages 15 and 27). Finn Town grew around the operation of the Ford Slope Mine, which began in 1905. It is likely that Finn Town was razed, and the remnant debris makes up the historical component found during Tierra's survey. The majority of the artifacts appeared to be concentrated in the northern portion of the site, especially near the large burn feature observed in STP 19.

DSD - 001332

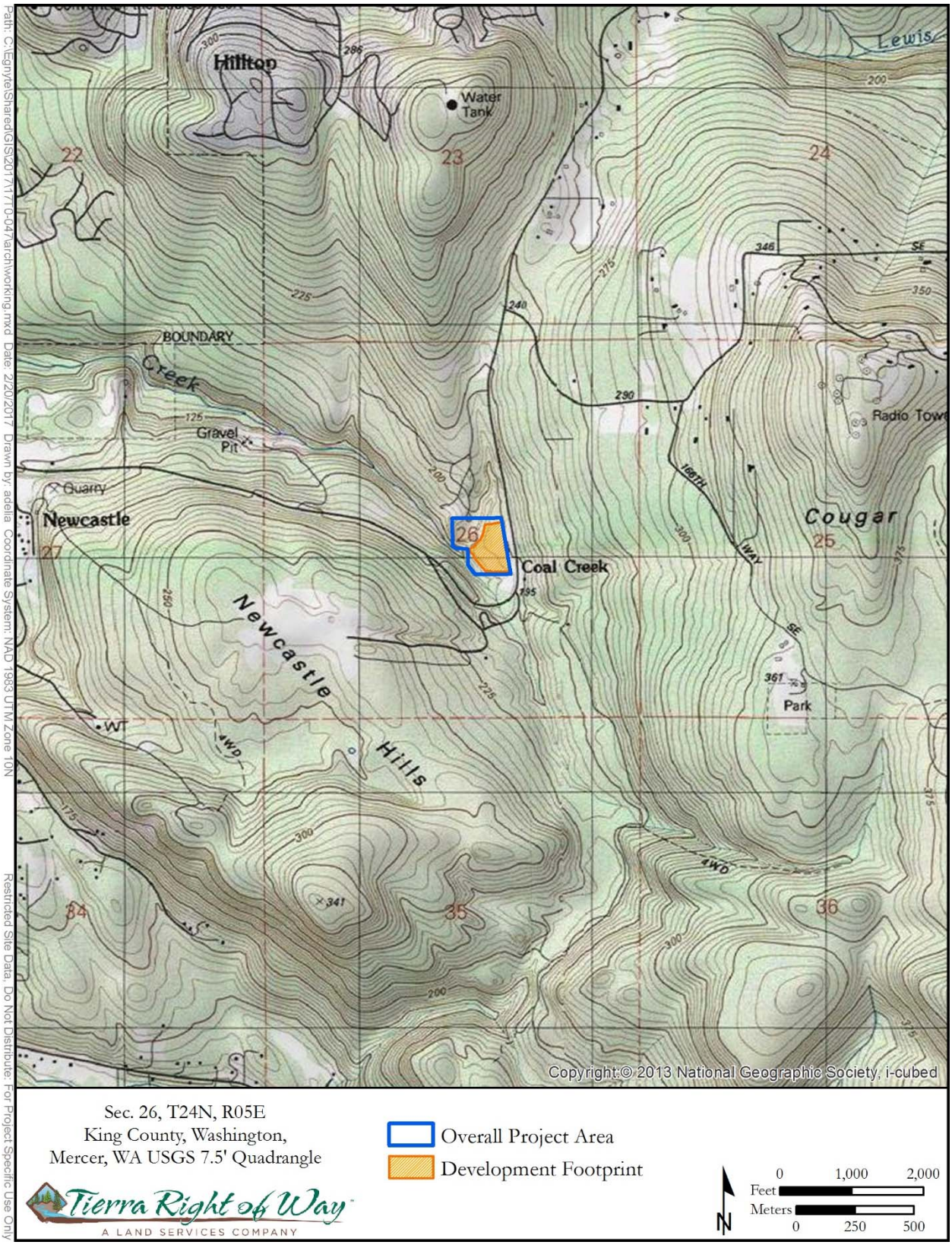

Figure 1. Project location, in Section 26, Township 24 North, Range 5 East, Willamette Meridian, as depicted on the Mercer, WA, 7.5-minute U.S. Geological Survey quadrangle.

DSD - 001333

Not enough information was obtained during the survey to make an NRHP eligibility recommendation for the site. Eligibility testing was recommended by the DAHP in a letter dated December 26, 2017. The permit (Permit No. 2018-12) was granted on April 12, 2018, for Tierra to conduct the site testing.

Fieldwork for site testing took place between April 25 and May 2, 2018, and required six days to complete with a crew of three archaeologists. Project personnel included Project Archaeologist Sherri Middleton, M.S.; Project Archaeologist Sarah Steinkraus, M.Sc.; Field Technician Bethany Mathews, M.A.; and Field Technician Mike Shong. The Project Manager was Jennifer Hushour, M.Sc.

LOCATION AND SETTING

Site 45KI1325 is located in Section 26, Township 24 North, Range 5 East, Willamette Meridian (WM) (Latitude 47.537, Longitude -122.129), on King County Parcel No. 2624059019, at 7331 Lakemont Boulevard SE, in Bellevue, Washington. The site is located on the western foothills of Cougar Mountain, on a finger ridge above Coal Creek. The site is just north of Coal Creek Trailhead. The overall dimensions of the site are 50 m (164 feet) in length by 10 m (33 feet) in width (Figure 2).

Geomorphology

The project area is located in the southeastern Puget Lowland, along the northwest boundary of Cougar Mountain Regional Wildland Park, 5.1 km (3.2 miles) east of Lake Washington and approximately 4.5 km (2.8 miles) south-southwest of Lake Sammamish. Coal Creek runs along the western edge of the project area. The Puget Lowland is a geological and physiographic province that was shaped by at least four periods of extensive glaciation during the Pleistocene epoch (Easterbrook 2003; Lasmanis 1991). The bedrock was depressed and deeply scoured by glaciers, and sediments were deposited and often reworked as the glaciers advanced and retreated. A mantle of glacial drift and outwash deposits were left across much of the region at the end of the last of these glacial periods, the Fraser Glaciation (Easterbrook 2003). The Vashon Stade of the Fraser Glaciation began around 18,000 B.P. with an advance of the Cordilleran Ice Sheet into the lowlands (Porter and Swanson 1998). The Puget Lobe of the ice sheet flowed down into the Puget Lowland and reached its terminus, just south of Olympia, between 14,500–14,000 B.P. (Clague and James 2002; Easterbrook 2003; Waitt and Thorson 1983). The Puget Lobe was thicker towards the north and thinned towards its terminus in the south. The Puget Lobe began to retreat shortly after reaching its terminus, allowing marine waters to enter the lowlands. The Puget Lowland, having been recently scoured by the Puget Lobe, filled readily. The remaining ice was lifted and rapidly melted as berg ice (Easterbrook 2003).

Soil Survey

As described and mapped by the Natural Resource Conservation Service (NRCS), the site area is comprised primarily of Beausite gravelly sandy loam (NRCS 2018). The Beausite series consists of moderately deep, well-drained soils formed in sandstone and conglomerate with a 6–15 percent slope. Beausite soils are found on glaciated mountains and foothills at elevations of near sea level to about 457 m (1,500 feet) above mean sea level (AMSL). They formed in glacial till and colluvium and slope alluvium from sandstone and conglomerate (NRCS 2018). The typical profile for Beausite gravelly sandy loam is gravelly ashy loam at 0–48 cm, very gravelly sandy loam at 48–97 cm, and bedrock at 97–107 cm.

DSD - 001334

Figure 2. Site 45KI1325 (original boundary) location within the APE.

DSD - 001335

The site area is located in a historic coal-mining region, and it is likely that mining and related activities have disturbed or buried intact soil horizons. Results from subsurface testing indicate that soil from the top stratum of the stratigraphy, approximately 0–40 cm below the surface (cmbs), is disturbed fill. The next stratum is indicative of non-sterile historic-era fill. According to Geotech Consultants (Strange 2016), this historic fill, ranging from 0.6–3.0 m below the surface, was used to create a flat terrace prior to construction of the existing structures on the property and native soil varied widely in composition across the site.

According to the historical records, the mining structures that once stood here were moved, torn down, or burned, which could explain the non-sterile historic fill from the Geotech Consultants report. The existing structures on the property date range in construction dates from 1918 to 1964.

There is evidence from STP 19 of a buried A horizon at approximately 90 cmbs that is indicative of the Beausite series. The burn feature at STP 19 was identified between 10–70 cmbs, suggesting that the deposit was placed atop the native soil surface and was likely a result of burning/razing historic structures or the deposit of burned trash in the Historic period (Steinkraus 2017:27). However, more data was needed to determine if this deposit is related to an adjacent structure or another type of feature.

RESEARCH DESIGN

The following Research Design was generated to acquire enough information to determine eligibility for site 45KI01325. Multiple lines of evidence, including historical records and archaeological data, were used to study the historic-era chronology, architecture, economic production and consumption, and community. A series of research questions for each of these topics is provided below. The ability to address these questions varies based on the type and amount of data available from historic records and the historic-era feature.

Some of these research questions may be more appropriate for data recovery and not eligibility testing, but they are provided here to help guide eligibility recommendations and for use during more in-depth work, if necessary in the future.

Chronology

Before addressing any other research themes, it is necessary to retrieve and understand chronological information on the origin and development of the site. In fact, an understanding of chronological context is essential to understanding the relevance of archaeological materials to any research themes. To better understand the historic development of the site, we attempt to address the following questions:

1. When and for how long was the site occupied, and is there any evidence of a chronological sequence of developments or improvements at the site?
2. The town was established around 1905 and was no longer present by 1936. Is there evidence of the use of the land prior to 1905?
3. Do artifacts confirm that the site was occupied and that buildings were constructed in 1905 or shortly thereafter?

DSD - 001336

Data Requirements

Diagnostic artifacts will allow for more precise and detailed dating of the site and specific structures. It will also be useful to collect artifacts from multiple contexts to document any extant stratification of deposits and to demonstrate associations with specific structures where present. Dates from archaeological materials will be compared with those based on historical records.

Architecture

Architecture is important because it has the potential to structure peoples' daily movement and the location of activities and may provide important insights on the stylistic and functional references of individuals and groups that may share ethnic or cultural backgrounds. Architectural remains also contain important information on construction methods and materials, which are limited largely by available capital and individual preferences that together define colloquial architectural styles. Site 45KI1325 may contain subsurface remnants of the Finn Town mine worker residential structures and associated features such as privies.

1. What are the functions of individual buildings at the site, and do structures contain distinct activity areas?
2. What construction methods are represented and to what extent are local materials used?
3. Is there evidence of changing construction methods and building forms through time?
4. Can we identify architectural styles that are similar to contemporary examples in Newcastle (specifically the 1918 company house still standing nearby)?

Data Requirements

Excavation within and around building foundations (if present) will provide data needed to address this research theme. Accurate mapping and recording of architectural foundations, architectural details, and any other features present can provide information on methods and sequences of construction and may reveal the specific functions of buildings. Analysis of artifacts found during controlled excavation will help to place various construction episodes in specific periods of time.

Economic Production and Consumption

45KI1325 was the location of coal miner housing in the early twentieth century. To better understand production and consumption patterns at the site, we proposed the following questions:

1. Does the site contain mechanical equipment, tools, or features related to mining or other industrial or domestic uses?
2. Are any smaller-scale subsistence activities (e.g., keeping chickens, gardening) represented by features and artifacts?
3. Are bones and macrobotanicals present in trash deposits, and what do they tell us about on-site food production/consumption?
4. What kinds of mass-produced foodstuffs and beverages are represented, and do the kinds and sources of mass-produced foodstuffs change through time? If so, how do these patterns of consumption fit in with historical information about the economic status, ethnicity, gender, etc. of the owners/residents of this property?

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Data Requirements

Controlled excavations in artifact scatters, features, and within and around structure foundations and the analysis of recovered artifacts, animal bone, and macrobotanical samples will provide essential information on production and consumption.

Community

This research theme is essentially a summation or synthesis of the other themes, as it relies on conclusions and details related to Chronology, Production and Consumption, and Architecture. The themes of both Mine Employees and Finnish Community attempt to relate these kinds of details to the social lives of the individuals and/or families living at the site and their contributions to the cultural history of this area. We are interested in how individuals living or working at 45KI1325 were related to and interacted with the larger community of Coal Creek/Newcastle. To address the role of the occupants of the site in the larger community, we are interested in acquiring information on genealogies, family histories, and details about the lives of individuals living in the area.

1. Does the material record reflect the use of the property as housing for industrial workers, specifically coal miners?
2. What was the quality of housing like? Was the space overcrowded? Is there evidence of locations or features used by more than one person or group?
3. How is Finn Town associated with Newcastle? How and why was it delineated from the other settlements of Red Town, Rainbow Town, etc.?
4. Is there evidence of families living on the property (i.e., evidence of children and women in addition to the male mine workers)?
5. Does the material and/or historical record indicate the ethnicity of the site's residents and if so can anything be identified that would indicate they were Finnish? What can this tell us about the integration of immigrant communities in turn-of-the-century mining towns in Washington?

Data Requirements

Artifact analysis and archival research will be the essential sources of information for the investigation of this research theme. Records pertaining to the ownership of the parcel, those who lived there, and their family histories may be found in local or state archives and other primary sources beyond the land patent records, including Ancestry.com.

Site Eligibility

Using all of the information outlined above, is this site eligible for inclusion in the NRHP, and if so, under which criteria? That is, does it possess integrity of location, design, setting, materials, workmanship, feeling, and association? Is it also:

A. Associated with events that have made a significant contribution to the broad patterns of our history; or

B. Associated with the lives of significant persons in our past; or

C. Embodying distinctive characteristics of a type, period, or method of construction, or representing the work of a master, possessing high artistic values, or representing a

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significant and distinguishable entity whose components may lack individual distinction; or

D. Yielding or likely to yield information important in history or prehistory.

METHODS

Archival Research Methods

Archival research methods for historical review of the area included a review of the local history from a number of different resources. Historic information, documentation, maps, and photos of Finn Town were available through the Eastside Historical Society, Newcastle Historical Society, the Renton Historical Society and Museum, and Ancestory.com. Background research for previously recorded archaeological sites and previous cultural survey reports of the area were available on the DAHP's Washington Information System for Architectural and Archaeological Records Data (WISAARD) database. Other resources used for general background research of the environmental and past land use included the NRCS and the Bureau of Land Management's (BLM's) General Land Office (GLO) Survey Records database.

Field Methods

Fieldwork took place between April 25 and May 2, 2018, in mild weather with a mix of cold mornings and partly cloudy to sunny afternoons. Project personnel included Lead Project Archaeologist Sherri Middleton, M.S.; Project Archaeologist Sarah Steinkraus, M.Sc.; Field Technician Bethany Mathews, M.A.; and Field Technician Mike Shong. Ms. Middleton meets the U.S. Secretary of Interior's Standards for Archaeologists and was present throughout the entire project.

Archaeological testing at 45KI1325 followed the methods outlined in the DAHP-issued permit (Hushour 2018). The testing plan was to place a 1-by-1-m test unit within the burn feature, place additional STPs to refine the site boundary and identify any additional features (for a possible second unit), and collect enough data to determine the NRHP eligibility of site 45KI1325.

Fieldwork began by locating all the previously excavated STPs within and adjacent to the recorded site 45KI1325 using a Trimble global positioning system (GPS) from the previous fieldwork done by Tierra in March 2017 (Steinkraus 2017). These STPs were flagged and marked as positive or negative for cultural material.

Once the locations of the units were decided upon, a 1-by-1-m test unit was set up in true north-south and east-west directions, with the datum in the northeast corner of Unit 1 and the northwest corner of Unit 2. The units were hand excavated with a shovel and trowel in 20-cm arbitrary levels. Sediments were screened through a quarter-inch hardware screen on a tarp, and the unit was backfilled upon completion of excavation. Excavation of each level started in the southwest quadrant, followed by the northwest, southeast, and northeast quadrants. The in situ features, the bottoms of each level, and directional profile walls were sketched mapped and photographed. Artifacts recovered and collected from the unit were noted by project, unit, level, depth, excavators, material, date, and whether recovered from the northwest-southwest half or the northeast-southeast half of the unit.

New STPs were placed approximately 10 m from positive STPs that had been previously excavated. The 40-cm-diameter STPs were hand excavated with a shovel to a depth of 1 m or two levels of sterile

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strata where possible. Sediments were screened through a quarter-inch hardware screen on a tarp, and the STP was backfilled upon completion of excavation. Soil descriptions were described in natural stratigraphic levels. The artifacts recovered and collected from the STPs were noted by STP number, depth by 20-cmbs arbitrary levels, excavator, material, and date.

Archival Research Results

Newcastle Coal Mining Complex

Both Newcastle and Coal Creek were historic mining towns in the area that date back as early as the 1860s. Newcastle appeared on survey maps in the early 1860s, when coal was discovered in the densely wooded area east of Lake Washington. Newcastle's first major mine opened in 1869, and by 1883, coal production reached a record 218,742 tons. The coal reached Seattle by way of railroad and barge and had to be handled 11 times before it reached Seattle's waterfront (Overland 1994). In the 1880s, Newcastle/Coal Creek comprised the second largest community in King County (Brockhaus n.d.). Not much is left of what once was the bustling town of Newcastle. In its heyday, it boasted a company store, small sawmill, blacksmith, church, two schools, a hospital, saloon, and some 140 homes. There was a baseball club and five lodges, including Masons, Oddfellows, Knights of Pythias, Good Templars, and United Workmen. In 1897, the Pacific Coast Coal Company bought the Newcastle mines and associated railroad.

By 1902, all of the mining operations from "Old Newcastle" were transferred to the Bagley Seam at Coal Creek, and Old Newcastle became a dying town (McDonald and McDonald 1987). By 1905, operations for the Bagley Seam were phased out with the development and full production of the Ford Slope in the Muldoon Seam. The largest of the Pacific Coast Coal Company's operations was the Ford Slope Mine, which descended 448 m (1,740 feet) to 61 m (200 feet) below sea level. The Ford Slope mine, located near the old town of Newcastle, operated from 1905 to 1926.

Around 1905, the townsite of Coal Creek was developed around the Ford Slope mine, and the smaller subcommunities of Red Town (because all of the houses were painted red [Holma 1976]), Rainbow Town, Finn Town, and White Town started to spring up (Figure 3). In 1918, the post office was moved here, and the townsite's name was changed from Coal Creek to Newcastle.

Coal Production stayed high through World War I. However, immediately following the war, strikes were common. Conflicts between miners demands for higher pay and the declining demand for coal led to a series of strikes between 1919 and 1923, which culminated in the almost complete defeat of the United Mine Workers (Issaquah Alps and Trails Club 1990). Some of these displaced miners quit mining and turned to dairy farming (see Photo 1 caption below). By 1924, mining had slowed, and people started to move out. In 1926, the Pacific Coast Coal Company closed the Ford Slope and opened the Primrose mine, located just north of the townsite, which operated until 1929. Between 1929 and 1932, Pacific Coast Coal Company sold most of the employee's houses for $25 each. The remaining houses were torn down or burned. In 1936, the coal company sold the land as-is to the remaining residents.

The railroad service that ran from Renton to Newcastle ceased in 1930, and the rails were pulled in 1937. Today, much of the land that once was Newcastle has returned to its former forested state, but remnants of concrete foundations, railroad grades, and fruit and other ornamental trees still stand (McDonald and McDonald 1987).

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Finn Town

There were at least 50 Finnish families that made up Finn Town. The town existed from around 1905 until mining operations ceased ca. 1932. The houses were built and owned by the occupants (as opposed to uniform housing constructed by the company) on land leased from the coal company. For this reason, the houses were more individualized when compared to the standard company houses in Red Town, including features such as added porches and fences (Photos 1 and 2). There was a Finnish Lodge Hall that became a show hall after the Brotherhood sold it to the Pacific Coast Coal Company. There was also a boarding house for single men that came to work the mines while housing and transportation were arranged (McDonald and McDonald 1987).

Sanfry Holma of Finnish descent was born at Coal Creek in 1908. According to a memoir written by him (1976), the "area was made up of immigrants from all over the world: English, Finnish, Irish, Swedish, Italians, Austrians, Danish, Welsh, Greeks, Scottish, Black, Chinese…" (Holma 1976:5). Miners and their families lived in temporary tent housing until homes could be built.

The school for the children of Coal Creek was initially located in Red Town, and all eight grades were taught by one teacher. As the towns grew, a larger school and playground were built. He notes that the Finnish people of Newcastle got along very well with each other and the other nationalities and had built a Finnish Brotherhood Hall opposite the company store. All of the meetings and activities took place there.

Most of the miners' families had subsistence gardens and small orchards, and many kept chickens, cows, rabbits, and pigs. The water supply for the homes came from a dam on a creek "about half a mile above" Finn Town (Holma 1976:11). This was a gravity system that provided clean water to all the homes. The 1928 Coal Creek Map shows piping starting from the "Creek Gulch" northeast of Finn Town. From here, a system of piping of different sizes continues throughout Coal Creek. In Finn Town, the piping to the homes is labeled as 2-inch iron pipes.

Photo 1. April 1921. Elias Hytinsen is seen standing in front of his house, which he built in Finn Town on land leased from the company (courtesy of Renton Historical Society).

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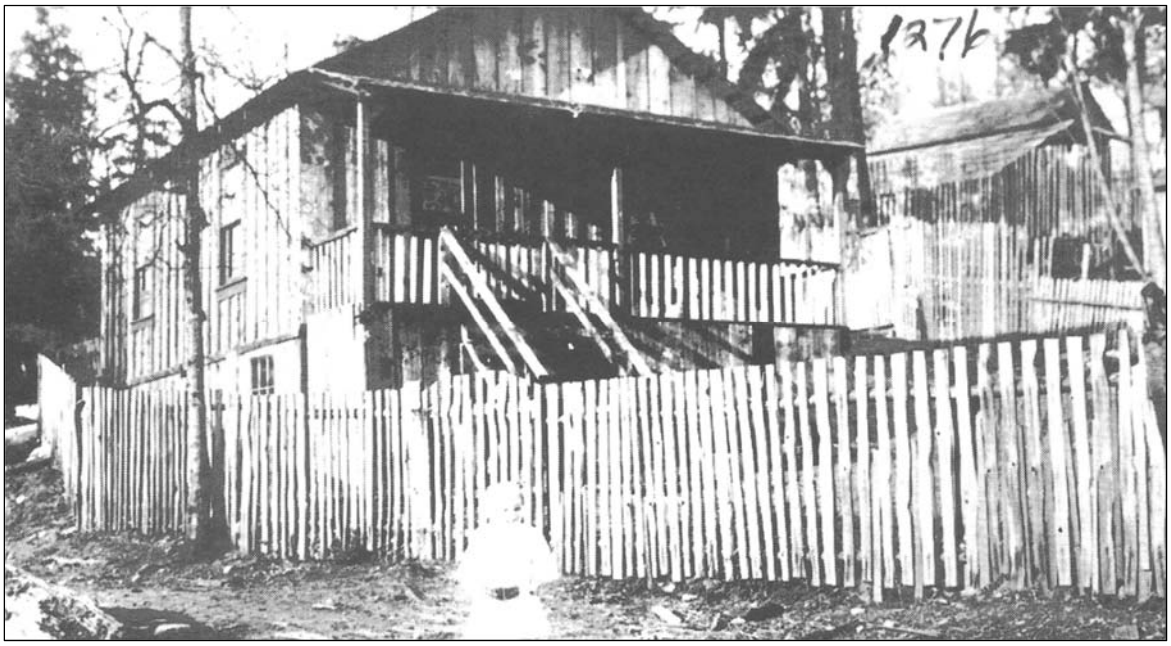
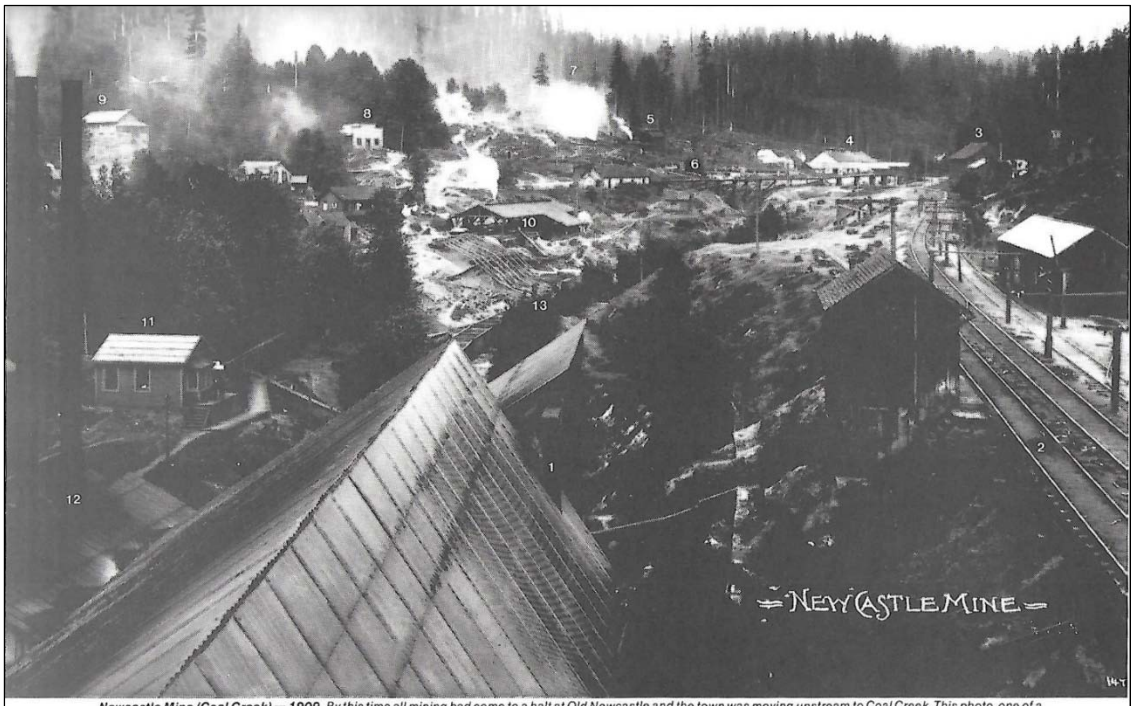


Photo 2. Coal Creek–Finn Town Section; Alli Frantilla, standing in front of her house, was born in 1908 and died in 1912 (courtesy of Renton Historical Society [Museum Nos. 1276 & 1290]).



Newcastle Mine (Coal Creek) — 1909. *By this time all mining had come to a halt at Old Newcastle and the town was moving upstream to Coal Creek. This photo, one of a series by Asahel Curtis, looking upstream from above the bunkers gives a good view of Coal Creek. Moving counter clockwise the most prominent features are:*

(1) Roof of the coal bunkers and cleaning plant. (2) Electric haulway tracks between the mines and the bunkers. (3) The Finnish boarding house and part of Rainbow Town. (4) Ford Slope Mine. (5) Opening to the Bagley Tunnel mine with fan house above. (6) Bridge on the county road crossing Coal Creek. (7) Fires on the hill above are apparently from brush clearing preparatory to the building of Red Town. (8) Coal Creek Saloon. (9) Start of Finn Town section of Coal Creek. (10) Company owned sawmill with stables to the right. (11) Columbia & Puget Sound ticket office and depot. (12) Steam plant and stack for the electric generating plant. (13) End of the Columbia & Puget Sound main-line to Seattle with empty coal cars. 1909 Photo by Asahel Curtis; courtesy of the Washington State Historical Society, Tacoma #14715.

Figure 3. 1909 Photograph of Coal Creek. Finn Town is visible on the upper left (courtesy of Renton Historical Society) (McDonald and McDonald 1987).

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According to the 1928 Coal Creek Map, it appears that site 45KI1325 is located where Finn Town Company House Nos. 175, 181, and 182 once stood (Figures 4 and 5). These structures no longer exist and were likely moved, torn down, and/or burned prior to 1932. The artifacts and burn feature found in STPs in these locations are likely related to the demolition of these structures. It should be noted that these three lots in question are larger than those surrounding, perhaps indicating higher socioeconomic status, positions of authority, or larger families residing there.

Field Results

In total, 11 new STPs (STPs 21–31) and two 1-by-1-m units were excavated during testing (Figure 6). STPs identified seven types of matrices (Table 1) that were consistent with the Beausite gravelly sandy loam series. Subsurface testing showed evidence of highly disturbed sediments caused by multiple historic events. Historic imported fill (Stratum V) was observed in Unit 2 Feature 3. This was determined by the intact buried A horizon (Stratum III) above the historic fill. Cultural material was observed and recorded in 9 of the 11 new STPs (Table 2).

The additional shovel testing resulted in modification of the boundary of site 45KI1325 (see Figure 6). The area of the site was expanded from 1,622 m^2 to 2,910 m^2 based on positive STP results (Table 3). While slightly larger than the site identified during the survey, it still corresponds with the 1928 map of the project area showing structures within the site boundary. The westward expansion of the site, indicated by positive STPs containing historic material (brick, wood, nails, vessels, and window glass), suggests that either the debris from the razed structures was pushed to the west, or that historic-era trash was dumped in this area during and/or after the historic residential use, or a combination of both.

Three features were identified during testing, all of which are associated with the Historic period mining complex. One is a burn feature containing burned structural deposits and refuse (Feature 1), one is an unknown feature type consisting of possible burned industrial material (Feature 2), and one is a wood-lined coal bunker still partially filled with large blocks of coal (Feature 3). All features are discussed in detail below.

Unit 1

The location of Unit 1 was placed to encompass the burn feature discovered during Tierra's survey in STP 19 (Feature 1). The unit was set up in true north-south and east-west direction with the datum located in the northeast corner. Unit 1 was hand excavated in 20-cm arbitrary levels to a depth of 1 m, for a total of five levels (Photos 3–7). Table 3 describes the sediments and associated cultural material for each level.

Feature 1 was exposed in Level 1 and was observed through Level 4. This feature was concentrated in the western half of the unit and was mottled throughout the rest of the unit. Recovered artifact counts were higher in the upper levels (Levels 1 and 2) of the unit and decreased with depth. Level 3 resulted in larger fragments of charcoal, and burned deteriorating brick was observed and increased through Level 4. Level 5 contained sterile soils and no cultural material.

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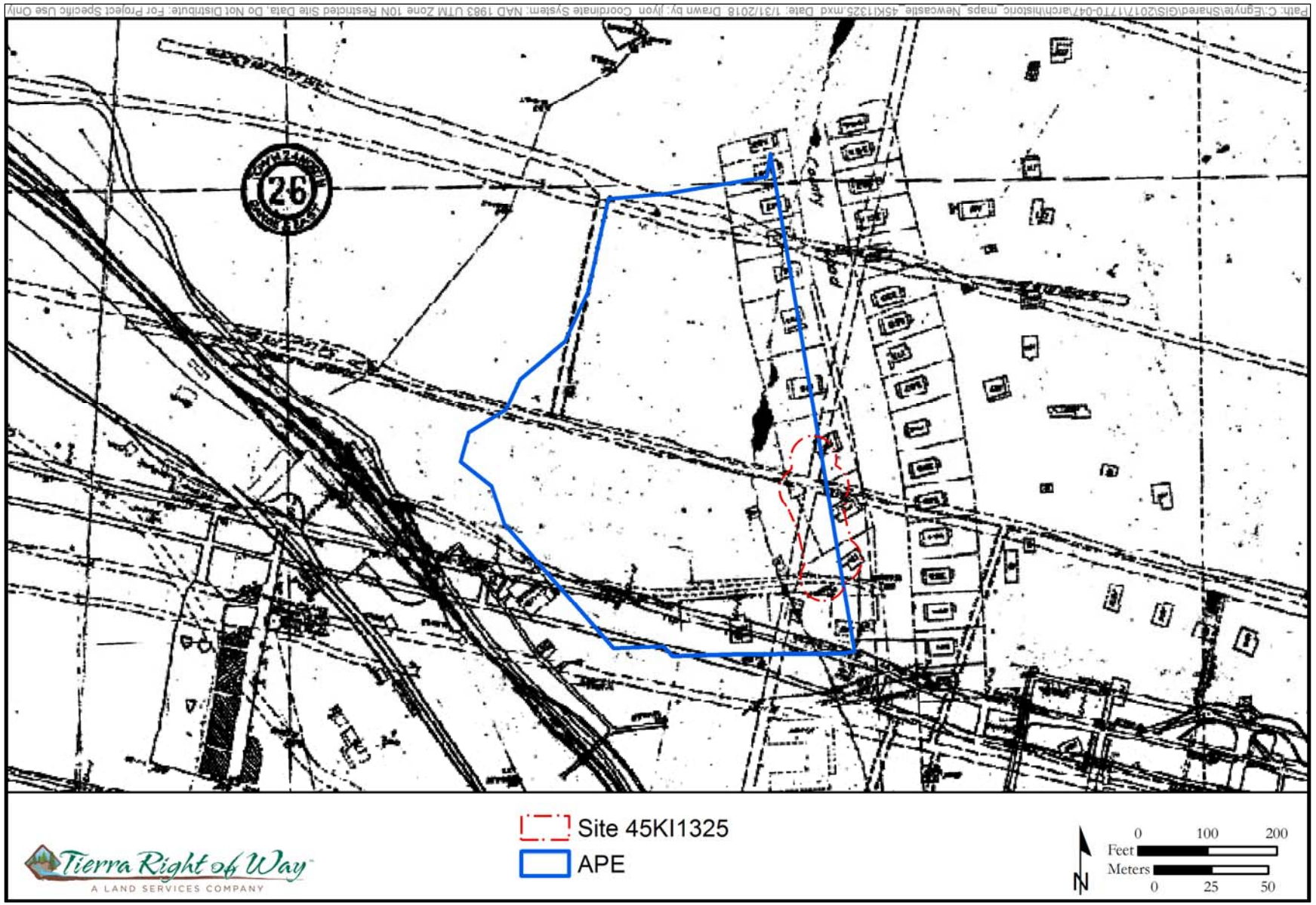

Figure 4. 1924 Map of Newcastle and original 41KI1325 boundary (DNR 2018).

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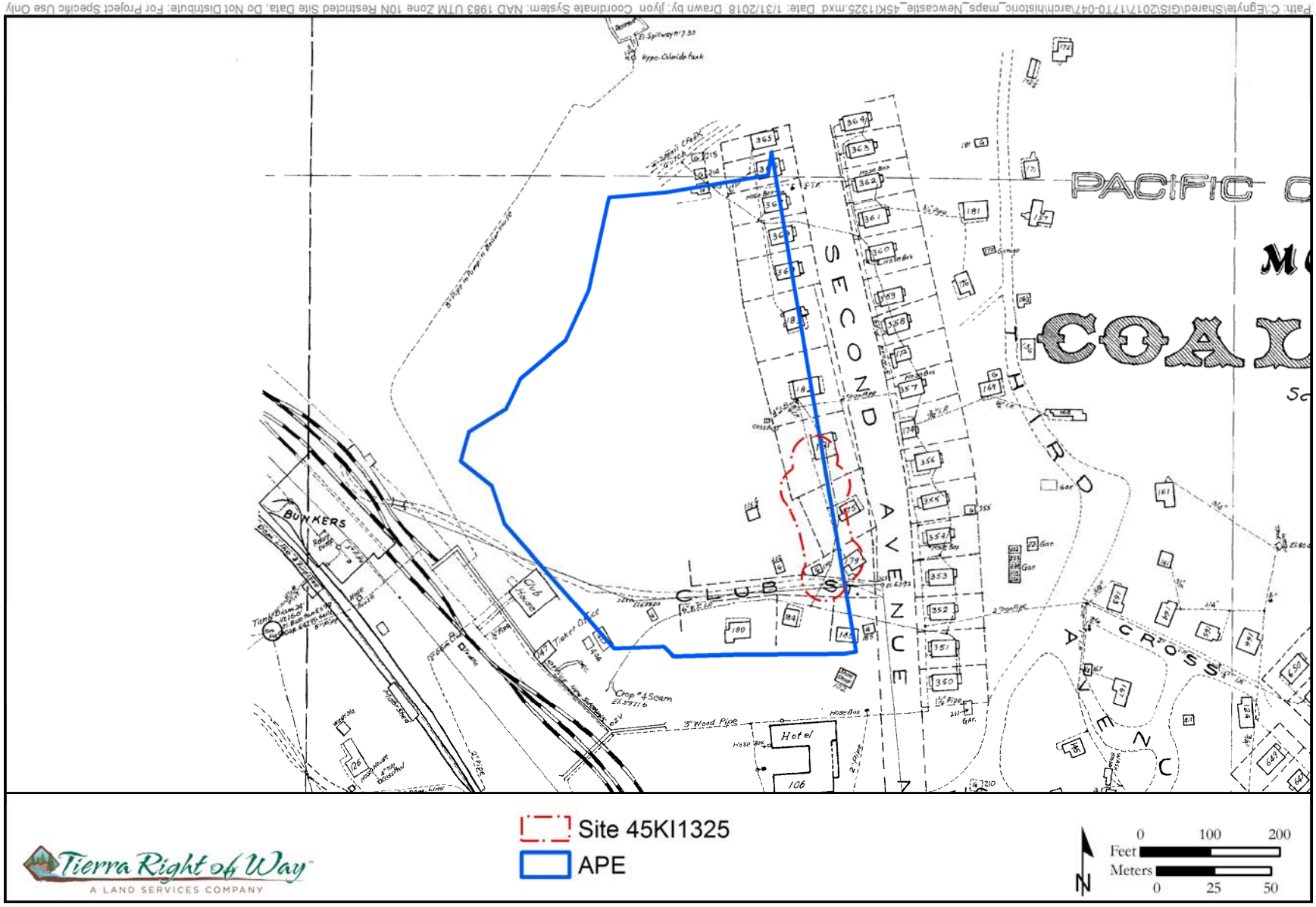

Figure 5. 1928 Coal Creek map with Site 45KI1325 (courtesy of Eastside Historical Society).

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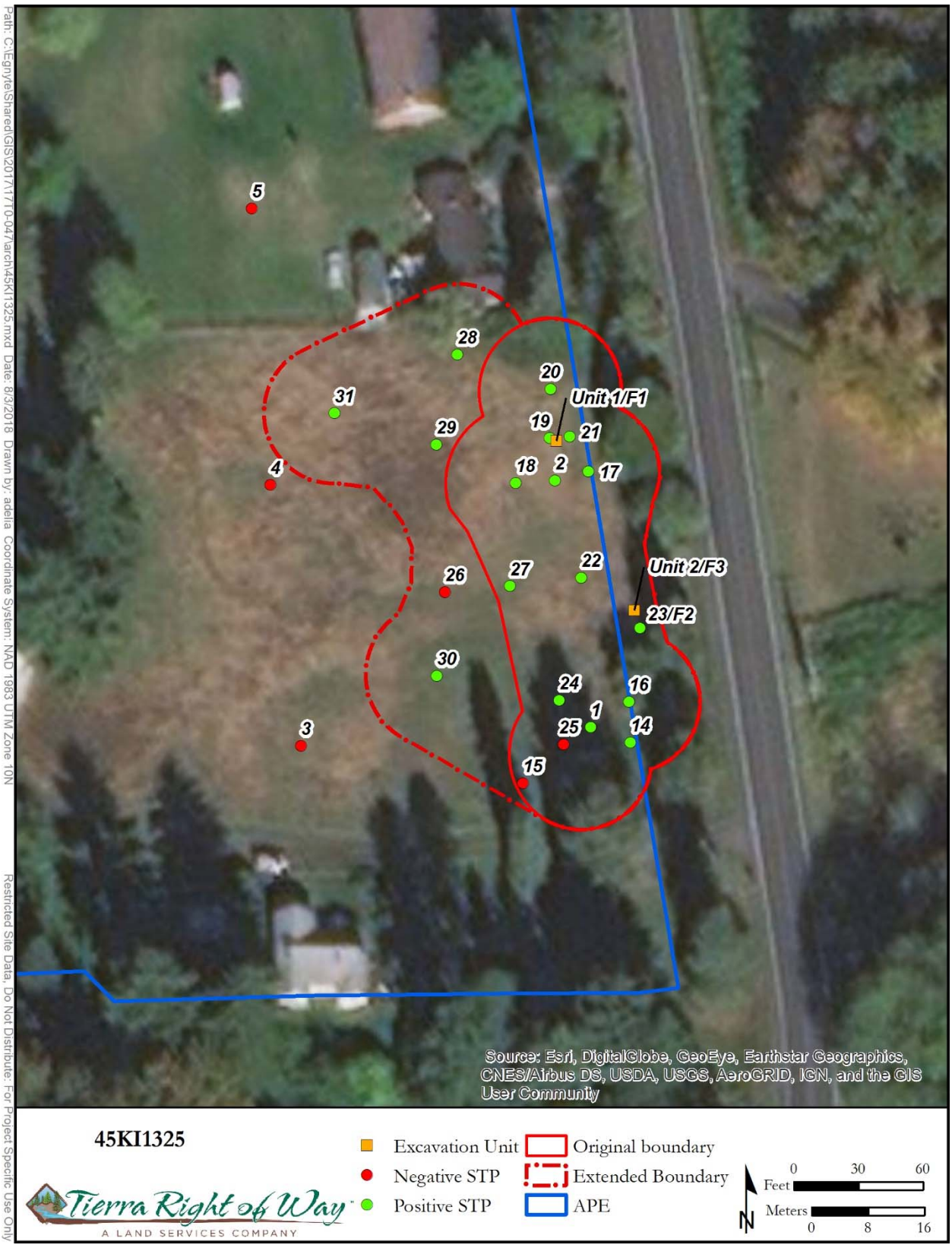

Figure 6. Results of site testing at 45KI1325.

DSD - 001346

Table 1. Soil Matrices Descriptions

Matrix	Description
A	Brown to dark brown, silty, fine to medium sand with 5–15% subangular/rounded and rounded poorly sorted gravels; common rootlets; clear boundary; modern A mixed with historic domestic fill.
B	Dark brown mottled grey brown, fine to medium sand with 15–30% angular, rounded, subangular/rounded, poorly sorted small to large gravels; clear boundary; mixed historic fill.
C	Yellow-brown, silty, fine to medium sand with 15–30% subrounded/angular, poorly sorted small to large gravels; clear boundary.
D	Orange-brown to grey-brown, fine to medium sandy loam with 15–30% subrounded/angular, small to large, poorly sorted gravels; intact B horizon.
E	Greyish brown, fine to medium sand with 15–30% subrounded/angular, small to large, poorly sorted gravels; clear boundary.
F	Grey, coarse sand and gravel; >50% subrounded/angular poorly sorted gravels; glacial parent material.
G	Dark brown, fine loamy sand with <5% subrounded/angular poorly sorted small gravels; sediments are organic and rich with decomposed woody debris, charcoal flecks, roots, and sticks of wood; sediments are wet.

Table 2. STP Results

STP No.	Depth at Termination (cmbs)	Positive / Negative	Reason for Termination	Soil Description Matrix (below surface)	Excavators	Date
21	100	Positive; 0–20 cmbs ceramic, glass, nails, metal. 20–40 cmbs: glass, ceramic 40–60 cmbs: metal.	at depth	0–26 cmbs: Matrix B. 26–85 cmbs: Matrix C disturbed with pockets of oxidized sediments, deteriorating brick, and charcoal. 85–100 cmbs: Matrix F with some oxidation.	Bethany Mathews	4/27/2018
22	80	Positive; 0–20 cmbs: nail, metal, glass, 1 possible lithic. 20–40 cmbs: nail.	inundation/ poor visibility	0–20 cmbs: Matrix A with 1–5% charcoal and diffused boundary. 20–80 cmbs: Matrix B with common fine rootlets; water seepage and full inundation at 60 cmbs.	Sherri Middleton	4/30/2018
23	90	Positive; 0–30 cmbs: small toy horse. 60–80 cmbs: ferrous metal, vessel glass.	at depth	0–30 cmbs: Matrix A with common fine roots. 30–60 cmbs: Matrix E with few fine roots. 60–80 cmbs: Matrix G with intact Feature 2. 80–90 cmbs: Matrix F with water table.	Mike Shong	4/30/2018

DSD - 001347

STP No.	Depth at Termination (cmbs)	Positive / Negative	Reason for Termination	Soil Description Matrix (below surface)	Excavators	Date
24	55	Positive; 0–20 cmbs: 1 linear hardware piece.	inundation/ poor visibility	0–20 cmbs: Matrix A with common fine rootlets. 20–55 cmbs: Matrix B with water table at 40 cmbs.	Sherri Middleton	4/30/2018
25	60	Negative	inundation/ poor visibility	0–40 cmbs: Matrix B with many fine rootlets. 40–60 cmbs: Matrix C with angular as well; water table at 50 cmbs.	Sherri Middleton	4/30/2018
26	55	Negative	inundation/ poor visibility	0–35 cmbs: Matrix A with few charcoal flecks. 35–55 cmbs: Matrix C with few fine roots; water table at 40 cmbs.	Mike Shong	4/30/2018
27	50	Positive; 0–20 cmbs: ceramic or shell, nail, glass. 20–40 cmbs: ceramic, possible shell, nail.	inundation/ poor visibility	0–20 cmbs: Matrix A with 10% charcoal. 20–50 cmbs: Matrix B with charcoal flex; water table and inundation at 50 cmbs.	Sherri Middleton	4/30/2018
28	86	Positive; 0–20 cmbs: wire nails, vessel glass	at depth	0–15 cmbs: Matrix A with fine roots and few charcoal flecks. 15–70 cmbs: Matrix B with woody debris, little charcoal flecks, 2 clots of charcoal–ash matrix (stove cleanout). 70–86 cmbs: Matrix C, weak and blocky ped structure, on top of glacial.	Mike Shong	4/30/2018
29	92	Positive; 0–20 cmbs: nails, glass. 40–60 cmbs: nail.	at depth	0–20 cmbs: Matrix A with charcoal 2%. 20–70 cmbs: Matrix C disturbed with many fine rootlets. 70–92 cmbs: Matrix F.	Sherri Middleton	4/30/2018
30	60	Positive; 0–20 cmbs: nail fragments.	inundation/ poor visibility	0–25 cmbs: Matrix A common fine roots. 25–60 cmbs: Matrix C with water table at 60 cmbs.	Mike Shong	4/30/2018

DSD - 001348

STP No.	Depth at Termination (cmbs)	Positive / Negative	Reason for Termination	Soil Description Matrix (below surface)	Excavators	Date
31	85	Positive; 0–20 cmbs: wire nail, vessel glass green and cobalt.	at depth	0–35 cmbs: Matrix A with common fine roots, few charcoal flecks, blocky soil structure. 35–75 cmbs: Matrix D grading to pale brown and mottled with Matrix A. 75–85 cmbs: Matrix E with few fine roots very few charcoal flecks.	Mike Shong	4/30/2018

Key: cmbs = cm below surface.

Table 3. Table Unit 1 Results

Unit	Level	Feature	Depth Below Datum (cmbd)	Soil Description	Cultural Material	Comments
1	1	1	0–20	10YR 3/1 silty sand with 10% angular, subangular/rounded and poorly sorted small to medium gravels; weak ped structure and many fine rootlets	*In Situ*—16 cmbd: nail and spike in middle of NW/SW half of unit. *Artifacts*—Burned brick fragment, ceramic, unknown fabric, flat glass, metal fragments, nails, vessel glass	–
1	2	1	20–40	*NW Quad:* 10YR 3/6 Silty sand with 25% subrounded/angular, poorly sorted small to large gravels, 10% small subrounded cobbles, pockets of oxidized sediments and 1% charcoal flecks, many fine rootlets. *Burn Feature:* 10YR 2/2 silty sand; sediments are charcoal stained and charcoal flecks. *NE/SE Half:* 10YR 5/6 silty sand with ashy pockets and 1% charcoal.	*Artifacts*—Bolts, ceramic, flat glass, nails, vessel glass	–

DSD - 001349

Unit	Level	Feature	Depth Below Datum (cmbd)	Soil Description	Cultural Material	Comments
1	3	1	40–60	*Burn Feature:* 10YR 3/3 Silty sand with 35% subrounded/angular, poorly sorted small to large gravels; 25% small to medium subrounded cobbles; increased oxidation and increased chunks of charcoal. *NE/SE Half*: 10YR 4/6 silty sand with 35% subrounded/angular, poorly sorted small to large gravels; 25% small to medium subrounded cobbles.	*In Situ*—Higher concentration and pockets of burn feature and associated deteriorating brick in NW quad. *Artifacts*—Burned brick fragment, slag, flat glass, nails, vessel glass	–
1	4	1	60–80	10YR 4/6 silty loam mottled with 10YR 4/2 sandy loam with 30% small/medium subrounded/angular poorly sorted gravels; weak ped structure. *NE Quad:* 10YR 3/6, Sediment structure is hard and layered. *SW Quad:* Pockets of 10YR 2/2.	Higher concentration of brick and charcoal chunks. *Artifacts*—Brick fragment, flat glass, nails.	*NE Quad:* Sediments appear to be modified by high temperature burning. *SW Quad:* Two pockets of burn feature.
1	5	1	80–100	10YR 5/4 Coarse sand with pockets of loam, 30% subrounded/angular small–large pebbles and small cobbles; hard ped structure; glacial.	no cultural material	–

Key: cmbd = cm below datum.

DSD - 001350

Photo 2. Unit 1, bottom of Level 1: 0–20 cmbs.

Photo 3. Unit 1, bottom of Level 2: 20–40 cmbs.

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Photo 4. Unit 1, bottom of Level 3: 40–60 cmbs.

Photo 5. Unit 1, bottom of Level 4: 60–80 cmbs.

DSD - 001352

Photo 6. Unit 1, bottom of Level 5: 80–100 cmbs.

All four directional walls were profiled, and sediment descriptions were described in Table 4 (Figures 7–10). Stratum I was a 10YR 2/2 silty sand with extensive mottling of the burn feature. Sediments were charcoal stained, and charcoal flecks were visible throughout all four walls. Stratum II was a 10YR 4/6 silty sand with pockets of oxidized sediments, charcoal flecks throughout, and a generally weak ped structure. Stratum IIa is the same as Stratum II. However, this stratum shows evidence of in situ deteriorating burned brick, with high-temperature-burned sediments located in the south and east walls. Stratum III was a 10YR 5/4 coarse sandy loam with hard ped structure and was indicative of glacial soils.

Table 4. Unit 1. Stratum Descriptions for Profile Walls

Unit	Stratum	Description
1	I	Stratum I was a 10YR 2/2 silty sand with extensive mottling of the burn feature. Sediments were charcoal stained and charcoal flex was throughout all four walls.
1	II	Stratum II was an 10YR 4/6 silty sand with pockets of oxidized sediments, charcoal flex, and a generally weak ped structure.
1	IIa	Stratum IIa is the same as Stratum II; however, this stratum shows evidence of deteriorating burned brick with high-temped burned sediments located in the south and east walls.
1	III	Stratum III was an 10YR 5/4 coarse sandy loam with hard ped structure and was indicative of glacial.

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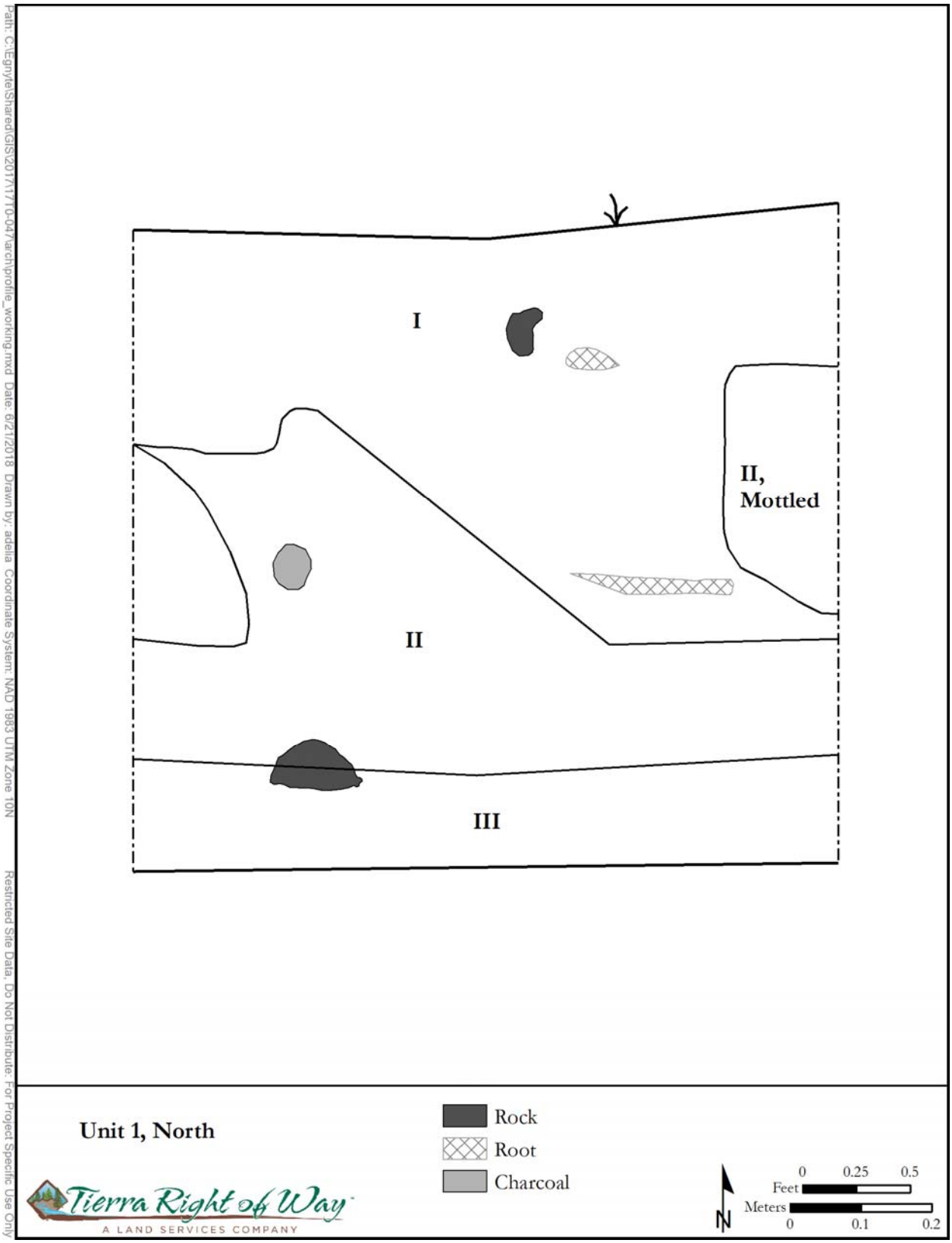

Figure 7. Unit 1, north profile wall (see Table 4 for strata descriptions).

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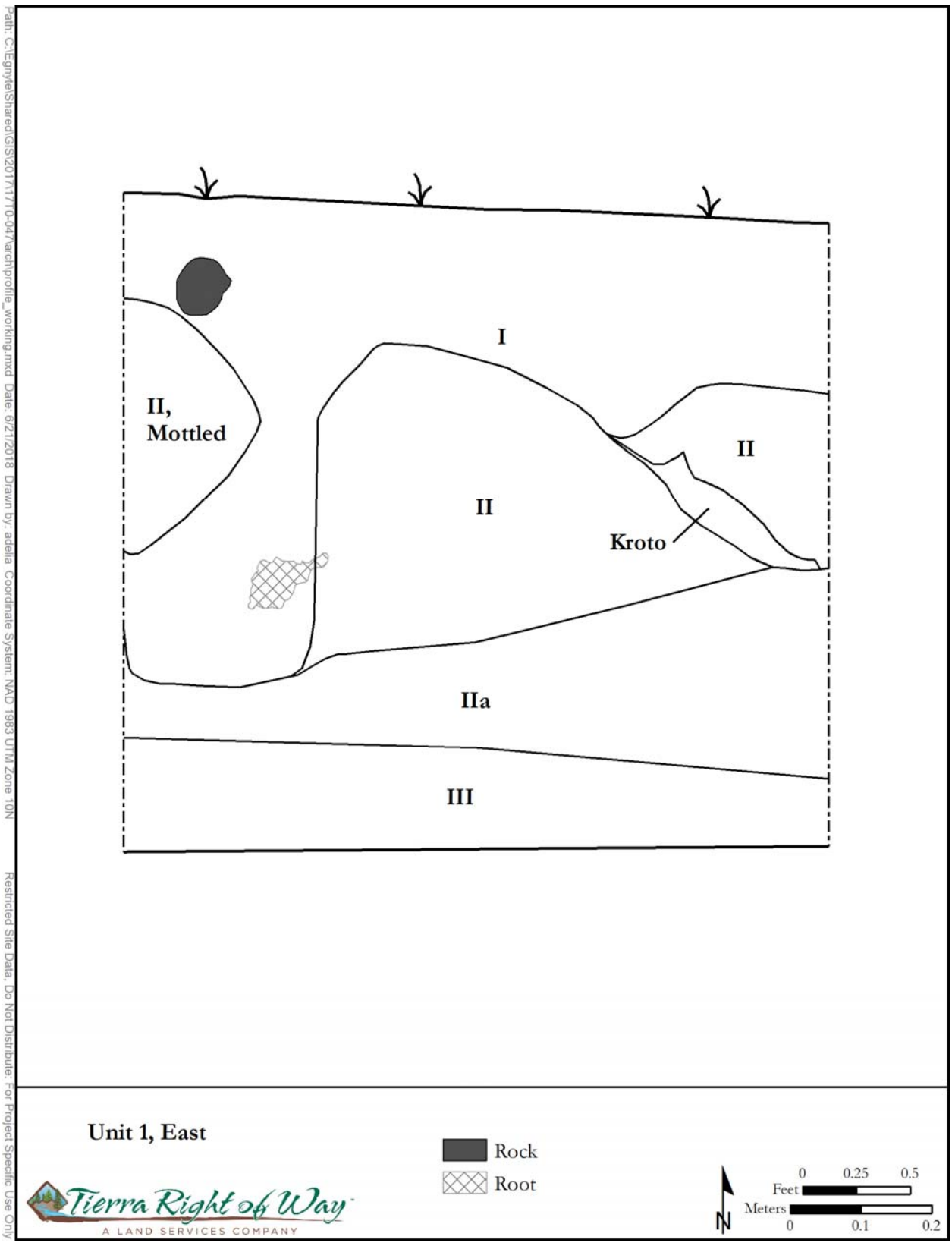

Figure 8. Unit 1, east profile wall.

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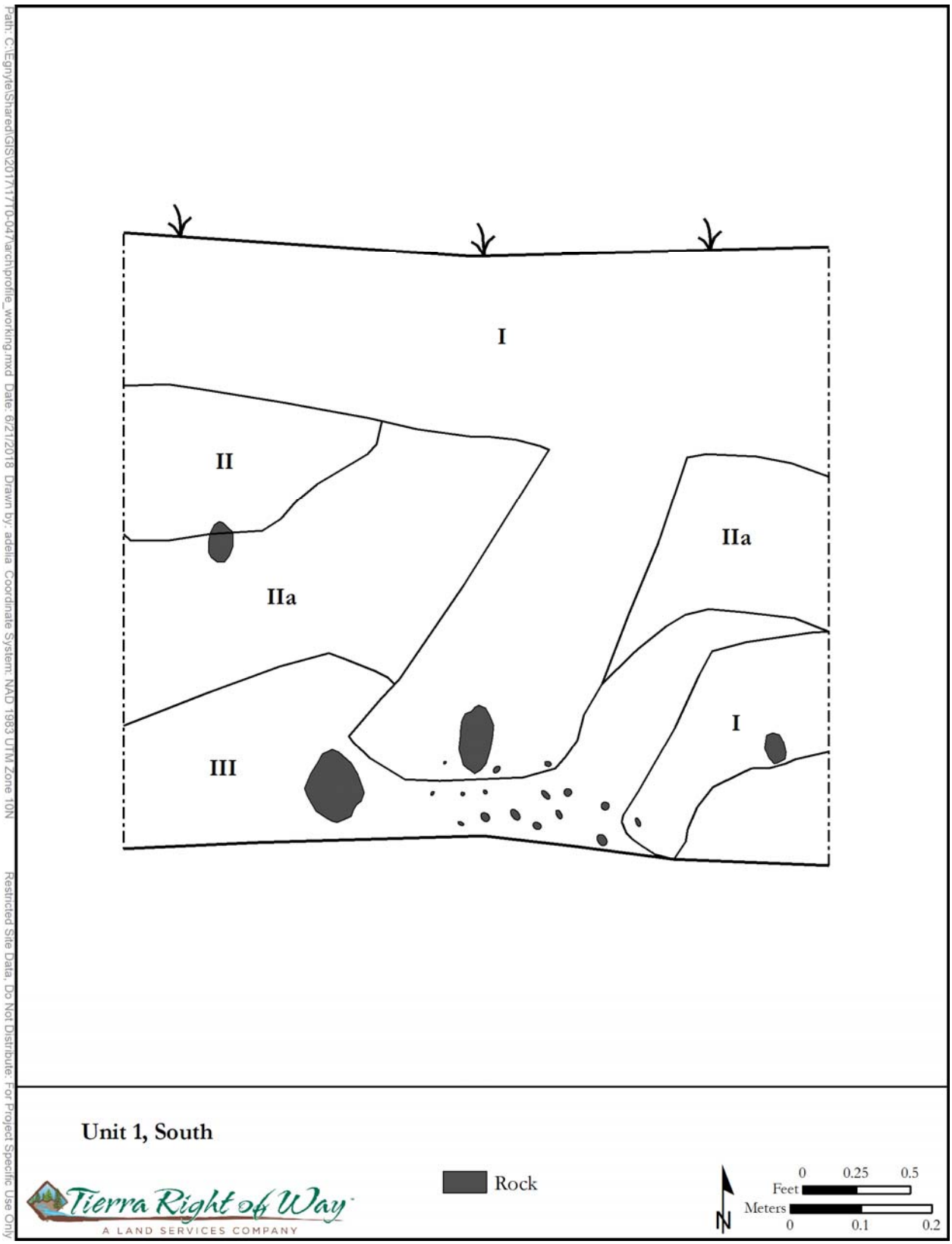

Figure 9. Unit 1, south profile wall.

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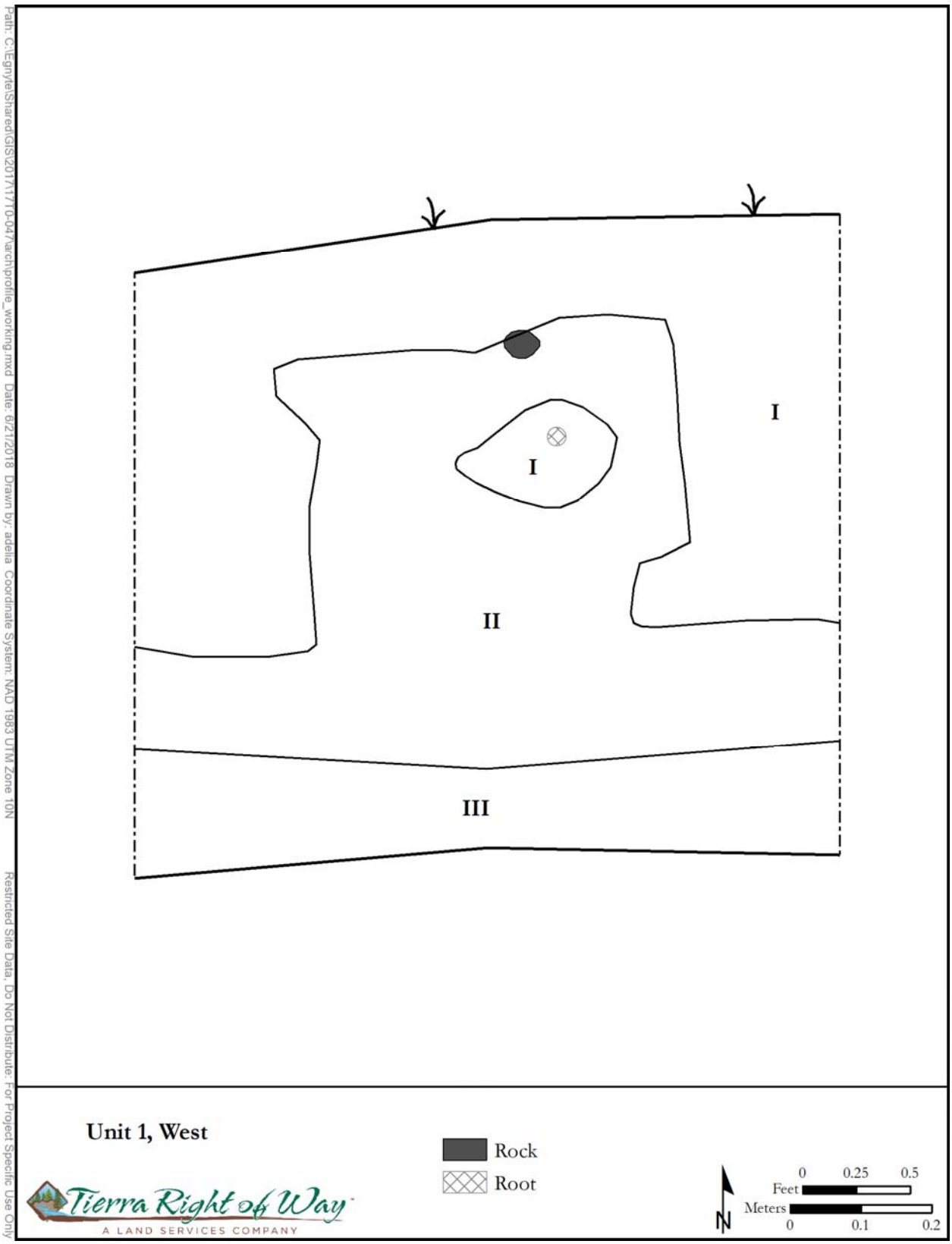

Figure 10. Unit 1, west profile wall.

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Unit 2

The location of Unit 2 was chosen to attempt to expose more of Feature 2 (which was initially identified in nearby STP 23). This unit was placed approximately 50 cm north of STP 23. It was set up in true north-south and east-west direction with the datum located in the northwest corner. Unit 2 was hand excavated in 20-cm arbitrary levels for a total of five levels (Photos 8–12). Table 5 describes the sediments and associated cultural material for each level. Feature 2 was not identified in this unit, but another feature, Feature 3, was. Feature 3 was discovered in Level 3 at about 50 cm below the datum (cmbd). It takes up the eastern half of the unit and is discussed below.

All four directional walls were profiled, and sediment descriptions were described in Table 6 (Figures 11–14). Stratum I was a modern A horizon with local organic content. Stratum II is yellow-brown loamy sand with a blocky structure, with gravels ranging from angular to subrounded. Stratum III appears to be a historic buried A horizon. The soil is moderately organic with strong blocky structure and fine to medium sand. Stratum IV is associated with Feature 3. This soil is evident of a series of depositional events with wood ash, coal clinker, and stove clean out in the upper stratum and large chunks of coal in the lower stratum. The soil is a sandy loam with clay, wood ash, and woody debris. The north and south profile walls show a distinct vertical line of Stratum V. This stratum is historic fill and appears to be associated with Feature 3. This stratum wraps around the west wall as well. Stratum VI is a buried B horizon with soil of fine sand and organics. The last stratum (VII) is glacial outwash. The north and south wall profiles show a floor at the bottom of the northeast corner and southeast corner. The floor is the unexcavated feature in the eastern half of the unit at 73 cmbs (see discussion below).

Photo 7. Unit 2, bottom of Level 1, 0–20 cmbd.

DSD - 001358

Photo 8. Unit 2, bottom of Level 2, 20–40 cmbd.

Photo 9. Unit 2, bottom of Level 3, 40–60 cmbd.

DSD - 001359

Photo 10. Unit 2, bottom of Level 4, 60–80 cmbd.

Photo 11. Unit 2, bottom of Level 5, 80–100 cmbd.

DSD - 001360

Table 5. Unit 2 Results

Unit	Level	Feature	Depth Below Datum (cmbd)	Soil Description	Cultural Material	Comments
2	1		0–20	10YR 3/4 silty sand with 30% small to large angular, subrounded/angular poorly sorted gravels and 10% small subrounded cobbles; weak peds; 1% charcoal chunks from south wall, deteriorating brick, and little oxidation.	*Artifacts*—Brick	
2	2		20–40	10YR 3/4 silty sand and pockets of grey brown fine sand with 30% small to large angular, subrounded/angular poorly sorted gravels and 10% small subrounded cobbles; weak peds; 1% charcoal chunks.	*Artifacts*—Glass marble modern debris	
2	3	3	40–60	*NW/SW Half:* 10YR 4/2 sandy loam with 20% small to large angular, subrounded/angular poorly sorted gravels; fill. *NE/SE Half:* Feature 3, 10YR 3/1 silty sandy loam with 10% large chunks of coal and very organic; pockets of grey coarse sand.	*Artifacts*—Bailing wire, linoleum	Feature 3 is discovered in this layer; there appears to be coal furnace stove clean out running N-S in middle of unit.
2	4	3	60–80	*NW/SW Half:* 10YR 4/2 Sandy loam with 20% small to large angular, subrounded/angular poorly sorted gravels; fill. 10YR 2/1 silty sandy loam with common oxidation in sediments, very organic and layers of coal; ash in the SE corner; water table at 73 cmbd.	*Artifacts*—Coal, unknown metal fragment, nail.	Feature has chunks of coal upright against wooden posts. Wooded posts are between fill and natural sediments; dense pockets of coal furnace clean out in the NE and SE corners and chunks of coal from the rest of the feature.

DSD - 001361

Unit	Level	Feature	Depth Below Datum (cmbd)	Soil Description	Cultural Material	Comments
2	5	3	80–100	*NW/SW Half:* 2YR 4/1 grey sandy loam with rounded subrounded/ angular gravels; glacial outwash.	*In Situ*—2 in Iron Pipe in SE corner at 85 cmbd; Feature 3 in NE/SE half of unit, coal increases in size and quality in depth. *Artifacts*—Coal.	To expose wood post, excavated NW quad to 100 cmbd to drain water from feature; excavated SW quad and exposed iron pipe; there are 10 4-inch wood posts running N-S in middle of unit.

Key: cmbd = cm below datum.

Table 6. Unit 2 Stratum Descriptions for Profile Walls

Unit	Stratum	Description
2	I	Modern A horizon, dark brown silty sand, possible fill with local organic content
2	II	Yellow-brown mottled loamy sand, with blocky ped structure, common gravels ranging from angular to subrounded and roots
2	III	Dark brown fine to medium sand. Possible segregation between the east and west stratum III with east half more organic and the organic content increasing toward the bottom of the stratum. On the eastern half, dark brown fine to medium sand, moderately organic. On the western half, fine-to-medium-sized with common roots and strong blocky structure with moist homogenous material.
2	IV	Upper stratum is a series of depositional events with wood ash, coal clinker and stove clean-out; loam to sandy loam, clayish wood ash; woody debris including bark, oxidized sediments or metal fragments, slag, and dirty coal—stratified deeper coal becomes larger and better quality in depth.
2	V	Mottled gray loam with cobbles with a few fine roots and organic casts; rounded to angular gravels.
2	VI	Brown fine sand, predominately organics; this is a buried surface with nails within fine wood debris (north wall).
2	VII	Glacial outwash sand with round to subround gravels.

DSD - 001362

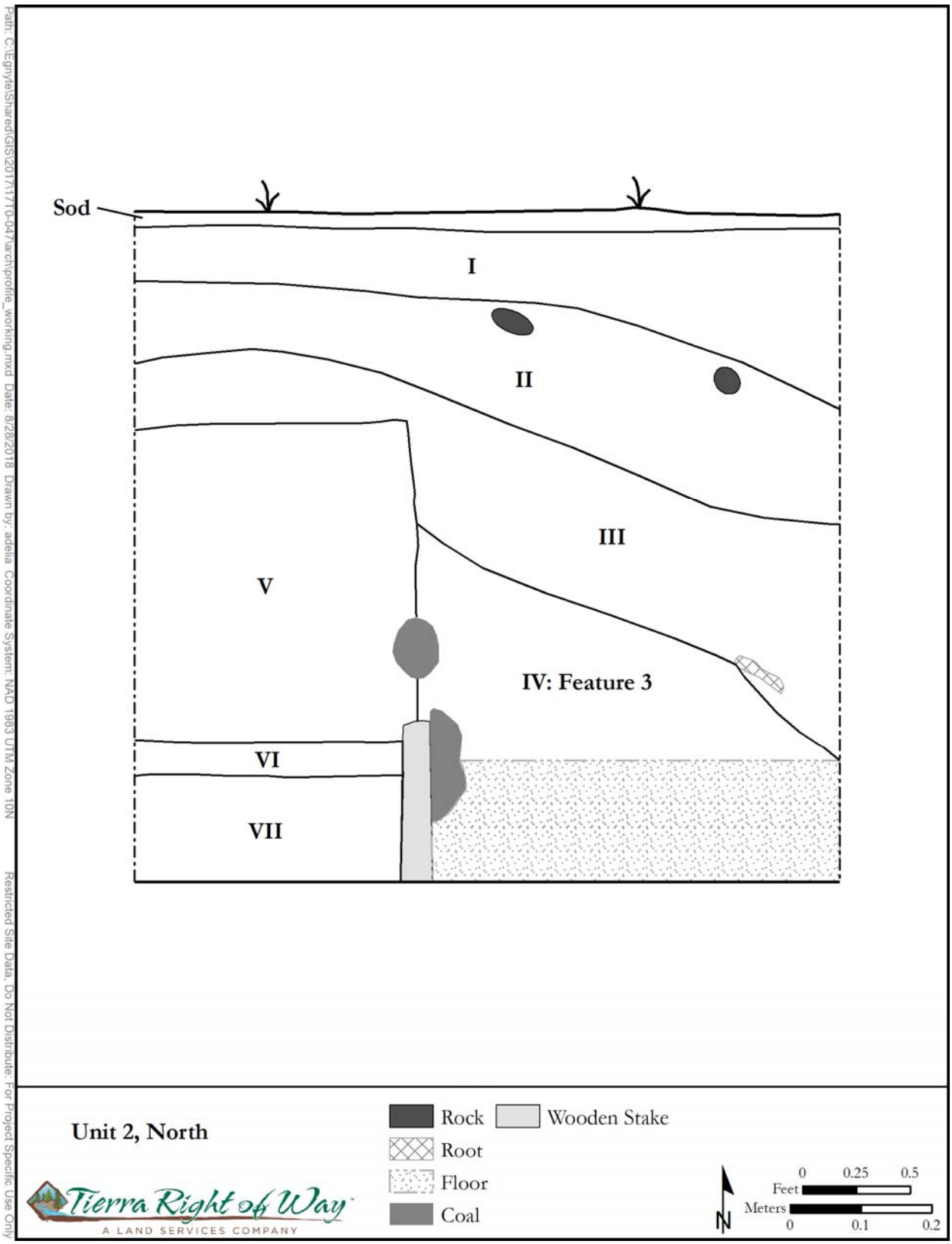

Figure 11. Unit 2, north profile wall (see Table 6 for profile descriptions).

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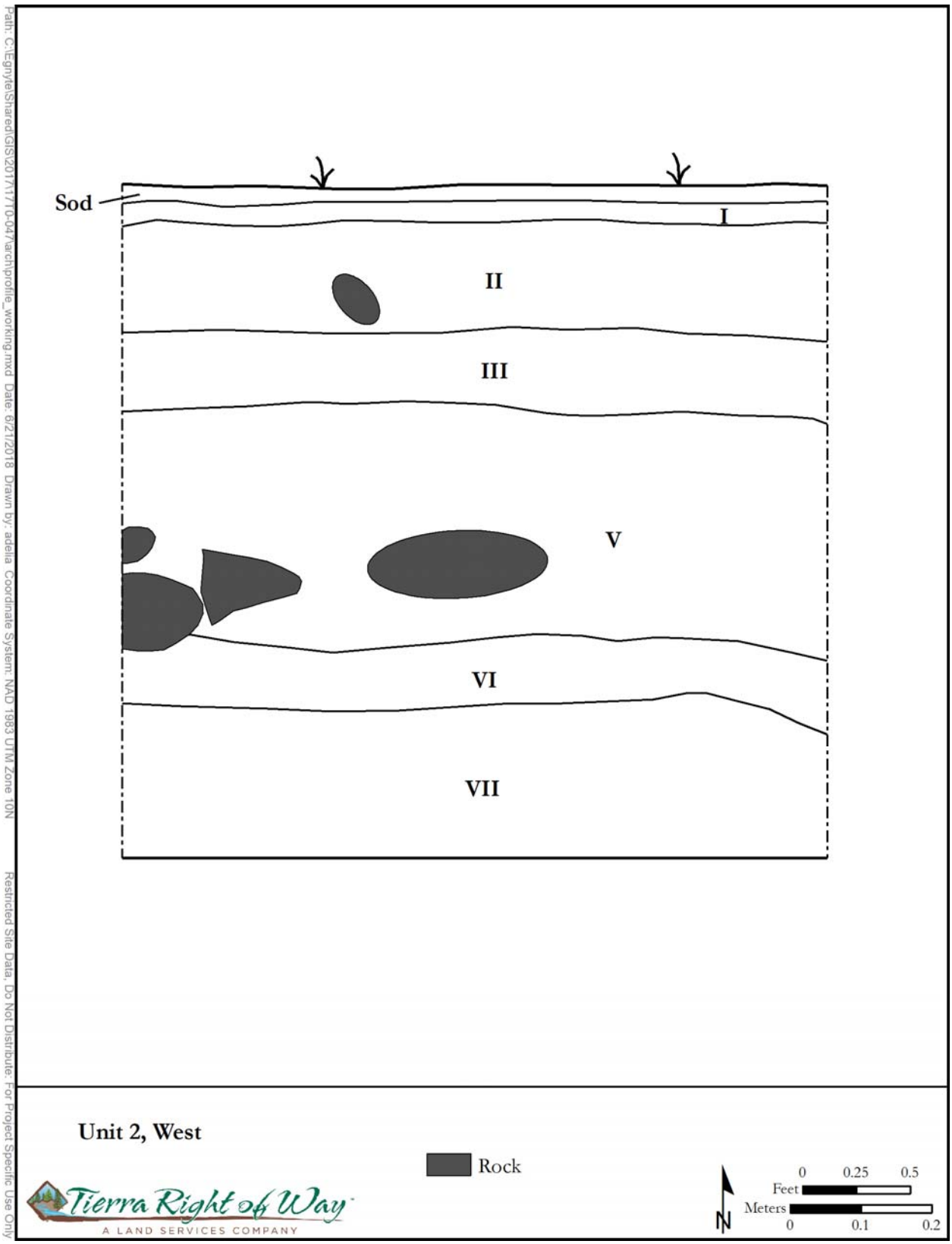

Figure 12. Unit 2, west wall profile.

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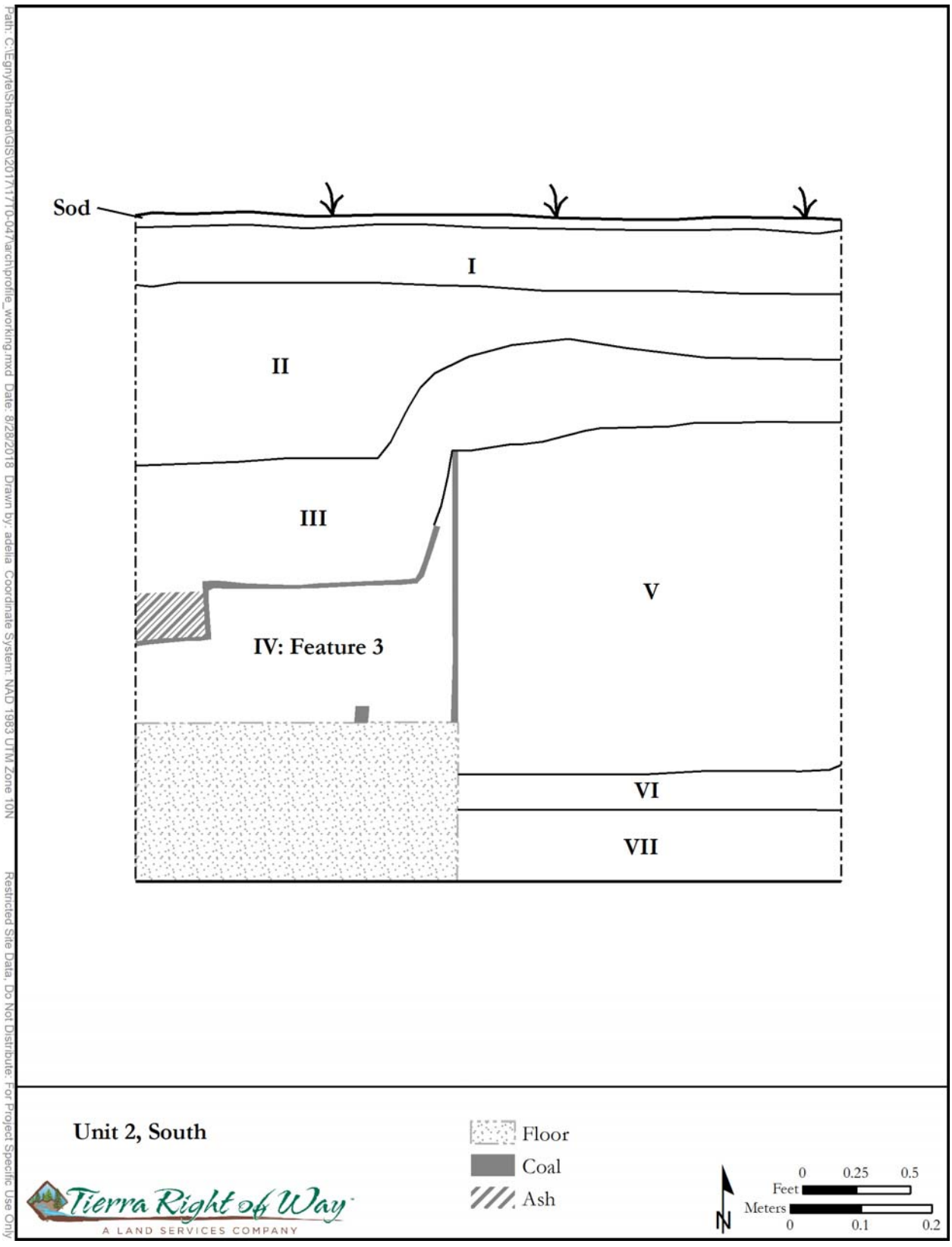

Figure 13. Unit 2, south wall profile.

DSD - 001365

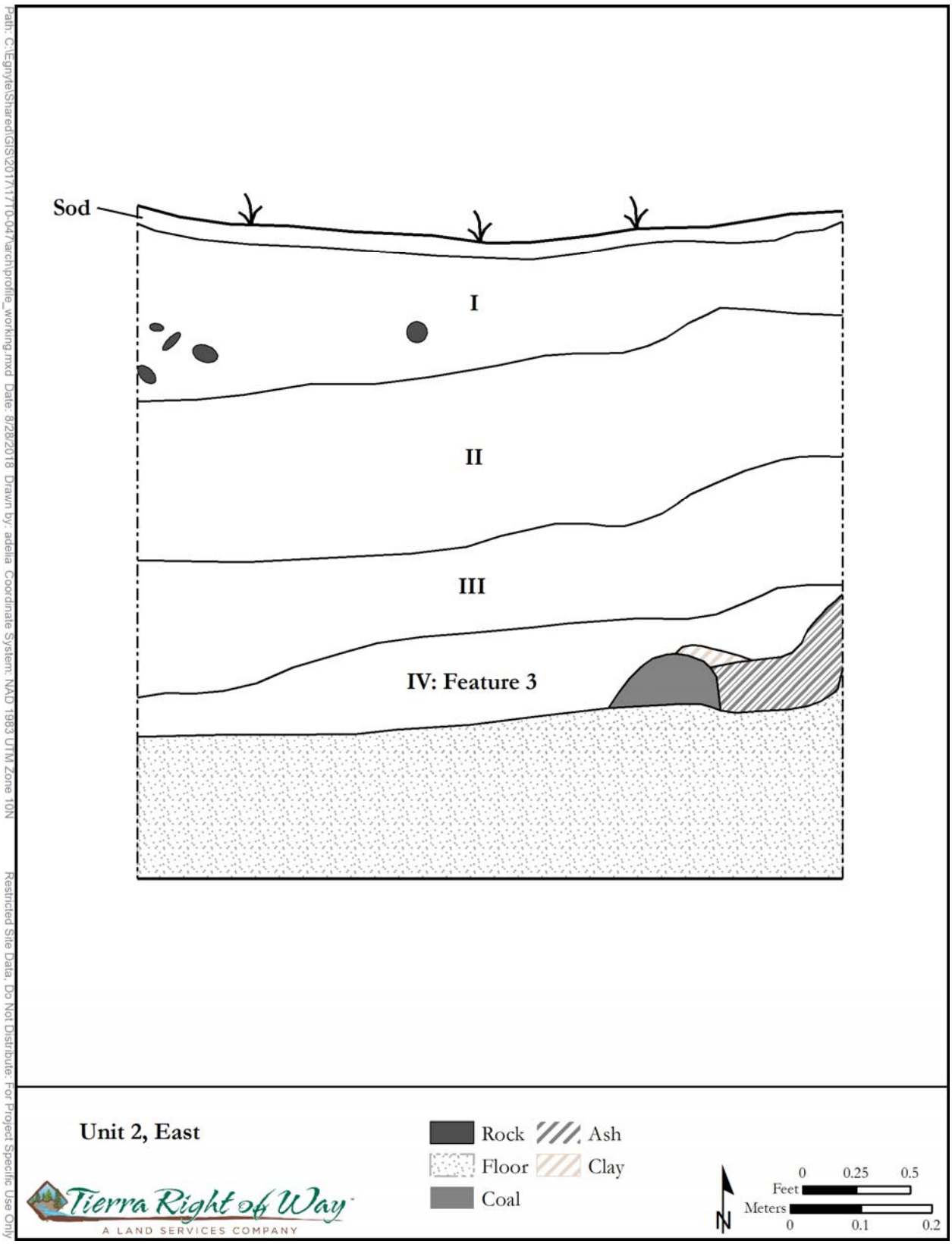

Figure 14. Unit 2, east wall profile.

DSD - 001366

Features

Feature 1

Feature 1 was initially identified in STP 19 during Tierra's survey of the project area and classified as "an extensive burn feature containing a high concentration of burnt wood, glass, and nails…at least 60 cm thick" (Steinkraus 2017:27). Unit 1 was placed adjacent to STP 19 in order to investigate Feature 1 further.

The 1-by-1-m unit placed at Feature 1 revealed that the vertical extent of the Feature was 80 cmbs. The horizontal extent is unknown as the feature boundaries appeared to extend outside of the unit in all directions. This feature is believed to be the demolished and burned remains of a nearby residential structure.

The burn feature was more concentrated in the northwest corner and mottled throughout the rest of the unit. The high-temperature-burned brick (Stratum IIa) was concentrated in the south and east portion of the unit from approximately 50 to 80 cmbs (Photos 13 and 14). The strata were disturbed and affected by some turbation. It appears that after the nearby structure was razed onto the hillside, it was burned. There was likely some subsequent grading or clearing, which would explain some of the mottling of the soils. Comparison of the feature location to the 1928 Coal Creek map showed that the unit was placed in close proximity of where Company House 181 would have stood (see Figure 5). It is possible that Feature 1 is the burned remnants of that structure.

Photo 13. South wall with burned brick.

DSD - 001367

Photo 14. East wall with burned brick.

Feature 2

Feature 2 was discovered in STP 23 between 60 and 80 cmbs (Photos 15 and 16). It consisted of burned milled wood lying horizontally on top of a ferrous metal mesh, which was attached to conglomerate concrete. It was heavily oxidized, indicating either use with fire or high temperatures, post-use burning, or both. The horizontal extent of the feature is unknown, except that it did not extend to the north, as this is where Unit 2 was placed, and Feature 2 was not identified in Unit 2. Sterile soil was reached below the feature between 80 and 90 cmbs.

This feature appears to be some type of industrial work surface. Both Feature 2 and Feature 3 were discovered at approximately the same depths. Both features could be associated with each other, but to what extent is unknown.

Feature 3

Feature 3 was discovered in Level 3 at about 50 cmbd. It takes up the eastern half of the unit. The rectilinear feature is lined on one side by 10 wooden posts, all 4 inches in diameter, set upright in a north/south alignment. Initially the feature appeared to be furnace clean-out (Photo 17). Once Level 4 was excavated, it was determined that the feature was more likely a coal-storage feature (bunker). The soil in the western half of the unit was a historic feature fill and the eastern half was native soil. Level 4 exposed 10 upright, 4-inch-diameter wooden posts between the feature fill in the western half and the feature and the native soil in the eastern half. Up against the wooden posts, large chunks of coal in upright positions were observed and were excavated from the feature. The eastern half of Level 4 was excavated to an approximate depth of 73 cmbd, when the water table was reached, and the feature became inundated. Excavation of the western half of Level 4 continued to 80 cmbd.

DSD - 001368

Photo 15. STP 23, intact Feature 2 at 70 cmbs, plan view.

Photo 16. STP 23, intact Feature 2 at 70 cmbs, plan view.

DSD - 001369

Photo 17. Unit 2, Level 3, Feature 3, facing north.

Excavation continued in the western half of the unit (Level 5) (Photo 18). The excavation for Level 5 started in the northwest quadrant, then the southwest quadrant, and continued to a depth of 100 cmbd, at which point the unit was terminated due to inundation. A 2-inch iron pipe was exposed in the southwest corner of the unit (in the west wall) at a depth of 85 cmbd (Photo 19). To better understand the context of Feature 3, a STP was placed in the center of the feature and excavated another 10 cm to a final depth of 110 cmbd. Large chunks of coal were recovered, and the coal was larger and of better quality in the deeper stratum.

Discovery of the full extent of the feature was not possible due to inundation and restrictions of the unit size. The horizontal and vertical extents are unknown, but it does continue to the north, south, and east outside of Unit 2.

The bunker is located in the lowest part of the hillside where a natural drainage runs. At 70 cmbs, the feature became inundated. It is possible the bunker was abandoned due to problems with inundation and then was used for furnace stove clean-out. This could explain why the ashes and burned coal were on top of the unburned coal. The STP in the middle of the feature revealed that the quality of the coal is better with depth. The feature is located in close proximity to Company House No. 175. It is possible the coal bunker was intended to be used domestically for heating.

In the southwest corner of the unit was the 2-inch iron pipe. The pipe is probably associated with the water system since it is deeply buried and is located within the drainage. Additionally, the piping is documented on the 1928 Coal Creek map. It is likely that the pipe is not associated with Feature 3. A broken fitting was attached to the end, and it may be that the pipe extended upwards or in another direction. It may also have been abandoned prior to the feature's construction.

DSD - 001370

Photo 18. Unit 2, Level 5, 10 wooden posts, facing east.

Photo 19. 2-Inch iron pipe in the southwest corner of Unit 2 at 85 cmbd, facing west.

DSD - 001371

The field results show evidence of structures being razed and burned. This is evident from the burn feature, the burned brick, and high counts of burned building materials observed in the upper levels of Unit 1. Unit 1 showed evidence of highly disturbed native soils probably caused by multiple historic events, including the leveling the area for the construction of company homes for Finn Town, followed by the razing and burning of the company homes clearance of the area for possible use as a farmstead.

Features 2 and 3 were observed at about the same depth (70 cmbs) and are likely temporally and functionally associated. Feature 1 was also present at similar depths, further indicating temporal continuity throughout the site.

Artifact Analysis

Three intact features were identified and a total of 647 historic-era artifacts were recovered during subsurface testing.

This section will discuss the analysis of artifacts located with each feature and STP. The analysis of the features and artifacts was designed to answer the research questions regarding Chronology, Architecture, Economic Production and Consumption, and Community. Timeframes were developed using the manufacturing dates of datable artifacts in combination with an understanding of the use period of the artifact type. The use life of objects varies depending on their purpose. Ceramic materials tend to be household items such as bowls, plates, and crockery that can be used for years or even across multiple generations. Glass items have a more varied duration of use. Glass dishes such as cups, dinnerware, and canning jars are used for the same duration as ceramics. Building materials such as nails, flat glass, milled wood, and foundation will provide an idea of the local materials used for the structures. The recovery of botanicals and fauna will give essential information regarding consumption. Finally, the intact features themselves will provide information regarding the architecture, economic production, and community. The historic artifact analysis used the methodology outlined in the attached Historic Artifact Manual (Appendix C). This manual is based on a number of historic artifact cataloging system including the Sonoma Historic Artifact Research Database, the National Park Service Fort Vancouver Laboratory Manual, and the Digital Archaeological Archive of Comparative Study. For more information regarding individual artifacts, see Appendix D.

Feature 1

A total of 452 artifacts were found in association with Feature 1. Artifacts recovered and analyzed included nails, flat glass, vessel glass, ceramic, and brick. Other artifacts include metal fragments, unknown fabric, small finds, bolts, and slag.

Table 7 shows the artifact counts by level and material for Unit 1. The level with the highest artifact count was Level 1, followed by Levels 2, 4, 3, and 5. The majority of the materials recovered were nails and flat glass.

Two datable artifacts were recovered from Level 1. One was a ceramic sherd with the maker's mark "K.T.&.K."/CHINA." This was manufactured by Knowles, Taylor, and Knowles from 1890 to ca. 1905 (Photo 20) (DeBolt 1994). The second datable artifact was a Phillip's head screw. The Phillip's head screw was invented in 1930 by Henry Phillips for automobile manufacturers (Bellis 2018).

DSD - 001372

Table 7. Unit 1 Artifacts by Level

Artifact	Level 1	Level 2	Level 3	Level 4	Level 5	Total
Nails	109	112	7	9	0	237
Flat glass	71	69	5	6	0	151
Vessel glass	13	14	1	0	0	28
Ceramic	9	5	0	0	0	14
Brick	4	0	2	1	0	7
Metal fragments	7	0	0	0	0	7
Fabric	1	0	0	0	0	1
Small finds	1	0	0	0	0	1
Bolts, Nuts, etc.	0	2	0	0	0	2
Coal, coke, clinker	0	0	0	4	0	4
Total	215	202	15	20	0	452

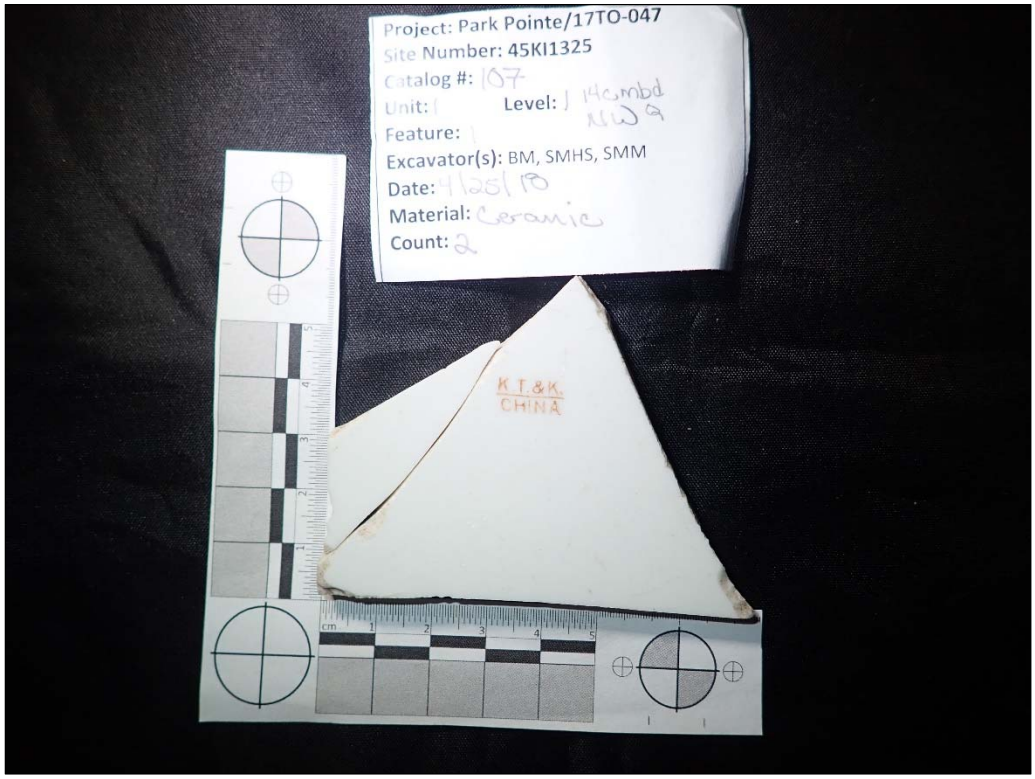

Photo 20. Ceramic sherd from Feature 1 with maker's mark "K.T.&.K./CHINA;" maker is Knowles, Taylor, and Knowles (1890–ca. 1905).

There was a total of 237 nails of varying sizes recovered. Most of the nails were modern wire nails. There were seven nails recovered that were manufactured as modern machine-cut nails and two spikes that appear to have "rose heads." Rose heads are indicative of hand-wrought nails that date to the late nineteenth century.

DSD - 001373

Unfortunately, the two spikes were too rusted to determine conclusively if they were hand wrought. Most of the nails were rusted and burned. There were seven brick fragments recovered, four of which were burned. Bolts and screws recovered included one carriage bolt and one Phillip's head screw, both burned and rusted. A total of 151 pieces of flat glass or window glass was recovered. There were two types of flat glass, aqua, and clear. Other household materials include a total of 28 pieces of vessel glass. Seven of the pieces were fragments of lightbulbs, two pieces were melted glass, and the remaining pieces were unidentifiable fragments.

Based on the collected and analyzed artifacts, one time period, spanning from 1890 to around 1930, is represented for this feature. The earliest artifact is the ceramic sherd manufactured between 1890–ca. 1905. The second artifact is the Phillip's head screw, manufactured no earlier than the 1930s.

Feature 2

A total of 43 artifacts were recovered and analyzed in association with Feature 2. These artifacts included terra cotta, metal objects, vessel glass, and milled wood. The terra cotta fragment was observed at a depth of 10 cmbs. This soil is a modern A horizon. A miniature toy horse was recovered at a depth of 30 cmbs (Photo 21). This artifact was observed above Feature 2 and was found in disturbed native sediments. The milled wood and the ferrous metal that made up the feature were observed at 70 cmbs and were removed and collected. The milled wood was lying horizontally on top of the ferrous metal mesh, which is attached to conglomerate concrete. This appears to be a type of metal-reinforced concrete used for some type of industrial use (Photos 22 and 23).

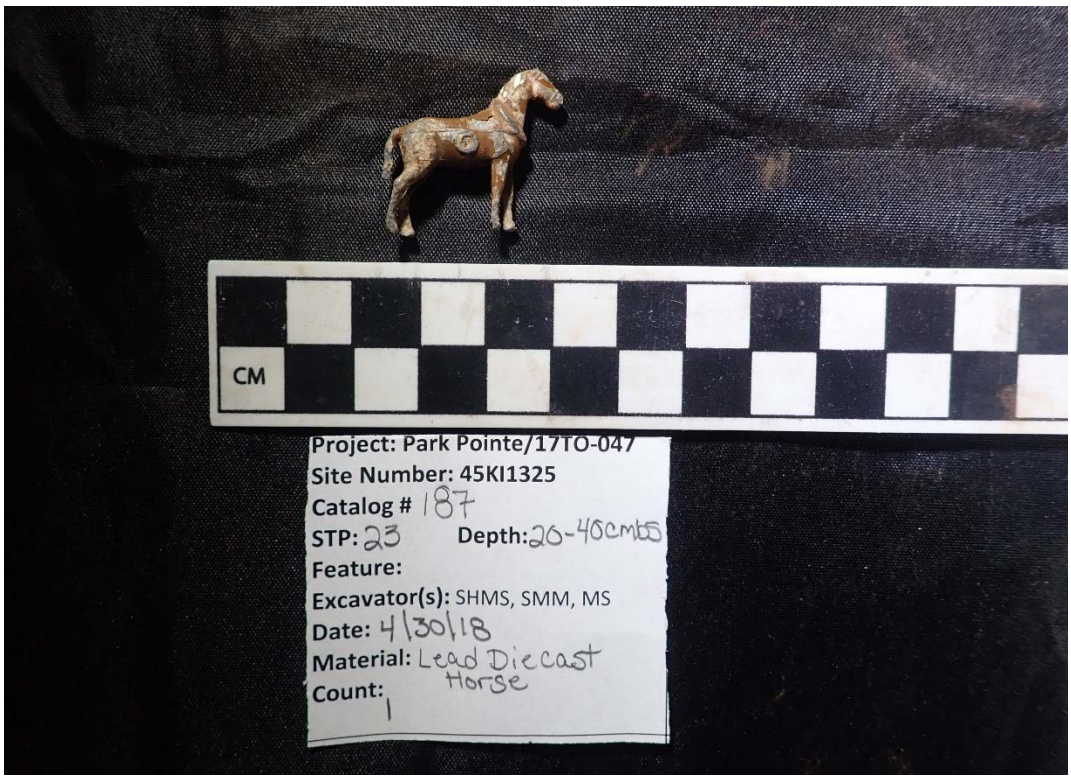

Photo 21. Miniature diecast horse, Penny Toy, 1880s–1920s.

DSD - 001374

Photo 22. Feature 2, ferrous metal mesh, conglomerate concrete.

Photo 23. Ferrous metal mesh, conglomerate concrete.

DSD - 001375

The only datable artifact recovered near this feature is the miniature tinplate/diecast horse. It appears to be a "Penny Toy" that was manufactured in Germany from the 1880s to the 1920s (Photo 17) (O'Neill 1988). Its exact association with the feature itself is unknown, as it was discovered above the feature, but its presence corresponds with the time period of the known use of the site.

Feature 3

The only artifacts conclusively within Feature 3 were large pieces of coal and the iron pipe, which were discovered between 70 and 100 cmbs. Nine large pieces of coal weighing a total of 6 lbs. were recovered from Feature 3 (Photo 24). A 2-inch iron pipe was found in situ at a depth of 85 cmbd located in the southwest corner of the west wall. The iron pipe coincides with the same time period that this area was utilized by the historic-era coal mine community from at least 1928 (McDonald and McDonald 1987). The 2-inch iron pipe represents a date from at least 1928. The historic 1928 Coal Creek map shows a 2-inch iron pipe that runs through this area of the site (see Figure 5) (Coal Creek Map 1928).

Photo 24. Coal recovered from Feature 3.

DSD - 001376

Non-feature Artifacts

A total of 23 artifacts were recovered near Feature 3, in the levels above the Feature, in Unit 2. These likely represent historic refuse that was spread throughout the site post-abandonment and are not associated directly with the feature. Building material recovered and analyzed in these upper levels included brick fragments, bailing wire, fragments of linoleum, and a wire nail. A glass cat's eye marble was recovered from Level 2 (20–40 cmbs) of the unit. Glass eye marbles were machine made and was introduced around 1951 (Randall and Webb 1988). A fragment of linoleum was observed in Level 3 above Feature 3. Linoleum has been used since the late 1800s and is still used today (Powell and Svendsen 2003). Other artifacts include a strip of rubber and unknown metal fragments.

Based on the collected and analyzed artifacts in Unit 2, a date range of at least 1928 to after 1951 is represented for this sample. The marble was observed in disturbed native sediment and was likely a separate event from Finn Town.

A total of 143 artifacts were recovered from a total of 17 new and previously excavated STPs within 45KI1325. This discussion includes analysis of those recovered from the previous survey done by Tierra in 2017 and those recovered in the STPs during the site testing.

Artifacts include brick fragment, ceramic, coal, unknown fabric, fauna, flat glass, unidentifiable metal fragments, nails, and vessel glass. Table 8 shows the majority of the artifacts were recovered from depths of 0–20 cmbs with the amounts decreasing with depth. All the artifacts were recovered from disturbed native sediments. The vessel glass and nails were the most commonly observed, followed by ceramics and flat glass.

There were two significant datable artifacts collected from the STPs. The first artifacts are two milk glass lids. One of the lids is embossed with "GENUINE BOYD CAP/O. MASON JARS" (Photo 22), and the second lid is embossed with the "2" backwards. It's difficult to precisely date lids. However, Boyd produced milk glass lids from 1869 to the 1950s, and the embossing of the first lid was used for an earlier version of production (Glass Bottle Marks 2018). These artifacts were recovered from a depth of 0–20 cmbs. The second artifact is a partial clear glass bottle base with an embossed maker's mark reading "5…HISTL…." and the letters "P" and "C" within trapezoids (Photo 21). The bottle base was made by the Pacific Coast Bottling Company, which operated from 1925 to 1930 (Toulouse 1971). This artifact was recovered from a depth of 20–40 cmbs.

Other household materials recovered included 38 pieces of unidentifiable vessel glass and 25 sherds of ceramic, some of which were burned.

Building materials recovered and analyzed included 1 burned brick fragment and 21 pieces of aqua and clear flat glass. There was a total of 28 wire nails which were clinched, broken, and unaltered; 1 "U"-nail; and 1 machine-cut square nail. Most of the nails were rusted and burned. One large mammal bone fragment was recovered that had butcher marks on one of the facets.

Based on the collected and analyzed artifacts, a one-time span of 1905 to the 1950s is represented for the subsurface testing.

Overall, the artifact assemblage correlates with the known historic use of the property, which ranges from the 1890s to at least 1930.

DSD - 001377

Table 8. Non-feature Artifacts by Level

Artifact	0–20 cmbs	20–40 cmbs	40–60 cmbs	60–80 cmbs	80–100 cmbs	Total
Vessel glass	25	16	0	0	0	41
Nails	22	7	1	0	0	30
Ceramic	21	1	0	0	0	22
Flat glass	17	3	0	0	0	20
Fabrics and fibers	10	6	0	0	0	16
Metal fragment	7	0	0	0	0	7
Coal	1	0	0	0	0	1
Fauna	1	0	0	0	0	1
Total	104	33	1	0	0	138

Key: cmbs = cm below surface.

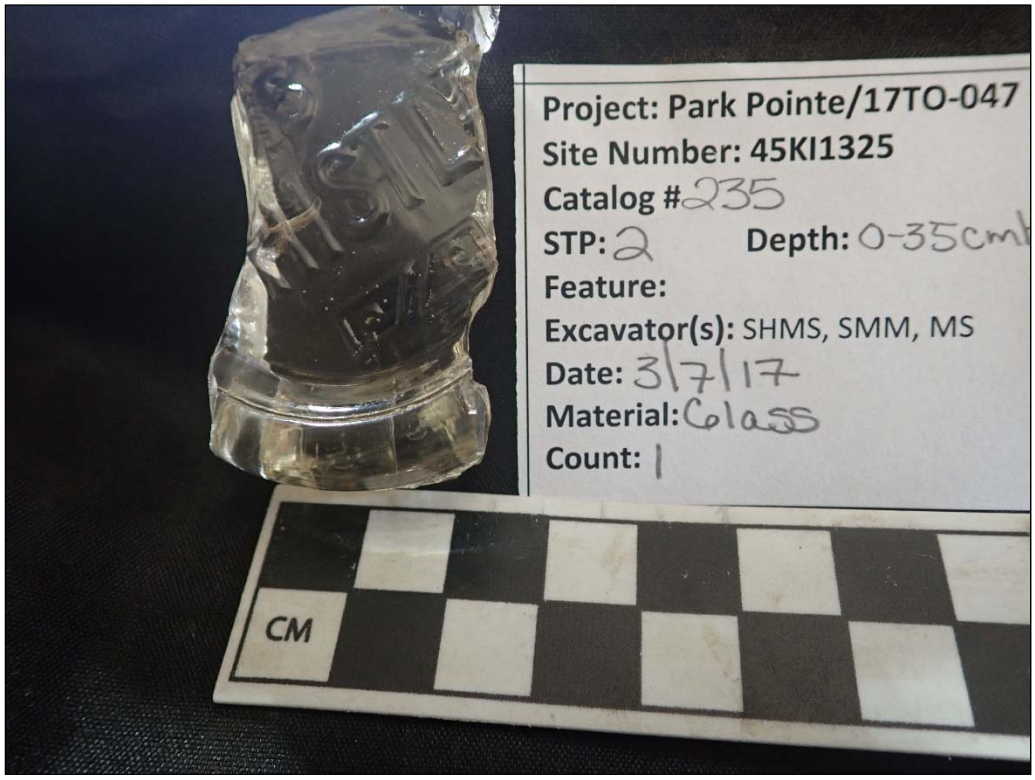

Photo 25. Glass bottle base with maker's mark, Pacific Coast Bottle Company (1925–1930).

DSD - 001378

Photo 26. Milk glass lid, Boyd early version of manufacture (1869–1950s).

DISCUSSION

This section will attempt to answer the research questions regarding historic-era Chronology, Architecture, Economic Production and Consumption, and Community to determine the eligibility for site 45KI01325. In order to answer the research questions, we drew from multiple lines of evidence, including historical records and the analysis of the recovered artifacts.

Chronology

1. When and for how long was the site occupied, and is there any evidence of a chronological sequence of developments or improvements at the site?
2. The town was established around 1905 and was no longer present by 1936. Is there evidence of the use of the land prior to 1905?
3. Do artifacts confirm that the site was occupied and buildings were constructed in 1905 or shortly thereafter?

Information regarding the chronology of the site's occupation was determined through the historical records and the analysis of recovered artifacts. Historical records such as photos and the Coal Creek map from 1928 show that Finn Town was occupied from at least 1905 to 1936, when the town was razed (McDonald and McDonald 1987) (Figure 15). Based on the artifact analysis, a one-time span of ca. 1890 to at least 1930 is represented for the occupation of the site, which would include Finn Town and later historic-era use.

DSD - 001379

Figure 15. 1928 Coal Creek Map with testing results (courtesy of Eastside Historical Society).

DSD - 001380

Architecture

1. What are the functions of individual buildings at the site, and do structures contain distinct activity areas?
2. What construction methods are represented and to what extent are local materials used?
3. Is there evidence of changing construction methods and building forms through time?
4. Can we identify architectural styles that are similar to contemporary examples in Newcastle (specifically the 1918 Company House still standing nearby)?

Historical photos depict that the area had residential structures during the time when Finn Town was present (see Figure 3). In addition to historical photos, the 1928 Coal Creek map shows residences in the same area as site 45KI1325 (Figure 15). Building materials, such as nails and flat window glass, were the primary artifacts recovered and analyzed from the site. Not enough data was obtained to determine whether the construction methods changed over time or identify any examples of architectural styles similar to the remaining 1918 Company House. No privies were identified during testing.

Economic Production and Consumption

45KI1325 was the location of coal miner housing in the early twentieth century. To better understand production and consumption patterns at the site, we proposed the following questions:

1. Does the site contain mechanical equipment, tools, or features related to mining or other industrial or domestic uses?
2. Are any smaller-scale subsistence activities (e.g., keeping chickens, gardening) represented by features and artifacts?
3. Are bones and macrobotanicals present in trash deposits, and what do they tell us about on-site food production/consumption?
4. What kinds of mass-produced foodstuffs and beverages are represented, and do the kinds and sources of mass-produced foodstuffs change through time? If so, how do these patterns of consumption fit in with historical information about the economic status, ethnicity, gender, etc. of the owners/residents of this property?

The site testing revealed an abandoned coal bunker. The abandoned coal bunker observed in Unit 2 shows that people from Finn Town were using coal for domestic use. This is evident due to the placement of the coal bunker, which would have been by residential homes of Finn Town (see Figure 15). According to Sanfry Holma's memoir, most of the mining families had gardens, orchards, chickens, cows, rabbits, and pigs (Holma 1976). The large mammal bone with butcher marks on the facets indicates possible on-site food production. In addition to the fauna, milk glass canning lids were recovered and analyzed, which shows people from Finn Town were preserving foods. We were not able to determine any smaller-scale activities or examine mass-produced foodstuffs through time from the data obtained.

Community

This research theme is essentially synthesis of the other themes, as it relies on conclusions and details related to Chronology, Economic Production and Consumption, and Architecture. The themes of both Mine Employees and Finnish Community attempt to relate these

DSD - 001381

kinds of details to the social lives of the individuals and/or families living at the site and their contributions to the cultural history of this area. We are interested in how individuals living or working at 45KI1325 were related to and interacted with the larger community of Coal Creek/Newcastle. To address the role of the occupants of the site in the larger community, we are interested in acquiring information on genealogies, family histories, and details about the lives of individuals living in the area.

1. Does the material record reflect the use of the property as housing for industrial workers, specifically coal miners?
2. What was the quality of housing like? Was the space overcrowded? Is there evidence of locations or features used by more than one person or group?
3. How is Finn Town associated with Newcastle? How and why was it delineated from the other settlements of Red Town, Rainbow Town, etc.?
4. Is there evidence of families living on the property (i.e., evidence of children and women in addition to the male mine workers)?
5. Does the material and/or historical record indicate the ethnicity of the site's residents, and if so, can anything be identified that would indicate they were Finnish? What can this tell us about the integration of immigrant communities in turn-of-the-century mining towns in Washington?

We can determine the property was used for housing, and specifically for Finn Town coal miners and their families. Based on comparison to the 1928 Coal Creek map, site 45KI1325 is located where Finn Town Company House Nos. 175, 175, 181, and 179 once stood (see Figure 15). These structures no longer exist and were likely torn down and/or burned prior to 1932 (Photo 27). Historic photos of Finn Town also show residential housing where the site is located (Figure 16).

Photo 27. Site location today, view to the northwest; red arrow indicates area shown in Figure 16.

DSD - 001382

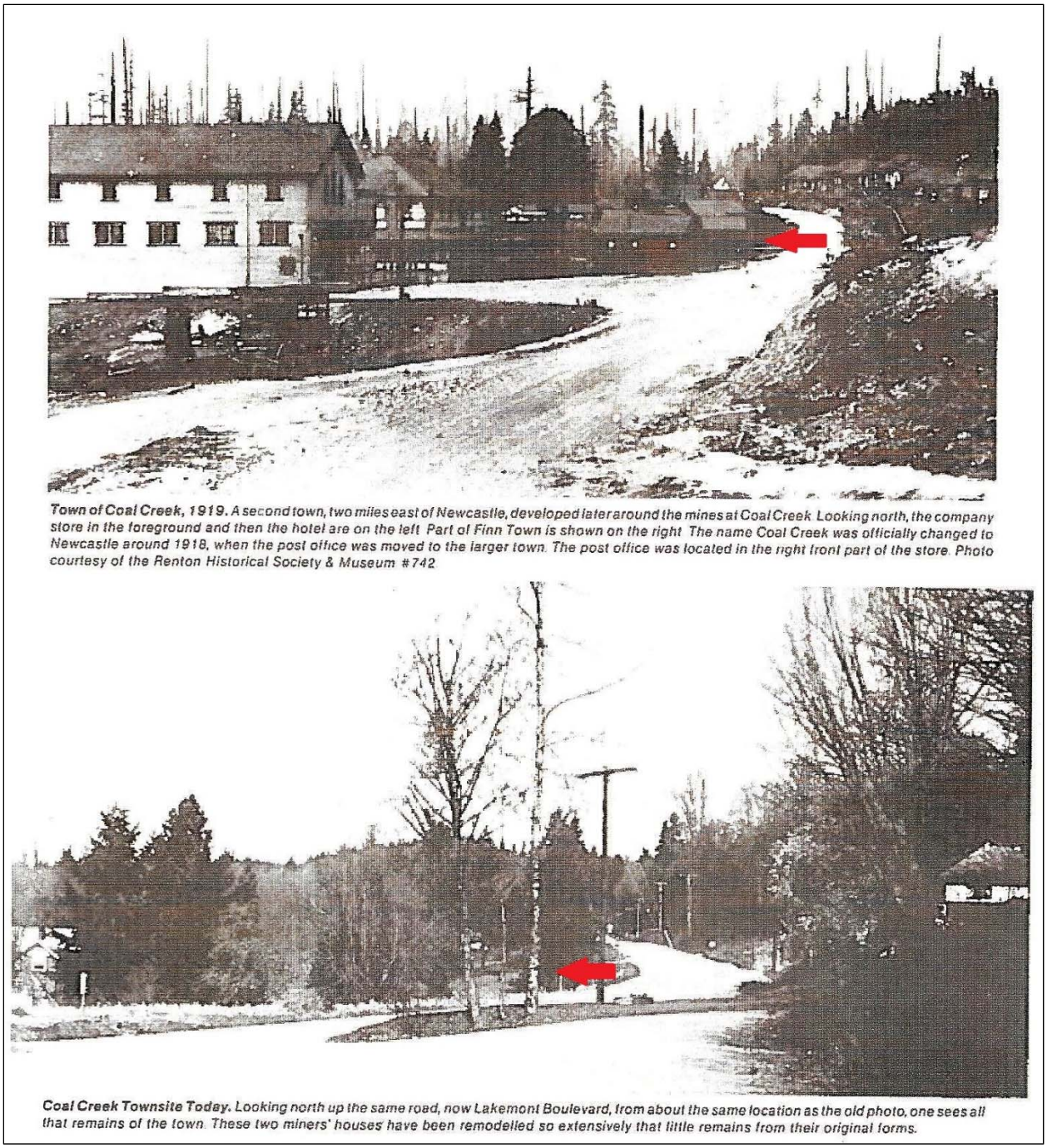

Figure 16. Top photo taken of Finn Town in 1919; bottom photo shows the site in the late 1980s; red arrows indicate site location (courtesy of Renton Historical Society) (McDonald and McDonald 1987).

The artifact analysis confirms this site was used for housing based on the presence of building material and domestic refuse. We were unable to determine the quality of housing nor if the space was overcrowded through our analysis. However, based on the historical records (maps, photos, etc.) multiple homes occupied the area of the site. There were at least 50 Finnish families that made up

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Finn Town. The town existed from around 1905 until mining operations ceased. The houses were built and owned by the occupants (as opposed to uniform housing constructed by the company) on land leased from the coal company. For this reason, the houses were more individualized when compared to the standard company houses in Red Town, including features such as added porches and fences (McDonald and McDonald 1987).

There is evidence of Finnish families and children occupying Finn Town in addition to coal miners. The historical record (photos and memoirs) and the presence of a penny toy indicate that families and children were present at Finn Town. The material record indicates food canning, and chinaware was also present. The chinaware is dated to 1890–ca. 1905. This date coincides with the occupation of Finn Town from at least 1905.

Based on the 1928 Coal Creek map and historical documentation, the site residences were Finnish families. Unfortunately, we were not able to ascertain specifically who lived in the company houses.

The 1918 house, Company House 180, is visible on the left. Lakemont Boulevard SE, shown running north-south, was formerly called Second Avenue and can be seen on the 1928 map. The driveway shown running east-west was formerly called Club Street and can also be seen on the 1928 map.

Site Eligibility

Using all of the information outlined above, is this site eligible for inclusion in the NRHP, and if so, under which criteria? That is, does it possess integrity of location, design, setting, materials, workmanship, feeling, and association, and is it also:

> A. Associated with events that have made a significant contribution to the broad patterns of our history; or
>
> B. Associated with the lives of significant persons in our past; or
>
> C. Embodying the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> D. Yielding or likely to yield information important in history or prehistory.

Based on site testing and the research design discussed above, Tierra recommends that site 45KI1325 is eligible under Criterion A and Criterion D for inclusion in the NRHP.

Criterion A

Site 45KI1325 is related to the historic themes of coal mining, railroad expansion, the development of King County, Seattle, the State of Washington, and immigrant communities in turn-of-the-century mining towns.

Coal Mining and Coal Creek Mining Complex

The Newcastle and Coal Creek coal beds were discovered in the 1860s. These seams had higher-quality coal than Seattle's previous coal source in Bellingham. The use of these areas for coal production was originally promoted by G. F. Whitworth and Daniel Bagley, two of Seattle's early

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ministers (Whitworth was also a geologist and engineer) (Speidel 1967). The coal mines were then purchased by the Pacific Coast Coal Company by 1897. The coal company converted the railroad system from narrow gauge to standard gauge from Seattle to Newcastle and Coal Creek. This conversion provided higher volumes of coal to be shipped.

By 1902, all of the mining operations from "Old Newcastle" were transferred to the Bagley Seam at Coal Creek, and Old Newcastle became a dying town. By 1905, operations for the Bagley Seam were phased out with the development and full production of the Ford Slope in the Muldoon Seam. It was at this time that the township of Coal Creek developed around the Ford Slope mine (see Figure 3). Within the town, miniature communities (Red Town, Rainbow Town, Finn Town, and White Town) started to spring up. In Red Town, there was a mix of Finnish, Swedish, Norwegian, and Polish families. In 1918, the post office was moved here, and the township's name was changed from Coal Creek to Newcastle. By 1924, most of the coal seams were done producing, and people started to move out. In 1926, the Pacific Coast Coal Company closed the Ford Slope and opened the Primrose Mine, which operated until 1929. This mine is located just north of the townsite. Between 1929 and 1932, Pacific Coast Coal Company sold most of the employee houses for $25 each; the remaining houses were torn down or burned. In 1936, the coal company sold the land as-is to the remaining residents. Out of 400 houses that once stood at Newcastle and 100 houses from "Old" Newcastle, only 3 are left. The railroad service that ran from Renton to Newcastle ceased in 1930, and the rails were pulled in 1937.

Finn Town and the Finnish Community

There were at least 50 Finnish families that made up Finn Town. The town existed from around 1905 until mining operations ceased ca. 1932. The houses were built and owned by the occupants (as opposed to uniform housing constructed by the company) on land leased from the coal company. For this reason, the houses were more individualized when compared to the standard company houses in Red Town, including features such as added porches and fences (Photos 1 and 2). There was a Finnish Lodge Hall, which became a show hall after the Brotherhood sold it to Pacific Coast Coal Company. There was also a boarding house for single men that came to work the mines while housing and transportation were arranged (McDonald and McDonald 1987).

Sanfry Holma, of Finnish descent, was born at Coal Creek in 1908. According to a memoir written by him (1976), the "area was made up of immigrants from all over the world: English, Finnish, Irish, Swedish, Italians, Austrians, Danish, Welsh, Greeks, Scottish, Black, Chinese…" (Holma 1976:5). Miners and their families lived in temporary tent housing until homes could be built. The school for the children of Coal Creek was initially located in Red Town, and all eight grades were taught by one teacher. As the towns grew, a larger school and playground were built. He notes that the Finnish people of Newcastle got along very well with themselves and the other nationalities and had built a Finnish Brotherhood Hall opposite the company store. All of the meetings and activities took place there. When the operator couldn't make it due to "troubles of his own," movies were played (Holma 1976:7). There were also times when the Hall was rented out to others in the Coal Creek community (Holma 1976).

Most of the miners' families had subsistence gardens and small orchards, and many kept chickens, cows, rabbits, and pigs. The water supply for the homes came from a dam on a creek "about half a mile above" Finn Town (Holma 1976:11). This was a gravity system that provided clean water to all the homes (Holms 1976). The 1928 Coal Creek map shows piping starting from the "Creek Gulch"

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northeast of Finn Town. From here, a system of piping of different sizes begins winding throughout Coal Creek begins. In Finn Town, the piping from home to home is a 2-inch iron pipe.

Based on comparison to the 1928 Coal Creek map, site 45KI1325 is located where Finn Town company houses No. 175, 181, and 182 once stood (Figures 4 and 5). These structures no longer exist and were likely torn down and/or burned prior to 1932. The artifacts and burn feature found in STPs in these locations are likely related to the demolition of these structures. It should be noted that these three lots in question are larger than those surrounding, perhaps indicating higher socioeconomic status, positions of authority, or larger families residing there.

Railroad Expansion and Development of Seattle, King County, and Washington State

When James M. Colman constructed the Seattle to Walla Walla Rail Line (almost all of which was produced and manufactured through Seattle labor, providing jobs during the lumber industries slump in the late 1870s), it included a dock with facilities that could handle four coaling ships at any given time and a line from Renton to Newcastle to move both Newcastle and Renton coal for shipment at a fraction of the previous cost. After completion of the line to Newcastle/Coal Creek, the amount of Newcastle coal sold to San Francisco increased from 9,000 tons to 128,582 tons between 1878 to 1879. By 1881, King County was supplying half of all the coal in Washington State and 22 percent of the coal produced on the Pacific Coast. This made Seattle the main coaling port on the West Coast and helped propel Seattle to become a major city. The Seattle to Walla Walla Rail Line never made it past Newcastle/Coal Creek. Despite this, it was the most profitable railroad in the United States in the 1880s (Speidel 1967).

Criterion D

Results of testing and archival research indicate that site 45KI1325 has yielded (and could continue to yield) important information regarding Finn Town and the Coal Creek Mining Complex. Historical records, features, and artifact analysis determined that housing was present from at least 1905 through 1936, and that this area of Finn Town was razed. Families of immigrants from Finland established a thriving community here and were part of a larger multinational community. This site represents a unique domestic and industrial snapshot of the coal-mining industry that shaped the development of Seattle, King County, and Washington State.

SUMMARY AND RECOMMENDATIONS

In 2017, site 45KI1325 (historic debris scatter/concentration), was recorded by Steinkraus as potentially eligible for NRHP conclusion due to the potential association with historic mining complexes in the area. However, there was not enough information obtained during the 2017 survey to make a determination for eligibility. As a result, eligibility testing was recommended by the DAHP, and the permit was granted in April of 2018. Tierra conducted eligibility testing between April 25 and May 2, 2018, and subsequently conducted an analysis of recovered artifacts, performed background research, and produced this report.

To determine site eligibility, the Research Design for this site included questions regarding Chronology, Architecture, Economic Production and Consumption, and Community. Through historical documents and the material record, Tierra has determined that the site was a portion of Finn Town dating from at least 1905 to 1936, when the town was razed. This was determined by the recovery and analysis of datable artifacts. Unfortunately, not all of the research questions were

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answered from the analysis. However, Tierra has enough data to make a recommendation of site eligibility.

Tierra recommends that site 45KI1325 is eligible for the NRHP under Criteria A and D. Any ground disturbance within the site boundary, including equipment staging or filling, will require a site alteration and excavation permit from the DAHP, pursuant to Revised Code of Washington 25-48.

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REFERENCES

Bellis, Mary
2018 The Evolution of the Screw and Screwdriver. Available at: https://www.thoughtco.com/history-of-screws-and-screwdrivers-1992422. Accessed on June 20, 2018.

Brockhaus, Amy
n.d. Welcome to the Newcastle (Washington) Historical Society. Available at: https://www.newcastlewahistory.org/. Accessed on July 20, 2018.

Glass Bottle Marks
2018 Boyd's Genuine Porcelain Lined Cap. Available at: https://www.glassbottlemarks.com/boyds-genuine-porcelain-lined-cap/. Accessed on June 25, 2018.

Holma, Sanfry
1976 The Finns of Newcastle (Coal Creek) Washington. In *The Coal Mining Finns of Washington State*. Finnish Emigrant Studies Series, Volume 9, No. 2. Finnish-American Historical Society of the West, Portland, Oregon. On file at the Eastside Heritage Center, Bellevue, Washington.

Issaquah Alps and Trails Club and the King County Natural Resources and Parks Division
1990 *Return to Newcastle VIII*. June 3, 1990. Co-sponsored by the Newcastle and Renton Historical Societies. On file at the Eastside Heritage Center, Bellevue, Washington.

MacIntosh, Heather
2000 *Historic Resources Survey/Inventory Update, Newcastle, Washington*. History Ink. On file at the Eastside Heritage Center, Bellevue, Washington.

McDonald, Richard K., and Lucile McDonald
1987 *The Coals of Newcastle: A Hundred Years of Hidden History*. Issaquah Alps Trail Club, Issaquah, Washington.

O'Neill, Richard
1988 *The Collector's Encyclopedia of Metal Toys: A Pictorial Guide to Over 2,500 Examples of Tinplate and Diecast Toys Dating from 1850 to the Present Day*. Crescent Books, New York.

Overland, Nathalie
1994 New Town Rises Where Coal Was King. Available at: https://blackdiamondhistory.wordpress.com/2014/09/14/new-town-rises-where-coal-was-king/. Accessed on July 20, 2018.

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Powell, Jane, and Linda Svendsen
2003 *Linoleum*. Gibbs Smith, Layton, Utah.

Randall, Mark E., and Dennis Webb
1988 *Greenberg's Guide to Marbles*. Greenburg Publishing Company, Sykesville, Maryland.

Speidel, William C.
1967 *Sons of the Profits*. Nettle Creek Publishing Company, Seattle, Washington.

Steinkraus, Mark F.
2017 *Cultural Resources Assessment for the Park Pointe Project, King County, Washington*. On file with the Department of Archaeology and Historic Preservation, Olympia.

Toulouse, Julian Harrison
1971 *Bottle Makers and their Marks*. Thomas Nelson, Inc., Camden, New Jersey.

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APPENDIX A. DAHP PERMIT

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September 27, 2016
Revised: May 21, 2018

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98006

RE: Tree Inventory - Park Pointe, Bellevue

Alex:

This report is provided to address the inventory of the trees on the properties at the addresses of 7219 and 7331 Lakemont Blvd. SE, the Park Pointe project, in the City of Bellevue, Washington. The purpose of this report is to demonstrate how the Park Pointe project satisfies the City of Bellevue tree retention requirements specified in section 20.20.900.D of the City of Bellevue Land Use Code which reads as follows:

> "Land Use Code requires the retention of 30% of all diameter inches on site. Per Land Use Code, 20.20.900.D, the following trees are a priority for retention:
>
> - Healthy significant trees over 60 feet in height;
> - Significant trees which form a continuous canopy;
> - Significant trees which contribute to the character of the environment, and do not constitute a safety hazard;
> - Significant treew which provide distinct winter protection or summer shade;
> - Groups of significant trees which create a distinct skyline feature.

For reference to this report, please see the Tree Evaluation Data spreadsheet.

1. Site Conditions

The project site consists of two separate properties. One is developed with two houses and the other with one house and several accessory buildings.

The properties are large. Each has a considerable amount of turfgrass and some trees in the eastern portions. The western portions are well forested and include a steep slope sensitive area along the entire western and northern borders, a wetland along the northern border and a stream and associated wetlands along the western border.

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2. Tree Inventory and Condition Assessment

I conducted a tree inventory and condition assessment on all trees in the developable portion of the properties and some within the sensitive area. In total, 97 trees were included in the inventory, 24 of which are located within the sensitive area. In addition to these 24, there are an additional 269 trees within the sensitive area that have been surveyed but were not included in the original inventory. There were 15 trees shown on the survey that have since been removed or have failed. These trees have been removed from all plans. I labeled each tree I inventoried with numbered metal tags. These numbers are shown on the Tree Inventory Plan and the Tree Evaluation Data spreadsheet. The focus of the inventory was trees in the development portion of the site and not the sensitive areas.

The evaluations were done visually by assessing the trees up close to inspect the trunks in order to identify conditions such as decay or fractures, and from afar to assess the crowns which can give a very good indicator of overall tree health.

Only 6 were found to be dead or otherwise in poor condition or health. These are identified in the spreadsheet with a condition code of 4 and are not recommended to be retained.

The species of trees on the developable portions of the properties include the following:

- Apple (Malus domestica)
- Boulevard cypress (Chamaecyparis pisifera ‘Boulevard’)
- Big leaf maple (Acer macrophyllum)
- Deodar cedar (Cedrus deodara)
- Douglas fir (Pseudotsuga menziesii)
- English Holly (Ilex aqifolium)
- Larch (Larix species)
- Lawson’s cypress (Chamaecyparis lawsoniana)
- Mountain ash (Sorbus aucuparia)
- Ponderosa pine (Pinus ponderosa)
- Red alder (Alnus rubra)
- Sitka spruce (Picea sitchensis)
- Western hemlock (Tsuga heterophylla)
- Western red cedar (Thuja plicata)

Dediduous trees constitute the largest number of trees on the site and red alder the most dominant species.

3. Tree Retention Requirements and Retention Provided

The City of Bellevue specifies tree retention requirements in chapter 20.20.900.D of the Bellevue City Code. A minimum of 30 percent of the diameter inches of significant trees existing on the site. All trees within the senstive areas and their buffers are required to be retained.

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As previously stated, I conducted an inventory of the trees within the development area and a handful along the outer edge of the sensitive area. I did not conduct an inventory of an additional 269 trees within the sensitive area as these trees had not been surveyed. Since I conducted the inventory, these trees have been surveyed. In lieu of conducting an inventory of these trees, I reviewed the survey to gather a count of the trees and tally their diameters.

There is one significant tree along the frontage of the project site that is proposed to be retained. This is tree number 72.

The total diameter inches of all significant trees on the site is 6606 (1,282 in the development area and 5324 in the sensitive area). At 30% of the total diameter inches, 1,982 diameter inches are required to be retained. Of all the significant trees on the site, a total of 5,370 diameter inches are proposed to be retained, approximately 80% of the total diameter inches on the site.

4. Proposed Mitigation Measures

No mitigation is required as the minimum tree retention requirements are being provided.

5. Tree Protection Measures and Impact Assessment

Tree protection for the retained trees is to be instituted prior to beginning any work on the project site in a manner that will eliminate the possibility of damage to the retained trees.

Trees within the senstive are will be protected by silt fencing erected along its perimeter.

The tree along the frontage within the development proposed to be retained is #72.

The following tree protection measures are required for this retained tree:

1. Prior to beginning any work on site, tree protection fencing is to be installed at the dripline edge adjacent to areas of development for all retained trees.
2. Tree protection fencing is to be of a type that satisifies the City of Bellevue requirements.
3. Protection fencing is to remain throughout development and is to be an area of no impacts, no development, no encroachment, no dumping and no storage of materials.
4. In places where development work is proposed to encroach into the protection areas, the fencing is to be moved only when the work is to be done and only as far as necessary to accommodate the work.
5. Fencing installation and adjustments are to be administered under the supervision of the project consulting arborist.

The sidewalk along the frontage is proposed to be within the recommended protection zone of this tree. This will require some reduction of the protection fencing. Impacts associated with the installation of the wall footing for the sidewalk will require minor

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excavation down approximately 12 to 18 inches at distances between 6 and 10 feet from the trees. At these distances, the roots of the trees are well below the depth of 18", therefore, no roots should be damaged as a result.

6. Use of This Report and Limitations

This report is provided to Northwest Builder's Finance as a means of reporting on the inventory and retention of the trees located on the Park Pointe project site, to make recommendations for retention based upon City of Bellevue requirements and to specify protection measures. While Shoffner Consulting has used every means available to determine tree health and development impacts, trees are dynamic and their conditions can change rapidly given changes in environmental factors and site development, therefore these assessments pertain only for those noted on the day of their evaluation, and no guarantee can be made against damage caused by unforeseen development-related impacts. Natural decline and failure of trees is not predictable, therefore, Shoffner Consulting and Tony Shoffner cannot be held liable for retained trees that die or fail prior to or following development of the property.

Cordially,

Tony Shoffner
ISA Certified Arborist #PN-0909A
CTRA /TRAQ #1759